



# MILLENNIUM DEVELOPMENT GOALS INDIA COUNTRY REPORT 2015



GOVERNMENT OF INDIA  
MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION  
CENTRAL STATISTICS OFFICE  
(SOCIAL STATISTICS DIVISION)  
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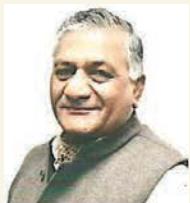
## Millennium Development Goals India Country Report 2015



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विदेश राज्य मंत्री एवं प्रवासी भारतीय कार्य राज्य मंत्री  
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Minister of State for Overseas Indian Affairs  
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## MESSAGE

It gives me immense pleasure to place before you, the Report 'Millennium Development Goals India Country Report-2015' brought out by the Ministry of Statistics and Programme Implementation.

Undoubtedly, the Millennium Development Goals (MDGs) have influenced the development, planning and policy formulation around the world, ever since they were agreed in 2000 and contributed to greater policy coherence for development in the signatory countries. Besides, it has brought global attention to some of the most pressing development challenges of our time.

The year 2015, being the terminal year for the present MDGs as well as the year for shaping up the post 2015 development agenda, is of crucial importance in the development process around the globe. The United Nations and its specialized agencies are engaged in consultation with various stakeholders to put the 'Post-2015 Development Agenda' on a sound footing. It is the right time to assess our own progress vis-à-vis the Millennium Development Goals and this report is an attempt in that regard.

The status emerging from this Report gives us confidence that our country is marching in the right directions and the measures being taken are resulting in real and positive changes in the lives of people in India. This Report also identifies the areas where the progress made by India is less than that at the desired levels. Therefore, more focused attention needs to be given in those areas. I sincerely hope, this report will generate useful deliberation amongst policy makers, academicians, intellectuals, and people at large.

I congratulate the Ministry of Statistics and Programme Implementation for bringing out this very useful Report which showcases progress of India on various social indicators vis- à -vis the MDGs.

[General (Dr) V. K. Singh]  
24 February 2015



डॉ. टी.सी.ए. अनन्त

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## FOREWARD

This Report entitled 'Millennium Development Goals India Country Report 2015', which is the latest in a series of such Reports since 2005, captures India's achievements and challenges in respect of the Goals and Targets set at the United Nations Millennium Summit held in September 2000 wherein 189 Heads of States, including India, pledged to adopt new measures in the fight against poverty, hunger, illiteracy, gender inequality, disease and environmental degradation.

Although, about 200 countries have committed themselves to the MDGs, the global attainment of the MDGs critically depends on India. The sheer size of India, contributes a huge proportion to the attainment of global Goals of elimination of poverty, hunger and mal-nourishment, illiteracy, disease, gender discrimination, etc.

This Report contains updated information about the progress achieved so far in respect of the eight Goals disaggregated in to 12 targets and the 35 indicators, relevant for India. Despite the resilience shown by the Indian economy in the face of global economic crisis, its impact on the development process have resulted in less than desirable progress in some economic and social areas. There are impressive achievements in several sectors but all the MDGs are unlikely to be met. The details of these are elaborated in the relevant chapters of this Report. I am sure that, this report will help us in understanding the nature of the challenges ahead in the realm of post 2015 development scenario.

I wish to place on record my appreciation for the good work done by the officers of the Social Statistics Division of the CSO under the overall guidance of Shri Ashish Kumar, Director General, CSO, in bringing out this Report.

(T.C.A. ANANT)

Chief Statistician of India & Secretary,  
Ministry of Statistics and Programme Implementation

New Delhi

Date: 25/2/2015





एक कदम स्वच्छता की ओर



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## PREFACE

The Central Statistics Office (CSO) under Ministry of Statistics and Programme Implementation is the nodal agency entrusted with statistical tracking of the Millennium Development Goals (MDGs). The CSO periodically brings out detailed Reports highlighting India's achievement under the MDGs. The present report, viz 'Millennium Development Goals India Country Report 2015' is the latest issue in the series.

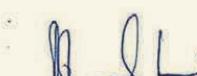
The MDGs are inter-linked. For instance, achievement of the health Targets are dependent on achievement of targets of sanitation, availability of safe drinking water, clean environment, reduction of poverty and malnutrition, spread of literacy and so on. Thus, an all-around development in related sectors is required to achieve a single Target.

Being the second most populated country in the world and all the MDGs being vital in the Indian context, the nation's progress has a very decisive role in determining the global status. The MDGs are being addressed in India, through focused Policies and Programmes and its progress; by reducing poverty head count ratio to more than 50% of the level in 1990, achieving significant improvements in child and maternal health, fighting deadly diseases, progress in education and women's empowerment, India has contributed significantly to the global score card of MDGs; while the country is lagging behind in addressing the targets of eradication of hunger and ensuring sanitation facilities. Detailed discussions on Goals wise performance are presented in the relevant chapters of this report.

The year 2015 is the terminal year for the MDGs and discussions are taking place in various international fora to formulate the Post 2015 Development Agenda to carry forward the progress achieved in the sectors of MDGs and to address other emerging sectors by building on the MDGs. Towards that, United Nations Statistical Commission (UNSC) has formed Friends Of the Chair (FOC) group to deliberate on the Goals and targets with aim to identify quantifiable and measurable indicators. India is a member of the group. The experience gathered during our striving for the MDGs will be and extremely important input in shaping up the post 2015 Development Agenda and Country Reports like the present one prepared by various countries will be handy for that purpose.

I wish to place on record my sincere appreciation for the team of officers led by Shri Satya Narain Singh, Additional Director General, Social Statistics Division for their concerted efforts and valuable contribution in bringing out this report.

New Delhi  
Dated: 25/2/15

  
(ASHISH KUMAR)  
Director General (CSO)



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# CHAPTER 1

## Introduction

The Millennium Development Goals (MDGs) have helped in bringing out a much needed focus and pressure on basic development issues, which in turn led the governments at national and sub national levels to do better planning and implement more intensive policies and programmes. The MDGs originated from the Millennium Declaration adopted by the General Assembly of the United Nations in September 2000. The MDGs consists of eight goals, and these eight goals address myriad development issues. The eight (8) Goals are as under:

***Goal 1: Eradicate Extreme Poverty and Hunger***

***Goal 2: Achieve Universal Primary Education***

***Goal 3: Promote Gender Equality and Empower Women***

***Goal 4: Reduce Child Mortality***

***Goal 5: Improve Maternal Health***

***Goal 6: Combat HIV/AIDS, Malaria and TB***

***Goal 7: Ensure Environmental Sustainability***

***Goal 8: Develop Global Partnership for Development***

Eighteen (18) targets were set as quantitative benchmarks for attaining the goals. The United Nations Development Group (UNDG) in 2003 provided a framework of 53 indicators (48 basic + 5 alternative) which are categorized according to targets, for measuring the progress towards individual targets. A revised indicator-framework drawn up by the Inter-Agency and Expert Group (IAEG) on MDGs came into effect in 2008. This framework had 8 Goals, 21 targets and 60 indicators. India has not endorsed this revised framework.

**1. 2.** India's MDG framework is based on UNDG's MDG 2003 framework, and it includes all the eight goals, 12 out of the 18 Targets (Targets 1 to 11 & 18) which are relevant for India and related 35 indicators. The MDG framework of the Country was contextualized through a concordance with the existing official indicators of corresponding dimensions in the national statistical system. This process, witnessed dropping some targets and indicators, which are not relevant for India or due to non-availability of sufficiently reliable data and modifying / including some indicators found better suited to the Indian context.

Some of the important modifications in the MDG framework of India vis-à-vis the UN MDG framework of 2003 are as follows:

- Targets 12 to 17 of Goal 8 (related to least developed, landlocked and small island countries)

were dropped as they were not relevant for India.

- Target 2, indicator 5: Proportion of population below minimum level of dietary energy consumption was dropped due to non-availability of data.
- Target 7, Indicator 20: Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 was dropped due to non-availability of data.
- Target 2, indicator 4: Prevalence of underweight children under 5 years of age has modified as ‘prevalence of underweight children under 3 years of age’ as per the comparative data availability in national context.
- Target 4, indicator 9: Ratio of girls to boys in primary, secondary and tertiary education was modified as ‘Ratio of GER (Gross Enrolment Ratio) of girls to GER of boys in primary, secondary and tertiary education - Gender Parity Index (GPI) of Gross Enrolment Ratio’ as the specified indicator ‘ratio of girls to boys in primary, secondary and tertiary education’ shows only the gender parity in school population, whereas the GPI of GER is adequately reflecting the actual difference between girls and boys enrolment taking into account the population structure of the Country.
- Target 7, indicator 19: Condom use rate of the contraceptive prevalence rate was modified as ‘Condom use to overall contraceptive use among currently married women 15-49 years’ by specifying the age group as per data availability and which covered the reproductive age group.
- In addition to the above, there are minor modifications in some other indicators.

**1.3.** The Millennium Development Goals, in fact, emphasized the effectiveness of Statistics in monitoring development process at national and international levels, by specifying measurable indicators for the targets. In India, the national statistical system does not have independent statistical machinery exclusively focused on quantitative monitoring of the MDGs. The Ministry of Statistics and Programme Implementation (MOSPI) which is entrusted with the statistical tracking of the MDGs in India, is monitoring the progress under MDGs on the basis of data-sets available at national level, generated by the subject matter Ministries/Departments. Currently the monitoring is limited to the national and State/ UT levels. The statistical monitoring of MDGs is presently not done at sub- State/ District level, due to non – availability data.

**1.4.** Availability of reliable official statistics with regular periodicity is extremely important for effective statistical monitoring. The difficulties faced while statistically tracking the MDGs in India, are mainly related to

- **Data gap issues:**
  - Non –availability of data at Sub –State level prevented statistical monitoring at bottom level. At sub state level, estimates for various indicators are not available from Surveys conducted at national level. In order to generate estimates at sub state level, sufficiently large samples are required from each district making the total sample size so large, that, it is not found feasible due to cost and other organisational considerations.
- **Periodicity issues:**
  - Non availability of data updates annually: The National Sample Survey Office (NSSO) conducts surveys every year, but the topics are repeated once in five years, as a result, data for inter survey years are not available.
  - Irregular periodicity: Data on various important health indicators are obtained from National Family Health Survey (NFHS), the latest survey in this series corresponds to the period 2005-06 and the NFHS - 4 (2014-15) conducted after a long gap is in progress.
- **Incomplete coverage:**
  - Most of the times data from Administrative records; suffer from incomplete coverage; for example, registration of births and deaths done by Civil Registration System, or mortality data from the hospitals suffer from incomplete coverage.

**1.5.** While talking about India's progress towards MDGs, the progress so far has been mixed. The nation has already achieved the target of halving the poverty head count ratio, eliminated gender inequality in primary and secondary education, achieved the required trend reversal in the fight against HIV/ AIDS, ensuring the achievement of target of drinking water facility and improving drastically the telephone and internet penetration. The Country is moderately on track, while considering the targets of achieving universal education, reducing child mortality as the sharp decline in the recent years in Infant Mortality and Under Five Mortality are likely to take us very near to the target, trend reversal has achieved in the fight against Malaria and TB, though there was some fluctuations in between, measures have taken to reverse the loss of environmental resources, progress has been achieved in improving the environment by improving the coverage of forest area, protected areas, reducing CFC emissions, though there are still areas of concern like Carbon Di Oxide emission and Energy intensity. Hunger remains a tough challenge in India. Also achieving the desired target for ensuring sanitation facility is lagging behind. Similarly, the Country has to strive more to reduce the maternal mortality to reach the desired level.

**1.6** A detailed account and analysis of India's achievement for all the MDGs and targets with respect to the related indicators as per India's MDG framework is presented in the following chapters. Also, in the subsequent chapters, elaborate discussion has been attempted highlighting the strong points of various

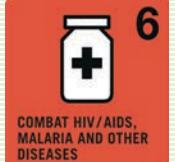
Policies and beneficiary oriented Programmes. While providing outlines of the various development plans which inter-alia envisage attainment of the MDG targets, this Report also takes a close look at the programme components and their performance in producing desired results. However, such an assessment is hampered in the absence of disaggregated data at sub- State levels and also for different groups of the population. To the extent the data disaggregated by residence and sex are available; nature and pattern of changes observed across the States are discussed and are quite revealing. In addition to this, the 'overview' chapter of the report is highlighting the summary of India's MDG progress. This report has been made more informative by presenting the data tables in an analytical manner. The details of methodology, India's MDG frame work, MDG targets vis –a- vis the 12<sup>th</sup> Plan targets, etc are also included in the report. This report thus aims to take a stock of the Country's progress and to reflect on the main development concerns that India is likely to confront in the post 2015 period in order to achieve a better future.

\* \* \* \* \*

## CHAPTER 2

### Overview

Fourteen years have passed since the UN Millennium Declaration enunciated a bold vision and established concrete targets by placing before the World the Millennium Development Goals, which are aimed at saving and improving the lives of many around the globe. In India, there has been considerable emphasis on all the MDGs and the nation has witnessed significant progress towards the MDGs, with some targets already having been met well ahead of the 2015 deadline. A brief of the performance of India in achieving the MDGs is presented below:



- **MDG 1: Eradicate extreme poverty and hunger**
  - **Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day**
  - ✓ The all India **Poverty Head Count Ratio (PHCR)** estimate was 47.8% in 1990. In order to meet the target the PHCR level has to be 23.9% by 2015. In 2011-12, the PHCR at all India level is 21.9%, which shows that, India has already achieved the target well ahead of time.
  - ✓ During 2004-05 to 2011-12, the **Poverty Gap Ratio** reduced both in rural and urban areas. While the rural PGR declined from 9.64 in 2004-05 to 5.05 in 2011-12 in the urban areas it declined from 6.08 to 2.70 during the same period. A nearly 50% decline in PGR both in rural and urban areas during 2004-05 to 2011-12 reflects that the conditions of poor have improved both in urban and rural areas.
  - ✓ At all India level, **the share of the poorest quintile in the total consumption** is lower in the urban areas than in rural areas. During 1993-94 to 2011-12, in urban areas, the indicator (URP methodology) showed a decline from 8.0% in 1993-94 to 6.97% in 2009-10, and then showed a slight improvement 7.1% in 2011-12. In rural areas, the share of poorest quintile steadily declined from 9.6% in 1993-94 to 9.1% in 2011-12.
- **Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger**
- ✓ It is estimated that in 1990, the **proportion of underweight children below 3 years as** 52%. In order to meet the target, the proportion of under-weight children should decrease to 26% by 2015. The National Family Health Survey shows that, the proportion of under-weight children below 3 year declined from

43% in 1998-99 to 40% in 2005-06. At this rate of decline the proportion of underweight children below 3 years is expected to reduce to 33% by 2015, which indicates India is falling short of the target.

- **Goal 2: Achieve Universal Primary Education**

- **TARGET 5: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education.**
- ✓ The **Net Enrolment Rate (NER) in primary education** (age 6-10 years) was estimated at 84.5 per cent in 2005-06 (U-DISE) and the NER has increased to 88.08 per cent in 2013-14 (U-DISE), and is unlikely to meet the target of universal achievement.
- ✓ The results from DISE report 2011-12, shows a steady increasing trend over the years in the estimate of the indicator '**ratio of enrolment of Grade V to Grade I**' from 78.08 in 2009-10 to 86.05 in 2011-12.
- ✓ The **youth (15-24 years) literacy rate** has increased from 61.9% to 86.14 per cent during the period 1991-2011 and the trend shows India is likely to reach 93.38% which is very near to the target of 100% youth literacy by 2015. At national level, the male and female youth literacy rate is likely to be at 94.81% and 92.47%.

- **Goal 3: Promote Gender Equality and Empower Women**

- **Target 4: Eliminate gender disparity in primary, secondary education, preferably by 2005, and in all levels of education, no later than 2015**
- ✓ At present, in primary education the enrolment is favourable to females as **Gender Parity Index (GPI) of Gross Enrolment Ratio (GER)** is 1.03 in 2013-14. In Secondary education also gender parity has achieved GPI of GER is 1 in 2013-14 and in tertiary level of education, the GPI of GER is 0.89 in 2012-13.
- ✓ As per Census 2011, the ratio of female youth literacy rate to male youth literacy rate is 0.91 at all India level and is likely to reach the level of 1 by 2015.
- ✓ The NSS 68<sup>th</sup> round (2011-12) results had estimated the **percentage share of females in wage employment in the non- agricultural sector** as 19.3% with corresponding figures for rural and urban areas as 19.9% and 18.7% respectively. There is an improvement in the status as NSS 66<sup>th</sup> round (2009-10) had reported that the share of women in wage employment is 18.6% at national level and the corresponding estimates for rural and urban India pegged at 19.6% and 17.6% respectively. It is projected that, at this rate of progress, the share of women in wage employment can at best reach a level of about 22.28% by 2015 which is far from the targeted 50%.
- ✓ As in January 2015, India, the world's largest democracy, has only 65 women representatives out of 542 members in Lok Sabha, while there are 31 female representatives in the 242 member Rajya Sabha and hence presently the **proportion of seats in National Parliament held by women** is only 12.24% against the target of 50%.

- **Goal 4: Reduce Child Mortality**

➤ **TARGET 5: Reduce by two-thirds, between 1990 and 2015, the under-five Mortality Rate**

- ✓ **Under Five Mortality Ratio (U5MR)** was estimated at 125 deaths per 1000 live births in 1990. In order to achieve the target , the U5MR is to be reduced to 42 deaths per 1000 live births by 2015. As per Sample Registration System 2013, the U5MR is at 49 deaths per 1000 live births and as per the historical trend, it is likely to reach 48 deaths per 1000 live births, missing the target narrowly. However, an overall reduction of nearly 60% happened during 1990 to 2013, registering a faster decline in the recent past, and if this rate of reduction is sustained, the achievement by 2015 is likely to be very close to the target by 2015.
- ✓ In India, **Infant Mortality Rate (IMR)** was estimated at 80 per 1,000 live births in 1990. As per SRS 2013, the IMR is at 40 and as per the historical trend; it is likely to reach 39 by 2015, against the target of 27 infant deaths per 1000 live births by 2015. However, with the sharp decline in the recent years, the gap between the likely achievement and the target is expected to be narrowed.
- ✓ The Coverage Evaluation Survey estimates **the proportion of one year old children immunised against measles** at 74% in 2009. Although, there is substantial improvement in the coverage which was 42% in 1992-93, yet at this rate of improvement, India is likely to achieve about 89% coverage by 2015 and thus India is likely to fall short of universal coverage.

- **Goal 5: Improve Maternal Health**

➤ **Target 6: Reduce by three quarters between 1990 and 2015, the Maternal Mortality Ratio**

- ✓ In 1990, the estimated MMR was 437 per 1,00,000 live births. In order to meet the MDG target, the MMR should be reduced to 109 per 1,00,000 live births by 2015. As per the latest estimates, the MMR status at all India level is at 167 in 2011-13. As per the historical trend, MMR is likely to reach the level of 140 maternal deaths by 2015, however, assuming the recent sharper decline is sustained, India is likely to be slightly nearer to the MDG target.
- ✓ The Coverage Evaluation Survey conducted by Government of India and UNICEF in 2009 shows that 76.2% percentage of births were attended by skilled health personnel in 2009. Although, considerable progress has been achieved over the years in improving the proportion of births attended by skilled personnel, India is likely to reach the level of 77.29% vis –a vis the targeted universal coverage. The latest results of Sample Registration System (SRS) 2013, reveal that, the percentage of live births attended by skilled health personnel (Government hospitals, Private hospital, qualified professional) is 87.1% in 2013, which indicates a better status.

- **Goal 6: Combat HIV/AIDS, Malaria and other Diseases**

➤ **TARGET 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS**

- ✓ The **prevalence of HIV among Pregnant women aged 15-24 years** is showing a declining trend

from 0.89 % in 2005 to 0.32% in 2012-13.

- ✓ According to NFHS –III in 2005-06, **Condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women, 15-49 years,%)** was only 5.2 % at all India level.
- ✓ According to Behavioural Surveillance Survey (BSS) conducted in 2001 & 2006, the national estimates for **Condom use at last high-risk sex (%) (Proportion of population aged 15-24 years who used condom during last sex with non-regular partner)** registered a 19% increase from 51.9% in 2001 to 61.7% in 2006. As per the ‘Condom Promotion Impact Survey 2010’, the national estimate for Condom use at last high-risk sex is 74%, thus recording an improvement of 20% during 2006 to 2010.
- ✓ According to Behavioural Surveillance Survey (BSS), the national estimate for **proportion of population aged 15-24 years with comprehensive correct Knowledge of HIV/AIDS (%)** in 2006 was 32.9% reporting betterment from 2001 (22.2%).

➤ **TARGET 8: Have halted by 2015 and begun to reverse the incidence of Malaria and other major diseases.**

- ✓ The Annual Parasite Incidence (API) rate – Malaria has consistently come down from 2.12 per thousand in 2001 to 0.72 per thousand in 2013, but slightly increased to 0.88 in 2014 (P) but confirmed deaths due to malaria in 2013 was 440 and in 2014 (P), 578 malaria deaths have been registered.
- ✓ In India, Tuberculosis prevalence per lakh population has reduced from 465 in year 1990 to 211 in 2013. TB Incidence per lakh population has reduced from 216 in year 1990 to 171 in 2013. Tuberculosis mortality per lakh population has reduced from 38 in year 1990 to 19 in 2013.

● **Goal 7: Ensure Environmental Sustainability**

➤ **TARGET 9: Integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources.**

- ✓ As per assessment in 2013, the total forest cover of the country is 697898 sq.km which is 21.23% of the geographic area of the country. During 2011-2013, there is an increase of 5871 sq. km in forest cover.
- ✓ The network of Protected Areas comprising 89 National Parks and 489 Sanctuaries giving a combined coverage of 155475.63 km<sup>2</sup> in 2000, has grown steadily over the years. As of 2014, there are 692 Protected Areas (103 National Parks, 525 Wildlife Sanctuaries, 4 Community Reserves and 60 Conservation reserves, covering 158645.05 km<sup>2</sup> or 5.07% of the country’s geographical area.
- ✓ Per-capita Energy Consumption (PEC) (the ratio of the estimate of total energy consumption during the year to the estimated mid-year population of that year) increased from 6205.25 KWh in 2011-12 to 6748.61 KWh in 2012-13, thus, the percentage annual increase of 8.76%.
- ✓ In 2013, the estimated CO<sub>2</sub> emission (Million Tonnes) for India is 1954.02. The Carbon dioxide

emission showed a percentage increase of 235.57% in 2014 over 1990 for India.

- ✓ In 2010, consumption of CFC is estimated at 290.733 ODP tonnes (ODP –Ozone Depletion Potential), down from 5614 ODP tones in 2000. From the year 2000, the CFC consumption decreased steadily till 2008, but showed minor increase in 2010.
- ✓ As per Census 2011, 67.3% households are using solid fuels (fire wood / crop residue/cow dung cake/ coke, etc) for cooking against 74.3% in 2001. Census 2011, further reveals that, in Rural areas 86.5% households and in Urban areas 26.1% households are using solid fuels for cooking.

➤ **TARGET 10: Halve, by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation**

- ✓ During 2012, at all India level, 87.8% households had access to improved source of drinking water while 86.9% households in rural and 90.1% households in urban area had access to improved source of drinking water. The target of halving the proportion of households without access to safe drinking water sources from its 1990 level to be reached by 2015, has already been achieved in rural areas and is likely to be achieved in urban areas. At all India level also, the target for access to improved source of drinking water has already been achieved.
- ✓ The NSS 2012 revealed 43.4% of households at all India level had no latrine facilities. The NSS 2012 shows that 59.4% and 8.8% households in rural India and urban India respectively had no access to sanitation. Towards achieving the target of access to basic sanitation facility in households, in urban areas, the 2015 target is likely to be met as the percentage of households without sanitation facility is likely to be 10.74% in 2015 against the target of 14.18%, and the progress is quite lagging behind in rural areas as likely achievement in 2015 is 60.96% of households without sanitation facility vis-a-vis the target of 46.77%. At all India level, 2015 target is unlikely to be met the percentage of households without sanitation facility is likely to be 47.31% vis-a-vis the target of 38.09%.

➤ **TARGET 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers**

- ✓ Census 2011 reported that 17.2% of urban households are located in slums. The percentage of slum households to urban households (slum reported towns) is 22.17%. Census recorded a 37.14% decadal growth in the number of slum households. Census further reveals that in 2011, 17.37% of the urban population lives in slums. The Percentage of population in slum households to urban households (slum reported towns) is 22.44%.

● **Goal 8: Develop a global partnership for development**

➤ **Target 18: In co-operation with the private sector, make available the benefits of new technologies, especially information and communication.**

- ✓ The overall tele-density in the country has shown tremendous progress and is at 76% as on 31<sup>st</sup> July 2014.

- ✓ The internet subscribers per 100 population accessing internet through wireline and wireless connections has increased from 16.15 in June 2013 to 20.83 in June 2014.

India's progress towards achieving MDGs is summarised as below:

MDGs and Targets –Summary of Progress achieved by India	
<b>GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER</b>	
TARGET 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	On -track
TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	Slow or almost off-track
<b>MDG 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION</b>	
TARGET 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	Moderately on-track
<b>MDG 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</b>	
TARGET 4 : Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	On-track
<b>MDG 4: REDUCE CHILD MORTALITY</b>	
TARGET 5 : Reduce by two-thirds, between 1990 and 2015, the Under- Five Mortality Rate	Moderately on – track due to the sharp decline in recent years
<b>MDG5 5: IMPROVE MATERNAL HEALTH</b>	
TARGET 6 : Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	Slow or off-track
<b>MDG 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</b>	
TARGET 7 : Have halted by 2015 and begun to reverse the spread of HIV/AIDS	On-track as trend reversal in HIV prevalence has been achieved
TARGET 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	Moderately on-track as trend reversal has been achieved for Annual Parasite Incidence of Malaria and for prevalence of TB
<b>MDG 7: ENSURE ENVIRONMENTAL SUSTAINABILITY</b>	
TARGET 9: Integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources.	Moderately on-track
TARGET 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	On-track for the indicator of drinking water but slow for the indicator of Sanitation
TARGET 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	The pattern not statistically discernible
<b>MDG 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT</b>	
TARGET 18 : In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	On-track

This account of the India's progress towards MDGs is helpful in identifying the immediate tasks to be fulfilled in order to improve the progress towards MDGs.

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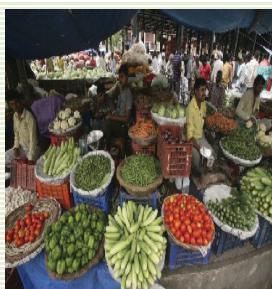


## Chapter 3



## CHAPTER 3

### Eliminating extreme poverty and hunger



People living in poverty are often socially excluded and marginalized. Their right to effectively participate in public affairs is frequently ignored and thus elimination of poverty is much more than a humanitarian issue, as it is more of a human rights issue. Thus, eradication of poverty and hunger being the basis of all development process, the Millennium Development Goals have given foremost priority to it and the first Goal among the 8 Developmental Goals is on targeting elimination of extreme poverty and hunger.

#### Goal 1: Eradicate extreme poverty and hunger

**Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day**

**1. A. Poverty Head Count Ratio (percentage of population below the national poverty line)**

**2. Poverty Gap Ratio**

**3. Share of poorest quintile in national consumption**

**Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger**

**4. Prevalence of underweight children under three years of age**

#### Faster in poverty reduction....

**Indicator: Poverty Headcount Ratio (percentage of population below the national poverty line)**

**3.2.** During the last two decades, India has lifted more than 100 million of its citizens from extreme poverty; still, it is home to a very large number of people living in abject poverty. The Poverty Head Count Ratio (PHCR) is the proportion of population whose per-capita income/consumer

expenditure is below the official threshold(s), that is, 'Poverty Line' set by the National Government. In India, the erstwhile Planning Commission had periodically released poverty estimates on the basis of large sample surveys on household consumer expenditure by National Sample Survey Office under the Ministry of Statistics & Programme implementation. The methodology for poverty estimation has been reviewed frequently by the central government and revised accordingly. As of now, the official Poverty Head Count Ratio (PHCR) estimates are based on the Tendulkar methodology and PHCR estimates using this methodology are available for 1993-94, 2004-5 and 2011-12 separately for rural, urban and Total at the all India and State. / UT level. The trend in poverty reduction is evident from the decline in the estimates of number of people below poverty line.

**Fig 3.2.1 Number of People below Poverty Line (in million)**



Source: Planning Commission (Now renamed as NITI Aayog)

The actual reduction in the numbers of poor happened during 2004- 05 to 2011-12, when nearly 138 million people were lifted above the poverty line at all India level.

**3.3.** The MDG target 1 stipulates that, the percentage of people below national poverty line be brought down to half of its 1990 level. The all India PHCR estimate (total) was 47.8% in 1990. In order to meet the requirement of indicator 1A, the PHCR level has to be 23.9% by 2015. The poverty estimate show that total PHCR at all India level is 21.9% in 2011-12, which shows that, India has already achieved the target in terms of Indicator 1A well ahead of time. The Rural and Urban PHCR estimate were 52.64% and 30.47% respectively in 1990. In 2011-12 the rural PHCR estimate is 25.7 %and urban PHCR estimate is 13.7 % reflecting that both in rural and urban areas the requirement of Indicator 1A has been met ahead of time.

**Fig 3.3.1: Trend in Poverty Head Count Ratio -All India**



Source: Planning Commission (Now renamed as NITI Aayog)

During 1993-94 and 2004-05, while the Total poverty reduced by 8.1 percentage points, the urban poverty declined by 6.1 percentage points and rural poverty declined by 8.3 percentage points. The rate of reduction of poverty picked up in both rural and urban areas during the period between 2004-05 to 2011-12. During this period, poverty declined by 16.10 percentage points in rural areas and by 12 percentage points in urban areas and that resulted in decline of total poverty by 15.3 percentage points. The historical trend shows that, both in rural and urban areas, the MDG target of elimination of poverty is likely to be achieved by 2015.

**Fig3.3.2: Trend in Poverty Head Count Ratio -Rural India**



Source: Planning Commission (Now renamed as NITI Aayog)

**Fig 3.3.3 Trend in Poverty Head Count Ratio -Urban India**



**3.4.** The Rural –Urban gap in poverty head count ratio is still persisting significantly, though the gap has come down from 18 percentage points in 1993-94 to 12 percentage points, in 2011-12.

**Fig.3.4.1: Trend in rural urban gap in PHCR**



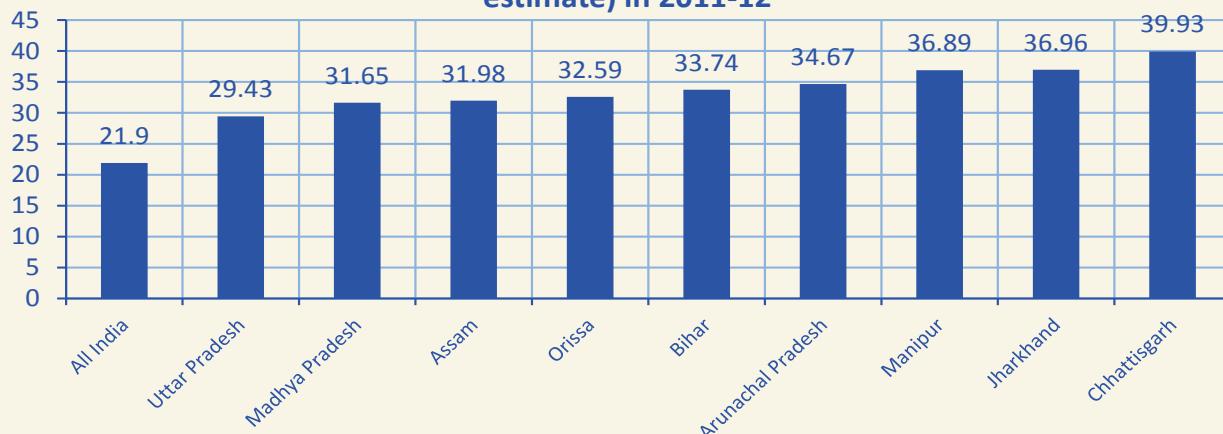
Source: Planning Commission (Now renamed as NITI Aayog)

The rural –urban gap in PHCR persisted in States also. In all States, rural poverty head count ratio was higher than Urban, except for Punjab (Rural: 7.66, Urban: 9.24), and the rural – urban gap in PHCR was least in Uttar Pradesh (1 percentage point: Rural - 11.62, Urban - 10.48) and highest in Mizoram (29 percentage points: Rural - 35.43, Urban - 6.36).

#### Performance of States in reducing PHCR

**3.5.** The poverty line varies from State to State because of inter-state price differentials. Percentage of people below poverty line in a State is with respect to the State specific poverty line. Some of the states have shown very rapid decline in the percentage of population below the poverty line (State specific) during 1993-2012. As per the PHCR estimates of 2011-12, the lowest PHCR is for the State of Goa (5.09%) followed by Kerala (7.05%). The highest PHCR is for the State of Chhattisgarh (39.93%) followed by Jharkhand (36.96%) and Manipur (36.89%).

**Fig.3.5.1: PHCR in States (States with PHCR above national level estimate) in 2011-12**



Source: Planning Commission (Now renamed as NITI Aayog)

Some of the States did exceptionally well in reducing poverty as evident from the extent of decline happened over the years.

**Table 3.5.1 Trend in reducing Poverty Head Count Ratio (%) - Top Five States (with lowest PHCR in 2011-12)**

	1993-94			2004-05			2011-12		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Goa	25.5	14.6	20.8	28.1	22.2	25	6.81	4.09	5.09
Kerala	33.9	23.9	31.3	20.2	18.4	19.7	9.14	4.97	7.05
Himachal Pradesh	36.7	13.6	34.6	25	4.6	22.9	8.48	4.33	8.06
Punjab	20.3	27.2	22.4	22.1	18.7	20.9	7.66	9.24	8.26
Andhra Pradesh	48.1	35.2	44.6	32.3	23.4	29.9	10.96	5.81	9.2

Source: Planning Commission (Now renamed as NITI Aayog)

Among these States, all States (Except Punjab) reduced the PHCR to one fourth between 1990 and 2011-12 , Punjab reduced poverty roughly by one third, as against the requirement of Indicator 1A which stipulates poverty be reduced by half by 2015.

**3.6.** The showed trend by those States, which are having PHCR above the latest national level estimate (during 1993-94 to 2011-12), is depicted below.

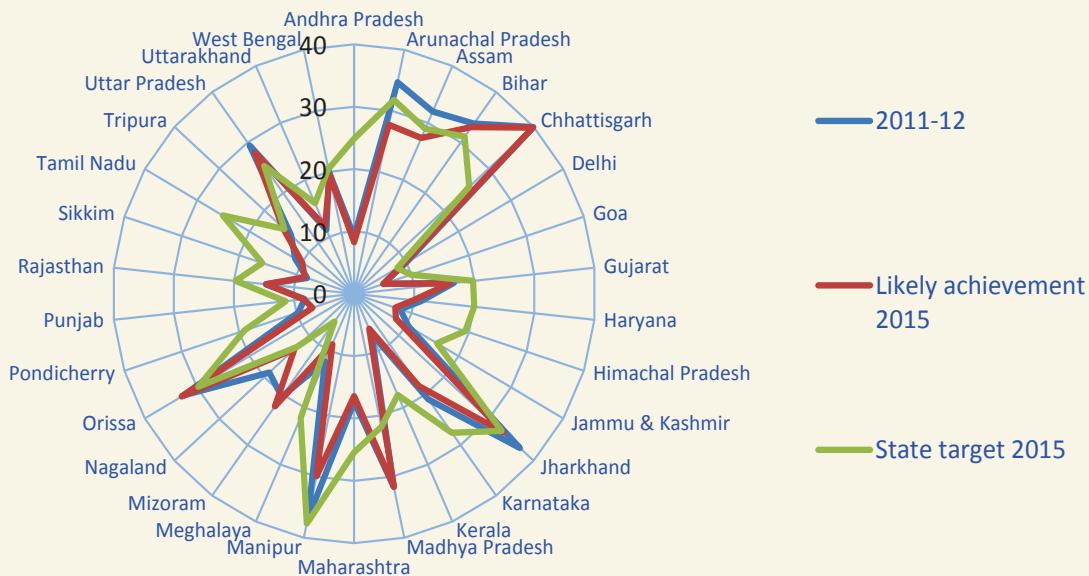
**Table 3.6.1 Trend in reducing Poverty Head Count Ratio (%) - States with PHCR in above national level estimate 2011-12**

State	1993-94			2004-05			2011-12		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
U.P	50.9	38.3	48.4	42.7	34.1	40.9	30.40	29.06	29.43
M.P	49.0	31.8	44.6	53.6	35.1	48.6	35.74	21.00	31.65
Assam	54.9	27.7	51.8	36.4	21.8	34.4	33.89	20.49	31.98
Odisha	63.0	34.5	59.1	60.8	37.6	57.2	35.69	17.29	32.59
Bihar	62.3	44.7	60.5	55.7	28.4	49.4	34.06	31.23	33.74
Arunachal Pradesh	60.0	22.6	54.5	33.6	23.5	31.1	38.93	20.33	34.67
Manipur	64.4	67.2	65.1	39.3	34.5	38.0	38.80	32.59	36.89
Jharkhand	65.9	41.8	60.7	51.6	23.8	45.3	40.84	24.83	36.96
Chhattisgarh	55.9	28.1	50.9	55.1	28.4	49.4	44.61	24.75	39.93

Source: Planning Commission (Now renamed as NITI Aayog)

**3.7.** All States, except Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Manipur, Madhya Pradesh, Odisha, and Uttar Pradesh are likely to achieve the national level MDG target by 2015. As per the historical trend, 23 States are likely to achieve their respective MDG target by 2015. Among the remaining States, the State of Delhi, Bihar and Orissa are likely to miss their MDG target narrowly, and the States of Madhya Pradesh, Chhattisgarh and Mizoram are likely to miss their MDG targets by huge margin.

**Fig. 3.7.1: Poverty Head Count Ratio - Likely achievement of States vis -a-vis MDG target**



Source: Planning Commission (Now renamed as NITI Aayog)

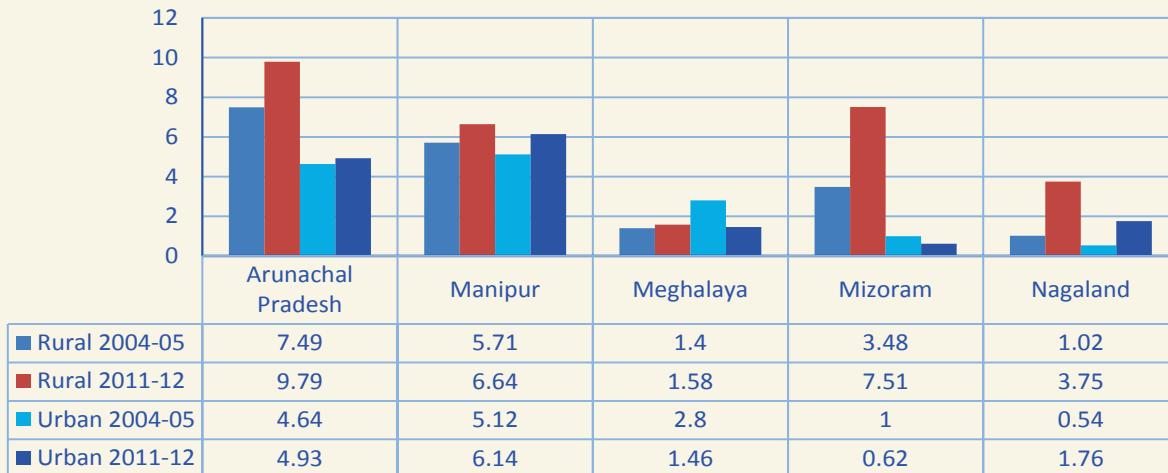
### Indicator: Poverty Gap Ratio (PGR)

**3.8.** The Poverty Gap Ratio is the gap by which mean consumption of the poor below poverty line falls short of the poverty line. It indicates the depth of poverty; the more the PGR, the worse is the condition of the poor. While the number of poor people indicates spread of poverty, PGR indicates the depth. During 2004-05 to 2011-12, PGR also reduced in both rural and urban areas. While the rural PGR declined from 9.64 in 2004-05 to 5.05 in 2011-12 in the urban areas it declined from 6.08 to 2.70 during the same period. A nearly 50% decline in PGR both in rural and urban areas during 2004-05 to 2011-12, reflects that the conditions of poor have improved both in urban and rural areas.

**3.9.** All the States have shown considerable reduction in the PGR both in the rural and urban areas during 2004-05 to 2011-12. In 2011-12 the rural PGR was minimum in Goa (0.74), followed by Sikkim (0.96), Himachal Pradesh (1.03), Punjab (1.18), Uttarakhand (1.25). In all these 5 states, rural PGR is less than one fourth of the national average (5.05). In 2011-12 urban PGR was minimum in Sikkim (0.45), followed by Mizoram (0.62), Goa (0.70), Himachal Pradesh (0.76), Kerala (0.83), Puducherry (0.84), Andhra Pradesh (0.87). In all of these 7 states, urban PGR was lower than one third of the national level estimate (2.70). It is also seen that the States which reported very low PHCR in rural, also reported very low PGR in both rural and urban areas. On the other hand, the States of Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Odisha, Bihar, Jharkhand, Assam, Arunachal Pradesh, and Manipur which reported higher PHCR also reported substantially higher PGR. In 2011-12, highest rural PGR is reported by Arunachal Pradesh (9.79), followed by Chhattisgarh (8.98), Madhya Pradesh (8.33), Mizoram (7.51), Odisha (7.01), Jharkhand (6.88), Manipur (6.64) and Bihar (6.24).

**3.10.** Although, at the all India level, PGR declined substantially in both rural and urban areas during 2004-05 to 2011-12, but scenario vary from State to State. Some of the States such as Andhra Pradesh, Bihar, Gujarat, Maharashtra and Odisha, reported substantially higher reduction in PGR (higher than the national average) in rural areas, the States of Odisha, Bihar, Maharashtra and Punjab reported higher reduction of PGR in urban areas. In some States PGR actually increased during 2004-12.

**Fig.3.10.1: States where PGR did not show a steady declining trend during 2004-12**



Source: Planning Commission (Now renamed as NITI Aayog)

Contrary to the all India scenario, which reflect reduction in the intensity of poverty in both rural and urban areas, in case of the Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland, the intensity of poverty actually increased in the rural areas and both in urban and rural areas in Arunachal Pradesh, Manipur and Nagaland.

### Indicator: Share of poorest quintile in national consumption

**3.11.** The share of poorest quintile in national consumption is defined as the share of a country's national consumption or income that accrues to the poorest quintile (fifth) of the population. This indicator is expressed as a percentage. Poorest quintile is the bottom 20% of the population, ranked by income or consumption levels. The indicator provides information about the distribution of consumption or income of the poorest fifth of the population. Because the consumption of the poorest fifth is expressed as a percentage of total household consumption (or income), this indicator is a 'relative inequality' measure. In a situation of income or consumption being equally distributed, the expected share of the poorest quintile is 20%. However, the ground reality varies much from this ideal situation, as both in rural and urban areas, the share of poorest 20% in national consumption was always less than 10% during 1993-2012, and over the years, a declining trend has been observed.

**Table 3.11.1: Share of poorest quintile in national consumption**

1993-94 (URP)		2004-05 (URP)		2009-10 (URP)		2011-12 (URP)	
Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
8.0	9.6	7.3	9.5	6.97	9.41	7.1	9.1

URP: Uniform Reference Period    Source: National Sample Survey Organization

It is evident that, at all India level, the share of the poorest quintile in the total consumption is lower in the urban areas than in rural areas. During 1993-94 to 2011-12, in urban areas, the indicator showed a decline from 8.0% in 1993-94 to 6.97% in 2009-10, and then showed a slight improvement 7.1% in 2011-12. In rural areas, the share of poorest quintile steadily declined from 9.6% in 1993-94 to 9.1% in 2011-12.

**3.12.** Considering the URP (Uniform Reference Period) Method, among the States / UTs, Chandigarh (13.8%) reported the highest share for the poorest quintile in the total consumption followed by Daman & Diu (13.1%), Sikkim (12.3%), Manipur (12.1%), and Meghalaya (12.1%) in rural areas. For urban areas, Manipur topped with 11.7% share for the poorest quintile in the total consumption followed by Sikkim (11.4%) and Mizoram (10.1%).

### Eradicating hunger .....

#### Indicator: Prevalence of Underweight Children under 3 years of age

**3.13.** Malnutrition among its citizens is a very severe social problem, faced by any Country, as it affects productivity in many ways. The problem of malnutrition is especially critical in case of women and children. A women's nutritional status has important implications for her health as well as the health of her children because a malnourished woman is very likely to give birth to a malnourished child vulnerable to disease and infection. Under nutrition not only retards a child's growth but also affects their future productivity and capabilities' thus adequate nutrition is critical to a child's development. First 60 months after birth is extremely important because at this delicate age, children are vulnerable to growth retardation, micronutrient deficiencies, and common childhood illness. Highlighting the crucial importance of nutritional status of children, Indicator 4 under target 2 has been identified as 'Prevalence of underweight children Under 5 years of age'. In India, data on this indicator for the reference age group are not available for all time points. The National Family Health Survey (NFHS) collected data on underweight children between 0-35 months and 0-47 months of age in 1992-93 (NFHS-1), between 0-35 months in 1998-99 (NFHS-2) and between 0-35 months as well as 0-59 months in 2005-06 (NFHS-3). Thus the survey results are comparable only for the age group 0-35 months in India and therefore, target 2 is measured in terms of nutritional status of children below 3 years.

**3.14.** It is estimated that in 1990, 52% of children below 3 years were underweight. In order to meet the target, the proportion of under-weight children should decrease to 26% by 2015. The NFHS

shows that, the proportion of under-weight children below 3 year declined from 43% in 1998-99 to 40% in 2005-06. At this rate of decline the proportion of underweight children below 3 years is expected to reduce to 33% by 2015, which indicates India is falling short of the target.

**Table 3.14.1: Trends in nutritional status of children below 3 years**

	NFHS -2 (1998-99)			NFHS-3 (2005-06)		
	Urban	Rural	Total	Urban	Rural	Total
Children Stunted (Height for age) %	41.1	54.0	51.0	37.4	47.2	44.9
Children Wasted (Weight for height) %	16.3	20.7	19.7	19.0	24.1	22.9
<b>Children Underweight (Weight for age)%</b>	<b>34.1</b>	<b>45.3</b>	<b>42.7</b>	<b>30.1</b>	<b>43.7</b>	<b>40.4</b>

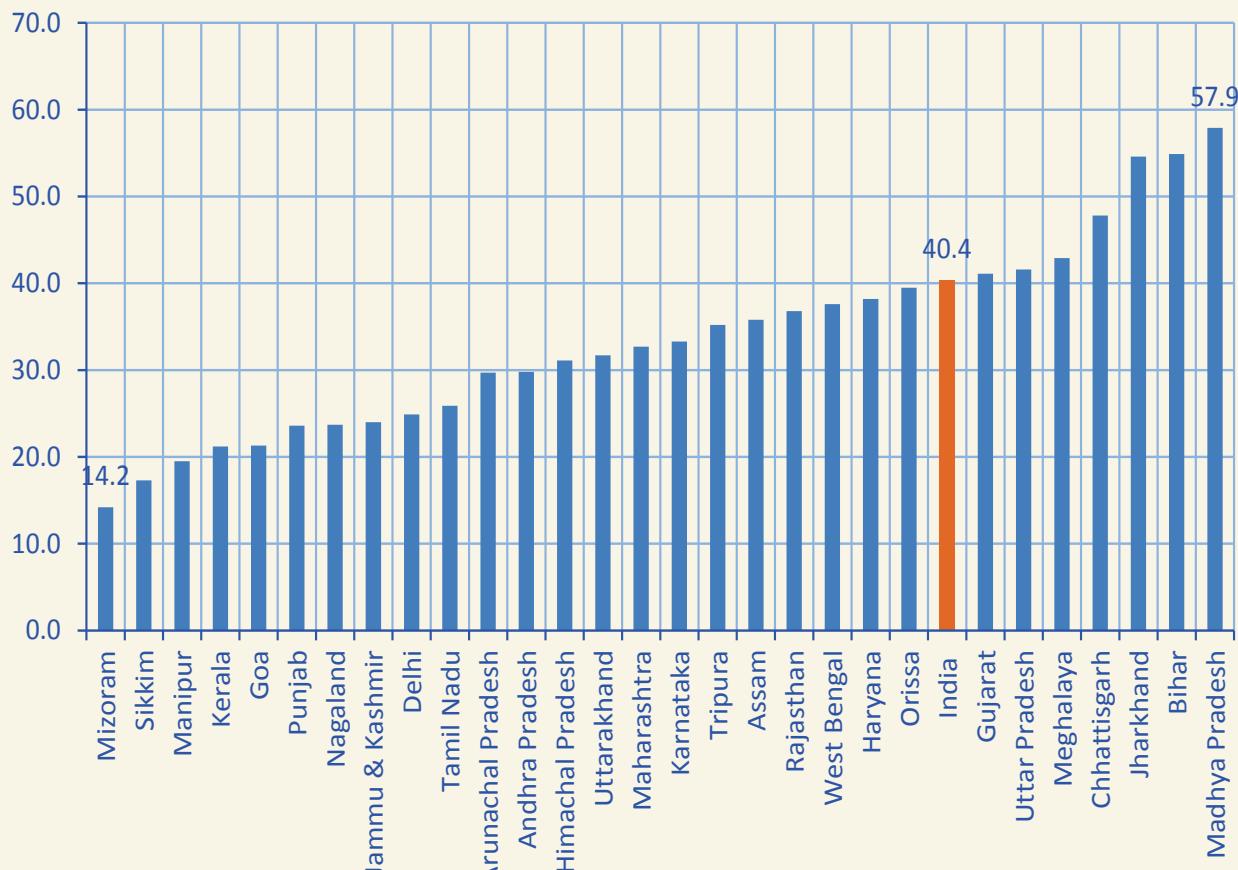
Source; National Family Health Survey -3 (2005-06) Volume 1

As evident from the NFHS, under-nutrition is substantially higher in rural areas than in urban areas. While in the urban areas the proportion of under-weight children below 3 years decreased from 34% in 1998-99 to 31% in 2005-06, the decrease was marginal in rural areas from 45% in 1998-99 to 44% during the same time. In addition to underweight, stunting was also highly prevalent among children below three years of age. As per NFHS-3, even in urban areas, one in every 3 children is stunted, that is short in height for age and in rural areas almost half of the children are stunted. NFHS -3 also reported that nutritional status of children is strongly related to maternal nutritional status. Under-nutrition is much more common for children of mothers whose body mass index is below 18.5 than for children whose mothers are not underweight. Also, under-nutrition decreases steadily with increase in the wealth index of the household.

#### **State wise scenario of nutritional status of children below 3 years**

**3.15.** In India, as per the latest available data (NFHS -3, 2005-06), the prevalence of underweight among children < 3 years of age is significant in most of the States and varies considerably between the States. The problem is severe in Madhya Pradesh (57.9%), Bihar (54.9%), Jharkhand (54.6%), Chhattisgarh (47.8%), Meghalaya (42.9%), Uttar Pradesh (41.6%), and Gujarat (41.1%), where the proportion of underweight children < 3 years is more than the national level estimate (40%) in 2005-06. The prevalence of underweight among children < 3 years of age is lowest in Mizoram (14.2%), followed by Sikkim (17.3%), Manipur (19.5%), Kerala (21.2%) and Goa (21.3%).

**Fig.3.15.1: Proportion of underweight children < 3 years (2005-06) (%)**



Source: National Family Health Survey -3, 2005-06

**3.16** While most of the States showed decline in the percentage of underweight children below 3 years between 1998-99 and 2005-06, in some States the percentage actually increased during the period implying worsening of the nutrition scenario in those States in contrast to the States which showed substantial reduction in the percentage of underweight children.

As revealed by the NFHS 2 & 3, during 1998-2006, some of the States like Maharashtra, Odisha and Rajasthan could significantly (by 10 percentage point or more) reduce the percentage of under-weight children below 3 year. At the same time, during this period, substantial (by 7 percentage point or more) increase in the percentage of under-weight children below 3 year was observed in Meghalaya, Haryana, Arunachal Pradesh and Madhya Pradesh.

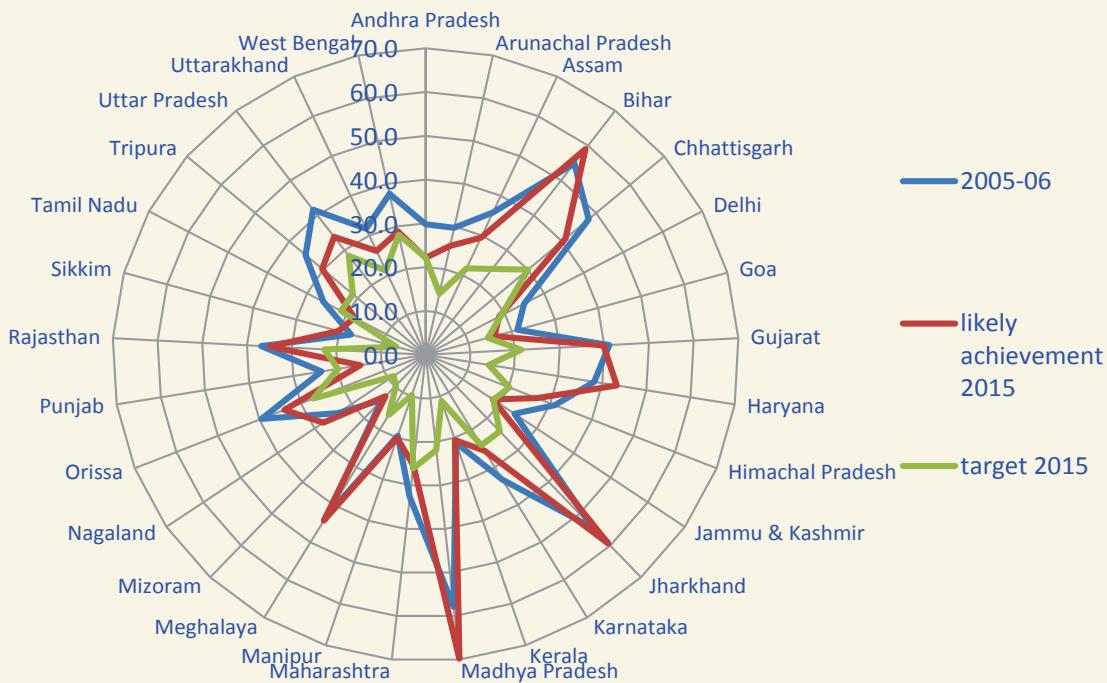
**Table 3.16.1: Trend in proportion of underweight children in States**

States showing worsening of nutritional status of children (in terms of underweight) during 1998-99 to 2005-06			States showing improvement of nutritional status of children (in terms of underweight) during 1998-99 to 2005-06		
Percentage of underweight Children below 3 years			Percentage of underweight Children below 3 years		
	1998-99	2005-06		1998-99	2005-06
Arunachal Pradesh	21.9	29.7	Andhra Pradesh	34.2	29.8
Bihar	52.2	54.9	Chhattisgarh	53.2	47.8
Haryana	29.9	38.2	Delhi	29.9	24.9
Jharkhand	51.5	54.6	Himachal Pradesh	36.5	31.1
Madhya Pradesh	50.8	57.9	J&K	29.2	24.0
Nagaland	18.8	23.7	Karnataka	38.6	33.3
Sikkim	15.5	17.3	Maharashtra	44.8	32.7
Meghalaya	28.6	42.9	Mizoram	19.8	14.2
			Odisha	50.3	39.5
			Rajasthan	46.7	36.8
			Tamil Nadu	31.5	25.9
			Uttar Pradesh	48.1	41.6
			Uttarakhand	36.3	31.7
			West Bengal	45.3	37.6

Source: National Family Health Survey -2 (1998-99), National Family Health Survey -3, 2005-06

3.17. As per the latest NFHS -3 results, 10 States namely Mizoram (14.2%), Sikkim (17.3%), Manipur (19.5%), Kerala (21.2%), Goa (21.3%), Punjab (23.6%), Nagaland (23.7%), Jammu & Kashmir (24%), Delhi (24.9%), and Tamil Nadu (25.9%) have already achieved the all India MDG target for prevalence of underweight children under three years of age and four more States i.e. Andhra Pradesh, Karnataka, Maharashtra and Uttarakhand are likely to achieve the national level target by 2015. However, while comparing with the respective State level target, as per the historical trend, only 6 States, namely, Maharashtra, Andhra Pradesh, Tamil Nadu, Delhi, Jammu & Kashmir and Punjab are likely to achieve their own MDG targets by 2015. The States of West Bengal and Karnataka are also likely to be very close to their respective MDG target by 2015.

**Fig.3.17.1: Prevalence of under weight children <3 years, likely achievement of States vis -a vis MDG target 2015**



Source: National Family Health Survey

### Addressing poverty and hunger in a focused manner....

**3.18.1** The main determinants of poverty are (i) lack of income and purchasing power attributable to lack of productive employment and considerable underemployment and not to lack of employment per se; (ii) a continuous increase in the price of food, especially food-grains which account for 70-80 per cent of the consumption basket; and (iii) inadequacy of social infrastructure, affecting the quality of life of the people and their employability. The Government of India has taken several initiatives to tackle the problem.

**3.18.2 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):** The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) with its legal frame work and rights-based approach was notified on September 5, 2005 and came into force with effect from 2<sup>nd</sup> February 2006. It aims at enhancing livelihood security by providing at least one hundred days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The Act covered 200 districts in its first phase, and was extended to all the rural districts of the country in phases. MGNREGA is the first ever law, internationally, that guarantees wage employment at an unprecedented scale. The primary objective of the Act is meeting demand for wage employment in rural areas. The works permitted under the Act address causes of chronic poverty like drought, deforestation

and soil erosion, so that the employment generation is sustainable. The women workforce participation under the Scheme has surpassed the statutory minimum requirement of 33 per cent, since inception, every year women participation has been around 48%.

### **Salient features of the Act**

- Rights based Framework: For adult members of a rural household willing to do unskilled Manual work.
- Time bound guarantee: 15 days for provision of employment, else unemployment allowance to be paid.
- Upto 100 days in a financial year per household, depending on the actual demand.
- Labour Intensive works: 60:40 wage and material ratio for permissible works at the Gram Panchayat; no contractors/machinery.
- Decentralized Planning ; Gram Sabhas to recommend works, At least 50% of works by Gram Panchayats for execution, Principal role of PRIs in planning ,implementation and monitoring.
- Work site facilities: Crèche, drinking water, first aid and shade provided at worksites.
- Women empowerment: At least one-third of beneficiaries should be women.

The major goals of MGNREGA are to:

- Enhance livelihood security of the rural poor by generating wage employment opportunities in works that develop the infrastructure base of the area concerned.
- Rejuvenate the natural resource base of the area concerned.
- Create a productive rural asset base
- Stimulate the local economy by providing a safety net to rural poor.
- Ensure empowerment to women.
- Strengthen grass-roots democratic institutions.

The key achievements of the programme are:

- ✓ Since its inception in 2006, around Rs.1,63,754.41 crores have been disbursed directly as wage payments to rural worker households.
- ✓ 1,657.45 crore person-days of wage employment has been generated. On an average, five crore rural households have been provided with wage employment each year since 2008.
- ✓ Scheduled Castes and Scheduled Tribes participation has been 48 per cent till 31st March, 2014.
- ✓ Women have accounted for 48 per cent of the total person-days generated. This is well above the mandatory 33 per cent as required under the Act.

- ✓ Since the beginning of the programme, 260 lakh works have been taken up under the Act.
- ✓ Average wage per person-day has gone up by 81 per cent since the inception of the programme. The notified wage today varies from a minimum of Rs.153 in Meghalaya to Rs.236 in Haryana.



**3.18.3 Aajeevika-National Rural Livelihoods Mission (NRLM):** The NRLM is one of the important programs of government of India, in terms of allocation and coverage, and it seeks to reach out to 8–10 crore rural poor households and organize them into SHGs and federations at village and at higher levels by 2021-22. While doing so, NRLM ensures adequate coverage of poor and vulnerable sections of the society identified through Participatory processes and approved by Gram Sabha. A strong convergence with Panchayati Raj Institutions (P.R.I) is an important feature of the programme. During the year 2013-14, Aajeevika-NRLM has focused on supporting the State Missions in transiting to NRLM by fulfilling all the requirements, setting up implementation architecture, strengthening them by providing comprehensive induction training and capacity building support. As of March, 2014, 27 States and the Union Territory of Puducherry have transited to NRLM. The Resource blocks initiated during the year 2012-13 have shown impressive results in terms of quality of community institutions and generation of social capital. NRLM has focused on creating special strategies and initiating pilots to reach out to the most marginalized and vulnerable communities – Persons with Disabilities (PwDs), the elderly, Particularly Vulnerable Tribal Groups (PVTGs), bonded labour, manual scavengers, victims of human trafficking, etc. During the year emphasis was also placed on strengthening the institutional systems in terms of adopting Human Resource Manual, Financial Management manual and roll out of interest subvention programme. Around 1.58 lakh youths have set up their own enterprises with the help of Aajeevika. 24.5 lakh Mahila Kisans have also been provided support.

**3.18.4 Pradhan Mantri Gram Sadak Yojana (PMGSY):** Rural roads constitute about 80% of the

country's road network and are a lifeline for the vast majority of the population that lives in the villages. Roads form a critical link for rural communities to access markets, education, health and other facilities. They also enhance opportunities for employment in the non-farm sector and facilitate setting up of shops and small businesses. Government of India, as part of poverty reduction strategy, launched the Pradhan Mantri Gram Sadak Yojana (PMGSY) on 25<sup>th</sup> December 2000 as a Centrally Sponsored Scheme to assist States. The primary objective of the programme is to provide good all weather connectivity to all eligible unconnected habitations in the core network with a population of 500 (Census-2001) and above. In respect of the Hill States (North-East, Sikkim, Himachal Pradesh, Jammu & Kashmir and Uttarakhand), Desert areas (as identified in the Desert Development Programme), and Tribal (Schedule V) Areas and Selected Tribal and Backward Districts (as identified by the Ministry of Home Affairs and Planning Commission), the objective is to connect habitations with a population of 250 (Census-2001) and above. The programme envisages single all weather connectivity. The country has now a network of about 3,99,979 km of such roads. With a view to ensuring full farm-to-market connectivity, the programme also provides for the upgradation of the existing 'Through Routes' and Major Rural Links to prescribed standards, though it is not central to the programme. Under PMGSY-II, 10,725 projects have been cleared out of eligible 50,000 projects. As on March 31, 2014, 97,838 habitations have been connected. New connectivity of 2,48,919 kms has been achieved.

**3.18.5 Indira Awaas Yojana (IAY):** As part of a larger strategy of the Ministry's poverty eradication effort, Indira Awaas Yojana (IAY), a flagship scheme of the Ministry of Rural Development, has since inception been providing assistance to the BPL families who are either houseless or having inadequate housing facilities, for constructing a safe and durable shelter. The Government has been implementing IAY as part of the enabling approach to 'shelter for all', taking cognizance of the fact that rural housing is one of the major anti-poverty measures for the marginalized. The house is recognized not merely as a shelter and a dwelling place but also as an asset which supports livelihood, symbolizes social position and is also a cultural expression. A good home would be in harmony with the natural environment protecting the household from extreme weather conditions and it would have the required connectivity for mobility and facilities for economic activities. In the year 2013-14, 13.73 lakh houses have been constructed.

**3.18.6 The Jawaharlal Nehru National Urban Renewal Mission (JNNURM):** The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched on 3<sup>rd</sup> December, 2005 with an objective of providing focused attention to integrated development of urban infrastructure and services in select 65 cities with emphasis on urban poor, slum improvement, community toilets/baths, etc. The Mission proposes reforms driven, fast track, planned development of identified cities with focus on efficiency in urban infrastructure/ services delivery mechanism, community participation and accountability of Urban Local Bodies (ULBs) towards citizens. The Mission comprises two Sub-Missions -one for Basic Services to the Urban poor (BSUP) and the other for Urban infrastructure and Governance (UIG). The duration of the Mission was up to 31.3.2012, which has been extended by 2 years, i.e. up to the end of the Financial Year 2013-14 for completion of projects sanctioned up to March 2012. As on 27-12-2012, under BSUP, out of

the total 527 projects sanctioned for a cost of Rs. 29786.45 Crore, 110 projects costing Rs. 7254.84 Crore are for minority concentration towns indicating 24.36% flow of funds to minority concentration towns/cities.

**3.18.7 National Urban Livelihoods Mission:** Ministry of Housing & Urban Poverty Alleviation has launched “National Urban Livelihoods Mission (NULM)” in the 12<sup>th</sup> Five Year Plan w.e.f. 24<sup>th</sup> September, 2013 replacing the existing Swarna Jayanti Shahari Rozgar Yojana (SJSRY). The NULM focuses on organizing urban poor in Self Help Groups, creating opportunities for skill development leading to market-based employment and helping them to set up self-employment ventures by ensuring easy access to credit. The Mission aims at providing shelter equipped with essential services to the urban homeless in a phased manner. In addition, the Mission will also address livelihood concerns of the urban street vendors. The primary target of NULM is the urban poor, including the urban homeless. The NULM has six major components:

- I. Social Mobilizations and Institution Development (SM&ID): NULM envisages mobilisation of urban poor households into thrift and credit-based Self-Help Groups (SHGs) and their federations/collectives.
- II. Capacity Building and Training (CB&T): A multi-pronged approach is planned under NULM for continuous capacity building of SHGs and their federations/collectives, government functionaries at Central, State and City/Town levels, bankers, NGOs, CBOs and other stakeholders. NULM will also create national and state-level mission management units to support the implementation of programme for the poor.
- III. Employment through Skills Training and Placement (EST&P): NULM will focus on providing assistance for skill development / up-grading of the urban poor to enhance their capacity for self-employment, or better salaried employment.
- IV. Self-Employment Programme (SEP): Self-Employment Programme (SEP): This component will focus on financial assistance to individuals/groups of urban poor for setting up gainful self-employment ventures/ micro-enterprises, suited to their skills, training, aptitude and local conditions.
- V. Support to Urban Street Vendors: This component will cover development of vendors market, credit enablement of vendors, socio-economic survey of street vendors, skill development and micro enterprises development and convergence with social assistance under various schemes of the Government.
- VI. Shelter for Urban Homeless (SUH): Under this component, the construction of permanent shelters for the urban homeless equipped with essential services will be supported.

**3.18.8 National Food Security Mission (NFSM):** The Government of India in 2007 adopted a resolution to launch a Food Security Mission comprising rice, wheat and pulses to increase the production of rice by 10 million tons, wheat by 8 million tons and pulses by 2 million tons by the end of the Eleventh

Plan (2011-12). Accordingly, a Centrally Sponsored Scheme, ‘National Food Security Mission’ (NFSM), was launched in October 2007. The Mission is being continued during 12<sup>th</sup> Five Year Plan with new targets of additional production of food grains of 25 million tons of food grains comprising of 10 million tons rice, 8 million tons of wheat, 4 million tons of pulses and 3 million tons of coarse cereals by the end of 12<sup>th</sup> Five Year Plan. The National Food Security Mission (NFSM) during the 12<sup>th</sup> Five Year Plan is having five components (i) NFSM- Rice; (ii) NFSM-Wheat; (iii) NFSM-Pulses, (iv) NFSM-Coarse cereals and (v) NFSM-Commercial Crops.

The objectives of NFSM are

- Increasing production of rice, wheat, pulses and coarse cereals through area expansion and productivity enhancement in a sustainable manner in the identified districts of the country;
- Restoring soil fertility and productivity at the individual farm level; and
- Enhancing farm level economy (i.e. farm profits) to restore confidence amongst the farmers

The Mission is adopting the following strategies:

- I. Focus on low productivity and high potential districts including cultivation of food grain crops in rain fed areas.
- II. Implementation of cropping system centric interventions in a Mission mode approach through active engagement of all the stakeholders at various levels.
- III. Agro-climatic zone wise planning and cluster approach for crop productivity enhancement.
- IV. Focus on pulse production through utilization of rice fallow, rice bunds and intercropping of pulses with coarse cereals, oilseeds and commercial crops (sugarcane, cotton, jute).
- V. Promotion and extension of improved technologies i.e., seed, integrated nutrient management (INM) including micronutrients, soil amendments, integrated pest management (IPM), input use efficiency and resource conservation technologies along with capacity building of the farmers/extension functionaries.
- VI. Close monitoring of flow of funds to ensure timely reach of interventions to the target beneficiaries.
- VII. Integration of various proposed interventions and targets with the district plan of each identified district.
- VIII. Constant monitoring and concurrent evaluation by the implementing agencies for assessing the impact of the interventions for a result oriented approach.

The NFSM is an important initiative towards ensuring ‘food security for all’ by addressing the basic factors contributing to it.



**3.18.9 Integrated Child Development Services (ICDS):** The ICDS Scheme implemented by Government of India is one of the world's largest and unique programmes for early childhood care and development. It is the foremost symbol of the Country's commitment to its children and nursing mothers, as a response to the challenge of providing pre-school non –formal education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. The beneficiaries under this scheme are children in the age group of 0-6 years, pregnant women and lactating mothers.

To improve the nutritional and health status of children in the age group 0-6 years, reduce the incidence of mortality, morbidity and malnutrition of children, and nutritional supplements to pregnant women and lactating mothers are some important objectives of ICDS. The ICDS Scheme is universal for all categories of beneficiaries. The ICDS Scheme was launched in 1975 in 33 Blocks (Projects) with 4891 Anganwadi Centres (AWC). As on 31/12/2013, under ICDS, 7067 projects 13.41 lakhs AWCs are operational covering 1026.03 lakh beneficiaries under supplementary nutrition.

The Government has put into action a number of Programmes intended for elimination of poverty and hunger. The dimensions of causes of poverty are manifold and it's ill - effects are multifaceted. Though, the nation has succeeded in the up-lifting of a significant number of its poor, still the burden of poverty is huge in India. One in every five persons in India is below the poverty line and one in every three children below the age of 3 years are underweight children. Hence eradication of poverty and hunger continues to be a priority area of development.

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## Chapter 4



## CHAPTER 4

### Towards universalization of primary education

The essence of Human Resource Development is education, which plays a significant and remedial role in balancing the socio-economic fabric of the society. Emphasising this aspect, the Goal 2 of the Millennium Development Goals is aiming at achieving universal primary education.

#### Goal 2: Achieve Universal Primary Education

**TARGET 5:** Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education.

##### Indicators:

6. Net Enrolment Ratio in primary education
7. Proportion of pupils starting Grade 1 who reach Grade 5
8. Literacy rate of 15-24 year olds



#### Achieving universal primary education....

**4.2.** An all-round development of our citizens can be achieved by building strong foundations in education. Education is a unique investment in the present, bearing invaluable benefits in the future. The overall increase in enrolment in primary education during the period 2000-01 to 2013-14 was 18.6 million while the overall increase in enrolment of boys and girls respectively was 4.6 million and 14.0 million during this period. The enrolment in primary education reached the highest level in 2011-12 (137.1 million) and then declined to 134.8 million in 2012-13 and to 132.4 million in 2013-14. Between 2011-12 and 2013-14, the total enrolment in primary education decreased by 4.7 million, with the enrolment of girls and boys decreasing by 2.5 million and 2.2 million respectively. One of the reasons for the decline in enrolment in primary education is the declining child population age 0-6 years. The child population in the age group 0-6 years has declined by 5.05 million between 2001 and 2011 (Census of India, 2001 & 2011).

**Table 4.2.1: Enrolment in primary, upper primary and elementary education**

Year	Primary education (Classes I-V)			Upper Primary education (Classes VI-VIII)			Elementary education (Classes I-VIII)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
	64.0	49.8	113.8	25.3	17.5	42.8	89.3	67.3	156.6
2002-03	65.1	57.3	122.4	26.3	20.6	46.9	91.4	77.9	169.3
2004-05	69.7	61.1	130.8	28.5	22.7	51.2	98.2	83.8	182.0
2006-07	71.0	62.7	133.7	29.8	24.6	54.4	100.8	87.3	188.1
2008-09	70.0	64.5	134.5	29.4	26.0	55.4	99.4	90.5	189.9
2010-11	70.5	64.8	135.3	32.8	29.3	62.1	103.3	94.1	197.4
2011-12	70.8	66.3	137.1	31.8	30.1	61.9	102.6	96.4	199.0
2012-13	69.6	65.2	134.8	33.2	31.7	64.9	102.8	96.9	199.7
2013-14	68.6	63.8	132.4	34.2	32.3	66.5	102.8	96.1	198.9

Source: M/o Human Resource Development

**4.3.** The GER in primary education increased from 95.7 per cent in 2000-01 to 116.0 per cent in 2010-11 and then declined to 101.4 per cent in 2013-14. The overall increase in gross enrolment ratio in primary education during the period 2000-01 to 2013-14 was 5.7 percentage points (from 95.7 per cent in 2000-01 to 101.4 per cent). The GER for boys declined by 4.7 percentage points, while the GER for girls increased by 16.8 percentage points during this period.

**Fig 4.3.1: Trend in Gross Enrolment Ratio**



Source: M/o Human Resource Development

### Indicator: Net Enrolment Ratio in Primary Education

**4.4.** Net primary enrolment ratio is the ratio of the number of children of official school age (as defined by the national education system) who are enrolled in primary school to the total population

of children of official school age. Based on the available data, the Net Enrolment Rate (NER) in primary education (age 6-10 years) was estimated at 84.5 per cent in 2005-06 (U-DISE). The NER has increased to 8.08 per cent in 2013-14<sup>1</sup>. The NER was higher for girls (89.26 per cent) than that for boys (87.2 per cent). The State / UT wise NER as available from U –DISE (Unified District Information System for Education) 2013-14 reports, among the States, the NER has ranged between 68.99 in Jammu & Kashmir to 99.39 in Nagaland.

**Table 4.4.1: Net Enrolment Ratio in Primary Education (Classes I-V) 2013-14**

State/ UT	NER	State/ UT	NER
Jammu & Kashmir	68.99	Kerala	85.78
Daman & Diu	75.55	Maharashtra	86.42
Haryana	77.67	Tamil Nadu	86.66
Puducherry	77.76	Uttar Pradesh	87.03
Chandigarh	78.08	Odisha	89.05
Andhra Pradesh	78.31	Bihar	91.66
Lakshadweep	79.06	West Bengal	92.09
Rajasthan	79.54	Delhi	92.3
Dadra & Nagar Haveli	79.59	Karnataka	92.3
A & N Islands	80.91	Madhya Pradesh	93.66
Gujarat	82.92	Chhattisgarh	93.79
Sikkim	83.54	Meghalaya	95.28
Uttarakhand	83.54	Jharkhand	96.49
Himachal Pradesh	83.71	Goa	97.51
Punjab	85.72	Nagaland	99.39
All India	<b>88.08</b>		

Source: M/o Human Resource Development

**4.5.** The Age-Specific Enrolment Ratio (ASER-children of a specific single-age/age group, i.e. 6 to 10+ years or 11 to 13+ years, enrolled, irrespective of level of education, as a percentage of the population of the same single/age group) for children of age 6-10 years was 93.11 per cent for the year 2013-14. The ASER was also higher for girls (94.36 per cent) than that for boys (91.97 per cent).

### Indicator: Proportion of pupils starting Grade 1 who reach Grade 5

**4.6.** One of the goals of the Sarva Shiksha Abhiyan (SSA) has been to achieve universal retention by enabling children enrolled in Class I to complete eight years of elementary education. Universalisation of

<sup>1</sup> The MDG India Country Report 2014 had quoted NER as 99.89 for 2010-11, based on DISE Flash Statistics 2011-12. The decline in NER in 2013-14 is attributed to the fact that, while calculating NER 2010-11, the projected 6 -10 child population was taken as 113.9 Million in 2010-11 based on 2001 census (as per ORGI estimates) whereas the actual 6-10 population as per 2011 census is 130.9 million. Therefore, the GER and NER for 2011 and thereafter declined when calculated based on actual child population as clarified by the M/o Human Resource Development.

primary education addresses two major target groups, the out of school children during the primary school going age and the children who were forced to drop out even before completion of primary grade classes due to social and /or economic impediments. The investment made in terms of expansion of schooling facilities, bridging gender and social category gaps in elementary education, and quality improvement initiatives, including improved school infrastructure, enhanced teacher availability, sustained academic support, Mid-day meal programme, awareness generation, increased community participation, curricular reforms and a rights-based approach, have contributed substantially to reduction in drop-out rates and improved retention rates in primary, upper primary and elementary education.

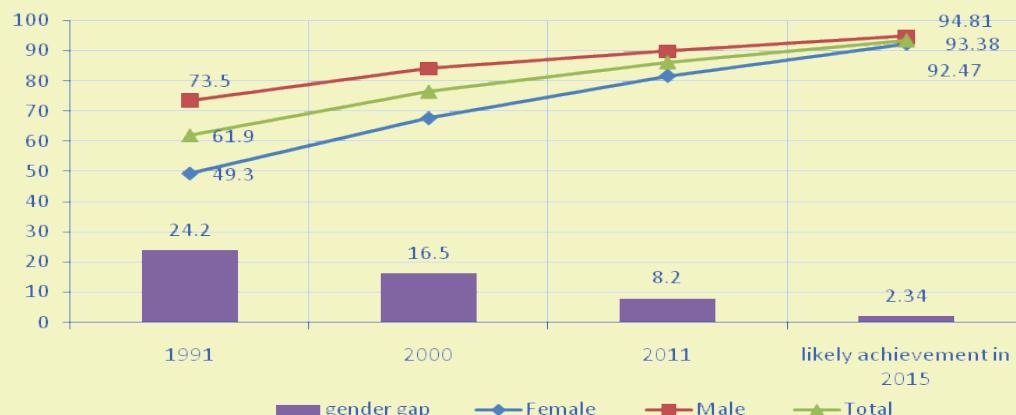
**4.7.** The proportion of pupils starting grade 1 who reach grade 5, known as the survival rate to grade 5, is the percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach grade 5. The ideal result from a cohort study is at present not available in the official statistics of the country. Strengthening of the school information system has been accorded top priority from the very beginning of the Sarva Shiksha Abhiyan (SSA), as a result of which the coverage of DISE was extended to all states and districts of the country. The results from DISE report 2011-12, shows a steady increasing trend over the years in the estimate of the indicator 'ratio of enrolment of Grade V to Grade I' from 78.08 in 2009-10 to 86.05 in 2011-12.

### Indicator: Literacy rate of 15-24 year olds

**4.8.** Literacy rate of 15–24 year-olds, or the youth literacy rate, is the percentage of the population 15–24 years old who can both read and write with understanding a short simple statement on everyday life. In India, a person aged 7 years and above who can both read and write with understanding in any language has been taken as literate. It is not necessary for a person to have received any formal education or passed any minimum educational standard for being treated as literate.

**4.9.** The literacy rate for population in the age group 15-24 years has shown an upward trend both in rural and urban areas and for females as well as males. The youth literacy rate has increased from

Fig 4.9.1: Youth (15-24 years) Literacy rate (%)



Source: Office of Registrar General of India

61.9% to 86.14% during the period 1991-2011 and the trend shows India is likely to reach 93.38% which is very near to the target of 100% youth literacy by 2015. At national level, the male and female youth literacy rate is likely to be at 94.81% and 92.47%.

**4.10.** The bright line is that, during 1991- 2011, the increase in youth literacy rate was higher among females than males and the gender gap is also declining. During this period, the average annual increase in female and male literacy rate is 1.63 and 0.83 percentage points respectively.

Table 4.10.1: Youth (15-24 years) Literacy rate by Sex								
1991			2001			2011		
Male	Female	Total	Male	Female	Total	Male	Female	Total
73.5	49.3	61.9	84.2	67.7	76.4	90	81.8	86.1
Gender Gap		24.2	16.5			8.2		

Source: Office of Registrar General of India

**4.11.** Further, the rural – urban gap in youth literacy rate is also declining during this period. The average annual increase in literacy rate in rural and urban areas is 1.9 and 0.56 percentage points respectively during this period.

**Fig 4.11.1: Trend in Youth Literacy Rate by Residence**



Source: Office of Registrar General of India

Among the State / UTs, the highest youth literacy rate was in Kerala (99.04%) and the lowest in Bihar (72.29%).

**Table 4.11.1: Youth (15-24) literacy rate – Census 2011**

Rank		Youth literacy rate	Rank		Youth literacy rate
1	Kerala	99.04	19	Gujarat	89.17
2	Lakshadweep	98.3	20	Nagaland	88.21
3	Puducherry	97.49	21	Manipur	87.9
4	A & N Islands	96.66	22	Chhattisgarh	87.45
5	Himachal Pradesh	96.41	23	West Bengal	87.25
6	Goa	96.15	24	Andhra Pradesh	87.02
7	Tamil Nadu	96.09	25	Dadra & Nagar Haveli	86.78
8	Tripura	94.3	26	Odisha	86.03
9	Sikkim	94.2	27	Meghalaya	84.76
10	Maharashtra	93.66	28	Madhya Pradesh	83.71
11	Mizoram	93.4	29	Jammu & Kashmir	83.15
12	NCT of Delhi	93.17	30	Assam	82.41
13	Daman & Diu	92.5	31	Rajasthan	81.73
14	Chandigarh	92.31	32	Uttar Pradesh	81.57
15	Uttarakhand	92.03	33	Arunachal Pradesh	80.69
16	Karnataka	90.79	34	Jharkhand	79.62
17	Haryana	89.96	35	Bihar	72.29
18	Punjab	89.75		<b>India</b>	<b>86.10</b>

Source: Office of Registrar General of India

During 2001-2011, considerable improvement in Youth Literacy was observed in all the States / UTs, especially in the State / UTs which were below the national level estimates.

**Table 4.11.2: States/ UTs with youth Literacy Rate less than national level estimate**

Census 2001		Census 2011	
<b>India</b>	<b>76</b>	<b>India</b>	<b>86.14</b>
Orissa	75	Odisha	86.03
Madhya Pradesh	75	Meghalaya	84.76
Meghalaya	74	Madhya Pradesh	83.71
Assam	74	Jammu & Kashmir	83.15
Andhra Pradesh	74	Assam	82.41
Rajasthan	72	Rajasthan	81.73
Arunachal Pradesh	70	Uttar Pradesh	81.57
Jammu & Kashmir	68	Arunachal Pradesh	80.69
Uttar Pradesh	67	Jharkhand	79.62
Dadra & Nagar Haveli	67	Bihar	72.29
Jharkhand	65		
Bihar	57		

Source: Office of Registrar General of India

## **Education for all....**

**4.12.** India has made significant progress towards the goal of Education for All during the past few years. Keeping in view the pace of progress achieved till 2000, several programmes have been formulated and implemented since 2001 to advance the goal of Education for All. These policies and programmes have been implemented through the collaborative efforts of Government of India and the State/UT Governments, and through district level decentralized management structures, involving local bodies.

### **Policy framework for education development**

**4.12.1 National Policy on Education 1986 (revised in 1992):** A key milestone in India's march towards Education for All was the adoption of the National Policy on Education 1986 (revised in 1992) which states "In our national perception, education is essentially for all". Some of the key thrust areas of the National Policy on Education 1986/92 include;

- (i.) National system of education which implies that "up to a given level, all students, irrespective of caste, creed, location or sex, have access to education of a comparative quality";
- (ii.) Early Childhood Care and Education (ECCE) "both as a feeder and a strengthening factor for primary education and for human resource development in general";
- (iii.) Focus on universal access and enrolment, universal retention of children upto 14 years of age; and a substantial improvement in the quality of education to enable all children achieve essential levels of learning;
- (iv.) Emphasis "on the removal of disparities and to equalize educational opportunity by attending to the specific needs of those who have been denied equality";
- (v.) Widening of access to secondary education with emphasis on enrolment of girls, Scheduled Castes (SCs), Scheduled Tribes (STs), particularly in science, commerce and vocational streams;
- (vi.) Education for women's equality, with special emphasis on the removal of women's illiteracy and obstacles inhibiting their access to, and retention in, elementary education;
- (vii.) The introduction of systematic, well-planned and rigorously implemented Programmes of vocational education aimed at developing a healthy attitude amongst students towards work and life, enhancing individual employability, reducing the mismatch between the demand and supply of skilled manpower, and providing an alternative to those intending to pursue higher education without particular interest or purpose;
- (viii.) Making adult education Programmes a mass movement involving literacy campaigns and comprehensive Programmes of post-literacy and continuing education for neo-literate and youth who have received primary education with a view to enabling them to retain and upgrade their literacy skills, and to harness it for the improvement of their living and working condition;

- (ix.) Overhauling of the system of teacher education with emphasis on continuing professional development of teachers, establishment of District Institutes of Education and Training (DIET) with the capability to organize pre-service and in-service training of elementary school teachers, and upgradation of selected secondary teacher training colleges.

**4.12.2 National Policy on Early Childhood Care and Education (2013):** A National Policy on Early Childhood Care and Education was adopted in September 2013. The Policy envisages promotion of inclusive, equitable and contextualized opportunities for promoting optimal development and active learning capacity of all children below six years of age. The policy lays down the way forward for a comprehensive approach towards ensuring a sound foundation for survival, growth and development with focus on *care and early learning* for every child. The key goals of the policy include: Universal access with equity and inclusion; Quality in ECCE; and Strengthening capacity, monitoring and supervision, advocacy, research and review.

**4.12.3 National Youth Policy (NYP):** The National Youth Policy, 2003 reiterated the country's commitment to the composite and all-round development of the youth and adolescents of India. The objectives of the National Youth Policy 2003 included providing the youth with proper educational and training opportunities and facilitating access to information in respect of employment opportunities and to other services, including entrepreneurial guidance and financial credit. The National Youth Policy, 2014 policy seeks to empower youth of the country to achieve their full potential. The priority areas of NYP 2014 include: education, employment and skill development, entrepreneurship, health and healthy lifestyles, sports, promotion of social values, community engagement, participation in politics and governance, youth engagement, inclusion and social justice. In the National Youth Policy, 2014 document, the youth age-group is defined as 15-29 years.

**4.12.4 Right To Education (RTE) Act:** In 2010, the country achieved a historic milestone when Article 21-A and the Right of Children to Free and Compulsory Education (RTE) Act, 2009 became operative on 1<sup>st</sup> April 2010. The enforcement of Article 21-A and the RTE Act represented a momentous step forward in our country's struggle for universalising elementary education. The RTE Act is anchored in the belief that the values of equality, social justice and democracy and the creation of a just and humane society can be achieved only through provision of inclusive elementary education to all. The Right to Free & Compulsory Education Act 2009 provides a justiciable legal framework that entitles all children between the ages of 6-14 years free and compulsory admission, attendance and completion of elementary education. 'Free education' means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education. 'Compulsory education' casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group. It provides for children's right to an education of equitable quality, based on principles of

equity and non-discrimination. Most importantly, it provides for children's right to an education that is free from fear, stress and anxiety.

**4.12.5 Sarva Shiksha Abhiyan (SSA):** The Sarva Shiksha Abhiyan (SSA) is being implemented as India's main programme for universalising elementary education. Its overall goals include universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children. SSA has been operational since 2000-2001 to provide for a variety of interventions for universal access and retention, bridging of gender and social category gaps in elementary education and improving the quality of learning. SSA interventions include inter alia, opening of new schools and alternate schooling facilities, construction of schools and additional classrooms, toilets and drinking water, provisioning for teachers, regular teacher in-service training and academic resource support, free textbooks & uniforms and support for improving learning achievement levels / outcome. With the passage of the RTE Act, changes have been incorporated into the SSA approach, strategies and norms. During the period 2000-01 to 2013-14, the number of primary schools (schools with only primary section) has increased from 638,738 to 858,916 schools while the number of schools imparting upper primary education increased from 206,269 to 589,796. Nationally, about 98 per cent of the rural habitations have a primary school within a distance of 1 km. The enrolment in primary education during the period 2000-01 to 2013-14 has increased by 18.6 million (from 113.8 million to 132.4 million).



#### **4.12.6 Early Childhood Care and Education (ECCE) services under the Integrated Child Development Service (ICDS):**

The ICDS Scheme is one of the world's largest programmes for early childhood development. This has a component aimed at pre-school education for children of age 3-5+ years. All services under ICDS converge at the Anganwadi – a village courtyard – which is the main platform for delivering these services. The ICDS Scheme covers all the States and Union Territories in the country. The expansion of ICDS contributed significantly to the increased coverage of ECCE services. The number of projects under the ICDS scheme has increased from 4,068 to 7,025 projects during the period 2001-02 to 2012-13. The number of Anganwadi Centres (AWCs) increased by 145% (from 545,714 to 1,338,732 centres) during the period 2001-2002 to 2012-13.

The total number of children of age 3-5+ years, who received pre-school education in Anganwadi Centres increased by 112% (from 16.7 million to 35.3 million) during the period 2001-02 to 2012-13. Girls constituted 49% (17.3 million) of the total number of children who received pre-school education during the year 2012-13.

**4.12.7 Mid Day Meal Scheme (MDMS):** With a view to enhancing enrolment, retention and attendance and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme on 15<sup>th</sup> August 1995. In 2001, MDMS became a cooked Mid Day Meal Scheme under which every child in every Government and Government aided primary school was to be served a prepared Mid Day Meal with a minimum content of 300 calories of energy and 8-12 gram protein per day for a minimum of 200 days. The Scheme was further extended in 2002 to cover not only children studying in Government, Government aided and local body schools, but also children studying in Education Guarantee Scheme (EGS) and Alternative & Innovative Education (AIE) centres. In September 2004 the Scheme was revised to provide for Central Assistance for Cooking cost @ Re 1 per child per school day to cover cost of pulses, vegetables cooking oil, condiments, fuel and wages and remuneration payable to personnel or amount payable to agency responsible for cooking. Transport subsidy was also raised from the earlier maximum of Rs 50 per quintal to Rs. 100 per quintal for special category states and Rs 75 per quintal for other states. Central assistance was provided for the first time for management, monitoring and evaluation of the scheme @ 2% of the cost of foodgrains, transport subsidy and cooking assistance. A provision for serving mid day meal during summer vacation in drought affected areas was also made. In July 2006 the Scheme was further revised to enhance the cooking cost to Rs 1.80 per child/school day for States in the North Eastern Region and Rs 1.50 per child / school day for other States and UTs. The nutritional norm was revised to 450 Calories and 12 gram of protein. In order to facilitate construction of kitchen-cum-store and procurement of kitchen devices in schools provision for Central assistance @ Rs. 60,000 per unit and @ Rs. 5,000 per school in phased manner were made. In October 2007, the Scheme was extended to cover children of upper primary classes (i.e. class VI to VIII) studying in 3,479 Educationally Backwards Blocks (EBBs) and the name of the Scheme was changed from 'National Programme of Nutritional Support to Primary Education' to 'National Programme of Mid Day Meal in Schools'. The nutritional norm for upper

primary stage was fixed at 700 Calories and 20 grams of protein. The Scheme was extended to all areas across the country from 1.4.2008. The Scheme was further revised in April 2008 to extend the scheme to recognized as well as unrecognized Madarsas / Maqtabs supported under SSA.



During 2009-10, 8.41 cr in Primary and 3.36 cr Upper Primary children i.e a total of 11.77 cr children were estimated to be benefited from MDM Scheme. During 2010-11, 11.36 Cr children i.e 7.97 Cr. children in primary and 3.39 Cr. children in upper primary had been covered in 12.63 lakhs institutions. During 2011-12 total coverage of children against enrollment was 10.52 Crore (i.e. Primary-7.71 crore and Upper Primary 3.36 crore children). During 2012-13, 10.68 Cr. children (Elementary level) had been covered in 12.12 lakh Schools. 10.45 Cr. children were covered in 11.58 lakh Schools during 2013-14.

**With a population of more than 1.2 billion, which is still growing, it continues to be an uphill task for the country to keep pace with the expanding demand for elementary and secondary education. Though India has achieved significant progress in universalization of primary education, the focussed initiatives to improve the coverage in primary education need sustainment and expansion ensuring the quality aspects of elementary education for a better future.**

\* \* \* \* \*





## Chapter 5



## CHAPTER 5

### Promoting gender equality and empowerment of women

Gender equality is a human right which entitles all persons irrespective of their gender to live with dignity and with freedom. Gender equality is also a precondition for development and reducing of poverty. Empowered women make invaluable contribution to the improvement of health conditions and educational status and productivity of whole families and communities, which in turn improve prospects for the next generation. The Millennium Development Goal-3 puts emphasis on gender equality and empowerment of women to highlight these aspects only.



#### Goal 3: Promote Gender Equality and Empower Women

#### Target 4: Eliminate gender disparity in primary, secondary education, preferably by 2005, and in all levels of education, no later than 2015

##### Indicators

9. Ratio of girls to boys in primary, secondary and tertiary education
10. Ratio of literate women to men, 15-24 years old
11. Share of women in wage employment in the non-agricultural sector
12. Proportion of seats held by women in National Parliament.

**5.2.** Gender equality will be achieved only when women and men enjoy the same opportunities, rights and obligations in all spheres of life. This means sharing equally, power and influence, and having equal opportunities in economic and social spheres. Equal claim on education and career prospects will enable women to realize their personal ambitions. Gender equality demands the empowerment of

women, with a focus on identifying and redressing power imbalances and giving women more autonomy to manage their own lives. When women are empowered, the whole family benefit, thus benefiting the society as a whole and these benefits often have a ripple effect on future generations.

### **Reducing gender gap in Education...**

#### **Indicator: Ratio of girls to boys in primary, secondary and tertiary education**

5.3. Education is the single most important factor to ensure gender equality and empowerment. Enrolment of girls in primary education, survival and transition to higher levels of education lead to achieving gender parity in education. During 2000-01 to 2013-14, substantial progress has been achieved towards gender parity in education as revealed by some important indicators.

**Table 5.3.1: Trend in some important indicators related to girls enrolment in education**

<b>Indicator</b>	<b>Level of education</b>	<b>2000-01</b>	<b>2013-14</b>
<b>Enrolment of girls as percentage of total enrolment</b>	Primary education (Classes I-V)	43.8%	48.2%
	Upper primary education (Classes VI-VIII)	40.9%	48.6%
	Secondary (IX-X) and higher secondary (XI-XII) education	38.8%	47.1%
<b>Number of girls per 100 boys enrolled</b>	Primary education (Classes I-V)	78	93
	Upper Primary education	69	95
	Secondary education	63	90
	Higher education	58	81

Source: Education for all Towards quality and Equity, M/o HRD, Educational Statistics at a glance 2014, M/o HRD

It is evident that, during 2000-01 to 2013-14, the enrolment of girls is improving and the gender gap in enrolment is diminishing in all levels of education.

5.4. The Gender Parity Index (GPI) is the ratio of the number of female students enrolled at primary, secondary and tertiary levels of education to the corresponding number of male students in each level. The Gross Enrolment Ratio (GER) is the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. GPI of GER is the ratio of GER of the



girls to that of boys in primary, secondary and tertiary education. Thus, the GPI (GER), which is free from the effects of the population structure of the appropriate age groups, for each level of education, is taken as the appropriate indicator to monitor the gender equality in education.

Gender Parity Index for GER in primary, secondary and higher education has been improving steadily.

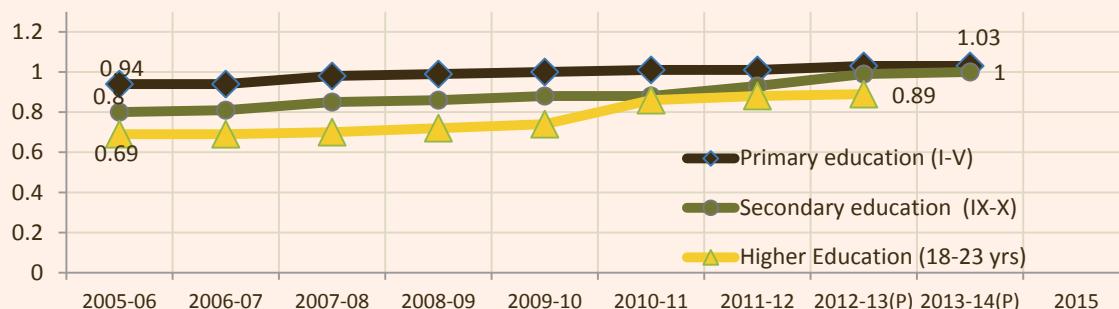
**Table 5.4.1: Gender Parity Index (GER) –All India**

	1990-91	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13 (P)	2013-14 (P)
<b>Primary education</b>	0.76	0.94	0.94	0.98	1	1	1.01	1.01	1.03	1.03
<b>Secondary education</b>	0.6	0.8	0.82	0.85	0.85	0.88	0.88	0.93	0.99	1
<b>Tertiary education</b>	0.54	0.69	0.69	0.7	0.7	0.74	0.86	0.88	0.89	

Source: Ministry of Human Resources Development. P -Provisional

**5.5.** At present, in primary education, the enrolment is favourable to females as GPI has crossed the level of 1. In Secondary education also gender parity has been achieved and in tertiary level of education, a rapid progress has been observed during the recent past towards gender parity.

**Fig 5.5.1: Trend in Gender Parity Index (GPI)**



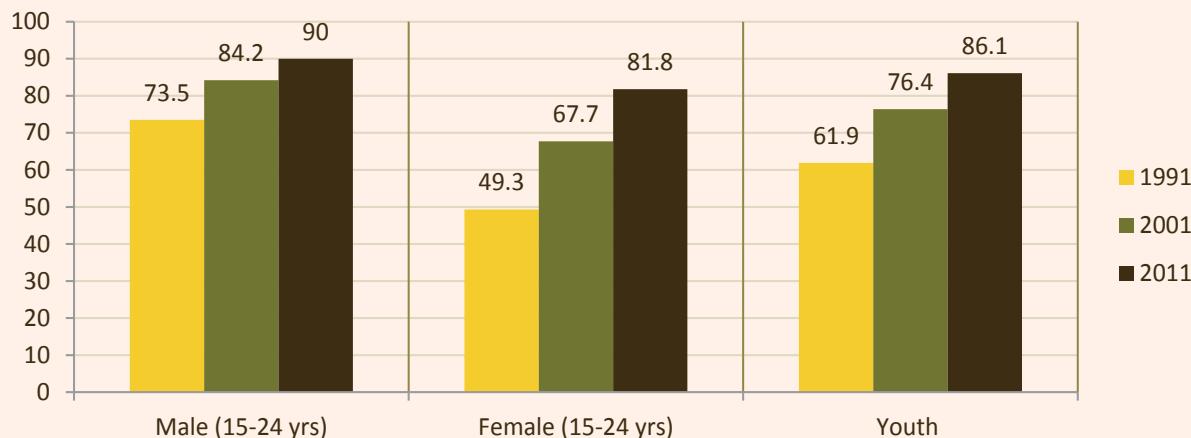
Source: Educational Statistics at a glance 2014, M/o HRD

**Leading to empowerment of women ....**

### **Indicator: Ratio of literate women to men, 15-24 year old**

**5.6.** The ratio of literate women to men, 15–24 year old (literacy gender parity index) is the ratio of the female literacy rate to the male literacy rate for the age group 15–24. The literacy rate for population in the age group 15-24 years has shown an upward trend both in rural and urban areas and for females as well as males. The youth literacy rate has increased from 61.9% to 86.1% during the period 1991-2011. This period saw a higher increase in literacy rate among female youths (from 49.3% to 81.8%) compared to male youths (from 73.5% to 90%). Over the years, the gap between male and female youth literacy rate has been reduced considerably.

**Fig. 5.6.1: Trend in youth literacy rate**



Source: Office of Registrar General of India

**5.7.** As per Census 2011, the ratio of female youth literacy rate to male youth literacy rate is 0.91 at all India level.

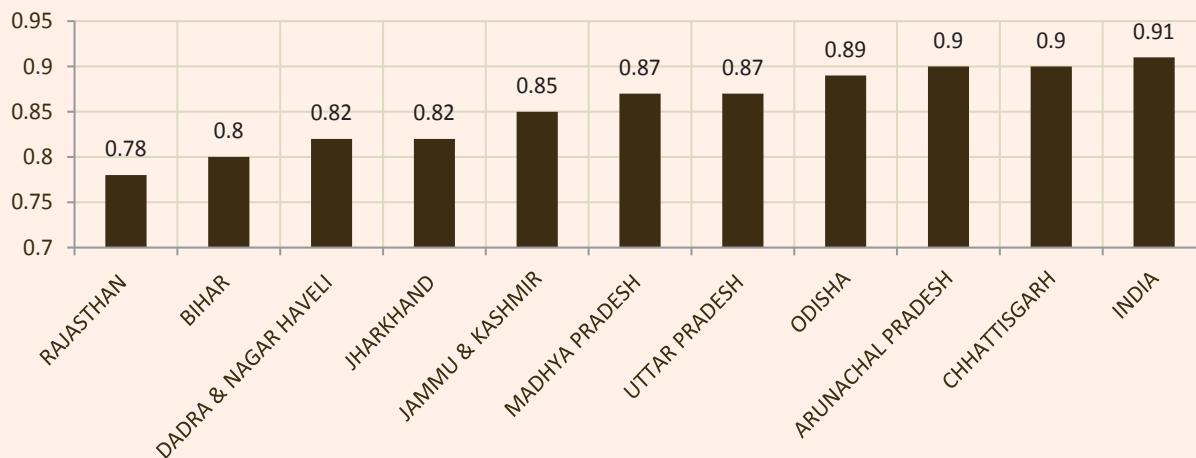
During the decade 1991 -2001, the percentage increase in ratio of female youth literacy rate to male youth literacy rate is 19.4% whereas during 2001 -2011, the growth was 13.75%. The slow pace of progress in the indicator ‘ratio of female youth literacy rate to male youth literacy rate’ in the last decade can be attributed to the tendency of low growth rates observed for most of the indicators which are nearing the saturation point. With the progress achieved during 1991 – 2011, India is likely to achieve the gender parity in youth literacy rate by 2015. Among the States / UTs, in Meghalaya, female youth literacy rate is higher than the male youth literacy rate, and gender parity has been achieved in Kerala and Lakshadweep. The gender disparity in youth literacy rate was highest in Rajasthan (0.78), followed by Bihar (0.8). The States/ UTs, with Ratio of female literacy rate to male literacy rate (15-24 yrs) -2011 less than the corresponding estimated ratio at national level are depicted below.

**Fig.5.7.1: Ratio of Female literacy rate to Male literacy rate for 15-24 years**



Source: Office of Registrar General of India

**Fig.5.7.2: Ratio of female literacy rate to male literacy rate (15-24 yrs) -2011**



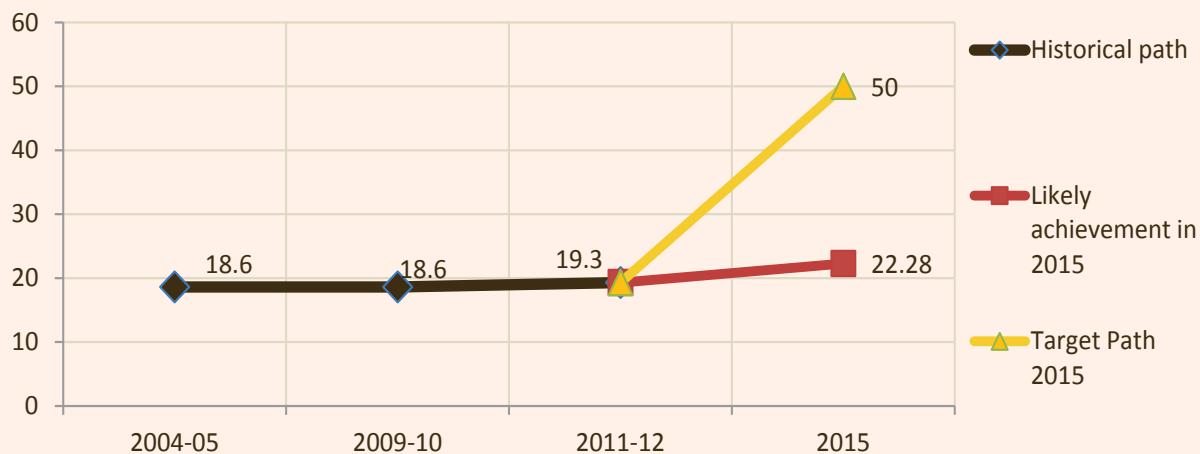
Source: Office of Registrar General of India

### Indicator: Share of Women in Wage Employment in the Non- Agricultural Sector

**5.8.** The indicator ‘Share of Women in Wage Employment in the Non-Agricultural Sector’ is defined as the share of female workers in the non-agricultural sector expressed as a percentage of total employment in the sector. This measures the degree to which labour markets are open to women in industry and service sectors, which affects not only equal employment opportunity for women but also economic efficiency through flexibility in the labour market and reflect economic factors in social empowerment of women.

**5.9.** The NSS 68<sup>th</sup> round (2011-12) results had estimated the percentage share of females in wage employment in the non- agricultural sector as 19.3% with corresponding figures for rural and urban areas as 19.9% and 18.7% respectively. There is an improvement in the status as NSS 66<sup>th</sup> round (2009-10) had

**Fig 5.9.1: Trend in share of women in wage employment in non -agricultural sector**



Source: NSSO

reported that the share of women in wage employment is 18.6% at national level and the corresponding estimates for rural and urban India pegged at 19.6% and 17.6% respectively. It is projected that, at this rate of progress, the share of women in wage employment can at best reach a level of about 22.28% by 2015. In India, the labour market of non-agricultural sector are greatly male dominated and a 50:50 situation for men and women is too ideal to be true, given the market dynamics and existing socio-cultural framework.

### **Indicator: Proportion of seats held by women in National Parliament**

**5.10.** India has witnessed 16 General elections to the Lok Sabha of Nation's Parliament so far. As in January 2015, India, the world's largest democracy, has only 65 women representatives out of 542 members in Lok Sabha, while there are 31 female representatives in the 242 member Rajya Sabha and at present, 12.24% seats of Indian Parliament is held by women.

**Table 5.10.1: Proportion of seats held by Women in National Parliament**

Reference year	Number of Women members			%
	Lok Sabha	Rajya Sabha	Total	
1991			77 of 789	9.7
2004	45 of 544	28 of 250	73 of 794	9.2
2007	47 of 544	25 of 250	72 of 794	9.1
2009	59 of 545	21 of 234	80 of 779	10.3
2011	60 of 544	26 of 241	86 of 785	10.96
2013	62 of 543	28 of 242	90 of 785	11.46
2015	65 of 542	31 of 242	96 of 784	12.24

Source: Lok Sabha and Rajya Sabha

According to data released by Inter Parliamentary Union (IPU), India ranks 115 in the World for proportion of National Parliament seats held by Women.

### **Aiming at eradication of gender disparity in Education....**

**5.11.1 Sarva Shiksha Abhiyan (SSA):** The principal programme for universalisation of primary education is the *Sarva Shiksha Abhiyan (SSA)*, a Centrally-sponsored scheme being implemented in partnership with State/UT Governments. The programme has been in operation since 2000-01. The overall goals of the SSA are: (i) all children in schools; (ii) bridge all gender and social category gaps at primary and upper primary stages of education (iii) universal retention; and (iv) elementary education of satisfactory quality. The SSA is the primary vehicle for implementing the aims and objectives of the RTE. In addition to programmatic interventions to promote girls' education within the mainstream elementary education system, girls' education is pursued through two special schemes for girls, which are supported under SSA. These are (i) National Programme for Education of Girls at Elementary Level (NPEGEL), and (ii) Kasturba

Gandhi Balika Vidyalaya (KGBV).

Key programmatic thrusts under SSA for promoting girls' education are,

- Ensuring the availability of primary schools within one kilometer of the habitation of residence of children and upper primary schools within three kilometers of the habitation;
- Provision of separate toilets for girls;
- Recruitment of 50 % of women teachers;
- Early childhood care and education centres in or near schools in convergence with Integrated Child Development Services (ICDS) scheme to free girls from sibling care responsibilities;
- Special training for mainstreaming out-of-school girls;
- Teachers' sensitization programmes to promote equitable learning opportunities for girls;
- Gender-sensitive teaching-learning materials, including text books;
- Intensive community mobilization efforts;
- "Innovation fund" for need-based interventions for ensuring girls' attendance and retention.
- National Programme for Girls Education at Elementary Level (NPEGEL);
- Residential programme for education of disadvantaged girls in educationally backward Blocks -Kasturba Gandhi Balika Vidyalaya (KGBV).

**5.11.2 National Programme for Education of Girls at Elementary Level (NPEGEL):** The National Programme for Education of Girls at Elementary Level (NPEGEL) launched in 2003 is implemented in Educationally Backward Blocks (EBB) and addresses the needs of girls who are 'in' and 'out' of school. Since many girls become vulnerable to leaving school when they are not able to cope with the pace of learning in the class or feel neglected by teachers/peers in class, the NPEGEL emphasises the responsibility of teachers to recognize such girls and pay special attention to bring them out of their state of vulnerability and prevent them from dropping out. Recognising the need for support services to help girls with responsibilities with regard to fuel, fodder, water, sibling care and paid and unpaid work, provisions have been made for incentives that are decided locally based on needs, and through the provision of ECCE services in non-ICDS areas to help free girls from sibling-care responsibilities and attend schools. An important aspect of the programme is the effort to ensure a supportive and gender sensitive classroom environment in the school. By the end of 2012-13, under NPEGEL, 41.2 million girls have been covered in 3,353 Educationally Backward Blocks in 442 districts. Under the NPEGEL 41,779 Model School Clusters have been established. At the cluster level, one school is developed into a resource hub for schools within

the cluster. The model cluster school functions as a repository of supplementary reading materials, books, equipment materials for games and vocational training, a centre for teacher training on gender issues and for organizing classes on additional subjects like self-defence and life skills. The model cluster school serves to motivate other schools in the cluster, to build a gender sensitive school and classroom environment. The NPEGEL follows up on girls' enrolment, attendance and learning achievement by involving village level women's and community groups.

**5.11.3 Kasturba Gandhi Balika Vidyalaya (KGBV) scheme:** The Kasturba Gandhi Balika Vidyalayas (KGBVs) are residential upper primary schools for girls from Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Classes (OBC) and Muslim communities. KGBVs are set up in educationally backward blocks where schools are at great distances and are a challenge to the security of girls and often compel them to discontinue their education. The KGBVs reach out to adolescent girls who are unable to go to regular schools, out-of-school girls in the 10+ age group unable to complete primary school, younger girls of migratory populations in difficult areas of scattered populations that do not qualify for primary/upper primary schools. The Scheme is being implemented in 27 States/UTs. Up to the year 2012-13, 3,609 KGBVs have been sanctioned and 366,500 girls were enrolled in these KGBVs during the year 2012-13 as against the targeted enrolment of 373,000 girls.

**5.11.4 Rashtriya Madhyamik Shiksha Abhiyan (RMSA):** The Rashtriya Madhyamik Shiksha Abhiyan is a flagship scheme of Government of India, launched in March, 2009, to enhance access to secondary education and improve its quality. The implementation of the scheme started from 2009-10 to generate human capital and provide sufficient conditions for accelerating growth and development and equity as also quality of life for everyone in India. Largely built upon the successes of SSA and, like SSA, RMSA leverages support from a wide range of stakeholders including multilateral organisations, NGOs, advisors and consultants, research agencies and institutions. The scheme involves multidimensional research, technical consulting, implementation and funding support. In 2013, in its fourth year of implementation, RMSA covers 50,000 government and local body secondary schools. Besides this, an additional of 30,000 aided secondary schools can also access the benefits of RMSA; but not infrastructure and support in core areas.

The objectives of the Scheme are,

- To achieve a gross enrolment ratio of 75% from 52.26% in 2005-06 for classes IX-X within 5 years of its implementation, by providing a secondary school within reasonable distance of any habitation.
- Improve the quality of education imparted at secondary level by making all secondary schools conform to prescribed norms.
- Remove gender, socio-economic and disability barriers.
- Provide universal access to secondary level education by 2017, i.e. by the end of the 12<sup>th</sup> Five Year Plan

- Enhance and universalize retention by 2020

The Rashtriya Madhyamik Shiksha Abhiyan (RMSA), revised in 2013, has integrated among others, the Girls Hostel Scheme and National Incentive to Girls specially to encourage girls in secondary level of education. A sum of Rs.3,000/- is deposited in the name of eligible girls as fixed deposit. The girls are entitled to withdraw the sum along with interest thereon on reaching 18 years of age and on passing 10<sup>th</sup> class examination.



#### **5.11.5 Rashtriya Uchchatar Shiksha Abhiyan (RUSA):**

**Rashtriya Uchchatar Shiksha Abhiyan (RUSA):** The Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a Centrally Sponsored Scheme (CSS), launched in 2013, aims at providing strategic funding to eligible State higher educational institutions. The central funding in the scheme is in the ratio of 65:35 for general category States and 90:10 for special category states would be norm based and outcome dependent. The funding would flow from the central ministry through the State governments/Union Territories to the State Higher Education Councils before reaching the identified institutions. The funding to States would be made on the basis of critical appraisal of State Higher Education Plans, which would describe each State's strategy to address issues of equity, access and excellence in higher education. One of the objectives of RUSA is to improve equity in higher education by providing adequate opportunities of higher education to SC/STs and socially and educationally backward classes; promote inclusion of women, minorities, and differently abled persons.

**5.11.6 Mahila Samakhya (MS) Programme:** The National Policy on Education (NPE), 1986 recognised that the empowerment of women is possibly the most critical pre-condition for the participation of girls and women in the educational process. The NPE, 1986, says, "Education will be used as an agent of basic change in the status of woman. In order to neutralise the accumulated distortions of the past, there will be a well-conceived edge in favour of women. The National Education System will play a positive, interventionist role in the empowerment of women. It will foster the development of new values through redesigned curricula, textbooks, the training and orientation of teachers, decision-makers and administrators, and the active involvement of educational institutions. This will be an act of faith and social engineering..." The Mahila Samakhya programme was launched in 1988 to pursue the objectives of the National Policy on Education, 1986. It recognised that education can be an effective tool for women's empowerment, the parameters of which are:

- Enhancing self-esteem and self-confidence of women;
- Building a positive image of women by recognizing their contribution to the society, polity and the economy;
- Developing ability to think critically;
- Fostering decision making and action through collective processes;
- Enabling women to make informed choices in areas like education, employment and health (especially reproductive health);
- Ensuring equal participation in developmental processes;
- Providing information, knowledge and skill for economic independence;
- Enhancing access to legal literacy and information relating to their rights and entitlements in society with a view to enhance their participation on an equal footing in all areas.

The main focus of the programmatic interventions under the MS programme has been on developing capacities of poor women to address gender and social barriers to education and for the realisation of women's rights at the family and community levels. The core activities of the MS programme are centred around issues of health, education of women and girls, accessing public services, addressing issues of violence and social practices, which discriminate against women and girls, gaining entry into local governance and seeking sustainable livelihoods. The programme involves the formation of women's collectives or *Mahila Sanghas* at the village level by women facilitators (*sahayoginis*) for mobilizing women. The MS programme activities involve dissemination of information, awareness-building and facilitating collective actions on core themes and development of supportive structures such as *Mahila Shikshan Kendras* for the education of older girls and young women who have been never enrolled or have dropped out of school. The *Mahila Shikshan Kendras* provide condensed courses and create a cadre of educated women in backward regions. These Kendras aim at condensed quality and gender sensitive education to adolescent girls who have never gone to school, school drop-outs among girls, and adult women. The MS programme also involves setting up of *Nari Adalats* (women's courts) for addressing issues such as violence against women, among others. During the year 2012-13, the MS programme was implemented in 121 districts (563 Blocks) in ten States (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Kerala, Uttarakhand, and Uttar Pradesh. A total of 47,073 village level women's collectives (*Mahila Sanghas*) have been formed with a membership of 1.23 million women from 36,792 villages. The Sanghas have been further organized into 248 federations of which 77 are fully autonomous. Concurrently, 20,048 *Kishori Sanghas* (girls' collectives) have been formed with a membership of 453,800 girls. The *Kishori sanghas* are the sites where adolescent girl's issues and life skills are addressed. The *Kishori sangha* has emerged as an effective means of reaching older out-of school girls and of bringing girls into the mainstream of education. Over 15,000 women are representing in Panchayats as elected representatives. The Sanghas and federations are involved in the implementation of the Right to Education Act. The evaluation of the

MS programme has acknowledged Mahila Samakhya as a unique process-oriented programme which has demonstrated ways of empowering rural poor and marginalised women and thereby enabling their effective participation in the public domain and in educational and learning processes.

**5.11.7 Saakshar Bharat:** Saakshar Bharat is a Centrally Sponsored Scheme of Adult Education & Skill Development being implemented by Adult Education Bureau of Department of School Education & Literacy, Ministry of Human Resource Development to raise literacy level to 80% and reduce gender gap in literacy to 10% points by 2017. The target group of this Scheme is 15 + year old, which includes youth also.

The Saakshar Bharat Scheme was launched in 2009 and has been extended upto 31.03.2017. It is being executed by National Literacy Mission Authority at National Level, State Literacy Mission Authority at State level, Zila Lok Shiksha Samiti, Block Lok Shiksha Samiti and Gram Panchayat Lok Shiksha Samiti at District, Block and Gram Panchayat levels respectively. The principal target of the scheme is to impart Functional Literacy to 70 million non-literates adults (15+ age group) with prime focus on women having the target of 60 million out of 70 million. The emphasis is also on disadvantaged group comprising of SCs-14 million, STs-8 Million, Muslim-12 million and Others-36 million including 60 million women. The auxiliary target of the scheme is to cover 1.5 million adults under Basic Education Programme (Equivalency Programme) and equal number under Vocational (Skill Development) programme.

Under the Mission by end of September, 2014, 388 districts in 26 States and one in UT are covered. About 3.92 crore learners appeared for biannual basic literacy assessment tests conducted so far. About 2.86 crore learners (including 2.05 crore females), comprising 0.67 crore SCs, 0.36 crore STs & 0.23 crore Minorities have successfully passed the Assessment Tests under Basic Literacy conducted by National Institute of Open Schooling (NIOS), upto March, 2014. In addition, about 41 lakh learners have taken up the assessment test held in August, 2014 and 1.53 lakh Adult Education Centres are functioning as of now. 2.5 million persons have been mobilised as Voluntary Teachers; 35 million Primers in 13 Indian languages and 26 local dialects have been produced and distributed. Around 29 lakh learners have been benefited under Vocational Training programme through Jan Shikshan Sansthan between 2009 to 2014 out of which the women beneficiaries were 25.02 lakhs.

**5.11.8 Kishori Shakti Yojna and Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) –‘SABLA’:** The Ministry of Women and Child Development, Government of India, in the year 2000 came up with scheme called “Kishori Shakti Yojna”(KSY) using the infrastructure of Integrated Child Development Services(ICDS). The objectives of the Scheme were to improve the nutritional and health status of girls in the age group of 11-18 years as well as to equip them to improve and upgrade their home-based and vocational skills; and to promote their overall development including awareness about their health, personal hygiene, nutrition, family welfare and management. Kishori Shakti Yojana (KSY) seeks to empower adolescent girls, so as to enable them to keep charge of their lives. Thereafter, Nutrition Programme for Adolescent Girls (NPAG) was initiated as a pilot project in the year 2002-03 in 51 identified

districts across the country to address the problem of under-nutrition among adolescent girls. Under the programme, 6 kg of free food grains per beneficiary per month are given to underweight adolescent girls. The above two schemes have influenced the lives of Adolescent Girls (AGs) to some extent, but have not shown the desired impact. Moreover, the above two schemes had limited financial assistance and coverage besides having similar interventions and catered to more or less the same target groups. A new comprehensive scheme with richer content, merging the erstwhile two schemes addressing the multi-dimensional problems of Adult Girls, called Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG) –‘SABA’ replaced KSY and NPAG in the selected districts. KSY would be continued (where operational) in remaining districts. Rajiv Gandhi Scheme for Empowerment of Adolescent Girls - SABA is implemented using the platform of ICDS Scheme through Anganwadi Centers (AWCs). SABA aims at empowering Adult Girls of 11 to 18 years by improving their nutritional and health status, upgradation of home skills, life skills and vocational skills. The scheme also aims to mainstream out –of –school children to formal education or non –formal education.

**5.11.9 Support to Training and Employment Programme (STEP):** The STEP Scheme was launched as a central sector Scheme in 1986 -87. The scheme aims to make a significant impact on women by upgrading skills for employment on a self- sustainable basis and income generation for marginalised and asset-less rural and urban women especially those in SC/ ST households and families below poverty line. The key strategies include training for skill development, mobilising women in viable groups, arranging for marketing linkages and access to credit. The scheme also provides for support services in the form of health check –ups, child care, legal & health literacy and gender sensitisation. The scheme covers 10 sectors of employment i.e. Agriculture, Animal husbandry, Dairying, Fisheries, Handlooms, Handicrafts, Khadi and Village Industries, Sericulture, Waste land development and Social Forestry. The scope and coverage of the scheme has been enlarged with the introduction of locally appropriate sectors.

**5.11.10 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):** The MGNREGA guarantees 100 days of employment in a financial year to any rural household whose adult members are willing to do unskilled manual work. One of the major goals of MGNERGA is to ensure empowerment of women. It is provided in the Act that while providing employment, priority shall be given to women in such a way that at least one third of the beneficiaries shall be women who have registered and requested for work under the Act. The women workforce participation under the scheme has surpassed the statutory minimum requirement of 33% and the trends indicate an increase in the participation rate at the national level. Since inception women participation has been around 48%.

**5.11.11 Beti Bachao Beti Padhao (BBBP):** The new scheme Beti Bachao Beti Padhao was launched on 22/1/2015 with the overall goal of the scheme is to celebrate the girl child and enable her education. The objectives are

- Prevent gender baised sex selection elimination

- Ensure survival and protection of the girl child
- Ensure education of the girl child

The BBBP is an initiative to arrest and reverse the decline in Child Sex Ratio. Through this process, efforts to empower women, provide them dignity and opportunities will be enhanced. Implementation is through a national campaign and focussed multi sectoral action in 100 selected districts, covering all States and UTs. This is a joint initiative of the Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development. Guddi Gudda Boards will display gender data related to birth at prominent public places. Data on Sex Ratio at Birth (SRB) will be publicised.

The commitments proclaimed under BBBP are

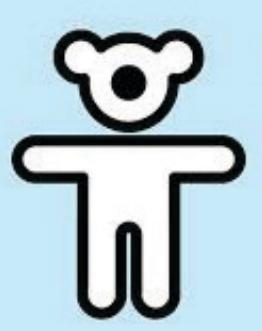
- ✓ Celebrate the birth of girl child
- ✓ Take pride in daughters and oppose the mentality of 'Paraya Dhan'
- ✓ Find ways to promote equality between boys and girls
- ✓ Secure admission to & retention of girl child in schools
- ✓ Engage men and boys to challenge gender stereotypes and roles
- ✓ Report any incident of sex determination test
- ✓ Strive to make neighbourhood safe & violence free for women and girls
- ✓ Oppose dowry and child marriage
- ✓ Advocate simple weddings
- ✓ Support women's right to inherit and own property.

The BBBP scheme has been visualized as a key scheme that aims to address the dipping child sex

**Gender equality and women empowerment plays a central role in reducing poverty, promoting development and addressing many other challenges. Education being the most basic step towards this objective, it is essential to continue the initiatives directed to improve the situation of participation in all levels of education by both genders.**

\* \* \* \* \*





**REDUCE  
CHILD MORTALITY**

## Chapter 6



# CHAPTER 6

## Reducing Child Mortality

Children are the most valuable assets for every country. A child's life is highly vulnerable to various diseases and substantial number of children lose their lives every day all around the world. In many cases, the child mortality happens due to causes which are preventable with adequate attention and care. The Millennium Development Goal 4 highlights the urgent need for reducing child mortality.



### Goal 4: REDUCE CHILD MORTALITY

**TARGET 5: Reduce by two-thirds, between 1990 and 2015, the under-five Mortality Rate**

#### Indicators

**13. Under- Five Mortality Rate**

**14. Infant Mortality Rate**

**15. Proportion of one year old children immunised against measles**

## Witnessing faster decline in child mortality.....

### Indicator: Under- Five Mortality Rate

**6.2.** The under-five mortality rate (U5MR) is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates. Majority of the under five deaths are neonatal deaths which are mainly due to complications and infections happened during birth. In addition to this, the U5MR is sensitive to a wide variety of drivers such as the nutritional status of mothers, level of immunization, availability of child and maternal care services, economic conditions in the family, etc.

**6.3.** In India, the Office of the Registrar General of India (ORGI) regularly releases reliable estimates of fertility and mortality

using data collected through Sample Registration System (SRS). Under Five Mortality Ratio (U5MR) was estimated at 125 deaths per 1000 live births in 1990. In order to achieve the Target 5, the U5MR is to be reduced to 42 deaths per 1000 live births by 2015. As per SRS 2013, the U5MR is at 49 deaths per 1000 live births and as per the historical trend, it is likely to reach 48 deaths per 1000 live births, missing the target narrowly. However, an overall reduction in U5MR of nearly 60% happened during 1990 to 2013, registering a faster decline in the recent past, and if this rate of reduction is sustained, the achievement by 2015 is likely to be very close to the target by 2015.

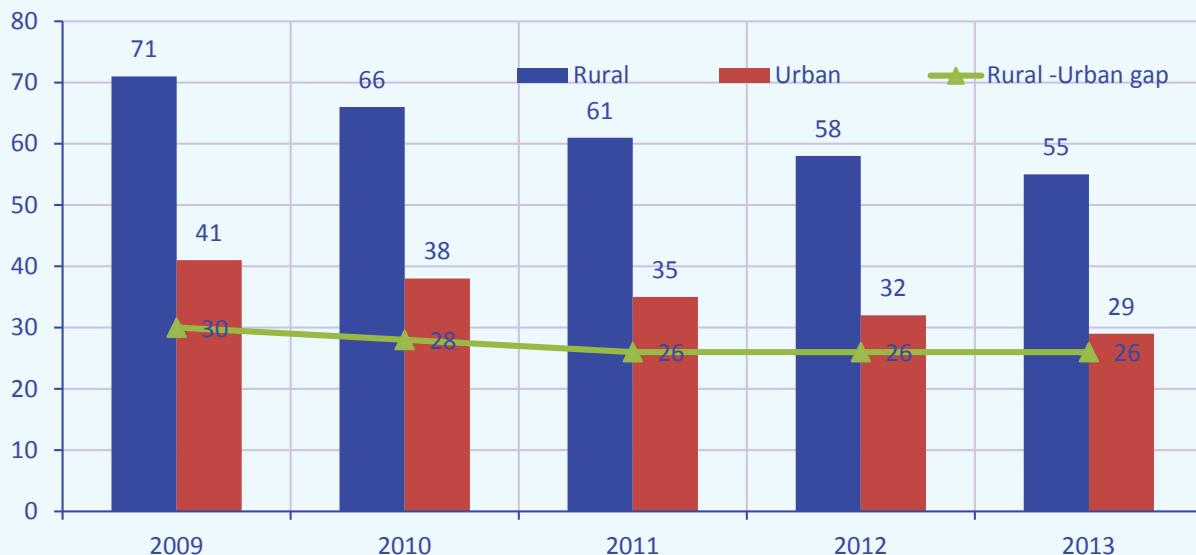
**Fig.6.3.1: Trend in U5MR**



Source: NFHS, SRS

**6.4.** In India, the rural areas, registered high U5MR compared to the urban areas. As per the latest SRS data, in 2013, the U5MR in rural and urban areas are 55 and 29 deaths per 1000 live births respectively. During 2009-13, the Urban U5MR declined by 12 points from 41 to 29 deaths per 1000 live births while the decline noted in rural U5MR during the same period was 16 points from 71 to 55 deaths per 1000 live births. During this period, the rural – urban gap in U5MR also declined marginally, however, the urban U5MR continued to be lower than rural U5MR by more than 40% of the corresponding rural status.

**Fig. 6.4.1: Trend in U5MR by residence**

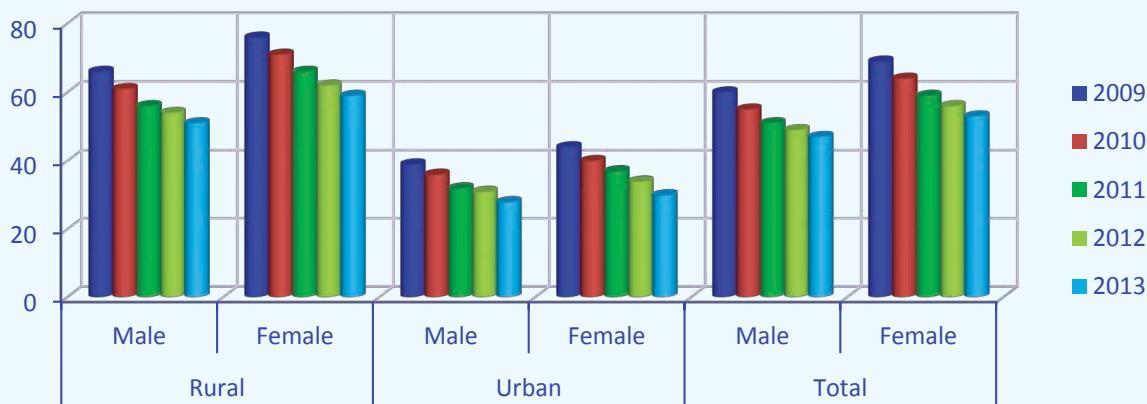


Source: Sample Registration System, Office of Registrar General of India

**6.5.** In India, Under Five Mortality Rate is higher for females than males at all India level and this is true for both rural and urban areas. The gap between female U5MR and male U5MR was higher in rural areas. As per the latest SRS data, in 2013, at all India level, the U5MR for female and male children are 53 and 47 deaths per 1000 live births respectively. In 2013, in rural areas, U5MR was 59 for females whereas for males it was 51 and in urban areas, U5MR is 30 for female children and 28 for male children.

During 2009-2013, at all India level, the U5MR for male children declined from 60 to 47 deaths per 1000 live births, while the reduction in female U5MR was from 69 to 53 deaths. In rural areas, the decline in U5MR for male children was from 66 to 51 deaths per 1000 live births, whereas the female U5MR declined from 76 to 59 deaths per 1000 live births during this period. In urban areas, the decline in U5MR

**Fig. 6.5.1: Trend in U5MR by Sex**



Source: Sample Registration System, Office of Registrar General of India

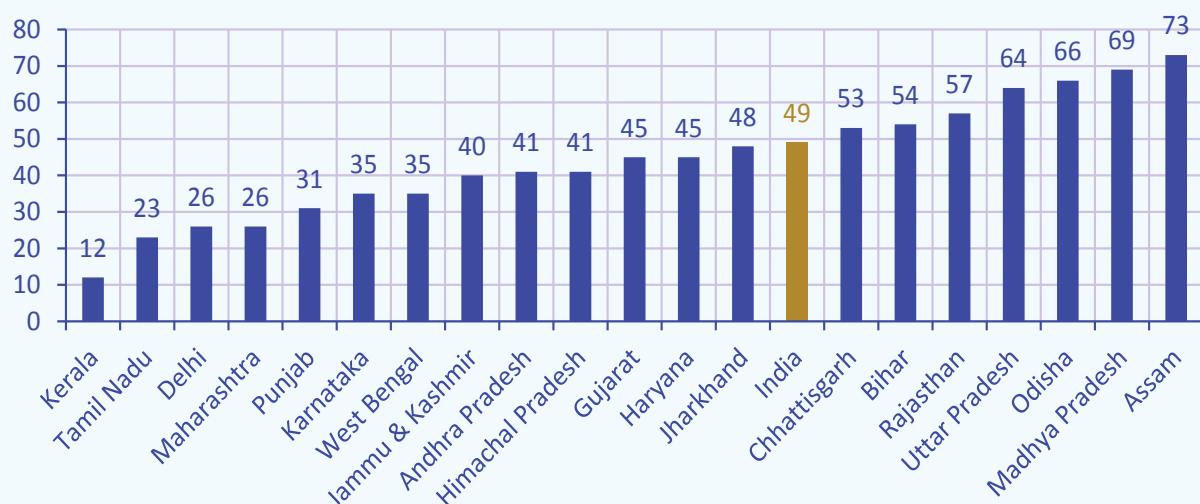
for male children was from 39 to 28 deaths per 1000 live births, whereas the female U5MR declined from 44 to 30 deaths per 1000 live births during this period.

The NFHS 3 (2005- 06) results had emphasised the importance of female education in reducing the child mortality as U5MR decreased rapidly with increasing level of mothers' education.

### **Progress achieved by States in reducing U5MR**

**6.6.** Significant inter State and intra State (by residence, by sex) variations exist in U5MR. In 2013, the lowest U5MR was registered in Kerala (12) followed by Tamil Nadu (23), Delhi (26) and Maharashtra (26). The highest U5MR was recorded in Assam (73), followed by Madhya Pradesh (69), Odisha (66) and Uttar Pradesh (64) and in addition to these States, Rajasthan (57), Bihar (54), and Chhattisgarh (53) had U5MR higher than the national level estimate (49).

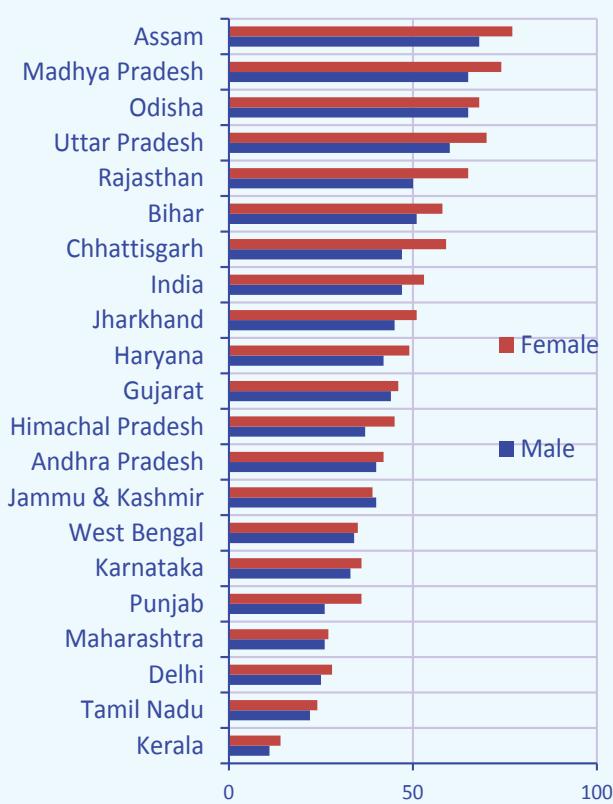
**Fig. 6.6.1 U5MR 2013**



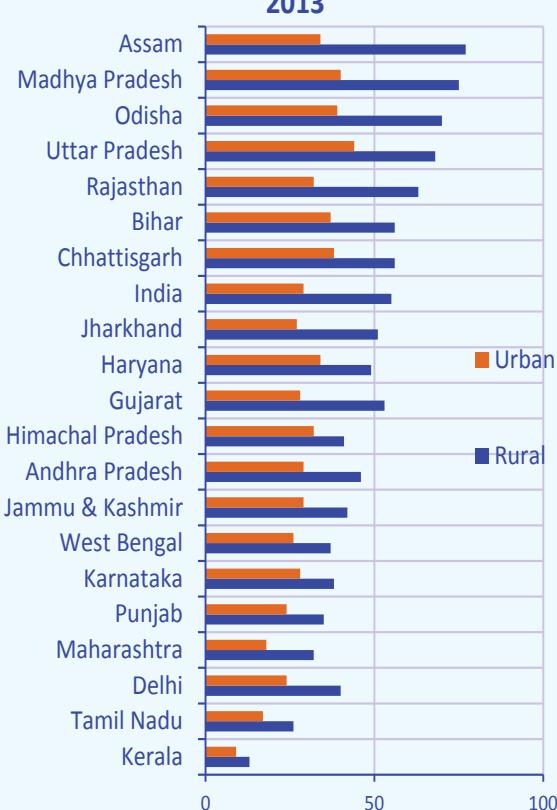
Source: Sample Registration System, Office of Registrar General of India

**6.7.** In 2013, in all States, except Jammu & Kashmir (male:40, female:39), U5MR is higher among females than males. The States in which significant ( $\geq 10$  points) gap existed in female – male U5MR are, Punjab (male:26, female:36), Uttar Pradesh (male:60, female:70), Chhattisgarh (male:47, female:59), and Rajasthan (male :50, female:65). Considerable ( $> 30$  points) Rural – Urban gap existed in Rajasthan (Rural:63, Urban:32), Odisha (Rural:70, Urban:39), Madhya Pradesh (Rural:75, Urban:40), and Assam (Rural:77, Urban:34),

**Fig.6.7.1: U5MR by Sex in States 2013**



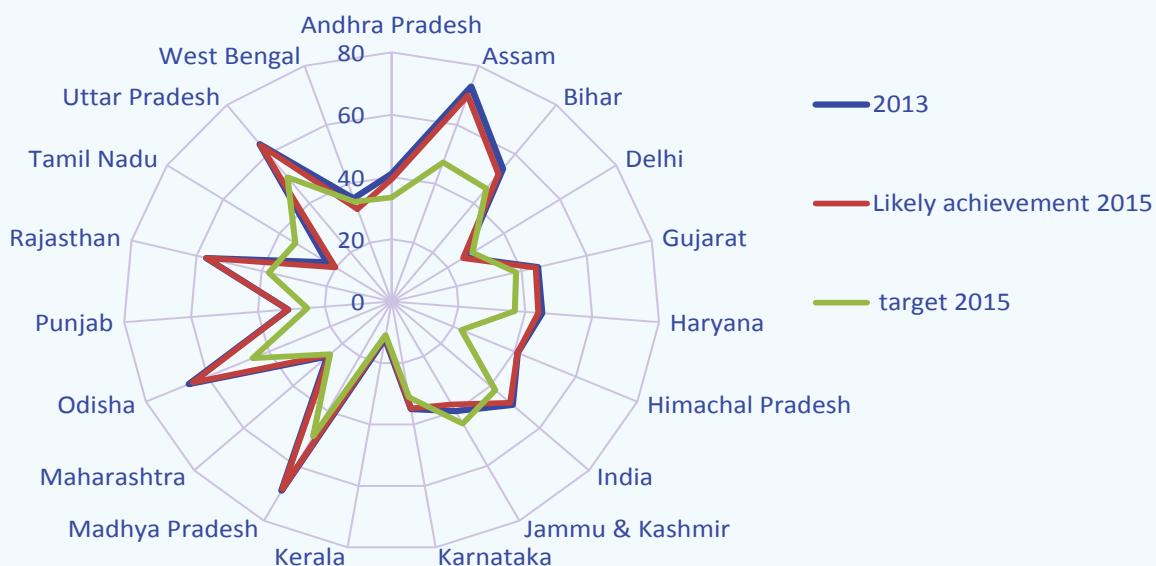
**Fig.6.7.2: U5MR by residence in States 2013**



Source: Sample Registration System, Office of Registrar General of India

**6.8.** While examining the performance of States in reducing the U5MR, it is evident that, all States have achieved considerable progress. The bright line is that, even the States with high U5MR have made impressive improvement in reducing U5MR by nearly 18-20 points during 2009 - 2013. The improvement is seen for both sexes and in urban & rural areas. The States of Andhra Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu and West Bengal have already crossed the national level target of U5MR. The States of Delhi, Jammu & Kashmir, Tamil Nadu, and Kerala have already reached their respective State level target for U5MR and Maharashtra & West Bengal is likely to reach their respective targets by 2015. The States of Karnataka, Punjab, Andhra Pradesh, Bihar, Gujarat and Haryana are likely to reach very close to their respective State level targets. The States of Uttar Pradesh, Himachal Pradesh, Rajasthan, Madhya Pradesh, Odisha, and Assam are likely to miss their respective State level targets by significant (> 10 points) gap.

**Fig.6.8.1: Trend in U5MR in States- likely achievement vis -a-vis target 2015**

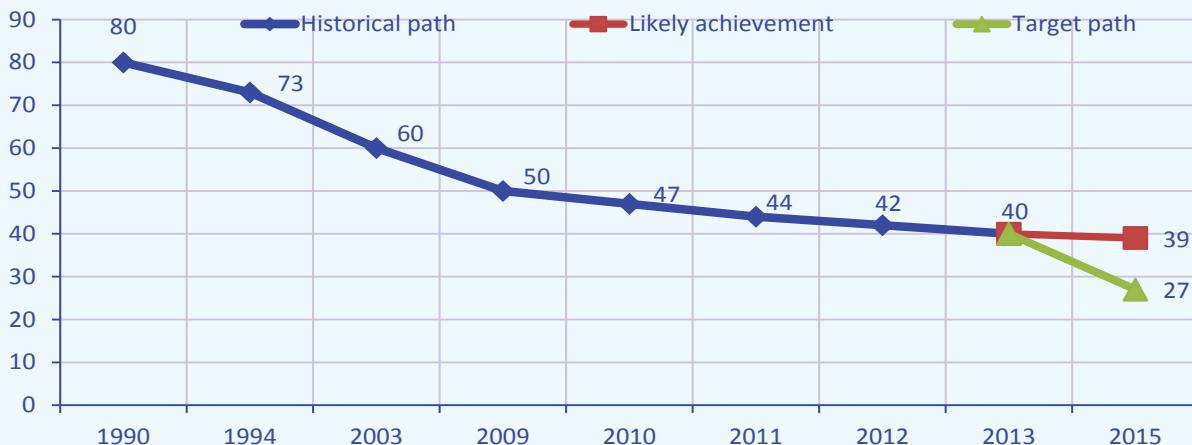


Source: NFHS – M/o Health and Family Welfare, SRS – Office of Registrar General of India

### Indicator: Infant Mortality Rate

**6.9.** The Infant Mortality Rate (IMR) is the number of death in children under 1 year of age per 1000 live births. The factors influencing infant mortality are likely to influence the health status of the whole population such as health of mothers and extent of pre/post natal care, general living conditions, rates of illness, their economic development and the quality of the environment. Thus IMR is a very sensitive indicator of health not only for children but also for the population as a whole. High neo - natal (less than 29 days of birth) mortality still continues to be a significant contributor to the infant mortality rate in India. In 2013, at national level, 68% of the total infant deaths were neo - natal deaths. At national level, the neo – natal mortality rate is 28 and ranges from 15 in urban areas to 31 in rural areas. Among the bigger States, neo – natal mortality ranges from 37 in Odisha to 6 in Kerala. In India, IMR was estimated at 80 per 1,000 live births in 1990. As per SRS 2013, the IMR is at 40 and as per the historical trend; it is likely to reach 39 by 2015, against the target of 27 infant deaths per 1000 live births by 2015. However, with the sharp decline in the recent years, the gap between the likely achievement and the target is expected to be narrowed.

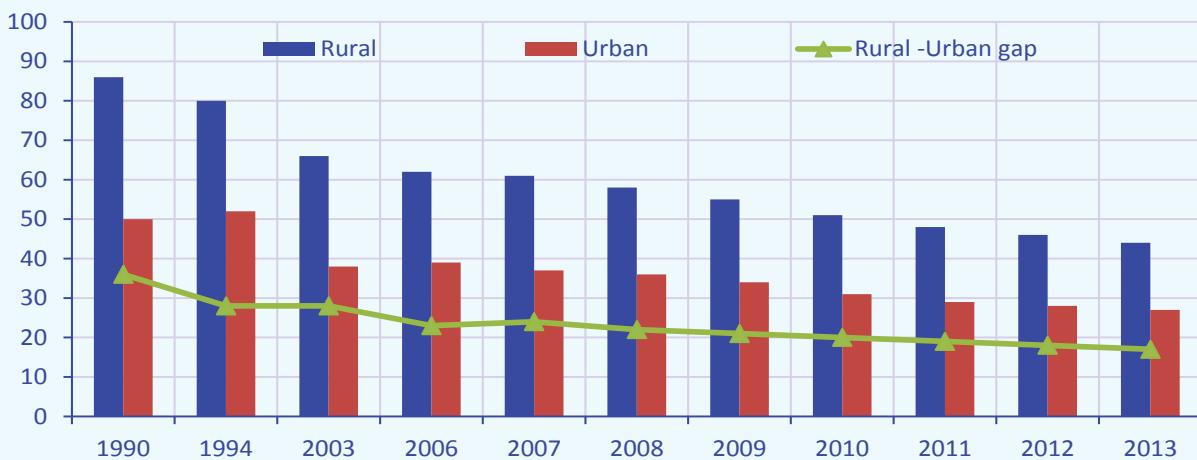
**Fig.6.9.1: Trend in IMR**



Source: Sample Registration System, Office of Registrar General of India

**6.10.** In India, the Sample Registration System 2013 reveals that, 12.4% of the total deaths were infant deaths. Significant decline in IMR has been observed both in rural and urban areas over years. However, IMR in the rural areas continues to be at a much higher level than the urban IMR. Although the rural urban gap is slowly decreasing, the latest data show that even in 2013 the rural - urban gap in IMR is significant (rural IMR: 44 , urban IMR: 27).

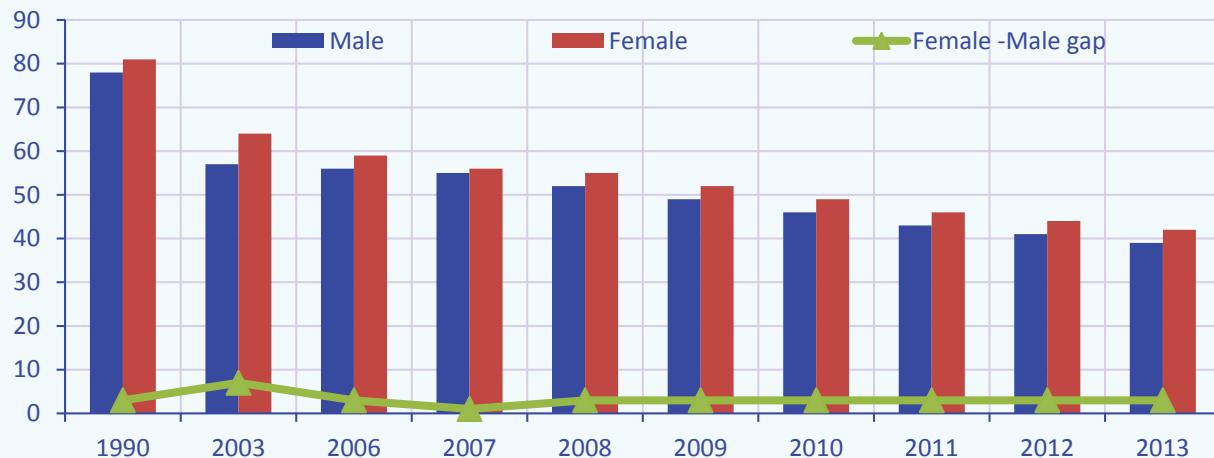
**Fig.6.10.1: Trend in IMR by residence**



Source: Sample Registration System, Office of Registrar General of India

**6.11.** It is seen that IMR is more for female babies than male babies and in 2013, female IMR is at 42, whereas male IMR is 39 per 1000 live births. During 1990 to 2013, female IMR has declined from 81 to 42 infant deaths per 1000 live births and the decline in male IMR is from 78 to 39 infant deaths per 1000 live births.

**Fig.6.11.1: Trend in IMR by Sex**

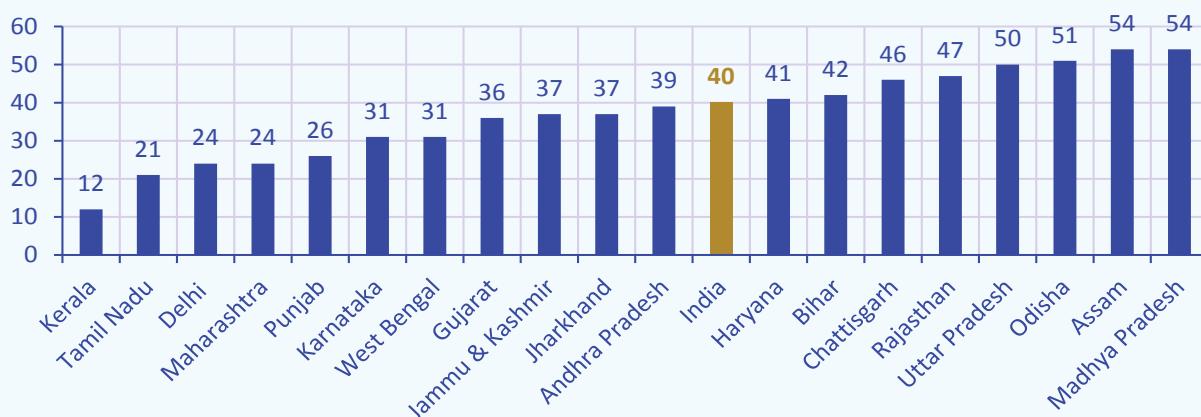


Source: Sample Registration System, Office of Registrar General of India

### Performance of States in reducing IMR

**6.12.** In a vast and diverse Country like India, there exists considerable variation in the level of IMR at the States level. Among the bigger States, IMR is lowest in Kerala (12), followed by Tamil Nadu (21), Delhi (24) and Maharashtra (26). The highest IMR is in Madhya Pradesh (54) and Assam (54), followed by Odisha (51), Uttar Pradesh (50) and Rajasthan (47). In addition to these States, Chhattisgarh (46), Bihar (42) and Haryana (41) recorded IMR higher than the national level estimate.

**Fig.6.12.1: IMR -Bigger States -2013**



Source: Sample Registration System, Office of Registrar General of India

**6.13.** In 2013, as observed at all India level, the female IMR was higher than male IMR in all the bigger States. The gap in female – male IMR is highest in Rajasthan (male IMR-45, female IMR- 49). Also in all the bigger States, IMR is higher in rural areas compared to urban areas. Considerable ( $\geq 10$  points)

rural – urban gap in IMR existed in all the bigger States except, Kerala, Punjab, West Bengal, Tamil Nadu, Bihar and Chhattisgarh. The rural – urban gap in IMR is highest in Assam (Rural IMR- 56, Urban IMR -32), followed by Rajasthan (Rural IMR- 51, Urban IMR -30), Gujarat (Rural IMR- 43, Urban IMR -22) and Madhya Pradesh (Rural IMR- 57, Urban IMR -37).

**Fig.6.13.1: IMR by Sex in bigger States**

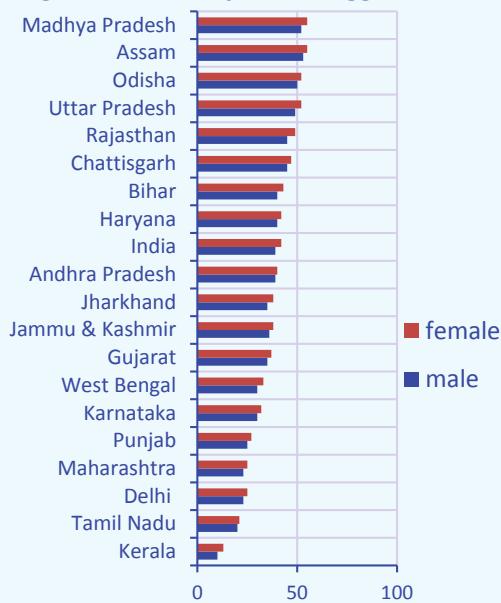
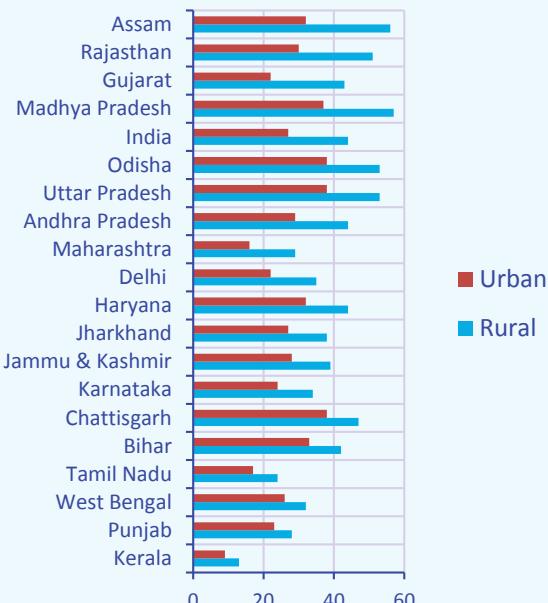


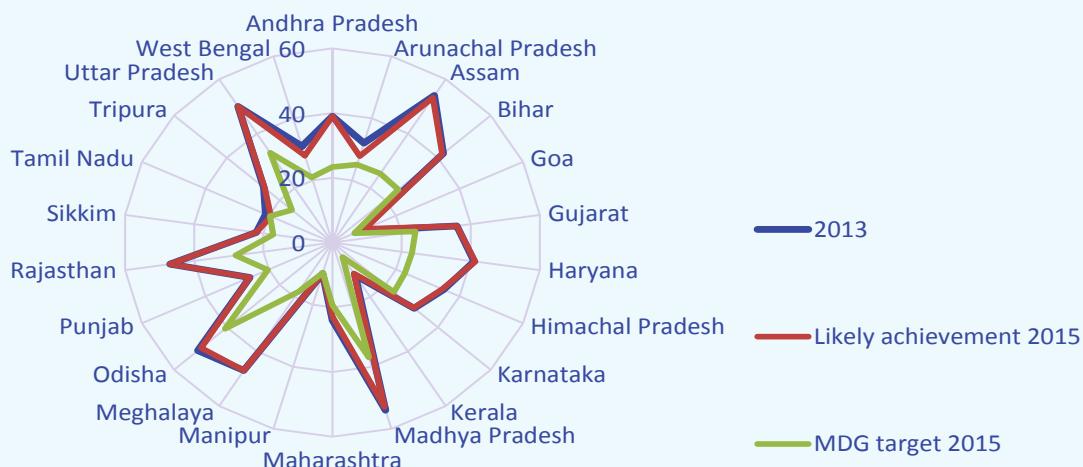
Fig.6.13.2: IMR by residence in bigger States 2013



*Source: Sample Registration System, Office of Registrar General of India*

**6.14.** The States of Delhi, Goa, Kerala, Maharashtra, Manipur, Nagaland, Punjab, Sikkim, Tamil Nadu, and Tripura have already achieved the MDG target at national level and the States of Arunachal Pradesh, Karnataka, Uttarakhand and West Bengal are likely to be very near to the national level target by 2015. The States of Tamil Nadu and Manipur are likely to reach their respective State level target for

**Fig.6.14.1 Trend in IMR - Likely achievement vis -a -vis target 2015**



*Source: Sample Registration System, Office of Registrar General of India*

IMR. The States of Arunachal Pradesh, Goa, Maharashtra, Sikkim, Punjab, Kerala, West Bengal, Karnataka, Odisha and Tripura are likely to be close ( $<=10$  points) to their respective MDG targets. The States of Assam and Meghalaya are likely to miss their respective MDG target for IMR with huge ( $>20$  points) margin.

### **Indicator: Proportion of one year old children immunised against measles.**

**6.15.** The proportion of 1-year-old children immunized against measles is the percentage of children under one year of age who have received at least one dose of measles vaccine. The indicator provides a measure of the coverage and quality of the child health-care system in the country with the assumption that its level of coverage is likely to represent coverage by other antigens like BCG, DPT, and polio as well, as these are given before the antigen of measles could be given. Besides, among these vaccine-preventable diseases of childhood, measles is the leading cause of child mortality. In order to achieve the prescribed MDG target for reducing child mortality, it is desirable to achieve 100% coverage of one year old children immunised against measles. The Coverage Evaluation Survey (CES), 2009 carried out by UNICEF and Government of India, shows that, India is lagging in the task of achieving universal coverage of one year old children immunised against measles. The CES estimates the proportion of one year old children immunised against measles at 74% in 2009. Although, there is substantial improvement in the coverage which was 42% in 1992-93, yet at this rate of improvement, India is likely to achieve about 89% coverage by 2015 and thus India is likely to fall short of universal coverage.

**6.16.** There is also a rural-urban gap in the coverage of measles immunisation as in the rural areas the coverage is 72% as compared to 78% in the urban areas. The coverage of measles immunisation was nominally high in case of male children (74.8%) than female children (73.2%). The extent of coverage is found to be highly correlated with mother's education level. While only 59% of children of mothers with no education were immunised against measles, the extent of coverage steadily increased to 85% for children born to mothers with 12 or more years of education. While only 61% of the children below one

**Fig.6.16.1 Proportion of One year old immunised against measles (%)**



Source: National Family Health Survey, District Level Household Survey, Coverage Evaluation Survey, M/o Health and Family Welfare

year belonging to the lowest wealth quintile were immunised, the coverage steadily increased with the family wealth index reaching the highest coverage of 83.5% for children belonging to the highest wealth quintile.

### **Performance of States in improving the coverage of vaccination against measles**

**6.17.** There exists considerable inter-state and intra-state variation in immunisation coverage against measles. More than 90% children of age one year have received measles vaccination in Andhra Pradesh (90.4%), Maharashtra (91.2%), Goa (91.5%) and Himachal Pradesh (96.2%), whereas the percentage of such children was as low as 48.2% in Arunachal Pradesh, 52.2% in Nagaland and 52.8% in Uttar Pradesh.

<b>Table 6.17.1: Performance of States in improving the coverage of vaccination against measles</b>								
Percentage of one year children				Percentage of one year children				
Immunised against measles, better performing States in 2009				Immunised against measles, lesser performing States in 2009				
States	Rural	Urban	Total	States	Rural	Urban	Total	
Punjab	87.9	86.1	87.3	Arunachal Pradesh	49.8	42.3	48.2	
Sikkim	86.5	96.1	87.8	Nagaland	51.8	54.3	52.2	
Tamil Nadu	89.9	86.5	88.4	Uttar Pradesh	50.5	61.8	52.8	
Karnataka	89.8	90.2	89.9	Bihar	58.0	59.3	58.2	
Andhra Pradesh	92.4	85.3	90.4	Manipur	56.7	70.5	60.3	
Maharashtra	91.1	91.2	91.2	Madhya Pradesh	57.4	74.5	61.9	
Goa	97.1	85.8	91.5	Rajasthan	66.7	61.9	65.6	
Himachal Pradesh	97.1	87.9	96.2	Tripura	66.3	81.0	68.8	

Source: Coverage Evaluation Survey 2009

Going by their historical rate of increase in coverage, 16 States/UTs are expected to achieve universal coverage in measles immunization of one year olds by 2015 and 8 more States are likely to perform better than the national coverage level in immunisation of one-year olds against measles by 2015. Among the major States, Uttar Pradesh, Mizoram, Chhattisgarh and Haryana are likely to miss the target by a large margin.

### **Focussed initiatives to reduce child mortality....**

**6.18.** The various Ministries under the Government of India is implementing various child centric policies and programmes which are vigorously attending the issues related to child health.

**6.18.1 National Policy on Children 2013:** India is home to the largest child population in the world. Declaring its children as the nation's "supremely important asset" in the National Policy for Children, 1974, the Government of India reiterated its commitment to secure the rights of its children by

ratifying related international conventions and treaties. The National Charter for Children, 2003 adopted on 9<sup>th</sup> February 2004, underlined the intent to secure for every child, its inherent right to be a child and enjoy a healthy and happy childhood, to address the root causes that negate the healthy growth and development of children, and to awaken the conscience of the community in the wider societal context to protect children from all forms of abuse, while strengthening the family, society and the Nation. To affirm the Government's commitment to the rights based approach in addressing the continuing and emerging challenges in the situation of children, the Government of India adopted the National Policy for Children, 2013. This policy affirmed that survival, health, nutrition, development, education, protection and participation are the undeniable rights of every child and are the key priorities of the policy. The policy emphasised that the right to life, survival, health and nutrition is an inalienable right of every child and will receive the highest priority.

#### **6.18.2 National Policy on Early Childhood Care and Education (ECCE):**

The Ministry of Women and Child Development has formulated the National Early Childhood Care and Education (ECCE) policy and the same has been notified in October 2013. The policy lays down the way forward for a comprehensive approach towards ensuring a sound foundation for survival, growth and development of child with focus on care and early learning of every child. It recognises the synergistic and interdependent relationship between the health, nutrition, psycho-social and emotional needs of the child. In view of the furtherance of the objectives of the national ECCE policy the national ECCE curriculum framework, quality standards for ECCE and Age Appropriate Child Assessment Cards have been formulated and circulated to all states and UTs.



**6.18.3 The Integrated Child Development Services (ICDS) Scheme:** The Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world's largest programmes for Early Childhood Development. The beneficiaries under the Scheme are children in the age group of 0-6 years, pregnant women and lactating mothers. This Scheme has improved over the years and restructured to address the emerging issues and demands of the time, and has evolved as the foremost tool of to break the vicious circle of child morbidity and mortality along with other objectives. The objectives of the Scheme are:

- I. To improve the nutritional and health status of children in the age-group 0-6 years;
- II. To lay the foundation for proper psychological, physical and social development of the child;

- III. To reduce the incidence of mortality ,morbidity, malnutrition and school dropout;
- IV. To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and
- V. To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

The components of Supplementary Nutrition, Immunisation, Health Check- up and Referral Services are targeting children less than 6 years along with pregnant and lactating mothers. The supplementary nutrition includes supplementary feeding and growth monitoring and prophylaxis against vitamin A deficiency and control of nutritional Anaemia. Immunisation of pregnant women and infants protects children from six vaccine preventable diseases i.e. poliomyelitis, diphtheria, pertussis, tetanus, tuberculosis and measles. Immunisation of pregnant women against tetanus also reduces maternal and neo-natal mortality. Health check-ups include health care of children less than six years of age, in addition to the care to expectant and nursing mothers. The various health services provided for children by Aganwadi workers and Primary Health Centre Staff include regular health check-up, recording of weight, immunisation, management of malnutrition, treatment of diarrhoea, de-worming and distribution of simple medicines, etc. During health check-ups and growth monitoring, sick or malnourished children, in need of prompt medical attention, are referred to the Primary Health Centre or its sub-centre. The Aganwadi workers have also been oriented to detect disabilities in young children. She enlists all such cases in a special register and refers them to the Primary Health Centre/ Sub- Centre. At present, nearly 14 lakh Anganwadi Centres (includes a provision of 20,000 AWC on demand) have been approved.



**6.18.4 National Health Mission:** The child health programme under the National Health Mission (NHM) comprehensively integrates interventions that improve child survival and addresses factors contributing to infant and under-five mortality. It is now well recognised that child survival cannot be addressed in isolation as it is intricately linked to the health of the mother, which is further determined by her health and development as an adolescent. Therefore, the concept of 'Continuum of Care', that emphasises on care during critical life stages in order to improve child survival, is being followed under the national programme. Another dimension of this approach is to ensure that critical services are made available at home, through community outreach and through health facilities at various levels (primary, first referral units, tertiary health care facilities). The newborn and child health are now the two key pillars of the Reproductive, Maternal, Newborn, Child and Adolescent health (RMNCH+A) strategic approach, 2013.

#### **NEWBORN AND CHILD HEALTH INTERVENTIONS:**

##### **16.8.4.1 FACILITY BASED NEWBORN CARE**

Facility Based Newborn Care (FBNC) is one of the key components under the National Health Mission to improve the status of newborn health in the country. A continuum of newborn care has been established with the launch of home based and facility based newborn care components ensuring that every newborn receives essential care right from the time of birth and first 48 hours at the health facility and then at home during the first 42 days of life. Newborns identified as sick or preterm /low birth weight soon after birth or during home visit are referred to special newborn care facilities for further management and long term follow up after discharge. Newborn Care Corners (NBCCs) are established at delivery points to provide essential newborn care at birth, while Special Newborn Care Units (SNCUs) and Newborn Stabilization Units (NBSUs) provide care for sick newborns. As on December 2014, a total of 14,135 NBCCs, 1,810 NBSUs and 550 SNCUs have been made operational across the country.

- **SNCU Online Reporting Network** is being established in 7 States with 245 SNCUs to generate real time data. About 2.5 lakhs newborns have been registered in the data base.
- **Janani Shishu Suraksha Karyakram (JSSK)**: Complete elimination of out of pocket expenses with provision of free transport, drugs, diagnostics and diet to all sick new borns and infants is being ensured in the country. About 12 lakhs sick infants availed services under JSSK till December, 2014 in 2014-15.
- 1.3 lakhs health care providers have been trained in essential newborn care and resuscitation under **Navjaat Shishu Suraksha Karyakram (NSSK)** programme that are placed at delivery points.
- **Ensuring Injection Vitamin K in all the births in the facility**: All the public and private health facilities should ensure single dose of Injection Vitamin K prophylaxis at birth even at the sub centre by ANM. A detailed operational guideline has developed and disseminated in September, 2014.
- **Up scaling of Kangaroo Mother Care (KMC) in health facility**: Up to half a million newborns could be saved each year if kangaroo care was promoted everywhere. Each State to have a model unit for

training site and all the rest of the units can start with renovation and some additions. A detailed operational guideline has developed and disseminated in September, 2014.

- **Empowering frontline health service providers:** The ANMs are now empowered to give a pre referral dose of antenatal corticosteroid (Injection Dexamethasone) in pregnant women going into preterm labour and pre-referral dose of Injection Gentamicin and Syrup Amoxicillin to newborns for the management of sepsis in young infants (upto2 months of age). Availability of logistics, Capacity building and job-aides will be ensured for implementing the activities. A detailed operational guideline has developed and disseminated in September, 2014.
- **National Training Package for Facility Based Newborn Care:** has been developed with participation of national neonatal experts in the Country. This package will improve the cognitive knowledge and build psychomotor skills of the medical officers and staff nurses posted in these units to provide quality newborn care.
- **India Newborn Action Plan (INAP):** On 18<sup>th</sup> Sept 2014, India Newborn Action Plan was launched in response to Global Newborn Action Plan. INAP lays out a vision and a plan for India to end preventable newborn deaths, accelerate progress, and scale up high-impact yet cost-effective interventions. INAP has a clear vision supported by goals, strategic intervention packages, priority actions, and a monitoring framework. For the first time, INAP also articulates the Government of India's specific attention on preventing still births. With clearly marked timelines for implementation, monitoring and evaluation, and scaling-up of proposed interventions, it is expected that all stakeholders working towards improving newborn health in India will stridently work towards attainment of the goals of “Single Digit Neonatal Mortality Rate by 2030” and “Single Digit Still Birth Rate by 2030”.

#### **16.8.4.2 HOME BASED NEWBORN CARE SCHEME**

Keeping the spirit of continuum of care facility based care is linked to home based newborn care which provides opportunity for early diagnosis of danger signs, prompt referral to an appropriate health facility with provision for newborn care facility, saves lives. All the rural live births are targeted to receive home based new born care through series of home visit by ASHAs and as a result ASHA is being paid of Rs. 250/- on completion of the visit. The sick and low birth weight babies will need extra visits. More than 20 lakhs newborns are visited by ASHAs as on December, 2014. In addition, ASHAs are now entitled to receive incentive of Rs. 50/- for ensuring monthly follow up of low birth weight babies and newborns discharged after treatment from Specialized New Born Care Units.

#### **16.8.4.3 CHILD DEATH REVIEW**

Child health division, Ministry of Health & Family Welfare have developed the operational guideline of Child Death Review (CDR) and disseminated on 18<sup>th</sup> September, 2014. CDR is being implemented across the country for the corrective action for implementation of Child Health Interventions as per detailed review of causes of death and reason for delay if any for Neonate, Infant and Child deaths

#### **16.8.4.4 INFANT AND YOUNG CHILD FEEDING (IYCF)**

Promotion of optimal IYCF practices and management of lactational failure/breast related conditions such as Home Based New Born Care visitations, Village Health Nutrition Day (VHND), Outreach sessions for Routine Immunisation, RI sessions at facilities, management of newborn and childhood illnesses at community level. Provision has been made for trainings of Medical Officer, frontline workers on the subject at every level of Health facility, nutritional counsellor at high case load facilities, Information, Education and Communication (IEC) and Behaviour Change Communication (BCC) as well monitoring of the programme.

#### **16.8.4.5 NUTRITIONAL REHABILITATION CENTRES (NRC)**

Nutritional Rehabilitation Centers are facility based units providing medical and nutritional therapy to children with Severe Acute Malnourished under 5 years of age with medical complications. In addition special focus is on improving the skills of mothers on child care and feeding practices so that child continues to receive adequate care at home. Expansion of NRCs has been ensured in High Need Areas such tribal blocks. A total of 875 NRCs have been established in the country as on September, 2014. The training package for facility based care of Severe Acute Malnutrition in Children has been developed to train staff of Nutritional Rehabilitation Centres on diagnostic and treatment protocols. The package aims to improve the clinical skills of the Medical Officers and Nursing staff of NRCs, particularly for the management of children with SAM (Severe Acute Malnutrition). In addition, ASHAs are now entitled to receive incentive of Rs. 150/- for follow up visits after child is discharged from facility or community based SAM management and till MUAC (Mid -Upper Arm Circumference)is equal to or more than 125mm.

#### **16.8.4.6 SUPPLEMENTATION WITH MICRONUTRIENTS**

- ✓ **Iron Folic Acid Supplementation and deworming to children (6 months to 59 months) and children (6-10 years):** Bi-weekly IFA syrup to children 6m – 5 years and weekly IFA tablets to children (6-10 years) and bi-annual deworming to children 1-10 years is part of the **National Iron Plus Initiative**, which lays a renewed emphasis on tackling high prevalence of anaemia comprehensively across age groups. The national guidelines have been released by Ministry of Health & Family Welfare, in January, 2013. The details of the guidelines have been circulated to all states and UTs for compliance. States/ UTs have budgeted for the components in the NHM PIP 2014-15. 99.47 lakhs IFA syrup given to the Children as on December, 2014.
- ✓ **Vitamin A Supplementation in under-five children:** Under the national programme, 1<sup>st</sup> dose of Vitamin A (1 lakh I.U.) is being given to the child at the time of immunization at 9 months of age, and thereafter, the child is administered doses of Vitamin A (2 lakh I.U. of Vitamin A) at 6 monthly interval, so that a child receives a total of 9 doses of Vitamin A till the age of 59 months. Bi-annual rounds for Vitamin A supplementation would be conducted in all States & UTs with the co-ordination between Health & ICDS functionaries. As on December, 2014 HMIS 2014-15; 54.6%, 46.4% and 42.0% children

received the 1<sup>st</sup>, 5<sup>th</sup> and 9<sup>th</sup> dose of Vitamin A respectively.

#### **16.8.4.7 REDUCTION IN MORBIDITY AND MORTALITY DUE TO ACUTE RESPIRATORY INFECTIONS (ARI) AND DIARRHOEAL DISEASES**

- **Childhood Diarrhoeal Diseases:** States/UTs were supervised for procurement of ORS and Zinc and its supplies at each public health facility and ASHA who is the village level depot holder of ORS packets and Zinc tablets. It is to be ensured that Zinc and ORS is provided to all cases of childhood diarrhoea seeking care at DH/CHC/PHC/Additional PHC/Sub Centres. The aim is that every child treated for diarrhoea should get one/two ORS packets along with 14 tablets of Zinc and counselling for feeding at the start of therapy, and counselled properly for continued administration. In order to control deaths due to diarrhea and generate awareness in the community, an Intensified Diarrhoea Control Fortnight (IDCF) was implemented this year from 28<sup>th</sup> July to 8<sup>th</sup> August 2014 all over the country with the ultimate aim of ‘zero child deaths due to childhood diarrhoea’. For heightened impact of the fortnight, pertinent role of other sectors namely-Education Department, apart from Panchayati Raj Institutions and Women and Child Development was also envisaged. Dedicated funding is provided for these activities @ Rs. 10 lakh per district. During this Fortnight programme, health workers visited the households of under five children, conduct community level awareness generation activities, distributed ORS packets to the families with children under five years of age, ORS corners was set up in health facilities, and Anganwadi Centres. Health workers conducted counselling sessions on appropriate methods of Infant and Young Child feeding practices, hygiene and sanitation. As this campaign has already been implemented, around 2 Crore families were reached at doorstep for delivery of ORS packet by ASHA worker for their under-five children. 1.1 lakhs Schools participated, and 1.9 lakh ORS- zinc corners were established in health facilities. 36.08 lakh children were monitored for weight gain and sickness.
- **Acute Respiratory Infections (ARI):** While acute upper respiratory tract infections are very frequent in children, pneumonia is the leading cause of under-five mortality. Early recognition and treatment of pneumonia can be lifesaving. For children with non-severe pneumonia the ARI control program recommends oral Cotrimoxazole as the first line drug. This is supplied at the subcentre level and is recommended as drug for community based management of pneumonia by frontline health workers. Amoxicillin has been recommended as the preferred drug for treatment of non-severe pneumonia at facility level by the physician. It has been estimated that about 10% of children presenting with pneumonia may require referral for hospital based management. Use of oxygen and injectable antibiotics is recommended for inpatient treatment of severe cases and the recommended antibiotics included in the essential drug list. Provisions have been made for procuring required equipments such as Nebulisers, Pulse Oxymeters and relevant antibiotics at each level. A detailed Pneumonia and ARI guidelines is also being developed to assist States with Standard treatment protocols and operational strategies to improve preventive and treatment services.
- **Integrated Management of Neonatal and Childhood Illnesses (IMNCI):** Medical officers and staff

nurses would be trained in facility based IMNCI to provide care to sick children and newborns at CHCs/FRUs. Harmonisation of various training packages is being undertaken for effective coverage of training.

#### **16.8.4.8 RASHRTIYA BAL SWASTHYA KARYAKRAM (RBSK)**

This initiative was launched in February 2013 for Early Child Health Screening and Early Intervention Services through early detection and management of 4 'D's i.e Defects at birth, Diseases, Deficiencies, Development delays including disability are to cover 30 selected health conditions for early detection, management and free treatment. An estimated 27 crore children in the age group of zero to eighteen years are expected to be covered across the country in a phased manner.

As on December 2014, a total of 5418 RBSK teams have been recruited. About 12.19 crore children have been screened and 60.8 lakhs children have been referred to health facilities for the treatment. About 16.8 lakhs children have received secondary and tertiary care. A total of 445 State level master trainers and 2429 Teams from 9 States were directly trained by the National RBSK Team.

**Reducing child mortality is very critical for the development of a nation. India needs to continue the focussed initiatives aimed to address and tackle the issues associated with child health in a holistic manner to reach the desired level of development.**

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## Chapter 7



## CHAPTER 7

### Saving the Mothers

The importance of maternal health in the overall development and wellbeing of the society cannot be over emphasized. The crucial importance of maternal health was underscored by the 5<sup>th</sup> goal of the United Nations Millennium Development Goals which is aiming at improving maternal health.



#### Goal 5: Improve Maternal Health

##### Target 6: Reduce by three quarters between 1990 and 2015, the Maternal Mortality Ratio

###### Indicators:

16. Maternal Mortality Ratio
17. Proportion of births attended by skilled health personnel

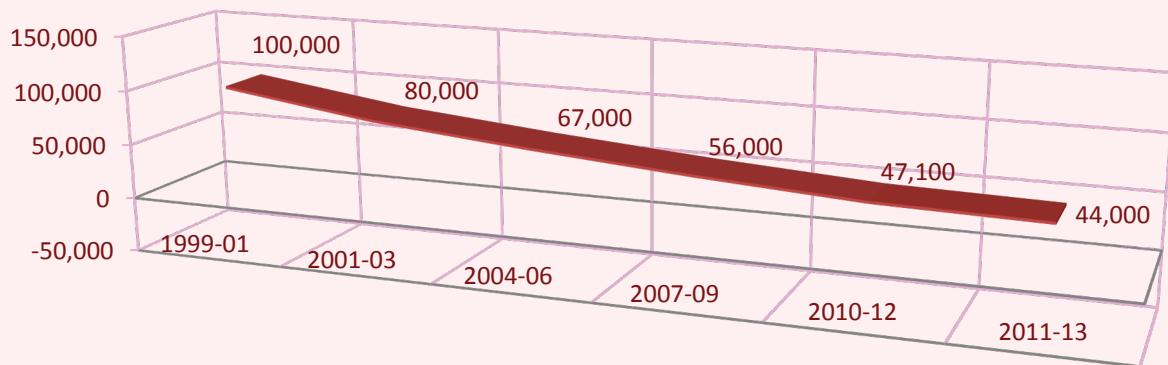
#### Improving maternal health....

##### Indicator 16: Maternal Mortality Ratio

7.2. The maternal mortality ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births. Such deaths are affected by various factors, including general health status, education and services during pregnancy and childbirth. Most maternal deaths are avoidable, as the health-care solutions to prevent or manage complications are well known. Improving access to ante natal care in pregnancy, skilled care during childbirth, and care and support in the weeks after childbirth will reduce maternal deaths significantly. As reduction in MMR is dependent on various health care factors, the MMR is also used as a measure of the quality of a health care system.

**7.3.** In India, pregnancy related deaths of women have declined over the years. The number of maternal deaths per year has come down from approximately 1,00,000 deaths (1991-01) to 44,000 deaths in 2011-13. Though, more than 50% reduction has registered in the approximate number of maternal deaths in the last two decades, the present status shows that, even now, 120 women die of causes associated with pregnancy, in a day, in India.

**Fig. 7.3.1: Approximate number of Maternal Deaths/year**



*Source: M/o Health and Family Welfare*

**7.4.** There are various approaches for measuring maternal mortality like Civil Registration System, household surveys, census, Reproductive Age Mortality studies (RAMOS), etc. In India, there are a number of problems in properly measuring maternal mortality: vital registration systems has limited coverage, so is the case with hospital records, instances of non – recording of maternal deaths occurring outside health facilities, non – disclosure of pregnancy status in some cases resulting in misclassification of maternal deaths, etc. The Office of the Registrar General of India (ORGI) under the Ministry of Home Affairs, Government of India provides estimates of Maternal Mortality Ratio (MMR) using demographic data collected through the Sample Registration System (SRS). The maternal deaths being a rare event require prohibitively large sample size to provide robust estimates. In order to enhance the SRS sample size, the MMR estimates are derived by pooling 3 years data to yield reliable estimates of MMR. The first Report on maternal mortality in India (1997-2003) – trends, causes and Risk Factors was released in October, 2006 and the latest estimates are available for the period 2011-13.

**7.5.** The MDG 5 stipulates that the MMR level be reduced by three fourths between 1990 and 2015. In 1990 the estimated MMR was 437 per 1,00,000 live births. In order to meet the MDG target, the MMR should be reduced to 109 per 1,00,000 live births by 2015. As per the latest ORGI estimates, the MMR status at all India level is at 167 in 2011-13. MMR is a slow moving social indicator. India is unlikely to achieve the target level of 109 per 1,00,000 live births by 2015. As per the historical trend, MMR is likely to reach the level of 140 maternal deaths by 2015, however, assuming the recent sharper decline is sustained, India is likely to be slightly nearer to the MDG target.

**Fig. 7.5.1: Trend in Maternal Mortality Ratio**

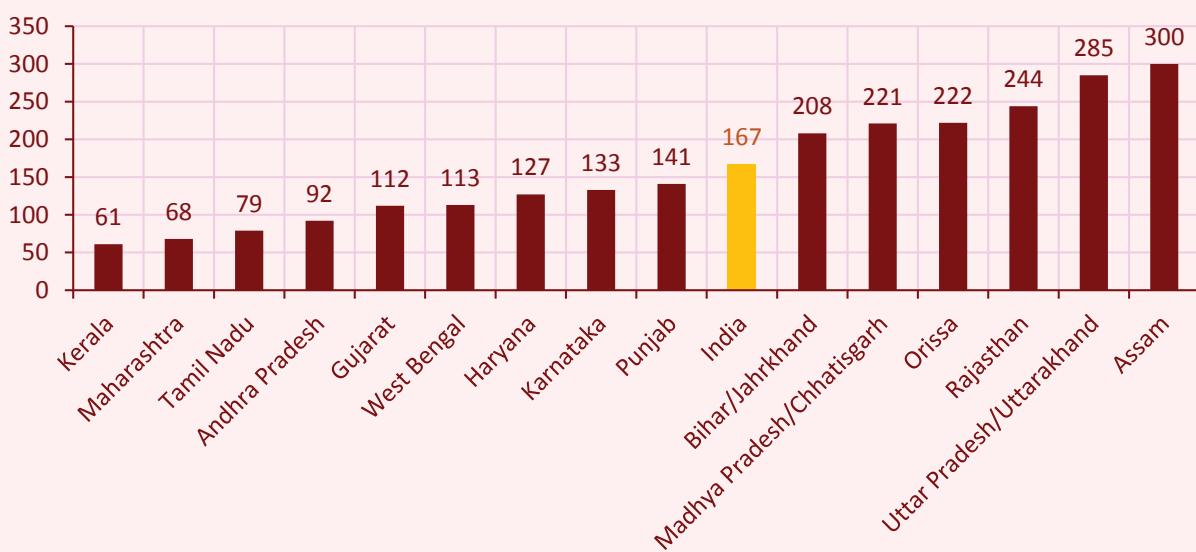


Source: Sample Registration System, Office of Registrar General of India

#### Performance of States in reducing MMR

**7.6.** Among the major States, the MMR ranges from 61 in Kerala to 300 in Assam in 2011-13. In the States of Bihar/ Jharkhand (208), Madhya Pradesh / Chhattisgarh (221), Orissa (222), Rajasthan (244), Uttar Pradesh / Uttarakhand (285) and Assam (300), the MMR estimates were reportedly higher than the estimate at all India level (167). Four States i.e. UP, Bihar, MP and Rajasthan together contributes to 67 % of MMR in the country.

**Fig. 7.6.1: Status of MMR - India and Major States 2011-13**



Source: Sample Registration System, Office of Registrar General of India

**7.7.** In order to better understand the maternal mortality situation in India and to map the changes that have taken place especially at the regional level, the ORGI has categorised the states in to three Groups namely ‘Empowered Action Group’ (EAG) States comprising Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Orissa, Rajasthan, Uttar Pradesh, Uttarakhand and Assam. ‘Southern’ States which include Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and the ‘other’ States covering the remaining states. The region wise trend in MMR during the 2004- 13 is shown below.

**Table 7.7.1: Maternal Mortality Ratio (MMR) India, EAG & Assam, South and Other states, 2007-9 & 2011-13**

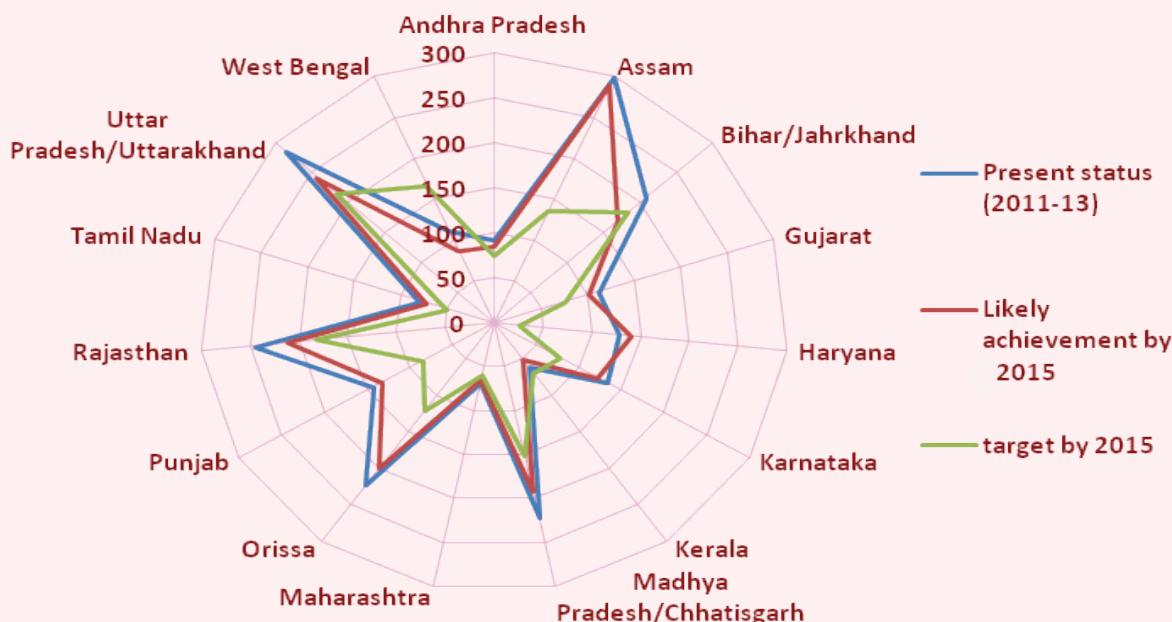
	2004-06	2007-09	2010-12	2011-13	% of Change during 2004-13
<b>INDIA TOTAL</b>	254	212	178	167	-34.25
<b>EAG AND ASSAM</b>	375	308	257	246	-34.40
<b>SOUTH</b>	149	127	105	93	-37.58
<b>OTHER</b>	174	149	127	115	-33.91

Source: Office of Registrar General of India

During 2004-13, among the States, Andhra Pradesh (47.69%) has reported the highest percentage of decline in MMR whereas the percentage of decline was lowest in West Bengal (19.86%).

**7.8.** While the States of Kerala, Maharashtra and Tamil Nadu have already achieved the national target of MMR and the present status of Gujarat, Andhra Pradesh and West Bengal are very close to the national level target. A comparison of the performance of the States vis –a- vis the respective State wise targets will give a meaningful impression of the extent of progress achieved by the individual States.

**Fig. 7.8.1: MMR Likely achievement in major States vis -a - vis MDG target**



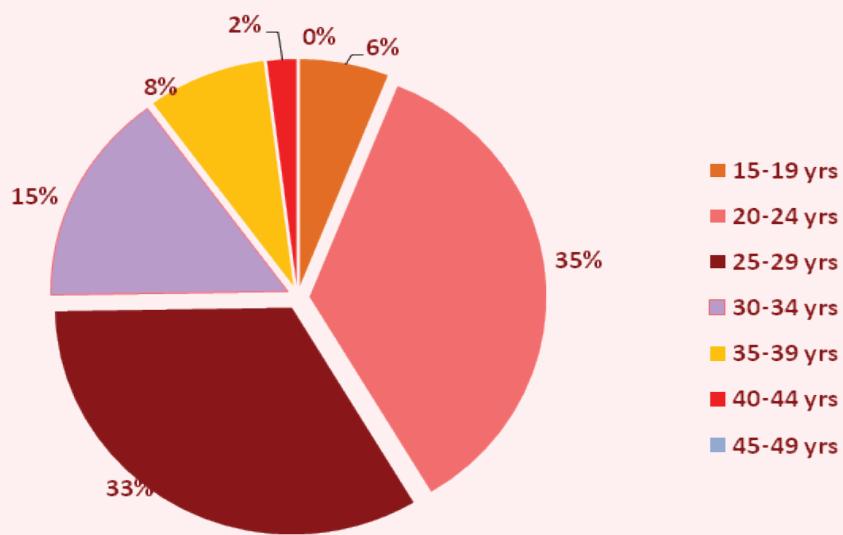
Source: Office of Registrar General of India

The States of Kerala and West Bengal have already achieved their respective MDG targets and the State of Bihar / Jharkhand is likely to achieve the target by 2015 and the State of Maharashtra and Andhra Pradesh are likely to be very near to the respective target by 2015. The States of Assam, Haryana and Orissa are likely to miss their respective MDG target with huge margin.

**7.9.** The Office of Registrar General of India (ORGI), also releases estimates for Maternal Mortality Rate and Life Time Risk. Maternal Mortality Rate (MM Rate) is defined as the number of maternal deaths to women in the ages 15-49 per lakh of women in that age group. In India, MM rate is also declining over the years. MM rate was 20.7 in 2004 -06, it decreased to 11.7 in 2011-13. MM rate vary widely among the States. While MM rate is as low as 3.2 in Kerala, Maharashtra 4.1 and 4.5 in Tamil Nadu, the rate was 27.6 in Uttar Pradesh/ Uttarakhand, 23.9 in Rajasthan and 21.4 in Bihar/ Jharkhand. The Life time Risk is defined as the probability that, one women of reproductive age (15-49) will die due to child birth or puerperium (6 weeks after delivery) assuming that chance of death is uniformly distributed across the entire reproductive span. At all India level, the Life Time Risk is 0.4% and among States, it varies from 0.1% in Kerala and Maharashtra and 1% in Uttar Pradesh.

**7.10** As per the Sample Registration System estimates of 2011-13, 68% of maternal deaths were women in the age group of 20-29 years.

**Fig. 7.10.1: Age distribution of maternal deaths in India 2011-13**



*Source: Office of Registrar General of India*

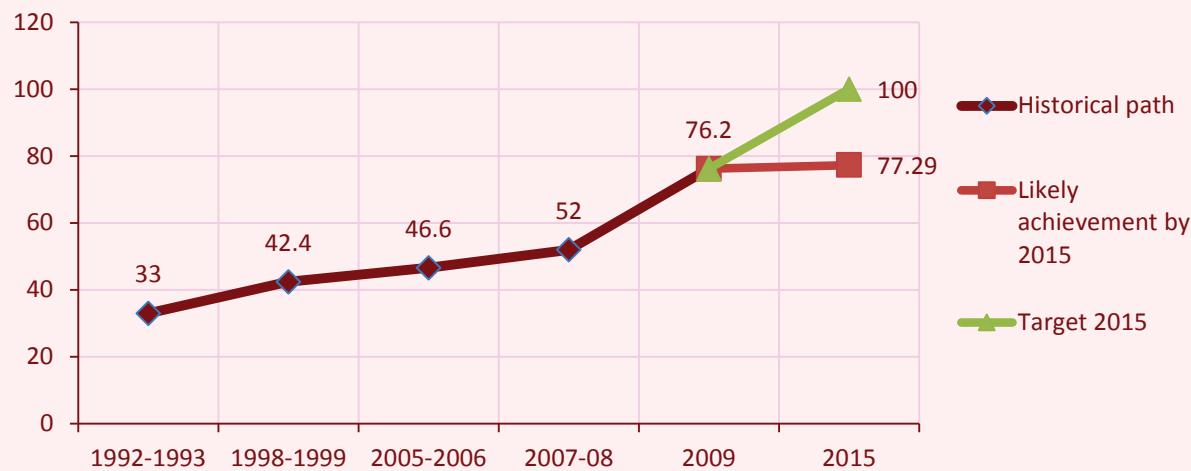
**Indicator: Proportion of births attended by skilled health personnel**

**7.11.** In order to reduce maternal mortality and infant mortality, it is extremely important that all births be attended by skilled health personnel, as timely management and treatment can make the difference between life and death. The proportion of births attended by skilled health personnel is the

percentage of deliveries attended by personnel trained to give the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period; to conduct deliveries on their own; and to care for new-borns. Skilled health personnel include only those who are properly trained and who have appropriate equipment and drugs. Traditional birth attendants, even if they have received a short training course, are not to be included. For this indicator there is no bench mark value to be attained by 2015, however, for attaining the prescribed target for MMR, the desirable level of attainment for this indicator is taken as 100% by 2015.

**7.12.** The Coverage Evaluation Survey conducted by Government of India and UNICEF in 2009 shows that 76.2% percentage of births were attended by skilled health personnel in 2009. Although, considerable progress has been achieved over the years in improving the proportion of births attended by skilled personnel, India is likely to reach the level of 77.29% vis-a-vis the targeted universal coverage. The latest results of Sample Registration System (SRS) 2013 reveal that, the percentage of live births attended by skilled health personnel (Government hospitals, Private hospital, qualified professional) is 87.1% in 2013, which indicates a better status. Also, with the recent sharp progress in the percentage of births attended by skilled health personnel during 2007-09, the gap between the likely achievement and the target in 2015 is likely to be narrowed down.

**Fig.7.12.1: Percentage of births attended by skilled health personnel**



Source: NFHS, DLHS, CES -M/o Health and Family Welfare

The States of Kerala, Goa and Tamil Nadu have already achieved nearly 100% coverage of births attended by skilled health personnel, and by 2015 Andhra Pradesh and Madhya Pradesh are expected to achieve universal coverage of births by skilled health personnel. In addition to these states, the states of Jammu& Kashmir, Karnataka Odisha, Rajasthan, and Sikkim are expected to reach close to 100% coverage of births attended by skilled health personnel.

**Table 7.12.1: State wise and location wise details of Proportion of births attended by skilled health personnel (2009)**

Better performing states			
State	Rural	Urban	Total
Kerala	100	99.7	99.9
Goa	100	99.7	99.8
Tamil Nadu	98.2	99.0	98.6
Andhra Pradesh	95.5	95.9	95.6
Lesser performing states			
Uttar khand	51.0	80.9	58.7
Chhattisgarh	51.0	77.6	56.4
Himachal Pradesh	50.1	86.7	53.7
Bihar	50.8	73.5	53.2
Jharkhand	39.0	76.5	47.3
Nagaland	38.4	69.6	43.8

Source: Coverage Evaluation Survey 2009, M/o Health and Family Welfare

**7.13.** Considering the live births, the percentage of live births attended by skilled health personnel (SRS 2013), among bigger States of India, ranges from 68.7% in Jharkhand to 99.8% in Kerala.

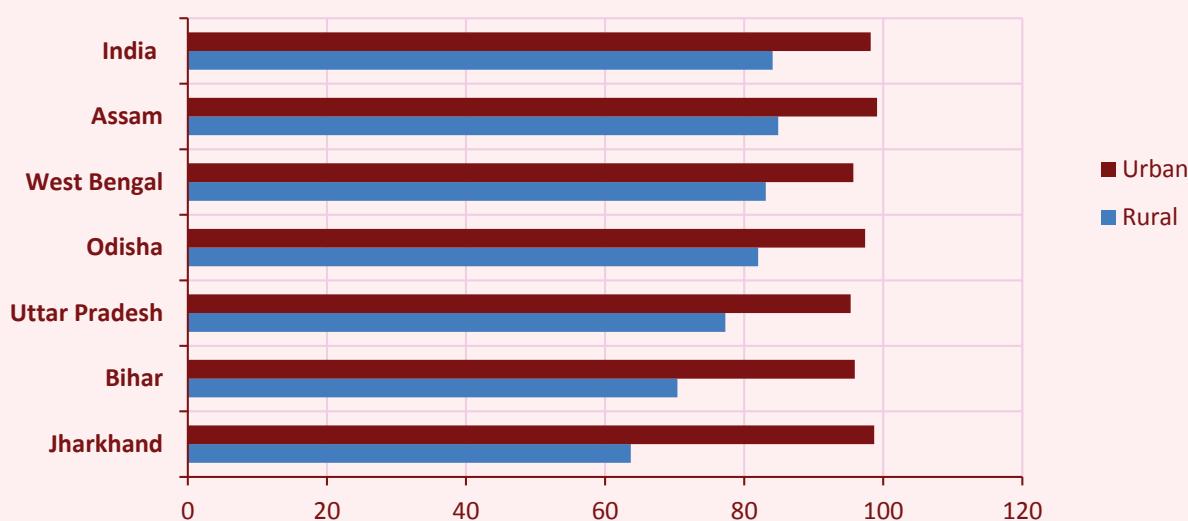
**Fig 7.13.1: Percent distribution of live births attended by skilled health personnel**



Source: Office of Registrar General of India

**7.14** In 2013, at all India level, in rural areas, 84.1% and in urban areas 98.2% of live births were attended by skilled health personnel. In the States which are lagging behind from 100% coverage of live births by skilled health personnel, the rural–urban gap is very significant even though the coverage in urban areas is very near to the target.

**Fig. 7.14.1 Rural -Urban gap in percentage of live births covered by skilled health personnel - States below the national level estimate**



Source: Office of Registrar General of India

### Bridging the gaps to attain safe motherhood.....

**7.15.** The maternal health care is multidimensional and the services include at least three antenatal care visits, iron prophylaxis for pregnant and lactating women, at least one dose of tetanus toxoid vaccine, detection and treatment of anaemia in mothers, and management and referral of high-risk pregnancies and natal care. All these indicators are monitored regularly through Health Management Information System (HMIS) and also periodic surveys. The Status of some major indicators related to maternal health as revealed in some nationwide surveys are shown below:

**Table 7.15.1: Status of some major indicators related to maternal health**

Indicators	DLHS-2 (2002-04)	DLHS-3 (2007-08)	CES (2009)
Mothers who had received any Antenatal Care (ANC) (%)	73.6	75.2	89.6
Mothers who had 3 or more ANC (%)	50.4	49.8	68.7
Mothers who had full ANC checkup (%)	16.5	18.8	26.5
Institutional Delivery (%)	40.9	47.0	72.9
Safe Delivery (%)	48	52.7	76.2
IFA (Iron – Folic Acid) tablets consumed for 100 days	20.5	46.6	
Mothers who received Postnatal Care (PNC) within 2 weeks of delivery (%) (PNC within 10 days)	NA	49.7	60.1

Source: M/o Health and Family Welfare

**7.16.** A number of Government Programmes work hand in hand to improve the maternal health and to handle safely the risks associated with pregnancy.

### National Health Mission (NHM)

**7.16.1** Under the **National Health Mission (NHM)**, by the Ministry of Health and Family Welfare, the Reproductive, Maternal, New born, Child Health & Adolescent Health approach (RMNCH+A) aims to strengthen the referral linkages between community and facility based health services and lays emphasis on health systems strengthening as the foundation on which technical interventions must be overlaid for effective outcomes.

- **Janani Suraksha Yojana (JSY)**, a demand promotion and conditional cash transfer scheme was launched in April 2005 with the objective of reducing Maternal and Infant Mortality. It has been lauded as a successful scheme bringing about a surge in institutional deliveries since its launch.
- Building on the phenomenal progress of this safe motherhood scheme, another major initiative “**Janani Shishu Suraksha Karyakram” (JSSK)** was launched in June 2011 to eliminate out-of-pocket expenses for both pregnant women and sick neonates.
  - ◆ Under JSSK, every pregnant woman is entitled to free delivery, including caesarean section, in public health institutions. This includes absolutely free to and fro transport between home and institution, diagnostics, medicines, other consumables, food and blood, if required. The scheme has been expanded to cover sick infants up to one year of age and cases of ante natal and post natal complications as well.
- **Referral transport** for pregnant women, sick neonates and sick infants is being provided by the States as per their local needs, using different models which include a network of emergency response vehicles using toll free number, government ambulances, available transport under public private partnership etc. A total of over 18000 ambulances are now operational across states.
- **Mother and Child Tracking System (MCTS) and Mother and Child Tracking Facilitation Centre (MCTFC)** : A name, telephone, address based web enabled system has been introduced by Government of India to track every pregnant woman and child in order to ensure and monitor timely and quality services to them including ANC, JSY benefit, Immunization etc.
  - ◆ ANMs (Auxiliary Nurse Midwife) and ASHAs (Acredited Social Health Activist) are given system generated work plans that contains list of services due to pregnant women and children in their jurisdiction.
  - ◆ In addition SMS on services due to pregnant women are sent to ASHAS/ ANMs and pregnant women.

- ◆ Transfer of ASHA payments directly into their accounts through this system to ensure them receiving full range of incentive payments.
  - ◆ Mother and Child Tracking Facilitation Centre has been set up.
- **Monthly Village Health and Nutrition Days (VHND)** as an outreach activity at Anganwadi centers for provision of maternal and child care including nutrition in convergence with the ICDS.
- **Engagement of approximately 8.9 lakh Accredited Social Health Activists (ASHAs)** to facilitate accessing of health care services by the community, particularly pregnant women.
  - ◆ Teaching Aids for ASHAs have been developed for use during their training to provide them guidance on how to reach the poorest, most marginalised and vulnerable population.
- **Under the National Iron+ Initiative**, iron and folic acid supplementation is being given across life-stages including pregnant, lactating women and adolescent girls at health facilities and during outreach activities.
- Funds are being provided for strengthening of '**Delivery Points**' for provision of comprehensive Reproductive, Maternal, New Born Child Health and Adolescent (**RMNCH+A**) services. Placing quality **emergency obstetric care services** at "Delivery Points" is a priority area.
- Operationalization of **Safe Abortion Services and Reproductive Tract Infections and Sexually Transmitted Infections (RTI/STI)** at health facilities with a focus on "Delivery Points". For operationalization these services we are providing necessary funds to the states for procurement of drugs, equipments and capacity building of service providers in the skills required.
- **Maternal Death Review (MDR)** is being implemented across the country both at facilities and in the community. The purpose is to take corrective action at appropriate levels and improve the quality of obstetric care. MDR Software has been launched recently to improve the quality of reviews and analysis. All States are reporting regularly.
- **Capacity building of MBBS doctors in Anaesthesia and Obstetric Care** including C-section skills to overcome the shortage of specialists in these disciplines, particularly in rural areas. The Government is partnering with professional organizations like Federation of Obstetric and Gynaecological Societies of India to make this endeavor successful.
- **Setting up of Skill Labs** with earmarked skill stations for different training programs to enhance the quality of training in the States.
- **Establishing Maternal and Child Health (MCH) Wings** at high caseload facilities to improve the quality of care provided to mothers and children.

- A new initiative of “**Prevention of PPH (Post Partum Hemorrhage) through Community based advance distribution of Misoprostol**” by ASHAs/ANMs has been launched for high home delivery districts. Operational Guidelines and Reference Manual have been disseminated to the States. However guidelines on the above are explicit in saying that during the counselling sessions with the pregnant women conducted by ASHAs and ANMs emphasis is laid on the need to register for ANC and deliver at institutions.
- **Quality Assurance Manuals and Supportive Supervision tools** have been rolled out to strengthen quality of care in service delivery.
- For safe care of pregnant women, especially in labour room and maternity wards, Government of India has published M NH (Maternal and New Born Health) tool kit, which includes WHO **Safe Birthing Checklist** to ensure adherence to clinical protocols and prompt identification of danger sign and prompt referral. A system of patient satisfaction has also been developed as a check list to ensure delivery of all these components. The guidelines intend to create Mother and baby friendly environment where respecting the right of every mother and baby to stay safe in the facility is given due importance.
- **Regular IEC (Information, Education and Communication)/BCC (Behaviour Change Communication)** is done including messages on early registration for ANC, regular ANC, institutional delivery, nutrition, care during pregnancy etc. Funds are being provided to the States through PIPs for comprehensive **IEC/ BCC** on Maternal and New Born health. Standardised IEC/BCC packages are being prepared at National level and have been disseminated to the States.
- At least 25% of all districts in each State have been identified as **High Priority Districts** based on a composite health Index, these include all Tribal and LWE (Left Wing Extremism) affected districts. These would receive higher per capita funding, relaxed norms, enhanced monitoring and focused supportive supervision and encouraged to adopt innovative approaches to address their peculiar health challenges. This would address the needs of vulnerable and marginalized populations, including women, also those in urban slums and difficult geographic terrains.
- **Harmonised technical assistance** to States by **Development Partners** to strengthen implementation of Interventions under RMNCH+A with a focus on High Priority Districts



## **Integrated Child Development Services**

**7.16.2** The Integrated Child Development Services (ICDS) Scheme by the Ministry of Women and Child Development which was launched in 1975 is having pregnant and lactating mothers as one of its target groups. The objectives of ICDS are achieved through a package of services, among which the services of Supplementary Nutrition, Immunization, Health Check-up, Referral Services are available for Pregnant and lactating mothers along with children below 6 years. The Nutrition & Health Education component is targeting Women of 15-45 years. The ICDS Scheme was restructured in 2012, and the key features of the strengthened and Restructured ICDS included special focus on pregnant and lactating mothers. One of its goals addresses to improve the nutrition of girls and women and reducing prevalence of anaemia among girls and women.

## **Indira Gandhi Matritva Sahyog Yojana (IGMSY)**

**7.16.3** The Ministry of Women and Child Development is implementing a Conditional Cash Transfer maternity benefit Scheme in 53 pilot districts of the Country since 2010. Under the Scheme, the pregnant and lactating women, 19 years and above, across all income groups, are eligible to avail the maternity benefit, upto first two live births. Under IGMSY, maternity benefit of Rs.6000/- is provided in two equal installments in second trimester of pregnancy till the child attains six months of age. The installments are contingent upon fulfillment of certain health and nutrition conditions. The scheme is proposed to be extended to all the districts of the Country by the end of 2017. The maternity benefit is provided for two reasons: first, the beneficiary should consume nutritious food during pregnancy and lactation and second, money would partly compensate for their wage-loss and enable them to take adequate rest during pregnancy and after delivery.

The conditionality prescribed under the scheme include registration of pregnancy, availing crucial services during pregnancy namely, antenatal care check –ups, Iron folic acid tablets, and TT injections. After delivery, it focuses on registration of child birth, growth monitoring sessions immunization upto six months, and Infant Young Counseling Feeding (IYCF) sessions. The IGMSY is contributing towards improving the nutritional status of pregnant and lactating mothers.

**The Central Government as well as the State Governments implements focused programmes to improve maternal health, and thereby to reduce maternal mortality. To attain the attain the desired level of safe motherhood, more focused and holistic Programmes starting from generation of awareness to better accessible quality health care facilities are to be ensured.**

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**टीबी का  
पक्का इलाज है-  
डॉंटस.**

सभी स्वास्थ्य केंद्रों में  
डॉंटस सुविधाएं मुफ्त उपलब्ध हैं



**टी.बी. का इलाज संभव है!**



6

**COMBAT HIV/AIDS,  
MALARIA AND OTHER  
DISEASES**

## Chapter 8



## CHAPTER 8

### Combating life-threatening diseases

The diseases like HIV / AIDS together with Malaria and TB are causing major health challenges to population around the World. In order to face this challenge, the Goal 6 of the Millennium Development Goals, is committed to fight the deadly diseases of HIV/ AIDS, Malaria and TB.



#### Goal 6: Combat HIV/AIDS, Malaria and other Diseases

**TARGET 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS**

Indicators:

18. HIV prevalence among pregnant women aged 15-24 years

19. Condom use rate of the contraceptive prevalence rate

19A. Condom use at last high risk sex

19B. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS

**TARGET 8: Have halted by 2015 and begun to reverse the incidence of Malaria and other major diseases**

Indicators:

21. Prevalence and death rates associated with Malaria

22. Proportion of population in Malaria risk areas using effective Malaria prevention and treatment measures (Percentage of population covered under use of residual spray in high risk areas)

23. Prevalence and death rates associated with Tuberculosis

24. Proportion of Tuberculosis cases detected and cured under DOTS

## Combating HIV/ AIDS....

8.2. In India, over the years the prevalence rate of HIV / AIDS among various population groups has declined. The adult HIV prevalence at national level has steadily declined from estimated level of 0.41% in 2001 to 0.27% in 2011.

**Fig.8.2.1: Trend in Estimated Adult HIV Prevalence in India (%)**



Source: HIV Estimation 2012, D/o AIDS Control

8.3. Adult HIV prevalence among males and females is estimated at 0.34% and 0.23% in 2010 and 0.32% and 0.22% in 2011 respectively. Declining trends in adult HIV prevalence are sustained in all the high prevalence states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu) and other states such as Mizoram and Goa. In 2011, among the States, Manipur has shown the highest estimated adult HIV prevalence of 1.22%, followed by Andhra Pradesh (0.75%), Mizoram (0.74%) and Nagaland (0.73%). The details of States which are having estimated adult HIV prevalence greater than the national prevalence (0.27%), are shown below.

**Fig.8.3.1: Estimated Adult HIV Prevalence (2011) (%)**



Source: HIV Estimation 2012, D/o AIDS Control

The States of Chhattisgarh, Jharkhand, Tripura, West Bengal, Uttarakhand, Delhi and Bihar have shown estimated adult HIV prevalence in the range of 0.20–0.27%. All other States/UTs have levels of Adult HIV prevalence below 0.20%.

**8.4.** The HIV prevalence among the young population (15–24 years) at national level has declined from 0.15% in 2007 to 0.11% in 2011. The States of Mizoram (0.35%), Nagaland (0.3%), Odisha (0.28%), Andhra Pradesh (0.27%), Chandigarh (0.21%), Karnataka (0.19%), Manipur (0.19%), Tripura (0.18%), Chhattisgarh (0.17%), Jharkhand (0.17%), Uttarakhand (0.17%), Daman & Diu (0.14%), Goa (0.14%), Gujarat (0.14%), Delhi (0.13%) and Punjab (0.12%) have HIV prevalence among the young population (15–24 years), higher than the national level estimate in 2011.

**8.5.** The disease burden has declined over the years, from an estimated 24 lakhs people living with HIV /AIDs in 2009 to nearly 20.9 lakh in 2011. The highlights of a comparison of trends observed in the number of people living with HIV /AIDs in India in 2009 to 2011 are presented below.

**Table 8.5.1: People Living with HIV / AIDS in India**

	<b>2009</b>	<b>2011</b>
The total number of people living with HIV/AIDS (PLHA) in India	Estimated at 24 lakh (19.3 – 30.4) in 2009.	Estimated at 20.9 lakh (17.2 lakh–25.3 lakh)
Share of Children(<15 yrs) and Women of all PLHA	Children - 3.5% (0.84 lakh), Women - 39% (9.3 lakh).	Children - 7% (1.45 lakh) Women --39% (8.16 lakh)
High prevalence States	Andhra Pradesh – 5 lakh, Maharashtra – 4.2 lakh, Karnataka – 2.5 lakh, Tamil Nadu – 1.5 lakh) account for 55% of all HIV infections in the country.	Andhra Pradesh–4.19 lakh, Maharashtra-3.16 lakh, Karnataka-2.09 lakh and Tamil Nadu-1.33 lakh) account for 53% of all HIV infections in the country.
States with more than 1 lakh People Living with HIV/AIDS each	West Bengal, Gujarat, Bihar and Uttar Pradesh and together account for 22% of HIV infections in India	West Bengal, Gujarat, Bihar, Uttar Pradesh and Odisha and together account for 29% of HIV infections in India.

*Source: D/o AIDS Control*

**8.6.** The status of new HIV / AIDs infections also matters a lot, in assessing the disease burden. India is estimated to have around 1.16 lakh (0.72–1.99 lakh) annual new HIV infections among adults (15+ years) and around 14,500 (10,974–19,346) new HIV infections among children (<15 years) in 2011. Among states, Andhra Pradesh is estimated to have the highest number (16,603) of new adult HIV infections in 2011 followed by Odisha (12,703).

**Fig. 8.6.1: Estimated new HIV infections in 2011 -Top 10 states**



Source: HIV Estimation 2012, D/o AIDS Control

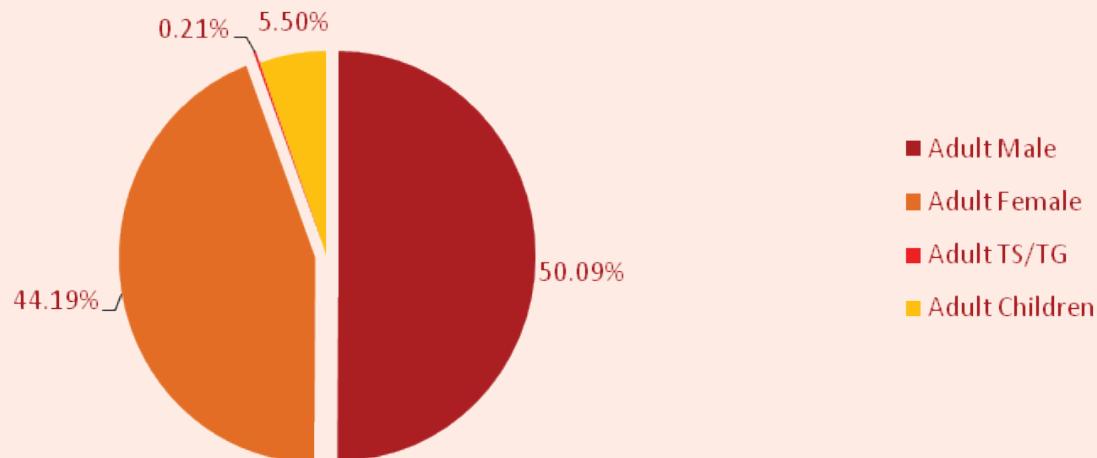
It has been observed that, in 2011 out of the 1.16 lakh estimated new infections among adults, the six high prevalence states account for only 31%, while the ten low prevalence States of Odisha, Jharkhand, Bihar, Uttar Pradesh, West Bengal, Gujarat, Chhattisgarh, Rajasthan, Punjab & Uttarakhand together account for 57% of new infections.

**8.7.** India has demonstrated an overall reduction of 57% in estimated annual new HIV infections (among adult population) during the last decade from 2.74 lakhs in 2000 to 1.16 lakhs in 2011. This is one of the most important evidence on the impact of the various interventions under National AIDS Control Programme and scaled-up prevention strategies. Major contribution to this reduction comes from the high prevalence States, however rising trends of new infections are noted in the states of Assam, Arunachal Pradesh, Chandigarh, Chhattisgarh, Delhi, Jharkhand, Meghalaya, Odisha, Punjab, Tripura and Uttarakhand. This underscores the need for the programme to focus more on these States with low prevalence, but high vulnerability.

**8.8.** Using globally accepted methodologies and updated evidence on survival to HIV with and without treatment, it is estimated that about 1.48 lakh (1.14 lakhs-1.78 lakhs) people died of AIDS related causes in 2011 in India. Deaths among HIV infected children account for 7% of all AIDS-related deaths. Wider access to ART (Antiretroviral Therapy) has led to 29% reduction in estimated annual AIDS-related deaths in the country during National AIDS Control Programme (NACP)-III period (2007–2011). In high prevalence States, estimated AIDS-related deaths have decreased by around 42% during 2007 to 2011. It is estimated that the scale up of free ART since 2004 has saved cumulatively over 1.5 lakh lives in the country till 2011 by averting deaths due to AIDS-related causes. With the current scale up of ART services, it is estimated to avert around 50,000–60,000 deaths annually in the next five years. As on 30/9/14, nearly 8.1 lakh People Living with HIV/ AIDS (PLHA) alive are on ART, among them nearly 4.05 lakh are adult males

and 3.58 lakh are adult females, the rest 0.44 lakh are children and 0.02 lakhs are TS/ TG (Trans- Sexual/ Trans –Gender).

**Fig. 8.8.1 Number of PLHIV alive and on ART as on 30/9/ 2014**



Source: D/o AIDS Control

The statistics as presented above, reveals the epidemic HIV/AIDs in India is under control, however, the disease burden continues to be substantial. The progress of the specific MDG indicators is presented below.

#### **Indicator: HIV prevalence among pregnant women aged 15-24 years (%)**

**8.9.** The prevalence of HIV among Pregnant women aged 15-24 years is showing a declining trend from 0.89 % in 2005 to 0.32% in 2012-13.

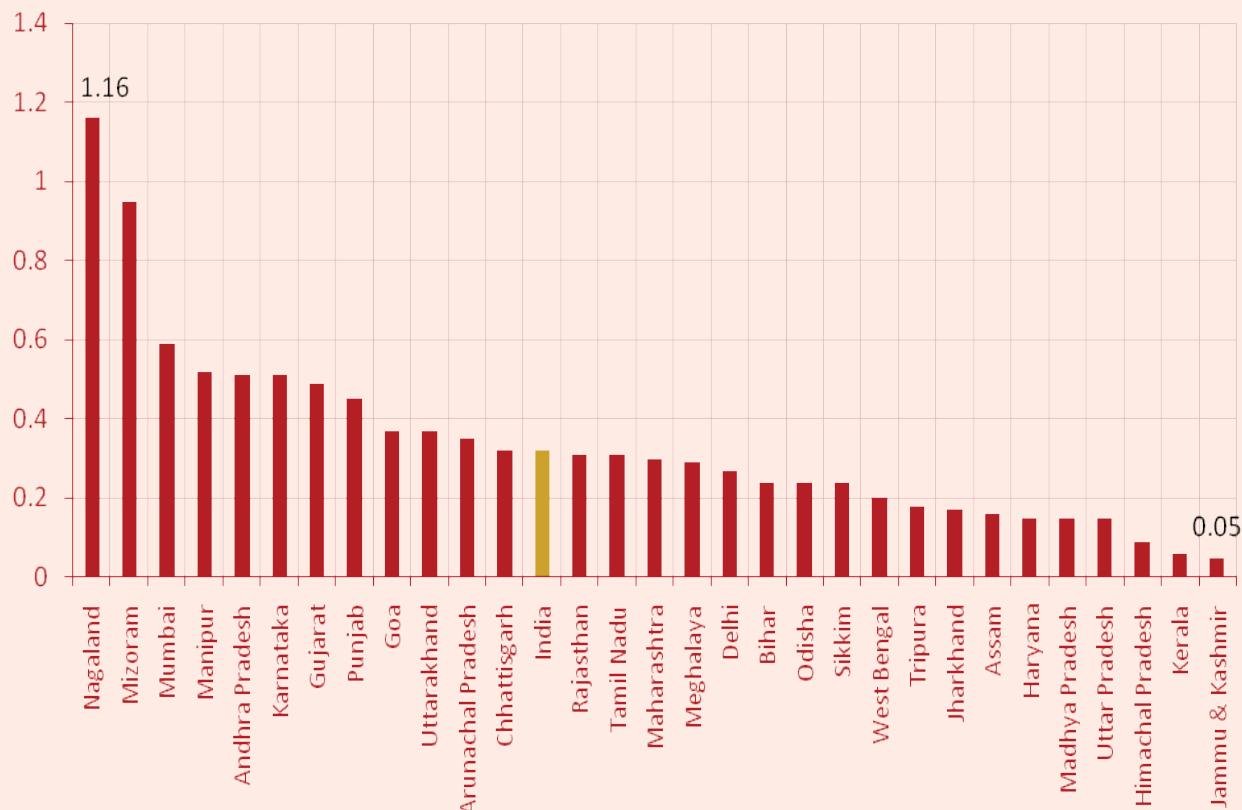
**Fig. 8.9.1: Trend in HIV prevalence among Pregnant Women aged 15-24yrs (%)**



Source: HIV Sentinel Surveillance, D/o AIDS Control

The HIV prevalence among pregnant women (15-24 yrs) is highest in Nagaland (1.16%) followed by Mizoram (0.97%). During 2008-13, the indicator showed a declining trend in all States except for the States of Arunachal Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Meghalaya, Mizoram, Nagaland, Punjab, Sikkim, Tamil Nadu, Tripura and Uttarakhand.

**Fig.8.9.2 HIV prevalence among pregnant women 2012-13 (%)**



Source: HIV Sentinel Surveillance, D/o AIDS Control

### **Indicator: Condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women, 15-49 years, %)**

**8.10.** According to NFHS –III, in 2005-06, condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women, 15-49 years, %) was only 5.2 % at all India level. The Condom use rate of the contraceptive prevalence rate is highest in Delhi (22.9%) followed by Uttarakhand (15.7%) and Punjab (15.5%). The lowest Condom use rate of the contraceptive prevalence rate was reported for Andhra Pradesh (0.5%) followed by Mizoram and Karnataka.

**Table 8.10.1 Condom use rate of the contraceptive prevalence rate (2005-06) (%)**

State/ UT	Condom use rate of the contraceptive prevalence rate	State/UT	Condom use rate of the contraceptive prevalence rate
Delhi	22.9	Madhya Pradesh	4.8
Uttarakhand	15.7	Sikkim	4.1
Punjab	15.5	Tripura	3.2
Haryana	11.8	Odisha	3
Himachal Pradesh	11.5	Chhattisgarh	2.9
Uttar Pradesh	8.6	Arunachal Pradesh	2.8
Jammu & Kashmir	8	Jharkhand	2.7
Goa	7.5	Nagaland	2.6
Maharashtra	6.2	Meghalaya	2.4
Gujarat	5.8	Assam	2.3
Rajasthan	5.7	Bihar	2.3
Kerala	5.5	Tamil Nadu	2.3
<b>India</b>	<b>5.2</b>	Karnataka	1.7
West Bengal	4.3	Mizoram	1.4
Manipur	4.1	Andhra Pradesh	0.5

Source: National Family Health Survey -3 (2005-06)

It is a cause of concern that, the high prevalence States like Andhra Pradesh, Mizoram, Karnataka and Tamil Nadu are at the last rank positions for the indicator Condom use rate of the contraceptive prevalence rate.

### **Indicator: Condom use at last high-risk sex**

**8.11.** The Behavioural Surveillance Survey (BSS) conducted to monitor the changes in knowledge and behaviour indicators in different risk groups with respect to HIV/AIDS, indicates that Condom use among non-regular sex partners is quite prevalent. According to BSS conducted in 2001 & 2006, the national estimates for Condom use at last high-risk sex (%) (Proportion of population aged 15-24 years who used condom during last sex with non-regular partner) registered a 19% increase from 51.9% in 2001 to 61.7% in 2006. As per the 'Condom Promotion Impact Survey 2010', the national estimate for Condom use at last high-risk sex is 74%, thus recording an improvement of 20% during 2006 to 2010. In 2009, BSS was conducted in six states (Uttar Pradesh, Andhra Pradesh, Karnataka, Tamil Nadu, Maharashtra and Manipur) as part of Mid-Term Review of NACP-III.

**Table 8.11.1: Condom use at last high-risk sex (%) - Proportion of population aged 15-24 years who used condom during last sex with non-regular partner**

States	2006	2009
Uttar Pradesh	48.8	46
Andhra Pradesh	63.6	89
Karnataka	81.1	87
Tamil Nadu	46.4	-
Maharashtra	77.8	92
Manipur	76.6	-

Source: Behavioural Surveillance Survey, D/o AIDS Control

Among the above States, in which Behavioural Surveillance Survey was conducted in 2006 and 2009, the Condom use at last high-risk sex (%) showed an improvement except the State of Uttar Pradesh.

### **Indicator: Proportion of population aged 15-24 years with comprehensive correct Knowledge of HIV/AIDS (%)**

**8.12.** According to BSS, the national estimate for proportion of population aged 15-24 years with comprehensive correct Knowledge of HIV/AIDS<sup>1</sup> (%) in 2006 was 32.9% reporting betterment from 2001 (22.2%). The estimates of the indicator for the States in which BSS was conducted in 2009 are as follows:

**Table 8.12.1 : Comprehensive Correct Knowledge about HIV Transmission and Prevention (%)**

States	2006	2009
Uttar Pradesh	29	21
Andhra Pradesh	28	19
Karnataka	23	10
Tamil Nadu	30	56
Maharashtra	49	24
Manipur	43	

Source :Behavioural Surveillance Survey, D/o AIDS Control

It is alarming to note that, among the above States in which BSS 2006 & 2009 were conducted, a decline in the comprehensive and correct knowledge about HIV was observed in the States of Uttar Pradesh, Andhra Pradesh, Karnataka, Maharashtra whereas Tamil Nadu showed a significant improvement.

<sup>1</sup> Comprehensive Correct knowledge about HIV transmission and Prevention is constructed as 'Percentage of Population aged 15-24 years who could correctly identify the two major ways of preventing the sexual transmission of HIV (Consistent condom use and having one faithful uninfected sex partner), reject the two most common local misconceptions about HIV transmission (transmission of HIV/AIDS through mosquito bites and sharing of meals with HIV/AIDS patients), and who know that a healthy-looking person can transmit HIV.'

## Achievements of AIDS Control initiatives....

### 8.13 National AIDS Control Programme

In order to control the spread of HIV/AIDS, the Government of India is implementing the National AIDS Control Programme (NACP) as a 100% centrally sponsored scheme. The first National AIDS Control Programme was launched in 1992, followed by NACP-II in 1999. Phase III of NACP, launched in July 2007, had the goal to halt and reverse the epidemic in the country over the five-year period (2007-2012) by scaling up prevention efforts among High Risk Groups (HRG) and general population, and integrating them with Care, Support & Treatment services. Prevention and Care, Support & Treatment (CST) form the two key pillars of all HIV/AIDS control efforts in India.

Analysis of epidemic projections revealed that India had approximately 1.16 lakh new HIV infections in 2011 as against 2.74 lakh new infections in 2000. There has been reduction of new HIV infections by 57% over the last decade (2000-2011). This is one of the most important evidence on the impact of the various interventions under National AIDS Control Programme and scaled-up prevention strategies. A clear decline is also evident in HIV prevalence among the young population (15-24 years) at national level, both among men and women. Stable to declining trends in HIV prevalence among the young population (15-24 years) are also noted in most states. Considerable decline in HIV prevalence have been recorded among Female Sex Workers at national level (5.06% in 2007 to 2.67%) and in most of the states, where long-standing targeted interventions have focussed on behaviour change and increasing condom use. Declines in HIV prevalence have been achieved among Men who have sex with Men (7.41% in 2007 to 4.43% in 2011). Stable trends have been recorded among Injecting Drug Users at national level (7.23% in 2007 to 7.14% in 2011).

Wider access to ART has led to 29% reduction in estimated annual AIDS-related deaths during NACP-III period (2007-2011). Greater decline in estimated annual deaths are noted in States where significant scale up of ART services has been achieved. It is estimated that the scale up of free ART since 2004 has saved over 1.5 lakh lives in the country till 2011 by averting deaths due to AIDS-related causes.

Consolidating the gains made during NACP-III, the National AIDS Control Programme Phase-IV (2012-17) was launched to accelerate the process of reversal and to further strengthen the epidemic response in India through a cautious and well defined integration process over the period 2012-2017 with key strategies of intensifying and consolidating prevention services with a focus on High Risk Group (HRG) and vulnerable population, increasing access and promoting comprehensive care, support and treatment, expanding IEC (Information, Education and Communication) services for general population and high risk groups with a focus on behaviour change and demand generation, building capacities at national, state and district levels and strengthening the Strategic Information Management System. The NACP IV is in progress with the objectives to (i) Reduce new infections by 50% (ii) Comprehensive care, support and treatment to all persons living with HIV/AIDS.



The package of services provided under NACP-IV include

#### **8.13.1 Prevention Services:**

- I. Targeted Interventions (TI) for High Risk Groups and Bridge Population (Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgenders / Hijras, Injecting Drug Users (IDU), Truckers & Migrants.
- II. Opioid Substitution Therapy (OST) through NGOs and Government health facilities as prevention strategy for IDUs (Injecting Drug Users).
- III. Prevention Interventions for Migrant population at source, transit and destinations.
- IV. Link Worker Scheme (LWS) for High Risk Groups and vulnerable population in rural areas
- V. Prevention & Control of Sexually Transmitted Infections/Reproductive Tract Infections (STI/RTI)
- VI. Blood Transfusion Services
- VII. HIV Counseling & Testing Services
- VIII. Prevention of Parent to Child Transmission
- IX. Condom promotion
- X. Information, Education & Communication (IEC) and Behaviour Change Communication(BCC)
  - Mass Media Campaigns through Radio & TV, Mid-media campaigns through Folk Media, display panels, banners, wall writings etc., Special campaigns through music and sports, Flagship programmes, such as Red Ribbon Express.

- XI. Social Mobilization, Youth Interventions and Adolescence Education Programme
- XII. Mainstreaming HIV/AIDS response
- XIII. Work Place Interventions

#### **8.13.2 Care, Support & Treatment Services:**

- I. Laboratory services for CD4 (Cluster of Differentiation 4) Testing, Viral Load testing, Early Infant Diagnosis of HIV in infants and children up to 18 months age and confirmatory diagnosis of HIV-2.
- II. Free First line & second line Anti-Retroviral Treatment (ART) through ART centres and Link ART Centres, Centres of Excellence & ART plus centres.
- III. Pediatric ART for children
- IV. Early Infant Diagnosis for HIV exposed infants and children below 18 months
- V. Nutritional and Psycho-social support through Community and Support Centres
- VI. HIV-TB Coordination (Cross-referral, detection and treatment of co-infections)
- VII. Treatment of Opportunistic Infections

#### **8.13.3 Status of Implementation of Key Interventions**

- I. **Targeted Intervention (TI):** Targeted Intervention programme is one of the important prevention strategies under National AIDS Control Programme. Targeted Interventions (TIs) comprise of preventive interventions working with focused client populations in a defined geographic area where there is a concentration of one or more High Risk Groups (HRGs). 80% of HRGs are planned to be covered via TIs with primary prevention services like treatment for STI, condoms, needles/syringes, Opioid Substitution Therapy (OST), Behaviour Change and Communication (BCC) enabling environment, with community involvement and linkages with care and support service. The key risk groups covered through Targeted Intervention (TI) programme include: Core High Risk Groups (HRGs)-Female Sex Workers (FSW), Men who have Sex with Men (MSM) including Transgenders (TGs), Injecting Drug Users (IDU) and Bridge Populations- Migrants and Truckers. Various components of Targeted Intervention programme includes: Behaviour Change Communication, Condom promotion, Treatment for sexually transmitted Infection, Needle Syringe program, abscess management, general medical services and Opioid Substitution Therapy (for IDUs), Linkage with HIV testing and treatment services, Community mobilization and Enabling Environment. During 2013-14, 246 TIs were established against the annual target of 300 and during 2014-15, till October 2014, 39 TIs has established against the annual target of 220.
- II. **Link Worker Scheme:** This community-based intervention address HIV prevention and care needs of the high risk and vulnerable groups in rural areas by providing information on HIV, condom

promotion and distribution and referrals to counselling, testing and STI services through Link workers. In partnership with various development partners, the Link worker scheme is operational in 156 districts as of March 2013, and reaches out to rural HRGs and their partners and vulnerable groups. The Scheme covered about 1,56,399 HRG, 30,01,493 Vulnerable Population till March, 2013. Nearly 82% HRGs have been tested at Integrated Counselling and Testing Centres (ICTC) under this intervention. This has been done by establishing linkages with existing services. In order to create a sense of ownership in the community and involve the youth in fighting against HIV, 12,721 Red Ribbon Clubs and 15,438 Information Centres had been established at the village level by March, 2013. During 2013-14, in partnership with various development partners, the Link worker scheme was operational in 161 districts covering and during 2014-15, till October 2014, it is operational in 138 districts of India.

- III. Management of Sexually Transmitted infections (STI)/Reproductive Tract Infection (RTI) prevention and control Programme:** Provision of Sexually Transmitted Infections (STI) / Reproductive Tract Infections (RTI) services is aimed at preventing HIV transmission under the NACP III and Reproductive and Child Health (RCH II) programme of the National Rural Health Mission (NRHM). Enhanced Syndromic Case Management, with minimal laboratory tests, is the cornerstone of STI/RTI management under NACP III. Presently, NACO is supporting 1,114 designated STI/RTI clinics which are providing STI/RTI services based on the enhanced syndromic case management. NACO has strengthened seven regional STI training, reference and research centres to provide etiologic diagnosis to the STI/RTI cases, validate syndromic diagnosis, monitor drug resistance to gonococci and implement quality control for Syphilis testing. During 2013-14, against the physical target of treating 68 lakh episodes of STI/RTI, 67.68 lakh episodes of STI/RTI were treated. The coverage of Sexually Transmitted Infections services has been scaled up through designated STI clinics and 41.1 lakh STI/RTI patients were managed as per the national protocol till October 2014 against the target of 70 lakh for 2014-15.
- IV. Condom Promotion:** NACO has successfully implemented four phases of the Condom Social Marketing Programme in 15 States. During 2013-14, around 56.45 Cr pieces of condom have been distributed through social marketing by the NACO contracted social marketing organizations against the target of 35 Cr pieces for 2013-14 and during 2014-15, till October 2014 42.2 Cr pieces against the target of 44 Cr pieces. During 2013-14, 33.6 Cr pieces of condom were distributed free up to March, 2014, against the target of 36 Cr, and during 2014-15, till October 2014, 15.81 Cr pieces against the annual target of 37 Cr pieces.
- V. Blood Safety Programme:** Access to safe blood has been ensured through a network of around 1,118 blood banks across the country, which includes 34 Model blood Banks, 175 Blood Separation Units, 167 Major Blood Banks and 742 District Level Blood Banks. During 2013-14, against the target of 55 lakh blood collection at the NACO supported blood bank, 57.48 lakh blood units were collected across the country, 84% of this was through voluntary blood donation. During 2014-

15, against the target of 60 lakh blood collection at the NACO supported blood bank, 33.16 lakh blood units were collected across the country till October 2014, and 82.57% of this was through voluntary blood donation. World Blood Donor Day was observed through a National event on 14<sup>th</sup> June 2014 to felicitate blood donors for their valuable contribution. National Plasma policy as an addendum to National Blood Policy has been prepared and disseminated. Projects in the pipeline include setting up of Metro Blood Banks as Centres of Excellence in Transfusion Medicine in Chennai, Delhi, Kolkata and Mumbai and establishment of a Plasma Fractionation Centre in Chennai.



**VI. HIV Counselling and Testing Services:** This programme offers counselling and testing services for HIV infection, which includes three main components – Integrated Counselling and Testing Centres (ICTC), Prevention of Parent to Child Transmission (PPTCT) and HIV-TB collaborative activities. At present, free counselling and testing services are being provided through 4,537 Stand Alone ICTCs, 9,196 Facility- ICTCs and 1,805 PPP – ICTCs. During 2013-14, 130.30 lakh general clients have been provided with free counselling and testing services for HIV and 68.93 lakh general clients availed testing and counselling and testing services during 2014-15 (till October 2014).

The prevention of parent to child transmission (PPTCT) of HIV transmission under NACP involves free counselling and testing of pregnant women, detection of HIV positive pregnant women, and the administration of prophylactic ARV (Antiretroviral) drugs to HIV positive pregnant women and their infants to prevent the mother to child transmission of HIV. The NACO has decided to provide ARV drugs to Pregnant Women infected with HIV, irrespective of CD4 (Cluster of Differentiation 4) count nationwide, with effect from January, 2014. During 2013-14, 97.52 lakh Pregnant Women have been provided with free counselling and testing for HIV. Also 84% of HIV positive Pregnant Women and their babies received ARV prophylaxis for prevention of mother to child transmission and during 2014-15 (till October 2014) 51.07 lakh pregnant

Women have been provided with free counselling and testing for HIV with 92% received HIV positive Pregnant Women and their babies received ARV prophylaxis for prevention of mother to child transmission.

Broadly, the national HIV/TB response includes Intensified TB case finding at HIV Care Settings, Intensified TB-HIV Package, and Strategy for TB prevention among PLHIV. These activities are closely guided through duly constituted National HIV-TB Coordination Committee, Nation Technical Working Group and State and District level Coordination Committees. During 2013-14, 14.88 lakh cross referrals have been made between ICTC & RNTCP (Integrated Counselling and Testing Centres & Revised National TB Control Programme). During 2014-15, (till October 2014), 9.90 lakh cross referrals have been made between ICTC & RNTCP.

- VII. Care, Support & Treatment Programme:** The Care, support and treatment programme under NACP includes comprehensive management of PLHIV with respect to treatment and prevention of Opportunistic infections, Anti-retroviral therapy (ART), psycho-social support, home based care, positive prevention and impact mitigation. The ART is offered free of cost to all PLHIV who are eligible clinically. Any person who has a confirmed HIV infection is subjected to further evaluation for determining whether he requires ART or not by undergoing CD4 count and other baseline investigations. All those PLHIV eligible as per technical guidelines are initiated on first line ART. Some of these PLHIV who develop resistance to first line ART are started on second line ART. In the late nineties and early 2000, the ART was beyond the reach of most of positive patients due to high cost (Rs. 20-30,000 per month), which came down significantly due to production of generic ARV drugs by Indian Pharmaceutical companies. Considering the need of patients, the Govt. of India started free ART programme launched on 1<sup>st</sup> April, 2004 in eight government hospitals in six high prevalence states. Establishment of ART Centre has been scaled up significantly to 448 ART centres. In addition, 987 link ART centres have also been set up to facilitate the delivery of ART nearer to residence of PLHIV. Against the target of establishment of 45 new ART Centers in 2014-15, 32 new ART centres have been established and 8.12 lakh People living with HIV/AIDS are receiving free ART in government health facilities up to October 2014. In addition to this, 325 Care and support centres (CSC) are functional to provide a range of psychosocial services to PLHIV.
- VIII. Laboratory Services-** Laboratory Services provide universal availability and routine access to quality assured HIV related laboratory services. The assurance of quality in kit evaluation, assessment of HIV testing services through implementation of External Quality Assessment Scheme (EQAS), CD4 testing, viral load testing and Early Infant Diagnosis is being addressed on a continuous basis. Under NACP, routine access to quality assured HIV related laboratory services is made universal available. All testing laboratories are assessed for their performance under the External Quality Assurance Scheme. 11 National Reference Laboratories and 29 State Reference Laboratories (SRLs) under NACP have been accredited for HIV testing by the National Accreditation Board for Testing and Calibration of Laboratories. 12 SRLs have applied for accreditation.

**IX. Information Education & Communication:** NACO's communication strategy has moved from creating general awareness to Behaviour Change Communication. It aims to motivate behavioural change among most at risk populations, raise awareness and risk perception among general population, particularly youth and women, generate demand for HIV/AIDS related health services like condoms, ICTC/PPTCT facilities; and create an enabling environment that encourages HIV related prevention, care and support activities and to reduce stigma and discrimination at individual, community and institutional levels. NACO implements integrated and comprehensive campaigns using 360° communication approach. Regular campaigns are conducted at national and state level using mass media, mid-media, outdoor, interpersonal communication, and innovative media vehicles like digital cinema, panels in metro trains, digital screens, internet, and mobile phones among others.



**X. Mainstreaming and Social Protection:** The NACO, with an objective to formalize its partnership with the various departments/ ministries, entered into Memoranda of Understanding with 11 Departments/Ministries till October 2014. These partnerships aimed at risk reduction, improved access to service and social protection for PLHIV and High risk Groups.

HIV sensitive Social Protection is a set of public measures that a society provides for its members to protect them against economic and social distress which very often may push them towards risk behaviours of HIV. This may be caused by the absence or a substantial reduction of income from work, sickness, maternity, unemployment, invalidity, old age, and death of the breadwinner. The NACO recognizes the fact the reduction of vulnerability is a key to the success of its prevention, care, support and treatment programme. Hence, it has placed social protection as one of its core strategies in NACP-IV. NACO works closely with other government departments to identify and advocate for amendment/adaptation of policies and schemes for social protection of marginalized groups. India and its States/Union Territories have taken significant steps taking into consideration the special vulnerabilities faced by people affected by HIV and AIDS.

**XI. Strategic Information Management:** India has a robust system of annual HIV Sentinel Surveillance for monitoring the HIV epidemic in the country among general population as well as High Risk Groups. Besides epidemic trend analysis, data from surveillance is also used for strategic planning and prioritisation under the programme as well as estimation of adult HIV prevalence, HIV incidence and mortality. Globally accepted models are used to estimate and project the HIV burden in the country. NACO is currently implementing National Integrated Biological & Behavioural Surveillance among high risk groups and bridge population. Programme generates rich data on service delivery through over 20,000 reporting units across the country. Strategic Information Management System (SIMS), a web-based system for data management and analysis of all programme data was launched in August 2010 and is rolled out across the country. Research in HIV/AIDS is promoted and coordinated by NACO in collaboration with the Indian Council of Medical Research. An elaborate Analysis & Research Plan is being rolled out to fill the critical evidence gaps in the programme. The 'Network of Indian Institutions for HIV/AIDS Research' was constituted to facilitate and undertake HIV/AIDS research; 42 reputed institutions are currently members of this Consortium.

## **Malaria: Prevention and Cure – focussed initiatives are in progress....**

**8.14.** Malaria continues to pose a major public health threat in different parts of the country. About 95% population in the country resides in malaria endemic areas and 80% of malaria reported in the country is confined to areas consisting 20% of population residing in tribal, hilly, difficult and inaccessible areas. Malaria is an acute parasitic illness mainly caused by *Plasmodium Vivax* and *Plasmodium falciparum* in India. However sporadic cases of *P.malariae* are also reported. The diagnosis is confirmed by microscopic examination of a blood smear and Rapid Diagnostic Tests. Majority of the patients recover from the acute episode within a week. The cases, particularly due to *Plasmodium falciparum* are critical as it is sometimes prone to develop severity and death, if not treated early. One of the reasons attributed to rise in proportion of *P.falciparum* cases is resistance to chloroquine, which was used for a long time as the first line of treatment of malaria cases. Directorate of National Vector Borne Disease Control Programme (NVBDCP) has framed technical guidelines/ policies and provides most of the resources for the programme. Indicators have been developed at national level for monitoring of the programme and there is uniformity in collection, compilation and onward submissions of data. Passive surveillance of malaria is carried out by PHCs, Malaria Clinics, CHCs and other secondary and tertiary level health institutions that patients visit for treatment. Apart from that, ASHA- a village volunteer is involved in the programme to provide diagnostic and treatment services at the village level as a part of introduction of intervention like Rapid Diagnostic Tests and use of Artemisinin Combination Therapy (ACT) for the treatment of Pf cases. The countrywide malaria situation as reflected in surveillance data from 1995-2014 is given below.

**Fig. 8.14.1: Annual Parasite Incidence (per 1000 population)**



Source: Directorate of National Vector Borne Disease Control Programme

The load of total malaria cases, though steady around 2 million cases annually in the late nineties, has shown a declining trend since 2002, with slightly upward moves in some in between years.

**Table 8.14.1: Countrywide Epidemiological Situation (1995 – 2012)**

Year	Population (in '000)	Total Malaria Cases (million)	P.falciparum cases (million)	Pf %	API	Deaths due to malaria
1995	888143	2.93	1.14	38.84	3.29	1151
1996	872906	3.04	1.18	38.86	3.48	1010
1997	884719	2.66	1.01	37.87	3.01	879
1998	910884	2.22	1.03	46.35	2.44	664
1999	948656	2.28	1.14	49.96	2.41	1048
2000	970275	2.03	1.05	51.54	2.09	932
2001	984579	2.09	1.01	48.20	2.12	1005
2002	1013942	1.84	0.90	48.74	1.82	973
2003	1027157	1.87	0.86	45.85	1.82	1006
2004	1040939	1.92	0.89	46.47	1.84	949
2005	1082882	1.82	0.81	44.32	1.68	963
2006	1072713	1.79	0.84	47.08	1.66	1707
2007	1087582	1.51	0.74	49.11	1.39	1311
2008	1119624	1.53	0.77	50.81	1.36	1055
2009	1150113	1.56	0.84	53.72	1.36	1144
2010	1167360	1.60	0.83	52.12	1.37	1018
2011	1194901	1.31	0.67	50.74	1.10	754
2012	1211509	1.06	0.53	49.98	0.88	519
2013	1221640	0.88	0.46	52.6	0.72	440
2014 (P) as on 30/1/15	1221640	1.07	0.70	65.72	0.88	578

Source: Directorate of National Vector Borne Disease Control Programme

The reported Pf cases declined from 1.14 million in 1995 to 0.70 million cases in 2014. However, the Pf % has gradually increased from 39% in 1995 to 65.72% in 2014 (upto Nov-14). The Annual Parasite Incidence (API) rate has consistently come down from 2.12 per thousand in 2001 to 0.72 per thousand in 2013, but slightly increased to 0.88 in 2014 but confirmed deaths due to malaria in 2013 was 440 and in 2014, 578 malaria deaths have been registered. The mortality peak in 2006 was related to severe malaria epidemics affecting Assam caused by population movements.

**Fig: 8.14.2 Deaths due to malaria**



Source: Directorate of National Vector Borne Disease Control Programme

### Controlling the Malaria situation in India

**8.15** The Directorate of National Vector Borne Disease Control Programme (NVBDCP) is the central nodal agency for the prevention and control of vector borne diseases i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India. It is one of the Technical Departments of Directorate General of Health Services, Government of India. The National Vector Borne Disease Control Programme (NVBDCP) is an umbrella programme for prevention and control of Vector Borne Diseases (VBDs). These diseases pose major public health problems and hamper socio-economic development. Generally the rural, tribal and urban slum areas are inhabited mostly by people of socio-economic groups who are more prone to develop VBDs and are considered as high risk groups.

The existing strategies for prevention and control of Malaria are

- Focused interventions in high malaria endemic areas.
- Early diagnosis and treatment
- Strengthening of human resources for surveillance and laboratory support
- Use and scale up of Rapid Diagnostic Test (RDT)
- Introduction and scale up of Artemisinin-based Combination Therapy (ACT) for Pf cases
- Up-scaling use of Long Lasting Insecticidal Nets (LLINs)
- Indoor Residual Spray (IRS)
- Intensive monitoring & supervision
- Intensified Information, Education and Communication (IEC) and
- Behaviour Change Communication (BCC) activities involving community.

**8.15.1 Urban Malaria Scheme (UMS):** The control of malaria in the urban areas was thought of an important strategy as a programme complimentary to the NVBDCP for rural areas. The Modified Plan of Operation (MPO) was designed to tackle the malaria situation in both urban and rural areas in the country simultaneously. Under MPO, it was decided to initiate anti-larval and anti-parasitic measures to abate the malaria transmission in urban areas. The proposal to control malaria in towns named as Urban Malaria Scheme was approved during 1971 and it was envisaged that 131 towns would be covered under the scheme in a phased manner. This scheme was sanctioned during November, 1971 and the central assistance under this scheme was treated 100 per cent grant to the State Governments in kind. From 1979-80, the expenditure on this scheme is being shared between the Centre and the State Governments on 50:50 basis.

At present, Urban Malaria Scheme is protecting 115.1 million population from malaria as well as from other mosquito borne diseases in 131 towns in 19 States and Union Territory. The Urban Malaria Scheme aims to prevent deaths due to malaria and to reduce transmission and morbidity.

The norms of UMS are,

- a. towns with minimum population of 50,000,
- b. API value 2 or above and promulgate
- c. strictly implement the civic by-laws to prevent/eliminate domestic and peri-domestic breeding places.

#### **Urban malaria situation: Epidemiological and disease specific background**

About 10% of the total cases of malaria are reported from urban areas. Maximum numbers of malaria cases are reported from Chennai, Vishakapatnam, Vadodara, Kolkata, New Mumbai, Vijayawada, etc. The comparative epidemiological profile of malaria during 2005-2010 in all urban towns of the country is as follows:

Table 8.15.1: Comparative Epidemiological profile of malaria in 19 States under UMS during 2005-12

Year	Population	Total cases	P.f	P.F %	Deaths
2005	102423064	135249	14905	11.02	96
2006	105782505	129531	17278	13.34	145
2007	112448027	102829	18038	16.82	125
2008	113334073	113810	18963	13.42	102
2009	114699850	166065	31134	18.75	213
2010	115159555	74908	7587	18.75	31
2011	130316971	142502	13910	9.76	147
2012	130329138	82400	8217	9.97	61
2013*	130330838	9941	615	6.19	5

\*Provisional upto May 2013

Source: Directorate of National Vector Borne Disease Control Programme

## **Control Strategies under Urban Malaria Scheme**

Under the scheme, Malaria Control strategy will comprise of (i) Parasite control and

(ii) Vector control.

i. **Parasite control:** Treatment is done through passive agencies viz. hospitals, dispensaries both in private & public sectors and private practitioners. In mega cities malaria clinics are established by each health sector/ malaria control agencies viz. Municipal Corporations, Railways, Defence services.

i. Vector control comprises of the following components

- Source reduction
- Use of larvicides
- Use of larvivorous fish
- Space spray
- Minor engineering
- Legislative measure

The control of urban malaria lies primarily in the implementation of urban byelaws to prevent mosquito breeding in domestic and peri-domestic areas, or residential blocks and government/commercial buildings, construction sites. Use of larvivorous fish in the water bodies such as slow moving streams, lakes, ornamental ponds, etc. is also recommended. Larvicides are used for water bodies, which are unsuitable for use of larvivorous fish. Awareness campaigns are also undertaken by Municipal Bodies/Urban area authorities.

The control measures recommended under UMS are as below:

### **a. Source reduction**

Environmental methods of controlling mosquito breeding including source reduction minor engineering works, by filling ditches, pits, low lying areas, streamlining, canalizing, desilting, dewatering, trimming of drains, water disposal and sanitation, emptying water containers once in a week and observing weekly Dry Day etc.

### **b. Anti-larval methods**

**Chemical Control:** Recurrent anti-larval measures at weekly intervals with approved chemical larvicides to control the vector mosquitoes are recommended.

**Biological Control:** In some urban areas larvivorous fish like Gambusia and Guppy are also used in certain situations where the chemical control is not feasible. Biological larvicide, *Bacillus thuringiensis israelensis*

either wettable powder or aqueous suspension are also used for control of aquatic stages of vector mosquitoes.

c. **Aerosol Space Spray:** Space spraying of pyrethrum extract (2%) in 50 houses in and around every malaria and dengue positive cases to kill the infective mosquitoes is recommended.

**8.15.2 National Drug Policy on Malaria (2013):** The National Drug Policy on Malaria was first formulated in 1982 and has subsequently been reviewed and revised periodically. The present National Drug Policy for Malaria (2013) has been drafted keeping in view the availability of more effective antimalarial drugs and drug resistance status in the country. Early diagnosis and complete treatment is one of the key strategies of the National Malaria Control Programme. All fever cases clinically suspected of malaria should be investigated for confirmation of malaria by either microscopy or Rapid Diagnostic Test (RDT). In high Pf predominant areas where it is not possible to get microscopy results within 24 hours, ASHAs/ other community health volunteers/ Multi-Purpose Workers (MPWs) should be provided with rapid diagnostic kits and anti-malarials (including ACT) for early diagnosis and treatment of P.falciparum cases.

Effective treatment of malaria under the National Drug Policy aims at:

- Providing complete cure (clinical and parasitological) of malaria cases
- Prevention of progression of uncomplicated malaria into severe malaria and thereby reduce malaria mortality
- Prevention of relapses by administration of radical treatment
- Interruption of transmission of malaria by use of gametocytocidal drugs
- Preventing development of drug resistance by rational treatment of malaria cases.

### Fight against TB continues....

**8.16.1** Today in India, two deaths occur every three minutes due to tuberculosis (TB). With proper care and treatment, TB patients can be cured and the battle against TB can be won. Tuberculosis (TB) is an infectious disease caused by a Bacterium, Mycobacterium tuberculosis. It is spread through the air by a person suffering from TB. A single patient can infect 10 or more people in a year. TB is the most common opportunistic infection in people living with HIV virus. As the HIV breaks down the immune system, HIV infected people are at greatly increased risk of TB. Without HIV, the lifetime risk of developing TB in TB infected people is 10%, compared to at least 50% in HIV co-infected. HIV is also the most powerful risk factor for progression from TB infection to TB disease. TB in turn accelerates the progression of HIV to AIDS and shortens the survival of patients with HIV infection. Thus, TB and HIV are closely interlinked. With large numbers of HIV-positive individuals in India, it is likely that HIV may worsen the TB epidemic in the absence of a robust TB control programme. However, even among HIV infected people, TB can be cured. Directly Observed Treatment, Short-course (DOTS) is as effective among HIV infected TB patients as among those who are HIV negative.

**8.16.2** As per WHO estimations, in India, Tuberculosis prevalence per lakh population has reduced from 465 in year 1990 to 211 in 2013. TB Incidence per lakh population has reduced from 216 in year 1990 to 171 in 2013. Tuberculosis mortality per lakh population has reduced from 38 in year 1990 to 19 in 2013.

**Table 8.16.2: Tuberculosis situation in India**

Year	Incidence (Per lakh population)	Prevalence (Per lakh population )	Mortality (Per Lakh Population)
1990	216	465	38
1995	216	465	38
2000	216	438	39
2005	209	365	36
2009	190	289	29
2010	185	269	27
2011	181	249	24
2012	176	230	22
2013	171	211	19

Source: M/o Health and Family Welfare

#### **Directly Observed Treatment, Short-course (DOTS) in Revised National Tuberculosis Control Programme**

**8.16.3** India has a long and distinguished tradition of research in TB. Studies from the Tuberculosis Research Centre in Chennai and the National Tuberculosis Institute in Bangalore provided key knowledge to improve treatment of TB patients all around the world. Modern anti-TB treatment can cure virtually all patients. It is, however, very important that treatment be taken for the prescribed duration, which in every case is a minimum of 6 months. Because treatment is of such a long duration and patients feel better after just 1-2 months, and because many TB patients face other problems such as poverty and unemployment, treatment is often interrupted. Therefore, just providing anti-TB medication is not sufficient to ensure that patients are cured. The DOTS (Directly Observed Treatment, Short-course) strategy ensures that infectious TB patients are diagnosed and treated effectively till cure, by ensuring availability of the full course of drugs and a system for monitoring patient compliance to the treatment. The Revised National Tuberculosis Control Programme (RNTCP), based on the DOTS strategy, began as a pilot in 1993 and was launched as a national programme in 1997. Rapid RNTCP expansion began in late 1998. By the end of 2000, 30% of the country's population was covered, and by the end of 2002, 50% of the country's population was covered under the RNTCP. By the end of 2003, 778 million population was covered, and at the end of year 2004 the coverage reached to 997 million. By December 2005, around 97% (about 1080 million) of the population had been covered, and the entire country was covered under DOTS by 24<sup>th</sup> March 2006.

DOTS is a systematic strategy which has five components;

- **Political and administrative commitment.** TB is the leading infectious cause of death among adults. TB kills more men than women, yet more women die of TB than all causes associated with childbirth combined. Since TB can be cured and the epidemic reversed, it warrants the topmost priority, which it has been accorded by the Government of India. This priority must be continued and expanded at the

State, district and local levels.

- **Good quality diagnosis.** Good quality microscopy allows health workers to see the tubercle bacilli and is essential to identify the infectious patients who need treatment the most.
- **Good quality drugs. An uninterrupted supply of good quality anti-TB drugs** must be available. In the RNTCP, a box of medications for the entire treatment is earmarked for every patient registered; ensuring the availability of the full course of treatment the moment the patient is initiated on treatment. Hence in DOTS, the treatment can never interrupt for lack of medicine.
- **Supervised treatment to ensure the right treatment**, given in the right way. The RNTCP uses the best anti-TB medications available. But unless treatment is made convenient for patients, it will fail. This is why the heart of the DOTS programme is “directly observed treatment” in which a health worker, or another trained person who is not a family member, watches as the patient swallows the anti-TB medicines in their presence.
- **Systematic monitoring and accountability.** The programme is accountable for the outcome of every patient treated. This is done using standard recording and reporting system, and the technique of ‘cohort analysis’. The cure rate and other key indicators are monitored at every level of the health system, and if any area is not meeting expectations, supervision is intensified. The RNTCP shifts the responsibility for cure from the patient to the health system.

Every day in India, under the RNTCP, more than 15,000 suspects are being examined for TB, free of charge. The diagnosis of these patients and the follow-up of patients on treatment is achieved through the examination of more than 50,000 laboratory specimens. As a result of these examinations, each day, about 3,500 patients are started on treatment, stopping the spread of TB in the community. In order to achieve this, more than 600,000 health care workers have been trained and more than 11,500 designated laboratory Microscopy Centres have been upgraded and supplied with binocular microscopes since the inception of the RNTCP. As a result of rapid expansion in diagnostic facilities, the proportion of sputum-positive cases confirmed in the laboratory are double that of the previous programme and is at par with international standards. Despite the rapid expansion, overall performance remains good and in many areas it is excellent. Treatment success rates have tripled from 25% in the earlier programme to 86% in RNTCP.

Multi-drug-Resistant Tuberculosis (MDRTB) refers to strains of the bacterium which are proven in a laboratory to be resistant to the two most active anti-TB drugs, isoniazid and rifampicin. Treatment of MDRTB is extremely expensive, toxic, arduous, and often unsuccessful. MDRTB is a tragedy for individual patients and a symptom of poor TB management. The best way to confront this challenge is to improve TB treatment and implement DOTS. The strategy of DOTS has been proven to prevent the emergence of MDRTB, and also to reverse the incidence of MDRTB where it has emerged.

The new 'STOP TB' Strategy published by WHO in 2006 has DOTS in the core with additional components to address TB/HIV and MDRTB, health system strengthening, involvement of all care providers, engaging people with TB and affected communities, and enabling/promoting research. In India, the RNTCP has now entered its second phase in which the programme aims to firstly consolidate the gains made to date, to widen services both in terms of activities and access, and to sustain the achievements for decades to come in order to achieve ultimate objective of TB control in the country. The DOTS strategy along with the other components of the Stop TB strategy, implemented under the Revised National Tuberculosis Control Programme (RNTCP) in India, is a comprehensive package for TB control. All components of new **Stop TB Strategy** are incorporated in the second phase of RNTCP. These are:

1. **Pursue quality DOTS expansion and enhancement**, by improving the case finding and cure through an effective patient-centred approach to reach all patients, especially the poor.
2. **Address TB-HIV, MDRTB and other challenges**, by scaling up TB-HIV joint activities, DOTS Plus, and other relevant approaches.
3. **Contribute to health system strengthening**, by collaborating with other health programmes and general services
4. **Involve all health care providers**, public, nongovernmental and private, by scaling up approaches based on a Public-Private Mix (PPM), to ensure adherence to the International Standards of TB care.
5. **Engage people with TB, and affected communities** to demand, and contribute to effective care. This will involve scaling-up of community TB care; creating demand through context-specific advocacy, communication and social mobilization.
6. **Enable and promote research** for the development of new drugs, diagnostic and vaccines. Operational Research will also be needed to improve programme performance.

The Revised National TB Control Programme now aims to widen the scope for providing standardized, good quality treatment and diagnostic services to all TB patients in a patient-friendly environment. Recognizing the need to reach to every TB patient in the country, the programme has made special provisions to reach marginalized sections of the society, including creating demand for services through specific advocacy, communication and social mobilization activities.

**The statistics points out that the epidemics of HIV/ AIDS, Malaria and TB are under control because of enormous effort and mobilisation over the past decade in India. This guard cannot be lowered. While the trend has been reversed in terms of prevalence rates, in absolute numbers, India's figures for these diseases are still substantial. Hence more focussed and intensive initiatives need to be sustained in the fight against these deadly diseases.**

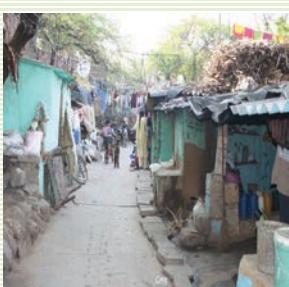
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# CHAPTER 9

## Safeguarding the environment



Impacts of Environment are immense as they act at varying level influencing the quality of human life. The development activities undertaken to improve the living standard of people, at large, sometimes affect the natural environment adversely in many ways and cause severe threats to bio diversity. The Millennium Development Goal -7 addresses the concern for sustainable development to reverse environment degradation and loss with focus on improving/ monitoring indicators associated with it.

### Goal 7: Ensure Environmental Sustainability

**TARGET 9:** Integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources

#### Indicators

- 25. Proportion of land area covered by forest
- 26. Ratio of area protected to maintain biological diversity to surface area
- 27. Energy use per unit of GDP( Rupee)
- 28. Carbon Dioxide emission per capita and consumption of Ozone -depleting Chlorofluoro Carbons (ODP tons)
- 29. Proportion of the Households using solid fuels

**TARGET 10:** Halve, by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation

#### Indicators

- 30. Proportion of population with sustainable access to an improved water source, urban and rural
- 31. Proportion of population with access to improved sanitation, urban and rural

**TARGET 11:** By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

#### Indicators

- 32. Slum population as percentage of urban population

## To Reverse the Loss to Environment Resources.....

### Indicator: Proportion of land area covered by forests

**9.2.** Improving forest cover and protected areas are measures towards ensuring sustainable environment and bio diversity. Forest cover includes all lands which have a tree canopy density of 10% and above and have a minimum area of one hectare. Hence, all tree species along with bamboos, fruit bearing trees, coconut, palm, etc and all trees including forest, private, and community of institutional lands meeting these criteria have been termed as forest cover. As per assessment in 2013, the total forest cover of the country is 697898 sq. km which is 21.23% of the geographic area of the country. During 2011-2013, there is an increase of 5871 sq. km in forest cover.

Table 9.2.1: Forest cover of India		
Class	Area (sq.km)	Percent of geographic area
Very Dense Forest (VDF) -All lands with tree canopy density of 70% and above	83502	2.54
Moderately Dense Forest (MDF)- All lands with tree canopy density of 40% and more but less than 70%	318745	9.7
Open Forest (OF)-All lands with tree canopy density of 10% and more but less than 40%	295651	8.99
<b>Total Forest Cover</b>	<b>697898</b>	<b>21.23</b>

Source: M/o Environment, Forest and Climate Change

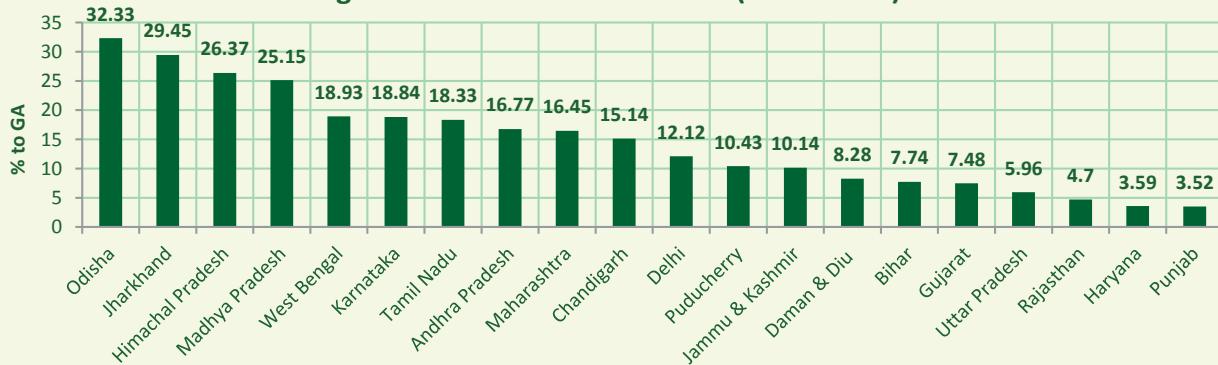
**9.3.** The positive change i.e. increase of 5871 sq. km in forest cover and 0.18 points in percentage of forest cover to geographic area during 2011 -2013, can be attributed to the conservation measures or management interventions such as afforestation activities, participation of locals for better protection measures in plantation areas as well as in traditional forest areas etc., whereas the decrease in forest cover is due to mining, developmental activities, harvesting of short rotational plantations, clearances in encroached areas, biotic pressures, shifting cultivation practices, etc. During 2011-13, there was a decline of 1991 sq.km of moderate forests while an increase of 31 sq. km and 7831 sq.km was reported for the categories of very dense forests and open forests respectively.

**9.4.** Area wise, Madhya Pradesh has the largest forest cover (77522 sq.km) in the Country followed by Arunachal Pradesh (67321 sq.km), Chhattisgarh (55621 sq. km), Maharashtra (50632 sq.km), and Odisha (50347 sq.km). In terms of percentage of forest cover with respect to total geographic area, Mizoram with 90.38% has the highest forest cover, followed by Lakshadweep (84.56%), Andaman and Nicobar Islands (81.36%), Arunachal Pradesh (80.39%), Nagaland (78.68%), Meghalaya (77.08%), Manipur (76.1%) and Tripura (75.01%). 15 States/ UTs have 33% of the geographic area under forest cover.

**Fig. 9.4.1: Forest Cover in States (>33% of GA)**



**Fig. 9.4.2: Forest Cover in States (<33% of GA)**



Source: India State of Forests Report 2013, Forest Survey of India

**Table 9.4.1 Change in Forest Cover in States during 2011-2013**

States which have reported considerable loss in forest cover			States which have reported considerable improvement in forest cover		
State	Area (Sq.km)	Reasons	State	Area (Sq.km)	Reasons
Nagaland	-274	Biotic pressure particularly the shortening of shifting cultivation cycle	Bihar	446	Afforestation activities, inclusion of TOF (Trees Outside Forests) areas
Andhra Pradesh	-273	Open cast coal mining, rotational felling of fast growing species and encroachment on forest lands	Jharkhand	496	Plantation, inclusion of TOF (Trees Outside Forests) areas
Madhya Pradesh	-178	Encroachment, Mining, Submergence of area	Kerala	622	Afforestation and conservation activities, inclusion of TOF (Trees Outside Forests) areas
Tripura	-111	Shifting cultivation practises	Odisha	1444	Conservation initiatives along with availability of better quality data
Manipur	-100	Shifting cultivation practises and biotic pressure	West Bengal	3810	Coppice growth and afforestation inside the forests, growth of commercial plantations and shade trees in tea gardens, inclusion of TOF areas

Source: India State of Forests Report 2013, Forest Survey of India

## Indicator: Ratio of area protected to maintain biological diversity to surface area

**9.5.** Protected areas are those in which human occupation or at least the exploitation of resources is limited. The definition that has been widely accepted across regional and global frameworks has been provided by the International Union for Conservation of Nature (IUCN) in its categorization guidelines for protected areas. There are several kinds of protected areas, which vary by level of protection depending on the enabling laws of each country or the regulations of the international organizations involved. The term “protected area” also includes Marine Protected Areas, the boundaries of which will include some area of ocean, and Trans-boundary Protected Areas that overlap multiple countries which remove the borders inside the area for conservation and economic purposes.

**9.6** India, a mega-diverse country with only 2.4% of the world's land area, harbours 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals. It is also amongst the few countries that have developed a biogeographic classification for conservation planning, and has mapped biodiversity-rich areas in the country. Of the 34 global biodiversity hotspots, four are present in India, represented by the Himalaya, the Western Ghats, the North-east, and the Nicobar Islands.

**9.7.** India has taken significant steps in inventorizing her vast and diverse biological heritage. In 2014, there are 692 protected areas which is 4.83% of the total geographic area of the Country. The country has 23 marine Protected Areas (PAs) in peninsular India and 106 in the islands.

**Table 9.7.1: Protected Areas in India (2014)**

	No.	Area	% of Geographical Area
National Parks (NPs)	103		
Wildlife Sanctuaries (WLSs)	525	116254.36 km <sup>2</sup>	3.54%
Conservation Reserves (CRs)	60	2037.11 km <sup>2</sup>	0.06%
Community Reserves	4	20.69 km <sup>2</sup>	0.00%
Protected Areas (PAs)	692	158645.05 km <sup>2</sup>	4.83%

Source: ENVIS Centre on Wild Life & Protected Areas, M/o Environment, Forests and Climate Change

**9.8.** The network of Protected Areas comprising 89 National Parks and 489 Sanctuaries, giving a combined coverage of 155475.63 km<sup>2</sup> in 2000 has grown steadily over the years. As of 2014, there are 692 Protected Areas (103 National Parks, 525 Wildlife Sanctuaries, 4 Community Reserves and 60 Conservation reserves) covering 158645.05 km<sup>2</sup> or 5.07% of the country's geographical area. Though there is an increase in the number of protected areas in 2014 compared to 689 in 2013, the area covered by protected areas has reduced by 7702.55 km<sup>2</sup> during this period because of reduction in the number of Wildlife Sanctuaries.

**Table 9.8.1: Protected Areas in India (2000 – 2014)**

Year	No. of NPs	Area NPs	No. of WLS	Area WLS	No. of Community Reserves	Area Community Reserves	No. of CRs	Area CRs	No. of PAs	Total Area PAs
2000	89	37593.94	489	117881.68	-	-	-	-	578	155475.63
2006	96	38183.01	506	120244.39	-	-	4	42.87	606	158470.27
2007	98	38219.72	510	120543.95	4	20.69	7	94.82	619	158879.19
2008	99	39232.58	513	122138.33	4	20.69	45	1259.84	661	162651.45
2009	99	39232.58	513	122138.33	4	20.69	45	1259.84	661	162651.45
2010	102	40074.46	516	122585.56	4	20.69	47	1382.28	669	164062.99
2011	102	40074.46	517	122615.94	4	20.69	52	1801.29	675	164512.37
2012	102	40074.46	524	123548.33	4	20.69	56	1998.15	686	165641.62
2013	102	40074.46	526	124234.52	4	20.69	57	2017.94	689	166347.6
2014	103	40332.89	525	116254.36	4	20.69	60	2037.11	692	158645.05

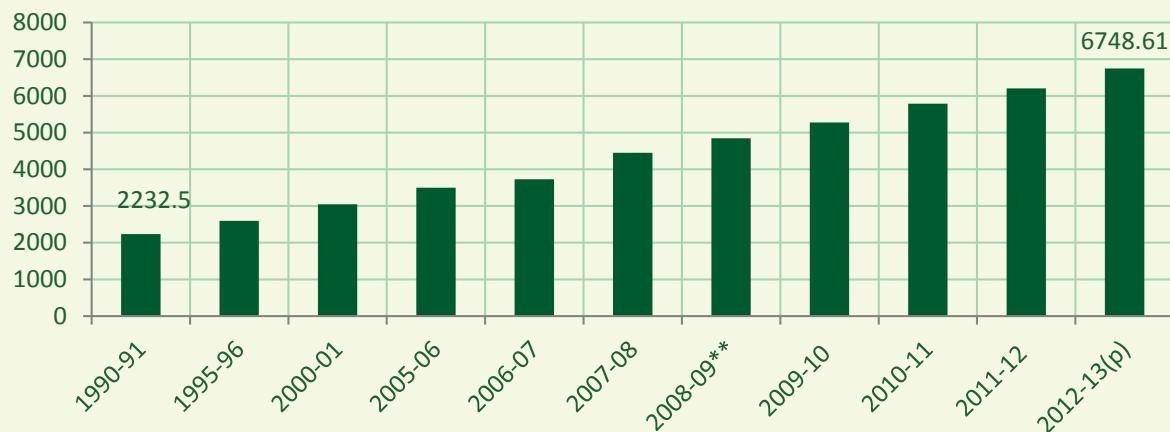
Source: ENVIS Centre on Wild Life & Protected Areas, M/o Environment, Forests and Climate Change

### Indicator: Energy use per unit of GDP (Rupee)

**9.9. Per-capita Energy Consumption (PEC)** during a year is computed as the ratio of the estimate of total energy consumption during the year to the estimated mid-year population of that year. **Energy Intensity** is defined as the amount of energy consumed for generating one unit of Gross Domestic Product (at constant prices). PEC and Energy intensity are the most commonly used policy indicators, both at national and international levels. In the absence of data on consumption of non-conventional energy from various sources, particularly in rural areas in the developing countries, including India, these two indicators are generally computed on the basis of consumption of conventional energy. Electricity, Coal & Lignite and Crude Petroleum were the main sources of energy consumption accounting for 59.28%, 19.61% and 18.09% of total consumption respectively. The total consumption of energy from conventional sources increased from 46,958 petajoules in 2011-12 to 50,741 petajoules in 2012-13, showing an increase of 8.06%.

**9.10. Per-capita Energy Consumption (PEC)** (the ratio of the estimate of total energy consumption during the year to the estimated mid-year population of that year) increased from 6205.25 KWh in 2011-12 to 6748.61 KWh in 2012-13, and thus, exhibiting a percentage annual increase of 8.76%.

**Fig.9.10.1: Trend in Per Capita Energy Consumption(KWH)**



Source: Energy Statistics 2014, Ministry of Statistics and Programme Implementation \*\* GDP at 2004-05 prices

**9.11.** The Energy Intensity (amount of energy consumed for generating one unit of Gross Domestic Product) (at 1999-2000 prices) has shown an increase from 0.1453 KWh in 2011-12 to 0.1518 KWh in 2012-13 which in terms of annual percentage increase works out to 4.49%.

**Fig.9.11.1: Trend in Energy Intensity (KWH) per rupee@**



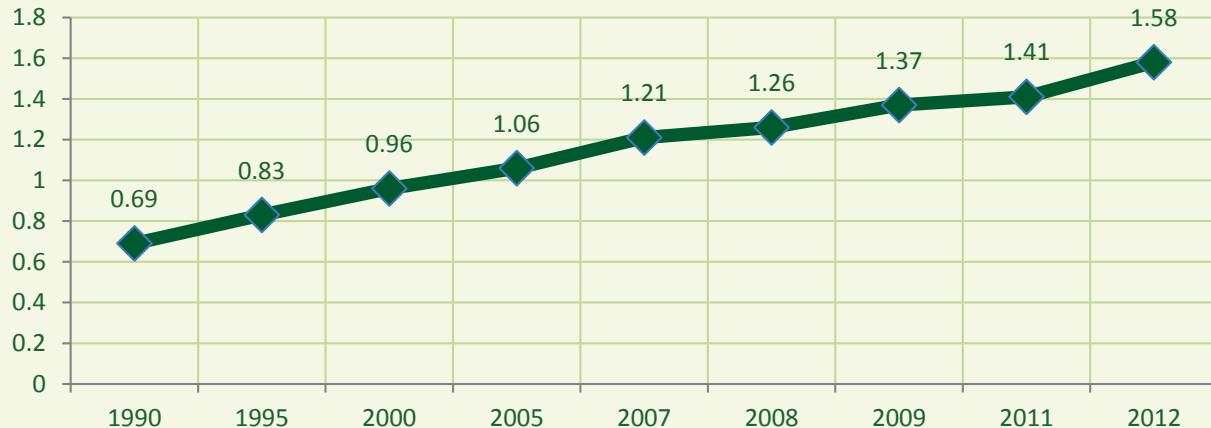
Source: Energy Statistics 2014, Ministry of Statistics and Programme Implementation \*\* GDP at 2004-05 prices

### Indicator: Carbon Dioxide emission per capita and consumption of Ozone-depleting Chlorofluoro Carbons (ODP tons)

**9.12.** Carbon dioxide ( $\text{CO}_2$ ) is the primary greenhouse gas emitted through human activities. Human activities are altering the carbon cycle—both by adding more  $\text{CO}_2$  to the atmosphere and by influencing the ability of natural sinks, like forests, to remove  $\text{CO}_2$  from the atmosphere. While  $\text{CO}_2$  emissions come from a variety of natural sources, human-related emissions are responsible for the increase that has occurred in the atmosphere since the Industrial revolution. As per the Key World Energy

Statistics 2014, by International Energy Agency, the per capita CO<sub>2</sub> emission (Million Tonnes - MT) of India is 1.58 (MT) whereas the corresponding estimate for world and Asia are respectively 4.51 (MT) and 1.59 (MT). In India, the per capita CO<sub>2</sub> emission (MT) increased steadily during 1990 to 2012.

**Fig 9.12.1: Trend in Per Capita CO<sub>2</sub> emission (MT) in India**



Source: Key energy statistics by International Energy Agency, 2014

**9.13.** In 2013, the estimated CO<sub>2</sub> emission (Million Tonnes) for India is 1954.02. The Carbon dioxide emission showed a percentage increase of 235.57% in 2012 over 1990 for India whereas the corresponding increase for the World was 51.36%. During 2009 to 2012, the percentage increase in CO<sub>2</sub> emission was 23.22% for India and 9.43% for the world.

**Table 9.13.1: Change in Carbon Dioxide emissions**

	1990	1995	2000	2005	2007	2008	2009	2011	2012
Carbon dioxide emissions Million tonnes (Sectoral approach) - India	582.3	776.6	972.5	1160	1357	1431	1585.8	1745.06	1954.02
Carbon dioxide emissions Million tonnes (Sectoral approach) -World	20966	21792	23493	27188	29048	29454	28999.4	31342	31734

Source: International Energy Agency

### Protecting Ozone layer...

**9.14.** India, being a party to the Montreal Protocol and all its amendments, has been successfully implementing the ODS (Ozone Depleting Substances) Programme in the Country. It has set up comprehensive regulatory and fiscal measures in the Country and has also been assessing the Montreal Protocol's financial mechanism for this endeavor. The Ozone Secretariat on behalf of Parties

to the Montreal Protocol awarded a certificate of appreciation and recognition to India in 2012 on the occasion of the 25<sup>th</sup> anniversary of the Montreal Protocol for its vital role in protecting the ozone layer for generations to come.

**9.15.** India had prepared a detailed Country Programme (CP) in 1993 to phase - out ODS in accordance with its National Industrial Development Strategy. India has phased out production and consumption of CFCs (Chloro Fluro Carbon), CTC (Carbon Tetra Chloride) and halons as of 1<sup>st</sup> of January 2010, except use of pharmaceutical grade CFCs in manufacturing of Metered Dose Inhalers (MDIs) for Asthma and Chronic Obstructive Pulmonary Diseases (COPD) Patients. The National strategy for Transition to Non CFC MDIs and Plan for Phasing out of CFCs in the manufacture of pharmaceutical MDIs, is being implemented by United Nations Development Programme (UNDP) as lead implementing agency in close cooperation with the MDI manufacturing industry under the guidance of Ozone cell, M/o Environment, Forests and Climate Change with an accelerated pace.

**9.16.** In 2010, consumption of CFC is estimated at 290.733 ODP tonnes (ODP –Ozone Depletion Potential), down from 5614 ODP tones in 2000. From the year 2000, the CFC consumption decreased steadily till 2008, but showed minor increase in 2010.

**Fig. 9.16.1: Consumption of CFCs ODP tonne**



Source: Ozone Cell, M/o Environment, Forests and Climate Change

### Indicator: Proportion of the Households using solid fuels

**9.17.** As per Census 2011, 67.3% households are using solid fuels (fire wood / crop residue/cow dung cake/ coke, etc) for cooking against 74.3% in 2001. Census 2011, further reveals that, in Rural areas 86.5% households and in Urban areas 26.1% households are using solid fuels for cooking.

**Table 9.17.1: Households by fuel used for cooking -Census 2011 (%)**

	All India	Rural	Urban
Fire wood	49	62.5	20.1
Crop residue	8.9	12.3	1.4
Cow dung Cake	7.9	10.9	1.7
Coal, Lignite, Charcoal	1.4	0.8	2.9
Kerosene	2.9	0.7	7.5
LPG/PNG	28.5	11.4	65
Electricity	0.1	0.1	0.1
Biogas	0.4	0.4	0.4
Others	0.9	0.9	0.9

Source: Office of Registrar General of India

**Fig. 9.17.1: Fuel Used for cooking -Decadal change**



Source: Office of Registrar General of India

During 2001- 2011, there is an increase of 11 points in the use of LPG (Liquefied Petroleum Gas) / PNG (Piped Natural Gas) for cooking.

## Programmes and Policies aiming at development of sustainable environment

### Green India Mission

**9.18.** The Ministry of Environment, Forests and Climate Change, Government of India has launched a comprehensive Mission, the 'National Mission for a Green India' as part of National Action Plan for Climate Change through a consultative process involving relevant stakeholders. The Mission (GIM) recognizes that climate change phenomena will seriously affect and alter the distribution, type and quality

of natural resources of the country and the associated livelihoods of the people. GIM acknowledges the influences that the forestry sector has on environmental amelioration through climate mitigation, food security, water security, biodiversity conservation and livelihood security of forest dependent communities. The Mission proposes a holistic view of greening and focuses not on carbon sequestration targets alone, but on multiple ecosystem services, especially, biodiversity, water, biomass, etc., along with carbon sequestration as a co-benefit.

Key innovations:

1. Focus on quality of forests
2. Focus on ecosystem services
3. Focus on democratic decentralization
4. Creating a new cadre of Community Youth as Foresters
5. Adoption of Landscape-based Approach
6. Reform Agenda as conditionality

## National Afforestation Programme

**9.19.** The National Afforestation Programme (NAP) continues to be the flagship scheme of National Afforestation and Eco – Development Board (NAEB), in so much as it provides support, both in physical and capacity building terms, to the Forest Development Agencies (FDAs) which in turn are the main organs to move forward institutionalization of Joint Forest Management. The FDA has been conceived and established as a federation of Joint Forest Management Committees (JFMCs) at the Forest Division level to undertake holistic development in the forestry sector with people's participation. This is a paradigm shift from the earlier afforestation programmes wherein funds were routed through the State Governments. This decentralized two-tier institutional structure (FDA and JFMC) allows greater participation of the community, both in planning and implementation, to improve forests and livelihoods of the people living in and around forest areas. The village is reckoned as a unit of planning and implementation and all activities under the programme are conceptualized at the village level. The two-tier approach, apart from building capacities at the grassroots level,



significantly empowers the local people to participate in the decision making process. Under Entry Point Activities, community assets are created with a 'care and share' concept.

## **Towards conservation of bio diversity.....**

**9.20.** India has established six National Bureaus dealing with genetic resources of plants, animals, insects, microorganisms, fish and soil sciences. These are the National Bureau of Plant Genetic Resources (NBPGR), with a total of 4,08,186 plant genetic resource accessions; the National Bureau of Animal Genetic Resources (NBAGR), which has a total holding of 1,23,483 frozen semen doses from 276 breeding males representing 38 breeds of cattle, buffalo, sheep, goat, camel, yak and horse for *ex situ* conservation; the National Bureau of Agriculturally Important Microorganisms (NBAIM), with a repository of 4668 cultures, including 4644 indigenous and 24 exotic accessions; and the National Bureau of Agriculturally Important Insects (NBAlI), with 593 insect germplasm holdings. The National Bureau of Fish Genetic Resources (NBFGGR), with a repository of 2553 native finfishes and Fish Barcode Information System were updated with 2570 microsatellite sequences. In terms of fish diversity, the Zoological Survey of India (ZSI) has also recorded 3022 species in India, constituting about 9.4% of the known fish species of the world.

**9.21.** In 1999, the Government of India prepared the National Policy and Macro level Action Strategy on Biodiversity through a consultative process. This document was a macro-level statement of policies and strategies needed for conservation and sustainable use of biological diversity. Thereafter, the Ministry of Environment Forests and Climate Change implemented an externally aided project, the National Biodiversity Strategy and Action Plan (NBSAP), from 2000 to 2004. India was one of the first countries to have a proactive legislation and enacted a comprehensive Biological Diversity Act in 2002 to implement the provisions of Convention on Biological Diversity (CBD). The Biodiversity Rules were notified in 2004. The Act is being implemented through a three-tier structure, National Biodiversity Authority (NBA) at the national level, State Biodiversity Boards (SBBs) at the provisional level, and Biodiversity Management Committees (BMCs) at the local level. Following India's adoption of the National Environment Policy (NEP) in 2006, the NBAP was prepared by revising and updating the National Policy and Macrolevel Action Strategy on Biodiversity, developed in 1999, and the National Bio Diversity Action Plan (NBAP -2008) outlined broad actions and detailed actionable points generally aligned with the targets laid down by the five Strategic Goals of Strategic Plan for Biodiversity (SP) 2011-2020 and the corresponding 20 Aichi Biodiversity Targets.

**9.22.** India is among the select countries in the world that have developed their own National Biodiversity Targets aligned with the Aichi Biodiversity Targets. A monitoring framework with indicators, agencies responsible for monitoring and reporting and frequency of monitoring /reporting has been developed for monitoring the trends and reporting progress in implementation of the National Biodiversity Targets. The National Biodiversity Targets and monitoring framework have been developed on the basis of consultations with a range of stakeholders and a review of the programmes and activities being undertaken by relevant Ministries/Departments in the GoI, SBBs and Non-Governmental Organizations (NGOs).

## Convergence of policy and legal provisions

**9.23.** Over the period, a variety of policy measures has been developed. Many of these measures provide opportunities for strengthening documentation and data collection; empowering local communities by assigning / recognizing responsibilities, ownerships, rights, and concessions; and creating suitable institutions. The mandates of National Forest Policy 1988 and National Environment Policy 2006 recognize the need to address the conservation of areas of biodiversity importance, increasing forest productivity, and restoring degraded areas. The legislative provisions developed as a follow-up to such national policies are,

- Indian Forest Act, 1927 (Defined concessions, Village Forests, Protected Forests, Transit of forest produce)
- Wildlife (Protection) Act, 1972 (Management of National Parks and Wildlife Sanctuaries, protection to Scheduled Species, Community and Conservation Reserves)
- Environment Protection Act, 1986 (Restoration of degraded lands, management of watersheds, Wetland management, and identification of Ecologically Sensitive Areas)
- Biological Diversity Act, 2002 (Guidance on sustainable use of biodiversity, Access and Benefit sharing of biodiversity for commercial use, identification of species of conservation importance, documentation of People's Biodiversity Registers (PBRs), declaration of Biodiversity Heritage Sites, local institutional mechanism in form of Biodiversity Management committees, and financial mechanism in form of National- State-Local Biodiversity Fund)
- Protection of Plant Varieties and Farmer's Rights Act, 2001 (Mandate of conservation of plant genetic resources, financial mechanism in form of National-State-Local Gene Fund)
- The Scheduled tribes and Other Traditional Forest Dwellers Act, also referred as Forest Rights Act (FRA), 2006 (Defines Community Forest Resources, Critical Wildlife Habitats, provides ownership of minor forest produce to the local communities, and provides tenurial security for forest dwelling communities). The functioning of the provisions is also linked with performance of the ecosystems in terms of delivering the ecosystem services for livelihoods.
- State-level legislations pertaining to various aspects of biodiversity conservation and ecosystem services are also addressing the related issues.

## Sustainable access to improved drinking water and improving sanitation facilities

**9.24.** The basic facilities, such as drinking water and sanitation, have wider significance in ensuring hygienic and healthy living. Regarding facilities necessary for decent and healthy living, data collected were those of drinking water, sanitation, bathroom, electricity, etc.

## **Indicator: Proportion of population with sustainable access to an improved water source- urban and rural**

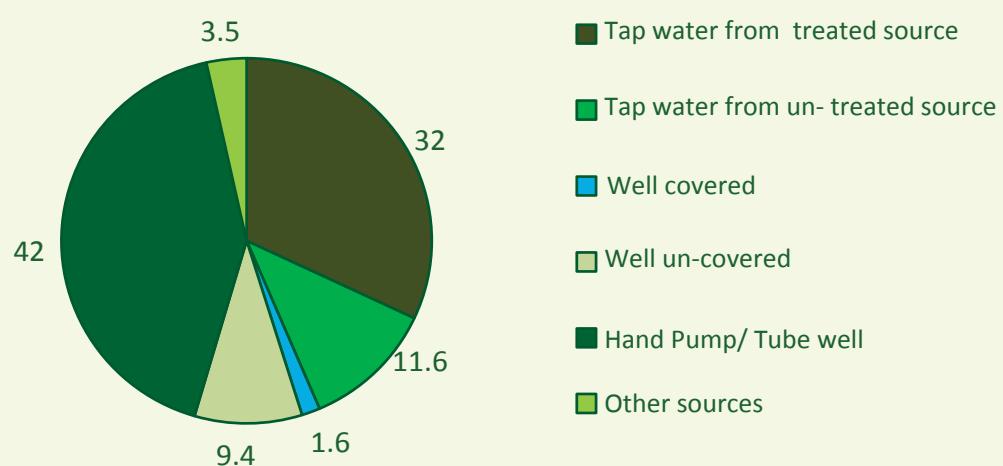
### **Providing safe drinking water....**

**9.25.** The study of the drinking water facility requires analysing the access to different sources of drinking water and sufficiency of drinking water. The accessibility of drinking water at household level has other aspect like the distances travelled by members of a household to reach the source of drinking water. The quality of drinking water is also a very important component in maintaining good health of the population. Many households attempt to improve the quality of water they drink by adopting various methods for treating the water before drinking.

**9.26.** In NSS 69<sup>th</sup> round (July- Dec 2012), the improved source of drinking water include: 'bottled water', 'piped water into dwelling', 'piped water to yard/plot', 'public tap / standpipe', 'tube well/ borehole', 'protected well', 'protected spring', and 'rainwater collection'. During 2012, at all India level, 87.8% households had improved source of drinking water while 86.9% households in rural and 90.1% households in urban area had access to improved source of drinking water. The NSS 69<sup>th</sup> round (July- Dec 2012), also shows that among the States, Kerala has the lowest proportion of households having access to improved source of drinking water (Total -37.2%, Urban -55.6%, Rural-29.2%). This can be attributed to the fact that 'uncovered wells' are the major source of drinking water in both rural (50.5%) and urban (43.9%) areas in Kerala as revealed by Census 2011.

**9.27.** The Census provides details of sources of drinking water accessed by the households. In 2011, in rural India, Hand Pump/ Tube well (51.9%) is the main source of drinking water followed by Tap (30.8%). In urban India, Tap water (70.6%) is the major source followed by Hand Pump/ Tube well (20.8%).

**Fig.9.27.1: Source of drinking water (All India) - Census 2011**



*Source: Office of Registrar General of India*

**9.26** As per MDG guidelines, 'bottled water' is not considered as an 'improved' source of drinking water and therefore have not been included in the calculation of the estimates of percentage of households having 'improved source' of drinking water.

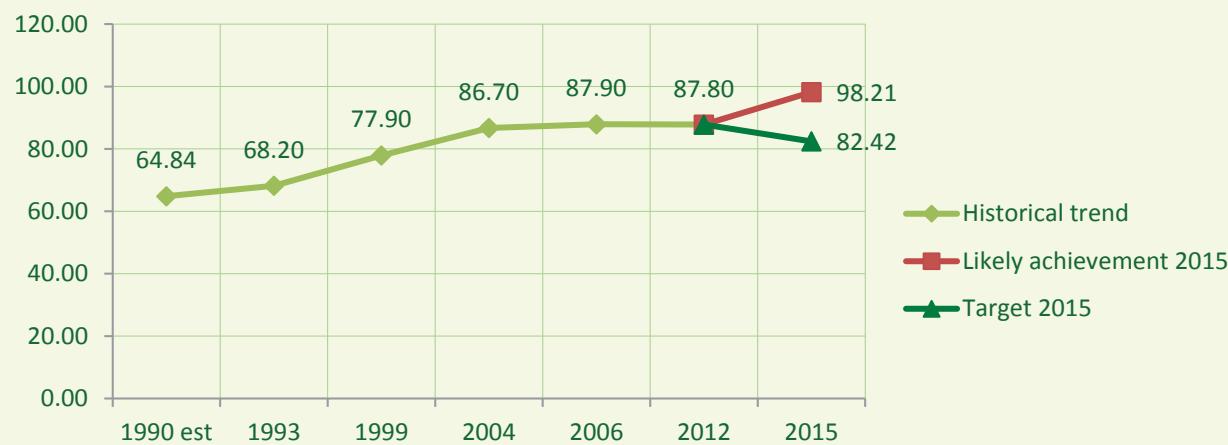
**9.28.** Though the major source of drinking water continued to remain the same during the last decade in rural and urban areas, there was shift in the percentage of population accessing the various source of drinking water and at all India level.

	Table 9.28.1 : Sources of Drinking Water (%) - Census							
	Tap		Well		Hand Pump/ Tubewell		Other Sources	
	2011	2001	2011	2001	2011	2001	2011	2001
Rural India	30.8	24.3	13.3	22.2	51.9	48.9	4.0	4.5
Urban India	70.6	68.7	6.2	7.7	20.8	21.4	2.5	2.3
All India	43.5	36.7	11	18.2	42	41.2	3.5	3.9

Source: NFHS, DLHS, NSS

**9.29.** The prevailing trend over time suggests, the target of halving the proportion of households without access to safe drinking water sources from its 1990 level to be reached by 2015, has already been achieved in rural areas as the latest data shows that 87.9% of households have access to improved drinking water sources against the target of 78.39%. In urban areas in 2012, 90.1% households have access to improved drinking water source and is likely to reach 94.2% vis –a vis the target of 93.63% by 2015. At all India level also, the target for access to improved source of drinking water has already been achieved as in 2012, 87.8% households have access to improved source of drinking water against the target of 82.42%.

**Fig. 9.29.1: Trend in percentage of households having access to improved source of drinking water -All India**



Source: NFHS, DLHS, NSS

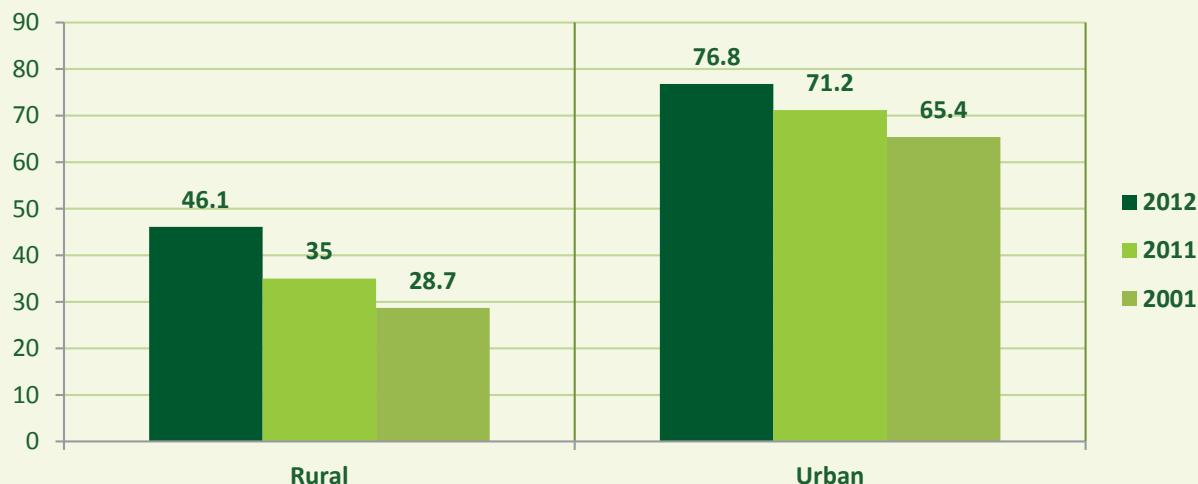
**9.30.** The quality of drinking water, sufficiency of drinking water and availability within premises of households, etc are other important related concerns. The 69<sup>th</sup> round NSS (July –Dec 2012) had ascertained, the selected households' perception on the quality of drinking water they received from the principal source. It was ascertained whether the water was 'bad in taste', 'bad in smell', 'bad in taste and smell', 'bad due to other reasons' or had 'no defect'. The proportion of households reporting 'no defect'

of drinking water from respective principal source can be interpreted as the proportion of households that were satisfied with the quality of the drinking water they got. The result shows that 87.7 percent and 88.1 percent households in rural India and urban India respectively were getting good quality of drinking water. In rural areas of most of the bigger States, more than 75 percent of households got 'good quality' of drinking water except in Assam (58.0 percent). Similarly in urban areas of most of the bigger states, more than 70 percent of households got 'good quality' of drinking water except in Assam (63.8 percent) and Jammu & Kashmir (65.6 percent).

**9.31.** During 2012, 85.8 %households in rural India had sufficient drinking water, the figure being 89.6%percent in urban India. Among rural areas of bigger States, Uttar Pradesh had the highest (97.1%) and Jharkhand, the lowest (70.3%) proportion of households having sufficient drinking water. Similarly among urban areas of bigger states, Uttar Pradesh had the highest (96.6 %) and Madhya Pradesh, the lowest (76.2%) proportion of households having sufficient drinking water.

**9.32.** Census 2011 revealed that, at all India level, 46.6% households has drinking water facility within premises of the households showing an improvement over 39% in 2001. NSS 2012, reveals that, in rural areas 46.1% households and in urban areas 76.8% households have drinking water facility within premises of the households.

**Fig. 9.32.1: Drinking water facility within primises of households**



Source: Census, Office of Registrar General of India & NSS 69<sup>th</sup> round

**9.33.** The treatment of drinking water is another important indicator of quality of drinking water and hygienic living as many households treat water by one or more methods before drinking. Treatment of water can be done through boiling, filtering, and by using chemicals, electronic purifier or any other method. In 2012, 32.3 % and 54.4 % of households in rural India and urban India respectively had treated water 'by any method' before drinking. Among rural areas of bigger states, Gujarat had the highest (85.4%) proportion of households who had treated drinking water 'by any method' before drinking while proportion of such households below that at all-India level were in Uttar Pradesh (1.7%), Bihar (2.2%),

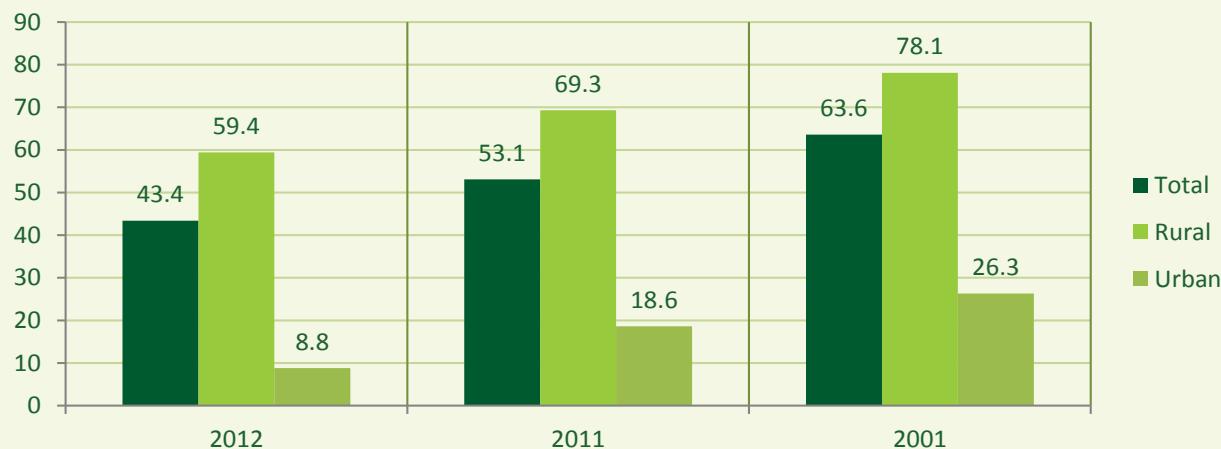
Haryana (6.6%), to name a few. Similarly among urban areas of bigger states, proportions of households which had treated drinking water ‘by any method’ before drinking varied from 90.1% (for Kerala) to 11.9% (for Bihar) with Delhi (44.1%), Haryana (41.1%), Odisha (46.9 %), Punjab (31.0 %), Tamil Nadu (45.3%), to name a few, all below the all-India proportion of such households.

### **Basic Sanitation facility to households still eludes largely....**

**9.34.** The sanitation facility available to the households is having a huge impact on the living conditions and it is closely related to the health and hygiene of the members of households. In World Health Organization and United Nations Children’s Fund’s Global Water Supply and Sanitation Assessment 2000 Report, sanitation was defined to include connection to a sewer or septic tank system, pour-flush latrine, simple pit or ventilated improved pit latrine, with allowance for acceptable local technologies. The NSS 2012 shows that 59.4% and 8.8% households in rural India and urban India respectively had no access to sanitation. Across rural areas of bigger States, it is observed that during 2012, Jharkhand had the highest (90.5 %) proportion of households that had no latrine facilities, much higher than the all India proportion. Other States among the bigger States where the estimated proportion among the rural households was higher than the corresponding all India figure include Tamil Nadu(66.4%), Karnataka (70.8%), Bihar (72.8%), Rajasthan (73.0%), Uttar Pradesh (75.3%), Chhattisgarh (76.7%), Madhya Pradesh (79.0%) and Odisha (81.3%). The same pattern is also observed in urban areas of these States.

**9.35.** The NSS 2012 revealed 43.4% of households at all India level had no latrine facilities. The census 2011 revealed that, though the percentage of households with access to sanitation facility recorded an improvement of 10 percentage points during the last decade, still more than 50% of the Country’s households have no latrine facility. In 2011, the percentage of households with no latrine reduced to 53.1% from 63.6% in 2001. Census 2011 revealed that, in rural areas 69.3% households are not having latrine facility, whereas in urban areas the corresponding figure is 18.6% in 2011.

**Fig.9.35.1: Percentage of households without access to sanitation**



Source: Census, O/o Registrar General of India, NSS 69<sup>th</sup> round

**9.36.** Towards achieving the target of access to basic sanitation facility in households, in urban areas, the 2015 target is likely to be met as the percentage of households without sanitation facility is likely to be 10.74% in 2015 against the target of 14.18%, and the progress is quite lagging behind in rural areas as likely achievement in 2015 is 60.96% of households without sanitation facility vis-a-vis the target of 46.77%. At all India level, 2015 target is unlikely to be met as the percentage of households without sanitation facility is likely to be 47.31% vis-a-vis the target of 38.09%.

**Fig. 9.36.1: Percentage of households without access to sanitation -All India**



Source: NFHS, DLHS, NSS

**9.37.** Another important aspect of the sanitation facility is whether the households have access to 'improved source of latrine'. In NSS 69<sup>th</sup> round (Jan – Dec 2012), 'improved source' of latrine includes sources such as 'flush/pour-flush to: piped sewer system/septic tank/pit latrine', 'ventilated improved pit latrine', 'pit latrine with slab' and 'composting toilet'. It has been observed that during 2012, 38.8% and 89.6% households in rural and urban India respectively had access to 'improved source' of latrine. Across rural areas of bigger States, it has been observed that during 2012, Kerala had the highest (96.9%) and Jharkhand, the lowest (8.9%) proportion of households having access to 'improved source' of latrine. In urban areas of each of the bigger States, more than 75% of households had access to 'improved source' of latrine and it was highest (98.8%) in Kerala and lowest (74.9%) in Chhattisgarh.

### Programmes aimed at improving drinking water and sanitation facilities.....

**9.38.** The Ministry of Drinking Water & Sanitation implements two flagship programmes namely National Rural Drinking Water Programme (NRDWP) and Nirmal Bharat Abhiyan (NBA). Water and Sanitation are State subjects. The Ministry provides financial and technical assistance to State Governments in their efforts to provide safe drinking water and sanitation by way of its two flagship programmes. The Ministry's long term Strategic Plan is to supply water through piped supply to households and to create awareness and provision of sanitary facilities in entire communities in a phased, saturation mode with 'Nirmal Grams'

as outcomes. In this connection, the goal by 2022 is to ensure that at least 90% of rural households are provided with piped water supply with at least 80% of rural households having piped water supply with a household connection and to provide enabling support and environment for all Panchayati Raj Institutions and local communities to manage 100% of rural drinking water sources and systems. Now a new initiative namely **Swachh Bharat Abhiyan** has been announced by Hon'ble Prime Minister on 15<sup>th</sup> August, 2014 with the aim to attain 100% open defecation free India by 2019 and all schools & anganwadis are equipped with separate toilets for boys and girls by 2015.

### 9.38.1 NATIONAL RURAL DRINKING WATER PROGRAMME

Rural drinking water supply is a State subject and has been included in the Eleventh Schedule of the Constitution among the subjects that may be entrusted to Panchayats by the States. However, considering the magnitude of the problem, the Central Government supplements the efforts of the State Governments. Government of India's major intervention in water sector started in 1972-73 through the Accelerated Rural Water Supply Programme (ARWSP) for assisting States/UTs to accelerate the coverage of drinking water. The entire programme was given a Mission approach when the Technology Mission on Drinking Water Management, called the National Drinking Water Mission (NDWM) was introduced as one of the five Societal Missions in 1986. NDWM was renamed as Rajiv Gandhi National Drinking Water Mission (RGNDWM) in 1991. In 1999-2000, Sector Reform Project was evolved to involve the community in planning, implementation and management of drinking water related schemes. In 2002, this was scaled up as Swajaldhara programme. This programme was revised and named National Rural Drinking Water Programme (NRDWP) w.e.f. 1.4.2009.

The NRDWP has the following objectives:

- I. To ensure provision of safe and adequate drinking water supply to all uncovered, partially covered and quality affected habitations in the rural areas of the country.
- II. To ensure that all schools and anganwadis have access to safe drinking water.
- III. To enable GPs/Village Water and Sanitation Committees to plan, operate and maintain local water sources and water supply ; to provide enabling support and environment for Panchayati Raj Institutions (PRIs) and local communities and encourage handing over of management of rural drinking water schemes to the PRIs.
- IV. Enable rural communities to monitor and keep surveillance on their drinking water sources, water supply and initiate corrective action to have contaminant free water.
- V. Ensure equity – high priority in coverage /investment in habitations with high SCs, STs and minority population;
- VI. Promote participatory integrated water resources management with a view to ensure drinking

water security – water availability, supply and consumption to be measured and managed optimally;

- VII. Provide access to information through online reporting system with information in public domain to bring transparency and informed decision making.
- VIII. Consciously move away from high cost treatment technologies for tackling arsenic and fluoride contamination to development of alternative sources in respect of arsenic and alternate sources/dilution of aquifers through rainwater harvesting for tackling fluoride contamination.



The 12<sup>th</sup> Five Year Plan approach focuses on piped water supply, increasing household tap connection and raising drinking water supply norms from 40 lpcd to 55 lpcd (lpcd-litre per capita per day). These changes envisage a new way in implementing the NRDWP. The principal changes include:

- a. Focus on piped water supply rather than on hand-pumps so as to decrease the pressure on ground water extraction and also ensure potability of water.
- b. Enhancement of service levels for rural water supply from the norm of 40 lpcd to 55 lpcd for designing of systems.
- c. Greater thrust on coverage of water quality affected habitations with earmarked funding for chemical contamination and Japanese Encephalitis and Acute Encephalitis Syndrome (JE/AES) affected areas.
- d. Moving towards the target i.e. by 2017, at least 50% of rural population in the country have access to 55 lpcd within their household premises or within 100 meters radius, with at least 30% having individual household connection, as against 13% today.
- e. Conjoint approach between rural water supply and rural sanitation so as to achieve saturation of

habitations with both these services.

- f. Incentive substantive devolution of functions, funds and functionaries to the Gram Panchayats with respect to rural water supply schemes through a Management Devolution Index (MDI) with clear and specific indicators on the basis of which distribution among States of 10% of National allocation would be decided.
- g. All new drinking water supply schemes to be designed, estimated and implemented to take into account life cycle costs and not just per capita costs.
- h. Waste water treatment and recycling to be an integral part of every water supply plan or project, bringing the concept of Renovation and Modernization (R&M) into the planning process.
- i. Prioritisation of States which are lagging in terms of coverage with piped water supply; focus on States with Integrated Action Plan (IAP) districts; with an innovative dual powered Solar pumps for remote, small habitations and those with irregular power supply with convergent funding from the National Clean Energy Fund(NCEF).
- j. Making available additional resources for operation and management of water supply schemes.
- k. Participative planning and implementation of integrated water resource management practices through water budgeting and both supply side and demand side planning.
- l. Earmarking of funds for coverage of SC and ST population concentrated habitations.
- m. Incentive to ASHA (Accredited Social Health Activist) workers for encouraging households to take household connections.
- n. Setting up of the Block Resource Centres (BRC)
- o. Strengthen financial control of the funds released by the Government of India to the States.
- p. Facilitating the above, detailed manuals for Operation and Maintenance of schemes.
- q. Sustainability activities, Model DPRs (Detailed Project Reports) for water supply schemes and a Water quality
- r. Monitoring and Surveillance protocol have been prepared.
- s. Strengthening the procedure for Accounting and Auditing of the Programme.

The status as regards coverage of habitations, as reported by the States on the online monitoring system (IMIS) of Ministry, is that more than 95% of total rural habitations are either fully covered or partially covered with safe drinking water. The rest habitations have drinking water sources contaminated with chemical contamination. Under NRDWP, during 11<sup>th</sup> Plan 665052 habitations were covered vis –a

vis the target of 798967 habitations and during the 12<sup>th</sup> Plan the progress, shows covering 341006 more habitations (upto August 2014) vis –a vis the targeted 425596 habitations during 2012-15.

### **9.38.2 SWACHH BHARAT ABHIYAN (GRAMIN)**

There is a direct relationship between water, sanitation and health. Consumption of unsafe drinking water, open disposal of human excreta, lack of personal and food hygiene have a direct bearing on the high infant mortality rate and are also the causes of a host of medical problems like Schistosomiasis, Dysentery, Japanese Encephalitis, Malaria, Dengue fever and Trachoma. Indirect loss of working days due to repeated episodes of these diseases results in huge economic loss. Government of India had started the Central Rural Sanitation Programme (CRSP) in 1986 primarily with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women. With the broader concept of sanitation, CRSP adopted a ‘demand driven’ approach with the name ‘Total Sanitation Campaign (TSC)’ with effect from 1999. The revised approach emphasized more on Information, Education and Communication (IEC), Human Resource Development, Capacity Development activities to increase awareness among the rural people and generation of demand for sanitary facilities. To accelerate the progress of sanitation in rural areas, Government of India has designed a paradigm shift in Total Sanitation Campaign (TSC) which was renamed as Nirmal Bharat Abhiyan (NBA), in the start of 12<sup>th</sup> Five Year Plan. The objective of NBA is to achieve sustainable behaviour change with provision of sanitary facilities in entire communities in a phased, saturation mode with ‘Nirmal Grams’ as outcomes. The new strategy is to transform rural India into ‘Nirmal Bharat’ by adopting community saturation approach. NBA goal is to achieve 100% access to sanitation for all rural households by 2022. Swachh Bharat Abhiyan is now under formulation, which aims at attaining a 100% Open Defecation Free (ODF) India by 2019.

The main objectives of the Swachh Bharat Abhiyan (Gramin) are as under:

- I. Bring about an improvement in the general quality of life in the rural areas.
- II. Accelerate sanitation coverage in rural areas to achieve the vision of Nirmal Bharat by 2022 with all gram Panchayats in the country attaining NIRMAL status.
- III. Motivate communities and Panchayati Raj Institutions promoting sustainable sanitation facilities through awareness creation and health education.
- IV. To cover the remaining schools and Anganwadi Centres in the rural areas not covered under Sarva Shiksha Abhiyan (SSA) by March 2014, with proper sanitation facilities and undertake proactive promotion of hygiene education and sanitary habits among students.
- V. Encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation.
- VI. Develop community managed environmental sanitation systems focusing on solid & liquid waste management for overall cleanliness in the rural areas.

The key features are,

- I. Annual identification of proposed Nirmal Grams for saturation in a phased mode based on defined criteria
- II. Gram Panchayats with water availability in all habitations to be given priority
- III. GPs with higher sanitation coverage to be prioritised under NRDWP
- IV. Priority also to Nutrition Focus Districts, Adarsh Grams and Minority concentrated districts
- V. Provision of incentive for Individual Household Latrine (IHHL) also to be identified
- VI. Above Poverty Line (APL) households
- VII. Incentivizing ASHA workers for their role in creating demand for sanitation.
- VIII. Incentivising motivators including anganwadi workers
- IX. Upscaling of resources for Solid and Liquid Waste Management (SLWM)
- X. Appropriate convergence with MGNREGS unskilled and skilled man-days
- XI. Dedicated funding for capacity building of stake holders like Panchayati Raj
- XII. Institutions (PRIs), Village Water and Sanitation Committees (VWSCs) and field functionaries for sustainable sanitation
- XIII. Greater role for appropriate SHGs/NGOs/civil society groups
- XIV. Focus on IEC as also its evaluation for improved outcomes

The strategy is to transform rural India into ‘Nirmal Bharat’ by adopting the ‘community led’ and ‘people centered’ strategies and community saturation approach. A ‘demand driven approach’ is to be continued with emphasis on awareness creation and demand generation for sanitary facilities in houses, schools and for cleaner environment. Alternate delivery mechanisms would be adopted to meet the community needs. The provision of incentives for individual household latrine units to the poorest of the poor households has been widened to cover the other needy households too so as to attain community outcomes. Availability of water in the Gram Panchayat shall be an important factor for sustaining



sanitation facilities created. Rural School Sanitation remains a major component and an entry point for wider acceptance of sanitation by the rural people. Wider technology options are being provided with improved existing technologies to meet the customer preferences and location specific needs through intensive IEC Campaign involving Panchayati Raj Institutions, Co-operatives, Women Groups, Self Help Groups, NGOs etc. A roadmap for engagement of corporate houses is being introduced. More transparent system involving social audit and active people's participation in the implementation process of NBA is being introduced.

The provision under SWACHH BHARAT ABHIYAN (gramin) are:

- I. Under Swachh Bharat Abhiyan, the provision of incentive for individual household latrine units has been widened to cover all APL households who belong to SCs, STs, small and marginal farmers, landless labourers with homesteads, physically challenged and women headed households along-with all BPL households.
- II. Provision of Individual household latrines: Incentive of Rs. 3200/- and 1400/- for each toilet (Rs. 3700/- and Rs. 1400/- in case of hilly and difficult areas) is given by Central and State Government respectively to BPL households and Identified Above Poverty Line (APL) households w.e.f 1.4.2012.
- III. In addition upto Rs. 5400 to be booked under Mahatma Gandhi National Rural Employment Guarantee Scheme for construction of the toilet is permitted.
- IV. Assistance of Rs. 35000/-(Rs. 38500/- for Hilly and difficult areas) for Toilets in Schools and Rs. 8000/-(Rs. 10000/- for Hilly and difficult areas) for Anganwadi Toilets with the cost shared by Central and State Government in the ratio of 70:30.
- V. Provision for upto Rs. 200000 for construction of Community Sanitary Complexes with cost share between Centre, State and Community in the ratio of 60:30:10.
- VI. Assistance to Production Centres of sanitary materials and Rural Sanitary Marts.
- VII. Solid and Liquid Waste management (SLWM) to project mode for each Gram Panchayat (GP) with financial assistance capped for a GP on number of household basis to enable all Panchayats to implement sustainable SLWM projects. A cap of Rs.7/12/15/20 lakh to be applicable for Gram Panchayats having up to 150/300/500/ more than 500 households on a Centre and State/GP sharing ratio of 70:30. Projects to be prioritized in identified GPs targeted for Nirmal status and those that have already been awarded Nirmal Gram Puraskar (NGP).
- VIII. Funds for capacity building of all stakeholders including Panchayati Raj Institutions (PRIs) and field level implementers have been earmarked under the revised strategy.

The Implementation of NBA is taking up in project mode. A project proposal emanates from a district, is scrutinized by the State Government and transmitted to the Government of India (Ministry of Drinking Water & Sanitation). The approved NBA project is implemented in phases with start-up activities.

Funds are made available for preliminary IEC work. In the “campaign approach” a synergistic interaction between the Government agencies and other stakeholders, and advocacy with participation of NGOs/ Panchayati Raj Institutions/resource organizations takes place to bring about the desired behavioural changes for relevant sanitation practices.



### **9.38.3 NIRMAL GRAM PRUSKAR (NGP)**

To encourage the Panchayati Raj Institutions to take up sanitation promotion, the incentive award scheme of Nirmal Gram Puraskar (NGP) has been launched. The award is given to those PRIs which attain 100% open defecation free environment. The concept of Nirmal Gram Puraskar has been acclaimed internationally as a unique tool of social engineering and community mobilization and has helped a difficult programme like rural sanitation to pick up. Each Gram Panchayat getting the NGP has a ripple effect in the surrounding villages. The Nirmal Gram Puraskar has ignited the imagination of Panchayat leaders throughout the country and made them champions of sanitation. It has been the prime mover behind the amazing progress achieved in rural sanitation coverage since 2005. Sikkim has become first Nirmal State of the country.

### **Improving lives of slum dwellers....**

#### **Indicator: Slum population as percentage of urban population**

**9.39.** The Millennium Development Goal 7 also aims at improving the living condition of slum dwellers. In India, Census, and National Sample Survey are two sources which report slum data at national level. However, the definitions used in population census 2011 and NSS 2012, differs as shown below.

**Table 9.39.1: Definition of Slum**

Census 2011	NSS 2012
<ul style="list-style-type: none"> <li>All notified areas in a town or city notified as 'Slum' by State, UT administration or local government under any act including a 'Slum Act' may be considered as 'notified slums'.</li> <li>All areas recognised as 'Slum' by State, UT administration or local government, Housing and Slum Boards, which may not have been formally notified as slum under any act may be considered as 'recognised slums'.</li> <li>A compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in unhygienic environment, usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities. Such areas should be identified by the Charge Officer and also inspected by an Officer nominated by Directorate of Census operations. Such areas may be considered as 'identified slums'.</li> </ul>	<ul style="list-style-type: none"> <li>Areas notified as slums by the concerned municipalities, corporations, local bodies or development authorities were termed 'notified slums'.</li> <li>Also, any compact settlement with a collection of poorly built tenements, mostly of temporary nature, crowded together, usually with inadequate sanitary and drinking water facilities in unhygienic conditions, was considered a slum by the survey, provided at least 20 households lived there. Such a settlement, if not a <i>notified</i> slum, was called a <i>non-notified</i> slum. (Note that while a <i>non-notified</i> slum had to consist of at least 20 households, no such restriction was imposed in case of <i>notified</i> slums.)</li> <li>Slums: The word "slum" covered both <i>notified</i> slums and <i>non-notified</i> slums</li> </ul>



**9.40.** As per 69<sup>th</sup> round NSS (Jan- Dec 2012), at all-India level, only 10.8 percent of urban dwelling units were situated in slum. However, Census 2011 reported that 17.2% of urban households are located in slums. The percentage of slum households to urban households (slum reported towns) is 22.17%. Census recorded a 37.14% decadal growth in the number of slum households. Census further reveals that in 2011, 17.37% of the urban population lives in slums. The percentage of population in slum households to urban households (slum reported towns) is 22.44%.

**Table 9.40.1: Slums in India -Census**

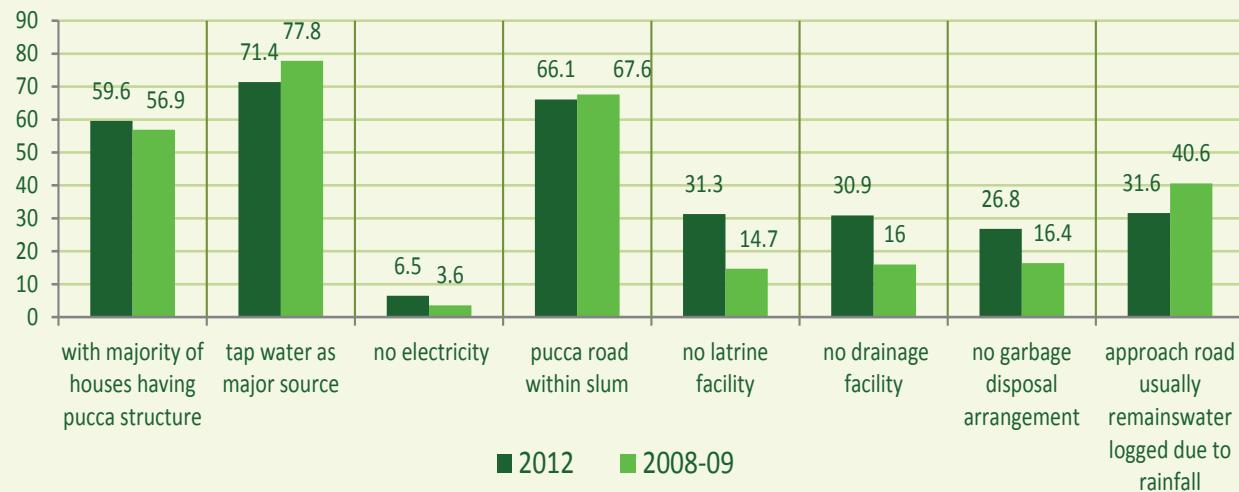
	2001	2011	Decadal growth
Slum households	10150719	13920191	37.14
Urban households (slum reported towns)	43556155	62792741	44.17
Urban all towns	55832570	80888766	44.88
Population in Slum households	52371589	65494604	25.06
Population Urban households (slum reported towns)	223111858	291838124	30.8
Population in Urban all towns	286119689	377106125	31.8
Percentage of slum households to urban households (slum reported towns)	23.3	22.17	
Percentage of slum households to urban households	18.18	17.21	
Percentage of population in slum households to urban households (slum reported towns)	23.47	22.44	
Percentage of slum population to urban population	18.3	17.37	

*Source: Census, O/o Registrar General of India*

**9.41.** The NSS 2012 presents the living conditions of the households in the slums by considering the type of the structure, source of drinking water, sanitation, road etc.

Though, the percentage of slums with majority of houses having pucca structure has improved during 2008-12, in the areas of access to electricity, pucca road, tap water, sanitation facility etc, the situation has deteriorated, which may be attributed to the significant decadal growth of households as well as population in slums.

**Fig.9.41.1: Facilities in Slums**



Source: NSS 2012

### Envisaging ‘Slum free India’....

#### 9.42 Rajiv Awas Yojana (RAY)

RAY envisages a “Slum Free India” with inclusive and equitable cities in which every citizen has access to basic civic infrastructure and social amenities and decent shelter. The mission is to encourage States/Union Territories (UTs) to tackle slums in a definitive manner, by focusing on:

Bringing all existing slums, notified or non-notified (including recognized and identified) within the formal system and enabling them to avail the basic amenities that is available for the rest of the city/UA; Redressing the failures of the formal system that lie behind the creation of slums by planning for affordable housing stock for the urban poor and initiating crucial policy changes required for facilitating the same.

RAY has the objectives of

1. Improving and provisioning of housing, basic civic infrastructure and social amenities in intervened slums.
2. Enabling reforms to address some of the causes leading to creation of slums.
3. Facilitating a supportive environment for expanding institutional credit linkages for the urban poor.
4. Institutionalizing mechanisms for prevention of slums including creation of affordable housing stock.
5. Strengthening institutional and human resource capacities at the Municipal, City and State levels through comprehensive capacity building and strengthening of resource networks.

6. Empowering community by ensuring their participation at every stage of decision making through strengthening and nurturing Slum Dwellers' Association/Federations.

RAY is implemented in a mission mode and provides financial support to States/UTs/Urban Local Bodies (ULBs)/Central Government Agencies, hereafter called implementing agencies, for providing housing and improvement of basic civic infrastructure and social amenities in each selected slums. Rental and transit housing will be admissible under the scheme. Operation and maintenance (O&M) of assets created under this scheme also are eligible for funding. RAY also extends financial support to States for creation of affordable housing stock through public-private partnership (PPP) under the Affordable Housing in Partnership (AHP) component of the scheme. The scheme is applicable to all slums within a city, whether notified or non-notified (including identified and recognised), whether on lands belonging to Central Government or its Undertakings, Autonomous bodies created under the Act of Parliament, State Government or its Undertakings, Urban Local Bodies or any other public agency and private sector. It is also applicable to "urbanized villages" inside the planning area of the city, urban homeless and pavement dwellers.

**Improved management of drinking water supply and better sanitation are keys to health of the population along with social and economic progress. Improving drinking water supply and quality, eradicating open defecation and the adoption of positive hygiene behaviours will significantly contribute to reducing child morbidity, mortality and improving the nutritional status of children. Also tackling the issues related to the slums and slum population growing in numbers and improving the living conditions of slum dwellers are major among the challenges that the nation is facing today.**

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## Chapter 10



# CHAPTER 10

## Progressing Telecom and IT sectors

Telecommunications has evolved as a basic infrastructure like electricity, roads, etc. and has also emerged as one of the critical components of economic growth required for overall socio-economic development of the country. Importance of information and Communication Technology is emphasized in Target 18 under Goal 8 of Millenium Development Goals.

### Goal 8 : Develop a global partnership for development

**Target 18 : In co-operation with the private sector, make available the benefits of new technologies, especially information and communication**

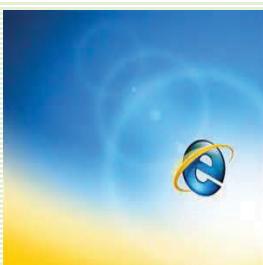
#### Indicators

47. Telephone lines and cellular subscribers per 100 population
48. A. Internet subscribers per 100 population
48. B. Personal computers per 100 population

### Commendable achievements in Telecom sector....

The Indian telecom sector has registered a phenomenal growth during the past few years and has become second largest telephone network in the world, only after China. A series of reform measures by the Government, the wireless technology and active participation by private sector played an important role in the exponential growth of telecom sector in the country.

10.2. Indian telecommunication sector has undergone a major process of transformation through significant policy reforms, particularly beginning with the announcement of National Telecom Policy (NTP) 1994 and its subsequent re-emphasization and carry forward under NTP 1999 and 2012. The NTP 2012 addresses the vision, strategic direction and the



various medium term and long term issues related to Telecom Sector. The Primary objective of NTP 2012 is maximizing public good by making available affordable, reliable and secure telecommunications and broadband services across the entire country. Driven by various policy initiatives, the Indian telecom sector witnessed a complete transformation in the last decade. It has achieved a phenomenal growth during the last few years and is poised to take a big leap in the future also.

#### **Indicator: Telephone lines and cellular subscribers per 100 population**

10.3. The Indian telecom network with 946.4 million telephone connections, including 918.72 million wireless telephone connections, as on July 2014 is second largest network in the world after China. Out of this, 383.97 million telephone connections are in rural areas and 562.43 million are in urban areas of the country. The number of telephone subscribers in India increased from 942.95 million at the end of June-2014 to 946.4 million at the end of July 2014, registering a monthly growth of 0.37%. The quarter, December 2013 to March 2014, recorded an unprecedented net addition of 17.82 million in telephone subscription and during March –July 2014, 13.39 million new subscribers were added.

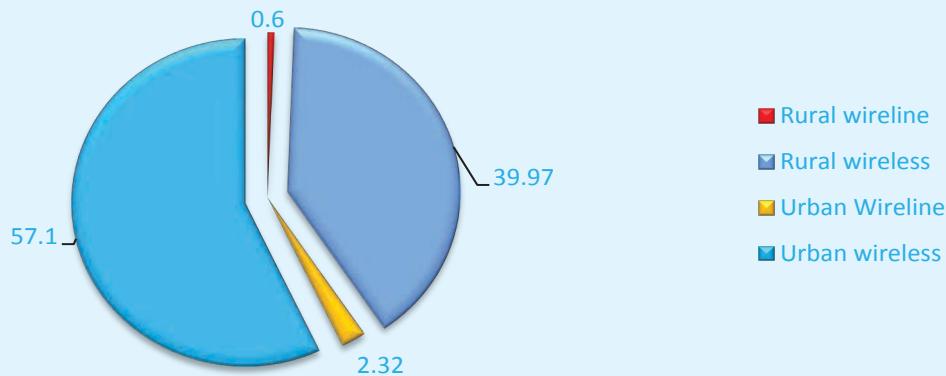
**Fig 10.3.1: Net addition / decline (in millions) in telephone subscription**



Source: Telecom Regulatory authority of India (TRAI)

10.4. During 2013-14, the subscriber base in rural areas increased from 349.22 million in March 2013 to 383.97 million in July 2014 and in urban areas, during the same period, the increase was from 548.80 million to 562.43 million. Among the total telephone subscribers, the wireless subscribers in urban and rural areas were 57.1% and 39.97% respectively.

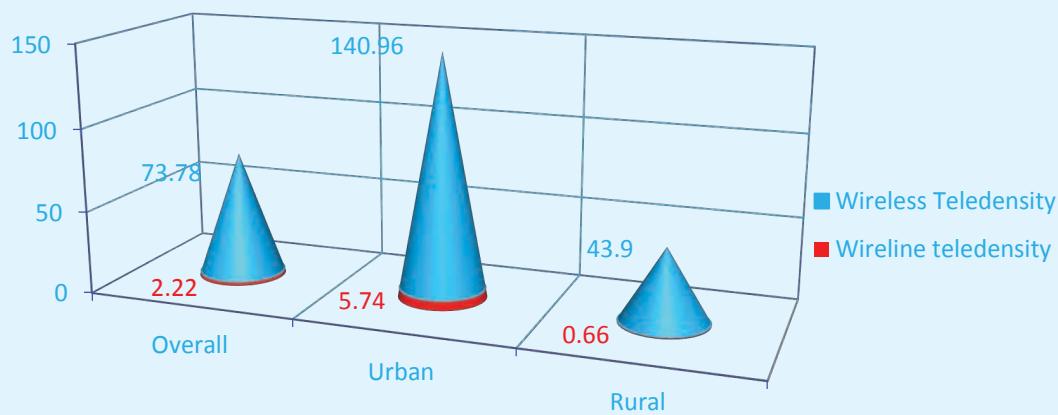
**Fig. 10.4.1 Composition of telecom subscribers (%)  
(as on 31/7/14)**



Source: Telecom Regulatory authority of India (TRAI)

10.5. The telecom sector has shown robust growth during the past few years. It has also undergone a substantial change in terms of mobile versus fixed phones and public versus private participation. The wireless telephone services play a major role in improving the tele-density. As per the status of 31<sup>st</sup> July 2014, the share of wireless telephones in total telephones is 97.08% vis-a-vis 40.32% in 2003. The wireless and wireline tele-density in rural-urban areas reveal the dominant role played by wireless sources in improving tele-density.

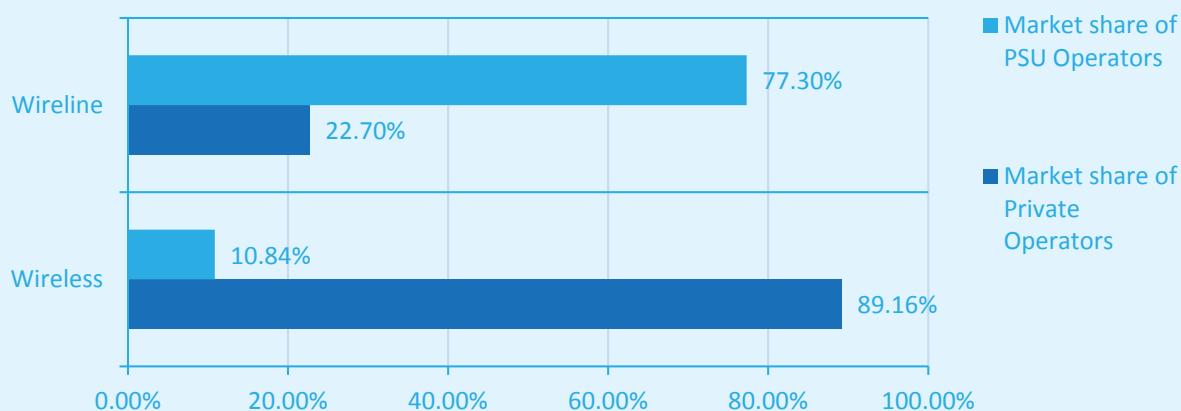
**Fig.10.5.1 Teledensity - wireless and wireline**



Source: Telecom Regulatory authority of India (TRAI)

10.6. Private sector contributes significantly towards ensuring better telecom connectivity. The share of private sector in total telephones has increased to 90.05% in 2014, from 35.44% in 2003. Private sector plays a predominant role in wireless telecom sector, while Public sector PSUs are the major players in wireline sector.

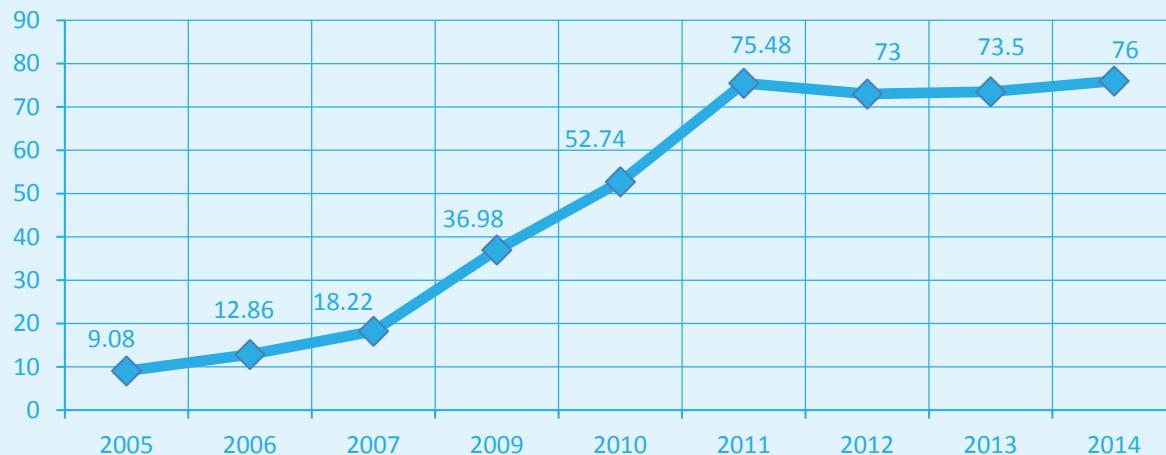
**Fig.10.6.1 Market share of Private Operators and PSU operators in telecom sector**



Source: Telecom Regulatory authority of India (TRAI)

10.7. Tele-density, which shows the number of telephones per 100 populations, is an important indicator of telecom penetration in the country. Overall tele-density in the country is 76% as on 31<sup>st</sup> July 2014.

**Fig 10.7.1 Overall Teledensity (%)**



Source: Telecom Regulatory authority of India (TRAI)

As on 31/7/2014, the urban tele-density is 146.7%, whereas rural tele-density is 44.56%. The teledensity among the State/ service areas<sup>1</sup>, is lowest in Bihar (47.24) and highest in Delhi (230.49) as on 31/7/2014. In all the States including those with low overall teledensity, the urban teledensity has crossed 100, but there is ample scope for improvement in rural areas.

1

Maharashtra includes Mumbai Service area, Tamil Nadu includes Chennai and West Bengal includes Kolkata.

**Fig 10.7.2 Overall Teledensity (as on 31/7/14)**



Source: Telecom Regulatory authority of India (TRAI)

The fast strides in the telecom sector have been facilitated by liberal policies of the Government that provides easy market access for telecom equipment and a fair regulatory framework for offering telecom services to the Indian consumers at affordable prices. Presently, all the telecom services have been opened for private participation.

### Internet revolutionizing lives...

#### Indicator: Internet subscribers per 100 population

10.8. The huge leap in telecom sector along with the advances in IT sector has led to massive expansion in the internet subscriber base. Total number of Internet subscribers has increased from 198.39 million at the end of June -13 to 259.14 million at the end of June-14, with an annual growth of 60%. Presently, Wired Internet subscribers are 18.58 million and Wireless Internet subscribers are 240.60 million.

**Fig. 10.8.1 Composition of Internet subscription (%) as on 30/6/14**



Source: Telecom Regulatory authority of India (TRAI)

10.9. The **internet subscribers per 100 population accessing internet through wireline and wireless connections** has increased from 16.15 in June 2013 to 20.83 in June 2014. This rapid growth is possible due to various proactive and positive decisions of the Government and contribution of both the public and the private sectors. The latest status of internet subscribers (service area wise) shows internet penetration is lowest in Bihar (9.41%) and highest in Delhi (77.58%)

**Fig. 10.9.1 Number of Internet subscribers per 100 population (as on 31/6/14)**



Source: Telecom Regulatory authority of India (TRAI)

With technology development, Laptops, tablets, etc have become major tools serving the purpose of personal computers in addition to Desk top computers. Further, internet access through mobiles is transforming the entire scenario.

### Improving connectivity.....

10.10. The Government has taken following main initiatives for the growth of the Telecom Sector:

- **Liberalization**

The process of liberalization in the country began in the right earnest with the announcement of the New Economic Policy in July 1991. Telecom equipment manufacturing was de-licensed in 1991 and value added services were declared open to the private sector in 1992, following which radio paging,

cellular mobile and other value added services were opened gradually to the private sector. This has resulted in setting up of large number of manufacturing units in the country. As a result, most of the equipment used in telecom area is being manufactured within the country. A major breakthrough was the clear enunciation of the government's intention of liberalizing the telecom sector in the National Telecom Policy resolution of 13th May 1994.

- **National Telecom Policy 1994**

In 1994, the Government announced the National Telecom Policy which defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, improving India's competitiveness in global market and promoting exports, attracting Foreign Direct Investment (FDI) and stimulating domestic investment, ensuring India's emergence as major manufacturing / export base of telecom equipment and ensuring universal availability of basic telecom services to all villages.

- **Telecom Regulatory Authority of India (TRAI)**

The entry of private service providers brought the inevitable need for independent regulation. The Telecom Regulatory Authority of India (TRAI) was, thus, established with effect from 20<sup>th</sup> February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested with the Central Government. TRAI's mission is to create and nurture conditions for growth of telecommunications in the country in a manner and at a pace, which will enable India to play a leading role in emerging global information society. One of the main objectives of TRAI is to provide a fair and transparent policy environment, which promotes a level playing field and facilitates fair competition. In pursuance of the above objectives, TRAI has issued from time to time, a large number of regulations, orders and directives to deal with issues coming before it and provided the required direction to the evolution of Indian telecom market from a Government owned monopoly to a multi-operator multi-service open competitive market. The directions, orders and regulations issued, cover a wide range of subjects including tariff, interconnection and quality of service as well as governance of the Authority.

- **National Telecom Policy 1999**

The most important milestone and instrument of telecom reforms in India is the National Telecom Policy 1999 (NTP 99). The NTP- 1999 was approved on 26<sup>th</sup> March 1999, to become effective from 1<sup>st</sup> April 1999. NTP-1999 laid down a clear roadmap for future reforms, contemplating the opening up of all the segments of the telecom sector for private sector participation. It clearly recognized the need for strengthening the regulatory regime as well as restructuring the departmental telecom services to that of a public sector corporation so as to separate the licensing and policy functions of the Government from that of being an operator. It also recognized the need for resolving the prevailing problems faced by the operators so as to restore their confidence and improve the investment climate.

- **Internet Service Providers (ISPs)**

Internet service was opened for private participation in 1998 with a view to encourage growth of Internet and increase its penetration. The sector has seen tremendous technological advancement and has necessitated taking steps to facilitate technological ingenuity and provision of various services.

- **Broadband Policy 2004**

Recognizing the potential of ubiquitous Broadband service in growth of GDP and enhancement in quality of life through societal applications including tele-education, tele-medicine, e-governance, entertainment as well as employment generation by way of high-speed access to information and web based communication, the Government has announced Broadband Policy in October 2004. The main emphasis of the Policy is on creation of infrastructure through various technologies that can contribute to the growth of broadband services. The prime consideration guiding the Policy includes affordability and reliability of Broadband services, incentives for creation of additional infrastructure, employment opportunities, induction of latest technologies, national security and brings in competitive environment so as to reduce regulatory interventions.

- **Tariff Changes**

The Indian Telecom Sector has witnessed major changes in the tariff structure. The Telecommunication Tariff Order (TTO) 1999, issued by regulator (TRAI), had begun the process of tariff balancing with a view to bring them closer to the costs.

- **Investment Opportunities and Incentives**

An attractive trade and investment policy and lucrative incentives for foreign collaborations have made India one of the world's most attractive markets for the telecom equipment suppliers and service providers.

- **Mobile Number Portability (MNP)**

Mobile Number Portability (MNP) allows subscribers to retain their existing telephone number when they switch from one access service provider to another irrespective of mobile technology or from one technology to another of the same or any other access service provider. The Government has announced the guidelines for Mobile Number Portability (MNP) Service License in the country on 1st August 2008 and has issued a separate License for MNP service w.e.f. 20.03.2009.

- **National Telecom Policy-2012 (NTP-2012)**

The Government approved National Telecom Policy-2012 (NTP-2012) on 31st May 2012 which addresses the Vision, Strategic direction and the various medium term and long term issues related

to telecom sector. The primary objective of NTP-2012 is maximizing public good by making available affordable, reliable and secure telecommunication and broadband services across the entire country. Availability of affordable and effective communications for the citizens is at the core of the vision and goal of the NTP-2012. The policy also recognizes the predominant role of the Private sector in this field and the consequent policy imperative of ensuring continued viability of service providers in a competitive environment. Pursuant to NTP -2012, these principles would guide decisions needed to strike a balance between the interests of users / consumers, service providers and government revenue.

- **National Knowledge Network**

The National Knowledge Network is a project being implemented through National Informatics Centre (NIC) with the objective to interconnect all institutions of higher learning and research with a high speed data communication network to facilitate knowledge sharing and collaborative research to bridge the existing knowledge gap in the country and to evolve as a Knowledge Society and spur economic activities in the Knowledge domain.

- **National E -Governance Plan**

The National e –Governance Plan (NeGP) was approved on 16th May 2006 with the vision to make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man. The NeGP is a multi –stakeholder programme which primarily focuses on making critical public services available and promoting rural entrepreneurship. It comprises of 31 Mission Mode Projects (MMPs) and core e –infrastructure. The National e-Governance Plan (NeGP), takes a holistic view of e-Governance initiatives across the country, integrating them into a collective vision, for a shared cause. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large-scale digitization of records is taking place to enable easy, and reliable access over the internet. The ultimate objective is to bring public services closer home to citizens, as articulated in the Vision Statement of NeGP.

- **State Wide Area Networks (SWAN)**

State Wide Area Networks (SWAN) is envisaged as the converged backbone network for data, voice and video communications throughout a State / UT and is expected to cater to the information communication requirements of all the Departments. Under this Scheme, technical and financial assistance is being provided to the States/ UTs for establishing SWANs to connect all State/ UT headquarters up to the block level via District/ Sub Divisional Headquarters, in a vertical hierarchical structure with a minimum bandwidth capacity of 2Mbps per link. Steps have been initiated to integrate all SWANs using the National Knowledge Network.

- **Digital India Programme – New initiative to transform India**

The new initiative ‘Digital India - a programme to transform India into digital empowered society and knowledge economy’ is a vast programme touching every corner of the government. This programme has been envisaged by Department of Electronics and Information Technology (DeitY), and has been approved by the Cabinet on 20<sup>th</sup> August 2014.

The vision of Digital India aims to transform the country into a digitally empowered society and knowledge economy. The programme will be implemented in phases from the current year till 2018. The Digital India is transformational in nature and would ensure that Government services are available to citizens electronically. It would also bring in public accountability through mandated delivery of government’s services electronically; a Unique ID and e-Pramaan based on authentic and standard based interoperable and integrated government applications and data basis.

Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely

1. Broadband Highways,
2. Universal Access to Mobile Connectivity,
3. Public Internet Access Programme,
4. e-Governance: Reforming Government through Technology,
5. e-Kranti - Electronic Delivery of Services,
6. Information for All,
7. Electronics Manufacturing,
8. IT for Jobs
9. Early Harvest Programmes.

Even though India is known as a powerhouse of software, the availability of electronic government services to citizens is still comparatively low. The National e-Governance Plan approved in 2006 has made a steady progress through Mission Mode Projects and Core ICT Infrastructure, but greater thrust is required to ensure effective progress in electronics manufacturing and e-Governance in the country. The Digital India vision provides the intensified impetus for further momentum and progress for this initiative and this would promote inclusive growth that covers electronic services, products, devices, manufacturing and job opportunities. India in the 21st Century must strive to meet the aspirations of its citizens where government and its services reach the doorsteps of citizens and contribute towards a long-lasting positive impact. The Digital India Programme aims to transform India into a digitally empowered society and knowledge economy by leveraging IT as a growth engine of new India.

**Strengthening telecom and IT sector in rural areas along with the progress being made in urban areas, will eventually lead to faster communications and improved governance. Focused measures in this direction are being taken by State / Central Governments.**

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# APPENDIX





## Appendix -1

MDGs and Targets –Summary of Progress achieved by India					
Indicator	Year 1990 Actual/est. value	Latest status	MDG target 2015	Likely achievement 2015	
<b>GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER</b>					
<b>TARGET 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day</b>					
				<b>On -track</b>	
Proportion of population below poverty line (%) <sup>1</sup>	47.8	21.92 (2011-12)	23.9	20.74	
Poverty Gap Ratio	Rural	No base year targets	5.05 (2011-12)		
	Urban		2.7 (2011-12)		
Share of poorest quintile in national consumption (URP method)	Rural	No base year targets	9.1 (2011-12)		
	Urban		7.1 (2011-12)		
<b>TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger</b>					
<b>MDG 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION</b>					
<b>TARGET 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</b>					
<b>Moderately on-track</b>					
Net Enrolment Ratio in primary grade <sup>2</sup> (%)	77	88.08 (2013-14)	100.0		
Proportion of pupils starting grade 1 who reach grade 5	Absolute targets for 2015	86.05 (2011-12)	100		
Literacy rate of 15-24 year olds	61	86.1 (2011)	100.0	93.38	

<sup>1</sup> Based on revised Poverty Head Count Ratio provided by Tendulkar Committee to review the methodology for estimation of poverty.

<sup>2</sup> Projection not done as the data available for the past was calculated on the basis of population projections which varied much from the actual census data.

Indicator	Year 1990 Actual/est. value	Latest status	MDG target 2015	Likely achievement 2015
<b>MDG 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</b>				
<b>TARGET 4 : Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015</b>				
			<b>On-track</b>	
Ratio of girls to boys in primary education (Gender Parity Index of GER)	0.73	1.03 (2013-14 p)	1.00	1
Ratio of girls to boys in secondary education (Gender Parity Index of GER)	0.60 (1991)	1 (2013-14 p)	1.00	1
Ratio of girls to boys in tertiary education (Gender Parity Index of GER)	0.54 (1991)	0.89 (2012-13 p)	1.00	
Female literacy rate: Male literacy rate of 15-24 year olds	0.67 (1991)	0.91 (2011)	1.00	1
Share of women in wage employment in the non-agricultural sector (%)	12.7	19.3 (2011-12)	50	23.1
Proportion of seats held by women in national parliament (%)	Absolute targets for 2015	12.24 (Jan-2015)	50	
<b>MDG 4: REDUCE CHILD MORTALITY</b>				
<b>TARGET 5 : Reduce by two-thirds, between 1990 and 2015, the Under- Five Mortality Rate</b>				
			Moderately on – track due to the sharp decline in recent years	
Under five mortality rate (per 1000 live births)	126	49 (2013)	42	40
Infant Mortality rate (per 1000 live births)	80	40 (2013)	27	39
Proportion of 1 year-old children immunized against measles	42.2	74.1 (2009)	100	89
<b>MDG5 5: IMPROVE MATERNAL HEALTH</b>				
<b>TARGET 6 : Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio</b>				
			<b>Slow or off-track</b>	

Indicator	Year 1990 Actual/est. value	Latest status	MDG target 2015	Likely achievement 2015	
Maternal mortality ratio (per 100,000 live births)	437	167 (2011-13)	109	140	
Proportion of births attended by skilled health personnel (%)	33	76.2 (2009)	100	77.29	
<b>MDG 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</b>					
<b>TARGET 7 : Have halted by 2015 and begun to reverse the spread of HIV/AIDS</b>					
<b>On-track as trend reversal in HIV prevalence has achieved</b>					
HIV Prevalence among pregnant women aged 15-24 years ( % )	Target is trend reversal and not based on base year value	0.32 (2012-13)		Trend reversal	
Condom use rate of the contraceptive prevalence rate <sup>3</sup> (%)		5.2 (2005-06)		Achieved	
Condom use at last high-risk sex <sup>4</sup> (%)		74 (2010)			
Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS		32.9 (2006)			
<b>TARGET 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases</b>					
<b>Moderately on-track as trend reversal has achieved for Annual Parasite Incidence of Malaria and for prevalence of TB</b>					
Annual parasite incidence (API) rate (Malaria)	2.57	0.72 (2013) 0.80 (upto Nov-2014)	Target is reversal of trend	Achieved reversal trend	
Prevalence of TB (including HIV) per 100,000 population	338	211 (2013)			

<sup>3</sup> Condom use rate of the contraceptive prevalence rate is Condom use to overall contraceptive use among currently married women, 15-49 years, percent.

<sup>4</sup> Condom use at last high risk sex is Condom use rate among non-regular sex partners 15-24 years

Indicator	Year 1990 Actual/est. value	Latest status	MDG target 2015	Likely achievement 2015	
Proportion of population in Malaria risk areas using effective Malaria prevention and treatment measures		Data not available			
Deaths due to TB per 100,000 population	43	19 (2013)			
<b>MDG 7: ENSURE ENVIRONMENTAL SUSTAINABILITY</b>					
<b>TARGET 9: Integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources.</b>					
<b>Moderately on-track</b>					
Area covered under forests as percentage of geographical area	Target is trend reversal and not based on base year value	21.23 (2013)			
Ratio of area protected to maintain biological diversity to surface area (%)		4.83 (2014)			
Energy use per GDP (Rupee)		0.1518 KWh (2012-13)			
Carbon dioxide emissions per capita		1.58 MT (2014)			
Consumption of ozone-depleting CFCs (ODP tons)		290.73 (2010)			
Proportion of population using solid fuels (%)		67.3 (2011)			
<b>TARGET 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation</b>					
<b>On-track for the indicator of drinking water, but slow for the indicator of Sanitation</b>					
Households with sustainable access to an improved water source, (%)	Urban	87.12	95.3 (2012)	93.56	97.5
	Rural	58.94	88.5 (2012)	79.47	96.3
Households without access to sanitation (%)	Urban	24.1	8.8 (2012)	15.84	12.14
	Rural	87.1	59.4 (2012)	46.64	61.11

Indicator	Year 1990 Actual/est. value	Latest status	MDG target 2015	Likely achievement 2015
<b>TARGET 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers</b>				
<b>The pattern not statistically discernible</b>				
Slum population as percentage of urban population		17.36% (2011)		
<b>MDG 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT</b>				
<b>TARGET 18 : In cooperation with the private sector, make available the benefits of new technologies, especially information and communications</b>				
<b>On-track</b>				
Telephone per 100 population		76 (2014)		
Internet subscribers per 100 Population	accessing internet through wireline and wireless connections	Target is increasing trend and not based on base year value	20.83 (2014)	
Personal computers per 100 population			Data not available	

### A NOTE FOR THE READER

The methodology for tracking the MDGs in this report is the one prescribed by the UNSD for developing countries. This methodology is characterised by the simplicity of its formulation and ease of interpretation. The indicators in India's MDG framework are mostly direct indicators which obviates the need for imputation or indirect derivation of the measures of the identified indicators. This simplifies the review exercise and eliminates the need to depend on assumptions. Following is the schematic description of the tracking methodology adopted for the review exercise of this report.

For the purpose of this report, both historical rate of change and required rate of change (which are explained below) have not been calculated explicitly in order to avoid confusion regarding proper interpretation and mathematical calculations involved in using the rates for deriving the actual measures of the indicators for the year 2015, for that matter for any other time point. For better comprehension of laymen, the actual projected values of the indicators for future time points (e. g., 2015) are more acceptable than the rates of change of different indicators.

In the statistical tracking of MDGs, the estimation of the likely achievement for the year 2015 is required for the indicators which have explicit (relative, absolute) target for 2015. The underlying assumption of the estimation procedure in the MDG tracking is that, the rate of change in a indicator values slows down with improvement in the level of the condition that the indicator measures and consequentially the indicator follows an exponential pattern over time. The target value for the year 2015 is determined by applying the MDG definition of the target on the indicator value for the year 1990. The 2015 value of the indicator is projected on the basis of observed values of the indicator at various time points. Thus, the historical rate of change is used to project the likely achievement for the year 2015 of the indicator.

#### **Indicator Selection Criteria**

1. Indicators that are directly related to a target: the indicators corresponding to various targets under each of the MDGs are given at Appendix
2. Indicators relevant to India are those which are directly related to the targets for which progress is measured for developing countries, i.e. excludes those related to developed countries and least developed or island countries
3. Two categories of Indicators having quantitative targets to be reached by 2015 are covered for tracking purpose, viz.

- a. Explicit target values for 2015
  - i. Relative (reduce by  $\frac{1}{2}$ ,  $\frac{2}{3}$ ,  $\frac{3}{4}$ )
  - ii. Absolute (full enrolment, gender parity)
- b. Reversal of trends
  - i. “Halt and begun to reverse....” (Goal 6)
  - ii. “Reverse the loss of environmental resources”(Goal 7, Target 9)

### Tracking Progress Principles

- Keep it simple
  - o Most MDG indicators move relatively slowly over time
  - o Data gaps and number of observations don't allow sophisticated time series analysis
  - o Use all the information available which will lead to more efficient estimates

### Indicator Tracking Technique

- Calculate ‘required’ rate of change, from the latest available value, for the target to be met on time, i.e., by 2015
- Calculate ‘historical’ rate of change between 1990 and the latest year for which an indicator value is available
- Compare the required with the historical rates of change

### Estimate Historical Rate of Change

$$X_t = ae^{bt} \quad \text{where } X_t \text{ is indicator value for year } t, \text{ which gives for } t=0,$$

$$X_0 = a$$

Again,

$$\begin{aligned} \ln X_t &= \ln a + bt && \text{Taking natural logarithm of both sides of equation above} \\ &= \ln X_0 + bt && \dots\dots (1) \end{aligned}$$

$$\text{i.e. } (b^t) = (\ln X_t - \ln X_0)/t \quad \dots\dots (2)$$

In terms of historical rate of change,

$$X_t = X_0 (1+r)^t$$

$$\text{i.e. } \ln X_t - \ln X_0 = t \ln(1+r)$$

$$\text{or, } (\ln X_t - \ln X_0)/t = \ln(1+r)$$

$$\text{or, } (1+r) = \exp[(\ln X_t - \ln X_0)/t]$$

$$\text{or, } r = \exp[(\ln X_t - \ln X_0)/t] - 1 \quad \dots\dots (3)$$

Using relation (2) in (3) we get

$$r = \exp(b^A) - 1 \quad \text{where } r \text{ is historical rate of change}$$

State-wise and national estimates of the indicators at observation time points have been subjected to the relationship (1) to arrive at their logarithmic values. These values being linear in time series, provide the logarithmic values of the measure corresponding to future points of time, from which the estimates at the given point of future time may be derived by anti-log calculation.

#### Calculate required rate of change

- For indicators with an explicit target, i.e. those selected for monitoring Goals 1-5 and Goal 7, Target 10

$$r^* = (X^*/X_T)^{1/(2015-T)} - 1 \quad \text{Where } X^* \text{ is target value (for year 2015) and } X_T \text{ is indicator value for last available year}$$

$$r^* = 0 \quad \text{if target has already been reached, i.e:}$$

- $X_T \leq X^*$  for indicators of which values have to decrease
- $X_T \geq X^*$  for indicators of which values have to increase
- For indicators requiring trend reversal the required rate of change is not relevant
  - o Classification of decision has to be based on historical rate of change alone

#### Cut-offs

- Target is considered to have been achieved if indicator has reached a certain pre-defined absolute value called 'cut-off' value. The rationale for having a cut-off value is as follows:

- o Reducing e.g. child mortality rates by 2/3 from some already achieved low levels might be tremendously costly
- o Prevents countries/regions or areas that slightly slip back from high achievement being classified as 'regressing'
- Cut-offs as applicable to different indicators are given in the following Table

Indicators	MDG target	Cut-off
Proportion of population below <b>poverty line</b>	Reduce by half	5%
Proportion of underweight children	Reduce by half	5%
Proportion of population undernourished	Reduce by half	5%
Primary enrolment ratio( <b>NER</b> )	100	95%
Proportion of pupils reaching grade 5	100	95%
Primary completion rate	100	95%
Primary girls-boys ratio	100	95%
Secondary girls-boys ratio	100	95%
Tertiary girls-boys ratio	100	95%
Child mortality rate( <b>U5MR</b> )	Reduce by 2/3	45 per 1,000 live births
Infant mortality rate	Reduce by 2/3	35 per 1,000 live births
Maternal mortality rate	Reduce by 3/4	25 per 100,000 live births
HIV prevalence	Reverse prevalence	decrease
TB prevalence	Reverse prevalence	decrease
TB death rate	Reverse incidence	decrease
Forested land cover	Reverse loss	increase
Protected areas	Reverse loss	increase
Per capita carbon dioxide emissions	Reverse emissions	decrease
Per capita CFC consumption	Reverse consumption	decrease
% of population without access to water	Reduce by half	5%
% of population without access to sanitation	Reduce by half	5%

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## Appendix-3

### Addressing MDGs in 12<sup>th</sup> Plan

MDG GOALS, TARGETS AND INDICATORS	12 <sup>TH</sup> PLAN (2012- 2017) TARGETS	Important 12 <sup>th</sup> Plan Schemes
<b>GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER</b>		
<b>TARGET 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day</b>		
1A. Poverty Headcount Ratio (percentage of population below the national poverty line) 2. Poverty Gap ratio 3. Share of poorest quintile in national consumption	1) Head-count ratio of consumption poverty to be reduced by 10 percentage points over the preceding estimates by the end of 12 <sup>th</sup> five year plan. 2) Generate 50 million new work opportunities in the non-farm sector and provide skill certification to equivalent numbers during the Twelfth Five Year Plan.	<ul style="list-style-type: none"> <li>• National Rural Employment Scheme (MGNREGA)</li> <li>• Indira Awas Yojana</li> <li>• Aajeevika-National Rural Livelihood Mission</li> <li>• Pradhan Mantri Gram Sadak Yojana</li> <li>• The Jawaharlal Nehru National Urban Renewal Mission</li> <li>• National Urban Livelihood Mission</li> <li>• National Food Security Mission</li> </ul>
<b>TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from Hunger</b>		
4. Prevalence of underweight children under three years of age.	3. Reduce under-nutrition among children aged 0–3 years to half of the NFHS-3 levels (NFHS -3 estimates under nutrition below 3 years at 40%, hence the 12 <sup>th</sup> FYP is to reduce it to 20% by 2017).	<ul style="list-style-type: none"> <li>• Integrated Child Development Schemes (ICDS)</li> </ul>
<b>GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION</b>		
<b>TARGET 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</b>		
6. Net Enrolment Ratio in primary education 7. Proportion of pupils starting Grade 1 who reach Grade 5 8. Literacy rate of 15-24 year olds	4. Mean Years of Schooling to increase to seven years.	<ul style="list-style-type: none"> <li>• Sarva Shiksha Abhiyan</li> <li>• Mid Day Meal Scheme</li> <li>• Early Childhood Care and education under ICDS</li> </ul>

MDG GOALS, TARGETS AND INDICATORS	12 <sup>TH</sup> PLAN (2012- 2017) TARGETS	Important 12 <sup>th</sup> Plan Schemes
<b>GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</b>		
<b>TARGET 4 :Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015</b>		
9. Ratio of girls to boys in primary, secondary and tertiary education (Gender Parity Index (GPI of GER) in Primary, Secondary and Tertiary education) 10. Ratio of literate women to men, 15-24 years old. 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in National Parliament.	5. Enhance access to higher education by creating two million additional seats for each age cohort, aligned to the skill needs of the economy.  6. Eliminate gender and social gap in school enrolment (that is, between girls and boys, and between SCs, STs, Muslims and the rest of the population)	<ul style="list-style-type: none"> <li>• Sarva Shiksha Abhiyan <ul style="list-style-type: none"> <li>○ National Programme for Education of Girls at Elementary Level</li> <li>○ Kasturba Gandhi Balika Vidhyalaya Scheme</li> </ul> </li> <li>• Rashtriya Madhyamic Shiksha Abhiyan</li> <li>• Rashtriya Uchhtar Shiksha Abhiyan</li> <li>• Mahila Samakhya Programme</li> <li>• Saakshar Bharat</li> <li>• Kishori Shakti Yojana and Rajiv Gandhi Scheme for Empowerment of Adolescent Girls – SABLA</li> <li>• Support to Training and Empowerment Programme</li> <li>• Mahatma Gandhi National Rural Employment Guarantee Act</li> <li>• Beti Bachao Beti Padhao</li> </ul>
<b>GOAL 4: REDUCE CHILD MORTALITY</b>		
<b>TARGET 5 : Reduce by two-thirds, between 1990 and 2015, the Under- Five Mortality Rate</b>		
13.Under- Five Mortality Rate 14. Infant mortality rate 15. Proportion of 1 year-old children immunized against measles	7. Reduce IMR to 25 by the end of the Twelfth Five Year Plan -by 2017. (MDG target is to reduce it to 27 per 1000 live births by 2015).	<ul style="list-style-type: none"> <li>• National Health Mission</li> <li>• Integrated Child Development Schemes (ICDS)</li> <li>• Rashtriya Bal Swasthya Karyakram</li> </ul>

MDG GOALS, TARGETS AND INDICATORS	12 <sup>TH</sup> PLAN (2012- 2017) TARGETS	Important 12 <sup>th</sup> Plan Schemes
<b>GOAL 5: IMPROVE MATERNAL HEALTH</b>		
<b>TARGET 6 :Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio</b>		
16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel	8. Reduce MMR to 1 per 1,000 live births, (ie MMR at 100 per 100000 live births) by the end of the Twelfth Five Year Plan -by 2017. (MDG goal is to reduce it to 109 by 2015).	<ul style="list-style-type: none"> <li>• National Health Mission</li> <li>• Integrated Child Development Schemes (ICDS)</li> <li>• Indira Gandhi Matritav Sahyog Yojana</li> </ul>
<b>GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES</b>		
<b>TARGET 7 :Have halted by 2015 and begun to reverse the spread of HIV/AIDS</b>		
18. HIV prevalence among pregnant women aged 15-24 years 19. Condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women,15-49 years, percent) 19A. Condom use at last high risk sex (Condom use rate among non regular sex partners 15-24 years ) 19B. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS		<ul style="list-style-type: none"> <li>• National AIDS Control Programme</li> </ul>
<b>TARGET 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases</b>		
21. Prevalence and death rates associated with Malaria 22. Proportion of population in Malaria risk areas using effective Malaria prevention and treatment measures (Percentage of population		<ul style="list-style-type: none"> <li>• National Vector Borne Diseases Control Programme</li> <li>• Urban Malaria Scheme</li> <li>• Revised National TB Control Programme</li> </ul>

MDG GOALS, TARGETS AND INDICATORS	12 <sup>TH</sup> PLAN (2012- 2017) TARGETS	Important 12 <sup>th</sup> Plan Schemes
covered under use of residuary spray in high risk areas)  23. Prevalence and death rates associated with Tuberculosis.  24. Proportion of Tuberculosis cases detected and cured under DOTS		
<b>GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY</b>		
<b>TARGET 9: Integrate the principle of sustainable development into country policies and programmes and reverse the loss of environmental resources.</b>		
25. Proportion of land area covered by forest  26. Ratio of area protected to maintain biological diversity to surface area.  27. Energy use per unit of GDP( Rupee)  28. Carbon Dioxide emission per capita and consumption of Ozone -depleting Chlorofluoro Carbons ( ODP tons)  29. Proportion of the Households using solid fuels	9. Increase green cover (as measured by satellite imagery) by 1 million hectare every year during the Twelfth Five Year Plan.	<ul style="list-style-type: none"> <li>• National Afforestation Programme</li> <li>• Green India Mission</li> <li>• National CFC consumption phase out plan</li> </ul>
<b>TARGET 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation</b>		
30. Proportion of population with sustainable access to an improved water source, urban and rural  31. Proportion of population with access to improved sanitation, urban and rural	10. Ensure 50 per cent of rural population has access to 40 lpcd piped drinking water supply, and 50 per cent gram panchayats achieve Nirmal Gram Status by the end of Twelfth Five Year Plan	<ul style="list-style-type: none"> <li>• National Rural Drinking Water Programme</li> <li>• Swachh Bharat Abhiyan</li> <li>• Nirmal Gram Puraskar</li> </ul>

MDG GOALS, TARGETS AND INDICATORS	12 <sup>TH</sup> PLAN (2012- 2017) TARGETS	Important 12 <sup>th</sup> Plan Schemes
<b>TARGET 11 : By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers</b>		
		<ul style="list-style-type: none"> <li>• Rajiv Awas Yojana</li> </ul>
<b>GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT</b>		
<b>TARGET 18 : In cooperation with the private sector, make available the benefits of new technologies, especially information and communications</b>		
47. Telephone lines and cellular subscribers per 100 population	11. Increase rural tele-density to 70 per cent by the end of Twelfth Five Year Plan.	<ul style="list-style-type: none"> <li>• National Knowledge Networks</li> <li>• National E Governance Plan</li> <li>• State Wide Area Networks</li> <li>• Digital India Programme</li> </ul>
48 A. Internet subscribers per 100 population		
48B. Personal computers per 100 population		

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## Appendix-4

### MDG indicators –Data / Programme sources

MDG	INDICATOR	Data / Programme Source	Further details
MDG 1: Eradicate Extreme Poverty and Hunger	Proportion of population below poverty line (%)	Planning Commission	Special releases on the basis of NSSO consumption data
	Poverty Gap Ratio	Planning Commission	Special releases on the basis of NSSO consumption data
	Share of Poorest Quintile in National Consumption	NSSO	
	Proportion of under-weight children below 3 years (%)	Ministry of Health and Family Welfare	National Family Health Survey
MDG 2: Achieve Universal Primary Education	Net Enrolment Ratio in primary grade (%)	M/o Human Resources Development	District Information System on Education
	Proportion of Pupil starting Grade 1 who reaches Grade 5	M/o Human Resources Development	District Information System on Education
	Literacy rate of 15-24 year olds	O/o Registrar General of India	Census
MDG 3: Promote Gender Equality and Empower Women	Ratio of girls to boys in primary, secondary, tertiary education (Gender Parity Index of GER)	M/o Human Resources Development	
	Female: Male literacy rate of 15-24 year olds	Census	
	Share of women in wage employment in the non-agricultural sector (%)	NSSO	
	Proportion of Seats held by women in National Parliament (%)	Lok Sabha, Rajya Sabha Secretariat	

<b>MDG</b>	<b>INDICATOR</b>	<b>Data / Programme Source</b>	<b>Further details</b>
MDG 4: Reduce Child Mortality	Under five mortality rate (per 1000 live births)	O/o Registrar General of India	Sample Registration System Report
	Infant Mortality rate (per 1000 live births)	O/o Registrar General of India	Sample Registration System Bulletin & Report
	Proportion of 1 year old children immunized against measles	M/o Health and Family Welfare	NFHS, DLHS, Coverage Evaluation Survey (GOI-UNICEF-2009)
MDG 5: Improve Maternal Health	Maternal mortality ratio (per 100,000 live births)	O/o Registrar General of India	Special Report of Sample Registration System
	Percentage of deliveries assisted by skilled personnel	Ministry of Health and Family Welfare	National Family Health Survey, District Level Household Survey
MDG 6: Combat HIV/AIDS, Malaria and Other Diseases	HIV Prevalence among pregnant women aged 15-24 years ( % )	Ministry of Health and Family Welfare	HIV Sentinel Surveillance Surveys, D/o AIDS control (NACO)
	Condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women, 15-49 yrs, percent)	Ministry of Health and Family Welfare, D/o AIDS control	National Family Health Survey
	Condom use at last high risk sex (Condom use rate among non-regular sex partners 15-24 yrs) (%)	M/o Health and Family Welfare, D/o AIDS control	HIV Sentinel Surveillance Surveys, D/o AIDS control (NACO)
	Percentage of Population aged 15-49 years with comprehensive correct knowledge of HIV/AIDS	M/o Health and Family Welfare, D/o AIDS control	Behavioural Surveillance Surveys, D/o AIDS control (NACO)

MDG	INDICATOR	Data / Programme Source	Further details
GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY	Annual parasite incidence rate (Malaria)	Directorate of National Vector Borne Disease Control Programme M/o H&FW	Surveillance Data
	Death rates associated with Malaria	Directorate of National Vector Borne Disease Control Programme M/o H&FW	Surveillance Data
	Deaths due to TB per 100,000 population	M/o Health and Family Welfare,	WHO Report –Global Tuberculosis Control
	Proportion of Tuberculosis Cases Detected and Cured under DOTS	M/o Health and Family Welfare, Directorate of Revised National TB Control Programme	Success Rate among new S+ve cases (%)- Revised National Tuberculosis Control Programme Reports
	Area covered under forests as percentage of geographical area	M/o Environment and Forests	
	Ratio of Area Protected to Maintain Biological Diversity to Surface Area	M/o Environment and Forests	
	Per Capita Energy Consumption	CSO, MOSPI	Energy consumption data available from State Electricity Boards
GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY	Carbon Dioxide emissions per capita (MT)	M/o Environment and Forests	International energy agency
	Consumption of Ozone-depleting Chlorofluoro Carbons (ODP Tons)	M/o Environment and Forests	Ozone cell
	Proportion of the Households Using Solid Fuels	O/o Registrar General of India	Census
	Households with sustainable access to	O/o Registrar General of India NSSO	Census

<b>MDG</b>	<b>INDICATOR</b>	<b>Data / Programme Source</b>	<b>Further details</b>
	an improved water source, (%)		
	Households without access to sanitation (%)	O/o Registrar General of India NSSO	Census
	Slum population as percentage of urban population	O/o Registrar General of India NSSO	Census
GOAL 8: Develop a global partnership for development	Telephone lines and cellular subscribers per 100 population	Telecom Regulatory Authority of India	
	Internet subscribers per 100 population	Telecom Regulatory Authority of India	

## ABBREVIATIONS

- ACSM - Advocacy Communication and Social Mobilization  
ACT - Artemisinin Combination Therapy  
AHP - Affordable Housing in Partnership  
AIE - Alternative & Innovative Education  
ANC - Anti Natal Care  
ANM - Auxiliary Nursing Midwifery  
API - Annual Parasite Incidence  
APIP - Annual Programme Implementation Plan  
ARI -Acute Respiratory Infections  
ART - Anti Retroviral Therapy  
ARWSP - Accelerated Rural Water Supply Programme  
ASHA - Accredited Social Health Activist  
AWC - Anganwadi Centres  
BBBP - Beti Bachao Beti Padhao  
BCC - Behaviour Change Communication  
BeMOC - Basic Emergency Obstetric Care  
BMC - Biodiversity Management Committees  
BPL - Below Poverty Line  
BRC - Block Resource Centres  
BSS - Behavioural Surveillance Survey  
CBD - Convention on Biological Diversity  
CD 4 - Cluster of Differentiation 4  
CDR - Child Death Review  
CEmOC - Comprehensive Emergency Obstetric Care  
CES -Coverage Evaluation Survey  
CFC - Chloro Fluoro Carbons  
CHC - Community Health Centre  
CMIS - Computerized Management Information System(   
CRSP - Central Rural Sanitation Programme  
CSC - Community Sanitary Complexes  
CTC - Carbon Tetra Chloride  
DBT - Direct Benefit Transfer  
DGHS - Director General of Health Services  
DIET - District Institutes of Education and Training  
DLHS - District Level Household Survey

DOTS - Directly Observed Treatment, Short Course  
EBB - Educationally Backwards Blocks  
ECCE - Early Childhood Care and Education  
EDPT - Early case Detection and Prompt Treatment  
EGS - Education Guarantee Scheme  
EQAS - External Quality Assessment Scheme  
EWS - Economically Weaker Sections  
FBNC - Facility Based Newborn Care  
FDA - Forest Development Agency  
FDI - Foreign Direct Investment  
FOGSI - Federation of Obstetric and Gynecological Society of India  
FRU - First Referral Units  
FYP - Five year Plans  
GDP - Gross Domestic Product  
GER - Gross Enrolment Ratio  
GIM - Green India Mission  
GOI - Government of India  
GPI - Gender Parity Index  
GPS - Global Positioning System  
HBNC - Home Based New Born Care  
IAY - Indira Awas Yojana  
IAY - Indira Awas Yojana  
ICDS - Integrated Child Development Services  
ICTC - Integrated Counselling and Testing Centre  
IDCF - Intensified Diarrhoea Control Fortnight  
IDU - Injecting Drug Users  
IEC - Information, Education & Communication  
IFA - Iron Folic Acid  
IGMSY - Indira Gandhi Matritva Sahyog Yojana  
IMNCI - Integrated Management of Neonatal and Child Illness  
IMR - Infant Mortality Rate  
INAP - India Newborn Action Plan  
INM - Integrated Nutrient Management  
IPM - Integrated Pest Management  
IPU - Inter parliamentary union  
ISPs - Internet Service Providers  
IT - Information Technology  
IUCN - International Union for Conservation of Nature  
IYCF - INFANT AND YOUNG CHILD FEEDING  
JE/ AES - Japanese Encephalitis and Acute Encephalitis Syndrome

JFMC - Joint Forest Management Committee  
JNNURM - Jawaharlal Nehru National Urban Renewal Mission  
JSSK - Janani Shishu Suraksha Karyakram  
JSY - Janani Suraksha Yojana  
KGBV - Kasturba Gandhi Balika Vidyalaya  
KMC - Kangaroo Mother Care  
KSY - Kishori Shakti Yojana  
LHV - Lady Health Worker  
LIG - Lower Income Group  
LLIN - Long Lasting Insecticidal Nets  
LPG - Liquefied Petroleum Gas  
LSAS - Life Saving Anaesthetic Skills  
LWE - Left Wing Extremism  
LWS - Link Worker Scheme  
MCTFC - Mother and Child Tracking Facilitation Centre  
MCTS - Mother Child Tracking System  
MDG - Millennium Development Goals  
MDI - Management Devolution Index  
MDMS - Mid Day Meal Scheme  
MDR - Maternal Death Review  
MDR TB -Multi Drug Resistant TB  
MGNREGA - Mahatma Gandhi National Rural Employment Scheme  
MHRD - Ministry of Human Resource Development  
MIS - Management Information System  
MMP - Mission Mode Projects  
MMR - Maternal Mortality Ratio  
MNH - Maternal and New Born Health  
MNP - Mobile Number Portability  
MPW - Multi-Purpose Workers  
MRP - Modified Reference period  
MS - Mahila Samakhya  
MTP - Medical Termination of Pregnancy  
MUAC -Mid -Upper Arm Circumference  
NACO - National AIDS Control Organisation  
NACP - National AIDS Control Programme  
NAMP - National Anti-Malaria Programme  
NAP - National Afforestation Programme  
NAPCC - National Action Plan on Climate Change  
NBA - Nirmal Bharat Abhiyan  
NBA- National Biodiversity Authority

NBAGR - National Bureau of Animal Genetic Resources  
NBAII - National Bureau of Agriculturally Important Insects  
NBAIM - National Bureau of Agriculturally Important Microorganisms  
NBAP - National Bio Diversity Action Plan  
NBCC - Newborn Baby Care Corners  
NBFGR - National Bureau of Fish Genetic Resources  
NBSAP - National Biodiversity Strategy and Action Plan  
NBSU - Newborn Stabilization Units  
NCEF - National Clean Energy Fund  
NeGP - National e-Governance Plan  
NEP - National Environment Policy  
NER - Net Enrolment Ratio  
NFHS - National Family Health Survey  
NFSM - National Food Security Mission  
NGP - Nirmal Gram Puraskar  
NHM - National Health Mission  
NIC - National Informatics Centre  
NIOS - National Institute of Open Schooling  
NMCP - National Malaria Control Programme  
NMEP - National Malaria Eradication Programme  
NPCDCS - National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke  
NPE - National Policy on Education  
NPEGEL - National Programme for Education of Girls at Elementary Level  
NP-NSPE - National Programme of Nutritional Support to Primary Education  
NRC - NUTRITIONAL REHABILITATION CENTRES  
NRDWP - National Rural Drinking Water Programme  
NRHM - National Rural Health Mission  
NRLM - National Rural Livelihood Mission  
NSS - National Sample Survey  
NSSK - Navjat Shishu Suraksha Karyakram  
NTFP - Non -Timber Forest Product  
NTP - National Telecom Policy  
NULM - National Urban livelihood Mission  
NVBDCP - Directorate of National Vector Borne Disease Control Programme  
NYP - National Youth Policy  
O/o RGI - Office of Registrar General of India  
ODP - Ozone Depleting Potential  
ODS - Ozone Depleting Substances  
ORS - Oral Rehydration Solution

PA - Protected Areas  
PDS - Public Distribution System  
PEC - Per-capita Energy Consumption  
PGR - Poverty Gap Ratio  
PHC - Primary Health Centre  
PHCR - Poverty Head Count Ratio  
PLHA - People Living with HIV/ AIDS  
PMDT - Programmatic Management of Drug Resistant TB  
PMGSY - Pradhan Mantri Gram Sadak Yojana  
PNG - Piped Natural Gas  
PPH - Post Partum Hemorrhage  
PPTCT - Prevention of Parent to Child Transmission  
PPTCT - Prevention of Parent to Child Transmission  
PRI - Panchayati Raj Institution  
RAMOS - Reproductive Age Mortality Studies  
RAY - Rajiv Awas Yojana  
RAY - Rajiv Awas Yojana  
RBSK - RASHRTIYA BAL SWASTHYA KARYAKRAM  
RDT - Rapid Diagnostic Test  
REDD - Reducing Emissions from Deforestation and Forest Degradation  
RGSEAG - Rajiv Gandhi Scheme for Empowerment of Adolescent Girls  
RKVY - Rashtriya Krishi Vikas Yojana  
RMNCH - Reproductive Maternal Newborn and Child Health  
RMSA - Rashtriya Madhyamik Shiksha Abhiyan (RMSA)  
RNTCP - Revised National Tuberculosis Control Programme RNTCP  
RRE - Red Ribbon Express  
RTE - Right to Education  
RTI - Reproductive Tract Infections  
RUSA - Rashtriya Uchchatar Shiksha Abhiyan  
RWS - Rural Drinking Water Schemes  
SAM - Severe Acute Malnutrition  
SBA - Skilled Attendance at Birth  
SBB - State Biodiversity Boards  
SGSY - Swarnjayanti Gram Swarojgar Yojana  
SIMS -Strategic Information Management System  
SJSRY - Swarna Jayanti Shahari Rozgar Yojana  
SLWM - Solid and Liquid Waste Management  
SN - Staff Nurse  
SNCU - Special New Born Care Unit  
SRB - Sex Ratio at Birth

SRS- Sample Registration System  
SSA - Sarva Shiksha Abhiyan  
STI - Sexually Transmitted Infections  
SWAN - State Wide Area Networks  
TDR TB - Total Drug Resistant TB  
TI - Targetted Intervention  
TRAI - Telecom Regulatory Authority of India  
TS / TG - Trans- Sexual/ Trans –Gender  
TSC - Total Sanitation Campaign  
TTO - Telecommunication Tariff Order  
U - DISE - Unified District Information System for Education  
U5MR - Under Five Mortality Rate  
UA - Urban Area  
UEE - Universal Elementary Education  
ULB - Urban Local Body  
UMS - Urban Malaria Scheme  
UNDB - United Nations Decade on Biodiversity  
UNDG - United Nations Development Group  
UNDP - United Nations Development Programme  
UNICEF - United Nation's Children's Fund  
URP - Uniform Reference Period  
UT - Union Territory  
VBD - Vector Borne Diseases  
VHND - Village Health and Nutrition Day VHND  
VWSC - Village Water and Sanitation Committee  
WHO - World health Organisation  
ZSI - Zoological Survey of India

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## Appendix - 6

**Table 1.1: Poverty Head Count Ratio (Tendulkar Methodology)**

<b>Sl. No</b>	<b>State/UTs</b>	<b>1990 est</b>	<b>1993-94</b>	<b>2004-05</b>	<b>2011-12</b>	<b>Likely Achievement in 2015</b>	<b>Target 2015</b>
1	Andhra Pradesh	49.74	44.60	29.90	9.20	8.27	24.87
2	Arunachal Pradesh	63.51	54.50	31.10	34.67	27.72	31.76
3	Assam	57.92	51.80	34.40	31.98	27.34	28.96
4	Bihar	62.28	60.50	54.40	33.74	33.03	31.14
5	Chhattisgarh	51.32	50.90	49.40	39.93	39.82	25.66
6	Delhi	16.49	15.70	13.10	9.91	9.34	8.25
7	Goa	19.78	20.80	25.00	5.09	5.09	9.89
8	Gujarat	39.62	37.80	31.80	16.63	15.98	19.81
9	Haryana	40.02	35.90	24.10	11.16	9.87	20.01
10	Himachal Pradesh	38.72	34.60	22.90	8.06	7.17	19.36
11	Jammu & Kashmir	31.74	26.30	13.20	10.35	7.99	15.87
12	Jharkhand	65.74	60.70	45.30	36.96	33.25	32.87
13	Karnataka	55.11	49.50	33.40	20.91	18.29	27.55
14	Kerala	35.51	31.30	19.70	7.05	6.15	17.76
15	Madhya Pradesh	43.57	44.60	48.60	31.65	31.65	21.78
16	Maharashtra	50.85	47.80	38.10	17.35	16.42	25.43
17	Manipur	75.40	65.10	38.00	36.89	29.93	37.70
18	Meghalaya	43.57	35.20	16.10	11.87	8.86	21.79
19	Mizoram	10.99	11.80	15.30	20.40	20.40	5.50
20	Nagaland	25.50	20.40	9.00	18.88	13.29	12.75
21	Orissa	59.63	59.10	57.20	32.59	32.96	29.81
22	Pondicherry	38.27	30.90	14.10	9.69	7.25	19.14
23	Punjab	22.83	22.40	20.90	8.26	8.36	11.41
24	Rajasthan	39.44	38.30	34.40	14.71	14.62	19.72
25	Sikkim	31.99	31.80	31.10	8.19	8.59	16.00
26	Tamil Nadu	50.20	44.60	28.90	11.28	9.91	25.10
27	Tripura	31.07	32.90	40.60	14.05	15.96	15.53
28	Uttar Pradesh	50.67	48.40	40.90	11.26	27.94	25.34
29	Uttarakhand	31.81	32.00	32.70	29.43	11.88	15.91
30	West Bengal	40.92	39.40	34.30	19.98	19.37	20.46
	<b>India</b>	<b>47.80</b>	<b>45.30</b>	<b>37.20</b>	<b>21.90</b>	<b>20.74</b>	<b>23.90</b>

*Source: Planning Commission (Now renamed as NITI Aayog)*

**Table 1.2: Poverty Gap Ratio (MRP Consumption Distribution)**

S.No.	States	Rural		Urban	
		2004-05	2011-12	2004-05	2011-12
1	Andhra Pradesh	6.971	1.6	4.813	0.87
2	Arunachal Pradesh	7.408	9.79	4.637	4.93
3	Assam	7.033	5.79	4.243	3.83
4	Bihar	12.678	6.24	11.425	6.8
5	Chhattisgarh	13.693	8.98	7.203	5.2
6	Delhi	1.925	1.79	1.994	1.62
7	Goa	5.558	0.74	4.297	0.7
8	Gujarat	9.341	3.27	3.922	1.64
9	Haryana	4.729	2.08	4.93	1.76
10	Himachal Pradesh	4.221	1.03	1.066	0.76
11	Jammu & Kashmir	2.108	1.91	2.122	0.95
12	Jharkhand	11.115	6.88	5.77	4.85
13	Karnataka	6.507	3.26	6.191	3.09
14	Kerala	4.368	1.59	4.042	0.83
15	Madhya Pradesh	12.574	8.33	8.59	3.86
16	Maharashtra	11.939	4.65	6.479	1.55
17	Manipur	5.706	6.64	5.117	6.14
18	Meghalaya	1.398	1.58	2.8	1.46
19	Mizoram	3.485	7.51	1	0.62
20	Nagaland	1.018	3.75	0.539	1.76
21	Orissa	17.369	7.01	9.603	3.15
22	Pondicherry	3.991	3.71	1.331	0.84
23	Punjab	3.755	1.18	3.171	1.56
24	Rajasthan	7.009	3.21	5.747	1.56
25	Sikkim	5.623	0.96	3.35	0.45
26	Tamil Nadu	7.429	2.47	4.093	1.1
27	Tripura	9.577	2.17	3.801	1.72
28	Uttar Pradesh	9.164	5.68	7.802	5.29
29	Uttarakhand	5.797	1.25	5.086	1.55
30	West Bengal	7.922	3.7	5.287	2.7
	<b>India</b>	<b>9.635</b>	<b>5.05</b>	<b>6.078</b>	<b>2.7</b>

Source: Planning Commission (Now renamed as NITI Aayog)

**Table 1.3: Percentage share in consumption of bottom 20% of population (the poorest quintile class of MPCE -NSS )**

Sr.no	State / UT	2009-10						2011-12								
		URP			MRP			MMRP			URP			MRP		
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
1	Andhra Pradesh	9.59	7.13	9.79	7.46	10.13	7.59	9.9	8.3	10.6	8.7	10.8	8.8	10.8	8.7	8.8
2	Arunachal Pradesh	8.19	7.7	9.1	8.2	8.58	7.86	9.9	6.9	8.2	7.1	7.8	6.5	7.8	6.5	8
3	Assam	11.07	7.83	11.48	7.78	11.18	7.35	11.7	7.9	11.8	7.7	11.4	8	11.4	8	8
4	Bihar	10.97	8.17	11.28	8.64	11.67	8.51	11.1	8.9	11.8	9.2	11.9	9.4	11.9	9.4	9.4
5	Chhattisgarh	9.86	7.6	11.15	8.24	10.85	7.83	10	6.9	10.8	7.1	10.9	7.4	10.9	7.4	7.4
6	Delhi	15.08	7.51	15.24	7.39	12.56	7.71	9.1	7.3	8.7	7.1	7.7	7.9	7.7	7.7	7.9
7	Goa	10.44	7.72	11.05	9.59	11.23	9.01	9	8.8	9.1	8.8	10.9	9.2	10.9	9.2	9.2
8	Gujrat	10.69	7.94	10.65	8.18	10.73	8.49	10.3	9.1	10.9	9	10.5	9.2	10.5	9.2	9.2
9	Haryana	8.69	7.56	9.09	7.54	9.59	7.31	9.4	6.7	9.9	7	9.8	6.8	9.9	6.8	6.8
10	Himachal Pradesh	9.33	6.6	9.84	6.9	10.48	6.84	9	7.5	10.1	7.9	9.9	8.8	10.9	9	8.8
11	Jammu & Kashmir	10.86	9.26	11.62	9.4	11.34	9.57	9.9	8.6	10.4	9	10.9	8.6	10.9	9	8.6
12	Jharkhand	10.65	7.32	11.3	7.46	11.79	7.48	11.3	7.1	11.9	7.8	11.5	8	11.5	8	8
13	Karnataka	10.87	7.48	10.93	6.86	10.89	7.43	9.9	5.9	10.9	6.4	10.7	6.7	10.7	6.4	6.7
14	Kerala	7.09	5.32	8.12	6.74	8.82	6.73	7.3	6.6	8.4	7.2	8.1	6.9	8.1	6.9	6.9
15	Madhya Pradesh	9.25	7.24	9.61	7.34	9.58	7.11	9.4	7.3	9.9	7.9	9.9	7.7	9.9	7.9	7.7
16	Maharashtra	9.96	6.44	10.55	6.85	10.62	7.06	9.5	7.8	10.4	7.7	10.6	8.1	10.6	8.1	8.1
17	Manipur	13.32	11.51	13.77	12.1	13.51	11.91	12.1	11.7	12.5	11.7	11.5	11.4	11.5	11.4	11.4
18	Meghalaya	12.66	10.06	13.1	10.03	12.85	9.81	12.1	9.9	12.6	9.9	12.4	10	12.4	10	10
19	Mizoram	10.98	9.83	12.17	10.02	11.6	9.64	10.3	10.1	10.6	10.2	10.5	9.9	10.5	9.9	9.9
20	Nagaland	12.66	10.56	13.18	11.39	13.14	10.25	11.4	9.3	11.7	10	12.7	9.7	12.7	9.7	9.7
21	Odisha	9.76	7.24	10.26	7.39	10.24	7.71	10.5	7.7	10.9	8	10.9	7.4	10.9	7.4	7.4
22	Punjab	9.58	7.42	9.71	7.56	9.75	8.03	9.5	8.1	10.1	8.4	9.8	8.7	9.8	8.7	8.7
23	Rajasthan	11.19	7.83	11.6	8.68	11.15	8.53	10	8.6	10.6	8.9	10.5	8.7	10.5	8.7	8.7
24	Sikkim	10.12	10.71	10.73	11.54	10.6	9.14	12.3	11.4	13.1	12.5	12.6	12.2	12.6	12.2	12.2
25	Tamilnadu	10.14	8.07	10.26	8.21	10.18	8.24	9.7	8.1	9.7	8	9.4	8.3	9.4	8.3	8.3
26	Tripura	11.91	8.97	11.94	9.21	11.93	8.64	11.7	9.3	11.8	9	11.4	9.2	11.4	9.2	9.2
27	Uttarakhand	9	8.02	7.8	8.06	7.9	8.31	10.3	7.5	10.9	8.7	11	8	11	8	8
28	Uttar Pradesh	10.44	7.61	11.19	7.21	11.12	7.47	10.2	7.1	10.7	7.3	10.7	7.4	10.7	7.4	7.4

Sr.no	State / UT	2009-10						2011-12					
		URP		MRP		MMRP		URP		MRP		MMRP	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
29	West Bengal	10.79	6.97	11.4	7.16	11.08	7.16	10.6	6.7	10.9	7	11	7.1
30	A. & N. Island	11.48	9.62	11.38	8.84	10.99	9.47	8.5	8.3	9.3	9.3	10.3	9.1
31	Chandigarh	7.44	4.68	5.87	5.43	6.85	5.96	13.8	5.5	10.6	6.6	8.9	6.7
32	D. & N. Haveli	11.89	13.11	11.73	11.4	13.13	11.27	10.9	8.8	10.2	8.9	10.2	9.4
33	Daman & Diu	9.93	10.69	9.03	9.31	9.96	12.52	13.3	9.6	14.4	9	17.2	9.6
34	Lakshadweep	8.75	8.75	9.37	10.36	10.4	9.06	10.4	9.4	13.6	9	11.9	8.5
35	Puducherry	10.55	9.04	11.22	7.6	11.16	7.61	8.8	10	9.5	9.8	10.8	9
	<b>India</b>	<b>9.41</b>	<b>6.97</b>	<b>9.75</b>	<b>7.11</b>	<b>9.85</b>	<b>7.21</b>	<b>9.1</b>	<b>7.1</b>	<b>9.6</b>	<b>7.2</b>	<b>9.6</b>	<b>7.3</b>

Source: National Sample Survey Office

\*\*ranking by household monthly per capita expenditure

URP: Uniform Reference Period, MRP: Mixed Reference Period, MMRP: Modified Mixed Reference Period

**Table 1.4: Proportion of Underweight Children (< 3yrs) (%)**

Sr. No	States/UTs	1990 est	1992-93	1998-99	2005-06	Likely achievement in 2015	Target 2015
1	Andhra Pradesh	44.41	42.9	34.2	29.8	22.17	22.21
2	Arunachal Pradesh	28.62	32.1	21.9	29.7	25.50	14.31
3	Assam	43.48	44.1	35.3	35.8	29.48	21.74
4	Bihar	49.28		52.2	54.9	59.00	24.64
5	Chhattisgarh	60.12		53.2	47.8	41.02	30.06
6	Delhi	38.09	36.2	29.9	24.9	18.58	19.04
7	Goa	28.90	29.3	21.3	21.3	15.92	14.45
8	Gujarat	42.82	42.7	41.6	41.1	39.82	21.41
9	Haryana	28.60	31	29.9	38.2	43.29	14.30
10	Himachal Pradesh	40.35	38.4	36.5	31.1	26.78	20.17
11	Jammu & Kashmir	36.54		29.2	24	18.14	18.27
12	Jharkhand	48.17		51.5	54.6	59.36	24.09
13	Karnataka	48.28	46.4	38.6	33.3	25.59	24.14
14	Kerala	22.25	22.1	21.7	21.2	20.54	11.12
15	Madhya Pradesh	43.75		50.8	57.9	69.80	21.87
16	Maharashtra	52.24	47.3	44.8	32.7	25.39	26.12
17	Manipur	19.33	19.1	20.1	19.5	20.03	9.67
18	Meghalaya	32.02	36.9	28.6	42.9	44.17	16.01
19	Mizoram	19.27	17.2	19.8	14.2	13.03	9.63
20	Nagaland	17.36	18.7	18.8	23.7	27.66	8.68
21	Orissa	54.07	50	50.3	39.5	33.98	27.04
22	Punjab	39.66	39.9	24.7	23.6	14.79	19.83
23	Rajasthan	45.36	41.8	46.7	36.8	34.91	22.68
24	Sikkim	13.67		15.5	17.3	20.24	6.84
25	Tamil Nadu	42.88	40.7	31.5	25.9	18.06	21.44
26	Tripura	42.67	42.1	37.3	35.2	30.36	21.34
27	Uttar Pradesh	56.78		48.1	41.6	33.81	28.39
28	Uttarakhand	42.38		36.3	31.7	26.12	21.19
29	West Bengal	56.11	<b>53.2</b>	45.3	37.6	28.79	28.05
	<b>India</b>	<b>52.01</b>	<b>51.5</b>	<b>42.7</b>	<b>40.4</b>	<b>32.85</b>	<b>26.00</b>

Source: NFHS, M/o Health and Family Welfare

**Table -2.1 : Gross Enrolment Ratio in Primary (Classes I-V) Education**

Year	Boys	Girls	Total
2000-01	104.9	85.9	95.7
2001-02	105.3	86.9	96.3
2002-03	97.5	93.1	95.3
2003-04	100.6	95.6	98.2
2004-05	110.7	104.7	107.8
2005-06	112.8	105.8	109.4
2006-07	114.6	108	111.4
2007-08	115.3	112.6	114
2008-09	114.3	114.4	114.4
2009-10	115.5	115.4	115.5
2010-11	105.3	116.7	116
2011-12	106.8	109.3	108
2012-13	105.3	107.2	106
2013-14	100.2	102.7	101.4

*Source: M/o Human Resource Development*

**Table -2.2: Net Enrolment Ratio: 2013-14\***

State/UTs	Primary			Upper Primary			Elementary			Secondary			Higher Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
A & N Islands	82.4	79.42	80.91	72.68	69.62	71.14	85.13	81.84	83.48	59.62	60.06	59.84	49.03	50.41	49.7
Andhra Pradesh	78.12	78.52	78.31	61.61	62.93	62.25	79.92	80.63	80.27	42.82	44.37	43.56	36.81	38.44	37.58
Arunachal Pradesh	-	-	-	87.84	88.76	88.29	-	-	-	51.4	48.83	50.12	35.31	35.31	35.31
Assam	-	-	-	72.51	80.68	76.49	97.09	-	99.67	46.51	54.4	50.32	21.36	23.02	22.14
Bihar	89.01	94.55	91.66	73.09	85.95	79.06	87.56	96.09	91.61	34.36	37.89	35.98	13.56	14.51	13.98
Chandigarh	74.99	81.9	78.08	75.59	79.04	77.09	83.2	89.19	85.85	56.83	59.51	57.99	55.84	59.62	57.42
Chhattisgarh	93.71	93.88	93.79	76.25	77.38	76.8	93.24	93.43	50.97	52.82	51.89	28.53	28.54	28.54	28.54
D & N Haveli	82.83	76.19	79.59	74.36	68.78	71.65	88.24	81.36	84.88	53.59	49.56	51.68	23.8	28.39	25.84
Daman & Diu	74.52	76.81	75.55	65.49	71.98	68.36	77.75	81.62	79.48	46.82	57.59	51.3	23.66	47.55	31.57
Delhi	90.68	94.24	92.3	90.57	96.69	93.26	99.69	-	-	63.98	64.8	64.35	56.15	58.97	57.42
Goa	96.96	98.11	97.51	87.89	90.81	89.28	97.93	99.39	98.63	71.98	73.94	72.91	44.7	51.08	47.73
Gujarat	82.32	83.61	82.92	68.81	67.89	68.39	85.53	86.05	85.77	48.92	40.13	44.88	29.84	26.79	28.42
Haryana	76.51	79.1	77.67	66.76	71.08	68.63	81.57	85.54	83.32	46.4	45.95	46.2	36.3	36.47	36.37
Himachal Pradesh	83.13	84.35	83.71	78.21	78.69	78.44	88.99	89.99	89.46	68.71	67.36	68.07	50.95	53.63	52.21
Jammu & Kashmir	68.28	69.79	68.99	54.74	55.97	55.32	68.94	70.47	69.66	40.89	38.1	39.56	31.67	27.14	29.5
Jharkhand	95.93	97.08	96.49	77.14	82.59	79.76	96.26	99.24	97.71	43.71	45.11	44.38	26.95	26.99	26.97
Karnataka	92.61	91.98	92.3	82.83	82.96	82.89	93.29	93.08	93.19	53.43	54.64	54.01	10.89	13.2	11.99
Kerala	85.87	85.68	85.78	82.25	82.28	82.26	90.24	90.14	90.19	74.44	73.1	73.79	53.78	61.39	57.51
Lakshadweep	81.91	76.22	79.06	82.35	75.64	78.74	87.44	81.85	84.56	74.83	87.34	81.17	55.21	50.2	52.56
Madhya Pradesh	94.05	93.24	93.66	72.71	80.02	76.14	94.41	97.17	95.72	45.13	44.35	44.76	25.03	22.52	23.85
Maharashtra	86.45	86.39	86.42	75.48	76.24	75.84	88.93	89.14	89.03	56.72	55.75	56.27	34.75	36.61	35.61
Manipur	-	-	-	-	-	-	-	-	-	72.73	73.06	72.89	51.27	44.19	47.73
Meghalaya	94.17	96.43	95.28	60.27	69.63	64.87	-	-	-	35.76	40.87	38.29	11.1	14.76	12.91
Mizoram	-	99.68	-	83.03	84.88	83.93	-	-	-	51.85	56.19	53.98	18.57	20.69	19.61
Nagaland	98.27	-	99.39	72.13	76.6	74.26	-	-	-	39.4	42.22	40.75	19.14	17.83	18.5

State/UTs	Primary			Upper Primary			Elementary			Secondary			Higher Secondary		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Odisha	90.02	88.04	89.05	63.8	63.83	63.81	87.88	86.45	87.18	47.11	47.36	47.23	NR	NR	NR
Puducherry	75.47	80.34	77.76	70.09	74.01	71.93	81.85	87.05	84.3	57.63	62.29	59.81	41.05	55.27	47.68
Punjab	84.4	87.37	85.72	68.71	72	70.13	87.5	90.68	88.9	47.28	47.73	47.48	37.46	38.36	37.86
Rajasthan	80.08	78.93	79.54	63.69	59.95	61.97	82.66	80.92	81.85	44.66	36.86	41.04	31.19	22.93	27.34
Sikkim	84.38	82.69	83.54	56.91	63.01	59.9	95.49	94.74	95.12	24.9	27.4	26.14	14.48	18.19	16.32
Tamil Nadu	86.58	86.75	86.66	75.69	77.7	76.66	89.69	90.6	90.13	60.83	62.41	61.59	45.75	57.43	51.35
Tripura	-	-	-	-	-	-	-	-	-	88	87.91	87.95	31.9	26.17	29.16
Uttar Pradesh	84.28	90.15	87.03	52.83	62.51	57.26	77.84	86.04	81.65	36.91	36.39	36.67	34.66	33.65	34.18
Uttarakhand	82.93	84.23	83.54	62.81	64.08	63.41	82.89	84.01	83.42	47.14	45.52	46.37	36.97	38.51	37.7
West Bengal	91.64	92.57	92.09	68.55	77.62	72.95	92.22	96.98	94.54	38.57	44.91	41.66	28.89	29.26	29.06
India	<b>87.02</b>	<b>89.26</b>	<b>88.08</b>	<b>67.82</b>	<b>72.89</b>	<b>70.2</b>	<b>86.57</b>	<b>90.26</b>	<b>88.31</b>	<b>45.53</b>	<b>45.74</b>	<b>45.63</b>	<b>30.25</b>	<b>30.62</b>	<b>30.43</b>

Source: U-DISE 2013-14, M/o Human Resource Development

\* States showing ratios above 100 have not been reported. NR: Data not fully reported.

**Table -2.3: Age-specific Enrolment Ratio 2013 -14\***

States/UTs	6+ to 10+ years			11+ to 13+ years			6+ to 13+ years			14+ to 15+ years			16+ to 17+ years			
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
A & N Islands	87.07	84.24	85.65	91.02	87.28	89.15	88.59	85.42	87	90.76	89.11	89.95	70.18	68.16	69.2	
Andhra Pradesh	88.42	89.08	88.74	82.5	84.28	83.37	86.16	87.24	86.68	62.03	64.21	63.08	41.51	43.38	42.4	
Arunachal Pradesh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Assam	-	-	-	83.42	92.8	87.99	98.8	-	-	63.76	74.8	69.1	34.2	39.73	36.79	
Bihar	89.95	95.52	92.62	91.85	-	98.99	90.56	99.16	94.64	45.18	50.82	47.76	22.48	25.12	23.66	
Chandigarh	80.26	87.61	83.55	96.97	-	98.95	86.56	92.7	89.28	89.36	89.33	89.35	72.98	75.42	74	
Chhattisgarh	95.64	95.86	95.75	92.93	93.63	93.27	94.64	95.03	94.83	82.51	83.7	83.1	60.44	61.14	60.79	
D&N Haveli	90.64	83.86	87.33	93.3	86.84	90.16	91.61	84.94	88.36	76.81	70.43	73.78	44.01	43.23	43.67	
Daman & Diu	78.11	81.71	79.74	84.42	90.65	87.18	80.4	84.9	82.42	64.9	78.66	70.63	31.68	58.22	40.46	
Delhi	98.23	-	99.88	-	-	-	-	-	-	98.7	-	-	-	72.27	78.58	75.1
Goa	98.58	99.58	99.06	99.7	-	99	-	99	-	99.77	96.06	93.88	95.02	70.49	71.44	70.94
Gujarat	90.78	92.13	91.4	89.58	87.3	88.54	90.32	90.3	90.31	68.29	57.09	63.14	42.46	35.2	39.09	
Haryana	84.4	87.71	85.88	90.34	95.9	92.74	86.67	90.72	88.45	70.06	69.45	69.79	50.95	50.92	50.93	
Himachal Pradesh	93.04	94.6	93.78	99.31	99.55	99.43	95.42	96.47	95.92	92.67	90.97	91.87	72.6	73.45	73	
Jammu & Kashmir	75.57	77.04	76.26	68.98	70.15	69.53	73.11	74.49	73.76	57.17	53.68	55.51	40.91	36.57	38.83	
Jharkhand	98.09	99.15	98.6	-	-	99.36	-	-	-	63.45	67.69	65.46	40.39	43.81	41.97	
Karnataka	96.31	95.77	96.05	95.19	95.76	95.46	95.88	95.76	95.82	58.41	59.61	58.98	23.95	26.2	25.02	
Kerala	92.51	92.69	92.6	98.82	99.21	99.01	94.96	95.21	95.09	91.49	91.02	91.26	64.4	69.64	66.97	
Lakshadweep	89.1	84.66	86.88	96.55	96.84	96.71	91.86	89.61	90.7	86.13	-	94.34	78.27	63.88	70.67	
Madhya Pradesh	98.66	98.17	98.42	94.01	-	97.76	96.93	99.56	98.18	71.31	72.42	71.84	50.76	48.93	49.9	
Maharashtra	89.52	89.72	89.62	94.18	94.88	94.51	91.29	91.65	91.46	83.08	80.75	81.99	56.05	54.81	55.48	
Manipur	-	-	-	-	-	-	-	-	-	90.9	91.26	91.07	56.72	48.78	52.75	
Meghalaya	95.89	98.46	97.16	-	-	-	-	-	-	93.67	-	-	45.14	55.7	50.34	
Mizoram	-	-	-	-	-	-	-	-	-	99.57	99.96	99.76	56.69	55.03	55.87	
Nagaland	99.8	-	-	-	-	-	-	-	-	72.36	79.09	75.59	40.13	39.81	39.97	

		98.47	99.64	78.41	78.58	78.49	92.33	90.96	91.66	54.38	54.42	54.4	NR	NR	NR
Odisha	-	98.47	99.64	78.41	78.58	78.49	92.33	90.96	91.66	54.38	54.42	54.4	NR	NR	NR
Puducherry	88.43	94.51	91.3	94.5	-	97.4	90.74	96.85	93.62	76.55	85.05	80.53	45.86	58.36	51.69
Punjab	89.03	92.55	90.59	94.15	98.13	95.87	91.01	94.64	92.61	77.87	77.2	77.57	60.24	58.32	59.4
Rajasthan	84.36	82.78	83.61	89.2	85.89	87.68	86.11	83.87	85.07	71.04	61.42	66.57	55.41	43.01	49.63
Sikkim	85.82	84.39	85.11	-	-	96.42	96.12	96.27	-	-	-	-	82.72	88.75	85.71
Tamil Nadu	98.2	98.32	98.26	93.28	95.04	94.13	96.24	97.03	96.62	79.82	84.3	81.97	50.94	62.48	56.47
Tripura	-	-	-	-	-	-	-	-	-	-	-	-	53.94	49.8	51.95
Uttar Pradesh	88.03	94.16	90.91	68.49	80.3	73.89	81.02	89.33	84.88	55.65	57.92	56.71	50	49.45	49.73
Uttarakhand	90.55	91.63	91.06	82.39	83.2	82.77	87.46	88.42	87.91	72.75	71.3	72.06	56.49	60.47	58.39
West Bengal	98.54	99.73	99.12	94.01	-	100	96.84	-	99.45	63.86	74.4	69	41	46.92	43.8
<b>India</b>	<b>91.97</b>	<b>94.36</b>	<b>93.11</b>	<b>87.07</b>	<b>93.16</b>	<b>89.92</b>	<b>90.18</b>	<b>93.93</b>	<b>91.95</b>	<b>65.78</b>	<b>67.17</b>	<b>66.43</b>	<b>45.5</b>	<b>45.94</b>	<b>45.71</b>

Source: U-DISE 2013-14, M/o Human Resource Development

\*Enrolment of a specific age group enrolled, irrespective of the level of education, as a percentage of the population of the same age group.

States showing ratios above 100 have not been reported. NR: Data not fully reported.

**Table -2.4: Ratio of enrolment of Grade V to I (Survival Rate)**

<b>Sr.no</b>	<b>State/Uts</b>	<b>Ratio of enrolment of Grade V to I</b>		
		<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>
1	A&N Islands	-	-	-
2	Andhra Pradesh	85.36	85.54	86.27
3	Arunachal Pradesh	41.18	42.52	50.21
4	Assam	70.57	62.36	63.09
5	Bihar	57.75	69.19	85.59
6	Chandigarh	-	-	-
7	Chattisgarh	80.66	85.81	91.31
8	Dadra & Nagar Haveli	96.91	94.76	97.6
9	Daman & Diu	87.5	92.64	89.9
10	Delhi	92.91	99.67	-
11	Goa	-	-	-
12	Gujarat	91.53	88.35	89.54
13	Haryana	86.14	94.98	96.77
14	Himachal Pradesh	-	99.81	-
15	Jammu & Kashmir	88	82.37	76.09
16	Jharkhand	62	73.8	76.51
17	Karnataka	97.95	96.87	97.43
18	Kerala	-	-	-
19	Lakshadweep	-	-	-
20	Madhya Pradesh	77.58	82.64	96.36
21	Maharashtra	90.75	96.79	-
22	Manipur	56.08	60.52	61.95
23	Meghalaya	55.08	52.97	45.68
24	Mizoram	75.66	62.81	64.76
25	Nagaland	69.53	70.05	74.24
26	Odisha	86.47	82.42	87.14
27	Puducherry	-	-	-
28	Punjab	91.55	80.14	87.61
29	Rajasthan	63.04	63.78	73.63
30	Sikkim	91.54	77.79	-
31	Tamil Nadu	-	-	-
32	Tripura	92.65	95.48	93.22
33	Uttar Pradesh	79.85	84.57	82.85
34	Uttarakhand	81.72	79.72	80.98
35	West Bengal	68.8	72.8	74.69
	<b>India</b>	<b>78.08</b>	<b>81.62</b>	<b>86.05</b>

Source: DISE Flash Statistics 2011-12, M/o Human Resource Development

**Table -2.5: Youth (15-24) Literates (%) 2011**

States/UTs	Male			Female			Person		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
A & N ISLANDS	96.84	97.42	97.07	95.72	97.01	96.21	96.30	97.23	96.66
ANDHRA PRADESH	89.51	93.26	90.77	79.47	89.74	83.15	84.66	91.47	87.02
ARUNACHAL PRADESH	82.00	93.34	84.88	72.69	87.20	76.44	77.39	90.26	80.69
ASSAM	83.65	94.79	85.21	77.50	92.22	79.57	80.60	93.51	82.41
BIHAR	78.52	86.48	79.56	61.01	81.57	63.69	70.50	84.23	72.29
CHANDIGARH	88.84	93.35	93.21	84.89	91.27	91.11	87.40	92.45	92.31
CHHATTISGARH	90.78	95.76	92.00	79.83	92.27	82.84	85.33	94.04	87.45
D. & N HAVELI	90.90	95.74	93.32	64.78	91.91	76.35	79.99	94.40	86.78
DAMAN & DIU	96.19	92.46	93.10	94.20	89.62	91.04	95.35	91.74	92.50
GOA	97.09	96.40	96.65	96.24	95.17	95.57	96.68	95.84	96.15
GUJARAT	91.89	94.00	92.84	81.26	90.07	85.00	86.78	92.22	89.17
HARYANA	92.83	92.75	92.80	85.08	89.37	86.54	89.30	91.22	89.96
HIMACHAL PRADESH	97.22	95.48	97.02	95.78	95.65	95.77	96.51	95.56	96.41
JAMMU & KASHMIR	88.52	92.29	89.56	72.44	87.04	76.25	80.69	89.83	83.15
JHARKHAND	85.14	92.82	87.21	65.29	87.90	71.36	75.64	90.47	79.62
KARNATAKA	91.96	94.99	93.13	85.11	93.00	88.28	88.71	94.01	90.79
KERALA	98.97	99.12	99.04	98.88	99.19	99.03	98.93	99.16	99.04
LAKSHADWEEP	98.26	98.29	98.28	98.20	98.35	98.31	98.23	98.32	98.30
MADHYA PRADESH	87.45	93.07	89.09	72.55	89.81	77.60	80.48	91.54	83.71
MAHARASHTRA	94.85	95.20	95.01	90.37	94.23	92.13	92.74	94.75	93.66
MANIPUR	88.10	96.43	90.27	82.69	93.18	85.53	85.41	94.77	87.90
MEGHALAYA	80.53	95.87	84.03	82.53	95.50	85.48	81.53	95.69	84.76
MIZORAM	90.72	98.88	95.12	82.76	98.98	91.66	86.79	98.93	93.40
NAGALAND	86.68	94.64	89.10	84.45	93.69	87.28	85.59	94.17	88.21
NCT OF DELHI	94.14	94.19	94.19	89.95	91.98	91.93	92.25	93.19	93.17
ODISHA	90.10	94.58	90.93	79.14	90.65	81.16	84.57	92.67	86.03
PUDUCHERRY	97.92	97.91	97.91	96.74	97.25	97.08	97.32	97.57	97.49
PUNJAB	90.03	91.13	90.44	88.26	90.12	88.94	89.21	90.68	89.75
RAJASTHAN	90.67	92.08	91.03	66.77	84.17	71.30	79.42	88.34	81.73
SIKKIM	94.75	95.72	94.98	93.37	93.39	93.38	94.09	94.56	94.20
TAMIL NADU	96.66	97.74	97.16	93.53	96.58	94.99	95.13	97.15	96.09
TRIPURA	95.65	97.80	96.16	90.94	97.20	92.45	93.29	97.50	94.30
UTTAR PRADESH	87.49	83.96	86.63	74.26	80.53	75.77	81.32	82.37	81.57
UTTARAKHAND	94.71	92.56	94.00	89.86	90.14	89.95	92.28	91.45	92.03
WEST BENGAL	88.06	91.84	89.18	83.24	89.78	85.22	85.72	90.82	87.25
<b>INDIA</b>	<b>88.82</b>	<b>92.65</b>	<b>90.04</b>	<b>77.99</b>	<b>90.03</b>	<b>81.85</b>	<b>83.67</b>	<b>91.40</b>	<b>86.14</b>

Source: Office of Registrar General of India

**Table 3.1: School Enrollment of Girls**

Year	Enrolment of girls as percentage of total enrolment (%)				Ratio of girls enrolment to Boys enrolment	Enrolment of girls as % of total enrolment (%)	Ratio of girls enrolment to Boys enrolment
	Primary	Upper Primary	Elementary	Primary			
2000-01	43.8	40.9	43	0.78	0.69	0.75	38.8
2001-02	44.2	41.7	43.5	0.79	0.72	0.77	39.7
2002-03	46.8	43.9	46	0.88	0.78	0.85	41.3
2003-04	46.7	44.1	46	0.88	0.79	0.85	41.1
2004-05	46.7	44.3	46	0.88	0.8	0.85	41.5
2005-06	46.6	44.6	46.1	0.87	0.81	0.85	41.9
2006-07	46.9	45.2	46.4	0.88	0.83	0.87	42.4
2007-08	47.5	45.8	47	0.91	0.85	0.89	43.4
2008-09	48	46.9	47.7	0.92	0.88	0.91	43.7
2009-10	47.8	46.5	47.4	0.92	0.87	0.9	44.6
2010-11	47.9	47.2	47.7	0.92	0.89	0.91	44.7
2011-12	48.4	48.6	48.4	0.94	0.95	0.94	--
2012-13	48.4	48.8	48.5	0.94	0.96	0.94	46.9
2013-14	48.2	48.6	48.3	0.93	0.95	0.94	47.1

Source: Statistics of School Education, 2007-08, MHRD, GOI; Educational Statistics at a Glance, 2011, MHRD, GOI; Statistics of School Education, 2010-11;

**Table 3.2: Number of Girls per Hundred Boys enrolled**

Year	Primary (I-V)	Upper Primary (VI- VIII)	Secondary (IX –X)	Senior Secondary (XI –XII)	Higher Education
1990-91	71	58		49	46
2000-01	78	69	63	62	58
2005-06	87	81	73	72	62
2006-07	88	82	73	74	62
2007-08	91	84	77	76	63
2008-09	92	86	79	77	65
2009-10	92	88	82	80	67
2010-11	92	89	82	79	78
2011-12	93	90	84	81	80
2012-13(P)	94	95	89	87	81
2013-14(P)	93	95	90	89	NA

*Source: Educational Statistics at a glance 2014, M/o HRD*

**Table 3.3: Gender Parity Index (GPI)**

	Primary (I-V)	Upper Primary (VI-VIII)	Elementary (I-VIII)	Secondary (IX-X)	Senior Secondary (XI-XII)	IX-XII	Higher Education
1990-91	0.75	0.61	0.71				
2000-01	0.82	0.75	0.8				
2005-06	0.94	0.88	0.92	0.8	0.8	0.8	0.69
2006-07	0.94	0.9	0.93	0.81	0.83	0.82	0.69
2007-08	0.98	0.91	0.96	0.85	0.84	0.85	0.7
2008-09	0.99	0.93	0.97	0.86	0.85	0.85	0.72
2009-10	1	0.94	0.98	0.88	0.87	0.88	0.74
2010-11	1.01	0.95	0.99	0.88	0.86	0.87	0.86
2011-12	1.01	0.99	1	0.93	0.92	0.93	0.88
2012-13(P)	1.03	1.05	1.03	0.99	0.98	0.99	0.89
2013-14(P)	1.03	1.06	1.04	1	1	1.00	NA

Source: *Educational Statistics at a glance 2014*, M/o HRD

**Table 3.4: Gender Parity Index for Enrollment in Primary, Secondary and Tertiary Grades**

Sl. No	State/UT	GPI Primary Classes I-V					GPI Secondary & Higher Secondary Classes IX-XII					GPI Higher Education (Tertiary)						
		2004- 05	2005- 06	2006- 07	2007- 08	2010- 11	2011- 12	2004- 05	2005- 06	2006- 07	2007- 08	2010- 11	2011- 12	2004- 05	2005- 06	2006- 07	2007- 08	2010- 11
1	Andhra Pradesh	1.01	1.01	1	1	1.02	0.82	0.85	0.87	0.9	0.96	1.01	0.59	0.6	0.63	0.58	0.76	0.78
2	Arunachal Pradesh	0.89	0.9	0.9	0.92	0.96	0.82	0.78	0.83	0.88	0.93	0.91	0.63	0.67	0.69	0.75	0.58	0.90
3	Assam	0.99	1	1.02	1	1.03	1.04	0.79	0.79	0.79	0.88	0.88	1.19	0.7	0.51	0.49	0.51	1.01
4	Bihar	0.75	0.75	0.77	0.82	0.94	0.98	0.48	0.54	0.58	0.62	0.78	0.93	0.38	0.24	0.25	0.43	0.77
5	Chhattisgarh	0.94	0.77	0.94	0.95	0.96	0.97	0.68	0.71	0.75	0.75	0.89	0.93	0.59	0.77	0.76	0.74	0.72
6	Goa	0.98	0.96	0.97	0.98	0.95	0.97	0.98	1	1	1	0.99	1	1.37	1.32	1.36	1.19	1.16
7	Gujarat	0.87	0.87	0.88	1.02	1.01	0.78	0.76	0.79	0.79	0.81	0.82	0.78	0.88	0.81	0.75	0.8	0.79
8	Haryana	1.06	1.04	1.04	1.07	1.11	1.09	0.88	0.91	0.97	0.95	1.09	1.06	0.91	0.99	0.96	0.92	0.76
9	Himachal Pradesh	0.99	1.01	1	1	1.01	0.93	0.94	0.91	0.94	0.98	1	0.93	0.9	1.05	1.21	1	1.02
10	Jammu & Kashmir	0.98	0.95	0.95	0.95	1.03	1.04	0.81	0.83	0.83	0.95	0.94	0.93	0.83	0.9	0.92	0.98	1.03
11	Jharkhand	0.84	0.86	0.89	1	1.02	1.02	0.67	0.67	0.71	0.75	0.91	0.98	0.61	0.68	0.68	0.56	0.85
12	Karnataka	0.98	0.98	0.97	0.98	0.99	0.98	0.94	0.95	0.94	0.97	1	1.05	0.81	0.74	0.73	0.84	0.92
13	Kerala	1	1	1.01	1.01	1	1	1.04	1.03	1.07	1.08	1.04	1.07	1.22	1.12	1.14	1.1	1.34
14	Madhya Pradesh	0.95	0.96	0.96	0.99	1.06	1.04	0.64	0.65	0.67	0.67	0.72	0.52	0.55	0.49	0.79	0.79	0.65
15	Maharashtra	1	0.98	0.96	0.97	0.98	0.99	0.91	0.92	0.92	0.91	0.89	0.95	0.72	0.74	0.76	0.75	0.79
16	Manipur	0.96	0.96	0.96	0.97	0.96	1.04	0.93	0.93	0.94	0.95	0.91	0.99	0.79	0.76	0.86	0.59	0.86
17	Meghalaya	1.03	0.98	0.99	0.98	1.01	1.04	1.04	1.04	1.02	1.1	1.08	1.21	0.83	0.91	0.89	0.97	1.29
18	Mizoram	0.93	0.98	0.96	0.94	0.94	0.94	1.02	1	1	1	1.01	1.04	0.61	0.68	0.66	0.99	0.96
19	Nagaland	0.98	0.98	0.98	1	0.99	1	0.98	1.03	1.03	1.01	1.02	0.89	0.55	0.73	0.95	0.65	0.71
20	Odisha	0.97	0.97	0.96	1	1.01	0.98	0.67	0.67	0.83	0.86	0.9	0.84	0.26	0.23	0.31	0.78	0.85
21	Punjab	1.08	1.08	1.09	0.98	0.99	1	1.02	1	0.94	1.04	1.01	1.03	1.2	1.01	0.97	1.2	0.62

Sl. No	State/UT	GPI Primary Classes I-V					GPI Secondary & Higher Secondary Classes IX-XII					GPI Higher Education (Tertiary)							
		2004- 05	2005- 06	2006- 07	2007- 08	2010- 11	2011- 12	2004- 05	2005- 06	2006- 07	2007- 08	2010- 11	2011- 12	2004- 05	2005- 06	2006- 07	2007- 08	2010- 11	2012- 13
22	Rajasthan	0.93	0.95	0.95	0.99	0.99	0.48	0.52	0.56	0.58	0.67	0.73	0.57	0.56	0.59	0.73	0.72	0.80	
23	Sikkim	0.99	0.97	1.01	0.98	0.97	1	1.01	1.02	1.03	1.04	1.1	1.2	0.75	0.82	0.84	0.79	0.85	1.21
24	Tamil Nadu	0.98	0.99	1	1	1.01	1.02	0.98	1.02	1.05	1.06	1.1	1.13	0.76	0.72	0.72	0.87	0.8	0.85
25	Tripura	0.96	0.95	0.96	0.98	0.99	1.01	0.88	0.89	0.87	0.94	0.94	0.96	0.72	0.73	0.73	0.8	0.69	0.71
26	Uttar Pradesh	0.94	0.93	0.93	1.05	1.05	1.03	0.68	0.67	0.67	0.81	0.79	0.84	0.74	0.74	0.69	0.63	1.14	1.00
27	Uttarakhand	1.01	1.03	1.05	1.09	1.02	1.02	0.83	0.9	0.9	0.84	0.96	0.98	0.96	0.95	0.95	0.9	1.13	1.05
28	West Bengal	0.99	0.96	1.01	0.99	1.03	1.03	0.78	0.77	0.78	0.84	0.98	1.09	0.61	0.58	0.65	0.62	0.79	0.78
29	A&N Islands	0.98	1	1.02	1.06	0.97	1	1.05	0.99	1.05	1.04	1.01	0.99	1.42	1.34	1.39	1.3	1.39	1.22
30	Chandigarh	0.9	0.87	0.89	0.87	0.99	1.04	1.15	1.1	1.19	1.19	1.02	0.95	1.02	1.49	1.38	1.53	1.08	0.96
31	D&N Haveli	0.93	0.96	0.98	1.01	1.03	0.99	0.73	0.79	0.67	0.63	0.93	0.9	0.15	-	-	0	1.14	1.31
32	Daman & Diu	0.88	0.87	0.92	0.86	1.08	0.96	1.03	0.88	0.98	1.45	1.18	1.37	1.82	1.18	1.31	2.99	2.11	2.06
33	Delhi	1.11	1.04	1	1.02	1.03	1.13	1.14	1.03	1.03	0.97	1.03	1.3	1.14	1.05	1.21	0.85	1.03	
34	Lakshadweep	0.89	0.93	1.02	0.94	0.99	0.96	1.1	1.15	1.16	1.43	1.09	0.92	-	0	0.54		2.80	
35	Puducherry	0.87	0.88	0.87	0.87	0.98	0.98	0.99	0.99	1	0.98	1.05	1.09	0.96	0.83	0.79	0.93	0.92	0.86
	<b>India</b>	<b>0.95</b>	<b>0.94</b>	<b>0.94</b>	<b>0.94</b>	<b>0.98</b>	<b>1.01</b>	<b>1.01</b>	<b>0.79</b>	<b>0.8</b>	<b>0.82</b>	<b>0.85</b>	<b>0.87</b>	<b>0.93</b>	<b>0.71</b>	<b>0.69</b>	<b>0.7</b>	<b>0.86</b>	<b>0.89</b>

Source : Ministry of Human Resource Development

**Table 3.5: Ratio of female literacy rate to male literacy rate (15-24 yrs) 2011**

Sr. No	States/UTs	Rural	Urban	Total
1	ANDAMAN & NICOBAR ISLANDS	0.99	1	0.99
2	ANDHRA PRADESH	0.89	0.96	0.92
3	ARUNACHAL PRADESH	0.89	0.93	0.9
4	ASSAM	0.93	0.97	0.93
5	BIHAR	0.78	0.94	0.8
6	CHANDIGARH	0.96	0.98	0.98
7	CHHATTISGARH	0.88	0.96	0.9
8	DADRA & NAGAR HAVELI	0.71	0.96	0.82
9	DAMAN & DIU	0.98	0.97	0.98
10	GOA	0.99	0.99	0.99
11	GUJARAT	0.88	0.96	0.92
12	HARYANA	0.92	0.96	0.93
13	HIMACHAL PRADESH	0.99	1	0.99
14	JAMMU & KASHMIR	0.82	0.94	0.85
15	JHARKHAND	0.77	0.95	0.82
16	KARNATAKA	0.93	0.98	0.95
17	KERALA	1	1	1
18	LAKSHADWEEP	1	1	1
19	MADHYA PRADESH	0.83	0.96	0.87
20	MAHARASHTRA	0.95	0.99	0.97
21	MANIPUR	0.94	0.97	0.95
22	MEGHALAYA	1.02	1	1.02
23	MIZORAM	0.91	1	0.96
24	NAGALAND	0.97	0.99	0.98
25	NCT OF DELHI	0.96	0.98	0.98
26	ODISHA	0.88	0.96	0.89
27	PUDUCHERRY	0.99	0.99	0.99
28	PUNJAB	0.98	0.99	0.98
29	RAJASTHAN	0.74	0.91	0.78
30	SIKKIM	0.99	0.98	0.98
31	TAMIL NADU	0.97	0.99	0.98
32	TRIPURA	0.95	0.99	0.96
33	UTTAR PRADESH	0.85	0.96	0.87
34	UTTARAKHAND	0.95	0.97	0.96
35	WEST BENGAL	0.95	0.98	0.96
	<b>INDIA</b>	<b>0.88</b>	<b>0.97</b>	<b>0.91</b>

Source: Office of Registrar General of India

**Table 3.6: Percentage share of females in wage employment (regular wage/salaried and casual labours) in the non-agriculture sector according to usual status (ps+ss)**

Sr.no.	State/U.T./All-India	2004-05			2009-10			2011-12		
		rural	urban	rural+urban	rural	urban	rural+urban	rural	urban	rural+urban
1	Andhra Pradesh	24.3	22.7	23.5	27	19.3	23.1	27.5	19.3	22.9
2	Arunachal Pradesh	18.7	18.4	18.6	18.1	16.2	17.3	17.8	15.6	16.6
3	Assam	14.9	20.1	16.4	12.8	13.7	13	12.6	14.9	13.2
4	Bihar	9.3	8.4	9	3.4	7.1	4.2	5.7	7.8	6.1
5	Chhattisgarh	20.2	21.1	20.6	25.2	21.7	23.4	28.6	29.9	29.3
6	Delhi	1.4	14.5	13.6	5.3	10.3	9.9	23.3	16.5	17.1
7	Goa	30.8	26.8	28.7	23.5	19.4	22.3	29.5	28.1	28.9
8	Gujarat	18.6	17	17.7	13.4	19.7	17.6	16.8	13.4	14.5
9	Haryana	7.9	13.8	10.3	11.5	15.3	13.4	7.9	17.1	12
10	Himachal Pradesh	14.1	19.8	15.3	17	20.3	17.4	20	21.7	20.4
11	Jammu & Kashmir	8.1	11.3	9.3	6.8	1.9	11.1	8.3	18.7	11.1
12	Jharkhand	15.4	19.8	16.8	11.6	14.6	12.5	7.2	13.1	9.1
13	Karnataka	22.3	20.1	20.9	25.2	21.2	22.6	17.3	23.3	20.9
14	Kerala	27.4	27.7	27.5	29.1	29.7	29.3	31.9	28.3	30.8
15	Madhya Pradesh	25.9	19.7	22.6	19.8	18.1	18.9	20.7	15	18.3
16	Maharashtra	17.5	21.9	20.7	11.5	18.2	16.4	16.1	21.6	20.1
17	Manipur	16.1	26	20.2	34.5	15.9	29.3	47.9	15.5	41.6
18	Meghalaya	19.5	47.2	33.7	27.3	31.9	29	31.5	27.6	30
19	Mizoram	19.4	21.9	21.2	29.7	20	23.4	42	20.2	27.6
20	Nagaland	15.1	22.8	19.1	24.3	8.7	17.5	13.3	15.3	14.5
21	Odisha	20.6	21.7	21	18.6	14	17.2	19.6	15.1	18.4
22	Punjab	8.8	18.5	13.5	13.8	15.1	14.5	11.1	18.3	14.5
23	Rajasthan	16.7	14.5	15.9	37	14	30	26.1	14.6	22.6
24	Sikkim	21.2	22.6	21.5	26.7	19.7	25.6	21.1	23.7	22.2
25	Tamil Nadu	25.5	24.6	25	31.4	19.9	24.6	42.9	22.6	32.5
26	Tripura	12	23.2	14	34.7	24.3	32.9	35.7	23.2	33.8
27	Uttarakhand	10.6	19.6	14.8	11.9	14.9	13.1	8.7	9.9	9.1
28	Uttar Pradesh	8.2	10.3	9.1	7.3	9.8	8.2	8	13.1	10

Sr.no.	State/U.T./All-India	2004-05			2009-10			2011-12		
		rural	urban	rural+urban	rural	urban	rural+urban	rural	urban	rural+urban
29	West Bengal	18.7	16.9	17.7	22.8	17	20.2	17.8	20.4	19.1
30	A & N Islands	18.3	19.2	18.8	24.7	26.2	25.5	24.8	27.9	26.4
31	Chandigarh	1.1	23.9	21.9	17	24.1	22.6	5.5	14.9	13.9
32	Dadra & Nagar Haveli	20.3	11.7	19.2	5.6	0.6	3.1	18.6	15.5	16.8
33	Daman & Diu	1.3	20.8	16.4	5.7	15.6	9.7	3.3	18.5	6.6
34	Lakshadweep	0	15.6	6.6	20	30	24.8	15	18.2	15.2
35	Puducherry	21.6	20.3	20.6	17.5	26.3	24	26.8	22.6	24
	<b>India</b>	<b>17.9</b>	<b>19.2</b>	<b>18.6</b>	<b>19.6</b>	<b>17.6</b>	<b>18.6</b>	<b>19.9</b>	<b>18.7</b>	<b>19.3</b>

*Note: Since from the tabulation it is not possible to derive the casual labours in public works separately for agricultural sector and non-agricultural sector, all the casual workers in public works have been included in the non-agricultural sector*

*Source: NSS 61<sup>st</sup> round on Employment and unemployment 2004-05*

*NSS 66<sup>th</sup> round on Employment and unemployment (2009-10)*

*NSS 68<sup>th</sup> round on Employment and unemployment (2011-12)*

**Table 4.1: Under 5 Mortality Rate**

Sl. No	State	1990 est	1992	1998	2005	2009	2010	2011	2012	2013	Likely achievment 2015	Target 2015
1	Andhra Pradesh	100	91.2	85.5	63.2	52	48	45	43	41	39.32	33.00
2	Arunachal Pradesh	76	72	98.1	87.7							25.00
3	Assam	142	142.2	89.5	85	87	83	78	75	73	70.00	47.00
4	Bihar	138	127.5	105.1	84.8	70	64	59	57	54	51.87	46.00
5	Chhattisgarh				90.3	67	61	57	55			
6	Delhi	86	83.1	55.4	46.7	37	34	32	28	26	25.49	29.00
7	Goa	51	38.9	46.8	20.3							17.00
8	Gujarat	115	104	85.1	60.9	61	56	52	48	45	44.33	38.00
9	Haryana	111	98.7	76.8	52.3	60	55	51	48	45	43.88	37.00
10	Himachal Pradesh	68	69.1	42.4	41.5	51	49	46	43	41	41.00	23.00
11	Jammu & Kashmir	134	59.1	80.1	51.2	50	48	45	43	40	38.00	45.00
12	Jharkhand				93	62	59	54	50			
13	Karnataka	94	87.3	69.8	54.7	50	45	40	37	35	34.76	31.00
14	Kerala	33	32	18.8	16.3	14	15	13	13	12	11.00	11.00
15	Madhya Pradesh	148	130.3	137.6	94.2	89	82	77	73	69	68.47	49.00
16	Maharashtra	75	70.3	58.1	46.7	36	33	28	28	26	25.16	25.00
17	Manipur	68	61.7	56.1	41.9							23.00
18	Meghalaya	105	86.9	122	70.5							35.00
19	Mizoram	30	29.3	54.7	52.9							10.00
20	Nagaland	22	20.7	63.8	64.7							7.00
21	Odisha	136	131	104.4	90.6	84	78	72	68	66	64.77	45.00
22	Punjab	76	68	72.1	52	46	43	38	34	31	31.00	25.00
23	Rajasthan	113	102.6	114.9	85.4	74	69	64	59	57	57.00	38.00
24	Sikkim	136		71	40.1						18.00	45.00

Sl. No	State	1990 est	1992	1998	2005	2009	2010	2011	2012	2013	Likely achievment 2015	Target 2015
25	Tamil Nadu	103	86.5	63.3	35.5	33	27	25	24	23	20.04	34.00
26	Tripura	97	104.6	51.3	59.2						34.00	32.00
27	Uttar Pradesh	152	141.3	122.5	96.4	85	79	73	68	64	63.61	51.00
28	Uttarakhand				56.8							
29	West Bengal	102	99.3	67.6	59.6	40	37	38	38	35	31.00	34.00
30	India	125	109.3	94.9	74.3	64	59	55	52	49	48.01	42.00

Source: M/o Health & Family Welfare, Office of Registrar General of India

**Table 4.2: U5MR in 2013**

Sl. No	States	Total	Male	Female	Rural	Urban
1	Andhra Pradesh	41	40	42	46	29
2	Assam	73	68	77	77	34
3	Bihar	54	51	58	56	37
4	Chhattisgarh	53	47	59	56	38
5	Delhi	26	25	28	40	24
6	Gujarat	45	44	46	53	28
7	Haryana	45	42	49	49	34
8	Himachal Pradesh	41	37	45	41	32
9	Jammu & Kashmir	40	40	39	42	29
10	Jharkhand	48	45	51	51	27
11	Karnataka	35	33	36	38	28
12	Kerala	12	11	14	13	9
13	Madhya Pradesh	69	65	74	75	40
14	Maharashtra	26	26	27	32	18
15	Odisha	66	65	68	70	39
16	Punjab	31	26	36	35	24
17	Rajasthan	57	50	65	63	32
18	Tamil Nadu	23	22	24	26	17
19	Uttar Pradesh	64	60	70	68	44
20	West Bengal	35	34	35	37	26
<b>India</b>		<b>49</b>	<b>47</b>	<b>53</b>	<b>55</b>	<b>29</b>

*Source: Office of Registrar General of India*

**Table 4.3: Infant mortality Rate**

Sl. No	State	1990	1994	2003	2007	2009	2010	2011	2012	2013	Likely achievement 2015	Target 2015
1	Andhra Pradesh	70	65	59	54	49	46	43	41	39	39.00	23.33
2	Arunachal Pradesh	75.3	40.1	34	37	32	31	32	33	32	27.80	25.10
3	Assam	76	78	67	66	61	58	55	55	54	53.21	25.33
4	Bihar	75	67	60	58	52	48	44	43	42	41.66	25.00
5	Chhattisgarh				59	54	51	48	47	46		
6	Delhi				36	33	30	28	25	24		
7	Goa	20.7	3.5	16	13	11	10	11	10	9	10.25	6.90
8	Gujarat	72	64	57	52	48	44	41	38	36	36.00	24.00
9	Haryana	69	70	59	55	51	48	44	42	41	41.32	23.00
10	Himachal Pradesh	68.4	59	49	47	45	40	38	36	35	34.62	22.80
11	Jammu & Kashmir				51	45	43	41	39	37		
12	Jharkhand			48	44	42	39	38	37			
13	Karnataka	70	67	52	47	41	38	35	32	31	30.79	23.33
14	Kerala	16	16	11	13	12	13	12	12	12	11.34	5.33
15	Madhya Pradesh	111	98	82	72	67	62	59	56	54	52.93	37.00
16	Maharashtra	58	55	42	34	31	28	25	25	24	22.84	19.33
17	Manipur	29.1	23.8	16	12	16	14	11	10	10	9.94	9.70
18	Meghalaya	54.3	47.3	57	56	59	55	52	49	47	47.00	18.10
19	Mizoram				23	36	37	34	35	35		
20	Nagaland				21	26	23	21	18	18		
21	Odisha	122	103	83	71	65	61	57	53	51	49.70	40.67
22	Punjab	61	53	49	43	38	34	30	28	26	26.00	20.33
23	Rajasthan	84	84	75	65	59	55	52	49	47	47.00	28.00
24	Sikkim	51.4	26.8	33	34	34	30	26	24	22	22.00	17.13

Sl. No	State	1990	1994	2003	2007	2009	2010	2011	2012	2013	Likely achievement 2015	Target 2015
25	Tamil Nadu	59	59	43	35	28	24	22	21	21	19.35	19.67
26	Tripura	46	39.1	32	39	31	27	29	28	26	25.61	15.33
27	Uttar Pradesh	99	88	76	69	63	61	57	53	50	50.00	33.00
28	Uttarakhand				48	41	38	36	34	32		
29	West Bengal	63	62	46	37	33	31	32	32	31	28.03	21.00
	<b>India</b>	<b>80</b>	<b>74</b>	<b>60</b>	<b>55</b>	<b>50</b>	<b>47</b>	<b>44</b>	<b>42</b>	<b>40</b>	<b>39.00</b>	<b>26.67</b>

Source: Office of Registrar General of India

**Table 4.4: IMR in 2013**

Sl. No	States	Total	Male	Female	Rural	Urban
1	Andhra Pradesh	39	39	40	44	29
2	Assam	54	53	55	56	32
3	Bihar	42	40	43	42	33
4	Chattisgarh	46	45	47	47	38
5	Delhi	24	23	25	35	22
6	Gujarat	36	35	37	43	22
7	Haryana	41	40	42	44	32
8	Jammu & Kashmir	37	36	38	39	28
9	Jharkhand	37	35	38	38	27
10	Karnataka	31	30	32	34	24
11	Kerala	12	10	13	13	9
12	Madhya Pradesh	54	52	55	57	37
13	Maharashtra	24	23	25	29	16
14	Odisha	51	50	52	53	38
15	Punjab	26	25	27	28	23
16	Rajasthan	47	45	49	51	30
17	Tamil Nadu	21	20	21	24	17
18	Uttar Pradesh	50	49	52	53	38
19	West Bengal	31	30	33	32	26
	<b>India</b>	<b>40</b>	<b>39</b>	<b>42</b>	<b>44</b>	<b>27</b>

*Source: Office of Registrar General of India*

**Table 4.5: Percentage of One year old Children immunised against Measles**

Area Name	1992-93	1998-99	2002-04	2005-06	2005-06	2005-06	2007-08	2007-08	2009	2009	Likely achievement 2015	Target 2015
	Total 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	Total months	
A & N Islands		85.5									69.7	100
Andhra Pradesh	53.7	64.7	74	70.1	68.3	69.4	87.7	88.6	91.1	92.4	85.3	90.4
Arunachal Pradesh	27.5	33.6	38.1	33.3	53.5	38.3			49.8	42.3	48.2	91.2
Assam	25.8	24.6	35.9	37.3	39.7	37.4	63.7	64.4	71.2	81.2	72.9	80.1
Bihar		16.2	26.9	39.3	48.5	40.4	54.1	54.2	55.8	58	59.3	58.2
Chandigarh			76			61.1	87.3	89.9				58.9
Chhattisgarh	40	67.8	58.4	81.3	62.5	79.1	79.9	84.4	70.3	84.5	73.1	78.6
D & NHaveli			86.1			81.9	84.4	94.6				95.7
Daman & Diu			77.2			91.1	90.9	90.5				78.1
Delhi	69.6	77.5	73.7		78.2	88.5	83.1	83.1	81.5	83.5	83.3	89.0
Goa	77.8	84.3	89.2	88.3	93.8	91.2	100	94.1	88.4	97.1	85.8	91.5
Gujarat	55.9	63.6	65.2	61.4	73.6	65.7	70.1	72.6	81.3	81.2	72.5	78
Haryana	60.9	72.2	65.2	72.8	84.4	75.5	66.4	69	77.2	78.7	83.1	79.9
Himachal Pradesh	71.8	89.1	88.6	85.7	92.0	86.3	94.5	94.5	97.1	87.9	96.2	100.0
Jammu & Kashmir	68.9	77.9	75.7	87.3	78.3	80.0	81.4	90.7	77	78	77.2	90.5
Jharkhand	18.2	32.3	44.4	60.4	47.6	69.0	70.5	84.8	64.8	77.1	67.5	
Karnataka	54.9	67.3	77.2	67.5	79.5	72.0	85.2	85.1	89.8	90.2	89.9	100.0
Kerala	60.5	84.6	87.9	76.9	93.1	82.1	88.1	87.9	87.1	87	83.9	86.2
Lakshadweep		89.7				92.2	92	91.7				75.7
Madhya Pradesh	34.1	47	56.4	77.4	61.4	53.6	57.7	73.3	57.4	74.5	61.9	80.9
Maharashtra	70.2	84.3	85.4	82.6	86.8	84.7	84.3	84.5	85.1	91.1	91.2	96.0
Manipur	37	45.8	53.3	49.1	64.9	52.8			56.7	70.5	60.3	91.6
Meghalaya	13.2	17.7	29.9	42.7	49.2	43.8	50.7	52.5	76.8	63	74.1	100.0
Mizoram	65.1	71	59.5	58.7	79.4	69.5	75.4	80.4	89.3	75.6	86.7	82.0
Nagaland	10	19.6	38.2	22.4	47.2	27.3			51.8	54.3	52.2	100.0
Odisha	40.2	54	67.8	68	58.2	66.5	80.3	81.1	87.7	72.5	68.1	71.9

Area Name	1992-93	1998-99	2002-04	2005-06	2005-06	2007-08	2007-08	2009	2009	Likely achievement 2015	Target 2015
	Total 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	Total 12-23 months	Rural 12-23 months	Urban 12-23 months	
Puducherry	96.4				100	94.2	92.3				100.0
Punjab	64.8	76.5	76.8	76	82.2	78.0	89.5	89.1	87.6	87.9	86.1
Rajasthan	31.3	27.1	35.9	38.4	60.2	42.7	65.7	67.5	75.9	66.7	61.9
Sikkim	58.9	83.2	82.2	87.8	83.1	92.1	92.5	100	86.5	96.1	87.8
Tamil Nadu	71.5	90.2	94.9	93.3	91.5	92.5	95.6	95.6	89.9	86.5	88.4
Tripura	28.9	44.6	49.7	58.3		59.9	48.9	51.7	83.3	66.3	81
Uttar Pradesh	33.5	35.4	34.7	48.7	37.7	45.8	47	53.7	50.5	61.8	52.8
Uttarakhand	56	54.4	70.3	75.0	71.6	81.1	82.1	88.3	75.1	78.1	75.8
West Bengal	42.5	52.4	65	73.7	78.7	74.7	83.1	82.8	81.1	79.2	72.1
<b>India</b>	<b>42.2</b>	<b>50.7</b>	<b>56</b>	<b>54.2</b>	<b>71.7</b>	<b>58.8</b>	<b>66.6</b>	<b>69.6</b>	<b>77.6</b>	<b>72.4</b>	<b>78.3</b>
										<b>74.1</b>	<b>89.1</b>
											<b>100</b>

Source: 2007-08: DLHS -3, 2009 : Coverage Evaluation Survey, UNICEF and GOI

**Table 5.1: Maternal mortality ratio (Deaths per 100,000 live births)**

Sl. No	Area Name	1990 est	1997	1997-98	1999-01	2001-03	2004-06	2007-09	2010-12	2011-13	Likely achievement 2015	Target 2015
1	Andhra Pradesh	297.8	154	197	220	195	154	134	110	92	85.18	74.4
2	Assam	544.2	401	568	398	490	480	390	328	300	289.71	136
3	Bihar/ Jahrkhand	735.8	451	531	400	371	312	261	219	208	169.53	183.9
4	Gujarat	308			202	172	160	148	122	112	101.89	77
5	Haryana	108.4	105	136	176	162	186	153	146	127	140.48	27.1
6	Karnataka	315.9	195	245	266	228	213	178	144	133	122.27	79
7	Kerala	279.2	195	150	149	110	95	81	66	61	50.21	69.8
8	Madhya Pradesh/ Chhatisgarh	602.8	498	441	407	379	335	269	230	221	190.72	150.7
9	Maharashtra	234.5	135	166	169	149	130	104	87	68	64.51	58.6
10	Odisha	482	361	346	424	358	303	258	235	222	199.34	120.5
11	Punjab	333.4	196	280	177	178	192	172	155	141	131.57	83.4
12	Rajasthan	724.9	677	508	501	445	388	318	255	244	210.70	181.2
13	Tamil Nadu	196.7	76	131	167	134	111	97	90	79	72.58	49.2
14	Uttar Pradesh/ Uttarakhand	855.1	707	606	539	517	440	359	292	285	241.96	213.8
15	West Bengal	666.9	264	303	218	194	141	145	117	113	88.69	166.7
	<b>India</b>	<b>437</b>	<b>408</b>	<b>398</b>	<b>327</b>	<b>301</b>	<b>254</b>	<b>212</b>	<b>178</b>	<b>167</b>	<b>140.00</b>	<b>109.3</b>

Source: M/o Health and Family Welfare, Office of Registrar General of India

**Table 5.2: Maternal Mortality Ratio(MMR), Maternal Mortality Rate and Life Time Risk – India and Major states 2011-13**

Sl. No	Area Name	Sample Female population	Live births	Maternal deaths	MMR	95% CI	Maternal Mortality Rate	Lifetime Risk
1	Andhra Pradesh	352221	22600	21	92	(52-131)	5.9	0.2
2	Assam	198242	12975	39	300	(205-394)	19.6	0.7
3	Bihar/Jharkhand	378927	38925	81	208	(163-253)	21.4	0.7
4	Gujarat	298019	23304	26	112	(69-155)	8.7	0.3
5	Haryana	178447	14155	18	127	(68-185)	10	0.4
6	Karnataka	382771	21657	29	133	(84-181)	7.5	0.3
7	Kerala	295114	15410	9	61	(22-101)	3.2	0.1
8	Madhya Pradesh/ Chattisgarh	355339	32465	72	221	(170-272)	20.2	0.7
9	Maharashtra	335756	20486	14	68	(32-103)	4.1	0.1
10	Orissa	292951	19929	44	222	(156-287)	15.1	0.5
11	Punjab	204149	11796	17	141	(73-209)	8.2	0.3
12	Rajasthan	272496	26658	65	244	(185-303)	23.9	0.8
13	Tamil Nadu	404093	22704	18	79	(43-116)	4.5	0.2
14	Uttar Pradesh / Uttarakhand	552032	53383	152	285	(240-330)	27.6	1
15	West Bengal	530544	29623	33	113	(75-151)	6.3	0.2
16	Other States	1124425	63930	80	126	(98-153)	7.1	0.2
	<b>India</b>	<b>6155526</b>	<b>430000</b>	<b>718</b>	<b>167</b>	<b>(155-179)</b>	<b>11.7</b>	<b>0.4</b>

Source: Office of Registrar General of India

**Table 5.3 Maternal Mortality Ratio & Maternal Mortality Rate Over the Years**

Sl. No	Area name	Maternal Mortality Ratio (MMR)					Maternal Mortality Rate					Life Time Risk		
		2004-06	2007-09	2010-12	2011-13	2004-06	2007-09	2010-12	2011-13	2004-06	2007-09	2010-12	2011-13	
1	Andhra Pradesh	154	134	110	92	10.9	9.1	6.9	5.9	0.4	0.3	0.2	0.2	
2	Assam	480	390	328	300	34.4	27.5	21.5	19.6	1.2	1	0.8	0.7	
3	Bihar/Jharkhand	312	261	219	208	38.4	30.1	22.8	21.4	1.3	1	0.8	0.7	
4	Gujarat	160	148	122	112	14.8	12.8	9.5	8.7	0.5	0.4	0.3	0.3	
5	Haryana	186	153	146	127	17.4	13.5	11.6	10	0.6	0.5	0.4	0.4	
6	Karnataka	213	178	144	133	14	10.8	8.1	7.5	0.5	0.4	0.3	0.3	
7	Kerala	95	81	66	61	4.9	4.1	3.3	3.2	0.2	0.1	0.1	0.1	
8	Madhya Pradesh/ Chhattisgarh	335	269	230	221	36.9	27.4	21.1	20.2	1.3	1	0.7	0.7	
9	Maharashtra	130	104	87	68	9.3	6.9	5.2	4.1	0.3	0.2	0.2	0.1	
10	Odisha	303	258	235	222	24.9	19.5	16	15.1	0.9	0.7	0.6	0.5	
11	Punjab	192	172	155	141	13.7	11.3	9	8.2	0.5	0.4	0.3	0.3	
12	Rajasthan	388	318	255	244	47.5	35.9	25.2	23.9	1.6	1.2	0.9	0.8	
13	Tamil Nadu	111	97	90	79	6.6	5.6	5	4.5	0.2	0.2	0.2	0.2	
14	Uttar Pradesh/ Uttarakhand	440	359	292	285	53.8	40	28.7	27.6	1.9	1.4	1	1	
15	West Bengal	141	145	117	113	10	9.2	6.6	6.3	0.3	0.3	0.2	0.2	
16	Other	206	160	136	126	13.44	10.2	7.8	7.1	0.5	0.4	0.3	0.2	
	<b>INDIA</b>	<b>254</b>	<b>212</b>	<b>178</b>	<b>167</b>	<b>20.7</b>	<b>16.3</b>	<b>12.4</b>	<b>11.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.4</b>	<b>0.4</b>	

Source: Office of Registrar General of India

**Table 5.4 Maternal Mortality Ratio (MMR) India, EAG & Assam, South and Other states, 2007-09 and 2011-13**

Sl. No	India & Major States	2004-06	2007-09	2010-12	2011-13	% of Change during 2004-13
1	Assam	480	390	328	300	-37.5
2	Bihar/ Jharkhand	312	261	219	208	-33.3
3	Madhya Pradesh/ Chhattisgarh	335	269	230	221	-34.0
4	Orissa	303	258	235	222	-26.7
5	Rajasthan	388	318	255	244	-37.1
6	Uttar Pradesh/ Uttarkhand	440	359	292	285	-35.2
	<b>EAG AND ASSAM SUBTOTAL</b>	375	308	257	246	-34.4
7	Andhra Pradesh	154	134	110	92	-40.3
8	Karnataka	213	178	144	133	-37.6
9	Kerala	95	81	66	61	-35.8
10	Tamil Nadu	111	97	90	79	-28.8
	<b>SOUTH SUBTOTAL</b>	149	127	105	93	-37.6
11	Gujarat	160	148	122	112	-30.0
12	Haryana	186	153	146	127	-31.7
13	Maharashtra	130	104	87	68	-47.7
14	Punjab	192	172	155	141	-26.6
15	West Bengal	141	145	117	113	-19.9
16	Other	206	160	136	126	-38.8
	<b>OTHER SUBTOTAL</b>	174	149	127	115	-33.9
	<b>INDIA TOTAL</b>	254	212	178	167	-34.3

Source: Office of Registrar General of India

**Table 5.5 Percent distribution of live births by type of medical attention received by the mother at delivery by residence India and bigger States, 2013**

Sl. No	Area name	Govt.Hospital			Private Hospital			Qualified Professional			Untrained functionary and others		
		Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
1	Andhra Pradesh	50	52.4	44	43.6	38.9	55.7	5.7	7.8	0.2	0.7	1	0.1
2	Assam	48.5	47	62.6	25.2	24.6	30.6	12.5	13.3	5.9	13.7	15.1	0.9
3	Bihar	39.7	38.9	49.1	20.6	19.2	37.5	12	12.3	9.3	27.6	29.7	4.1
4	Chattisgarh	43.4	41.3	57.4	23.1	22.7	25.9	20.8	21.8	13.8	12.7	14.1	2.9
5	Delhi	61.7	61.7	61.6	29.4	27.9	29.7	6.1	6.3	6.1	2.8	4.1	2.5
6	Gujarat	42.7	43	42.1	45.9	40.3	56.6	9.3	13.5	1.1	2.2	3.2	0.2
7	Haryana	39	40	36.5	38.3	34.8	47.6	19.7	21.4	15.2	2.9	3.7	0.6
8	Himachal Predesh	55.8	54.2	79.9	15	15	14.2	20.5	21.6	4.5	8.7	9.2	1.4
9	Jammu & Kashmir	65.1	62.3	81.4	16.5	16.7	15	8.6	9.6	2.6	9.8	11.4	1
10	Jharkhand	33.1	30.3	49.6	18.1	15	37	17.5	18.4	12.1	31.3	36.2	1.4
11	Karnataka	64.4	66.7	59.6	28.5	24	37.7	3.9	5.4	1	3.2	3.9	1.7
12	Kerala	45.9	48.6	37.2	53.6	51	62.1	0.3	0.2	0.5	0.2	0.2	0.1
13	Madhya Predesh	52.5	49.5	68.3	23	22.4	25.9	12.3	14	3.5	12.2	14	2.3
14	Maharashtra	54.5	52.6	57.4	40	39	41.6	3.4	5.1	0.7	2.1	3.2	0.3
15	Odisha	58.5	57.3	69.5	13.8	13	21.5	11.2	11.7	6.4	16.5	18.1	2.6
16	Punjab	36.8	36.1	38.1	47.5	44	54	13.9	17.6	7.2	1.7	2.3	0.7
17	Rajasthan	67.9	66.9	71.9	15.1	14.2	18.7	13.3	14.4	8.7	3.7	4.5	0.7
18	Tamil Nadu	62.1	65.1	58	31.3	24.2	41	6.3	10.3	0.7	0.3	0.4	0.2
19	Uttar Pradesh	43.3	42.8	45.7	14.8	11.9	30.3	22.1	22.6	19.3	19.8	22.7	4.6
20	West Bengal	63.6	63.2	65.2	13.6	10.7	25.7	8.3	9.2	4.8	14.5	16.9	4.3
	<b>India</b>	<b>50.0</b>	<b>48.8</b>	<b>55.0</b>	<b>24.4</b>	<b>20.9</b>	<b>37.1</b>	<b>12.7</b>	<b>14.4</b>	<b>6.1</b>	<b>12.9</b>	<b>15.9</b>	<b>1.7</b>

Source: Office of Registrar General of India

**Table 5.6: Proportion of deliveries attended by skilled health personnel**

Sl. No	Area Name	1992-93	1998-99	2005-06	2005-06	2005-06	2007-08	2009	Likely achievement in 2015	Target 2015
1	Andhra Pradesh	48.9	65.2	66.9	89.1	74.9	75.6	95.6	100.0	100
2	Arunachal Pradesh	22	31.9	20.8	65.4	30.2	48.8	71.9	74.9	100
3	Assam	18	21.4	27.5	62.4	31	39.9	65.5	71.7	100
4	Bihar		24.8	27.6	56.1	29.3	31.7	53.2	55.5	100
5	Chhattisgarh		32.3	38.5	74	41.6	29.6	56.4	50.5	100
6	Delhi	53.8	65.9			64.1	71.6	84.6	86.4	100
7	Goa	89.2	90.8	93.8	94.6	94	96.7	99.8	100.0	100
8	Gujarat	43.4	53.5	54.6	83.9	63	61.6	85.2	88.3	100
9	Haryana	31.5	42.1	45.9	79	48.9	53.2	69.3	76.8	100
10	Himachal Pradesh	25.6	40.2	47.6	78.4	47.8	50.9	53.7	70.0	100
11	Jammu & Kashmir		42.4	54.8	83	56.5	58.6	82.9	95.7	100
12	Jharkhand		17.5	20.8	62.2	27.8	24.9	47.3	54.3	100
13	Karnataka	46.6	59.1	61.9	87.7	69.7	71.6	88.4	97.8	100
14	Kerala	90.2	94.1	99.5	100	99.4	99.4	99.9	100.0	100
15	Madhya Pradesh		28.9	28	66.4	32.7	69.2	82.9	100.0	100
16	Maharashtra	53.1	59.4	56.5	87.6	68.7	49.9	85.5	74.3	100
17	Manipur	39.9	53.9	52.8	85.2	59	55.3	82.7	82.9	100
18	Meghalaya	37.9	20.6	22.2	78.1	31.1	28.9	65.2	43.9	100
19	Mizoram	62.2	67.5	47.4	91.1	65.4	63.3	85.1	76.7	100
20	Nagaland	18.9	32.8	17.9	54.3	24.7	24.7	43.8	38.3	100
21	Orissa	19	33.4	42.9	68.9	44	50.8	79.1	98.3	100
22	Punjab	47.3	62.6	67.4	70.7	68.2	76.9	66.7	84.4	100
23	Rajasthan	19.3	35.8	34.6	77	41	52.6	75.8	94.1	100

<b>Sl. No</b>	<b>Area Name</b>	<b>1992-93</b>	<b>1998-99</b>	<b>2005-06</b>	<b>2005-06</b>	<b>2005-06</b>	<b>2007-08</b>	<b>2009</b>	<b>Likely achievement in 2015</b>	<b>Target 2015</b>
24	Sikkim		35.1	50.2	92.4	53.7	56.7	69.9	92.1	100
25	Tamil Nadu	69.3	83.7	90.6	96.4	90.6	95.5	98.6	100.0	100
26	Tripura	32.2	47.5	45.4	79.7	48.8	47.2	83.1	78.8	100
27	Uttar Pradesh		21.8	23.8	50.5	27.2	30	64.2	66.7	100
28	Uttarakhand		34.6	34.4	64.6	38.5	35.2	58.7	54.6	100
29	West Bengal	33.9	44.2	36.8	80.2	47.6	51.5	72.6	74.2	100
	India	33	42.4	39.1	75.2	46.6	52	76.2	77.3	100

*Source: NFHS, DLHS, CES, MoH Health and Family Welfare*

**Table 6.1: Estimated Adult HIV prevalence (15-49 years of age)-%**

Sl. No	State/UT	2008	2009	2010	2011
1	Andhra Pradesh	0.91	0.85	0.8	0.75
2	Arunachal Pradesh	0.07	0.09	0.11	0.13
3	Assam	0.04	0.05	0.06	0.07
4	Bihar	0.23	0.22	0.21	0.2
5	Chhattisgarh	0.24	0.25	0.26	0.27
6	Delhi	0.19	0.2	0.21	0.22
7	Goa	0.53	0.49	0.45	0.43
8	Gujarat	0.38	0.36	0.34	0.33
9	Himachal Pradesh	0.16	0.16	0.17	0.17
10	Haryana	0.11	0.11	0.11	0.11
11	Jharkhand	0.16	0.18	0.21	0.25
12	Jammu & Kashmir	0.04	0.05	0.06	0.08
13	Karnataka	0.62	0.58	0.55	0.52
14	Kerala	0.14	0.13	0.13	0.12
15	Meghalaya	0.08	0.09	0.11	0.13
16	Maharashtra	0.55	0.5	0.45	0.42
17	Manipur	1.43	1.36	1.29	1.22
18	Madhya Pradesh	0.11	0.1	0.09	0.09
19	Mizoram	0.77	0.76	0.75	0.74
20	Nagaland	0.79	0.76	0.74	0.73
21	Odisha	0.34	0.36	0.38	0.4
22	Punjab	0.16	0.16	0.17	0.18
23	Rajasthan	0.2	0.19	0.18	0.17
24	Sikkim	0.11	0.12	0.14	0.15
25	Tamil Nadu	0.35	0.32	0.3	0.28
26	Tripura	0.17	0.19	0.22	0.24
27	Uttarakhand	0.11	0.14	0.18	0.22
28	Uttar Pradesh	0.12	0.11	0.11	0.1
29	West Bengal	0.27	0.25	0.24	0.22
30	<i>Andaman &amp; Nicobar</i>	0.1	0.09	0.08	0.08
31	<i>Chandigarh</i>	0.22	0.24	0.26	0.28
32	<i>Dadar &amp; Nagar</i>	0.1	0.11	0.12	0.14
33	<i>Daman &amp; Diu</i>	0.13	0.14	0.16	0.18
34	<i>Puducherry</i>	0.17	0.16	0.15	0.15
	<b>India</b>	<b>0.31</b>	<b>0.3</b>	<b>0.28</b>	<b>0.27</b>

Source: HIV Estimation 2012, D/o AIDS Control

**Table 6.2: HIV prevalence among population aged 15-24 years (%)**

Sl. No	State	2007	2008	2009	2010	2011
1	Andhra Pradesh	0.45	0.38	0.33	0.3	0.27
2	Arunachal Pradesh	0.05	0.06	0.07	0.09	0.11
3	Assam	0.03	0.03	0.04	0.04	0.05
4	Bihar	0.14	0.13	0.11	0.1	0.09
5	Chhattisgarh	0.15	0.16	0.16	0.17	0.17
6	Goa	0.2	0.17	0.16	0.15	0.14
7	Gujarat	0.22	0.19	0.17	0.15	0.14
8	Haryana	0.06	0.06	0.06	0.06	0.06
9	Himachal Pradesh	0.1	0.1	0.1	0.1	0.1
10	Jammu & Kashmir	0.03	0.03	0.04	0.05	0.06
11	Jharkhand	0.1	0.11	0.13	0.15	0.17
12	Karnataka	0.25	0.23	0.21	0.2	0.19
13	Kerala	0.1	0.09	0.07	0.06	0.05
14	Madhya Pradesh	0.05	0.05	0.04	0.03	0.03
15	Maharashtra	0.17	0.15	0.13	0.11	0.11
16	Manipur	0.22	0.2	0.2	0.19	0.19
17	Meghalaya	0.05	0.06	0.07	0.08	0.1
18	Mizoram	0.45	0.41	0.39	0.37	0.35
19	Nagaland	0.35	0.33	0.32	0.31	0.3
20	Odisha	0.23	0.25	0.26	0.27	0.28
21	Punjab	0.1	0.1	0.11	0.11	0.12
22	Rajasthan	0.11	0.1	0.09	0.08	0.07
23	Sikkim	0.07	0.08	0.09	0.1	0.11
24	Tamil Nadu	0.12	0.09	0.08	0.07	0.06
25	Tripura	0.11	0.13	0.14	0.16	0.18
26	Uttar Pradesh	0.06	0.05	0.04	0.04	0.04
27	Uttarakhand	0.07	0.09	0.11	0.14	0.17
28	West Bengal	0.14	0.12	0.11	0.1	0.09
29	Andaman & Nicobar	0.05	0.04	0.04	0.04	0.03
30	Chandigarh	0.16	0.17	0.18	0.2	0.21
31	Daman & Diu	0.09	0.1	0.11	0.13	0.14
32	Dadra & Nagar Haveli	0.07	0.08	0.09	0.1	0.11
33	Delhi	0.12	0.12	0.12	0.12	0.13
34	Puducherry	0.07	0.06	0.05	0.05	0.05
	<b>India</b>	<b>0.15</b>	<b>0.13</b>	<b>0.12</b>	<b>0.11</b>	<b>0.11</b>

Source: HIV Estimation 2012, D/o AIDS Control

**Table 6.3: Estimated new HIV infections (in 15+ years population)**

Sl. No	State	2007	2008	2009	2010	2011
1	Andhra Pradesh	19588	18548	17465	16603	19588
2	Arunachal Pradesh	128	161	204	257	128
3	Assam	1428	1693	2018	2408	1428
4	Bihar	8647	8115	7866	7797	8647
5	Chhattisgarh	4249	4370	4482	4565	4249
6	Goa	1986	2080	2143	2234	1986
7	Gujarat	164	151	140	132	164
8	Haryana	6995	6750	6545	6455	6995
9	Himachal Pradesh	648	643	637	626	648
10	Jammu & Kashmir	1612	1593	1588	1580	1612
11	Jharkhand	5441	6461	7657	9085	5441
12	Karnataka	627	771	958	1192	627
13	Kerala	10299	9695	9285	9024	10299
14	Madhya Pradesh	1161	965	863	789	1161
15	Maharashtra	263	317	382	460	263
16	Manipur	8510	7397	6570	5893	8510
17	Meghalaya	1594	1544	1433	1354	1594
18	Mizoram	2132	2238	2308	2387	2132
19	Nagaland	389	387	380	376	389
20	Odisha	621	596	573	560	621
21	Punjab	11340	11869	12306	12703	11340
22	Rajasthan	2969	3020	3179	3325	2969
23	Sikkim	4831	4575	4432	4364	4831
24	Tamil Nadu	66	75	84	94	66
25	Tripura	3287	3166	2926	2738	3287
26	Uttar Pradesh	646	736	835	951	646
27	Uttarakhand	1470	1886	2411	3081	1470
28	West Bengal	7704	7613	7647	7745	7704
29	Andaman & Nicobar	7620	7533	7375	7289	7620
30	Chandigarh	12	12	12	12	12
31	Daman & Diu	205	220	233	252	205
32	Dadra & Nagar Haveli	31	36	41	48	31
33	Delhi	30	35	40	47	30
34	Puducherry	38	33	33	33	38
	<b>India</b>	<b>116731</b>	<b>115285</b>	<b>115051</b>	<b>116456</b>	<b>116731</b>

Source: HIV Estimation 2012, D/o AIDS Control

**Table 6.4: Estimated new HIV infections (in 15+ years population)**

Sl. No	State	2007	2008	2009	2010	2011
1	Andhra Pradesh	42337	38919	35276	31347	42337
2	Arunachal Pradesh	20	24	32	42	20
3	Assam	272	304	343	388	272
4	Bihar	8663	9294	9660	9750	8663
5	Chhattisgarh	1935	2087	2270	2458	1935
6	Goa	465	504	445	432	465
7	Gujarat	491	426	350	281	491
8	Haryana	11426	11284	10489	9510	11426
9	Himachal Pradesh	391	402	397	355	391
10	Jammu & Kashmir	970	990	1014	1025	970
11	Jharkhand	1256	1454	1677	1947	1256
12	Karnataka	66	73	103	146	66
13	Kerala	23136	20686	16927	13514	23136
14	Madhya Pradesh	1792	1870	1825	1738	1792
15	Maharashtra	60	69	77	88	60
16	Manipur	40734	35522	29350	23764	40734
17	Meghalaya	2117	2059	1999	1905	2117
18	Mizoram	3706	3711	3580	3324	3706
19	Nagaland	379	363	324	286	379
20	Odisha	778	739	666	581	778
21	Punjab	4800	5360	5822	6330	4800
22	Rajasthan	1318	1196	1164	1104	1318
23	Sikkim	5383	5529	5480	5276	5383
24	Tamil Nadu	20	21	24	25	20
25	Tripura	13616	12286	10508	8582	13616
26	Uttar Pradesh	202	226	249	279	202
27	Uttarakhand	168	207	260	328	168
28	West Bengal	10986	10653	10104	9436	10986
29	Andaman & Nicobar	14629	14514	14027	13310	14629
30	Chandigarh	24	23	23	22	24
31	Daman & Diu	78	87	93	102	78
32	Dadra & Nagar Haveli	11	12	14	17	11
33	Delhi	9	11	13	15	9
34	Puducherry	74	54	39	24	74
	<b>India</b>	<b>192314</b>	<b>180960</b>	<b>164625</b>	<b>147729</b>	<b>192314</b>

Source: HIV Estimation 2012, D/o AIDS Control

**Table 6.5: State-wise no. of People Living with HIV/AIDS (PLHA) receiving first line ART**

S.No.	State	Number of PLHIV alive and on ART at the end of September 2014					Total	
		Adult			Children			
		Male	Female	TS/TG	Male	Female		
1	Andhra Pradesh	84898	87128	252	4020	3335	179633	
2	Arunachal Pradesh	19	25	0	4	1	49	
3	Assam	1886	1051	2	82	64	3085	
4	Bihar	12264	8457	11	857	378	21967	
5	Chhattisgarh	3569	2343	7	255	194	6368	
6	Chandigarh	2110	1251	6	216	114	3697	
7	Delhi	10552	5752	196	750	338	17588	
8	Goa	1080	892	3	86	64	2125	
9	Gujarat	24406	14947	152	1383	827	41715	
10	Haryana	3279	2213	5	173	70	5740	
11	Himachal Pradesh	1280	1308	1	149	101	2839	
12	Jammu & Kashmir	812	551	4	64	47	1478	
13	Jharkhand	2872	1928	9	235	143	5187	
14	Karnataka	50311	55107	194	3916	3149	112677	
15	Kerala	5007	3822	0	241	216	9286	
16	Madhya Pradesh	6708	4758	27	475	272	12240	
17	Maharashtra	71816	65515	201	5575	3918	147025	
18	Manipur	4802	4207	49	338	333	9729	
19	Meghalaya	257	289	0	14	11	571	
20	Mizoram	1503	1588	0	113	92	3296	
21	Mumbai	17009	11046	163	823	704	29745	
22	Nagaland	2317	2413	3	127	139	4999	
23	Odisha	5168	3807	59	293	212	9539	
24	Puducherry	477	466	5	38	34	1020	
25	Punjab	7724	5900	35	468	272	14399	
26	Rajasthan	11371	9165	13	880	479	21908	
27	Sikkim	52	43	0	5	4	104	
28	Tamil Nadu	40467	38431	187	2201	1849	83135	
29	Tripura	346	183	0	12	4	545	
30	Uttar Pradesh	18738	15226	73	1483	697	36217	
31	Uttarakhand	1069	919	5	91	49	2133	
32	West Bengal	11753	7373	59	639	476	20300	
<b>TOTAL</b>		<b>405922</b>	<b>358104</b>	<b>1721</b>	<b>26006</b>	<b>18586</b>	<b>810339</b>	

Source : D/o AIDS Control

**Table 6.6: HIV prevalence among pregnant women aged 15-24 years (%)**

Sl. No	State	2004	2005	2006	2007	2008	2010-11	2012-13
1	Andhra Pradesh	1.52	1.59	1.26	0.98	1.15	0.66	0.51
2	Arunachal Pradesh	0.00	0.54	0.11	0.00	0.39	0.10	0.35
3	Assam	0.00	0.00	0.04	0.18	0.09	0.07	0.16
4	Bihar	0.26	0.59	0.30	0.33	0.33	0.17	0.24
5	Chhattisgarh	0.00	0.30	0.11	0.25	0.32	0.38	0.32
6	Delhi	0.39	0.41	0.08	0.25	0.23	0.34	0.27
7	Goa	1.17	0.00	0.28	0.47	0.78	0.56	0.37
8	Gujarat	0.16	0.16	0.56	0.44	0.33	0.31	0.49
9	Haryana	0.00	0.10	0.10	0.53	0.22	0.19	0.15
10	Himachal Pradesh	0.21	0.15	0.10	0.05	0.50	0.13	0.09
11	Jammu & Kashmir	0.00	0.00	0.09	0.08	0.00	0.00	0.05
12	Jharkhand	0.00	0.08	0.14	0.07	0.42	0.52	0.17
13	Karnataka	1.41	1.57	1.02	0.75	0.81	0.60	0.51
14	Kerala	0.43	0.34	0.09	0.42	0.19	0.11	0.06
15	Madhya Pradesh	0.41	0.24	0.27	0.19	0.24	0.40	0.15
16	Maharashtra	0.86	0.98	0.80	0.70	0.53	0.30	0.30
17	Manipur	1.44	0.92	1.09	0.90	0.38	0.54	0.52
18	Meghalaya	0.00	0.00	0.00	0.00	0.00	0.07	0.29
19	Mizoram	1.18	1.15	0.88	0.88	0.60	0.64	0.95
20	Mumbai							0.59
21	Nagaland	2.43	2.03	1.58	1.13	1.35	0.55	1.16
22	Odisha	0.46	0.55	0.58	0.27	0.35	0.45	0.24
23	Punjab	0.12	0.24	0.19	0.13	0.36	0.39	0.45
24	Rajasthan	0.15	0.51	0.28	0.22	0.25	0.53	0.31
25	Sikkim	0.00	0.24	0.00	0.00	0.00	0.15	0.24
26	Tamil Nadu	0.62	0.51	0.50	0.54	0.35	0.29	0.31
27	Tripura	0.35	0.00	0.40	0.36	0.00	0.00	0.18
28	Uttar Pradesh	0.42	0.11	0.24	0.08	0.20	0.29	0.15
29	Uttarakhand	0.00	0.00	0.10	0.11	0.26	0.33	0.37
30	West Bengal	0.36	0.81	0.27	0.38	0.18	0.11	0.20
31	A & N Islands	0.00	0.00	0.14	0.13	0.00	0.00	0.00
32	Chandigarh	0.43	0.00	0.45	0.43	0.00	0.00	0.00
33	Daman & Diu	0.61	0.00	0.00	0.23	0.22	0.00	0.00
34	Dadra Nagar Haveli	0	0.43	0.00	0.39	0.00	0.00	0.00
35	Puducherry	0.39	0.20	0.00	0.00	0.21	0.00	0.00
	<b>India</b>	<b>0.86</b>	<b>0.89</b>	<b>0.57</b>	<b>0.49</b>	<b>0.48</b>	<b>0.39</b>	<b>0.32</b>

Source: HIV Sentinel Surveillance, D/o AIDS Control

**Table 6.7: Condom use rate of the contraceptive prevalence rate among currently married women, 15-49 years (percent)**

Sr. No.	State/UTs	NFHS-1 (1992-93)	NFHS-2 (1998-99)	NFHS-3 (2005-06)
1	Andhra Pradesh	0.7	0.7	0.5
2	Arunachal Pradesh	0.7	0.7	2.8
3	Assam	1.7	1.8	2.3
4	Bihar	NA	0.6	2.3
5	Chhattisgarh	NA	2.1	2.9
6	Delhi	20.5	17.5	22.9
7	Goa	3.9	4.9	7.5
8	Gujarat	1.8	3.5	5.8
9	Haryana	5.2	6.8	11.8
10	Himachal Pradesh	5.3	5	11.5
11	Jammu & Kashmir	NA	4.8	8
12	Jharkhand	NA	1.1	2.7
13	Karnataka	1.2	1	1.7
14	Kerala	2.9	3.1	5.5
15	Madhya Pradesh	NA	3.1	4.8
16	Maharashtra	2.5	4	6.2
17	Manipur	1.2	1.3	4.1
18	Meghalaya	0.5	1.3	2.4
19	Mizoram	0.7	0.9	1.4
20	Nagaland	2.1	1.8	2.6
21	Odisha	0.6	0.9	3
22	Punjab	8.9	13.8	15.5
23	Rajasthan	1.5	3.1	5.7
24	Sikkim	NA	1.5	4.1
25	Tamil Nadu	1.6	1.5	2.3
26	Tripura	1.6	1.4	3.2
27	Uttar Pradesh	NA	4	8.6
28	Uttarakhand	NA	6.2	15.7
29	West Bengal	1.9	2.9	4.3
	<b>India</b>	<b>2.4</b>	<b>3.1</b>	<b>5.2</b>

Source: National Family Health Surveys, M/o Health and Family Welfare

**Table 6.8 (i): Malaria - Epidemiological Situation Report 2011**

Sl. No	States/Uts	POP. IN (000's)	POSITIVE CASES		Pf%	API	DEATHS
			P.F.	Total			
1	Andhra Pradesh	77608	24089	34949	68.9	0.5	5
2	Arunachal Pradesh	1288	4856	13950	34.8	10.8	17
3	Assam	32031	34707	47397	73.2	1.5	45
4	Bihar	103483	1273	2643	48.2	0.0	0
5	Chhattisgarh	25386	107472	136899	78.5	5.4	42
6	Goa	1483	135	1187	11.4	0.8	3
7	Gujarat	59359	16112	89764	17.9	1.5	127
8	Haryana	25186	1133	33401	3.4	1.3	1
9	Himachal Pradesh	5328	2	247	0.8	0.0	0
10	Jammu & Kashmir	5407	45	1091	4.1	0.2	0
11	Jharkhand	32928	70302	160653	43.8	4.9	17
12	Karnataka	55863	2648	24237	10.9	0.4	0
13	Kerala	32870	271	1993	13.6	0.1	2
14	Madhya Pradesh	74786	31940	91851	34.8	1.2	109
15	Maharashtra	114440	21401	96577	22.2	0.8	118
16	Manipur	2723	314	714	44.0	0.3	1
17	Meghalaya	3057	24018	25143	95.5	8.2	53
18	Mizoram	1033	8373	8861	94.5	8.6	30
19	Nagaland	1981	950	3363	28.2	1.7	4
20	Orissa	42276	281577	308968	91.1	7.3	99
21	Punjab	28341	64	2693	2.4	0.1	3
22	Rajasthan	68621	2973	54294	5.5	0.8	45
23	Sikkim	189	14	51	27.5	0.3	0
24	Tamilnadu	72525	925	22171	4.2	0.3	0
25	Tripura	3671	13812	14417	95.8	3.9	12
26	Uttarakhand	9666	123	1277	9.6	0.1	1
27	Uttar Pradesh	194373	1857	56968	3.3	0.3	0
28	West Bengal	98922	10858	66368	16.4	0.7	19
29	A & N Islands	491	607	1918	31.6	3.9	0
30	<i>Chandigarh</i>	1060	9	582	1.5	0.5	0
31	<i>D &amp; N Haveli</i>	354	2082	5150	40.4	14.5	0
32	<i>Daman &amp; Diu</i>	234	55	262	21.0	1.1	0
33	<i>Delhi</i>	16753	1	413	0.2	0.0	0
34	<i>Lakshdweep</i>	65	0	8	0.0	0.1	0
35	<i>Puducherry</i>	1120	6	196	3.1	0.2	1
	<b>India</b>	<b>1194901</b>	<b>665004</b>	<b>1310656</b>	<b>50.7</b>	<b>1.10</b>	<b>754</b>

Source: Directorate of National Vector Borne Diseases Control Programme,  
M/o Health and Family Welfare

**Table 6.8 (ii): Malaria - Epidemiological Situation Report 2012**

Sl. No	States/Uts	POP. IN (000's)	POSITIVE CASES		Pf%	API	DEATHS
			P.F.	Total			
1	Andhra Pradesh	83095	15695	24699	63.5	0.3	2
2	Arunachal Pradesh	1369	2789	8368	33.3	6.1	15
3	Assam	32459	20579	29999	68.6	0.9	13
4	Bihar	103760	838	2605	32.2	0.0	0
5	Chhattisgarh	25979	96924	124006	78.2	4.8	90
6	Goa	1477	170	1714	9.9	1.2	0
7	Gujarat	60384	10483	76246	13.7	1.3	29
8	Haryana	25676	569	26819	2.1	1.0	1
9	Himachal Pradesh	5397	3	216	1.4	0.0	0
10	Jammu & Kashmir	5460	34	864	3.9	0.2	0
11	Jharkhand	33685	48188	131476	36.7	3.9	10
12	Karnataka	57352	1278	16466	7.8	0.3	0
13	Kerala	33388	236	2036	11.6	0.1	3
14	Madhya Pradesh	74050	24039	76538	31.4	1.0	43
15	Maharashtra	116804	11875	58517	20.3	0.5	96
16	Manipur	2723	83	255	32.5	0.1	0
17	Meghalaya	3067	19805	20834	95.1	6.8	52
18	Mizoram	1179	9437	9883	95.5	8.4	25
19	Nagaland	1981	821	2891	28.4	1.5	1
20	Orissa	42562	244503	262842	93.0	6.2	79
21	Punjab	28561	43	1689	2.5	0.1	0
22	Rajasthan	71292	1394	45809	3.0	0.6	22
23	Sikkim	203	14	77	18.2	0.4	0
24	Tamilnadu	70168	576	18869	3.1	0.3	0
25	Tripura	3694	10915	11565	94.4	3.1	7
26	Uttarakhand	10191	111	1948	5.7	0.2	0
27	Uttar Pradesh	203972	740	47400	1.6	0.2	0
28	West Bengal	91345	8669	55793	15.5	0.6	30
29	A & N Islands	491	696	1539	45.2	3.1	0
30	<i>Chandigarh</i>	1060	3	201	1.5	0.2	0
31	<i>D &amp; N Haveli</i>	370	2149	4940	43.5	13.4	1
32	<i>Daman &amp; Diu</i>	252	33	186	17.7	0.7	0
33	<i>Delhi</i>	16753	1	382	0.3	0.0	0
34	<i>Lakshdweep</i>	65	0	9	0.0	0.1	0
35	<i>Puducherry</i>	1244	2	143	1.4	0.1	0
	<b>India</b>	<b>1211509</b>	<b>533695</b>	<b>1067824</b>	<b>49.98</b>	<b>0.88</b>	<b>519</b>

Source: Directorate of National Vector Borne Diseases Control Programme,  
M/o Health and Family Welfare

**Table 6.8 (iii): Malaria - Epidemiological Situation Report 2013**

Sl. No	States/Uts	POP. IN (000's)	POSITIVE CASES		Pf%	API	DEATHS
			P.F.	Total			
1	Andhra Pradesh	86466	13385	19787	67.6	0.2	0
2	Arunachal Pradesh	1340	2181	6398	34.1	4.8	21
3	Assam	32919	14969	19542	76.6	0.6	7
4	Bihar	104365	715	2693	26.6	0.0	1
5	Chhattisgarh	26360	89418	110145	81.2	4.2	43
6	Goa	1470	131	1530	8.6	1.0	0
7	Gujarat	62580	9122	58513	15.6	0.9	38
8	Haryana	26216	247	14471	1.7	0.6	3
9	Himachal Pradesh	5532	0	141	0.0	0.0	0
10	Jammu & Kashmir	5513	24	698	3.4	0.1	0
11	Jharkhand	34460	38263	97786	39.1	2.8	8
12	Karnataka	54440	967	13302	7.3	0.2	0
13	Kerala	33734	243	1634	14.9	0.0	0
14	Madhya Pradesh	75531	28775	78260	36.8	1.0	49
15	Maharashtra	115339	9198	43677	21.1	0.4	80
16	Manipur	2855	42	120	35.0	0.0	0
17	Meghalaya	3162	22885	24727	92.6	7.8	62
18	Mizoram	1088	10340	11747	88.0	10.8	21
19	Nagaland	1998	519	2285	22.7	1.1	1
20	Orissa	42996	208488	228858	91.1	5.3	67
21	Punjab	28645	31	1760	1.8	0.1	0
22	Rajasthan	74101	1086	33139	3.3	0.4	15
23	Sikkim	198	13	39	33.3	0.2	0
24	Tamilnadu	70777	539	15081	3.6	0.2	0
25	Tripura	3811	6998	7396	94.6	1.9	7
26	Uttarakhand	10173	108	1426	7.6	0.1	0
27	Uttar Pradesh	203972	590	48346	1.2	0.2	0
28	West Bengal	91348	3705	34717	10.7	0.4	17
29	A & N Islands	463	334	1005	33.2	2.2	0
30	<i>Chandigarh</i>	1070	2	150	1.3	0.1	0
31	<i>D &amp; N Haveli</i>	392	513	1778	28.9	4.5	0
32	<i>Daman &amp; Diu</i>	264	5	91	5.5	0.3	0
33	<i>Delhi</i>	16753	8	353	2.3	0.0	0
34	<i>Lakshdweep</i>	65	0	8	0.0	0.1	0
35	<i>Puducherry</i>	1244	2	127	1.6	0.1	0
	<b>India</b>	<b>1221640</b>	<b>463846</b>	<b>881730</b>	<b>52.61</b>	<b>0.72</b>	<b>440</b>

Source: Directorate of National Vector Borne Diseases Control Programme,  
M/o Health and Family Welfare

**Table 6.8 (iv): Malaria - Epidemiological Situation Report 2013 (Provisional)**

Sl. No	States/Uts	POP. IN (000's)	POSITIVE CASES		Pf%	API	DEATHS
			P.F.	Total			
1	Andhra Pradesh	86466	18276	24044	76.0	0.3	0
2	Arunachal Pradesh	1340	2294	5991	38.3	4.5	9
3	Assam	32919	11209	14536	77.1	0.4	5
4	Bihar	104365	536	1729	31.0	0.0	0
5	Chhattisgarh	26360	104227	122480	85.1	4.6	53
6	Goa	1470	42	824	5.1	0.6	0
7	Gujarat	62580	6135	40902	15.0	0.7	15
8	Haryana	26216	27	3715	0.7	0.1	1
9	Himachal Pradesh	5532	1	102	1.0	0.0	0
10	Jammu & Kashmir	5513	21	291	7.2	0.1	0
11	Jharkhand	34460	44138	96140	45.9	2.8	9
12	Karnataka	54440	1079	12335	8.7	0.2	2
13	Kerala	33734	305	1752	17.4	0.1	6
14	Madhya Pradesh	75531	41943	97785	42.9	1.3	33
15	Maharashtra	115339	25770	53385	48.3	0.5	71
16	Manipur	2855	72	145	49.7	0.1	0
17	Meghalaya	3162	37123	39151	94.8	12.4	79
18	Mizoram	1088	21083	23145	91.1	21.3	24
19	Nagaland	1998	654	1955	33.5	1.0	3
20	Orissa	42996	336510	388451	86.6	9.0	95
21	Punjab	28645	12	1037	1.2	0.0	0
22	Rajasthan	74101	495	14167	3.5	0.2	0
23	Sikkim	198	24	40	60.0	0.2	0
24	Tamilnadu	70777	337	8714	3.9	0.1	0
25	Tripura	3811	45924	47448	96.8	12.5	106
26	Uttarakhand	10173	90	1171	7.7	0.1	0
27	Uttar Pradesh	203972	326	41674	0.8	0.2	0
28	West Bengal	91348	4727	25803	18.3	0.3	66
29	A & N Islands	463	109	557	19.6	1.2	0
30	<i>Chandigarh</i>	1070	0	114	0.0	0.1	0
31	<i>D &amp; N Haveli</i>	392	91	698	13.0	1.8	1
32	<i>Daman &amp; Diu</i>	264	4	55	7.3	0.2	0
33	<i>Delhi</i>	16753	0	98	0.0	0.0	0
34	<i>Lakshdweep</i>	65	0	0	0.0	0.0	0
35	<i>Puducherry</i>	1244	3	79	3.8	0.1	0
	<b>India</b>	<b>1221640</b>	<b>703587</b>	<b>1070513</b>	<b>66</b>	<b>0.88</b>	<b>578</b>

Source: Directorate of National Vector Borne Diseases Control Programme,  
M/o Health and Family Welfare (up dated as on 30.01.15)

**Table 7.1: FOREST COVER IN STATES/UTs IN INDIA (in sq.km)**

Sl. No.	State/UT	Geographic Area	Forest Cover Area 2011				Forest Cover Area 2013				Change in % Forest cover to GA	
			Very Dense Forest	Moderate Dense Forest	Open Forest	Total Forest	% of Forest cover to G.A.	Very Dense Forest	Moderate Dense Forest	Open Forest	Total Forest	
1	Andhra Pradesh	275069.0	850.0	26242.0	19297.0	46389.0	16.9	850.0	26079.0	19187.0	46116.0	-273 -0.09
2	Arunachal Pradesh	83743.0	20868.0	31519.0	15023.0	67410.0	80.5	20828.0	31414.0	15079.0	67321.0	-89 -0.11
3	Assam	78438.0	1444.0	11404.0	14825.0	27673.0	35.3	1444.0	11345.0	14882.0	27671.0	35.3 -2 0
4	Bihar	94163.0	231.0	3280.0	3334.0	6845.0	7.3	247.0	3380.0	3664.0	7291.0	7.7 446 0.47
5	Chhattisgarh	135191.0	4163.0	34911.0	16600.0	55674.0	41.2	4153.0	34865.0	16603.0	55621.0	41.1 -53 -0.04
6	Goa	3702.0	543.0	585.0	1091.0	2219.0	59.9	543.0	585.0	1091.0	2219.0	59.9 0 0
7	Gujarat	196022.0	376.0	5231.0	9012.0	14619.0	7.5	376.0	5220.0	9057.0	14653.0	7.5 34 0.02
8	Haryana	44212.0	27.0	457.0	1124.0	1608.0	3.6	27.0	453.0	1106.0	1586.0	3.6 -22 -0.05
9	Himachal Pradesh	55673.0	3224.0	6381.0	5074.0	14679.0	26.4	3224.0	6381.0	5078.0	14683.0	26.4 4 0
10	Jammu & Kashmir	222236.0	4140.0	8760.0	9639.0	22539.0	10.1	4140.0	8760.0	9638.0	22538.0	10.1 -1 0
11	Jharkhand	79714.0	2590.0	9917.0	10470.0	22977.0	28.8	2587.0	9667.0	11219.0	23473.0	29.5 496 0.63
12	Karnataka	191791.0	1777.0	20179.0	14238.0	36194.0	18.9	1777.0	20179.0	14176.0	36132.0	18.8 -62 -0.03
13	Kerala	38863.0	1442.0	9394.0	6464.0	17300.0	44.5	1529.0	9401.0	6992.0	17922.0	46.1 622 1.6
14	Madhya Pradesh	308245.0	6640.0	34986.0	36074.0	77700.0	25.2	6632.0	34921.0	35969.0	77522.0	25.2 -178 -0.06
15	Maharashtra	307713.0	8736.0	20815.0	21095.0	50646.0	16.5	8720.0	20770.0	21142.0	50632.0	16.5 -14 -0.01
16	Manipur	22327.0	730.0	6151.0	10209.0	17090.0	76.5	728.0	6094.0	10168.0	16990.0	76.1 -100 -0.44
17	Meghalaya	22429.0	433.0	9775.0	7067.0	17275.0	77.0	449.0	9689.0	7150.0	17288.0	77.1 13 0.06
18	Mizoram	21081.0	134.0	6086.0	12897.0	19117.0	90.7	138.0	5900.0	13016.0	19054.0	90.4 -63 -0.3
19	Nagaland	16579.0	1293.0	4931.0	7094.0	13318.0	80.3	1298.0	4736.0	7010.0	13044.0	78.7 -274 -1.65
20	Odisha	155707.0	7060.0	21366.0	20477.0	48903.0	31.4	7042.0	21298.0	22007.0	50347.0	32.3 1444 0.92

Sl. No.	State/UT	Geographic Area	Forest Cover Area 2011			Forest Cover Area 2013			Change in % Forest cover to GA			
			Very Dense Forest	Moderate Dense Forest	Open Forest	Total Forest	% of Forest cover to G.A.	Very Dense Forest	Moderate Dense Forest	Open Forest	Total Forest	% of Forest cover to G.A.
21	Punjab	50362.0	0.0	736.0	1028.0	1764.0	3.5	0.0	736.0	1036.0	1772.0	3.5
22	Rajasthan	342239.0	72.0	4448.0	11567.0	16087.0	4.7	72.0	4424.0	11590.0	16086.0	4.7
23	Sikkim	7096.0	500.0	2161.0	698.0	3359.0	47.3	500.0	2161.0	697.0	3358.0	47.3
24	Tamil Nadu	130058.0	2948.0	10321.0	10356.0	23625.0	18.2	2948.0	10199.0	10697.0	23844.0	18.3
25	Tripura	10486.0	109.0	4686.0	3182.0	7977.0	76.1	109.0	4641.0	3116.0	7866.0	75.0
26	Uttar Pradesh	240928.0	1626.0	4559.0	8153.0	14338.0	6.0	1623.0	4550.0	8176.0	14349.0	6.0
27	Uttarakhand	53483.0	4762.0	14167.0	5567.0	24496.0	45.8	4785.0	14111.0	5612.0	24508.0	45.8
28	West Bengal	88752.0	2984.0	4646.0	5365.0	12995.0	14.6	2971.0	4146.0	9688.0	16805.0	18.9
29	A. & N. Islands	8249.0	3761.0	2416.0	547.0	6724.0	81.5	3754.0	2413.0	544.0	6711.0	81.4
30	Chandigarh	114.0	1.4	9.6	5.9	16.8	14.7	1.4	9.7	6.2	17.3	15.1
31	D. & N. Haveli	491.0	0.0	114.0	97.0	211.0	43.0	0.0	114.0	99.0	213.0	43.4
32	Daman & Diu	112.0	0.0	0.6	5.5	6.2	5.5	0.0	1.9	7.4	9.3	8.3
33	Delhi	1483.0	6.8	49.5	120.0	176.2	11.9	6.8	49.4	123.7	179.8	12.1
34	Lakshadweep	32.0	0.0	17.2	9.9	27.1	84.6	0.0	17.2	9.9	27.1	84.6
35	Puducherry	480.0	0.0	35.4	14.7	50.1	10.4	0.0	35.2	14.8	50.1	10.4
	India	3287263.0	83471.0	320736.0	287820.0	692027.0	21.1	83502.0	318745.0	295651.0	697898.0	21.2
												0.18

Source: India State of Forest Report 2011, 2013, M/o Environment, Forests and Climate Change

**Table 7.2: State/UT Wise Percentage of Forest to total geographic area (1995-2011)**

Sl. No.	State/UT	1995	1997	1999	2001	2003	2005	2007	2011	2013
1	Andhra Pradesh	23.17	23.20	23.20	23.20	23.20	23.20	23.20	16.86	16.77
2	Arunachal Pradesh	61.55	61.55	61.55	61.55	61.55	61.55	61.55	80.50	80.39
3	Assam	39.15	39.15	39.15	34.45	34.45	34.21	34.21	35.28	35.28
4	Bihar	16.81	16.81	16.81	6.45	6.87	6.87	6.87	7.27	7.74
5	Chhattisgarh			43.85	43.85	44.21	44.21	44.21	41.18	41.14
6	Delhi	2.83	2.83	5.73	5.73	5.73	5.73	5.73	11.88	12.12
7	Goa	32.93	37.34	37.34	33.07	33.06	33.06	33.06	59.94	59.94
8	Gujarat	9.89	9.89	9.89	9.69	9.75	9.67	9.66	7.46	7.48
9	Haryana	3.82	3.78	3.78	3.51	3.52	3.53	3.53	3.64	3.59
10	Himachal Pradesh	67.52	63.60	63.60	66.52	66.52	66.52	66.52	26.37	26.37
11	Jammu & Kashmir	9.08	9.08	9.08	9.10	9.10	9.10	9.10	10.14	10.14
12	Jharkhand				29.61	29.61	29.61	29.61	28.82	29.45
13	Karnataka	20.15	20.19	20.19	20.19	22.46	19.96	19.96	18.87	18.84
14	Kerala	28.88	28.87	28.87	28.87	28.99	28.99	28.99	44.52	46.12
15	Madhya Pradesh	35.07	34.84	34.84	30.89	30.89	30.72	30.72	25.21	25.15
16	Maharashtra	20.75	20.80	20.80	20.13	20.13	20.13	20.13	16.46	16.45
17	Manipur	67.87	67.87	67.87	78.01	78.01	78.01	78.01	76.54	76.10
18	Meghalaya	42.34	42.34	42.34	42.34	42.34	42.34	42.34	77.02	77.08
19	Mizoram	75.59	75.59	75.59	79.30	79.30	79.30	79.30	90.68	90.38
20	Nagaland	52.02	52.05	52.05	50.05	50.05	52.05	55.62	80.34	78.68
21	Odisha	36.73	36.73	36.73	37.34	37.34	37.34	37.34	31.41	32.33
22	Punjab	5.64	5.76	5.76	6.07	6.12	6.12	6.07	3.50	3.52
23	Rajasthan	9.22	9.26	9.26	9.49	9.49	9.49	9.54	4.70	4.70
24	Sikkim	37.34	37.34	37.34	81.24	82.31	82.31	82.31	47.34	47.32
25	Tamil Nadu	17.45	17.40	17.40	17.59	17.59	17.59	17.59	18.11	18.33

<b>Sl. No.</b>	<b>State/UT</b>	<b>1995</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2011</b>	<b>2013</b>
26	Tripura	60.00	60.01	60.01	60.01	60.01	60.02	60.02	76.07	75.01
27	Uttar Pradesh	17.49	17.55	17.55	6.98	6.98	6.97	6.88	5.95	5.96
28	Uttarakhand				64.81	64.81	64.79	64.79	45.80	45.82
29	West Bengal	13.38	13.38	13.38	13.38	13.38	13.38	13.38	14.64	18.93
30	Union Territories	78.17	79.22	79.22	78.14	78.18	78.18	78.39	74.22	
	<b>India</b>	<b>23.36</b>	<b>23.28</b>	<b>23.28</b>	<b>23.38</b>	<b>23.57</b>	<b>23.41</b>	<b>23.41</b>	<b>21.05</b>	<b>21.23</b>

Source: Compendium of Environment Statistics, 2010

India State of Forest Report, 2011, 2013, M/o Environment, Forests and Climate Change

**Table 7.3: Details of State wise Protected Areas in India**

Sr. No	State	National Park						Wildlife Sanctuaries						Conservation Reserves						Community Reserves					
		Number		Area (sq.km)		Number		Area (sq.km)		Number		Area (sq.km)		Number		Area (sq.km)		Number		Area (sq.km)		Number		Area (sq.km)	
		2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014	2011	2014		
1	Andhra Pradesh	6	9	1388.40	1153.94	21	96	11618.12	389.39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Arunachal Pradesh	2	2	2290.82	2290.82	11	11	7487.75	7487.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Assam	5	5	1977.79	1977.79	18	18	1932.01	1840.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Bihar	1	1	335.65	335.65	12	12	2851.68	2901.67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Chhattisgarh	3	3	2899.08	2899.08	11	11	3583.19	3760.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Goa	1	1	107.00	107.00	6	6	647.91	647.91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Gujarat	4	4	479.67	480.12	23	23	16619.81	16618.42	1	1	227.0	227.0	0	0	0	0	0	0	0	0	0	0	0	0
8	Haryana	2	2	48.25	48.25	8	8	233.21	233.21	2	2	48.7	48.7	0	0	0	0	0	0	0	0	0	0	0	0
9	Himachal Pradesh	5	5	2271.38	2271.38	32	28	7745.48	6116.10	0	3	0.0	19.2	0	0	0	0	0	0	0	0	0	0	0	0
10	Jammu & Kashmir	4	4	616.00	3925.00	15	15	10242.61	10243.11	34	34	829.8	829.8	0	0	0	0	0	0	0	0	0	0	0	0
11	Jharkhand	1	1	226.33	226.33	11	11	1955.81	1955.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Karnataka	5	5	2472.18	2628.42	22	25	4003.43	5555.39	2	7	3.8	425.4	1	1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
13	Kerala	6	6	558.16	558.16	16	17	1822.86	1928.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Madhya Pradesh	9	9	3656.36	3656.36	25	25	7158.40	7158.42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Maharashtra	6	6	1273.60	1273.60	35	40	14152.69	7584.94	1	1	3.5	3.5	0	0	0	0	0	0	0	0	0	0	0	0
16	Manipur	1	1	40.00	40.00	1	1	184.40	184.40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Meghalaya	2	2	267.48	267.48	3	3	34.20	34.20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Mizoram	2	2	150.00	150.00	8	8	1240.75	1090.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Nagaland	1	1	202.02	202.02	3	3	20.33	20.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Odisha	2	2	990.70	990.70	18	18	6969.15	6969.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Punjab	0	0	0.00	0.00	12	13	323.70	323.70	1	1	5.0	5.0	2	2	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	
22	Rajasthan	5	5	3947.07	3947.07	25	25	5379.26	5592.38	3	7	222.3	378.1	0	0	0	0	0	0	0	0	0	0	0	0
23	Sikkim	1	1	1784.00	1784.00	7	7	399.10	399.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Tamil nadu	5	5	307.84	307.85	21	24	3521.95	5525.37	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Tripura	2	2	36.71	36.71	4	4	566.93	566.93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Uttar Pradesh	1	1	490.00	490.00	23	23	5221.88	5221.88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Uttarakhand	6	6	4915.44	4915.02	6	7	2418.61	2690.12	2	3	42.3	96.5	0	0	0	0	0	0	0	0	0	0	0	0
28	West Bengal	5	6	1693.25	1981.65	15	15	1203.28	1442.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	A. and N. Island	9	6	1153.94	1388.49	96	21	389.39	11618.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Chandigarh	0	0	0	0	2	2	26.01	26.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	D. & N. Haveli	0	0	0	0	1	1	92.16	92.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Daman & Diu	0	0	0	0	0	1	2.18	2.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Delhi	0	0	0	0	1	1	27.82	27.82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Lakshadweep	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Puducherry	0	0	0	0	1	1	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	<b>INDIA</b>	<b>102</b>	<b>103</b>	<b>36579.1</b>	<b>40333.0</b>	<b>515</b>	<b>525</b>	<b>120080.0</b>	<b>116251.0</b>	<b>47</b>	<b>60</b>	<b>1382.3</b>	<b>2033.1</b>	<b>4</b>	<b>4</b>	<b>20.7</b>	<b>20.7</b>								

Source: M/o Environment, Forests and Climate Change

**Table 7.4:Protected Areas of India from 2000 to 2013 (as on November, 2014)**

Year	No. of National Parks	Area Under National Parks	No. of Wild Life Sanctuaries	Area Under Wild Life Sanctuaries	No. of Community Reserves	Area Under Community Reserves	No. of Conservation Reserves	Area Under Conservation Reserves	No. of Protected Areas	Total Area under Protected Areas
2000	89	37593.94	489	117881.68	-	-	-	-	578	155475.63
2006	96	38183.01	506	120244.39	-	-	4	42.87	606	158470.27
2007	98	38219.72	510	120543.95	4	20.69	7	94.82	619	158879.19
2008	99	39232.58	513	122138.33	4	20.69	45	1259.84	661	162651.45
2009	99	39232.58	513	122138.33	4	20.69	45	1259.84	661	162651.45
2010	102	40074.46	516	122585.56	4	20.69	47	1382.28	669	164062.99
2011	102	40074.46	517	122615.94	4	20.69	52	1801.29	675	164512.37
2012	102	40074.46	524	123548.33	4	20.69	56	1998.15	686	165641.62
2013	102	40074.46	526	124234.52	4	20.69	57	2017.94	689	166347.6
2014	103	40332.89	525	116254.36	4	20.69	60	2037.11	692	158645.05

Source: M/o Environment, Forests and Climate Change

**Table 7.5: Percentage of households having ‘improved source’ of drinking water**

Sr. No	State/UT	during 2008-2009 (NSS 65th round)			during 2012 (NSS 69th round)		
		rural	urban	rural+urban	rural	urban	rural+urban
1	Andhra Pradesh	92.5	89.1	91.5	78.5	83.1	80.1
2	Arunachal Pradesh	91.7	97.7	93	96.2	98.4	96.6
3	Assam	82.1	92.4	83.3	85	92.6	85.9
4	Bihar	97.3	97.5	97.3	97.6	99.7	97.8
5	Chhattisgarh	92.2	97.8	93.2	94.8	93.5	94.5
6	Delhi	80.7	96.7	95.6	83.5	95.4	93.9
7	Goa	92	91.7	91.8	83.9	99.6	92.1
8	Gujarat	91.4	95.6	93.1	86.4	92.6	89.3
9	Haryana	97.8	96.6	97.4	92.5	88.7	91.1
10	Himachal Pradesh	89.2	91.6	89.5	95.8	96.2	95.8
11	Jammu & Kashmir	82.5	96.6	85.8	79.4	97.9	83.8
12	Jharkhand	63.4	88.8	67.4	64.4	88.3	69.8
13	Karnataka	95.1	96.9	95.7	94.4	85.8	90.8
14	Kerala	69.8	82.3	73.1	29.2	55.6	37.2
15	Madhya Pradesh	90.3	93	91.1	83.2	96.9	87.2
16	Maharashtra	87.9	93.4	90.3	84.4	98.5	90.6
17	Manipur	38.9	74.2	49.1	57	69.7	60.8
18	Meghalaya	66	97.5	72.2	70.4	94.5	75.1
19	Mizoram	20.4	74.4	44.4	86.8	98.7	92.6
20	Nagaland	64.1	65	64.4	91.9	90.6	91.6
21	Odisha	83.3	91.2	84.6	82.2	95.5	84.2
22	Punjab	99	98.9	99	99.5	99.7	99.6
23	Rajasthan	80.1	94.8	84	79	90.1	82
24	Sikkim	67.4	98.2	72	85.2	98.8	88.7
25	Tamil Nadu	96.8	89.2	93.3	91.8	78.7	85.6
26	Tripura	76.4	96.9	80.2	87.3	99.7	89.6
27	Uttarakhand	84.1	100	87.5	92.8	99.4	94.1
28	Uttar Pradesh	96.4	98.4	96.8	96.6	95	96.2
29	West Bengal	94.9	98	95.8	94.5	92.9	94.1
30	A & Nicobar Is.	87.4	98.9	91.2	80.1	98.9	87.8
31	Chandigarh	97.5	100	99.7	99.9	100	100
32	D & Nagar Haveli	89.8	98.5	91.8	94.6	92.3	93.7
33	Daman & Diu	100	95.2	98.3	87.4	89.6	89.3

Sr. No	State/UT	during 2008-2009 (NSS 65th round)			during 2012 (NSS 69th round)		
		rural	urban	rural+urban	rural	urban	rural+urban
34	Lakshadweep	28.3	41.1	33.5	16.9	84.9	51.2
35	Puducherry	100	96.5	97.6	100	84	89.7
	<b>India</b>	<b>90.4</b>	<b>93.9</b>	<b>91.4</b>	<b>86.9</b>	<b>90.1</b>	<b>87.8</b>

*Source (i): For the year 2008-09: NSS Report No. 535: Housing Condition and Amenities in India: July, 2008-June, 2009. The sources of drinking water ‘tap’, ‘tube well/hand pump’, ‘protected well’ and ‘harvested rainwater’, have been taken as improved sources*

*(ii) For the year 2012: NSS Report No. 556: Drinking Water, Sanitation, Hygiene and Housing Condition in India. The sources of drinking water, ‘piped water into dwelling’, ‘piped water to yard/plot’, ‘public tap/standpipe’, ‘tube well/borehole’, ‘protected well’, ‘protected spring’, and ‘rainwater collection’ have been taken as improved sources.*

*Note: As per MDG guidelines, ‘bottled water’ is not considered as an ‘improved’ source of drinking water and therefore have not been included in the calculation of the estimates of percentage of households having ‘improved source’ of drinking water*

**Table 7.6. Percentage of households without access to sanitation**

Sr. No	State/UT	during 2008-2009 (NSS 65th round)			during 2012 (NSS 69th round)		
		rural	urban	rural+urban	rural	urban	rural+urban
1	Andhra Pradesh	64.3	11.2	47.9	54.3	8.1	38.7
2	Arunachal Pradesh	16.2	0.1	12.7	12.6	0	10
3	Assam	13.5	0.9	12.1	13.7	0.3	12
4	Bihar	79.8	27.7	74.1	72.8	20.8	67.4
5	Chhattisgarh	82.3	31.5	72.9	76.7	24.9	65.7
6	Goa	36.2	9.6	22.9	9.7	4	6.7
7	Gujarat	67.3	7.3	43.6	58.7	6.2	34.4
8	Haryana	45.3	8.4	33.7	25.4	1.4	16.7
9	Himachal Pradesh	46.5	8.8	42.3	25.7	4.3	22.1
10	Jammu & Kashmir	34.9	11.8	29.7	44.3	6	35.2
11	Jharkhand	84.1	24.5	74.7	90.5	17.7	73.9
12	Karnataka	75.2	11.3	51.5	70.8	9	44.8
13	Kerala	5.3	1.5	4.3	2.8	1.2	2.3
14	Madhya Pradesh	85.3	24.3	70.2	79	14	60.7
15	Maharashtra	60.7	5.9	36.4	54	6.9	33.5
16	Manipur	1.1	0	0.8	1.2	0	0.9
17	Meghalaya	11.4	0.2	9.3	4.5	0.2	3.6
18	Mizoram	1.2	0	0.7	0.7	0	0.3
19	Nagaland	3.1	1.3	2.6	0	0	0
20	Orissa	88.2	29.1	78.7	81.3	18.2	71.8
21	Punjab	36.2	5	24	22.2	6.2	15.6
22	Rajasthan	82.1	12.6	63.6	73	14.2	57.2
23	Sikkim	2.5	0	2.1	0.2	0	0.1
24	Tamil Nadu	73.5	16	46.6	66.4	12.2	41.1
25	Tripura	3.4	0.9	2.9	1.4	0.1	1.2
26	Uttarakhand	53.5	3.3	42.5	19.7	1.6	16.1
27	Uttar Pradesh	79.2	14.2	65	75.3	10.7	60.1
28	West Bengal	41.7	5.6	32.4	39.7	5.4	29.4
29	<i>A &amp; N Islands</i>	39.9	6.1	28.8	28.8	5	19
30	<i>Chandigarh</i>	9.6	0.6	1.7	0.3	1.6	1.5
31	<i>D. &amp; N. Haveli</i>	53.2	7.1	42	49.3	32.2	42.4
32	<i>Daman &amp; Diu</i>	31.9	6.4	23.1	26.8	0.1	3
33	<i>Delhi</i>	7.5	1.2	1.7	0	0	0
34	<i>Lakshadweep</i>	0	1	0.4	0	2.3	1.2
35	<i>Puducherry</i>	65.4	9.1	25.6	47.4	6.3	21.1
	India	65.2	11.3	49.2	59.4	8.8	43.4

Source (i): For the year 2008-09: NSS Report No. 535: Housing Condition and Amenities in India: July, 2008-June 2009

(ii): For the year 2012: NSS Report No. 556: Drinking Water, Sanitation, Hygiene and Housing Condition in India.

**Table 7.7: Percentage of dwelling units situated in slum (notified slum and non-notified slum) in urban areas during 2012 (NSS 69<sup>th</sup> round)**

Sr. No	State/UT	Percentage of dwelling units in slums in urban areas
1	Andhra Pradesh	22
2	Arunachal Pradesh	7.3
3	Assam	0.9
4	Bihar	5
5	Chhattisgarh	7.2
6	Goa	18.2
7	Gujarat	5.4
8	Haryana	1.3
9	Himachal Pradesh	1.3
10	Jammu & Kashmir	0.4
11	Jharkhand	4.5
12	Karnataka	8.6
13	Kerala	0.1
14	Madhya Pradesh	8.1
15	Maharashtra	30.1
16	Manipur	0
17	Meghalaya	3.8
18	Mizoram	12.1
19	Nagaland	0
20	Odisha	8
21	Punjab	7.8
22	Rajasthan	11.4
23	Sikkim	0
24	Tamil Nadu	6.8
25	Tripura	2.5
26	Uttarakhand	0.4
27	Uttar Pradesh	2.6
28	West Bengal	9.6
29	<i>A &amp; Nicobar Is.</i>	0
30	<i>Chandigarh</i>	16.1
31	<i>D &amp; Nagar Haveli</i>	6.1
32	<i>Daman &amp; Diu</i>	14.8
33	<i>Delhi</i>	3.5
34	<i>Lakshadweep</i>	0
35	<i>Puducherry</i>	0.1
	India	10.8

No separate tabulation of the data for NSS 65<sup>th</sup> (July 2008-June 2009) round survey on Housing Condition and Amenities in India was done for slum areas and hence the results for NSS 65<sup>th</sup> round are not presented.

**Table 8.1 : Teledensity - Telephone per 100 Population (in %)**

Sr. no	Service area/ States	Overall				Urban				Rural			
		as on 30 <sup>th</sup> June 2011	as on 30 <sup>th</sup> June 2013	as on 30 <sup>th</sup> June 2014	as on 30 <sup>th</sup> June 2011	as on 30 <sup>th</sup> June 2013	as on 30 <sup>th</sup> June 2014	as on 30 <sup>th</sup> June 2011	as on 30 <sup>th</sup> June 2013	as on 30 <sup>th</sup> June 2014	as on 30 <sup>th</sup> June 2011	as on 30 <sup>th</sup> June 2013	as on 30 <sup>th</sup> June 2014
1	Andra Pradesh	76.38	77.8	79.47	182.34	166.54	165.64	35.53	43.61	46.19			
2	Assam	42.18	47.49	49.5	133.91	131.61	125.79	25.95	32.1	35.29			
3	Bihar	45.1	45.36	47.13	182.33	155.46	154.21	23.43	27.87	30.07			
4	Delhi			228.3									
5	Gujarat	84.68	87.31	91.13	138.18	135.97	139.4	48.39	53.44	57.09			
6	Haryana	85.33	77.47	79.65	145.57	115.03	118.31	54.57	57.43	58.57			
7	Himachal Pradesh	113.05	104.96	107.46	440.51	334.98	328.83	72.23	75.5	107.46			
8	Jammu & Kashmir	51.29	60.91	69.18	109.74	120.41	132.73	29.79	38.56	69.18			
9	Karnataka	90.48	91.26	92.44	183.21	169.45	167.91	35.33	43.43	45.61			
10	Kerala	103.79	97.12	94.65	246.04	197.39	185.38	55.01	62.89	63.75			
11	Madhya Pradesh	51.02	54.4	56.02	124.57	114.88	116.53	24.38	32.11	33.51			
12	Maharashtra	92.96	87.15	91.25	144.24	124.5	128.83	48.27	53.56	56.91			
13	North -East	60.57	69.2	70.72	140.52	154.84	153.5	35.12	41.3	43.44			
14	Odisha	59.39	60.64	62	201.61	163.83	162.22	30.62	39.2	40.9			
15	Punjab	108.4	103.8	103.23	177.28	152.74	149.67	59.93	67.78	68.28			
16	Rajasthan	67.03	71.87	76.51	153.3	153.85	161.23	39.91	45.95	49.64			
17	Tamil Nadu	110.37	108.52	112.74	158.28	138.34	139.89	51.65	68.86	75.06			
18	Uttar Pradesh	56.25	57.05	58.31	152.59	135.26	132.66		34.29	36.51			
19	West Bengal*	74.75	69.66	71.79	162.37	138.07	135.94	39.91	42.3	46.06			
	<b>INDIA</b>	<b>73.97</b>	<b>73.5</b>	<b>75.8</b>	<b>163.13</b>	<b>145.35</b>	<b>146.24</b>	<b>35.6</b>	<b>41.9</b>	<b>44.5</b>			

Source: Telecom Regulatory Authority of India (TRAI)

