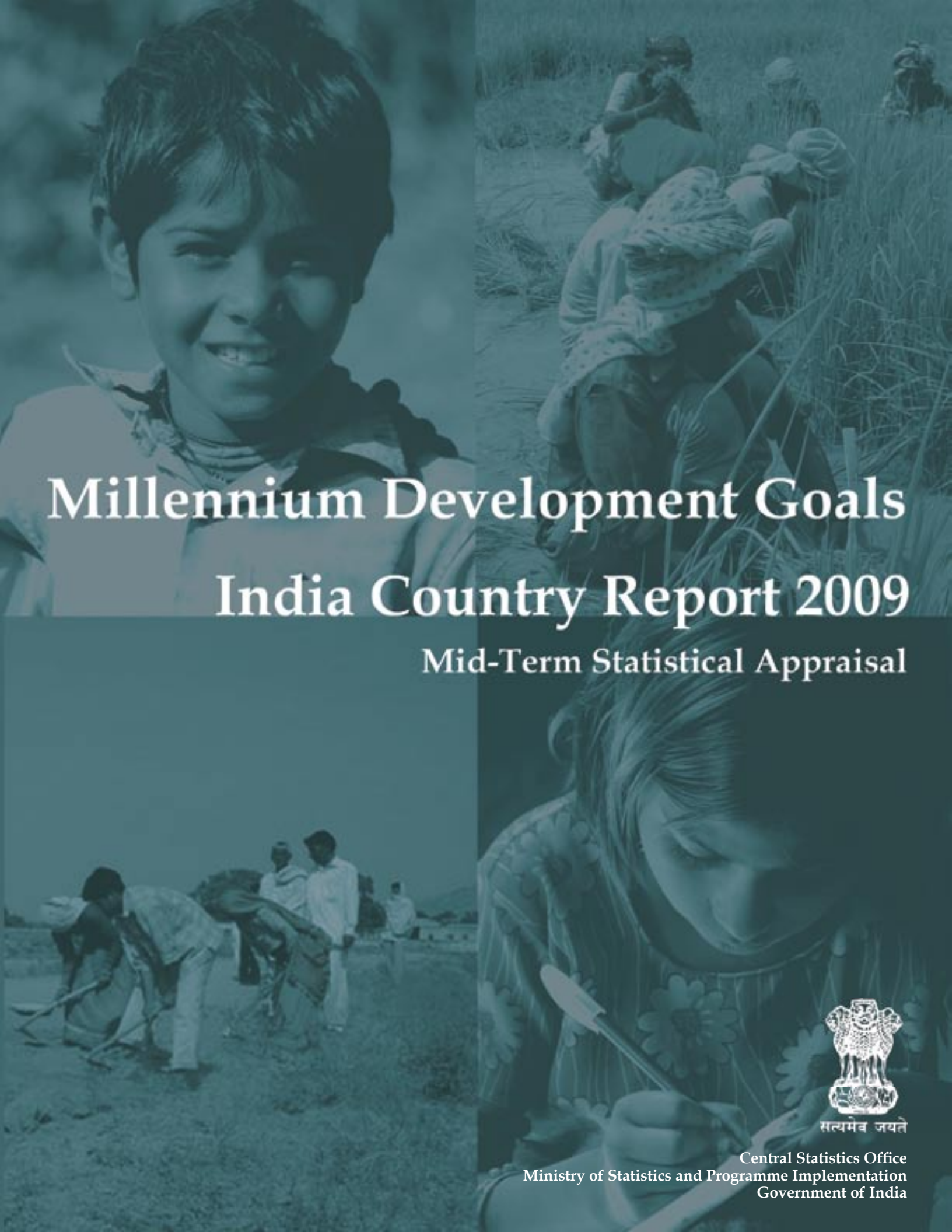


Millennium Development Goals

India Country Report 2009

Mid-Term Statistical Appraisal

सत्यमेव जयते

Central Statistics Office
Ministry of Statistics and Programme Implementation
Government of India

Millennium Development Goals

India Country Report 2009

Mid-Term Statistical Appraisal

Central Statistics Office
Ministry of Statistics and Programme Implementation
Government of India

Foreword

The Millennium Declaration of the United Nations (UN) set 2015 as the timeline for achieving most of the Millennium Development Goals (MDGs), which provide quantitative benchmarks for eradication of extreme poverty, hunger, illiteracy and diseases apart from achieving gender equality and empowerment of women, environmental sustainability and global partnership for development. As the deadline approaches, less than five years away, India, like many other developing countries, which are committed to achieve the MDGs, finds itself in a complex mélange of successes and failures, speed and sluggishness, against a backdrop of great expectations.

This report attempts to capture the counts and measures describing the progress towards achieving the goals when we were almost halfway down the track, and where we are likely to be at the end of it. The statistical system of the country provides evidence in terms of the measures of MDG indicators of various development outcomes. In India, the story of development, even in the midst of the global economic slowdown, has not been bleak. Advances are most evident where targeted interventions have been initiated, and where increased funding and improved institutional mechanism have stimulated better delivery of services and tools directly to those in need. This can be seen in the universalisation of primary education and gender parity in school education and literacy, fight against Malaria and Tuberculosis, immunisation of children against deadly diseases, safe motherhood and reproductive care, access to safe drinking water, and development of telecommunication.

Unlike the earlier two reports, this report does not speak of the programmes and other initiatives that governments at different levels and other agencies have rolled out as part of their strategic plan to meet the overarching objectives of the MDGs. Instead, it portrays, in terms of statistical measures of the given outcome indicators, outcome of the efforts that have gone into their operations so far, and the consequential projected outcome measures that are likely to emerge by 2015. The technical method used for forward projection of the measures of the indicators, for which quantitative targets were fixed under the MDG framework, has been in accordance with the accepted method based on the rates of progression that prevailed during the last 10-15 years since 1990. The measures of the indicators that are arrived at on the basis of this technique do not, therefore, take into account the factors that may come into play in the years to come as a result of various interventions or their absence, affecting the rate of change. There has been no attempt to disguise the data limitations, which have been transparently taken into consideration. In addition, an attempt has been made to provide estimates of national and sub-national aggregates, wherever they exist with fair amount of credibility.

This mid-term assessment, though a bit late considering the span of time that has elapsed since the Millennium Declaration in the year 2000, coincides with the halfway point from the time India started tracking the progress towards the MDGs. In terms of the measurement base, the exercise has taken into account the reference years falling between 2006 and 2008, which most of the latest data used for this report relate to. In this sense, this mid-term report is a significant milestone and hopefully provides a roadmap for the path ahead.

(Dr. Pronab Sen)
Chief Statistician of India

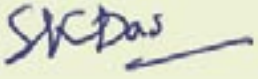
Preface

India's national development plan for 2007-12 has reaffirmed its commitment to attain the MDGs. In a sense, the targets laid down in the five year plan are nationally dovetailed forms of the MDG targets but by some measure, envisage faster results than what the MDGs defined for us to attain. The more inclusive development actions that we have planned for, have no room, therefore, for finding the MDG targets amiss. As the country is only two years away from completing the Eleventh Five Year Plan in 2012, it is quite sensible for planners to know the proximity or distance from the MDG targets. Available statistical evidence in terms of measures of the outcome indicators of the MDG framework is not all that current for most of the targets. However, they do correspond in most of the cases with the mid-way times between the years 2000 and 2015, which serve as the reference times for the latest datasets used in this report. The UN has recommended for countries to track the MDGs by taking recourse to some standard methods of estimation and projection for trend analysis of the indicators.

India has 12 of the 18 MDG targets relevant to it. This report has considered the quantitative benchmarks of some of these targets for regression-based statistical appraising, apart from measuring temporal changes in terms of indicators for the non-quantitative ones. In this exercise, not every indicator prescribed for the targets has been used, but majority of those identified as monitorable in the Indian context have been individually analysed and discussed in this document.

This report is expected to serve as an important road-finder and guide to identification of problem areas or their locales. However, the findings are only indicative of the situation that exists at a particular time or is likely to arise in the future if the prevailing rates of changes hold good. The Technical Note at the end of the report also indicates how the required rate of change for achieving the targets by the terminal year could be calculated. This report has however, refrained from calculating such rates as they may not be meaningfully understood/interpreted by laymen. The national or sub-national series of data used are based on official statistics produced by concerned Central Ministries/Departments and are either from administrative reports or from periodic reports of the operations like the Census of India, National Sample Survey, National Family Health Survey, District Level Household and Facility Survey, etc. The Central Statistics Office (CSO) as the nodal agency entrusted with the responsibility of statistical monitoring of the MDGs, has made use of the data sources as identified by the inter-ministerial mechanism for the earlier India Country Reports on MDGs brought out by the CSO.

I wish to place on record my sincere appreciation for the team of officers led by Smt. S. Jeyalakshmi, Additional Director General, Social Statistics Division of my organisation for valuable contribution in bringing out this report.



S. K. Das
Director General, Central Statistics Office

Contents

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
API	Annual Parasite Incidence
ASER	Annual Status of Education Report
BaU	Business-as-Usual
BPL	Below Poverty Line
BSS	Behavioural Surveillance Survey
CDM	Clean Development Mechanism
CDMEB	CDM Executive Board
CER	Certified Emission Reduction
CFC	Chloro-Fluoro-Carbons
CO_2	Carbon Dioxide
CSO	Central Statistics Office
DISE	District Information System on Education
DLHS	District Level Household and Facility Survey
DOTS	Directly Observed Treatment Short Course
EA	Early Achiever
FSW	Female Sex Worker
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GER	Gross Enrolment Ratio
GHG	Greenhouse Gas
GPI	Gender Parity Index
HIPC	Heavily Indebted Poor Country
HIV	Human immunodeficiency virus
ICT	Information & Communication Technology
IDU	Injecting Drug User
IFF	International Financing Facility
IMR	Infant Mortality Rate
IT	Information Technology
LULUCF	Land-Use, Land-Use Change and Forestry
MDGs	Millennium Development Goals
MMR	Maternal Mortality Ratio
MRP	Mixed Recall Period
MSM	Men who have Sex with Men
NER	Net Enrolment Ratio
NFHS	National Family Health Survey
NLM	National Literacy Mission
NSP	New Sputum Positive
NSS	National Sample Survey
NVBDCP	National Vector Borne Disease Control Programme
ODA	Official Development Assistance
ODP	Ozone Depleting Potential
ODS	Ozone Depleting Substance
PC	Personal Computer
PGR	Poverty Gap Ratio
PHR	Poverty Headcount Ratio
PLHA	People Living with HIV/AIDS
RGI	Registrar General of India
RNTCP	Revised National Tuberculosis Control Programme
SA	Slow Achiever
SIDS	Small Island Developing States
SRS	Sample Registration System
STD	Sexually Transmitted Disease
TB	Tuberculosis
U5MR	Under-Five Mortality Rate
UN	United Nations
UNDP	United Nations Development Programme
UNFCC	UN Framework Convention on Climate Change
UNSD	United Nations Statistics Division
URP	Uniform Recall Period

Introduction

India's MDG framework is based on the 2003 United Nations Development Programme (UNDP) guidelines on Concepts, Rationale and Methodology of MDG indicators. This framework recognises all the 53 indicators (48 basic + 5 alternatives) that UN framework standardised for global monitoring of the MDGs as rationally valid and statistically indicative. However, India has found 35 of the indicators as relevant to India. India's MDG framework has been contextualised through a concordance with the existing official indicators of corresponding dimensions in the national statistical system. It contains a few of the prescribed indicators adapted in slightly definitionally modified forms. By this type of adaptation of the MDG indicators, India has ensured a statistically sustainable monitoring mechanism from within the existing system. A revised UN framework of MDG indicators has been introduced in the meantime during 2008, which India has not adopted for strategic and technical reasons. With problems persisting in complete harmonisation of MDG indicators, India persists with the original framework for MDG reports.

Of the 18 targets that the old framework has for the 8 MDGs, 12 are relevant to India. 6 Targets of Goal 8, which are mainly related to the landlocked/island/least developed countries and also for the developed countries, have not been considered relevant to India. The relevant targets for India are as under:

Table 1: Relevant targets for India

Target No.	Target Description	Goal to which relates
1.	Halve, between 1990 and 2015, proportion of population below national poverty line	Goal 1
2.	Halve, between 1990 and 2015, proportion of people who suffer from hunger	Goal 1
3.	Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education	Goal 2
4.	Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	Goal 3
5.	Reduce by two-thirds, between 1990 and 2015, the Under-Five Mortality Rate	Goal 4
6.	Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio	Goal 5
7.	Have halted by 2015 and begun to reverse the spread of HIV/AIDS	Goal 6
8.	Have halted by 2015 and begun to reverse the incidence of Malaria and other major diseases	Goal 6
9.	Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	Goal 7
10.	Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	Goal 7
11.	By 2020, to have achieved, a significant improvement in the lives of at least 100 million slum dwellers	Goal 7
12.	In cooperation with the private sector, make available the benefits of new technologies, especially information and communication	Goal 8

Targets 1 to 6 in Table 1 provide quantitative benchmarks, relative or absolute, for the outcome measures to be aimed at, whereas Targets 7 to 12 signify trend reversal of the outcome measures.

India's country reports on the MDGs for the years 2005 and 2007 attempted mainly to assess national situation through Indian adaptation of the MDG indicators corresponding to the targets of the original framework. In these reports, sub-national scenarios were portrayed only in selective manner and without commentaries on the pattern of changes they depicted. With the emphatic shift to larger social sector investment in the Tenth Five Year Plan that started in 2002, followed by enunciation of a political agenda of social development by the government in the year 2004 to achieve the Plan objectives and targets (which overarched the MDGs), the development process in India was left with just 10 more years to reach the MDG targets, which were set for the timeline 2015. In this span of time, the year 2009-10 marked the half way line for an appraisal of the outcomes to take up mid-course corrective actions. On the other hand, the data used in this report relate mostly to periods between 2006 and 2008, which correspond to mid-term periods for the data years between the Millennium Declaration year 2000 and Goal year 2015. This report thus, provides a mid-term statistical appraisal of the progress achieved with reference to the base year (1990) levels of the indicators and for assessing what levels they tend to attain at the end of the timeline for the MDGs. In international quarters, however, similar exercises have been completed in the year 2007-08. The global reviews done by the United Nations Statistics Division (UNSD) on the basis of sector specific reviews carried out by the UN Agencies concerned, provided important signals for national level performance. Nonetheless, the national images mirrored in global and regional frame of outcome indicators are fraught with factors of comparability adjustments made on country data sets. A national review with national official data, particularly with sub-national decomposition of the country level measures, therefore, is all the more relevant and very much signifying for targeted actions. In Indian context, an ideal review exercise with MDG indicators needs to capture the depth and spread of the catchment population that forms the problem spheres. In international perspective, the dimensions of the indicators at India's sub-national levels may be immaterial and hence, may remain invisible but the national monitoring cannot lose sight of the sub-national scenarios. The sub-national findings of this report should be helpful in identifying the locale of the problems at those levels of enumeration units, for which data are available or monitored under the present system.

Time series of data for the MDG indicators, with data available for at least two time points in the time span 1990 to 2008, have been used to trace the path that the data have treaded thus far and likely to take hereafter till the 2015 mark. The trend line has in the first place provided a value for the 1990 level of the indicator, when the same is non-existent in the data series. The 1990 value determines the 2015 value to be targeted. After the latest data point, there can be two paths for the data to tread: one takes it through the existing rate

of change to the expected value in 2015 (called projected path) and the other to the target value of 2015 (called target path). The exact convergence or very close proximity of the two lines is what signifies 'on-the-track' movement at the historical pace. In cases where the target value (readable from target line) is reached on the projected path earlier than 2015, it is 'early achieving' movement. Wherever the projected path moves away from the target path in such a manner that the target value is reached on the projected line much after 2015, the movement is 'regressing' or 'slow' and therefore, not good. The analysis in this report is based on these three scenarios that emerge from the measures of the corresponding statistical indicators using the available data. A technical note on the tracking method is given at the end of the report.

It needs to be appreciated that statistics used in this report are official, whether administrative or not, and depend on their own standardised methods and reference times. The merits of official statistics lie in their reliability, rigour and robustness. Their demerits are in their lack of concurrency and depth in coverage. It is therefore, important to note that data are not, in general, available for the more recent years, for example, for the years 2008 and beyond. Time lag in production of official data is a major impediment to assess how the MDG indicators fared in terms of observed values vis-à-vis their projected values for more current years. Non-availability of data for adequate number of time points in the time series used, on the other hand, impedes making projections more reliable and MDG monitoring more indicative. Thus, this report attempts to statistically track the movement of outcomes on the basis of the pattern of change that available data tend to lead them through. This review exercise has not in any manner used auxiliary information or statistics as evidence in support of the predicted outcome values and their trends. At the sub-national levels, on the other side of the story, data in respect of most of the MDG indicators are not available below States. In some cases, only national estimates are available. State level estimates as available for a number of indicators however, provide a broader cross-section of the inequalities in progress in different parts of the country including their rural-urban and male-female dimensions, wherever possible. Deeper decomposition of the measures of MDG indicators down below State levels could be more revealing of the micro-dimensions of the outcomes, which could help in demonstrating precise locales of the problems when spatially mapped.

With these known limitations of this review exercise, what remains unexplained is something not disguised by detailing of intervention programmes or success stories. The pattern of changes revealed from the analyses of this report will have bearing on how judicious we should be in resorting to mid-course corrections that might lead to achieving the MDGs with a comfortable certainty in the remaining part of the race.

India's MDG Framework[1]:

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.

Indicator 1A: Poverty Headcount Ratio (percentage of population below the national poverty line)

Indicator 2: Poverty Gap Ratio

Indicator 3: Share of poorest quintile in national consumption

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

Indicator 4: Prevalence of underweight children under three years of age

GOAL 2 Achieve Universal Primary Education

TARGET 3: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education.

Indicator 6: Net Enrolment Ratio in primary education.

Indicator 7: Proportion of pupils starting Grade 1 who reach Grade 5

Indicator 8: Literacy rate of 15-24 year olds

GOAL 3 Promote Gender Equality and Empower Women

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

Indicator 9: Ratio of girls to boys in primary, secondary and tertiary education

Indicator 10: Ratio of literate women to men, 15-24 years old

Indicator 11: Share of women in wage employment in the non-agricultural sector

Indicator 12: Proportion of seats held by women in National Parliament

GOAL 4 Reduce Child Mortality

TARGET 5: Reduce by two-thirds, between 1990 and 2015, the Under-Five Mortality Rate.

Indicator 13: Under-Five Mortality Rate

Indicator 14: Infant Mortality Rate

Indicator 15: Proportion of one year old children immunised against measles

[1] *Note: Not all indicators in this framework have been used in the present report for appraisal.*

Goals, Targets and Indicators

GOAL 5 Improve Maternal Health

TARGET 6: Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio.

Indicator 16: Maternal Mortality Ratio (MMR)

Indicator 17: Proportion of births attended By skilled health personnel

GOAL 6 Combat HIV/AIDS, Malaria and Other Diseases

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

Indicator 18: HIV prevalence among pregnant women aged 15-24 years

Indicator 19: Condom use rate of the contraceptive prevalence rate (Condom use to overall contraceptive use among currently married women, 15-49 yrs, percent)

Indicator 19A: Condom use at last high risk sex (Condom use rate among non-regular sex partners 15-24 yrs)

Indicator 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.

Indicator 21: Prevalence and death rates associated with Malaria.

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

Indicator 23: Prevalence and death rates associated with Tuberculosis

Indicator 24: Proportion of Tuberculosis cases detected and cured under DOTS

GOAL 7 Ensure Environmental Sustainability

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

Indicator 25: Proportion of land area covered by forest

Indicator 26: Ratio of area protected to maintain biological diversity to surface area

Indicator 27: Energy use per unit of GDP (Rupee)

Indicator 28: Carbon Dioxide emissions per capita and consumption of Ozone-depleting Chlorofluoro Carbons (ODP tons)

Indicator 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.

Indicator 30: Proportion of population with sustainable access to an improved water source, urban and rural

Indicator 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.

Indicator 32: Slum population as percentage of urban population

GOAL 8 Develop a Global Partnership for Development

TARGET 12: In co-operation with the private sector, make available the benefits of new technologies, especially information and communication.

Indicator 47: Telephone lines and cellular subscribers per 100 population

Indicator 48A: Internet subscribers per 100 population

Indicator 48B: Personal computers per 100 population

Overview

Declining poverty needs to be accelerated…

The proportion of people below the national poverty line (Poverty Headcount Ratio or PHR) estimated for 1990 was 37.2%. India is required to reduce it by half to 18.6% by 2015. By the year 2004-05, the PHR has come down to 27.5%. Going by the rate of change in the last 15 years, the projected PHR in the year 2015 is expected to be just short of the year's MDG target mark (18.6%) by about 3.5 percentage points. The historical rate of decline of 0.8% per annum in poverty ratio during 1990-2005 has shown a sign of improvement during 2005-06 as the rate of decline from the previous year's poverty ratio is estimated to be 1.4%. If this improved rate persists, India will be able to achieve the 2015 target by 2012-13. Even at the historical pace (at the rate of decline during 1990-2005), as many as 21 States/UTs are likely to halve their 1990 levels of the poverty ratio earlier than 2015 and 4 more States are on track to achieving the targets of halving their 1990 poverty ratios by 2015.

Addressing the growing poverty burden in the heartland is vital…

The absolute number of poor in the country has declined from about 320 million (36% of total population) in 1993-94 to about 301 million (27.6% of total population) in 2004-05. At this rate of decline, the country is expected to have a burden of about 279 million people (22.1%) living below the poverty line in the year 2015. The major States namely, Bihar, Jharkhand, Chhattisgarh, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and Uttarakhand, which are incidentally the more populated States, are among the slow moving States in reducing poverty and are not likely to achieve their target of halving the poverty ratio of 1990 by 2015 going at the pace they moved during 1990-2005. These States had about 193.5 million people below poverty line in 2004-05 (64% of total BPL[2] population) and are expected to have nearly 198 million people below poverty line in 2015 (71% of total projected BPL population). The contours of socio-economic development in these heartland States of India will continue to remain in focus.

[2] *Below Poverty Line*

Hunger, particularly under-nourishment among children, persists as a major food insecurity issue…

Per capita intake of calorie and proteins is declining as NSS[3] results reveal. At current BPL level of consumption expenditure, the calorie intake for minimum dietary energy has come down to about 1820 kcal[4] for both rural and urban areas, which is much below 2100/2400 kcal norm for healthy living or food security in urban/rural areas of the country set for poverty estimation. Malnourishment of children is a significant indicator of food insecurity. All India trend of the proportion of underweight (severe and moderate) children below three years of age shows India is going slow in eliminating the effect of malnourishment. From estimated 53.5% in 1990, the proportion of underweight children below three years is required to be reduced to 26.8% by 2015. The estimate of the proportion has declined only marginally during 1998-99 to 2005-06, from about 47% to about 46% and at this rate of decline is expected to come down to about 40% only by 2015. The States, which are on fast track and tend to achieve their target proportion before 2015, are J&K, Punjab and Tamil Nadu. There are six other States namely, Andhra Pradesh, Himachal Pradesh, Karnataka, Maharashtra, Manipur and Mizoram which tend to be just on- track (tending to have small shortfall) to reach the target mark in all probability by 2015. The other States will continue to have significantly high prevalence of under-nourishment among children.

Universal primary education is imminent...

India has already attained cent percent Gross Enrolment Ratio[5] (GER) in primary grades of schooling for both boys and girls. GER stands at 114.42 for boys and 107.84 for girls in the year 2006-07. The ratio does not take into account the official schooling age for primary grades and thus, also includes pupils who are under-aged or over-aged for primary grades and thus, exceeds cent percent mark. But this is only indicative of steady progress to universal primary education. This review exercise therefore, takes a closer look at Net Enrolment Ratio (NER),[6] a more appropriate indicator. By the measure of NER as well, the country is tending to achieve 2015 target of universal primary education for all children aged 6-11 years. A trend based on DISE[7] data shows the country

[3] *National Sample Survey*

[4] *Kilo-Calorie*

[5] *Proportion of pupils enrolled in primary grades (I-V) among total number of children in the age group 6-11 years*

[6] *Proportion of pupils of official school age of 6-11 years who are enrolled in primary grades I-V*

[7] *District Information System on Education*

now well set to achieve cent percent primary education for children in the primary schooling age of 6-11 years ahead of 2015. Primary enrolment of 6-11 year old children by their NER measure has improved from 83% in the year 2000 to over 95% in 2007-08. The NER estimated from this trend works out to be about 75% for 1990 and is about 96% for 2008. At this rate of change, the 100% mark for NER that signifies universal primary education, seems achievable well before 2015. The NER for girls in primary schools tends to have sharper rise compared to that for boys and at this rate of increase is likely to have reached 100% mark by now. For boys too, the 100% NER mark is round the corner. What needs to be kept in mind about this trend is that the children who are out-of-school in the primary grades till now are those who represent the most marginalised and vulnerable sections and therefore, are the most difficult ones for the schools to reach. These are the still-to-be covered 5-6% (at the end of 2007-08) which is likely to take most arduous efforts and time. The sustainability of the NER at this level of attainment will however, largely depend on sustained improvement in **survival rate**[8] in the primary stage up to Grade V, which has risen from 62% in 1999 to 72% in 2007-08. About 9.36% children who got enrolled in Grade I to Grade V dropped out of the system before completing the primary schooling during 2007-08 against 9.96% during the previous year. Attaining 100% **youth literacy**[9] is also concomitant; going at the rate by which it increased between 1991 and 2001 from 61.9% to 76.4 %, India is expected to have youth literacy of 82.1% by 2007 and 100% by the end of 2012. The rural-urban gap in youth literacy also has significantly reduced. Compared to males', the youth literacy of females tends to move faster. The male-female gap in youth literacy is predominantly confined to the north, north-eastern and central Indian belt.

Gender disparity in primary and secondary education is set to disappear…

After missing the 2005 target for achieving gender parity in primary and secondary education, India is poised to make quick turn around. GPI[10] ratios in primary and secondary education are 0.94 and 0.82 respectively in 2006-07, up from 0.76 and 0.60 respectively in 1990-91. These rates of increase signify India's hastened progress to achieving gender parity in enrolment by 2015, may be earlier for primary enrolment.

---

[8] Proportion of pupils starting Grade I who reach Grade V

[9] Literacy rate of 15-24 year olds

[10] Gender Parity Index of Gross Enrolment Ratio (GER)= GER(Female)/GER(Male)

Empowerment of women is still far too slow to reckon...

Participation of women in employment and decision making remains far less than that of men and the disparity is not likely to be eliminated by 2015. The only heartening indication about this is on-the-track progress in literacy GPI of the youth,[11] which tends to exceed 1 by 2015. It implies attainment of gender parity in youth literacy by 2015. From about 0.64 in 1991 to 0.81 in 2001 signifying the desired rate of change in the index towards parity, this attainment along with the attainment of gender parity in primary and secondary education can be a major gain for women in acquiring access to wider world of learning and development of skills, economic independence, authority in decision making and self-determination. But GPI in tertiary education remained sluggish, moving from 0.61 in 1990-91 to 0.69 in 2006-07. At this rate, a rise of another 0.04 points can only be expected during the period 2007-15. On the other hand, the degree to which the labour market in the country is opening up to women in industry and service sectors, as measured by the share of women in wage employment in the non-agricultural sector, has increased by only six percentage points between 1990-91 and 2004-05, from 13% to 18%. At this rate of progress, the share of women in wage employment in the non-agricultural sector can at best be expected to reach a level of about 24% by 2015, far short of a parity situation. Despite the fact that the Constitution of India not only grants equality to women, including universal adult franchise right from the time of its independence and that it also empowers the State to adopt measures of positive discrimination in favour of women, the percentage share of women parliamentarians declined from 9.7% in 1991 to 9.1% in 2007. The share is 10.3% in 2009 after the 15th General Election held in April-May 2009. Though a marginal increase, this can be a turning point for the better to come by. Taking into account the elected Members of the Legislative Assemblies of the States together with the Members of the national Parliament, the representation share of women Members has increased from 3.28% in 1990 to 6.04% in 2002.

Much sharper focus is needed for faster improvement in child survival prospect ...

Management of neonatal and childhood illnesses, and child health services are basic to improve child survival among the vulnerable classes of the society. Survival risk mainly prevails for children in the disadvantaged

[11] *The ratio of literate women to literate men, 15-24 years*

sections having little access to reproductive and child health services. Prevalence of child mortality measured by U5MR[12] is down from 125 per thousand live births in 1990 to 74.6 per thousand live births in 2005-06. Given to reduce U5MR to 42 per thousand live births by 2015, India tends to reach near to 70 by that year. Most of the States are very slow at reducing their respective U5MR levels. Only six States are on fast track and are likely to achieve their target values ahead of 2015, and about four States may be expected to finish close to their targets. What is very serious is that the major heartland States of the country are expected to fall short of their targets by margins of more than 20 points. The major factor of under-five mortality continues to be high infant deaths. About 1.5 million children continue to die every year before completing a year after their births. The mortality situation for children dying between the second and sixth birth days, the complement of infant deaths among under-five deaths, as measured by child mortality rate per thousand live births, shows there are 16 States in 2005-06, which have child mortality less than or equal to 15, against only 5 States in 1998-99 in the same mortality situation. This improvement is also evident from the fact that there are no States having child mortality rate above 30 in 2005-06, whereas there were 6 States in that mortality situation in 1998-99.

Prevalence of infancy deaths measured by IMR[13] has considerably improved in the country over the past three decades. From 80 per thousand live births in 1990, IMR has come down to 53 in 2008. India is required to reduce its IMR to 26.7 per thousand live births by 2015. The trend of decline since 1990, if continued, can only take India to an IMR level of about 46 by 2015, which is far short of the target. High rate of infancy deaths in India is largely attributed to very high share (66% in 2007) of neonatal deaths.[14] Accelerating reduction in the incidence of neonatal deaths alone can contribute substantially towards achieving U5MR and IMR targets. Incidence of neonatal deaths has not changed in the last seven years in the heartland States of India, which are also the haven of higher-than-national IMR. Rural-urban gap in IMR is also most striking in this area.

Immunisation against measles for one year olds (12-23 months) is tending to reach universality. From 42% coverage in 1992-93 at the national level, the proportion of one year olds immunised against measles reached 69.6%

---

[12] *Under-5 Mortality Rate, expressed as a rate per thousand live births, is the probability of a child born in a specified year dying before reaching the age five.*

[13] *Infant Mortality Rate is the number of infant deaths in less than a year after births expressed as number of deaths per 1,000 live births.*

[14] *Refers to deaths occurring to newborns within the first month of life.*

in 2007-08 and tends to reach 97% by 2015. However, 25 of the 35 States/ UTs of the country are expected to achieve universal coverage or come very close to it much before 2015. The lagging States are Bihar, Chhattisgarh, Rajasthan and UP, which are not likely to cover more than 60% in 2015 at their present pace of coverage increase.

Life risk to motherhood takes a turn for the better…

Incidence of deaths to women in the reproductive age group of 15-49 years due to pregnancy related causes as measured by MMR[15] has taken a quick downturn during 2003-06, from 301 per 100,000 live births in 2001-03 to 254 per 100,000 live births in 2004-06 as SRS based study reveals. The projected prospect of decline in maternal deaths looks brighter, as the earlier projected MMR of 264 per 100,000 live births for 2006 is bettered by the estimate of MMR for 2004-06. Compared to a decline of 26 points in the preceding three-year period 2000-02, the decline by 47 points during 2002-05 signifies a shift from historical trend. From an MMR level of 437 per 100,000 live births in 1990/1991, India is required to reduce the MMR to 109 per 100,000 live births by 2015. At the historical pace of decrease, India tends to reach MMR of 135 per 100,000 live births by 2015, falling short by 26 points (<0.03%). What is promising about the trend is the sharper decline by 36% during 1997-2005 compared to 25% decline during the preceding eight years from 1990-97. There are at least three States among the bigger States, which tend to attain their targets well ahead of 2015. Among the other bigger States, as many as five States are likely to miss target by small margin (0.03% or less) like the projected national attainment does in 2015. Safe motherhood depends mainly on delivery by trained/professional personnel, particularly through institutional facilities. Among other things, ensuring antenatal care of prospective mothers at health centres and recommended doses of IFT are important factors that help improve maternal health and reduce life risk during pregnancy. The rate of increase in coverage of institutional deliveries in India is rather slow. It increased from 26% in 1992-93 to 47% in 2007-08. As a result, the coverage of deliveries by skilled personnel has also increased almost similarly by 19 percentage points from 33% to 52% during the same period. Unless improved drastically, the existing rate of increase in deliveries by skilled personnel is expected to take the coverage only to 62% by 2015, which is far short of universal coverage of deliveries by skilled personnel. The rural-urban gap in coverage in

[15] *Maternal Mortality Ratio (MMR) refers to proportion of women in the child bearing age group 15-49 years per 100,000 live births, who die due to pregnancy related causes.*

2005-06 was of the order of 36 percentage points, urban coverage (75.2%) being almost double of that of rural (39.1%). Of the seven States namely, Andhra Pradesh, Goa, Karnataka, Kerala, Punjab, Sikkim and Tamil Nadu, which tend to reach universal coverage or close to it in 2015 for deliveries assisted by skilled personnel, three States had considerable gap in rural-urban coverage in 2005-06.

Trend reversal in prevalence of HIV/AIDS looks lasting…

Percentage incidence of HIV/AIDS cases among all types of high risk people observed at the sentinel sites across the country showed discernible decline in the last five years. In India, transmission of HIV/AIDS is predominantly (in about 86% cases) due to sexual reasons. It is natural therefore, that with steady rise in the level of awareness about the disease and in use of condom among non-regular sex partners, the decline in spread of AIDS through sexual route tends to sustain. Estimated adult prevalence has come down to 0.34% in 2007 from about 0.45% in 2002. Among pregnant women of 15-24 years, the prevalence has declined from 0.86% in 2004 to 0.49% in 2007. A drop by more than 50% has been recorded among pregnant women aged 25-49 years as well: from 1.09% in 2004 to 0.52% in 2007. Proportion of people aged 15-49 years having correct awareness about HIV/AIDS has increased from 17.6% in 2001 to 29.3% in 2006. Condom use as percentage of all contraceptive methods is low, particularly in rural areas (3.3% in 2005-06). Other methods being more popular, there is still significant risk of transmission of HIV through sexual route. Condom use is however, quite prevalent (71% in 2005-06) among non-regular sex partners. Total number of females living with HIV/AIDS has kept on declining from 1.07 million in 2002 to 0.97 million in 2006 and further to 0.95 million in 2007.

Prevalence of Malaria and TB moves to a halt…

The incidence rate of Malaria and deaths associated with Malaria are on the decline: the incidence among the people who were examined for the disease was 1.74% in 2005 and has come down to 1.52% by Sept. 2009. The percentage of deaths of Malaria patients thus diagnosed during 2005 to Sept. 2009, has experienced rises and falls between 0.05 and 0.09 per 100 cases. In the Malaria prone States like the North-Eastern States, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tripura and West Bengal, the number of deaths of Malaria patients has consistently declined ever since the high of 2006.

India is the highest TB burdened country accounting for about one-fifth of global incidence. The Revised National TB Control Programme (RNTCP) based on the internationally recommended Directly Observed Treatment Short Course (DOTS) strategy has been expanded to cover the entire country with a view to achieve and maintain a cure rate of at least 85% among new sputum positive patients and at least 70% success rate in case detection. The programme has paid dividend as the prevalence of TB has steadily declined from as high as 586 per 100,000 population in 1990 to 283 per 100,000 in 2007. There has been drastic improvement in detection rate and success rate due to expansion of DOTS. The case detection rate under DOTS for new smear positive cases has improved from near 1% in 1997 to 68% in 2007, which is just short of 70% – the desired level prescribed under DOTS. The treatment success rate has remained steady at 86%-87% level during the last five years.

Environmental measures covered up much of losses …

Continuing the commendable trend of the past decade, India's forest cover has increased by 728 sq. km (a marginal rise of 0.03% of the country's geographical area) during 2005-07. As a result, the total forest cover of the country stands at 21.02% of the geographical area of the country in 2007 against the revised forest cover estimate of 20.99% for 2005. The total tree cover of the country has also gone up slightly during 2005-07 and constitutes 2.82% of the country's geographical area in 2007 against 2.79% in 2005. In the past 10 years, forest cover has increased by 3.31 million hectare, at an annual average rate of 0.46% increase. Much of the forest cover gain has been possible due to conversion of 1,821 sq. km of open forest to moderately dense forest and 35 sq. km of open forest to very dense forest. However, there was coverage loss of 936 sq. km of moderately dense forest during 2005-06. There was a significant loss of forest in the Andaman & Nicobar Islands because of the Tsunami in 2004. Most of the major forest losing States namely, Arunachal Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh and Manipur had much lesser loss of forest during 2005-07 as compared to the earlier three years. In fact, Jharkhand and Manipur have gained substantially in coverage.

The network of protected areas presently covers about 4.83% of country's total land area and includes 100 national parks, 514 wildlife sanctuaries, 43 conservation reserves and 4 community reserves. This network includes biosphere reserves and several reserve forests, which are most strictly protected areas. The coverage of national parks and wildlife sanctuaries,

which constitute major part of the protected areas in India has increased from 4.74% in 2006 to 4.83% in 2009 of the country's geographical area. The cumulated number of protected areas has increased sharply from 491 during 1986-90 to 605 during 2001-07.

Lowering energy intensity of Gross Domestic Product (GDP) growth through higher energy efficiency remained the biggest challenge of India in achieving the energy security. India has succeeded in maintaining low per capita emission of carbon dioxide despite reasonable industrial growth and dependence on fossil fuels to meet energy needed for all round development in people's standard of living in the country. The per capita emission of carbon dioxide was 1.31 metric tonne in 2006, which is still much lower than that in some of the advanced countries. The energy consumption per unit of GDP (Rupee) at 1999-2000 prices has decreased from 0.17 in 1989-90 to 0.13 in 2007-08.

Access to safe drinking water tends to reach all …

India is on-track in achieving the MDG target for sustainable access to safe drinking water. The overall proportion of households having access to improved water sources, increased from about 68.2% in 1992-93 to 84.4% in 2007-08. The urban coverage has increased to 95% from 87.6% during the same period. The growth in rural coverage is however, no less significant, being 79.6% in 2007-08 against 61% in 1992-93.

Sanitation facility still eludes half the population …

The access to improved sanitation facilities has not been quite impressive during the last decade. India, one of the most densely populated countries in the world, has the lowest sanitation coverage. Only 1/10 of its total population in 1991- of the magnitude of about 60 million- did not have any kind of sanitation facility. The recent statistics shows that only about 2% households have gained sanitation facilities during 2006-07. Given the target for reducing the proportion of households having no access to improved sanitation to 38% by 2015, the proportion of households without any toilet facility declined from about 70% in 1992-93 to about 51% in 2007-08. The rural-urban gap in access/use of sanitation facility continues to be very high. 66% of the rural households do not have toilet facilities against 19% of urban households as per statistics available for 2007-08.

Technology partnership drives connectivity fast ...

As part of the globalisation process and integration with the global economy, India has emerged as one of the major development partners for fostering techno-economic and intellectual assistance to various developed and developing countries across the world. The Indian Information & Communication Technology (ICT) industry, in particular, the IT software & services and ITES sectors have managed to catch up with the global leaders. The development of telecommunication and internet facilities within the country has taken place at a very fast pace. The tele-density has increased from 0.67 per 100 population in 1991 to 36.98 per hundred population by March 2009. The tele-density has more than doubled in the last two years: from 18.31 per hundred population in March 2007 to 37 per hundred population in March 2009. The total number of telephones, both fixed and wireless, increased from 22.8 million in 1999 to as high 467.7 million in March 2009. The growth has been possible due to overwhelming increase in wireless/mobile telephony that rose from 1.2 million lines in 1999 to about 430 million lines by March 2009. The connectivity among different cross-sections of the population and with the global community has further enhanced due to wide penetration of internet services through different modes of connectivity. The number of internet subscribers has increased from 0.21 million in 1999 to 13.54% million in 2009. The Govt. of India is contemplating of raising internet subscriber base to 100 million by 2014 and is planning to provide internet connectivity to all villages in the country by that time.

Overall Summary of Progress

Of the 12 targets that India is concerned with, there are 4 targets, each of which involves more than one target objects and thus, can be treated as composite targets. For almost all targets, there is more than one indicator. Achieving the overall target therefore, implies achieving all the implicit targets individually in terms of all the indicators.

Considering the nature of the targets and their indicators, the progress needs to be judged not only in terms of all indicator(s) of every single object targets, but also all the indicators of every multi-object targets. In accordance with this consideration, the overall progress is in summary as follows:

- India is 'moderately or almost nearly on track considering all indicators' in respect of 3 targets.
- India is 'on-track or fast considering all indicators' in respect of 3 targets.
- However, India is 'slow or off-track by some indicators but fast by other indicators' in respect of 3 targets.
- India is 'on-track or fast by one main indicator(s) but slow by another main indicator(s)' in respect of 1 target.
- There is 1 target, for which India is 'slow or almost off-track considering all indicators' and 1 target for which 'pattern of change not clear due to lack of sufficient data'.

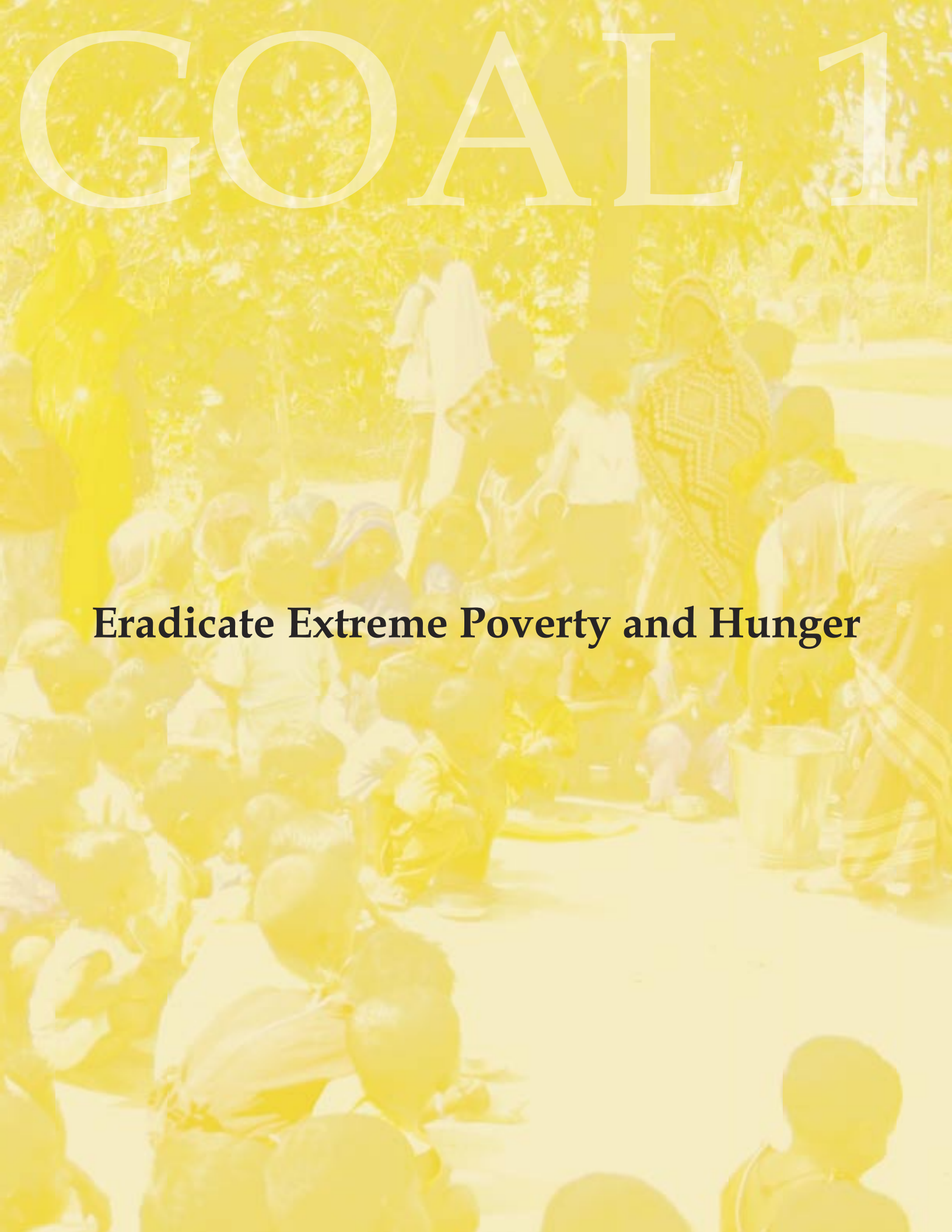
Target-wise progress signs are indicated in Table 2.

Table 2: Target-wise progress signs

Target No.	Target Description	Progress Signs[16]
1.	Halve, between 1990 and 2015, the proportion of population below national poverty line	Δ
2.	Halve, between 1990 and 2015, proportion of people who suffer from hunger	Θ
3.	Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education	ΔΔ
4.	Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education, no later than 2015	Δ
5.	Reduce by two-thirds, between 1990 and 2015, the Under-Five Mortality Rate	ΘΔ
6.	Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio	ΘΔ
7.	Have halted by 2015 and begun to reverse the spread of HIV/AIDS	Δ
8.	Have halted by 2015 and begun to reverse the incidence of Malaria and other major diseases	ΘΔ
9.	Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	ΔΔ
10.	Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	ΔΘ
11.	By 2020, to have achieved, a significant improvement in the lives of at least 100 million slum dwellers	φ
12.	In cooperation with the private sector, make available the benefits of new technologies, especially information and communication	ΔΔ

[16] *Δ : Moderately or almost nearly on track considering all indicators; Θ : Slow or almost off-track considering all indicators; ΔΔ : On-track or fast considering all indicators; ΘΔ : Slow or off-track by some indicators but fast by other indicators (including cases where composite targets are involved); ΔΘ : On-track or fast by one main indicator but slow by another main indicators (including cases where composite targets are involved); and Φ : Pattern of change not discernible due to lack of sufficient data.*

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.

Indicator 1(a): The ***Poverty Headcount Ratio*** *(PHR)* is the proportion of population whose per capita income/consumption expenditure is below an official threshold(s) set by the National Government. The Planning Commission in the Government of India estimates poverty at National and State levels using the poverty lines as defined and applying it to the distribution of persons by household per capita monthly consumption expenditure.

i. The poverty ratio according to the Government of India definition is at variance with that according to international definition. India unlike most countries has different poverty lines at sub-national level in the sense that the poverty ratios are estimated for different States of the country separately for rural and urban areas.
ii. All-India implicit poverty line for the urban areas is nearly 51% higher than that for rural areas at 2004-05 prices. The State with the highest price index has a poverty line that is 27% higher than that for the State with lowest price index. These variations are mainly on account of price differentials across States and for rural and urban areas.

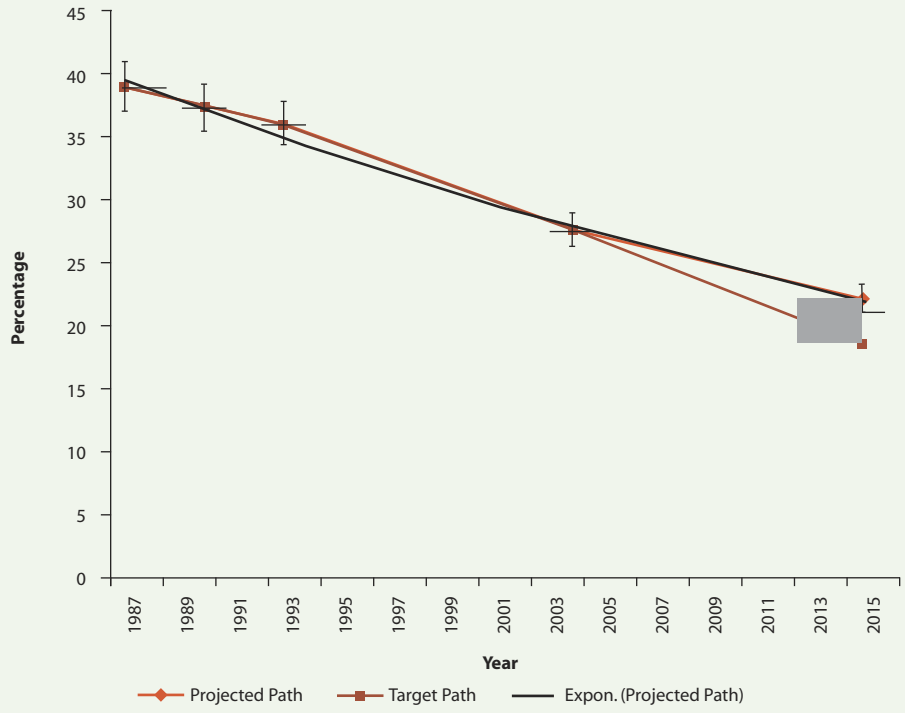
The incidence of poverty declined from 55% in 1973-74 to 36% in 1993-94 and further to 27.5% in 2004-05. **During the intervening period, poverty estimates for the year 1999-2000 were also released, which were not strictly comparable with the earlier estimates and those of 2004-05 due to difference in recall period followed for the consumer expenditure survey of the NSSO. As per the estimates for the year 1999-2000, the incidence of poverty was 26%. The estimate of poverty ratio for the year 2004-05 by a method roughly comparable with that of 1999-2000 is however, 21.8%.** The reduction in proportion of people living below poverty line has been marked with interesting features in the last decade, when there has been 8.5-percentage points decline between 1993-94

In view of its diversity in consumption pattern and heterogeneity of market prices across the country and non-availability of an acceptable purchasing power parity index for different regions of the country, compilation/ reporting of the proportion of people whose income is less than $1 a day is not plausible in the Indian context.

and 2004-05, estimated by comparable Uniform Recall Period (URP)[17] consumption distribution for both the years. As per the alternative Mixed Recall Period (MRP)[18] consumption distribution, the decline is 4.3 percentage points from 1999-2000 to 2004-05. This trend (by MRP) indicates that India is on-track with respect to the target of halving the proportion of people below the poverty line. However, by URP method, which has larger number of estimate years, India is slightly off-track. Going by the trend of URP based estimates for the years 1993-94 and 2004-05, the trend rate of decline is 0.8% during 1993-94 to 2004-05. The rate of decline based on thin sample estimates of consumer expenditure for the year 2005-06 is 1.4%. If the improvement in the rate of decline in poverty as observed during 2004-05 to 2005-06 is maintained in the subsequent years or further improved, it is expected that India will be able to achieve the 2015 target. To achieve the target of 18.6% of PHR by 2015 with reference to 1990 base year PHR of 37.2% (estimated from the progression path of existing URP data series), India has to achieve a PHR of 22.09% by 2010-11.

21 of 35 States/UTs are going to be early achiever of PHR targets of halving their 1990 poverty levels. Four States/ UTs are either on-track or slightly slow at achieving the target. Seven States/ UTs are relatively slow in progress.

Figure 1: All-India Poverty Incidence Trend



[17] *For Uniform Recall Period consumption, data for all items are collected from the consumers for 30-day recall period.*

[18] *For Mixed Recall Period consumption, data for five non-food items, namely, clothing, footwear, durable goods, education and institutional medical expenses are collected for 365-day recall period and data for remaining items are collected for 30-day recall period.*

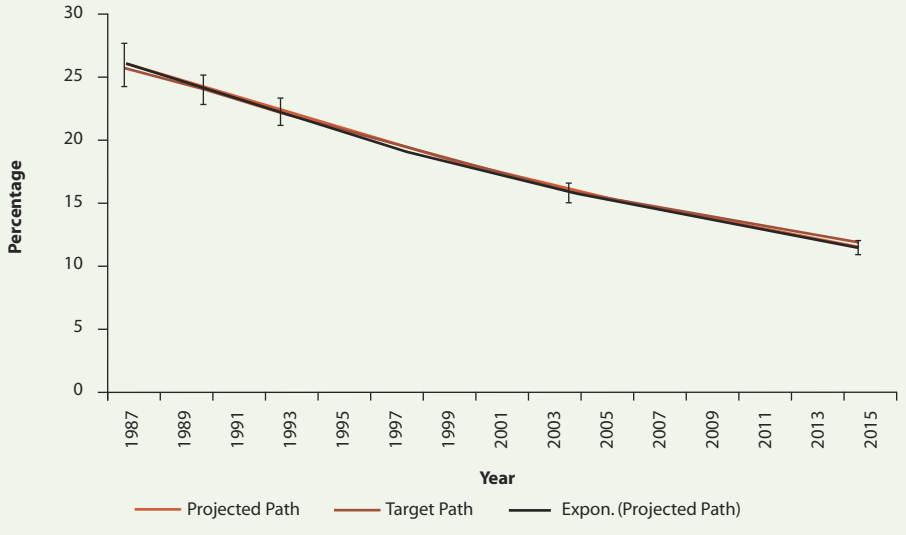
It needs to be appreciated that the rate of change for the States may not be equivalent to that being aimed at for the country as a whole. Generally, it is not rational to target at halving the poverty for each of the States in the same way as for the country as a whole. The case for India is however, different in this respect as the States have their own poverty lines and the consumption pattern in each State has been individually taken into account. Thus, the norm of halving the poverty can be equally applicable to the States of India. Among the States of the country, there are 21 States/UTs which are going to be Early Achiever (EA) of PHR targets of halving their 1990 poverty levels. Four States/UTs are either on-track or slightly slow at achieving the target. Seven States/UTs are relatively slow in progress. Though the number of early achieving States is much more than that of States which are slow or on-track taken together, the overall progress of the country is outweighed by the slow progress of the more populated and bigger States.

States on-track

Andhra Pradesh, Karnataka, Punjab and Rajasthan are either on-track (OT) or just a bit slow in progress towards achieving the 2015 targets for their States with reference to their 1990 poverty levels.

Karnataka falls short of the target PHR of 17.6% in 2015 by about 1.6 percentage points. This is regarded as falling within permissible range of on-track performance. A range of ± 5.0 percentage points has been marked with caps about the points of estimates in the charts to show the margin

Figure 2: Andhra Pradesh (OT) - Poverty Incidence Trend



of error allowable in projecting/estimating the PHR at different time points. Andhra Pradesh, Punjab and Rajasthan are found to be very closely finishing at the target mark in 2015. The trend line (exponential) fitted to

Figure 3: Punjab (OT) - Poverty Incidence Trend

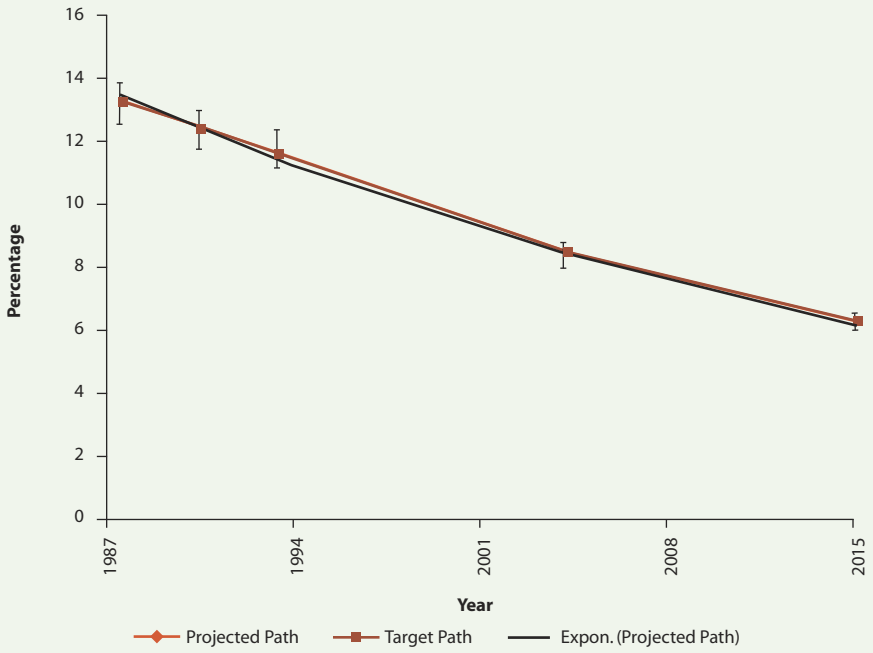
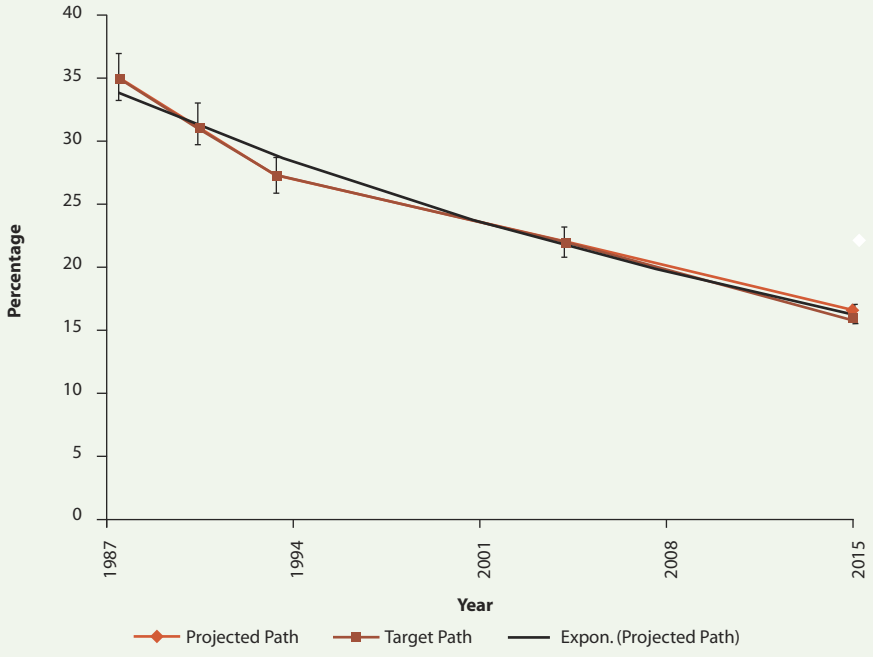


Figure 4: Rajasthan (OT) - Poverty Incidence Trend



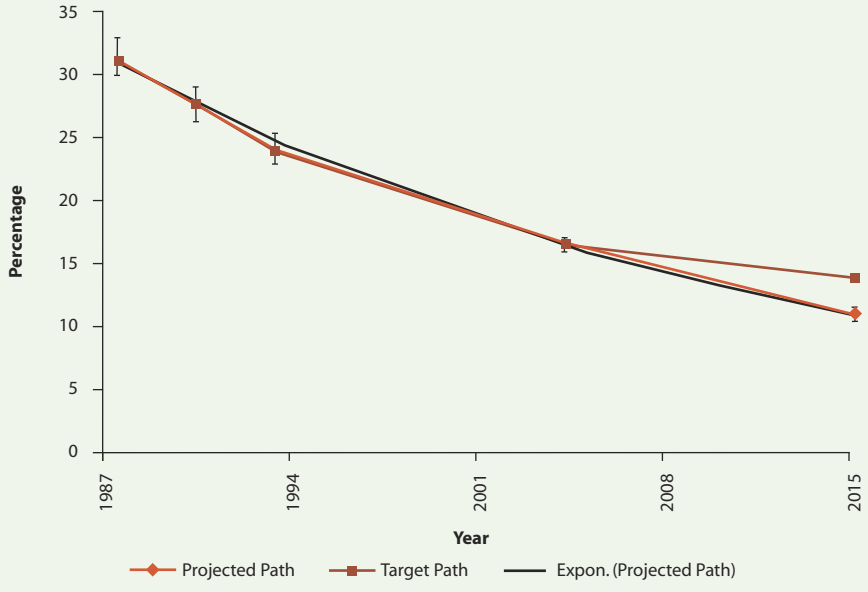
the data is indicated in the charts with a thin line. The on-track States are characterised by almost perfect overlap of the three lines on the charts: projected path, target path and trend path. This feature is also indicative of consistency of the estimates at each of the time points. This therefore, provides a valid basis for assuming with near certainty the veracity of the findings for all the State level estimates.

States on fast track

Twenty-one States/UTs are going to be Early Achiever (EA) of PHR targets of halving their 1990 poverty levels before 2015. These States/UTs are Arunachal Pradesh, Assam, Goa, Gujarat, Himachal Pradesh, Jammu & Kashmir, Kerala, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, West Bengal, Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Lakshadweep and Pondicherry. It is evident that almost all the early achieving States/UTs are comparatively small in geographical size and population.

Among the bigger States, which are on fast track to achieve the 2015 target value before 2015, Gujarat and Tamil Nadu are important. Gujarat is likely to meet the target of 13.9% PHR (with reference to estimated 27.8% in 1990) by 2009. Tamil Nadu has the 2015 target of 19.45% PHR (with reference to estimated 38.9% in 1990) and it is likely to achieve a PHR level of 14.74% by 2015. The PHR levels in the existing data series for the North-Eastern States

Figure 5: Gujarat (EA) - Poverty Incidence Trend



and UTs, which are in the fast track bracket, are typical for the choice of their rural-urban break-up of PHR. In absence of actual estimates of rural-urban expenditure distributions/poverty lines for these

Figure 6: Arunachal Pradesh (EA) - Poverty Incidence Trend

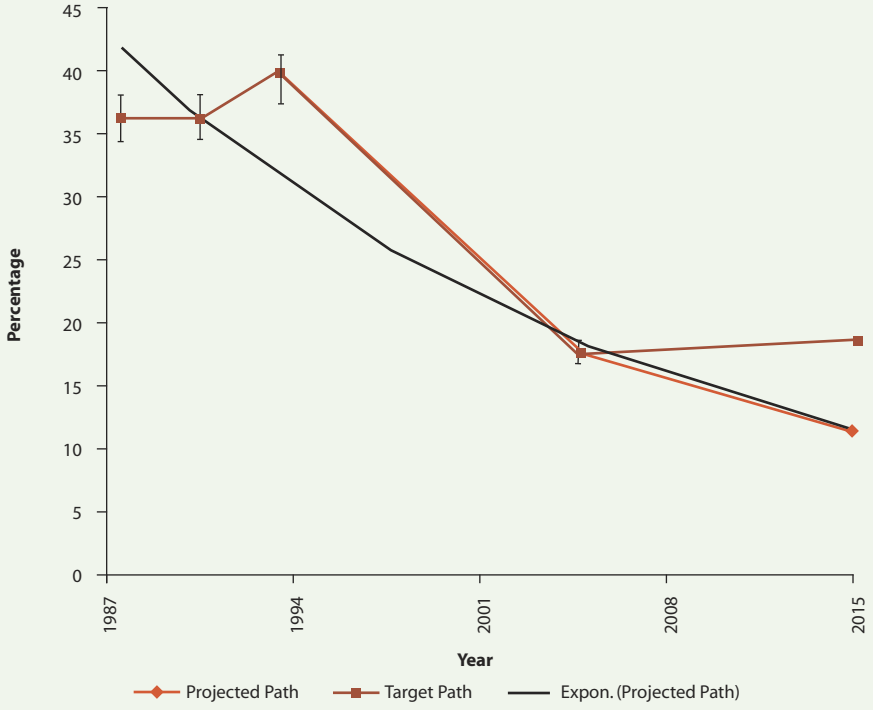
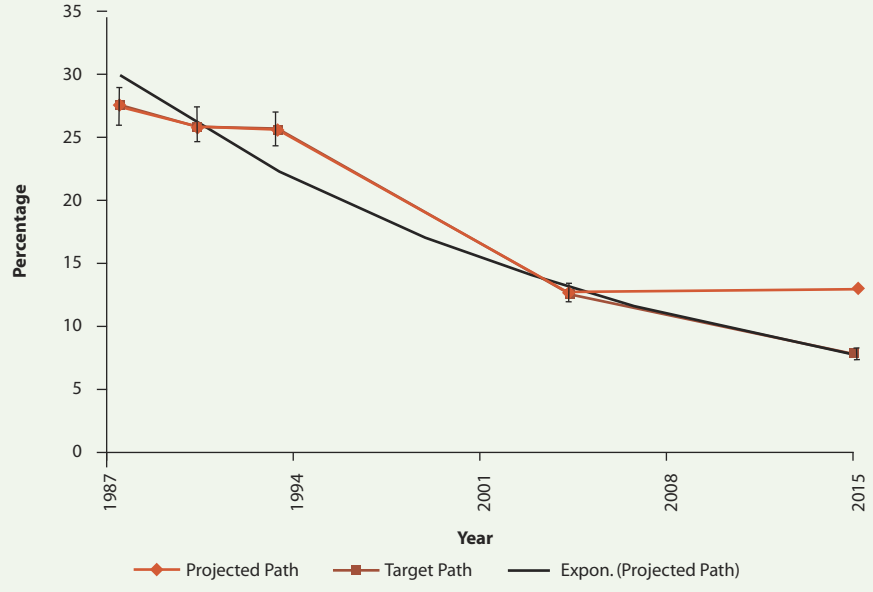


Figure 7: Mizoram (EA) - Poverty Incidence Trend



States/UTs for the years 1987-88, 1993-94 and 2004-05, the rural-urban Poverty Ratios of Assam have been used for Sikkim, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland and Tripura. Likewise poverty ratios of Tamil Nadu have been used for Puducherry and Andaman & Nicobar Islands, and poverty ratios of Kerala have been used for Lakshadweep, poverty ratio of Goa has been used for Daman & Diu. In case of Goa, poverty line of Maharashtra and expenditure distribution of Goa have been used to estimate poverty ratio of Goa. Urban poverty ratio of Punjab is used for both rural and urban poverty of Chandigarh. Poverty line of Maharashtra and expenditure distribution of Dadra & Nagar Haveli have been used to estimate poverty ratio of Dadra & Nagar Haveli. The State/UT level PHR has been obtained by taking weighted average of the rural-urban PHRs with weights equal to the rural-urban population of the State/UT concerned.

States on slow track

The major States namely, Bihar, Delhi, Haryana, Madhya Pradesh, Maharashtra, Orissa and Uttar Pradesh as per projected trend of their poverty estimates, are likely to fall short of target PHR in 2015 and may be termed as Slow Achiever (SA). For the States of Jharkhand, Chhattisgarh and Uttarakhand , which have been formed out of Bihar, Madhya Pradesh and Uttar Pradesh after the year 2000 and have only one estimate point for the year 2004-05, the picture is expected to be similar to their parent States.

Figure 8: Bihar (SA) - Poverty Incidence Trend

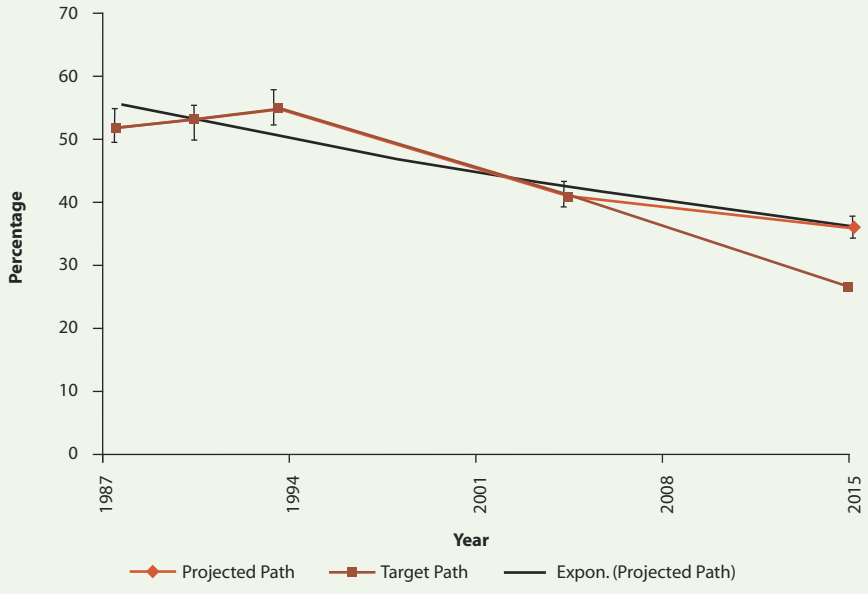


Figure 9: Madhya Pradesh (SA) - Poverty Incidence Trend

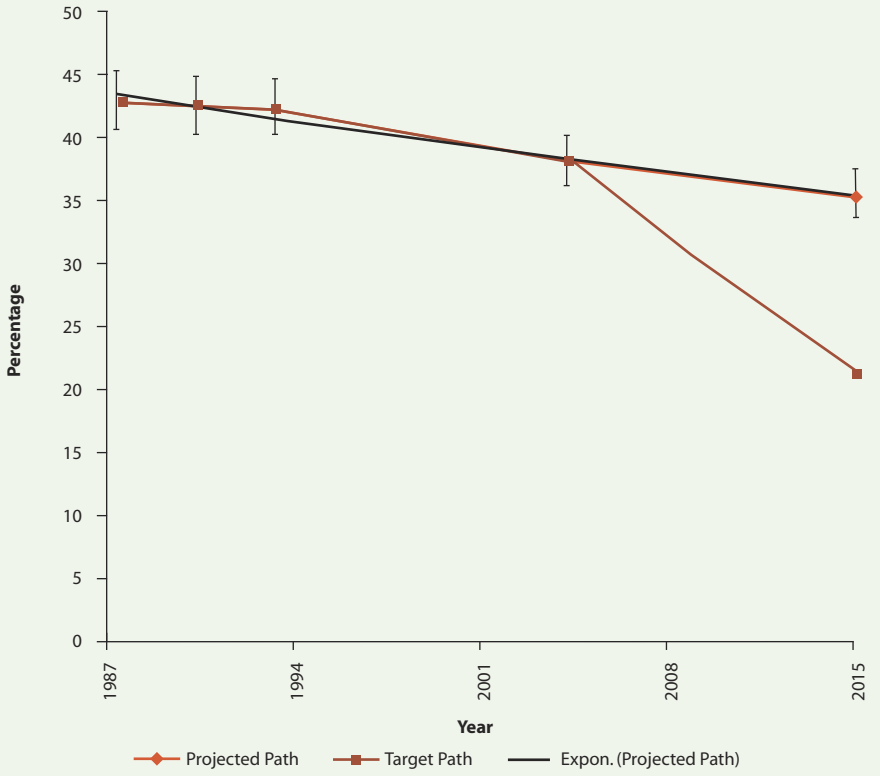
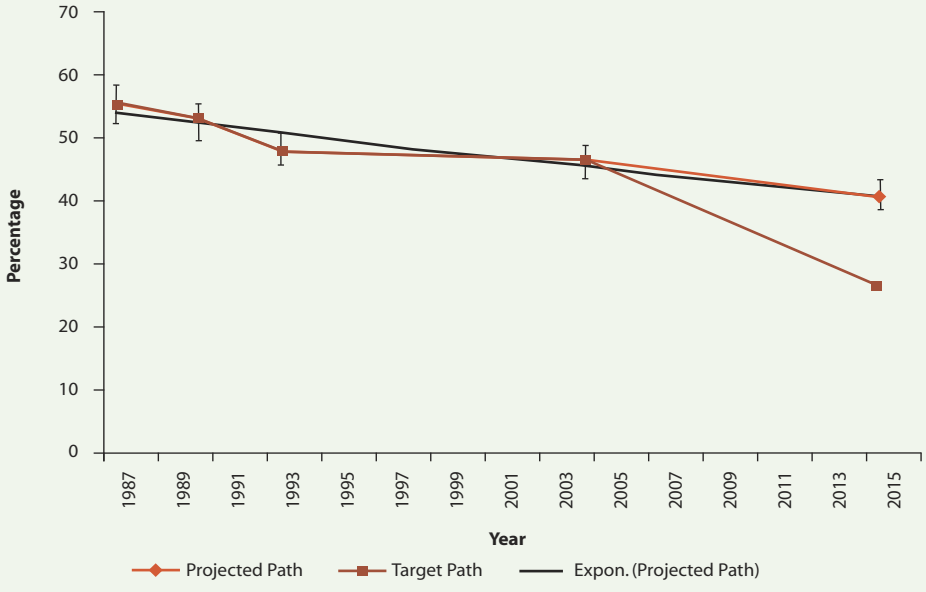


Figure 10: Orissa (SA) - Poverty Incidence Trend



The SA States are strategically crucial for they are the most populated States, are big in geographical area and are at the heart of the country with comparatively uneven development in almost all socio-economic sectors. Acceleration of poverty alleviation measures in these States alone would put India on fast track in achieving the 2015 poverty target. Efficacy of poverty alleviation programmes in these States needs to be ensured to place them on track. The finishing line shortfall in these States vary from about 5-6 percentage points (in case of Haryana, Maharashtra) to about 15 percentage points (in case of Madhya Pradesh, Orissa).

Rural-Urban Dichotomy of Poverty

The maps below, depicting spatial distribution of poverty over the States/ UTs of India, are quite revealing of the state of poverty in the States/ UTs and also of its rural-urban divide in 2004-05 as compared to 1993-94. Shrinkage of red areas (which have more than 30% of people below the

Figure 11: Spatial distribution of poverty in India in 1993-94 and 2004-05

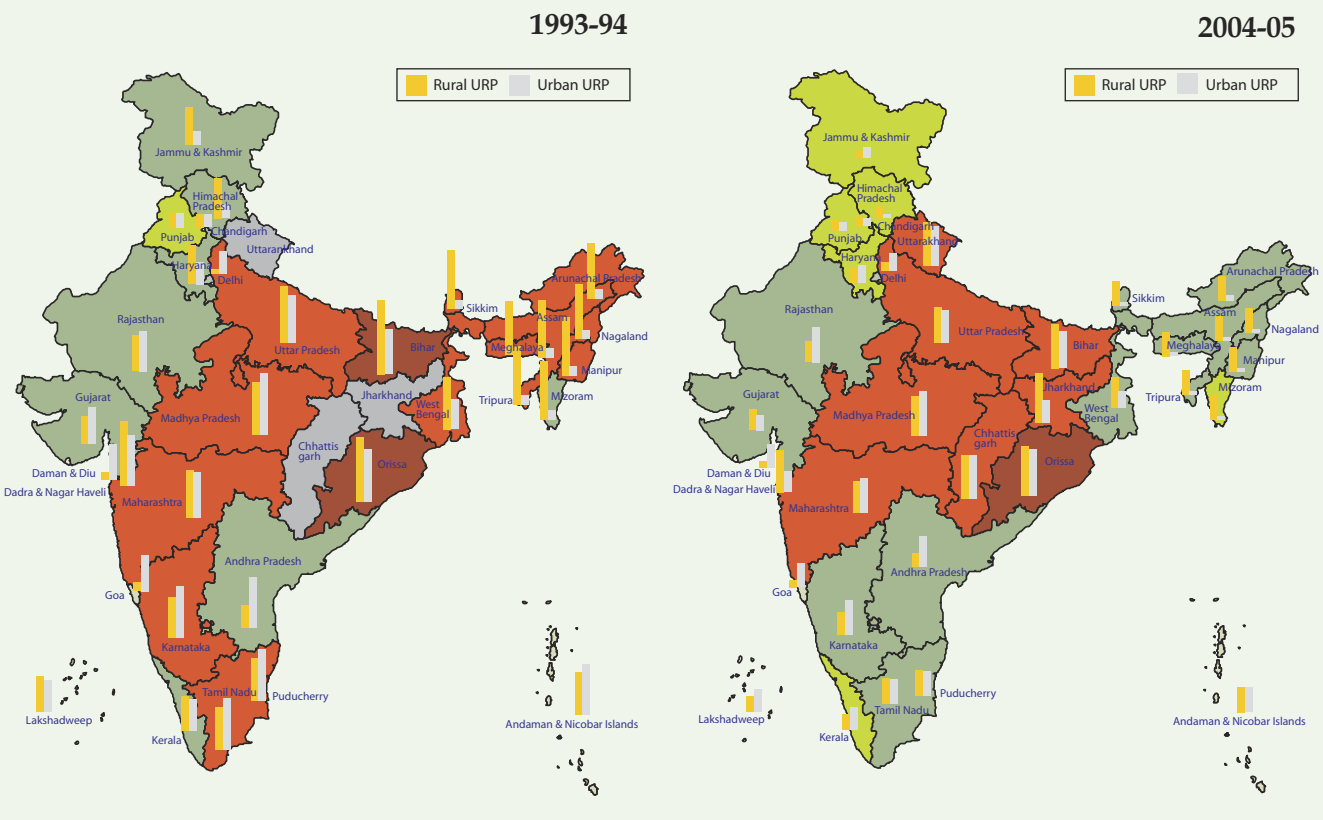
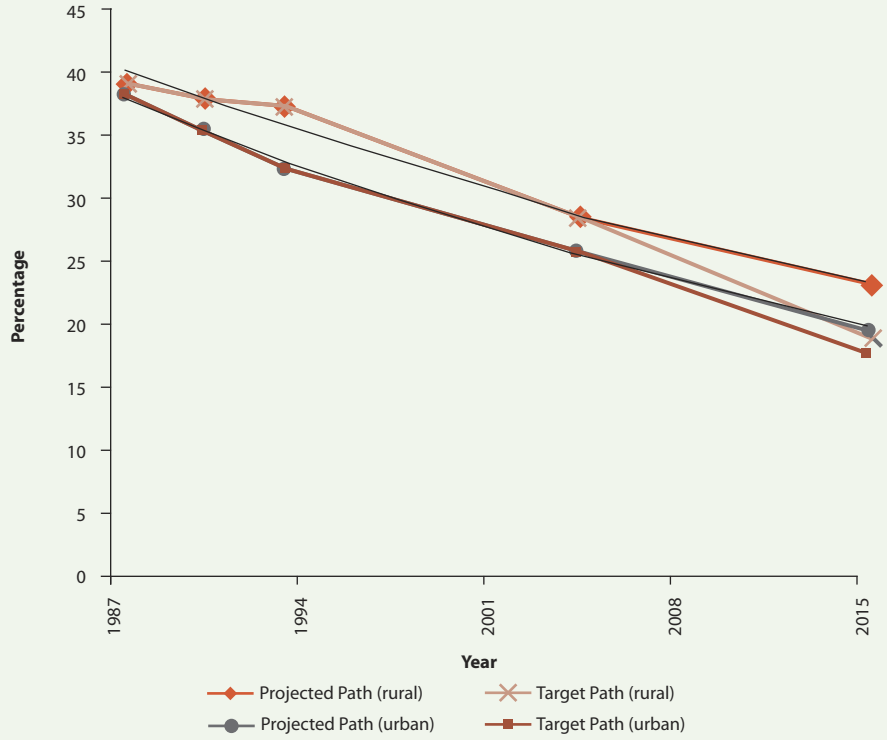


Figure 12: India's Rural-Urban Poverty Trend



poverty lines) in the map for 2004-05 compared to that of 1993-94 map clearly show how poverty has become confined to the heartland of the country. The more important revelation is the fact that the rural-urban gap in poverty is less in the red areas compared to the green areas (which have 30% or less of population below the poverty lines). This signifies a higher rate of decline in urban poverty than in rural poverty in the on-track or fast track States/UTs. On the other hand, the lesser rural-urban gap in poverty in the slow track States may be attributed to closer market ties between rural and urban areas than those in comparatively urbanised States. Kerala is an exception to this as its rural poverty has declined much faster than urban poverty and stands below the urban level by more than two-thirds margin.

On the whole, rural and urban poverty ratios tend to run parallel to each other in the coming years with a gap of about five percentage points separating them. While urban poverty is likely to converge to the target level in 2015, the rural poverty is likely to fall short of target level of 2015 by about 5-6 percentage points.

The Eleventh Plan Target (to be achieved by 2012) to *'reduce the headcount ratio of consumption poverty by 10 percentage points'* is therefore, crucial for the attainment of MDG poverty goal.

The objective of planning is to improve the lot of the poorest of the poor, and it is more than likely that the most deprived may not rise above the poverty line within the given timeframe. Nevertheless, amelioration of their lot must be a focal point of public policy. It is in this context that indicators like the **Poverty Gap Ratio (PGR)** become important. PGR reflects the degree to which mean consumption of the poor falls short of the established poverty line, indicating the depth of poverty. The PGR for the country has decreased from 8.5 to 5.7 in rural India and from 8.1 to 6.1 in urban India during the period 1993-94 to 2004-2005. The decline in the PGR over the period points towards better and improved economic condition of both rural and urban poor in the country. The anti-poverty programmes have helped in reducing the depth and severity of poverty in the country.

The share of poorest quintile in total consumption (consumption that is accounted for by the poorest fifth of the population) in the rural areas declined from 9.6% in 1993-94 to 9.5% in 2004-05 based on URP. This decline was sharper in the urban areas where the ratio declined from 8% to 7.3%. This decrease in the share of consumption for the poorest quintile could be one of the reasons for growing inequities, particularly in the urban areas.

Table 3: Measures of poverty depth and consumption share of the poorest

		1993-94	2004-2005 (URP)
Poverty Gap Ratio	Rural-	8.5	5.7
	Urban	8.1	6.1
Share of poorest quintile in national consumption	Rural-	9.6	9.5
	Urban	8.0	7.3

Target 2

Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

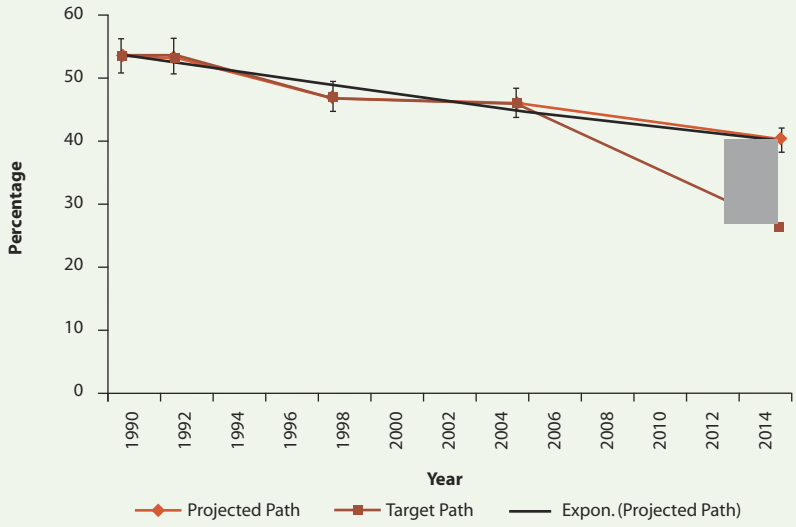
The proportion of population that has dietary energy consumption below 2100/2400 kcal in India tends to rise since 1987-88 with about 64% below the norm in 1987-88 increasing to 76% in 2004-05.

The national level official poverty lines for the base year (1973-74) was expressed as monthly per capita consumption expenditure of Rs. 49 in rural areas and Rs. 57 in urban areas, which corresponded to a basket of goods and services that satisfy the calorie norms of per capita daily requirement of 2400 kcal in rural areas and 2100 kcal in urban areas, which were considered minimum required dietary energy for healthy living. The cut-off lines have been updated for price rise for subsequent years. However, the new poverty lines thus calculated do not match the minimum dietary energy levels as expressed by the calorie norms. This is revealed from the NSSO data of the 61st round (2004-05) for calorie consumption for each expenditure class. At the official national poverty lines (at 2004-05 prices) of Rs. 356 per capita per month for rural areas and Rs. 539 per capita per month for urban areas, the calorie intake works out to be about 1820 kcal for both rural and urban areas, which is much below 2100/2400 kcal norm for healthy living or food security. In fact, it is also revealed from NSS results of the previous quinquennial rounds of consumption expenditure surveys that total calorie consumption of the bottommost quartile of per capita expenditure in rural India has consistently declined since 1987-88, from 1683 kcal in 1987-88 to 1624 kcal in 2004-05. The total of calorie intake of the top quartile of the rural population has similarly declined from 2863 kcal in 1987-88 to 2521 kcal in 2004-05.

The proportion of population that has dietary energy consumption below 2100/2400 kcal in India tends to rise since 1987-88 with about 64% below the norm in 1987-88 increasing to 76% in 2004-05.

The undernourishment indicator in MDG 1: '**Prevalence of underweight children**' is the percentage of children under five years of age whose weight for age is less than minus two standard deviations from the median for the reference population aged 0-59 months. In Indian context, data on this

Figure 13: India: Underweight Children (<3 yrs)



indicator for the reference age group are not available for all time points. The National Family Health Survey (NFHS) collected data on the underweight children between 0-35 months of age in 1998-99 and between 0-35 months and between 0-59 months of age in 2005-06, while in the survey conducted in 1992-93, children between 0-35 months and between 0-47 months of age were considered. As such, results of the surveys are comparable only with reference to the age group of 0-35 months (or less than 3 years of age).

Going at the present pace of change, India is likely to have 40.23% children below three years underweight in 2015 against target proportion of 26.8%.

All India trend of the proportion of underweight (severe and moderate) children below three years of age shows India is slow at achieving the target of halving the 1990 proportion by the year 2015.

With reference to the 1990 level of the proportion of underweight children below three years, as estimated to be 53.51% from the trend of the subsequent years' estimates from NFHS data, the target level for India to achieve by the year 2015 works out to be 26.76%. However, going at the present pace of change, India is likely to finish at 40.23% in 2015, falling short by about 13 percentage points.

At the sub-national level, a couple of States only are going to be EA. Jammu & Kashmir, Punjab and Tamil Nadu are likely to achieve the targets of halving their 1990 proportions of underweight children earlier than 2015. While Tamil Nadu is going to achieve the target level just a bit earlier than 2015, Jammu & Kashmir is likely to achieve the target by 2012 and Punjab is likely to have already achieved the target level by 2008-09 as suggested by

Figure 14: Punjab: Underweight children (<3 yrs)

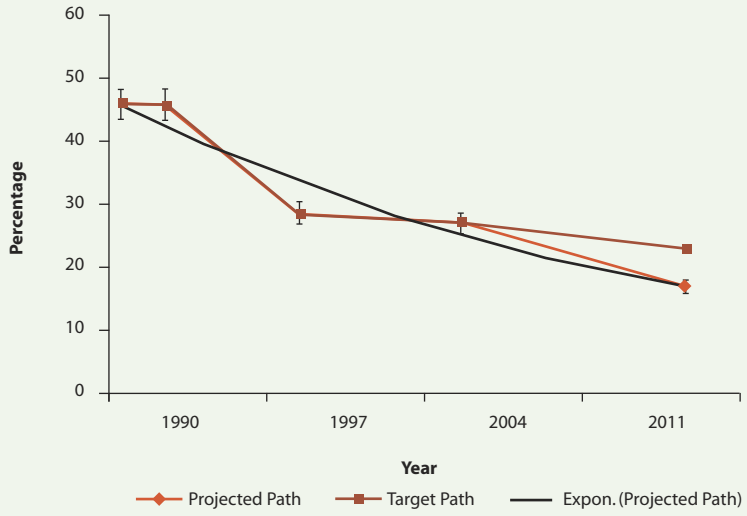
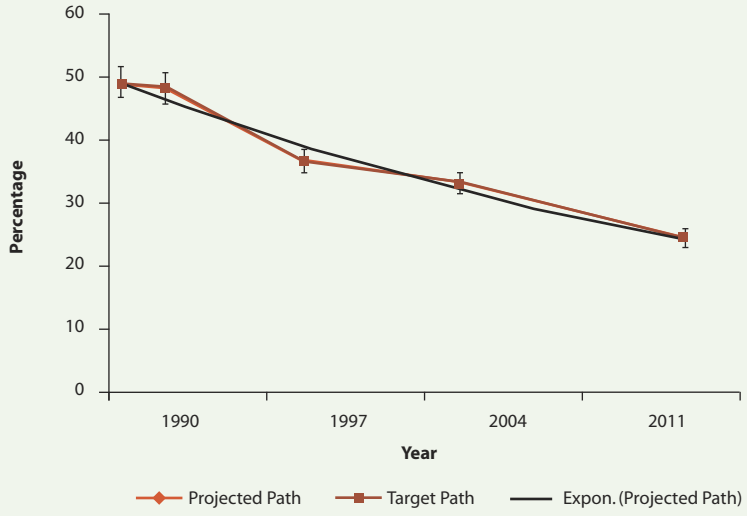


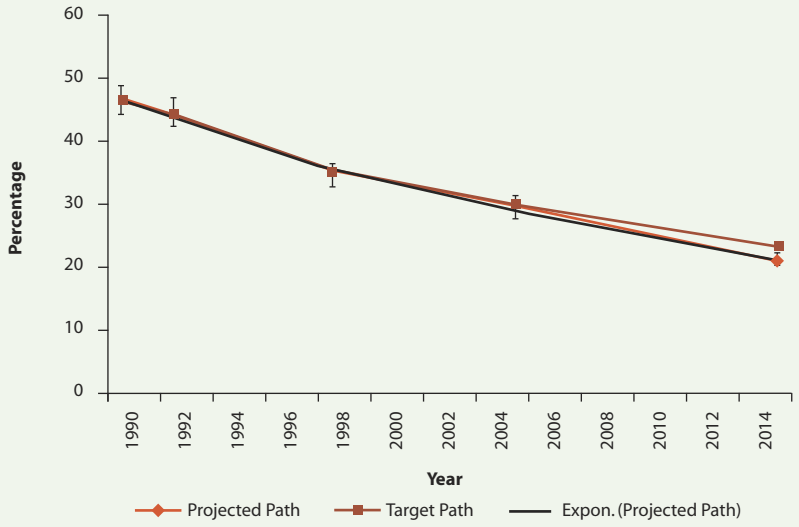
Figure 15: Tamil Nadu: Underweight children (<3 yrs)



the current trends. These States have target levels lower than the national target levels and their present rates of decline are good enough to achieve these levels before 2015.

There are a number of programmes going on to address the concern for malnourishment and nutrition of children. However, the age group of 0-35 months requires special targeted measures to accelerate the pace of decline in malnourishment conditions.

Figure 16: Jammu & Kashmir: Underweight children (<3 yrs)



The States/UTs in India are mostly lagging behind in following the desired rate of decline in attaining the respective targets of halving the proportion of underweight children by 2015. With the expectation that a shortfall of five or less percentage points in the estimated proportion for the year 2015 is within a feasible range of closing up, the States/UTs which have departed from the target level not exceeding five percentage points may be considered to be on-track to achieving their 2015 targets. Andhra Pradesh, Himachal Pradesh, Karnataka, Maharashtra, Manipur, Mizoram and Tripura come under this category of States.

Figure 17: Andhra Pradesh: Underweight children (<3 yrs)

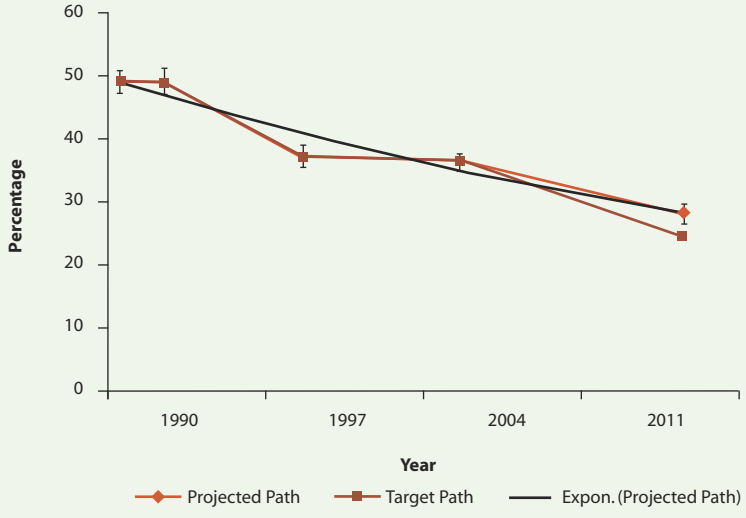
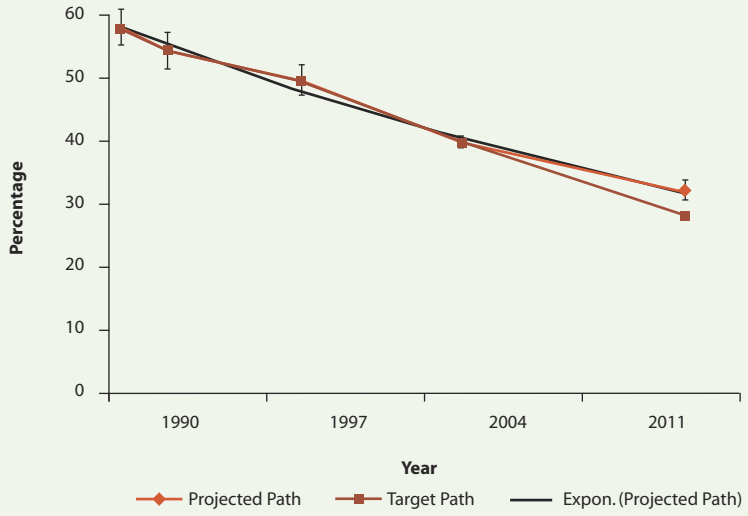


Figure 18: Maharashtra: Underweight children (<3 yrs)



Out of the seven States, which may be categorised as on-track, three North-Eastern States (viz. Manipur, Mizoram and Tripura) and Himachal Pradesh are in hilly terrain. The other three States are much bigger in area

Figure 19: Prevalence of underweight (moderate and severe)

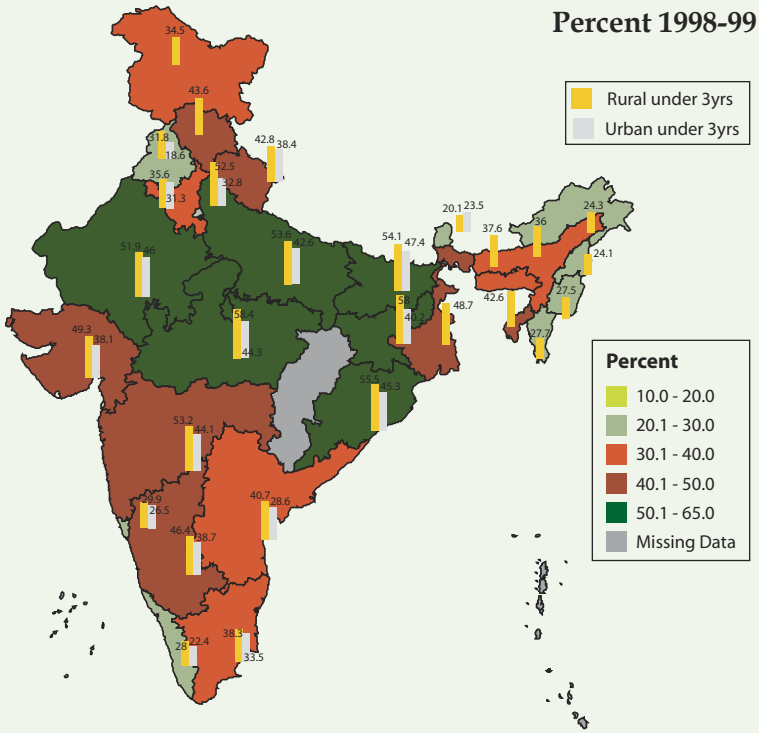
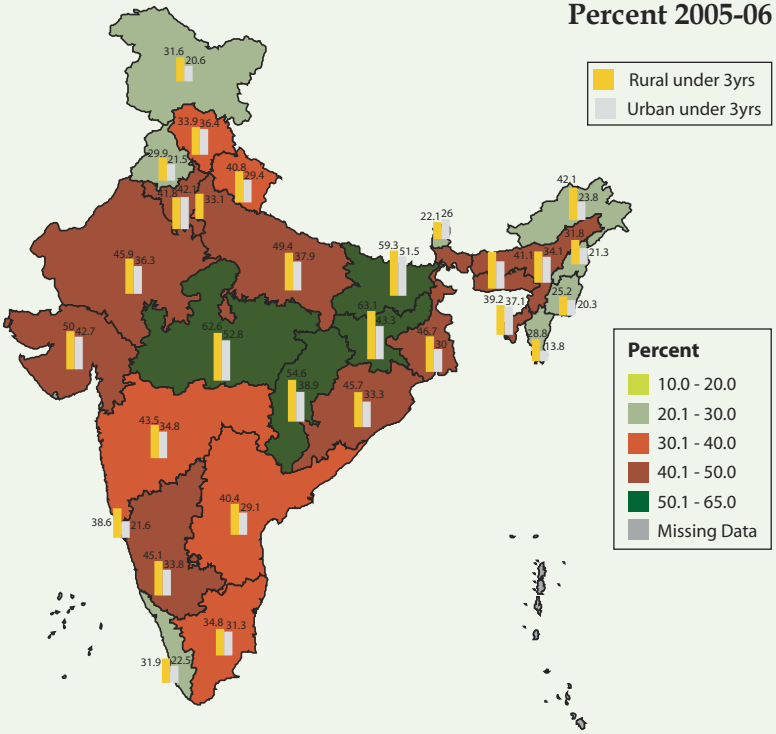


Figure 20: Prevalence of underweight (moderate and severe)

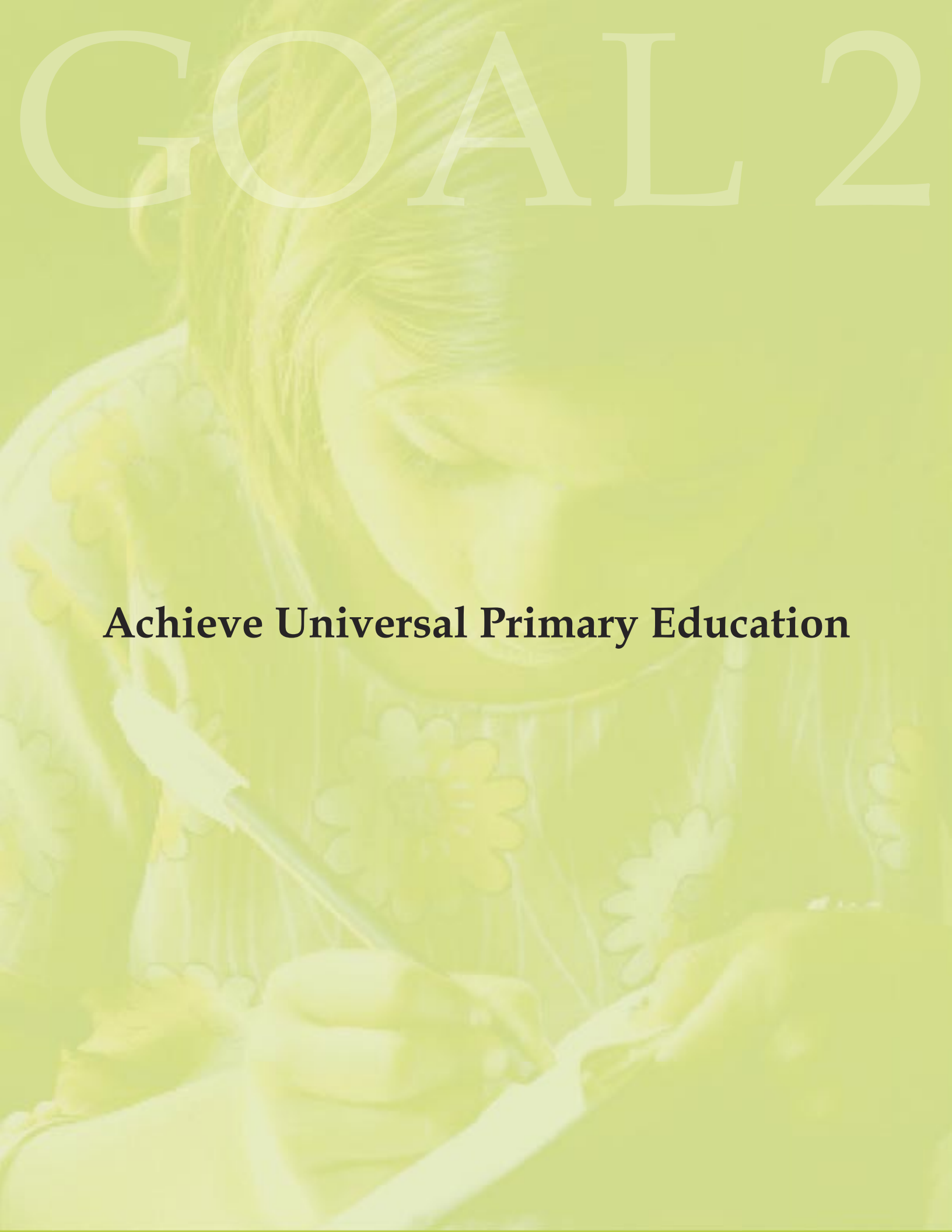


and population. Attainment of the targets by these States matters a lot for achievement of the overall target by India. The trend for Maharashtra is quite smooth over time and therefore, signifies a higher degree of dependability of the projected proportion of underweight children (< 3 years). On the other hand, Andhra Pradesh tends to move in a slightly jagged path having very little decline during 1998 and 2005 compared to the preceding period of six years.

The maps presented above for spatial depiction of the prevalence of the underweight, show that the number of States having 50-65 percentage of underweight children has come down from seven in the year 1998-99 to four in the year 2005-06, and the number of States having 40-50 percentage of underweight children has increased from 8 in the year 1998-99 to 12 in the year 2005-06. This gives a picture of slow transition in a span of seven years, which is long enough to completely replace the entire cohort population of three-year olds of 1998-99 with a new cohort in 2005-06 having a moderately better level of nutrition state.

GOAL 2

Achieve Universal Primary Education



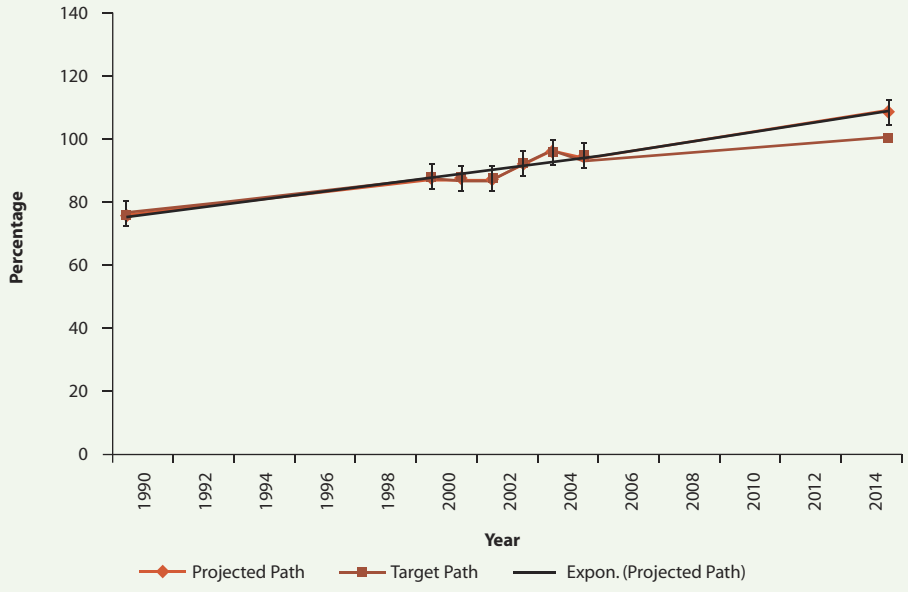
Target 3

Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

The **NER for primary grade**, which is the proportion of students of official school age of 6-11 years enrolled in Grades I-V to the population of children of age group 6-11 years, is the MDG 2 indicator for primary enrolment.

NER figures are available from District Information System on Education (DISE). These results over the years have improved in coverage and age-specific reporting of enrolment in all States. As a result, it is possible to estimate all India NER for temporal comparison.[19] Using the trend of these estimates, the NER for the year 2015 is projected. It is observed from the projected trend of NER in India that the country is likely to achieve 100% NER well before the 2015 deadline.

Figure 21: Net Enrolment Ratio (India)



[19] *On the basis of data by age collected for ISCED level 1 in a sample of 193 districts under the DISE, national level estimates (for 593 districts) were produced.*

The primary schooling NER pattern for male and female is different. The male NER tends to be flatter than female NER. India is likely to achieve therefore, 100% NER for girls, much ahead of 100% NER for boys.

As per DISE 2007-08, there has been a 13.5% increase in national NER between 2005-06 and 2007-08: from 84.53% in 2005-06 to 95.92% in 2007-08. However, total enrolment in primary classes increased from 124,625,546 in 2005-06 to 134,132,183 in 2007-08 (up by only 7.6%). Girls' enrolment in primary classes was 48.22% in 2007-08 against 47.79% in 2005-06.

Figure 22: Primary NER (Male) – India

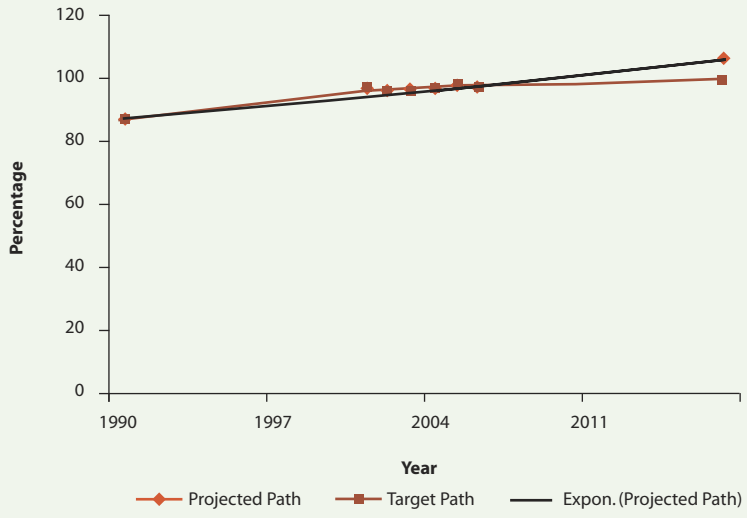
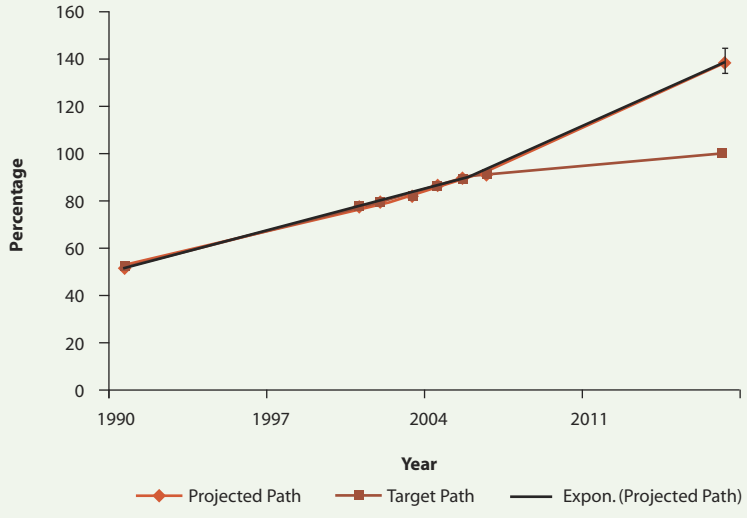


Figure 23: Primary NER (Female) – India



All Government schools together had elementary grade (Grades I-VII/VIII) enrolment percentage as high as 72.23 compared to only 27.61 in case of private schools in 2007-08. In a few States, the percentage of elementary enrolment in Government schools to total enrolment has been even higher than 90%. Jharkhand (91.07%), Tripura (92.23%), Orissa (91.46%) and Lakshadweep (90.59%) are the leading States in enrolment of elementary grade students in government schools. On the other hand, enrolment in Government schools is conspicuously low in Kerala (35.20%), Maharashtra (49.47%), Meghalaya (36.20%), Nagaland (43.84%) and Tamil Nadu (49.78%).

Annual Status of Education Report (ASER) 2008 for Rural India by and large corroborates the status by DISE data. It shows that 95.7% children of the age group 6-14 years are enrolled in schools and 4.3% are out-of-school in rural India. It is also observed that the enrolment is highest in the age group 7-10 years for both boys and girls with 2.5% boys and 3.0% girls out-of-school in this age group. In the age group 11-14 years, 5.5% boys and 7.2% girls are reported to be out-of-school with overall 6.3% out-of-school in this age group. As per administrative statistics of the Ministry of Human Resource Development (MHRD) of the Government of India, the GER for Grades I-V in India has already overshot the 100% mark and stands at 111.24 in 2006-07 with 107.84 for girls and 114.42 for boys. GER for Grades I-V unlike NER tends to exceed 100% due to enrolment of children beyond the age group 6-11 years in the primary level education. From the spatial presentation of GER for boys and girls in 2004-05, a specimen year, in the maps alongside, what is clearly evident is that in most of the States/UTs of India, GER in primary grades is very high. In 2004-05, GER in primary grades is above 90% (shaded orange and brown in the maps) in 25 States/UTs for girls and in 26 States/UTs for boys. Only a few States have GER less than 70% (shaded light green in the maps) for boys or girls and these are relatively small States. Thus, there is valid reason to believe that NER for the primary grades has also reached a near-100% level for both boys and girls.

India is likely to achieve 100% NER for girls and boys alike by 2015.

During 2007-08, as many as 9.36% children enrolled in Grades I-V dropped out from the system before completion of primary grade. The corresponding percentage during 2005-06 and 2004-05 were 8.61% and 9.96% respectively (DISE 2007-08).

The **survival rate** at primary level up to Grade V (i.e. proportion of pupils starting Grade I who reach the last grade of primary) has risen from 62% in 1999 to 81% by 2002 and declined thereafter to 73% in 2004. According to DISE 2007-08, it further dipped to 72% in 2007-08.

Figure 24: GER (Grade I-V) – Female 2004-05 (%)

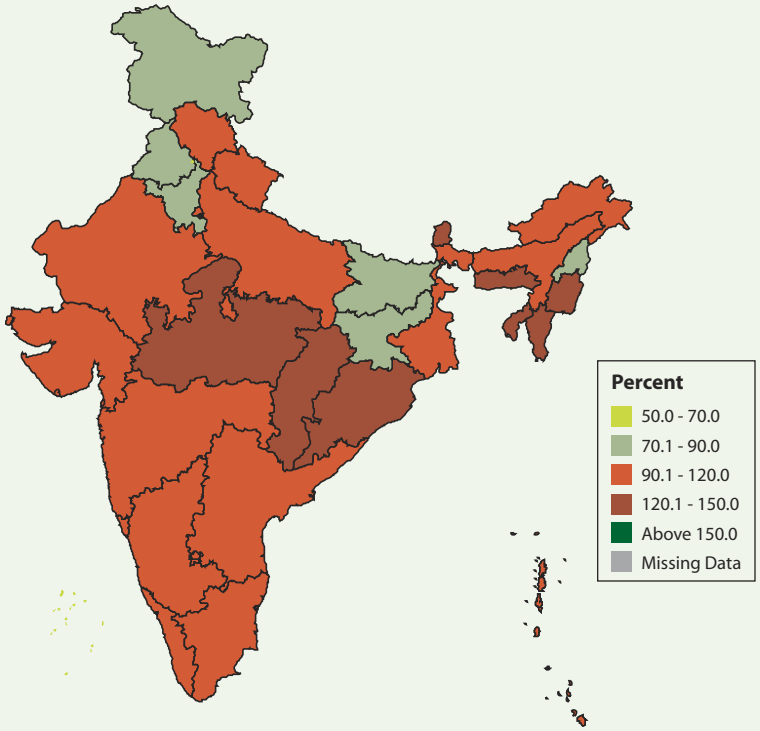


Figure 25: GER (Grade I-V) - Male 2004-05 (%)

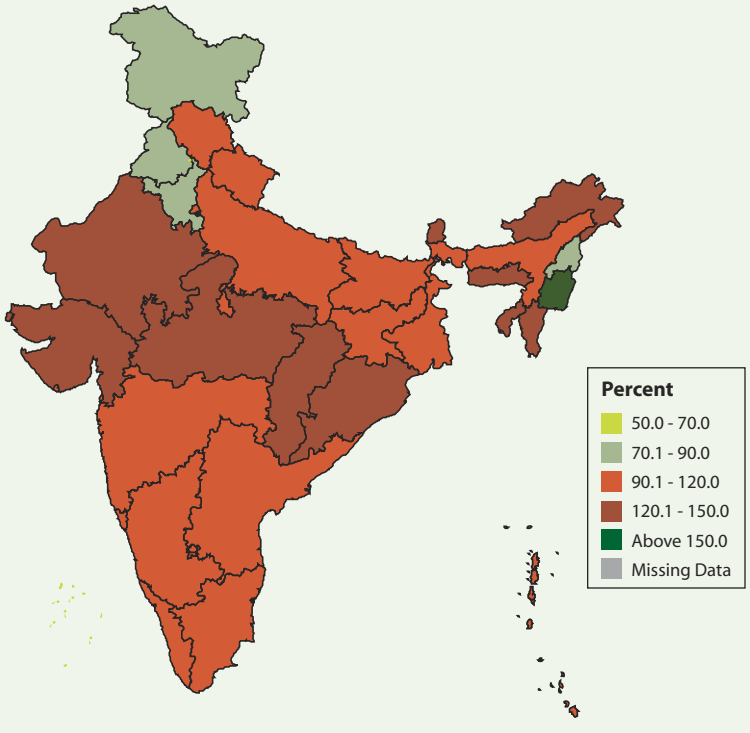


Figure 26: Proportion of pupils starting Grade 1 who reach last grade of primary education - India

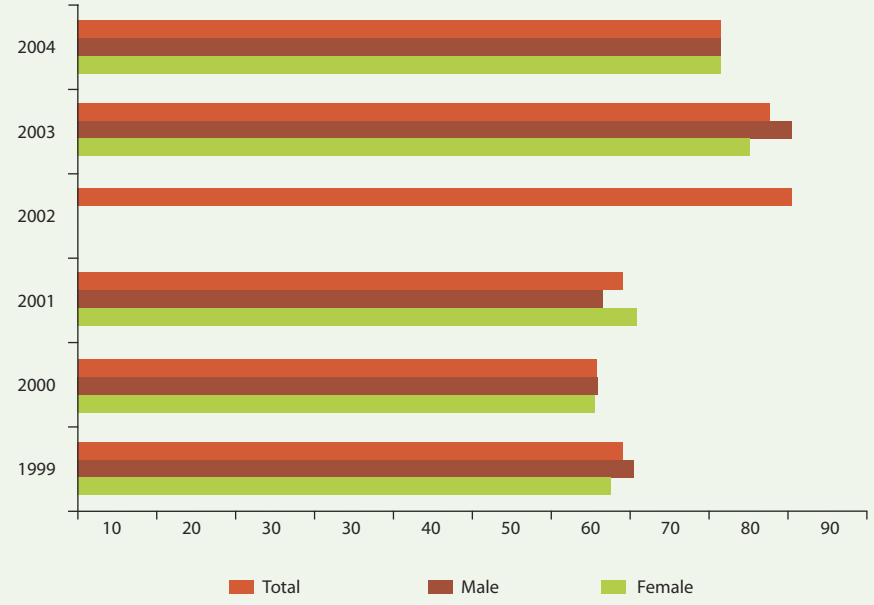
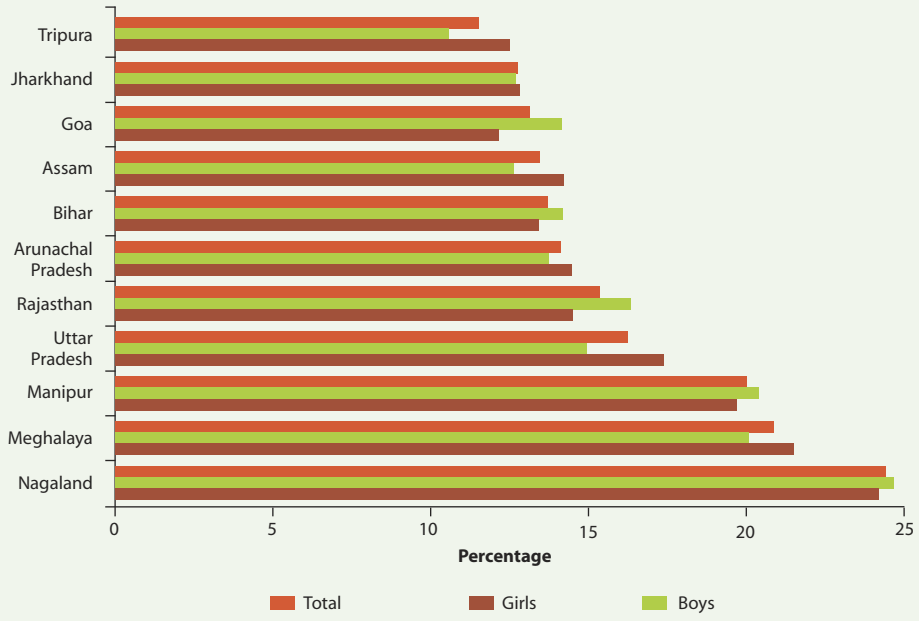


Figure 27: Dropout rate 2007-08 in selected States



Dropout rates for girls in primary grade in the States, for which they were found to be higher than the national rate for girls' dropout (9.08% in 2007-08), ranged between 24.30% for Nagaland and 11.66% in Tripura.

However, girls' dropout rates were found to be less than boys' in the States of Arunachal Pradesh, Jharkhand and Tripura.

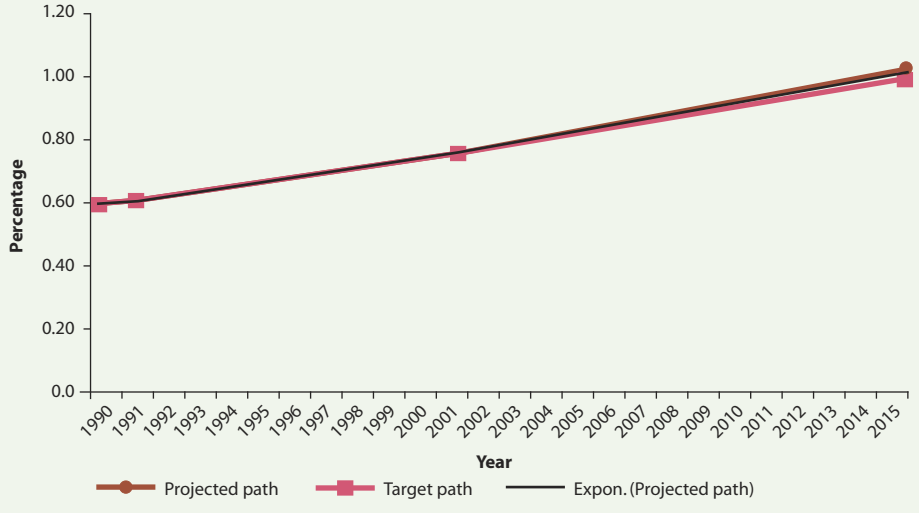
Youth Literacy

Another MDG 2 indicator for Target 3 is 'Literacy rate of the youth' or 15–24 year olds which is defined as the percentage of the population 15–24 years old who can both read and write with understanding of a short simple statement on everyday life. As per the Census of India, a person who can both read and write with understanding in any language is to be taken as literate. A person who can read but cannot write is not literate. Pupils who are visually impaired and can read in Braille are treated as literate. Literacy rate is basically computed on the basis of the Census data of the Registrar General of India (RGI) at an interval of 10 years.

Universal Youth Literacy by 2015 for both men and women alike looks plausible.

Towards achieving 100% youth literacy by 2015, the target that follows from Target 3 under MDG 2, India is well on track, going by the decennial Census data. By the trend of literacy of the 15-24 year old population, India is likely to attain 100% youth literacy by the year 2013-14. The youth literacy rate had grown by about 20 percentage points during the decade 1990-2001 despite increase on an average of 9.4% per decade during the last five decades, and the fact that during major part of the last five decades, population increased exponentially at nearly 2% per annum. With National Literacy Mission (NLM) in operation, the stepping up of the rate to scale a difference of 24 percentage points in the current decade 2001-11 should not be elusive.

Figure 28: Literacy rate (15-24 yrs) – India



Universal Youth Literacy for both men and women alike is also envisaged as a plausible proposition, given the trends that the decadal Census data is likely to follow. Compared to males', the youth literacy of females tends to move at a faster rate. Going by the trend, 100% female literacy in the age group 15-24 years is likely to be achieved by the year 2012 against males' by the year 2014.

Figure 29: Literacy rate (15-24 yrs) - Female: India

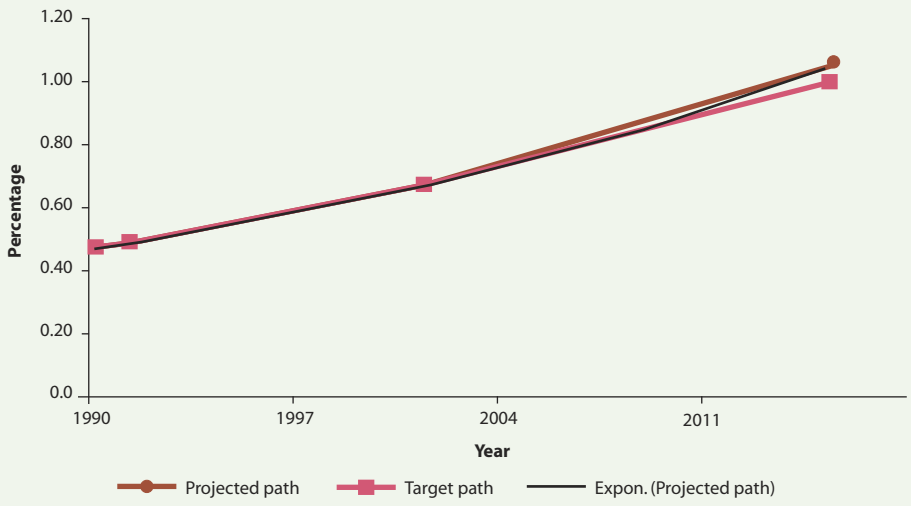


Figure 30: Literacy rate (15-24 yrs) - Male: India

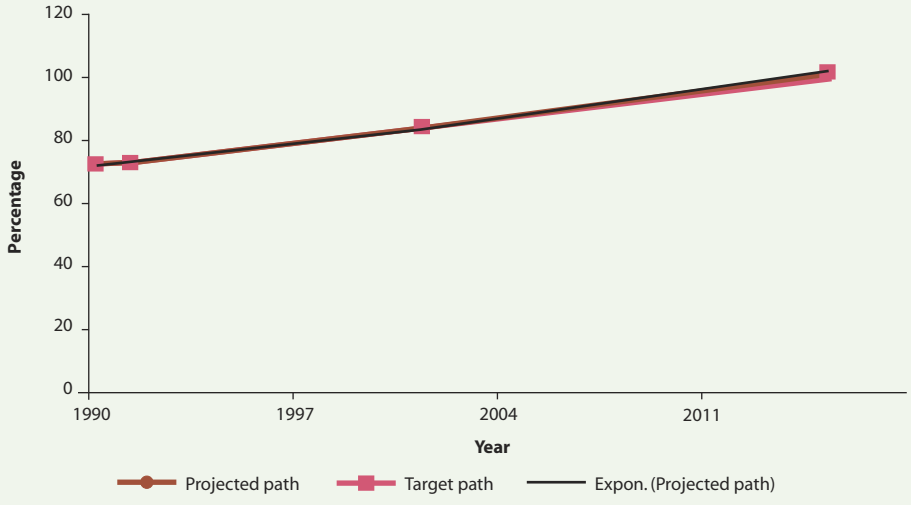
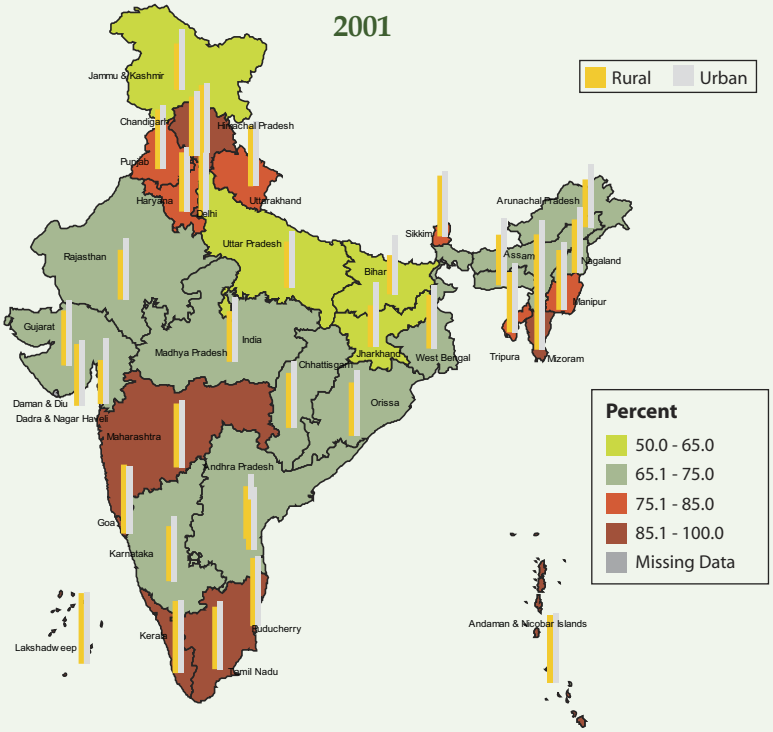
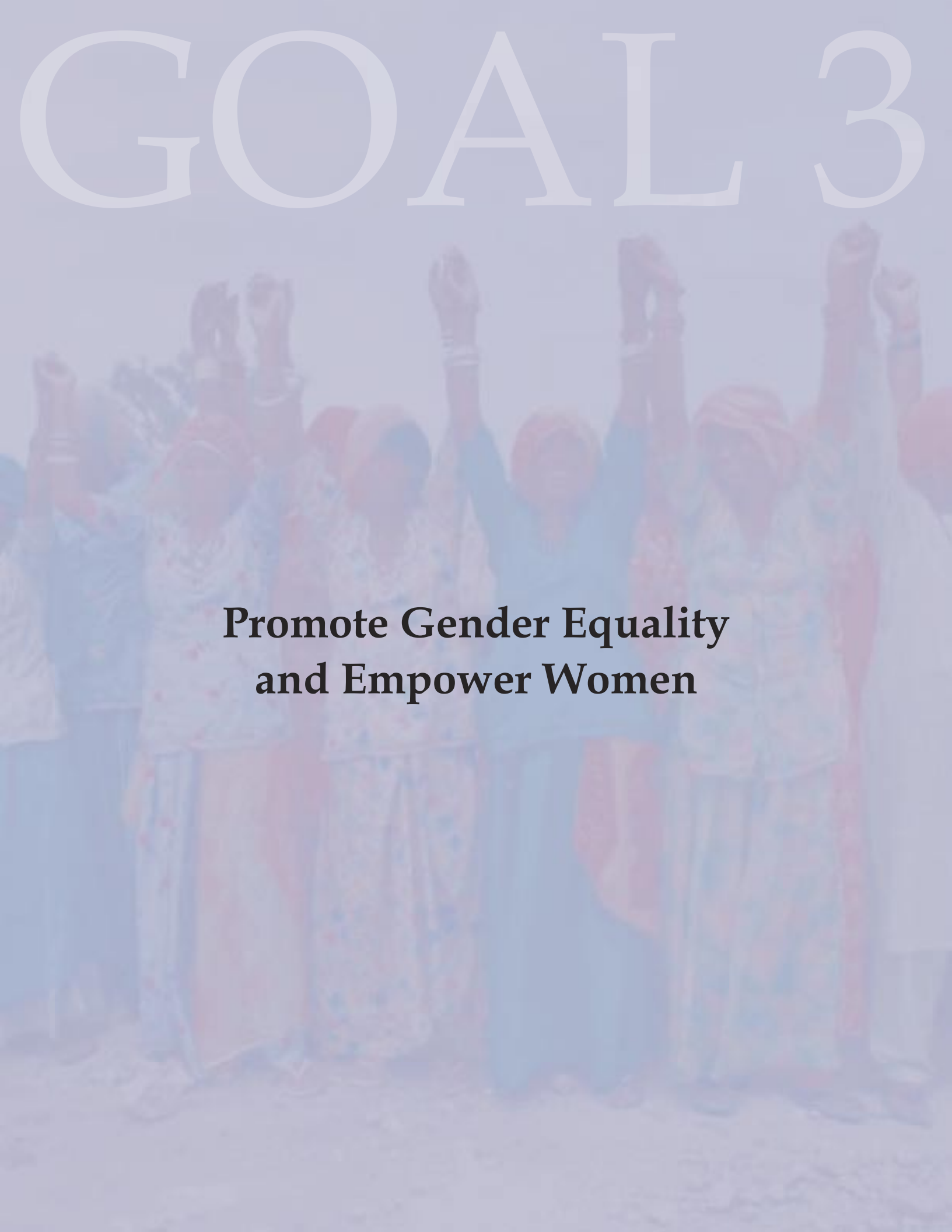


Figure 31: Literacy rate of 15-24 year olds (%)



The map above showing the spatial distribution of literacy rates of 15-24 year olds in 2001 over the States/UTs of India reveals that most parts of the country have 75% or less literates among the 15-24 year olds (shaded olive green and light green). In these parts of the country, the male-female gap in the literacy rates is also more pronounced than in other parts. The other parts (shaded orange and brown) comprising Himachal Pradesh, Uttarakhand, Punjab, Haryana, Manipur, Mizoram, Tripura, Maharashtra, Tamil Nadu, Goa and Kerala have more than 75% of the population in the age group 15-24 years literate. Out of these States, Himachal Pradesh, Maharashtra, Kerala, Tamil Nadu and Mizoram had more than 85% youths literate in 2001.

GOAL 3



Promote Gender Equality and Empower Women

Target 4

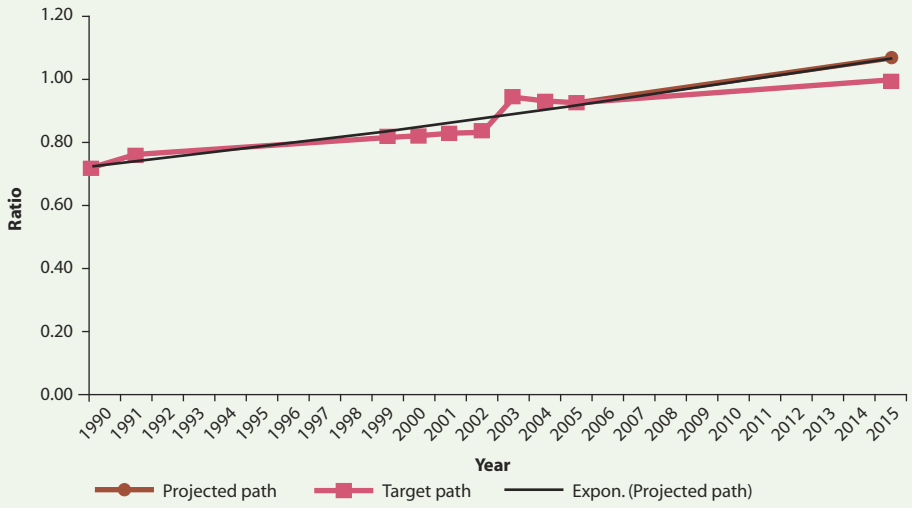
Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education, no later than 2015.

Gender Parity Index in enrolment at primary, secondary and tertiary levels is the ratio of the number of female students enrolled at primary, secondary and tertiary levels in public and private schools to the number of male students. To standardise the effects of the population structure of the appropriate age groups, the GPI of the GER for each level of education is used, i.e. GPI (GER) = GER (Female)/GER (Male). A GPI of 1 indicates parity between the sexes or no gender disparity. A GPI that varies between 0 and 1 typically means a disparity in favour of males whereas a GPI greater than 1 indicates a disparity in favour of females. Target 4 is intended to achieve GPI of 1 by 2005 for primary enrolment and by 2015 for all levels. In general, at the national level, the number of girls enrolled in all levels, i.e. primary, secondary and higher education is less than their counterparts. However, the female-male ratio in education has been steadily improving over the years. In primary education, the GPI ratio has gone up from 0.76 in 1990-91 to 0.94 in 2006-07, in secondary education the increase is from 0.60 in 1990-91 to 0.82 in 2006-07, and in higher education, it is from 0.54 to 0.70 during the same period.

The target for eliminating gender disparity in primary enrolment by 2005 has not been achieved in India. With steady increase in GER of both boys and girls in primary grades over the last decade, India attained a reasonably high GPI (GER) for primary enrolment (0.94) by 2006-07. Compared to female-male enrolment in primary education of 0.88 in 2006-07, the GPI gives a better gender parity in favour of girls in the year 2006-07. This is also indicative of on-track progress to eliminate gender disparity in primary level enrolment by the year 2015. In fact, if the trend is maintained and gross enrolment of girls continues increasing at the same pace as it has been in the last one decade, then it is all the more likely that a gender disparity in favour of girls may arise by the year 2015. However, the ups and downs in primary level GPI observed during 1999-2005 are likely to recur in the years to come.

Simple ratio of the number of female students enrolled at primary, secondary and tertiary levels in public and private schools to the number of male students, which was the prescribed indicator for this target, reflects the sex structure of the school age population. When the sex ratio in the school age population deviates significantly from 1, the indicator will not adequately reflect the actual difference between girls' and boys' enrolment. GPI (GER) is a better indicator in this respect and global and regional monitoring by the UN is now based on this indicator.

Figure 32: GPI in primary level enrolment



Trends show gender parity in primary and secondary levels of educations can be attained by 2015.

Secondary level GPI was 0.82 and tertiary level GPI was 0.69 in 2006-07. The observed trend of GPI in the secondary level of enrolment is also suggestive of India's attaining gender parity in secondary level enrolment by 2015. The trend is however, quite sluggish in case of tertiary level enrolment, where a rise of only 0.04 is expected in the GPI level during 2005-15 compared to an expected rise of about 0.20 in the secondary level GPI during the same period.

Figure 33: GPI in secondary level enrolment

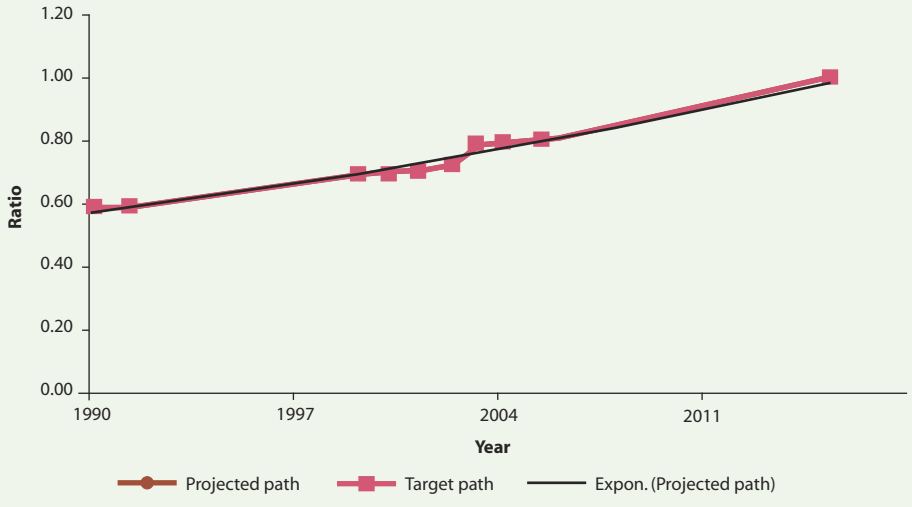
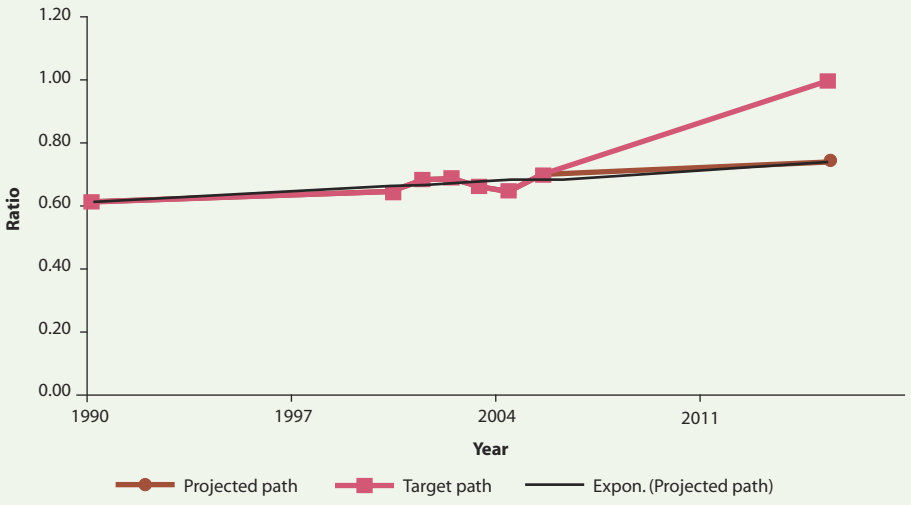


Figure 34: GPI in tertiary level enrolment



The observed GPI based on DISE 2007-08 report shows GPI for primary level to be 0.93 in 2006-07 and 2007-08, GPI for upper primary classes to be 0.87 in 2006-07 and 0.89 in 2007-08. These observed figures suggest on-track movement of the indicator for attaining the 2015 target. GPI at primary, secondary and tertiary levels in selected States where the primary level GPI is lower than the corresponding national GPI in 2006-07 (Fig. 35) shows Secondary and/or, Tertiary level GPI more than Primary level GPI in Gujarat, Puducherry, Daman & Diu and Chandigarh.

Figure 35: GPI (2006-07)

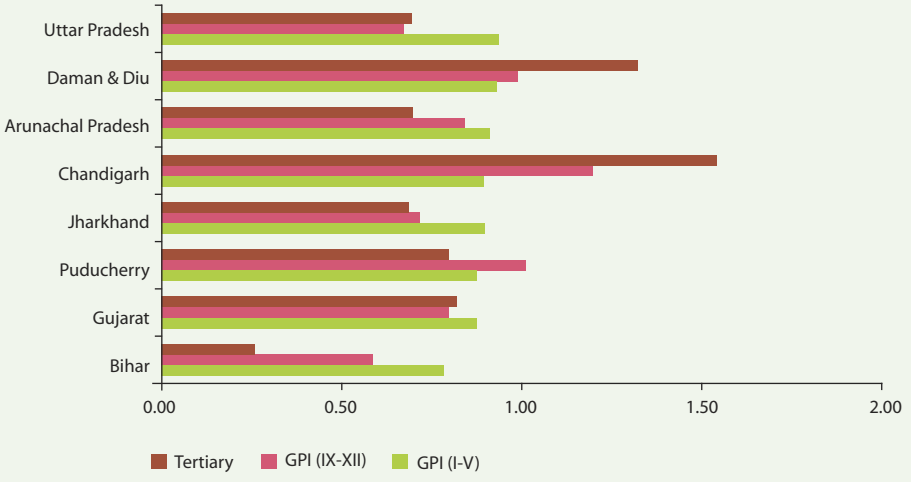
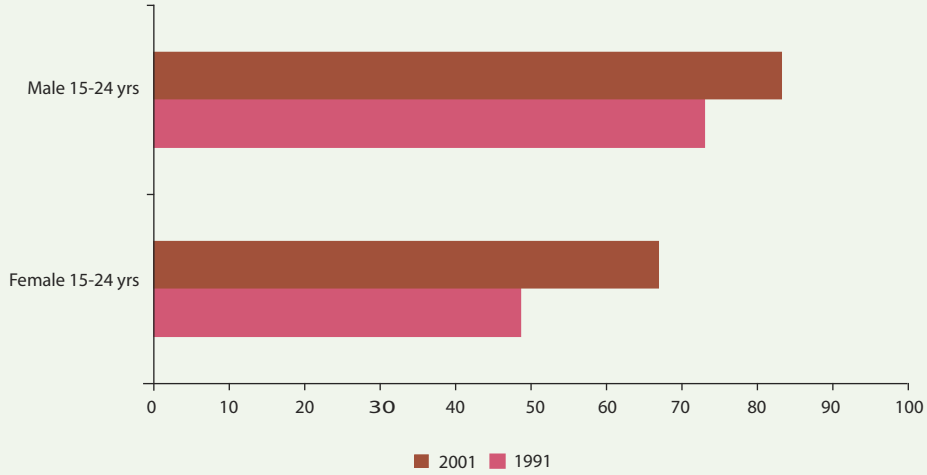


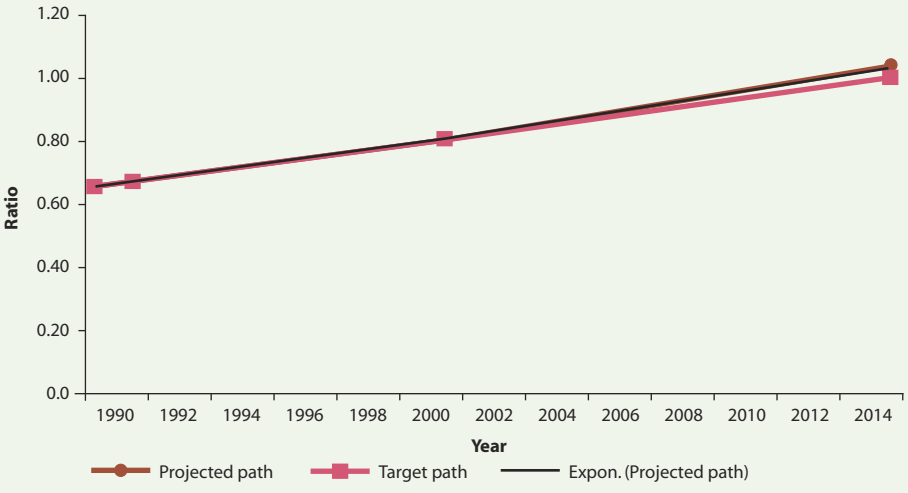
Figure 36: Literacy rate of 15-24 year olds (India)



Another indicator for Target 4 under MDG 3 is ***the ratio of literate women to men, 15-24 years old*** (literacy GPI) which is defined as the ratio of the female literacy rate to the male literacy rate for the age group 15-24 years.

The ratio of literate women to men in the age group 15-24 years tends to exceed 1 by 2015, implying attainment of gender parity in literacy by 2015. It also signifies a presumed outcome of attending school and indicates empowerment of women in the society. This attainment along with the

Figure 37: Ratio of literate women to men, 15-24 years



attainment of gender parity in primary, secondary and tertiary levels of education can be a major gain for women in acquiring access to wider world of learning and development of skills, economic independence, authority of decision making and self-determination.

Empowerment of Women

The third important indicator for Target 4 under MDG 3 is ***Share of Women in Wage Employment In the Non-Agricultural Sector***, which 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 of the labour market and therefore, the economy's ability to adapt to change.

The indicator value can hardly be translated into a quantifiable target in linkage with achieving the overall target of universalisation of gender equality in primary, secondary and tertiary enrolment by 2015. It is a matter of lag in time to get the full effect of gender equity in education on women's participation in the labour markets of industry and services. So, a 50:50 share between men and women in wage employment in the non-agricultural sector cannot be taken as a target for this indicator to be achieved by 2015. The rate of change over time in India in respect of the share of women in wage employment in the non-agricultural sector is rather slow – about two percentage points over a period of five years in the recent past. It is projected that at this rate of progression, the share of women in wage employment can at best reach a level of about 24% by 2015. Labour markets in industry and services sectors in India are heavily 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.

Share of women in wage employment in the non-agricultural sector is likely to reach only 24% by 2015.

India is the first country where, since independence, women have the right to vote to elect representatives for the National Parliament as well as State Assemblies. The women have equal right to contest any election subject to the fulfillment of other eligibility conditions.

So far, 15 General Elections have been held for the Lok Sabha. The percentage of lady parliamentarians fluctuates between 8 and 12% in these elections. In the current Lok Sabha (as of 27/1/2010), there are 59 (10.8%) women Members out of 545. As of 27/1/2010, there are 21 women Members (9.0%) out of 234 in the Rajya Sabha. Overall percentage of lady parliamentarians stands at 10.3%.

Figure 38: Share of women in wage employment in non-agricultural sector

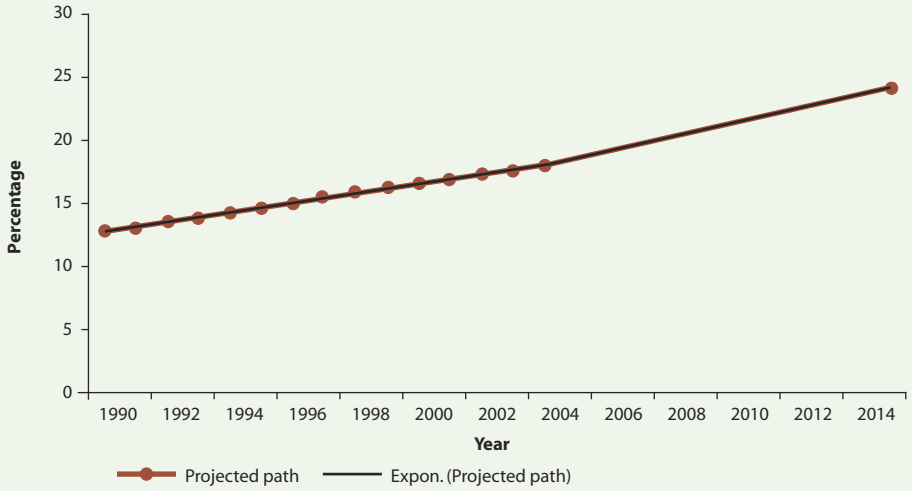
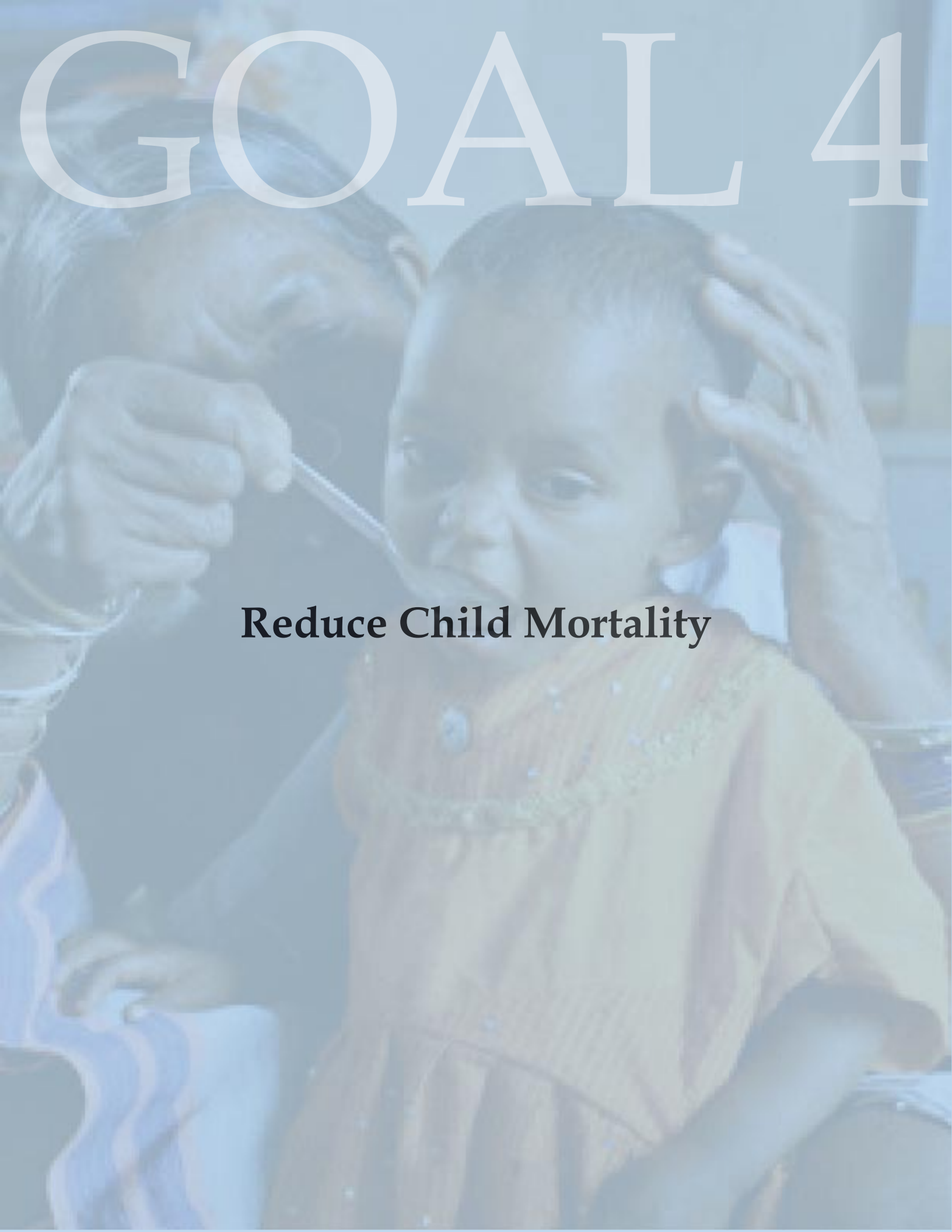


Table 4: Proportion of seats held by women in National Parliament

Reference year	Unit	Value			%
		Lok Sabha	Rajya Sabha	Total	
1991	No.			77 of 789	9.7
1999	No.	52 of 544			9.6
2004	No.	45 of 544	28 of 250	73 of 794	9.2
2007	No.	47 of 544	25 of 250	72 of 794	9.1
2009	No.	59 of 545	21 of 234	80 of 779	10.3

GOAL 4



Reduce Child Mortality

Target 5

Reduce by two-thirds, between 1990 and 2015, the Under-Five Mortality Rate

The ***Under-Five Mortality Rate*** (U5MR) is the probability (expressed as a rate per 1000 live births) of a child born in a specified year dying before reaching the age of five if subjected to current age specific mortality rates. U5MR at national level has declined during the last decade. For the purpose of projecting the trend of U5MR, the estimates from the NFHS-I, II and III for the years 1992-93, 1998-99 and 2005-06 respectively have been considered along with the Abridged Life Table based estimates of U5MR produced by the office of RGI. The one-third of 1990 U5MR at the national level, which will have to be achieved by 2015, is nearly 42 per '000 live births. The trend for projecting estimates for 2015 suggests India is likely to fall short of the U5MR level of 42 by about 28 percentage points. By UNSD estimates based on country adjusted data, the shortfall is likely to be less, of the order of 12 percentage points only. The observed U5MR by NFHS-III for 2005-06 is 74.6 per '000 live births, and the projected measure for 2015 is about 70 per '000 live births.

Under-five mortality, going by the present trend, can come down to nearly 70 per thousand live births by 2015 against the target of 42 per thousand live births.

Figure 39: U5MR–India from country estimates

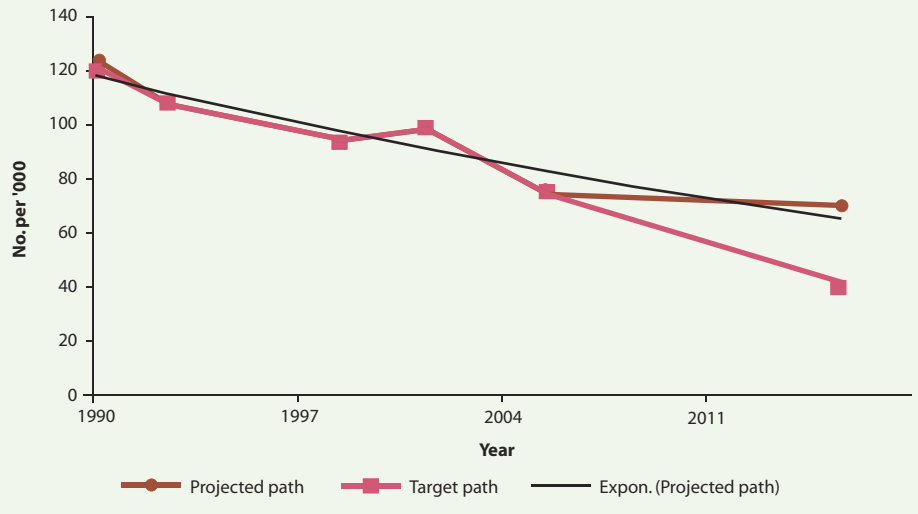
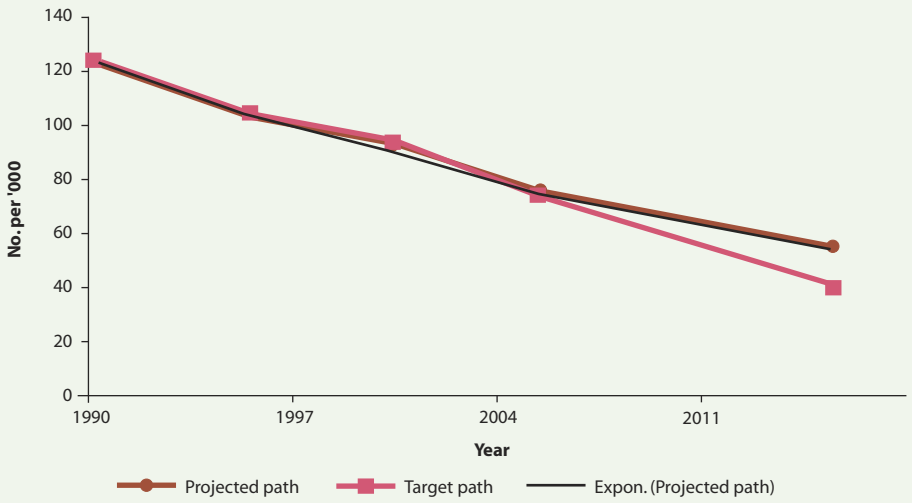


Figure 40: U5MR–India from UNSD estimates



U5MR is higher than the national average in the States of Assam, Bihar, MP, Orissa, Rajasthan and Uttar Pradesh in respect of rural, urban and combined estimates and also for both boy child and girl child when corresponding values at national level as per Abridged Life Table based estimates for 1998-2003 are compared with. Over the time, on the other hand, the observed decline in the national estimate is more for boy child than for girl child. Whereas in case of girl children, the U5MR has come down from 131.9 per thousand during 1988-92 to 108.9 per thousand during 1998-2003, for boy children it declined from 118.8 per thousand to 91.2 per thousand during the corresponding periods. Perceptible decline in the rate has taken place in rural areas as compared to urban part of the country.

In all the States stated above, the 2005-06 U5MR is in the range of 80-100, down from above 120-level for most of these States in 1992-93. Six States out of all the 30 States (other than the UTs) namely, Goa, Haryana, J&K, Kerala, Sikkim and Tamil Nadu, are clearly on fast track towards achieving their respective targets and are likely to be EA. Delhi, Gujarat, Himachal Pradesh and Tripura, which are projected to have less than four percentage

Figure 41: U5MR 1992-93: Deaths per 1000 live births

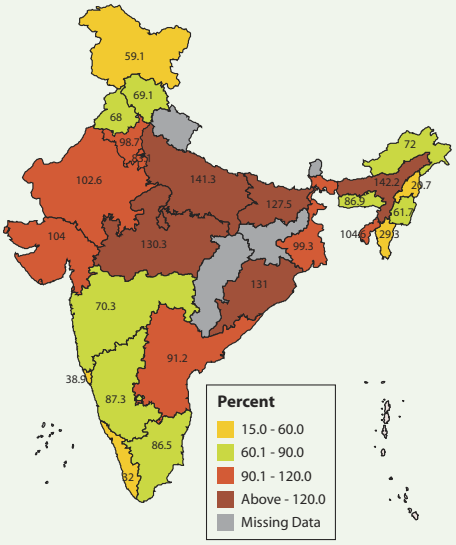


Figure 42: U5MR 1998-99: Deaths per 1000 live births

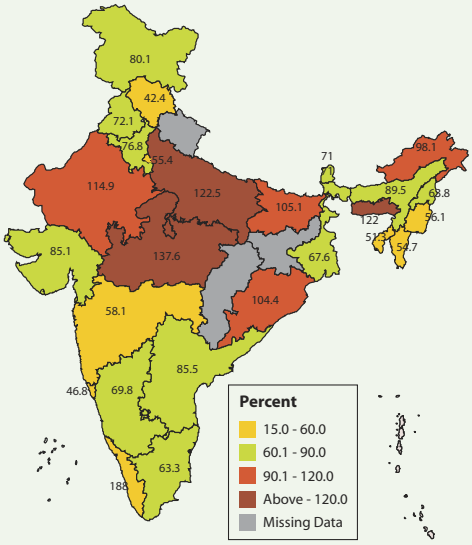
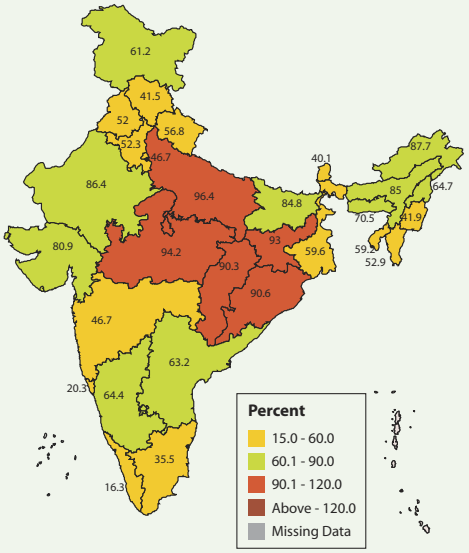


Figure 43: U5MR 2005-06: Deaths per 1000 live births



higher U5MR in the year 2015 can however, be regarded as just on-track. All other States tend to be on slow track with reference to their estimated U5MR in 1990.

From the maps given above, it is clear that States have changed shades from 'brown to olive green' over the years from 1992-93 to 2005-06, signifying considerable improvement in the mortality situation of children under five years of age. From only four States, which had U5MR less than 60 in 1992-93, the number of States with less than 60 U5MR increased to 15 by 2005-06. The States which had U5MR of less than 60 per 1000 live births in 2005-06 are Delhi, Goa, Haryana, Himachal Pradesh, J&K, Karnataka, Kerala, Maharashtra, Manipur, Mizoram, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand and West Bengal. A faster decline in the national U5MR will depend on very rapid decline in those States, which are the larger ones and more populous and are also comparatively lagging in other MDG targets.

Figure 44: U5MR Himachal Pradesh

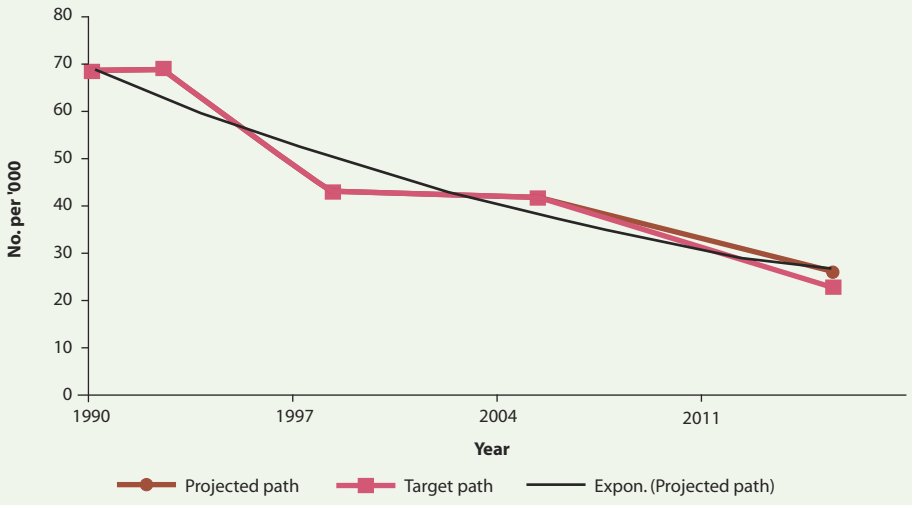


Figure 45: U5MR J&K

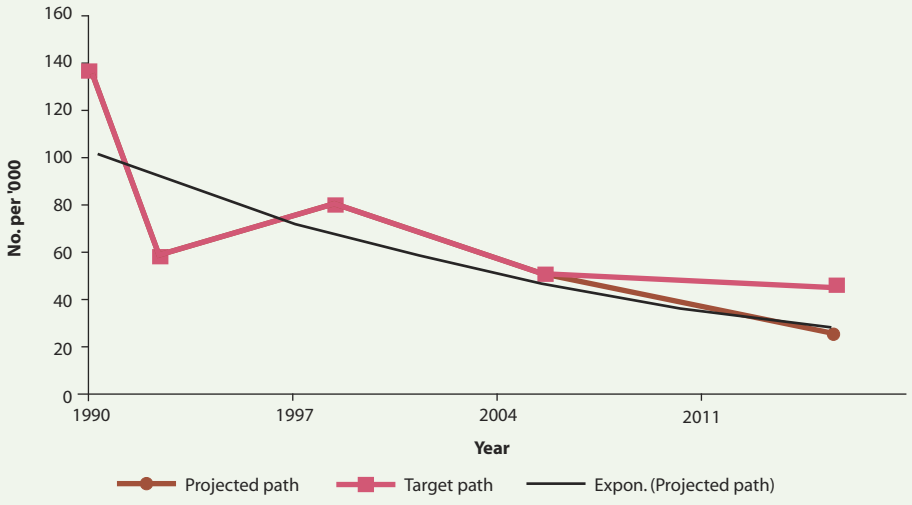


Figure 46: U5MR Karnataka

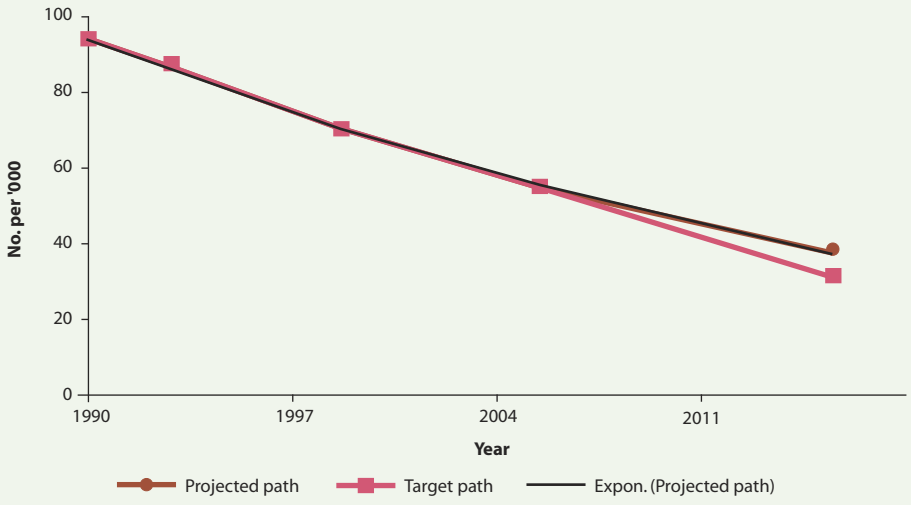
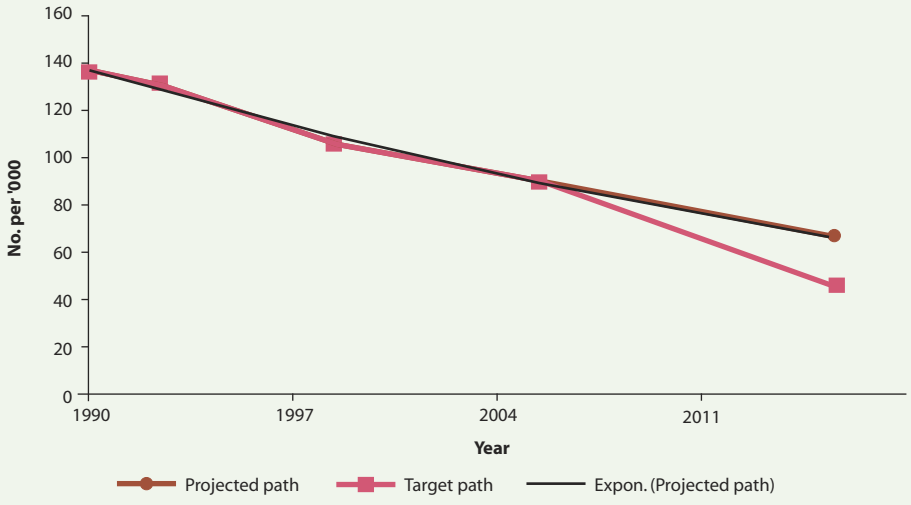


Figure 47: U5MR Orissa



Child mortality (the probability of children dying between the first and fifth birthdays and expressed as deaths per 1000 live births) has strong bearing on U5MR in the same way as IMR has. The pattern of changes in Child mortality and IMR are therefore, both valid co-variants of U5MR and their distribution over the States of India needs to be analysed separately in their own rights. However, MDG 4 under Target 5 includes only IMR for tracking apart from U5MR. Data on child mortality for different States being available for the years 1998-99 and 2005-06, the maps showing the levels of child mortality in 29 States of the country (other than the UTs) present spatial changes in child mortality during a period of seven years in the current decade . The three States, viz. Chhattisgarh, Jharkhand and Uttarakhand, which have been formed after 1998-99, from the States of Madhya Pradesh, Bihar and Uttar Pradesh respectively, are among those for which data are not available in 1998-99. Assuming their child mortality levels as same as their parent States in 1998-99 (which is the case observed in 2005-06), there are 22 States having child mortality in the range of 15-45 per 1000 live births in 1998-99. This number has declined to 13 in 2005-06, all of which being in the range 15-30 per 1000 live births and none above 30. The number of States having child mortality of 15 or less per 1000 live births increased from 5 in 1998-99 to 16 in 2005-06. This shows considerable reduction in the child mortality situation in India across the board.

Figure 48: Child Mortality Rate 1998-99

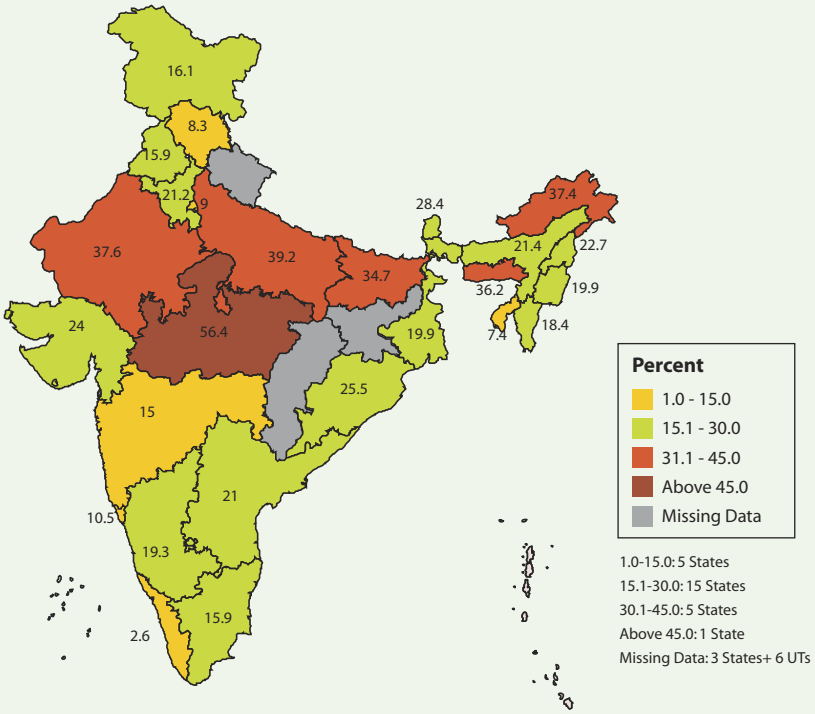
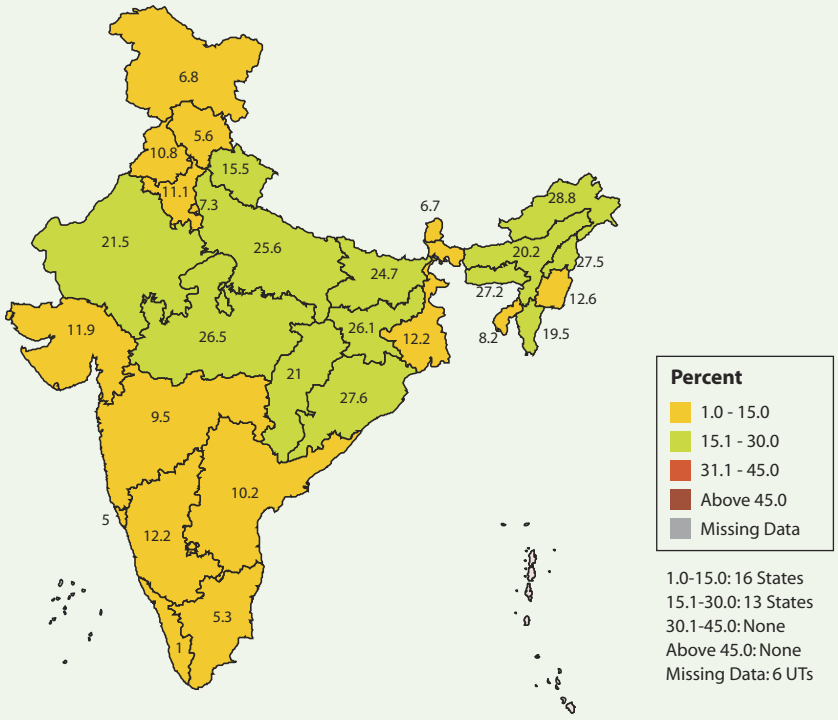


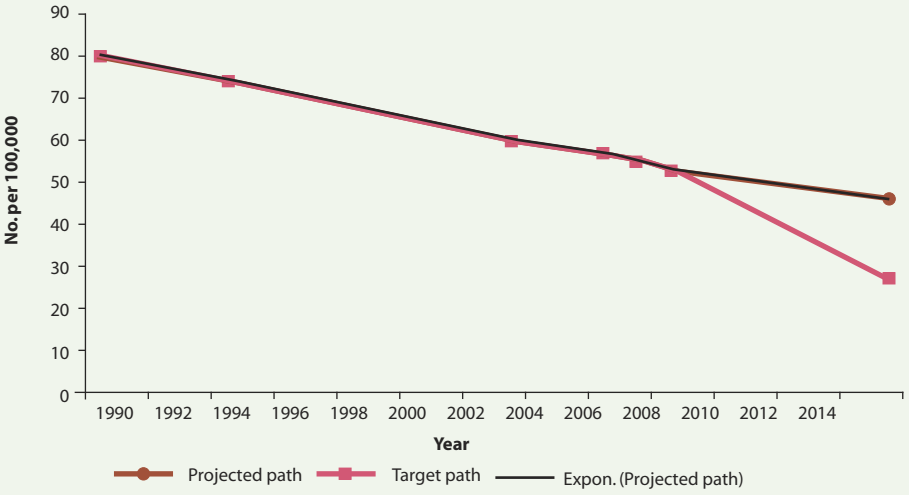
Figure 49: Child Mortality Rate 2005-06



Infant Mortality Rate (IMR)

The number of infant deaths in less than a year of births per 1000 live births is referred to as IMR. Data is expressed as number of deaths per 1000 live births. The country has observed a continuous decline in IMR. It stood at 192 during 1971, 114 in the year 1980, 57 in 2006 and 53 in 2008. The decline in IMR has been noticed both for male and female during the period. However, the rate of decline is more pronounced in the case of male as compared to female.

Figure 50: IMR – India Trend



	1990	1994	2003	2006	2007	2008	2015
Projected path	80	74	60	57	55	53	45.92
Target path	80	74	60	57	55	53	26.67

With reference to the base year (1990) IMR value of 80 per 1000 live births, India has to reduce the IMR to 26.7 per 1000 live births by 2015. At the rate of decline experienced during 1990 to 2007, India's IMR is likely to come down to about 46 per 1000 live births. Thus, the target for IMR is not likely to be achieved unless comprehensive improvement in infant mortality takes place in the particularly lagging States and with respect to neonatal deaths. Early neonatal deaths (deaths occurring to newborns within seven days of life) constitute as high as 51.6% of total number of infant deaths in 2007. The share of neonatal deaths (deaths occurring to infants within the first month of life) is 65.5% of total number of infant deaths in 2007. Incidence of early neonatal deaths during 2001-07 in some States, viz. Chhattisgarh, Madhya Pradesh, Rajasthan, Uttar Pradesh and Orissa has not declined and for a few of them is on the rise. On the whole, infancy deaths constitute 17.2% of total deaths in 2007.

Table 5: Early neonatal mortality rate in selected States

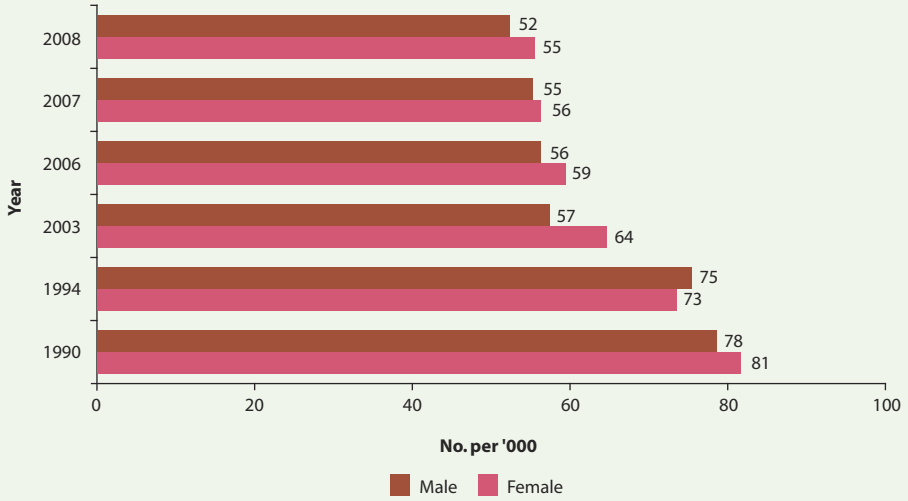
Deaths per 1000 live births

Area name	Sub-group	2001	2004	2006	2007
Chhattisgarh	Total		37	36	36
	Rural		37	37	37
	Urban		34	28	26
Jammu & Kashmir	Total		23	30	31
	Rural		25	32	34
	Urban		16	18	16
Madhya Pradesh	Total	34	33	40	38
	Rural	37	35	42	40
	Urban	18	24	31	29
Orissa	Total	45	36	38	37
	Rural	48	38	41	40
	Urban	16	17	15	17
Rajasthan	Total	30	32	33	34
	Rural	32	36	38	39
	Urban	20	19	15	17
Uttar Pradesh	Total	30	32	35	36
	Rural	32	35	38	40
	Urban	19	15	18	20

Early neonatal deaths (deaths occurring to newborns within seven days of life) constitute as high as 51.6% of total number of infant deaths in 2007. Reducing IMR heavily depends on arresting neonatal mortality.

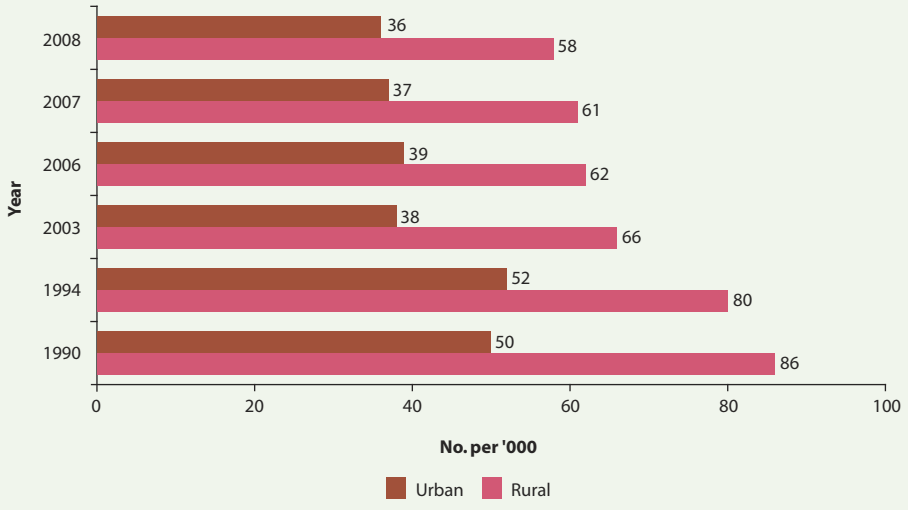
IMR for infant girls is consistently higher than IMR of infant boys in India, except in a few years over the last three decades. The IMR (girls) has however, experienced greater decline than IMR (boys) over the last two decades, the decline being from 81 per 1000 live births in 1990 to 55 per 1000 live births in 2008 for infant girls and from 78 per 1000 live births in 1990 to 52 per 1000 live births in 2008 for infant boys. Even with this bigger decline for IMR (female), IMR (female) tends to reach 48.4 per 1000 live births in 2015 whereas IMR (male) tends to reach 45.4 per 1000 live births in 2015. This implies that the existing gap between the mortality of female and male infants will tend to persist, with infant girls at higher mortality risk than infant boys. This is contrary to the universality of higher mortality risk for male infants compared to female infants.

Figure 51: IMR - Male-Female Gap (All India)



The rural-urban gap in IMR is quite substantial. From a gap of 36 points in 1990 (86 per 1000 live births for rural and 50 per 1000 live births for urban), the gap has reduced to 22 points in 2008 (58 per 1000 live births for rural and 36 per 1000 live births for urban). The decline in rural IMR from 86 per 1000 live births in 1990 to 58 per 1000 live births in 2008 signifies a drop of 26 points against a decline in urban IMR by 14 points (from 50 to 36 per

Figure 52: IMR - Rural–Urban Gap (All India)



1000 live births). Rural IMR tends to reach 51 per 1000 live births by 2015 going at the existing rate of decline. On the other hand, urban IMR tends to reach 30 per 1000 live births by 2015. In order that India achieves its overall IMR target by 2015, rural IMR is required to decline to 28.7 per 1000 live births in 2015 and urban IMR to 16.7 per 1000 live births.

The rural-urban gap is also very pronounced in the IMR (female) and IMR (male). IMR for rural girls is 60 per 1000 live births as compared to 38 for urban girls in 2008. IMR for rural boys is 57 per 1000 live births as compared to 34 for urban boys in 2008.

Only the North-Eastern States of Arunachal Pradesh and Manipur are on fast track and are likely to achieve their targets before 2015. Among the other States, which are all slow at achieving their respective targets, the States of Goa, Kerala, Maharashtra, Sikkim, Tamil Nadu and West Bengal have less than 10 point difference from their 2015 target value of IMR. With increment of 1 in the annual rate of decline since 2008, these States would likely be on track to achieve their IMR targets.

In 2007, the range of IMR varied from 13 in Kerala to 72 in Madhya Pradesh. Among all the bigger States, female infants experienced higher mortality than male infants except in Delhi and Madhya Pradesh.

The average IMR during 2005-07 as compared to average IMR during 1995-97 shows 21.5% decline at national level. During this period, the percentage decline is maximum in West Bengal (32.8%) followed by Tamil Nadu (32.0%), Maharashtra (30.1%), Madhya Pradesh (26.7%) and Orissa (25.7%). There is an increase in average IMR by 2.9% in Kerala during the same period due to increase in urban IMR by 12.8%. Kerala incidentally has the lowest IMR level (12 per 1000 live births) among all the States in 2008 against 16 per 1000 live births in 1990.

Figure 53: IMR Arunachal Pradesh

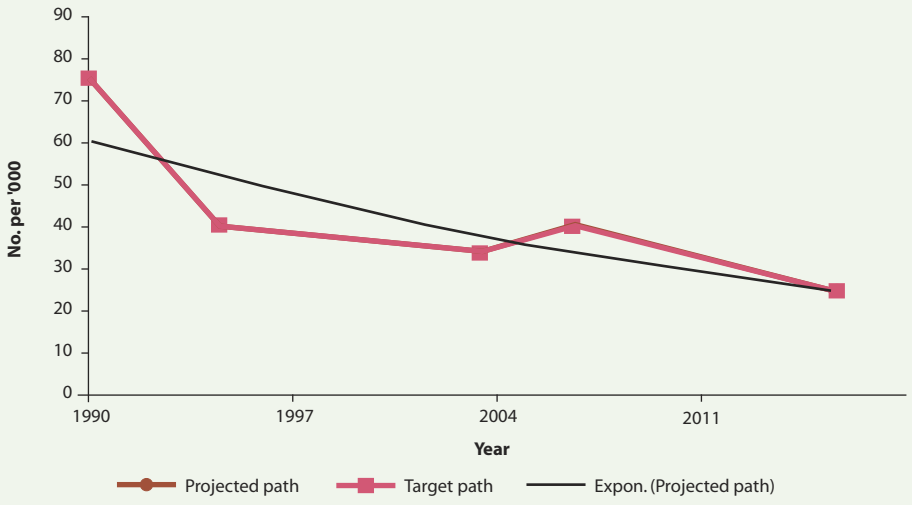


Figure 54: IMR Maharashtra

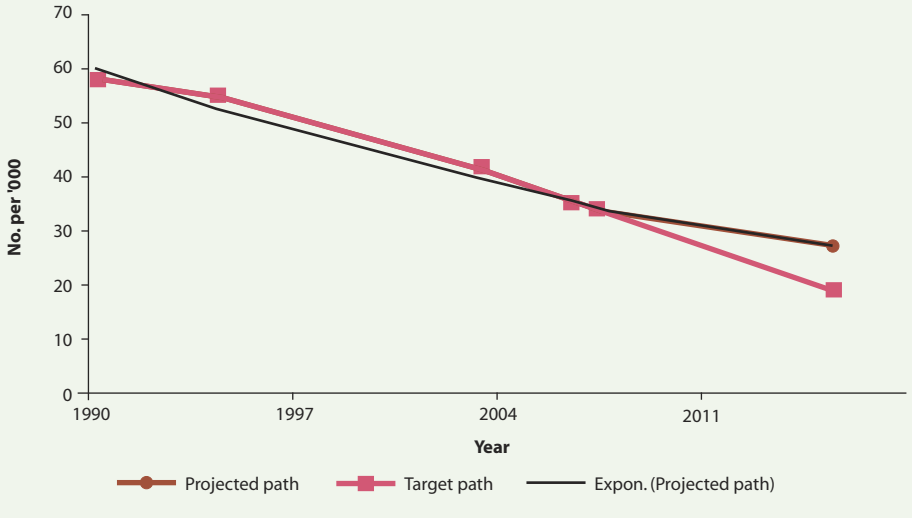


Figure 55: IMR Punjab

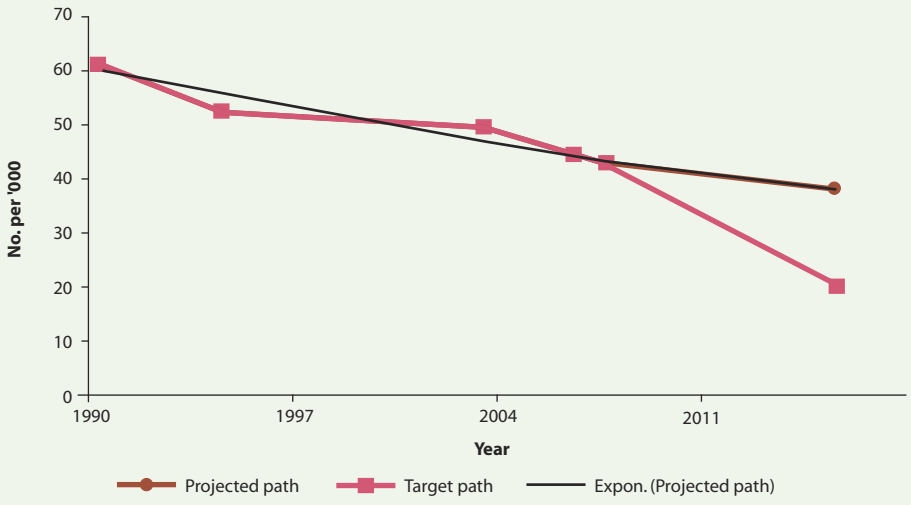


Figure 56: IMR Tamil Nadu

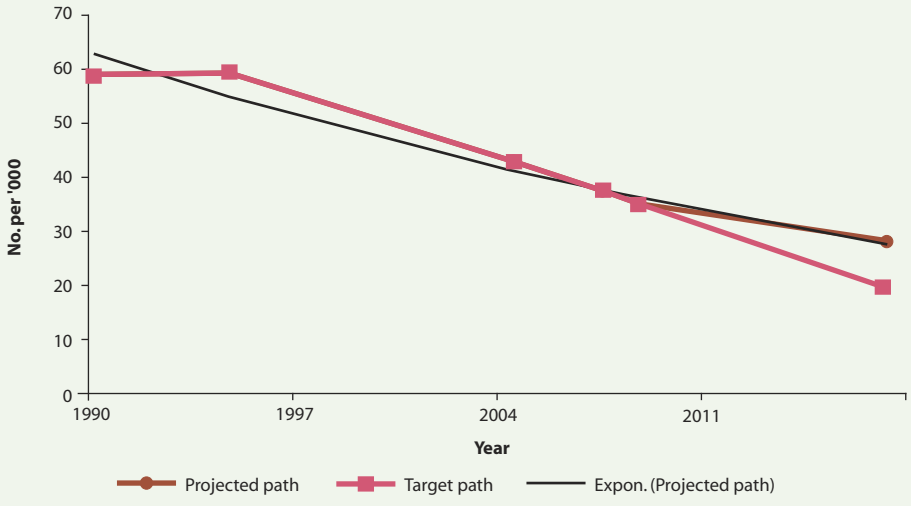


Figure 57: IMR 2001-Male

Deaths per 1000 live births

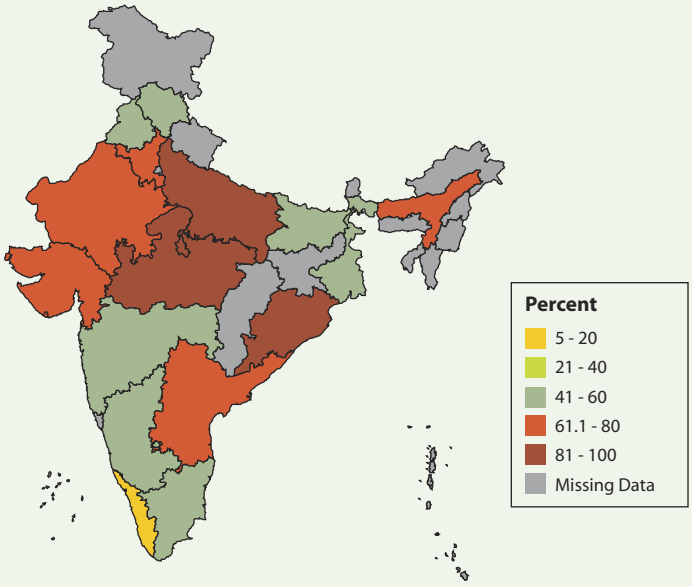


Figure 58: IMR 2001-Female

Deaths per 1000 live births

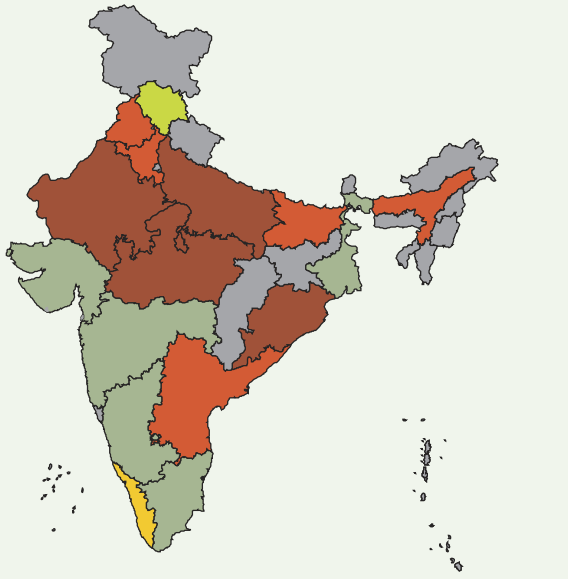


Figure 59: IMR 2006-Male

Deaths per 1000 live births

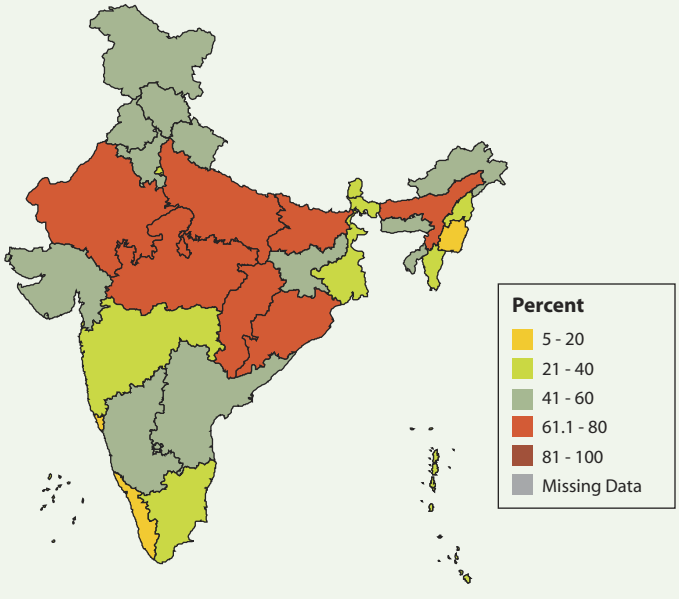
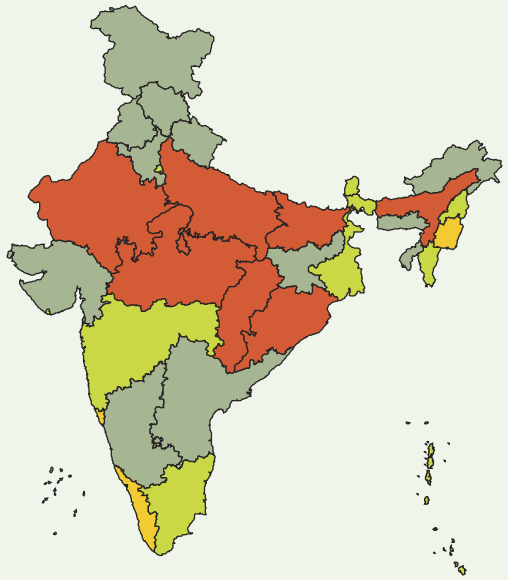


Figure 60: IMR 2006-Female

Deaths per 1000 live births



Change in mortality of male infants
- No State in over 80 group in 2006 against 3+ in 2001
- 3 States in less than 20 group in 2006 against 1 in 2001
- 5 States in 61-80 group in 2006 against 6 in 2001
- 7 States in 21-40 group in 2006 against none in 2001

Change in mortality of female infants
- No State in over 80 group in 2006 against 4 in 2001
- 2 States in less than 20 group in 2006 against 1 in 2001
- 7 States in 61-80 group in 2006 against 6+ in 2001
- 6 States in 21-40 group in 2006 against 1 in 2001

Figure 61: IMR 2001-Rural

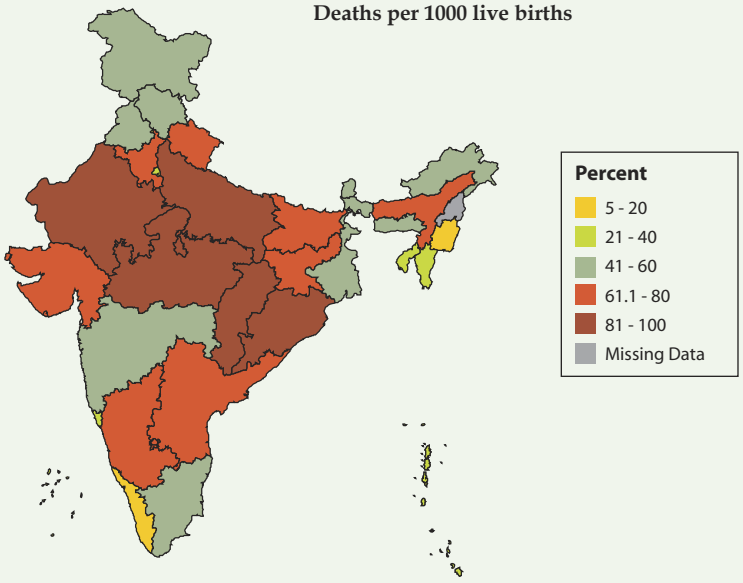


Figure 62: IMR 2001 - Urban

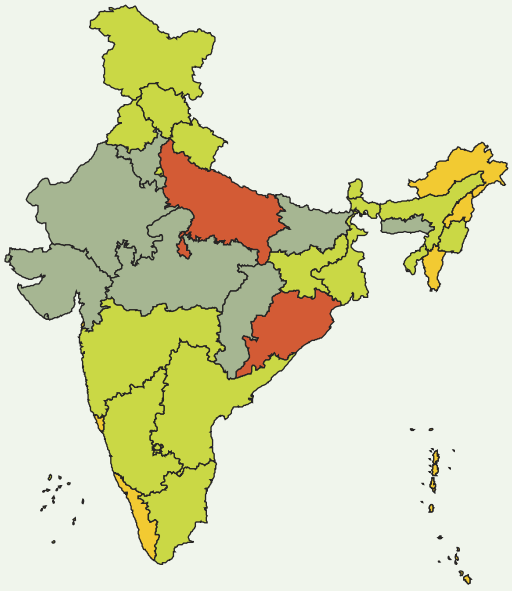


Figure 63: IMR 2006-Rural

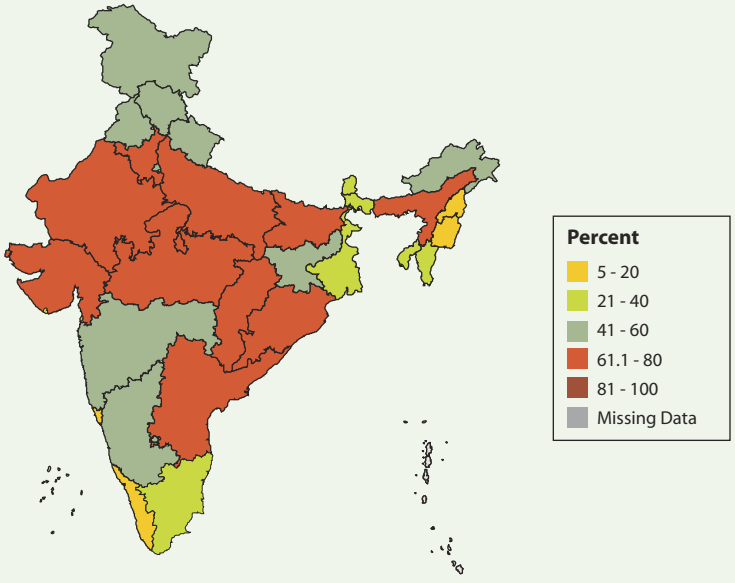
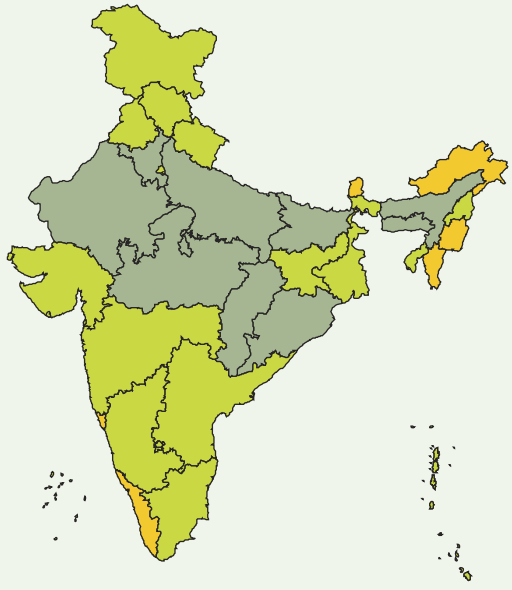


Figure 64: IMR 2006-Urban



Change in mortality of rural infants
- No State in over 80 group in 2006 against 5 in 2001
- 3 States in less than 20 group in 2006 against 2 in 2001
- 10 States in 61-80 group in 2006 against 8 in 2001
- 4 States in 21-40 group in 2006 against 1 in 2001

Change in mortality of urban infants
- No State in over 60 group in 2006 against 3 in 2001
- 6 States in less than 20 group in 2006 against 5 in 2001
- No States in 61-80 group in 2006 against 3 in 2001
- 14 States in 21-40 group in 2006 against 15 in 2001

Male-female difference in incidence of infant deaths is not very pronounced. In Assam and Gujarat, the difference has increased in 2007 as compared to 2006 in favour of male infants, while substatial decrease is observed in Himachal Pradesh, Madhya Pradesh and Punjab during the same time in favour of female infants.

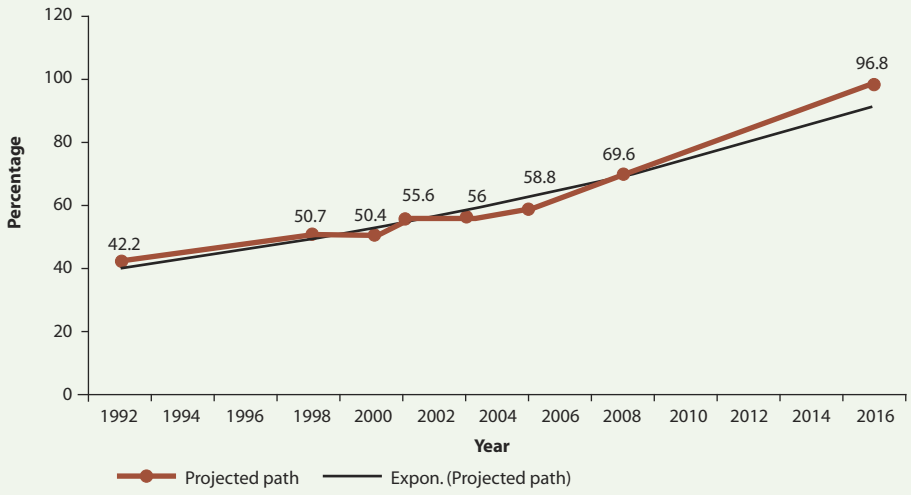
The rural-urban divide in incidence of infant mortality is quite glaring. In 2006, all the 10 States, which had rural IMR over 60 per 1000 live births, had urban IMR less than 40 or between 40 and 60 per 1000 live births in the same year. There are 10 States in 2007, among those for which data are available, which had more than 20 point difference between rural and urban incidence of infant deaths, rural incidence being higher. The difference is maximum for Rajasthan (32), followed by Assam (27), Madhya Pradesh (27), Gujarat (24) and Himachal Pradesh (24). Incidentally, these States have also bigger female-male gap in IMR.

Immunisation

MDG target for reducing child mortality does not envisage explicit target towards universal coverage of immunisation, particularly immunisation against measles in the age group 12-23 months. Proportion of one year old (12-23 months) children immunised against measles is the prescribed statistical indicator for measuring the coverage of immunisation in the country. The national level measure of the proportion has been 42.2% in 1992-93, 50.7% in 1998-99 and 58.8 in 2005-06%. At this historical rate of increase, India is expected to cover about 97% children in the age group 12-23 months for immunisation against measles by 2015. Thus, India is likely to fall short of universal immunisation of one year olds against measles by about three percentage points in 2015. According to DLHS-3 for 2007-08, national coverage of immunisation of one year olds has reached 69.6% with 77.6% in urban and 66.6% in rural areas.

Going by their historical rate of increase in coverage, 25 States/UTs are expected to do better than the national coverage level in immunisation of one year olds against measles by 2015. Out of these, at least 17 are expected to achieve universal coverage of immunisation much before 2015.

Figure 65: One year olds immunised against measles: India



Rural-Urban gap in immunisation coverage is significant in some of the States of the heartland namely, Rajasthan, Madhya Pradesh and Chhattisgarh, where a gap of more than 20 percentage points is observed in 2005-06 measles immunisation coverage. Among the better performing States, the gap is found to be significantly high in Kerala, followed by J&K and Haryana, all of which have more than 80% urban coverage.

Among the States/UTs, which are particularly lagging in increasing their coverage of immunisation against measles, the States of Bihar, Rajasthan and UP are particularly long way behind universal coverage, and had low coverage in 1998-99. Other States which were similarly placed in 1998-99 are Assam (24.6%), Jharkhand (18.2%), Madhya Pradesh (34.1%) and Meghalaya (17.7%). Going by their respective rate of increase in coverage, Bihar is likely to cover 60% of their one year olds in 2015 for immunisation against measles against 16% in 1998-99, Rajasthan is likely to reach 43% in 2015 from 31% in 1998-99, and Uttar Pradesh to 57% from 33.5% during the same period. Although the number of States with more than 85% coverage did not change between 1998-99 and 2005-06, the number of States with less than 25% coverage disappeared by 2005-06 and that with more than 65% coverage increased from 10 to 16 between 1998-99 and 2005-06.

Figure 66: Measles immunizations: Rural-Urban Gap 2005-06

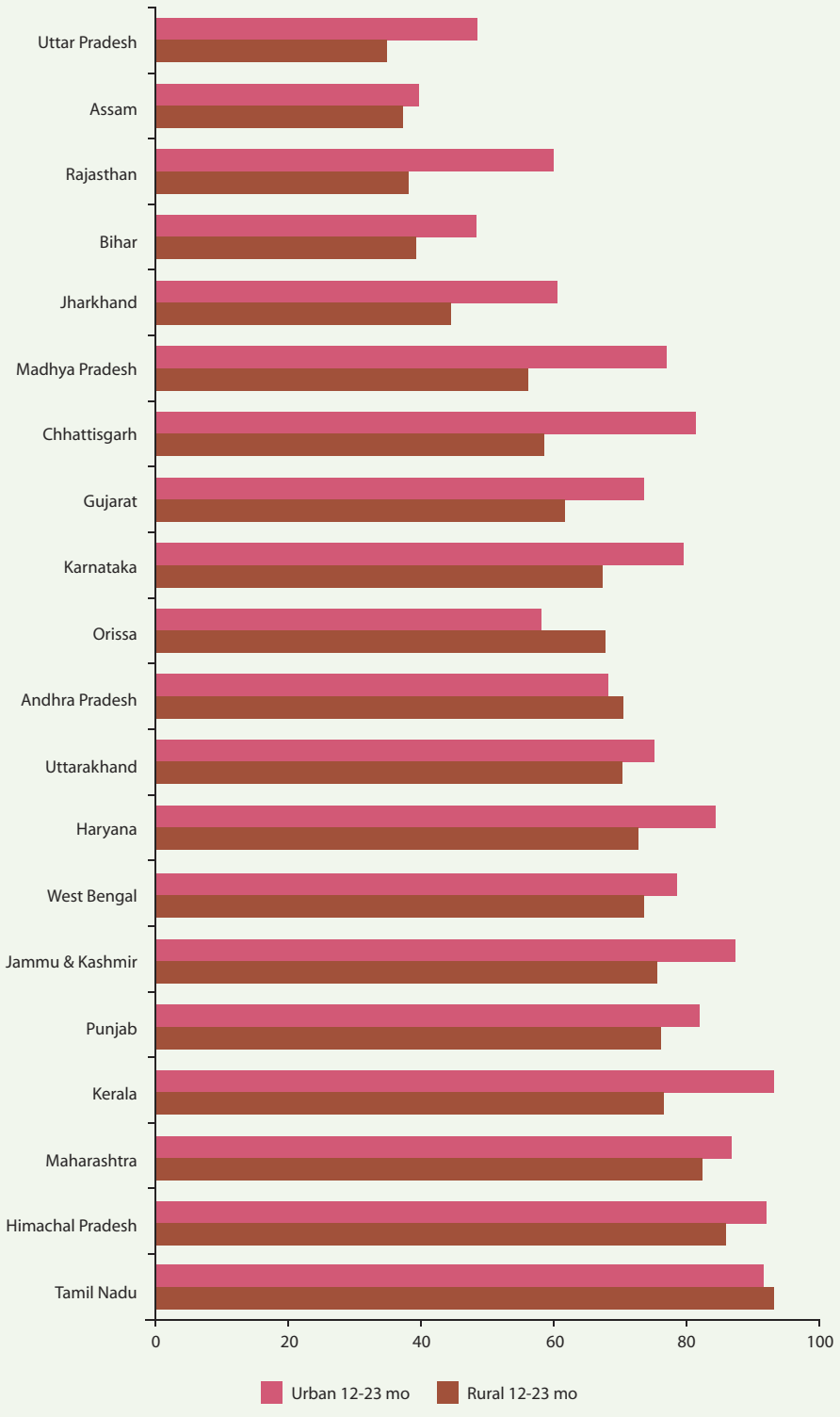
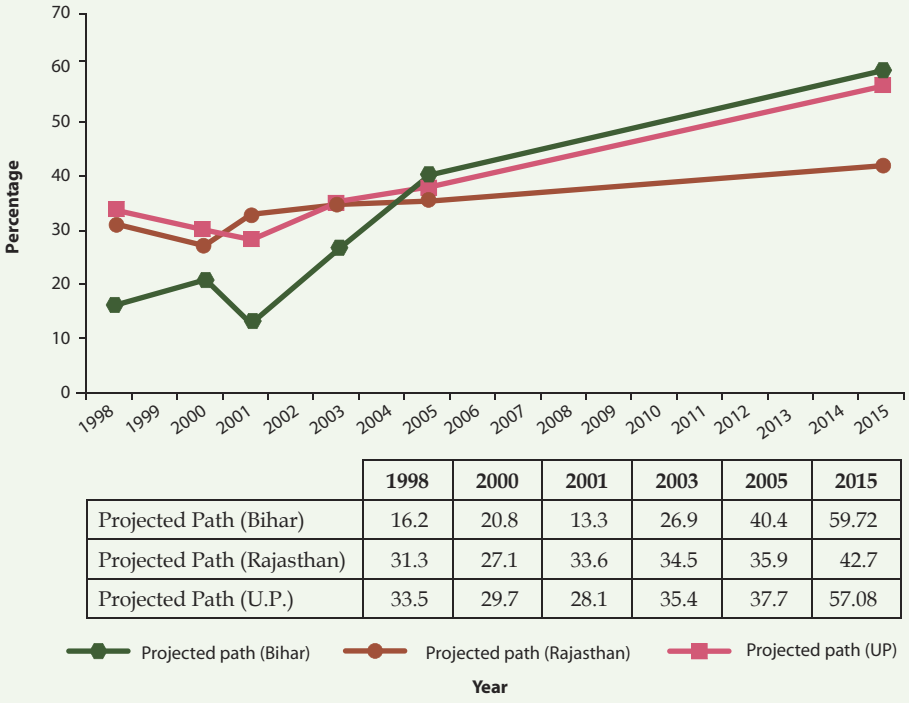
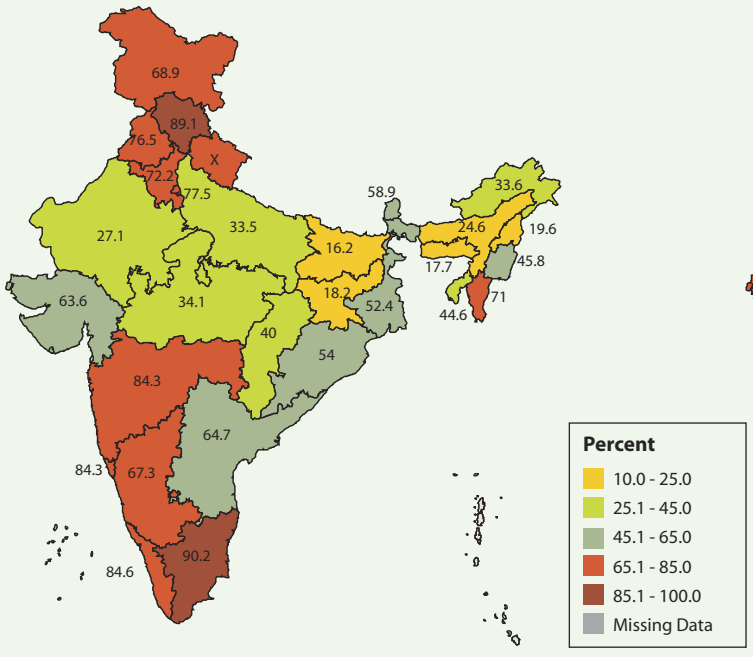


Figure 67: One year olds immunised against measles: Selected States



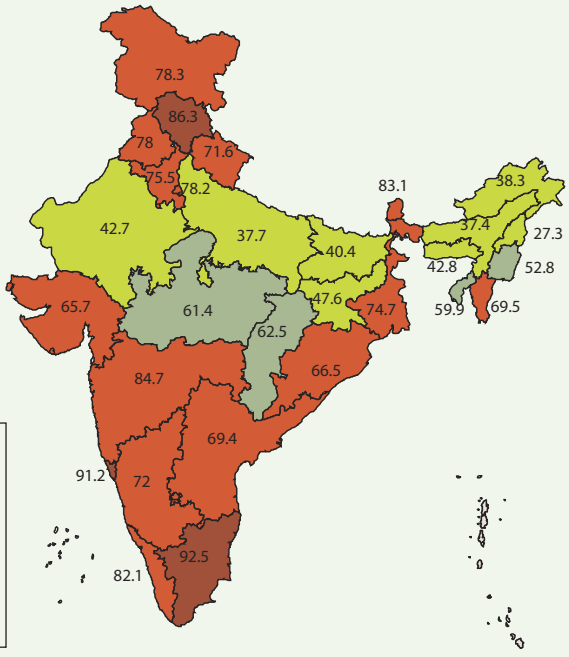
	1998	2000	2001	2003	2005	2015
Projected Path (Bihar)	16.2	20.8	13.3	26.9	40.4	59.72
Projected Path (Rajasthan)	31.3	27.1	33.6	34.5	35.9	42.7
Projected Path (U.P.)	33.5	29.7	28.1	35.4	37.7	57.08

Figure 68: Measles immunisation 1998-99 (%)



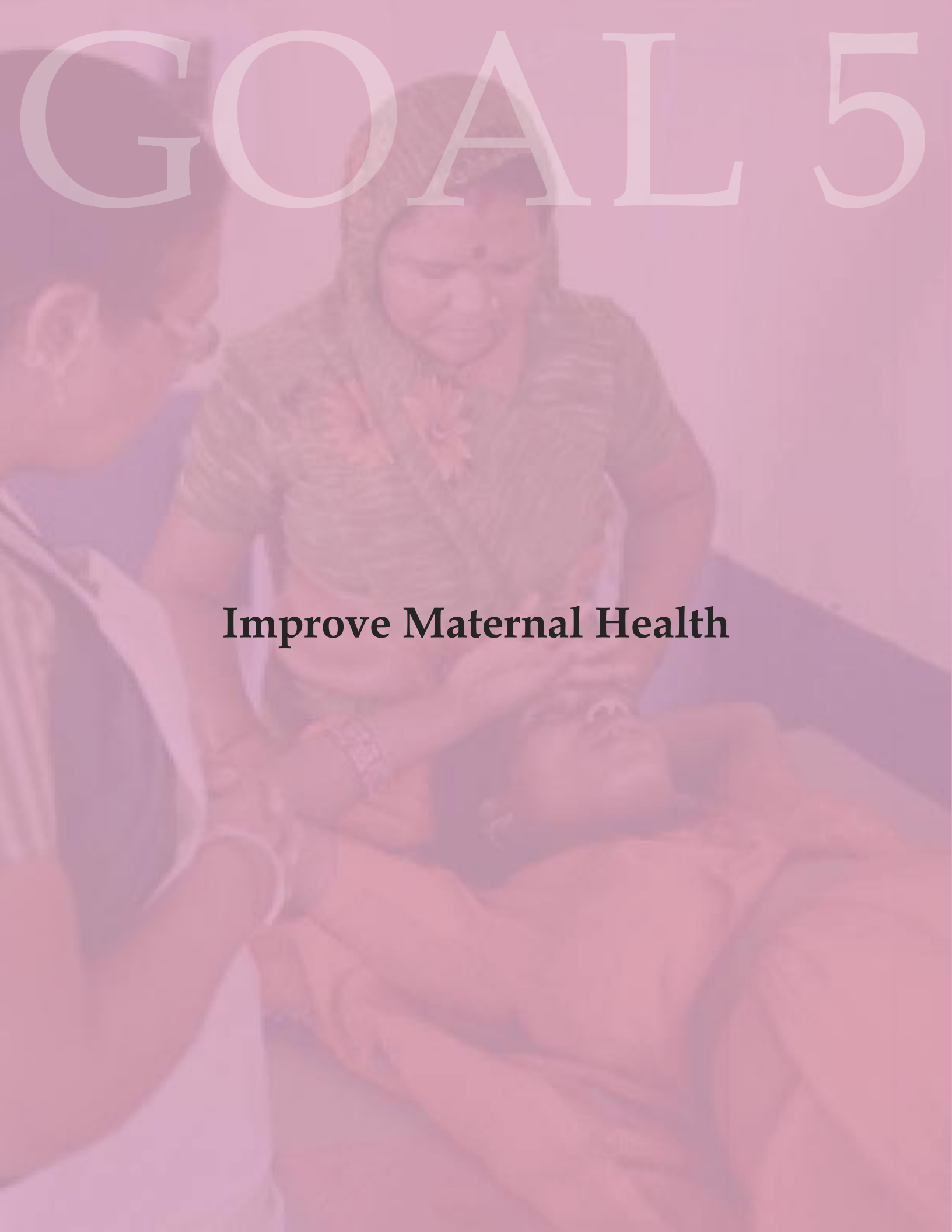
In 1998-99
- Less than 25% coverage in 5 States
- Above 65% coverage in 10 States
- Above 85% coverage in 2 States

Figure 69: Measles immunisation 2005-06 (%)



In 2005-06
- Less than 25% coverage in 0 States
- Above 65% coverage in 16 States
- Above 85% coverage in 2 States

GOAL 5



Improve Maternal Health

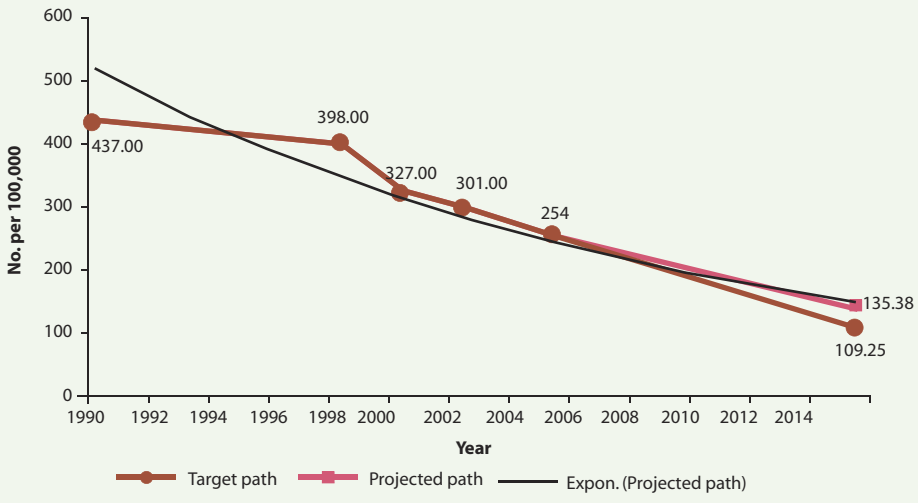
Target 6

Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio

The **MMR** 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. The incidence of maternal deaths is too rare an event to provide a robust estimate of the MMR by sample survey method. The present estimates are available from Sample Registration System (SRS)-based studies[20] taking into account the requirement of large sample size for sub-national estimates of MMR.

The national MMR level has come down from 398 per 100,000 live births in 1997-98 to 254 per 100,000 live births in 2004-06, a 36% decline over a span

Figure 70: MMR trend in India



[20] *Sample Registration System (SRS) of the Office of Registrar General of India is the largest demographic sample survey in the country and inter alia provides direct estimates of MMR.*

of seven years as compared to a 25% decline in the preceding eight years from 1990-97. Given to achieve an MMR of 109 per 100,000 live births by 2015, India tends to fall short by about 26 points as it tends to reach MMR of about 135 per 100,000 live births in 2015.

Table 6: State-wise MMR

Major State	MMR (1997-98)	MMR (1999-01)	MMR (2001-03)	MMR (2004-06)
India Total[21]	398	327	301	254
Assam	568	398	490	480
Bihar/Jharkhand	531	400	371	312
Madhya Pradesh/Chhattisgarh	441	407	379	335
Orissa	346	424	358	303
Rajasthan	508	501	445	388
Uttar Pradesh/Uttarakhand	606	539	517	440
Andhra Pradesh	197	220	195	154
Karnataka	245	266	228	213
Kerala	150	149	110	95
Tamil Nadu	131	167	134	111
Gujarat	46	202	172	160
Haryana	136	176	162	186
Maharashtra	166	169	149	130
Punjab	280	177	178	192
West Bengal	303	218	194	141
Others	-	276	235	206

Source: RGI, SRS 1997-98, 1999-2001, 2001-03, 2004-06

MMR has registered a 36% decline between 1997 and 2006 as compared to 25% decline in the preceding eight years.

The States which seem to have done considerably well in arresting the incidence of maternal deaths and tend to reach their respective targets before 2015 are Kerala and West Bengal. From a level of very high incidence of maternal mortality in 1990, Bihar/Jharkhand is tending to reduce three-fourths of its MMR by 2015. From their 2004-06 levels, Assam (480), Haryana (186) and Orissa (303), the States having ups and downs in MMR levels in the last one decade, are likely to fall short of their targets by huge margins. On the other hand, in Assam and Haryana, the incidence of maternal deaths tends to have risen considerably during the last one decade. The States of Uttar Pradesh/Uttarakhand, Rajasthan, Madhya Pradesh/Chhattisgarh and Karnataka are likely to finish a distance in the range of 70-90 points away from their respective target values in 2015. As many as four States are likely to get by 2015 to an MMR level even worse than the 2004-06 national level (254 per 100,000 live births).

[21] *Includes other than major States as well*

Safe Motherhood

Life risk in motherhood is gradually diminishing across the country mainly due to promotion of reproductive healthcare facilities through government-run programmes. Towards attaining Target 5, the MDG indicator for measuring progress is proportion of births attended by skilled health personnel. There is no explicit target in MDG framework for this to be attained by 2015. Obviously, universality of deliveries being attended by skilled health personnel is the most ideal objective.

From 33% deliveries attended by skilled personnel in 1992-93, the proportion has increased to about 47% in 2005-06 and 52% by 2007-08. At this rate of change, India is likely to attain 62% delivery attendance by skilled personnel by 2015. This is not particularly satisfying progress if India has to bring down MMR to about 109 per 100,000 live births by 2015. Unless improved drastically, the existing rate of increase in deliveries by skilled personnel is expected to take the coverage only to 62% by 2015. Going by the present rate of coverage increase, seven States namely, Andhra Pradesh, Goa, Karnataka, Kerala, Punjab, Sikkim and Tamil Nadu are likely to reach universal coverage or close to it by the year 2015. For the other States, shortfall from universal coverage tends to vary from 10 to 70 percentage points. In terms of percentage of deliveries attended by skilled personnel projected for the year 2015 on the basis of existing trend, four of the North-Eastern States, namely, Arunachal Pradesh (41%), Assam (46%), Meghalaya (32%) and Nagaland

Coverage of deliveries attended by skilled personnel is likely to reach 62% by 2015.

Figure 71: Proportion of deliveries attended by skilled personnel (India)

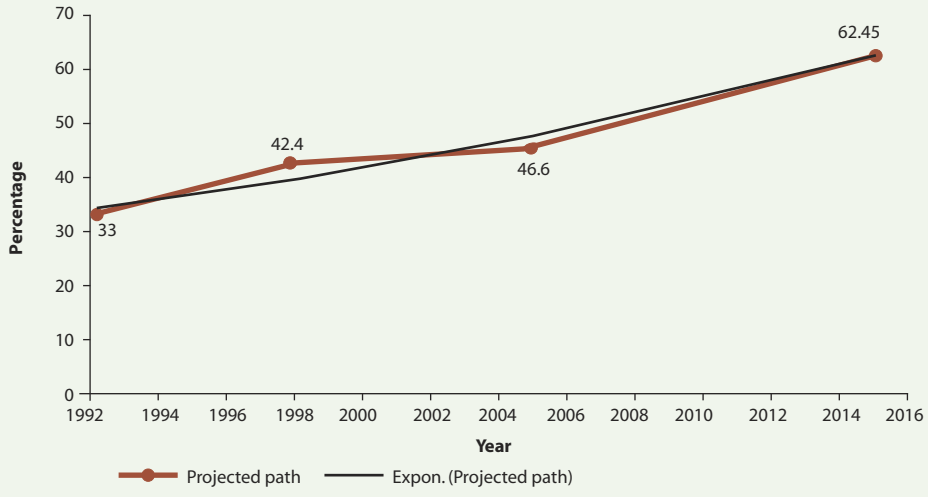


Figure 72: Trend of percentage of deliveries attended by skilled personnel - Selected States

(34%) are likely to finish far short of universality. Apart from these States, the other States which are also lagging behind and are likely to remain so in 2015 if they continue to move at the pace of their historic rates are Bihar (37%), Madhya Pradesh (39%), Uttar Pradesh (37%) and Uttarakhand (45%). The rural-urban gap in coverage in 2005-06 was of the order of 36 percentage points, urban coverage (75.2%) being almost double of that of rural (39.1%). The gap in 2007-08 has slightly narrowed down with rural coverage of 43.4% against urban coverage of 75.8%. Not all the States, which are tending to attain more than 90% coverage in deliveries attended by skilled personnel by 2015, have rural-urban gap in coverage less than 10 percentage points. The rural-urban gap is small in 2005-06 in the States of Goa (0.8% point), Kerala (3.3 % point) and Tamil Nadu (5.8% point). The other States where overall attainment in 2015 is likely to exceed 90% mark but rural-urban gap is significant in 2005-06 are Andhra Pradesh (22 % point), Karnataka (25.8% point) and Sikkim (42.2% point).

The slow progress in skilled attendance to deliveries is mainly due to poor progress in institutional deliveries. At the all India level, the coverage of institutional deliveries increased rather slowly: from 26.1% in 1992-93 to 33.6% in 1998-99 and then to 41% in 2005-06 and 47% in

Figure 73: Safe delivery (Gujarat)

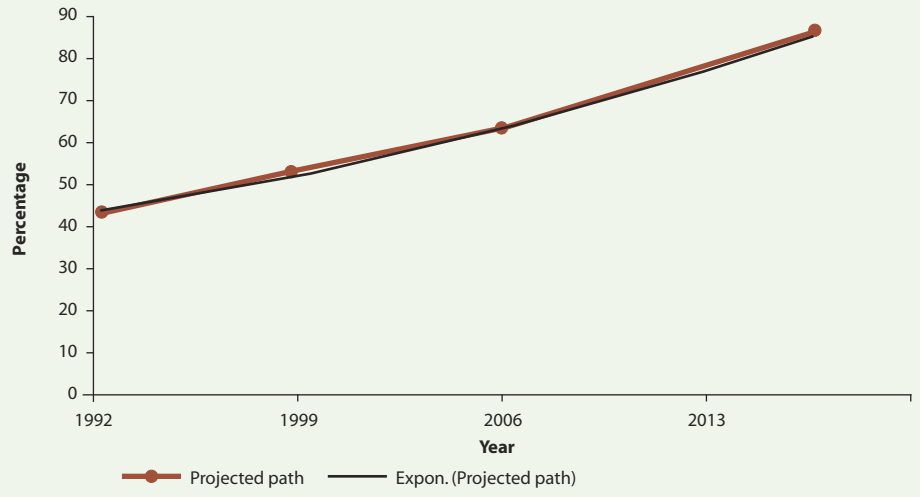
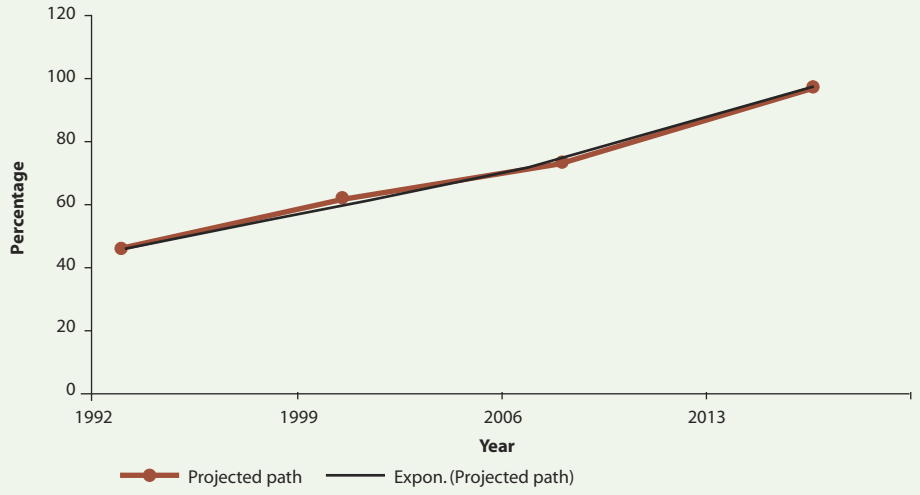


Figure 74: Safe delivery (Karnataka)



2007-08. Unless institutional delivery in the States, particularly in those which are lagging way behind the national coverage, is widely accessible and becomes a way of life, the ultimate objective of reducing maternal deaths to the level that should be reached by 2015, will continue to remain distant.

Figure 75: Safe delivery (Rajasthan)

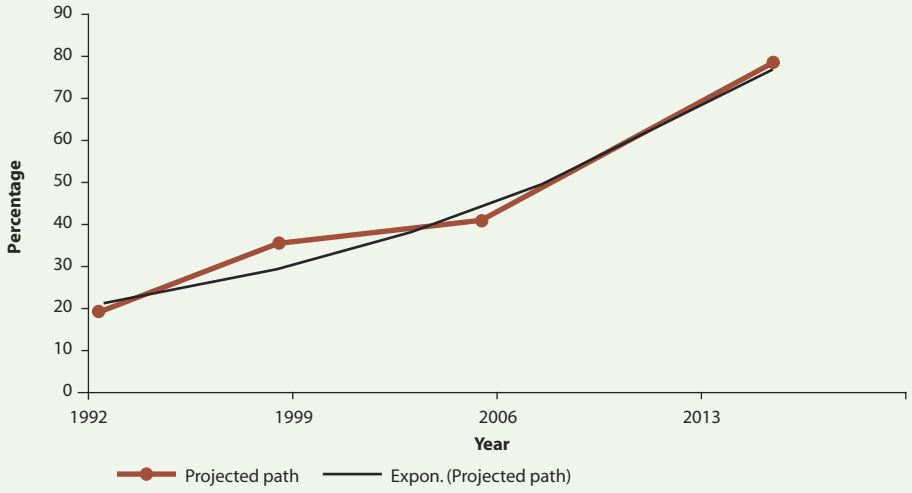
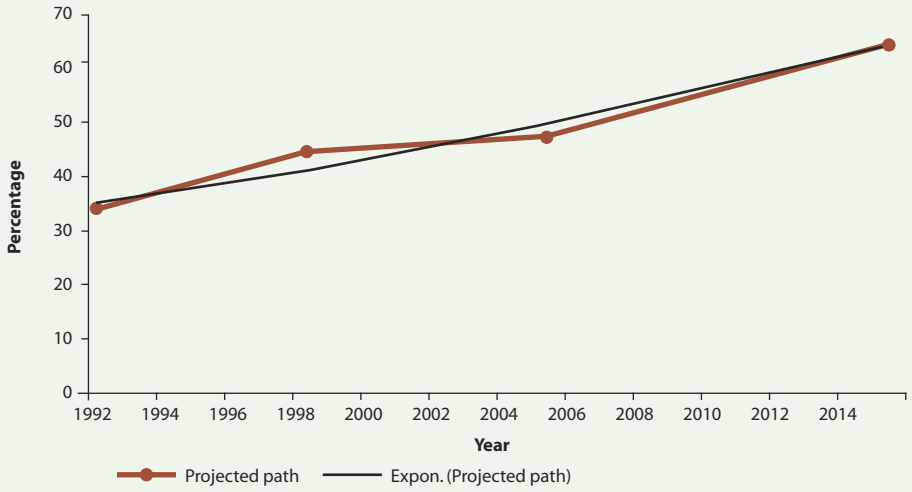
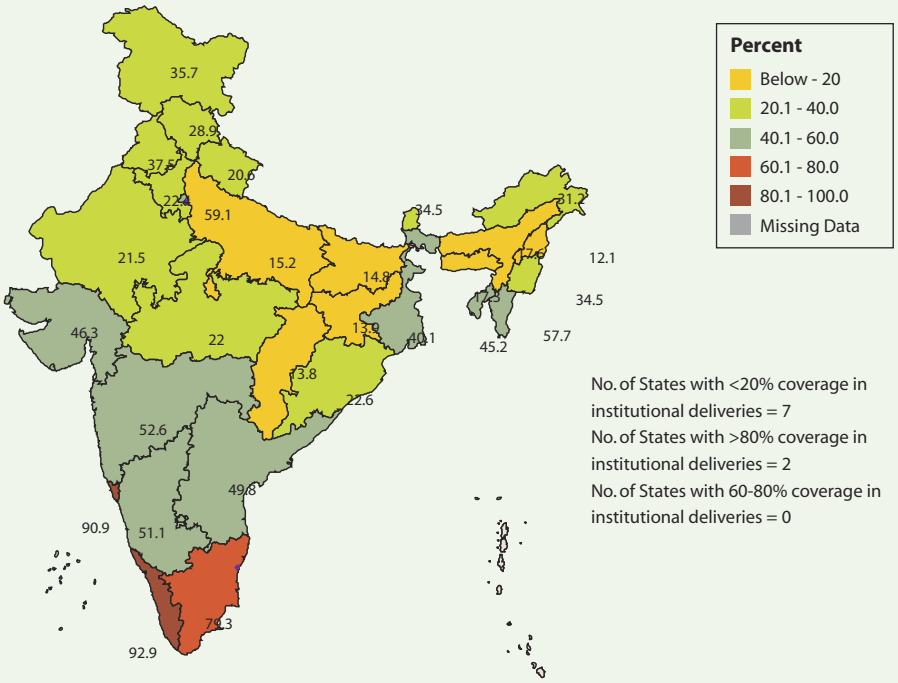


Figure 76: Safe delivery (West Bengal)



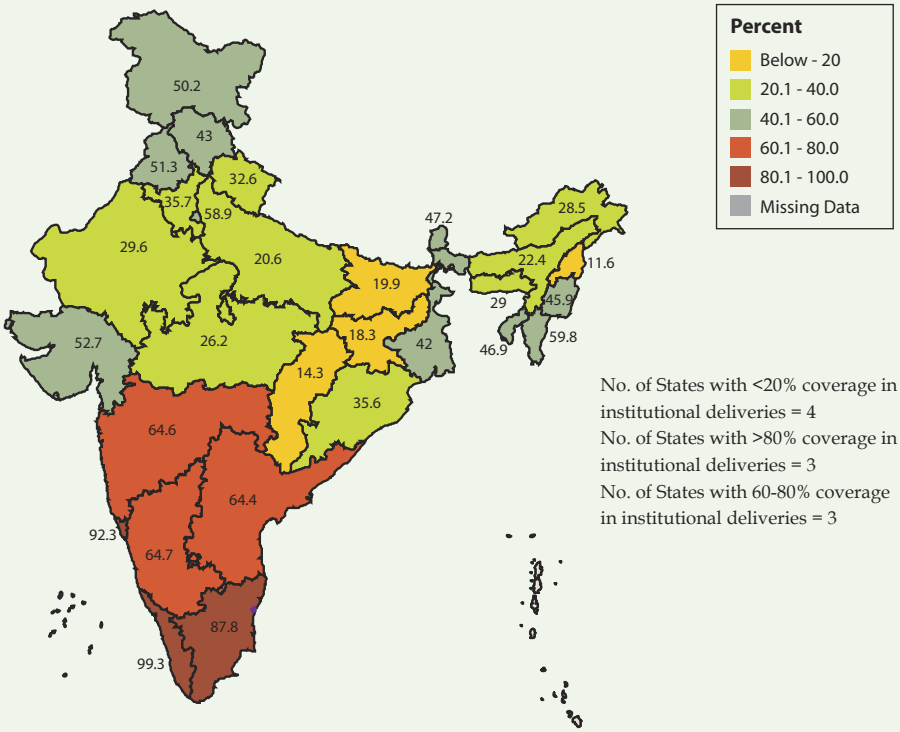
The percentage coverage of institutional deliveries among all deliveries is quite bad as per statistics available for 2005-06 in the States of Bihar (19.9%), Jharkhand (18.3%), Chhattisgarh (14.3), and Mizoram (11.6%). Only three States have over 80% coverage in institutional deliveries in 2005-06 namely, Goa (93.3%), Kerala (99.3%) and Tamil Nadu (87.8%). Between 1998-99 and 2005-06, the number of States having over 80% coverage has increased by only one. However, the number of States having less than 20% coverage has come down from seven in 1998-99 to four in 2005-06.

Figure 77: Women who had institutional delivery in 1998-99 (%)



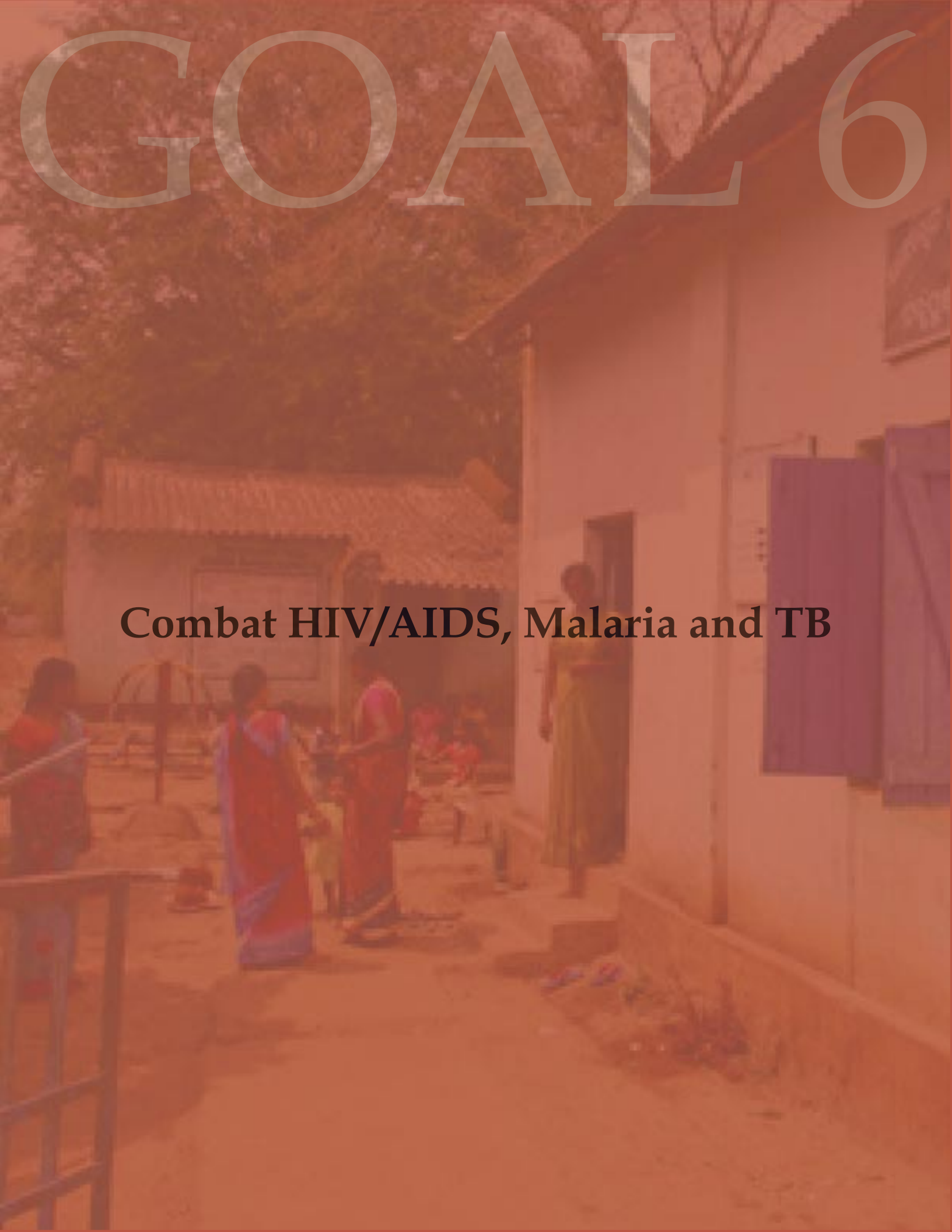
No. of States with <20% coverage in institutional deliveries = 7
No. of States with >80% coverage in institutional deliveries = 2
No. of States with 60-80% coverage in institutional deliveries = 0

Figure 78: Women who had institutional delivery in 2005-06 (%)



No. of States with <20% coverage in institutional deliveries = 4
No. of States with >80% coverage in institutional deliveries = 3
No. of States with 60-80% coverage in institutional deliveries = 3

GOAL 6



Combat HIV/AIDS, Malaria and TB

Target 7

Have halted by 2015 and begun to reverse the spread of HIV/AIDS.

Prevalence of HIV/AIDS

HIV situation in the country is assessed and monitored through regular annual sentinel surveillance mechanism established since 1992. In 2007, the country is estimated to have 1.8-2.9 million HIV positive persons, with an estimated adult HIV prevalence of 0.34% (0.25% -0.43%). As the HIV prevalence among the high risk group is very high compared to that among the general population, India continues to be in the category of concentrated epidemic. The sexual mode of transmission continues to be the major transmission mode, though transmission through injecting drug use and among Men who have Sex with Men (MSM) is very high in a few pockets.

Spread of HIV/AIDS in the country shows a downward trend: from 2.73 million (0.45%) people living with HIV/AIDS in 2002, the number has declined to 2.31 million (0.34%) by 2007.

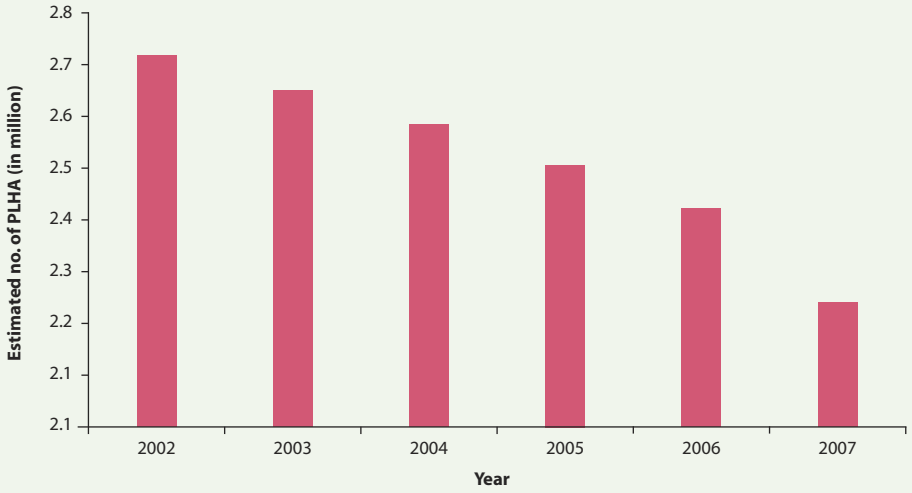
According to the recent estimates, using the international comparable work method data book and using multiple data sources (expanded sentinel surveillance system, NFHS-3,[22] IBBA[23] and Endline Behavioural Surveillance Survey), there were 2.31 million people living with HIV/AIDS at the end of 2007. Of the estimated adult prevalence of 0.34%, the prevalence among males is 0.44%, compared to 0.23% for females. However, the spread of HIV/AIDS in the country shows a downward trend: from 2.73 million (0.45%) people living with HIV/AIDS in 2002, the number has declined to 2.31 million (0.34%) by 2007. The prevalence rate of HIV infection in the country also seems to have stabilised over the last few years.

The prevalence of HIV/AIDS in 2007 in the high risk groups – IDU[24] (7.2%), MSM[25] (7.4%), FSW[26] (5.1%) and those with STD[27] (3.6%), continues to

[22] *National Family Health Survey-3*
[23] *Integrated Bio-Behavioural Assessment*
[24] *Injecting Drug Users*
[25] *Men who have Sex with Men*
[26] *Female Sex Workers*
[27] *Sexually Transmitted Diseases (site)*

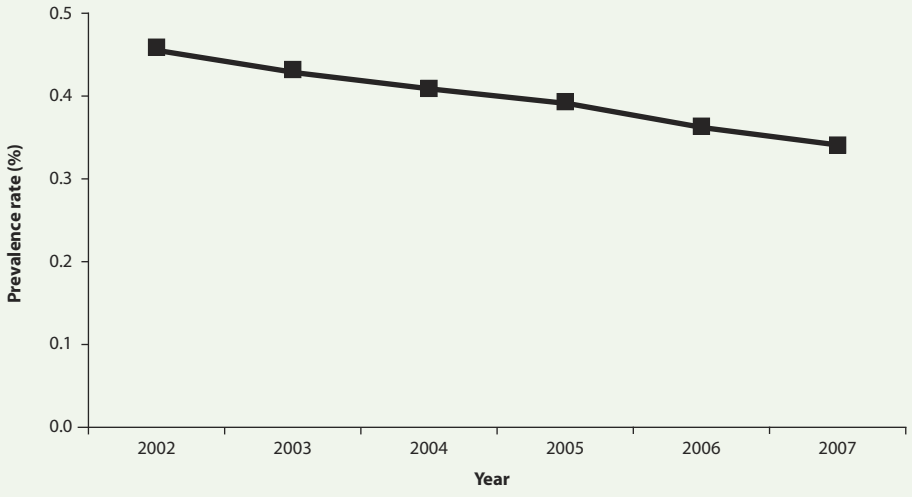
portray the concentrated epidemic conditions in India. The corresponding percentages among the high risk groups in 2006 were IDU (6.9%), MSM (6.4%), FSW (4.9%) and those with STD (3.7%). Thus, it may be seen that the prevalence of HIV among high risk groups has increased during 2006-07 despite overall decrease in PLHA.[28] Among ANC[29] attendees, the prevalence has decreased from 0.60% in 2006 to 0.48% in 2007.

Figure 79: Estimated no. of PLHA (in million)



Source: NACO, Govt. of India

Figure 80: Estimated adult HIV prevalence (%)



Source: NACO, Govt. of India

[28] *People Living with HIV/AIDS*

[29] *Antenatal Care*

The States of Andhra Pradesh, Goa, Karnataka and Tamil Nadu continue to be the major prevalence areas. However, the prevalence has declined from 21.65% in STD sites of Andhra Pradesh in 2002 to 17.02% in STD sites in 2007. In Goa, the decline at the STD sites is from 12.73% in 2002 to 5.60 % in 2007. In case of Karnataka STD sites, the prevalence has declined from 13.55% in 2002 to 8.40% in 2007. In Tamil Nadu, the STD prevalence declined from 14.80% in 2002 to 8.00% in 2007. The cumulative number of AIDS cases in India till December 2007 was 1,99,453 which increased to 2,63,423 by October 2008. The percentage of females living with HIV/AIDS continues to be around 39% with the total number of females declining from 1.07 million in 2002 to 0.97 million in 2006 and further to 0.95 million in 2007. HIV prevalence among pregnant women in the age group of 15-24 years declined from 0.74% in 2002 to 0.68% in 2006 whereas the prevalence among pregnant women in the age group of 25-49 years declined from 0.80% in 2002 to 0.60% in 2006.

The 2007 estimates indicate that the epidemic has stabilised or has seen a drop in Tamil Nadu and other southern States which are high HIV burden States. Yet, new areas have seen a rise in HIV prevalence, particularly in the northern and eastern regions. Some districts have been identified with high prevalence, largely in the States of Madhya Pradesh, Uttar Pradesh, West Bengal, Orissa, Rajasthan and Bihar.

HIV prevalence continues to be higher among vulnerable groups. For instance, there is a significant population living with HIV/AIDS among IDUs in four of India's biggest cities – Chennai, Delhi, Mumbai and Chandigarh. Young people are at greater risk, with the under-15 category accounting for 3.8% of all HIV infections, as against 3% in 2002.

Between 2005 and 2006, prevalence has fallen in some major States – Maharashtra from 0.80 to 0.74%, in Tamil Nadu from 0.47 to 0.39% – for instance. Yet, new areas of concern have emerged. In West Bengal, prevalence has gone up from 0.21 to 0.30% and in Rajasthan from 0.12 to 0.17%.

Annual data for ANC attendees reveals that HIV prevalence among pregnant women has undergone a trend reversal since 2004. Among pregnant women of 15-24 years, the prevalence has declined from 0.86% in 2004 to 0.49% in 2007. A drop by more than 50% has been recorded among pregnant women aged 25-49 years as well: from 1.09% in 2004 to 0.52% in 2007.

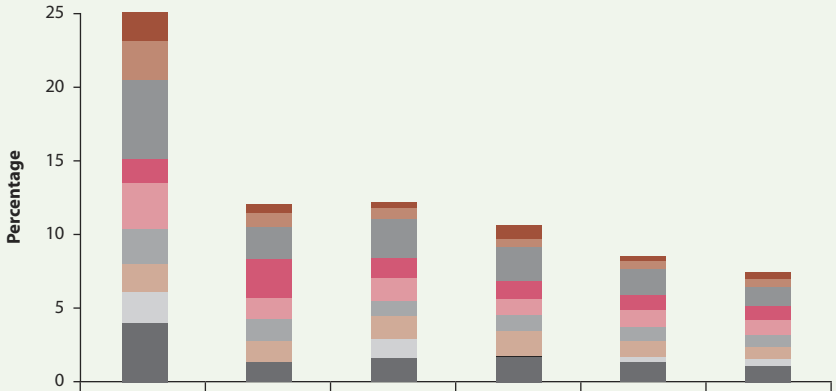
Among pregnant women of 15-24 years, the prevalence of HIV has declined from 0.86% in 2004 to 0.49% in 2007. A drop by more than 50%: from 1.09% in 2004 to 0.52% in 2007 has been recorded among pregnant women aged 25-49 years as well.

Table 7: Pattern of change in HIV/AIDS indicators

Indicator/Year	2001	2002	2003	2004	2005	2006	2007	Source
HIV prevalence among pregnant women aged 15-24 years (%)	0.73	1.46	0.81	0.86	0.89	0.57	0.49	Annual Sentinel Surveillance
HIV prevalence among pregnant women aged 25-49 years (%)	0.81	1.32	0.95	1.09	0.97	0.64	0.52	
Condom use with non-regular sex partner during last sex (%)	40.1	-	-	-	-	58.3		Behavioural Surveillance Survey 2001 & 2006
Percentage of population aged 15-49 years with comprehensive correct knowledge about HIV/AIDS (%)	17.6	--	--	--	--	29.2		

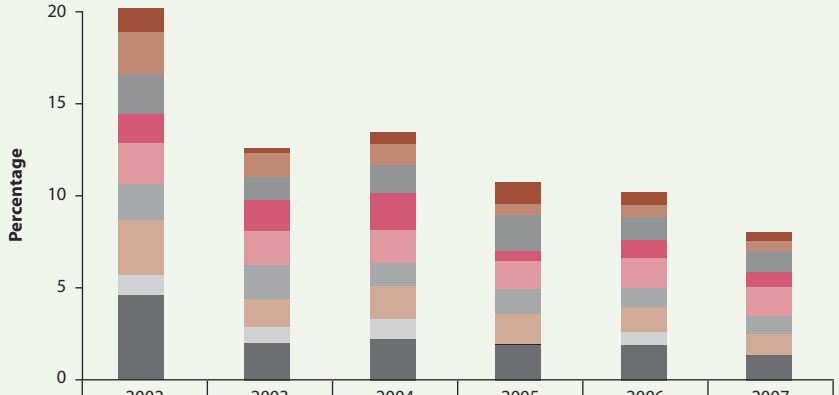
In the States of Andhra Pradesh, Goa, Karnataka, Maharashtra, Manipur, Mizoram, Nagaland, Tamil Nadu and West Bengal, HIV among pregnant women is more prevalent than in other States. These States together carry bulk of the overall burden of HIV among pregnant women. Prevalence of HIV among pregnant women aged 15-24 years as well as among those

Figure 81: HIV prevalence among ANC attendees (15-24 yrs)



	2002	2003	2004	2005	2006	2007
West Bengal	1.72	0.53	0.36	0.81	0.27	0.38
Tamil Nadu	2.34	0.82	0.62	0.51	0.50	0.54
Nagaland	4.84	1.96	2.43	2.03	1.58	1.13
Mizoram	1.49	2.37	1.18	1.15	0.88	0.88
Manipur	2.77	1.30	1.44	0.92	1.09	0.90
Maharashtra	2.14	1.34	0.86	0.98	0.80	0.70
Karnataka	1.73	1.24	1.41	1.57	1.02	0.75
Goa	1.88	0.00	1.17	0.00	0.28	0.47
A P	3.63	1.28	1.52	1.59	1.26	0.98

Figure 82: HIV prevalence among ANC attendees (25-49 yrs)



	2002	2003	2004	2005	2006	2007
West Bengal	1.24	0.24	0.62	1.13	0.69	0.44
Tamil Nadu	2.23	1.27	1.12	0.63	0.61	0.58
Nagaland	2.14	1.21	1.48	1.93	1.24	1.09
Mizoram	1.53	1.66	1.97	0.49	0.98	0.83
Manipur	2.21	1.86	1.79	1.51	1.56	1.54
Maharashtra	1.93	1.78	1.22	1.36	1.04	0.97
Karnataka	2.96	1.53	1.74	1.63	1.35	1.09
Goa	1.04	0.81	1.09	0.00	0.68	0.00
A P	4.60	2.05	2.23	1.94	1.92	1.40

aged 25-49 years in these States has consistently come down. Between 2002 and 2007, the decline recorded in the age group 15-25 years is over 73% in Tamil Nadu, 69.5% in Andhra Pradesh, 65% in West Bengal, 63% in Karnataka and 100% in Goa. During the same period, the decline observed in the age group 25-49 years is more than 75% in West Bengal, Tamil Nadu, Nagaland, Goa and Andhra Pradesh.

As per DLHS 2002-04, 52.2% of currently married women in India had heard about HIV/AIDS. The proportion has gone up to 58.6% in 2007-08 according to DLHS 2007-08. Knowledge of HIV/AIDS is much lower among rural women, non-literate women, women from Scheduled Tribes (STs), women from households with low standard of living, among young women and women from some religious groups. 78% of urban women had heard of HIV/AIDS compared to only 42% of rural women in 2004-06. The proportions have improved marginally by 2007-08 to 79.9% for urban and 48.8% for rural areas. Knowledge of HIV/AIDS steadily increased with an increase in educational level and standard of living.

Target 8

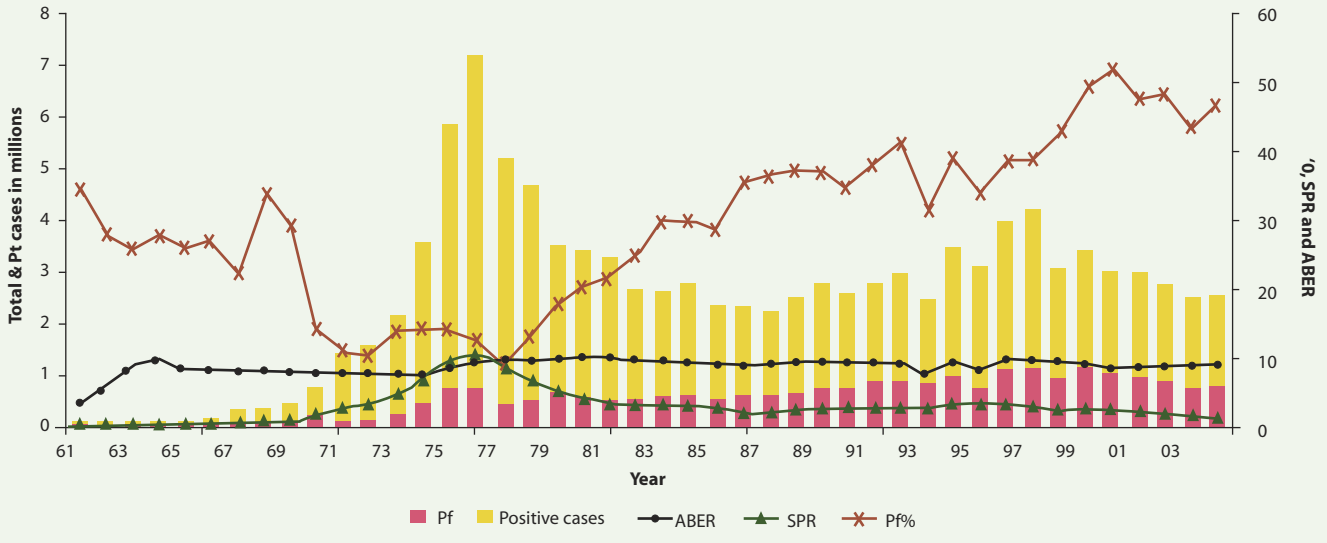
Have halted by 2015 and begun to reverse the incidence of Malaria and other major diseases.

Prevalence of Malaria and mortality due to it

In India, the epidemiology of Malaria is complex because of geo-ecological diversity, multi-ethnicity, and wide distribution of nine anopheline vectors transmitting three Plasmodial species: *P. falciparum, P. vivax,* and *P. malariae. Anopheles culicifacies* is widely distributed and is the principal vector of rural Malaria, *An. stephensi* is the primary urban vector, *An. fluviatilis* is a vector in the hills and foothills, and *An. minimus*, *An. nivipes*, *An. philippinen-sis,* and *An. dirus* are vectors in the north-east, and *An. sun-daicus* is restricted to Andaman & Nicobar Islands. *An. annularis* and *An. varuna* are secondary vectors with wide distribution.

75 million Malaria cases in a population of 330 million were estimated in 1947. Malaria cases significantly declined during the late 1950s and

Figure 83: Malaria incidence pattern



early 1960s, and almost an eradication of the disease seemed imminent when just 100,000 cases were found in 1964. However, a reversal was experienced, and Malaria staged a comeback. By 1976, Malaria cases had touched the 6.4 million mark. A continued rise in *P. falciparum* was witnessed, and its proportion has gradually risen to nearly 50% in recent years.

The Annual Parasite Incidence (API) is an index to express Malaria cases per 1000 population. As per the National Vector Borne Disease Control Programme (NVBDCP) incidence records, in most of India, the API was <2, whereas 2-5 API was in scattered regions, and regions with >5 API were scattered in the States of Rajasthan, Gujarat, Karnataka, Goa, Southern Madhya Pradesh, Chhattisgarh, Jharkhand, and Orissa and in North-Eastern States.

Incidence of Malaria has declined from 1.74 in 2005 to 1.52 in 2009 (till September), while the percentage of deaths of Malaria patients has not declined.

The incidence rate of Malaria and deaths due to Malaria in recent years show that while incidence of Malaria has declined from 1.74 in 2005 to 1.52 in 2009 (till September), the percentage of deaths of Malaria patients has not declined.

Figure 84: Annual Parasite Incidence

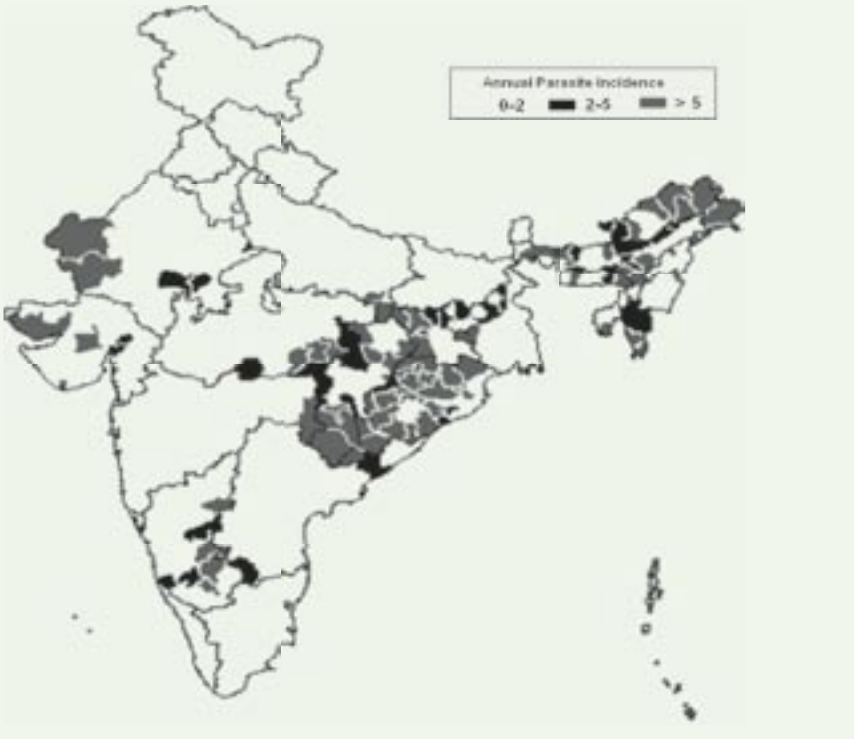


Figure 85: Plasmodium Falciparum (%)

Table 8: Incidence rate and deaths due to Malaria

Year	No. of blood examination cases	Malaria cases	Incidence rate (%)	Deaths	Deaths per 100 cases
2005	104143806	1816569	1.74	963	0.05
2006	106725851	1785129	1.67	1707	0.09
2007	94928090	1508927	1.59	1311	0.09
2008	95958887	1524939	1.59	935	0.06
2009*	70740469	1075588	1.52	754	0.07

**Up to September 2009*
Source: Directorate of National Vector Borne Disease Control Programme

In the States of Arunachal Pradesh, Assam, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Nagaland, Orissa, Rajasthan, Tripura and West Bengal, where deaths associated with Malaria are generally high compared to other States, the number of deaths among Malaria cases has declined ever since the high of 2006. The Malaria incidence rate and death incidence among Malaria cases in 2009 (till September) compared to 2006 in these States are found to have declined except for Meghalaya, Mizoram and Nagaland. The incidence rate was the highest in Arunachal Pradesh in 2006 and in Meghalaya in 2009. Besides Arunachal Pradesh, Meghalaya, Orissa and Tripura in that order are other three major malaria afflicted States.

Table 9: Malaria incidence and deaths per 100 Malaria cases in major Malaria prone States

States	Incidence of Malaria %		Deaths per 100 Malaria cases	
	2006	2009*	2006	2009*
Arunachal Pradesh	14.19	9.48	0.50	0.00
Assam	4.60	3.21	0.24	0.08
Gujarat	0.80	0.40	0.05	0.04
Karnataka	0.63	0.37	0.05	0.00
Madhya Pradesh	0.99	0.83	0.06	0.00
Maharashtra	0.32	0.72	0.24	0.19
Meghalaya	10.31	16.23	0.56	0.23
Mizoram	4.89	5.03	1.12	1.43
Nagaland	3.65	5.18	2.23	0.47
Orissa	7.67	7.40	0.07	0.05
Rajasthan	1.15	0.48	0.06	0.00
Tripura	7.60	7.21	0.13	0.29
West Bengal	3.03	2.31	0.13	0.09

** Based on figures up to September 2009*

Prevalence of Tuberculosis and mortality due to it

India is the highest TB burden country accounting for one-fifth of the global incidence (Global annual incidence estimate is 9.1 million cases out of which it is estimated that 1.9 million cases are from India). India is 17th among 22 High Burden Countries in terms of TB incidence rate. (Source: WHO global TB report 2008) The Revised National TB Control Programme (RNTCP), based on the internationally recommended Directly Observed Treatment Short-Course (DOTS) strategy, was launched in 1997 and expanded across the country in a phased manner with support from the World Bank and other development partners. The objectives of the programme are: (a) to achieve and maintain cure rate of at least 85% among New Sputum Positive (NSP) patients; and (b) to achieve and maintain case detection of at least 70% of the estimated NSP cases in the community.

The prevalence of TB has steadily declined from as high as 586 per 1,00,000 population in 1990 to 283 per 1,00,000 population in 2007.

Full nationwide coverage was achieved in March 2006 covering over a billion population (1114 million) in 632 districts/reporting units. In terms of treatment of patients, RNTCP is the largest and the fastest expanding programme in the world. In 2005, 1.29 million TB patients, in 2006, 1.39 million and in 2007, 1.48 million patients have been enrolled for treatment. In 2008, 1.51 million patients have already been placed on treatment. The prevalence of TB in the country has steadily declined from as high as 586 per 1,00,000 population in 1990 to 283 per 1,00,000 population in 2007. With

Table 10: Malaria situation

States/UTs	2005				2006				2007	
	Blood Slide Examination	Malaria cases	Pf cases	Deaths	Blood Slide Examination	Malaria cases	Pf cases	Deaths	Blood Slide Examination	Malaria cases
Andhra Pradesh	10040085	39099	22548	0	9442026	34081	20317	0	8896110	27803
Arunachal Pradesh	258994	31215	7447	0	276074	39182	12854	196	245547	32072
Assam	2050261	67885	45453	113	2743092	126178	82624	304	2420762	94853
Bihar	230139	2733	427	1	240019	2744	428	1	142194	1595
Chhattisgarh	3874911	187950	140182	3	3770468	190590	147766	3	3502736	147525
Goa	264170	3747	468	1	277989	5010	1196	7	355545	9755
Gujarat	10976750	179023	32382	54	11139833	89835	17932	45	9504240	71121
Haryana	2527485	33262	238	0	2634814	47142	506	0	2436431	30895
Himachal Pradesh	479358	129	0	0	462791	114	8	0	456511	104
Jammu & Kashmir	395144	268	7	0	396938	164	8	0	377203	240
Jharkhand	2846684	193144	51676	21	2095291	193888	48388	4	2002564	184878
Karnataka	10080290	83181	21984	26	9924797	62842	16459	32	8867947	49355
Kerala	2118032	2554	337	6	2035634	2131	314	6	1953317	1927
Madhya Pradesh	9018326	104317	32250	44	9735974	96160	29053	56	9169387	90829
Maharashtra	15177228	47608	16718	104	16937173	54420	17506	133	13559505	67850
Manipur	141378	2071	770	3	94608	2709	1301	8	120895	1194
Meghalaya	218660	16816	14758	41	290111	29924	25907	167	330234	36337
Mizoram	218961	10741	6294	74	218072	10668	7126	120	154045	6081
Nagaland	86470	2987	91	0	91953	3361	506	75	105856	4976
Orissa	4848624	396573	342692	255	4957488	380216	331773	257	4945551	371879
Punjab	2743340	1883	28	0	2581686	1888	37	0	2723293	2017
Rajasthan	7037873	52286	4061	22	8682576	99529	9481	58	7096694	55043
Sikkim	8319	69	31	0	7956	93	31	0	6259	48
Tamil Nadu	7728987	39678	3098	0	6373612	28219	1276	0	5789021	22389
Tripura	290344	18008	14261	20	307478	23375	19058	31	281753	18474
Uttarakhand	311916	1242	17	0	288297	1108	6	0	230677	953
Uttar Pradesh	4223366	105303	3149	0	3941958	91566	1875	0	3481182	82538
West Bengal	4408763	185964	41365	175	5271645	159646	43448	203	4656392	87754
A&N Islands	126996	3954	2073	0	131972	2993	1299	1	149351	3973
Chandigarh	92696	432	9	0	75901	449	7	0	87577	340
D & N Haveli	49664	116	183	0	130647	3786	1813	0	58209	3780
Daman & Diu	18732	104	17	0	28897	140	19	0	26452	99
Delhi	1031488	1133	61	0	940300	928	36	0	668761	182
Lakshadweep	811	0	0	0	1410	0	0	0	426	0
Puducherry	218563	44	2	0	196371	50	2	0	125463	68
All India Total	104143806	1816569	805077	963	106725851	1785129	840360	1707	94928090	1508927

Source: Directorate of National Vector Borne Disease Control Programme

**Provisional*

*** Up to September*

2007		2008*				2009**			
Pf cases	Deaths	Blood Slide Examination	Malaria cases	Pf cases	Deaths	Blood Slide Examination	Malaria cases	Pf cases	Deaths
16996	2	8831297	26165	15815	0	6495937	18035	10264	1
8535	36	250884	28072	7074	6	149790	14207	3852	0
65515	152	2637875	83869496	58224	86	2349139	75489	55578	59
739	1	71272	496	63	1	87719	2258	1685	0
102926	0	3041667	123495	94803	0	2061475	74377	58395	6
3047	11	397349	9822	2727	21	316838	3980	874	3
18407	73	9078952	50884	11668	36	7501624	30236	3518	12
330	0	2571866	35683	1397	0	1415758	23457	360	0
3	0	384835	144	2	0	294148	153	0	0
17	1	394922	200	17	1	332979	243	10	0
45926	31	2529898	212496	74178	25	2369438	159232	57073	9
11295	18	8878353	47162	9957	7	6035224	22274	2825	0
293	6	1822003	1804	217	3	1546491	1481	167	0
36694	41	9243295	105265	42274	0	7132260	58938	10944	0
22691	182	13236115	67321	22238	164	7683693	55234	10682	106
400	4	134755	708	356	2	89580	827	506	3
30731	237	333759	38210	35037	73	390303	63345	61320	144
4189	75	165541	7306	6172	91	148711	7478	5986	107
820	26	135910	5674	817	0	122238	6330	1965	30
323150	221	4888926	359619	314130	218	3537906	261947	2277809	130
41	0	2979882	2494	38	0	2273310	2633	17	0
3447	46	8041283	57482	3954	54	5615005	26787	938	0
7	0	6164	38	10	0	5406	36	12	1
1363	1	5709615	27373	992	0	5404127	11134	334	1
15928	51	334245	25451	22806	46	286791	20669	19521	60
2	0	226903	1059	47	0	117163	659	15	0
2106	0	4150306	93383	2310	0	2605455	40631	249	0
21974	96	4452637	104757	24058	101	3731319	86407	17625	81
2210	0	149631	4688	3176	0	90727	4403	2836	0
3	0	77716	347	6	0	65083	376	2	0
1269	0	51804	3037	995	0	44138	2085	613	0
15	0	27155	110	19	0	18159	58	8	0
2	0	593882	253	0	0	349279	147	0	0
0	0	227	0	0	0	330	1	0	0
5	0	127963	72	5	0	72926	41	0	0
741076	1311	95958887	1524939	755582	935	70740469	1075588	555983	754

Table 11: Prevalence and mortality due to TB per 100,000 population

Year	Prevalence of TB per 100,000 population	Mortality due to TB per 100,000 population
1990	586	42
1992	566	42
1994	542	43
1995	525	44
1999	476	44
2001	411	40
2002	389	38
2005	299	29
2006	299	28
2007	283	26

Source: Annual Global TB Report, WHO

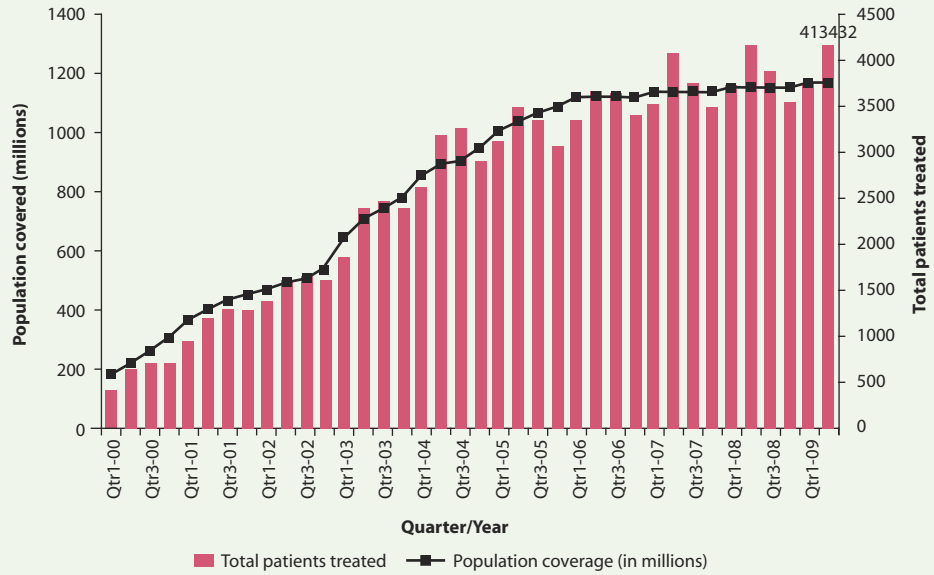
the expansion of DOTS to the entire country by 2006 since its inception in 1997 and drastic improvement in detection rate and success rate, the mortality associated with TB started declining fast after 2001. Between 1990 and 2000, the mortality per 1,00,000 population hovered in the range 42-44, and then in the last seven years since 2001, the mortality due to TB slid down from 44 to 26 in 2007. Repeat population surveys conducted by TRC indicate an annual decline in prevalence of disease by 12%.

In 2008 (January to December), 6,816,844 TB suspect cases were examined. Of this number, 9,11,739 (13%) were diagnosed smear +ve. TB patients declared and registered for treatment under DOTS were 1,517,602 of which 6,16,053 were new smear +ve cases. Among the States, those having more than the national percentage of smear +ve diagnosed from suspected cases examined in 2008 are Rajasthan (19%), Delhi (16%), Madhya Pradesh (16%), D&N Haveli (16%), Gujarat (16%), Andhra Pradesh (15%), Assam (15%), Haryana (15%), Jharkhand (15%), Nagaland (15%) and Uttar Pradesh (15%), which are also the leading TB burden States.

Table 12: DOTS implementation pattern

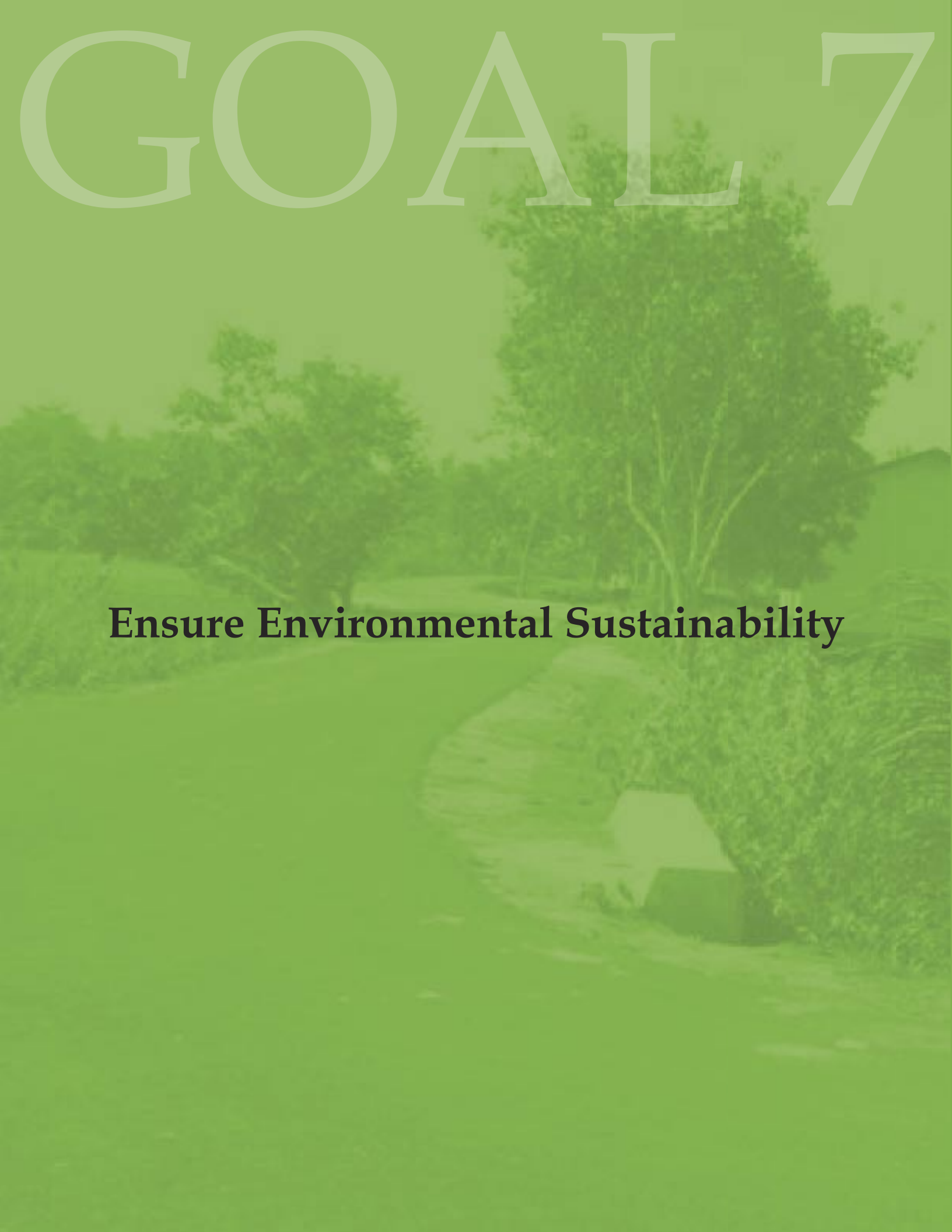
Year>	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Progress in DOTS implementation (% of population covered by DOTS)														
		1.5	2.0	2.3	9.0	14	30	45	52	67	84	91	100	100
Case detection rate for new smear +ve cases (%) under DOTS Programme														
		0.3	0.9	1.0	1.7	6.9	12	23	30	44	56	60	64	68
Treatment success for new smear +ve cases treated under DOTS (%)														
	83	79	79	82	84	82	84	85	87	86	86	86	86	87

Figure 86: Population in India covered under DOTS and total TB patients put on treatment each quarter



Treatment success rates have tripled from 25% to 87% and TB death rates have been cut seven-fold from 29% to 4% in comparison to the pre-RNTCP era. Since its inception, the Programme has initiated nearly 10 million patients on treatment, thus, saving nearly 1.8 million additional lives.

GOAL 7



Ensure Environmental Sustainability

Target 9

Integrate the principles of sustainable development into country policies and programmes, and reverse the loss of environmental resources.

The present national policies for environmental management are contained in the *National Forest Policy*, 1988; the *National Conservation Strategy and Policy Statement on Environment and Development*, 1992; and the *Policy Statement on Abatement of Pollution*, 1992. India's *National Environment Policy,* 2006 (NEP 2006) seeks to extend the coverage of all the existing policies and fill in gaps that still exist. In the light of present knowledge and accumulated experience, it complements the earlier policies. In response to the national commitment to a clean environment, mandated in the **Constitution in Articles 48 A and 51 A(g), and as strengthened by judicial** interpretation of Article 21, the NEP 2006 intends to mainstream environment concerns in all development activities. It recognises that environmental sustainability is an integral part of the national economic and social development plans and programmes of the country including the Five Year Plans.

Forest and Tree Cover

The Eleventh Five Year Plan (2007-12) of India envisages five percentage point increase in forest and tree cover by the end of the Plan period, apart from a few other monitorable targets for priority actions in environment related areas.

The total forest cover[30] of the country, as per the revised estimate of the 2005 assessment, is 690,171 sq.km (revised up from erstwhile estimate

[30] *Forest cover includes all lands of more than 1 ha area, with tree canopy density of more than 10%. It thus includes all tree patches of trees outside forests which are more than 1 ha in area.*

of 677,088 sq.km), constituting 20.99% of the geographical area of the country. The revised estimate of the 2005 forest cover is not exactly comparable with the earlier estimates, due to methodological changes adopted for the revision. The comparable estimate of forest cover assessed for the year 2007 is 690,899 sq.km that constitutes 21.02% of geographical area of the country.[31] There is an increase in forest cover by about 728 sq.km between 2005 and 2007 (going by comparable revised estimate for 2005). The latest estimate for 2007 is based on vector approach in which forest cover patches are mapped in polygons, making the area assessment more accurate. The earlier estimate for 2005 has also been revised by this new technique.

India's forest cover has increased by 728 sq.km during 2005-07, raising the percentage share of forest area in total geographical area from 20.99% in 2005 to 21.02% in 2007.

In case of tree cover assessment,[32] the indirect method of estimation of tree cover under scattered trees and trees in urban areas, which was in use for the earlier estimates, has been replaced by direct estimation from the crown diameter. The total tree cover of the country, estimated as 91,663 sq.km or about 2.79% of the country's geographical area in 2005[33] has increased to 92,769 sq.km (2.82% of county's GA) in 2007.

Continuing the commendable trend of the past decade, India's forest cover increase of 728 sq.km (a marginal rise of 0.03% of country's GA) during 2005-07 comprises significant increase in forest cover in Mizoram (640 km^2), Manipur (328 km^2), Jharkhand (172 km^2) and Orissa (100 km^2). During the period, there has been loss of forest cover in Andhra Pradesh (-129 km^2), Arunachal Pradesh (-119 km^2), Chhattisgarh (-59 km^2), Nagaland (-201 km^2) and Tripura (-100 km^2). Of the States, which had shown decline in their forest covers during 2003-05, going by the earlier (pre-revised) estimates, Arunachal Pradesh (-242 km^2), Madhya Pradesh (-416 km^2), Karnataka (-1198 km^2) and Assam (-174 km^2) and Andaman & Nicobar Islands (-335 km^2) were the major losers. There was a significant loss of forests in the Andaman & Nicobar Islands because of the Tsunami in 2004. However, significant part of the forest cover loss has, on re-assessment for the year 2005, got restored in case of Assam (0.4%), Jharkhand (0.6%), Karnataka (2.7%) and Madhya Pradesh (2.3%). This helped some of these major forest losing States statistically improve the loss when compared to their 2007 forest cover area. The States of Jharkhand and Manipur even turned gainers.

---

[31] *State of Forest Report, 2009*

[32] *Tree cover includes tree patches outside recorded forest area which are less than 1 ha such as trees on village common lands, farm lands, lands along roads, railways, canals, and in homesteads.*

[33] *State of Forest Report, 2005*

Table 13: Major forest losing States

Unit = Km^2

States	Year 2003	Year 2005	Change +/-	Year 2005 (revised)	Year 2007	Change +/-
Andaman & Nicobar Island	6964	6629	-335	6663	6662	-1
Arunachal Pradesh	68019	67777	-242	67472	67353	-119
Assam	27819	27645	-174	27758	27692	-66
Chhattisgarh	55998	55863	-135	55929	55870	-59
Jharkhand	22716	22591	-125	22722	22894	172
Karnataka	36449	35251	-1198	36200	36190	-10
Madhya Pradesh	76429	76013	-416	77739	77700	-39
Manipur	17219	17086	-133	16952	17280	328

The forest cover of the country has however, increased considerably during the last two decades. The area under forest in the year 1995 was 639,600 sq.km (19.46% of country's GA) and that increased to 677,171 sq.km (20.99% of country's GA) by 2005, a 6% increase in relation to the coverage area 10 years back, and further to 690,899 sq.km (21.02% of country's GA) in 2007. In the past 10 years, forest cover has increased by 3.31 million hectares, showing an average 0.46% increase every year. Open forest area of the country is on the rise (increased 1626 km^2 between 2005 and 2007) as 35 km^2 changed from open forest to very dense forest, and 1,821 km^2 changed from open to moderately dense forest despite loss of 4,149 km^2 of open forest to non-forest areas. On the other hand, coverage of moderately dense forests tends to decline (decreased 936 km^2 between 2005-07) with 1,948 km^2 of moderately dense forest area becoming open forest and 2,130 km^2 becoming non-forest though 220 km^2 turned very dense.

Country's geographical area of 3,287,263 km^2 has about 183,135 km^2 above the tree-line at 4,000 m altitude in the States of Arunachal Pradesh, Himachal Pradesh, J&K, Sikkim and Uttarakhand. Taking into account only the geographical area of the country excluding the above tree-line area, the forest cover area of year 2007 constitutes 22.26% of the said net GA of the country and the forest and tree cover together constitutes 25.25% of the net GA. Against the national goal of 33% area under forest and tree cover, the 2007 coverage signifies the sustainability of the approach in reversing forest loss in the process of development.

Figure 87: Forest cover in 2005

Fig 2.2 : Distribution of Forest Cover in India

Figure 88: Forest cover in 2007

Protection of Biodiversity

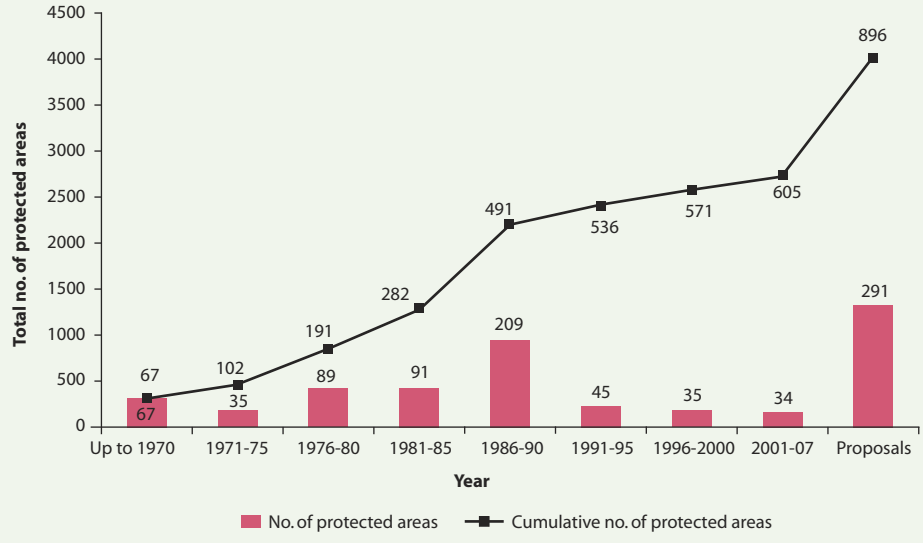
India, a mega diverse country with only 2.4% of the land area, accounts for 7-8% of the recorded species of the world, including over 45,500 species of plants and 91,000 species of animals.

India is situated at a tri-junction of the Afro-tropical, the Indo-Malayan and the Palaeo-Arctic realm, which displays significant biodiversity. Being one of the 17 identified mega diverse countries, it is home to 8.58% of mammalians, 13.66% of avians, 7.91% of reptilians, 4.66% of amphibians, 11.72% of fish, and 11.80% of plant species documented so far. Of the 2,356 known species of amphibians, birds, reptiles and mammals of India, 18.4% are endemic, meaning they exist in no other country, and 10.8% are endangered. India is home to at least 18,664 species of vascular plants, of which 26.8% are endemic.

The network of protected areas presently covers about 4.83% of the country's total land area under IUCN[34] categories I-V and includes 100 national parks, 514 wildlife sanctuaries, 43 conservation reserves and 4 community reserves (all together 661 protected areas). These cover both terrestrial and freshwater ecosystems, cold deserts and nine coastal and marine protected areas.

Total protected area coverage stands at 4.83% of country's geographical area in March 2009 against 4.74% in 2006.

Figure 89: Growth of protected areas in India



Source: Wildlife Institute of India, 2009

[34] *(a) Nature Reserves, Wilderness Areas and National Parks (Categories I and II); (b) Areas Managed for Sustainable Use and Unclassified Areas (Category VI and 'other'); and (c) Natural Monuments, Species Management Areas and Protected Landscapes and Seascapes (Categories III, IV and V)*

The total area covered under national parks and wildlife sanctuaries, which constitute major part of the protected areas in India, has increased from 155,961.06 sq.km in 1999 to 155,980.15 sq.km in 2006 (4.74% of country's GA). The total area protected through national parks, wildlife sanctuaries, conservation reserves and community reserves stands at 1,58,745 sq.km as of March 2009 (4.83% of country's GA). The country is on track in increasing the protection network for arresting the biodiversity losses and for maintaining ecological balance.

Carbon Dioxide Emission

In spite of a reasonable growth in GDP and dependence on fossil fuels to meet the energy needs for industrial development and better living of the people of the country, Carbon Dioxide (CO_2) emission per capita in India is still low compared to most of the developed countries. CO_2 emission from all energy, industrial processes and LULUCF[35] activities contributed 65% of the total Greenhouse Gases (GHG) emission in 1994. The relative contributions of the three activities to the net CO_2 released in India were 85%, 13% and 2% respectively.

Fossil fuels contributed 95% of the total commercial energy consumed in India, with the remaining 5% derived from sources like hydropower, nuclear and renewable energy. Fossil fuels combustion contributed 91% of total CO_2 emission, with coal accounting for nearly 62%. CO_2 emission in India in 2005 was 1.28 metric tonne per capita as against 0.80 metric tonne per capita in 1990. As per the 2005 assessment, per capita CO_2 emission (in metric tonne) in China (4.26), Russia (10.50), UK (9.07), France (6.20), Germany (9.51), Canada (16.64), USA (19.54) and Australia (18.09) continues to be very high compared to India's. In terms of CO_2 emission per unit of Total Primary Energy Supply (in MT/terajoule), India has comparatively low intensity of emission (53.2 in 2007) as compared to developed countries: China (73.6), Russia (56.4), UK (59.1), France (33.4), Germany (57.6), Canada (50.8), USA (58.9) and Australia (76.3).

Table 14: Change in CO_2 emission in India

Year	1990	1992	1994	1996	1998	2000	2002	2004	2006	2007
Per capita CO_2 emission (MT)[36]	0.80	0.87	0.92	1.03	1.06	1.13	1.15	1.22	1.31	-
CO_2 emission/TPES[37,38] (MT/terajoule)	44.2	46.0	47.4	49.5	49.6	51.0	50.9	51.4	53.0	53.2

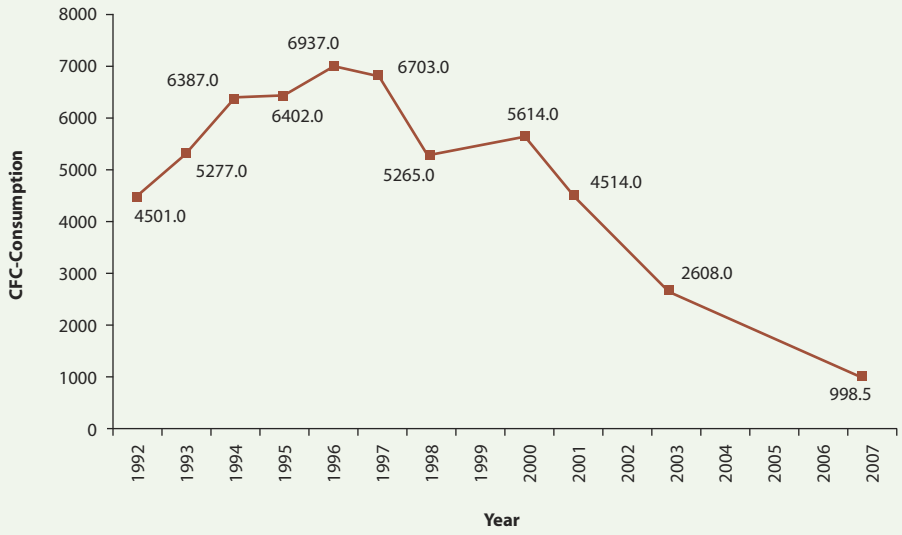
[35] *Land-Use, Land-Use Change and Forestry*

[36] *Source: Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, Tennessee, United States*

[37] *Total Primary Energy Supply*

[38] *Source: International Energy Agency*

Figure 90: Consumption of CFCs (ODP tonne)



Ozone Depleting Potential

India became party to the Montreal Protocol in 1992. Thereafter, India also ratified the Copenhagen, Montreal and Beijing Amendments to the Montreal Protocol in 2003. As per Article 7 of the Montreal Protocol, India maintains and reports ODS[39] data on year to year basis. The per capita consumption of ODS in India did not cross 20 g between 1995 and 1997 (baseline) as against 300 g permitted under the Protocol. India was self-sufficient in production of CFCs[40] and was mainly producing and using nine of the 95 substances controlled under the Montreal Protocol.

India is in the process of phasing out ODS both in the end use consumption sector and in production sector. As of 31 August, 2009, India has 299 ODS phase out projects to phase out 47,085 ODP[41] tonne. As a consequence of the ongoing measures, consumption of ozone depleting CFCs in ODP tonne has started coming down sharply after the year 2000. Between 1992 and 1996, the consumption of CFC continued rising before gradual downturn setting in from the year 1997.

[39] *Ozone Depleting Substance*

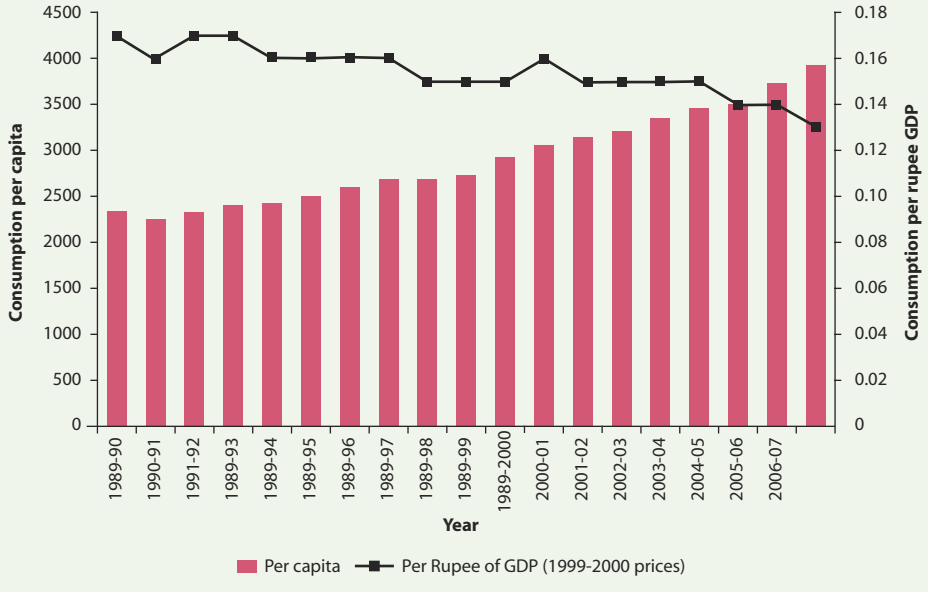
[40] *Chloro-Fluoro-Carbons*

[41] *Ozone Depleting Potential*

Efficient Energy Use

Lowering energy intensity of GDP growth through higher energy efficiency is key to meeting India's energy challenge and achieving its energy security. The industry sector is the largest user of commercial energy in India, accounting for 42% of the country's total commercial energy use during 2004-05 (NAPCC 2008). Although the efficiency of most large industrial units has been improving over time, and specific energy consumption of many of the large plants compares well with the world's best, it is estimated that CO_2 emission from fuel and electricity use in the industry sector could be further reduced by about 605 million tonnes (approximately 16% reduction from the BaU[42] scenario) by the year 2031 (NAPCC 2008). As a party to the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, India played an active role in multilateral cooperation to address climate change. The Global Environmental Facility (GEF) finances implementation of projects in developing countries under the Convention. Additionally, the Kyoto Protocol created the Clean Development Mechanism (CDM), which allows developed countries to meet part of their emission reduction commitments by purchasing credits from emission reduction projects in developing countries, thus, serving the dual objective of facilitating compliance by developed countries of their emission reduction commitments and of assisting developing countries to achieve sustainable

Figure 91: Energy consumption in KWH



Source: Energy Statistics of India 2009, CSO, Govt. of India

[42] *Business-as-Usual*

development. India has given host country approval for 969 CDM projects as of June 2008. Of the 969 projects, 340 projects have been registered by the CDM Executive Board (CDMEB). India accounts for about 32% of the world total 1,081 projects registered with the CDMEB, followed by China (20%), Brazil (13%) and Mexico (10%). (Source: UNFCCC) About 493 million certified emission reductions (CERs) are expected to be generated until 2012 if all these host country approved projects in India go on stream (National CDM Authority, November, 2007). As of June 2008, 152.4 million CERs had been issued to projects worldwide, of which India accounted for 28.21%, China (29.25%), Korea (17.87%) and Brazil 14.13%).

While per capita energy consumption increased from 2337.47 KWH in 1989-90 to 3928.16 KWH in 2007-08, the energy consumption per unit (Rupee) of GDP at 1999-2000 prices decreased from 0.17 in 1989-90 to 0.13 in 2007-08.

Target 10

Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

Water supply and sanitation in India continue to be inadequate, despite longstanding efforts by the Government at various levels and communities at improving coverage. The situation is particularly inadequate for sanitation, since only one of three Indians has access to improved sanitation facilities (including improved latrines). While the share of those with access to an improved water source is much higher than that for sanitation, the quality of service is poor and most users that are counted as having access, receive water of dubious quality and only on an intermittent basis.

In the absence of common standard definitions, temporal comparison using existing survey and Census estimates is hardly possible. With a number of assumptions and taking into account the typological differences in the categories of data disaggregation for use or access, derived estimates based

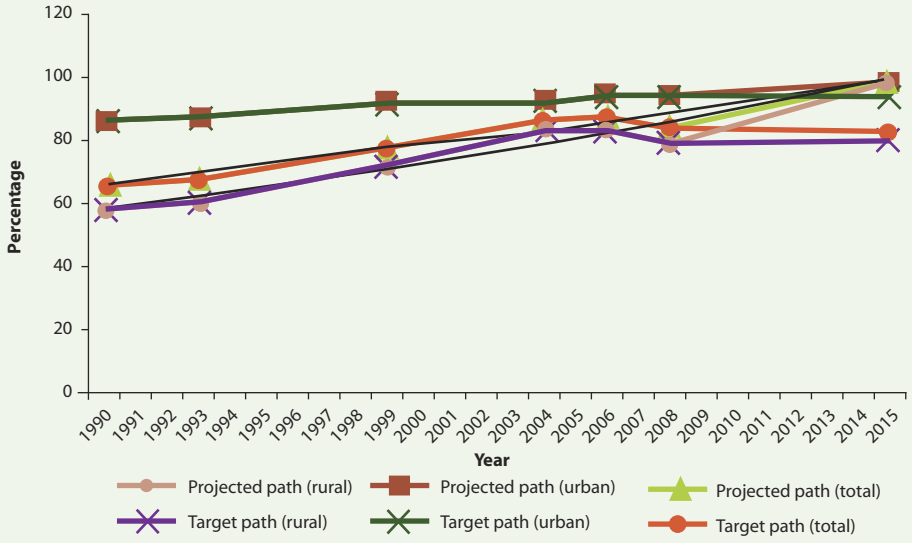
on major national surveys and population censuses have been used by international agencies for global level comparisons. Access to safe drinking water and improved sanitation for a few reference time points between 1991 and 2008 have been estimated at national level using certain specific categories as forming improved water[43] sources and improved sanitation[44] facilities accounted for in India's household surveys/census. The present assessment is not based on these estimates.

2015 Target (17%) for proportion of households without access to safe drinking water sources has already been attained by 2007-08 (16%).

Access to Improved Drinking Water Sources

In terms of actual estimates from NFHS and District Level Household and Facility Survey (DLHS), the coverage of households having access to improved water sources gives a clear trend in attainment of MDG target.

Figure 92: Access to improved drinking water sources (India)



	1990	1993	1999	2004	2006	2008	2015
Projected path (rural)	58.94	60.90	72.30	83.90	84.50	79.60	99.25
Projected path (urban)	87.12	87.60	92.60	92.80	95.00	94.40	98.58
Projected path (total)	66.37	68.20	77.90	86.70	87.90	84.40	99.67
Target path (rural)	58.94	60.90	72.30	83.90	84.50	79.60	79.47
Target path (urban)	87.12	87.60	92.60	92.80	95.00	94.40	93.56
Target path (total)	66.37	68.20	77.90	86.70	87.90	84.40	83.18

[43] *Improved water sources as identified for MDG target include: (a) piped water into dwelling, plot/land; (b) public tap/ standpipe; (c) tubewell/borewell; (d) protected dugwell; (e) protected spring; and (f) rainwater collection/harvested rainwater. Shared sources of above types are regarded as improved.*

[44] *Improved sanitation facilities as identified for MDG target include: (a) flush/pour flush into septic tank, piped sewer system, or pit; (b) ventilated improved pit latrine; (c) pit latrine with slab; and (d) compositing toilet. Shared facilities of above types are not regarded as improved.*

The overall proportion of households having access to improved water sources increased from about 68.2% in 1992-93 (about 60.9% for rural and 87.6% for urban) to 84.4% in 2007-08 (79.6% for rural and 94.4% for urban). The latest estimates based on DLHS 2007-08 show a downturn following the NFHS estimates for 2005-06 registering a much better situation with the overall proportion of about 88% (84.5% for rural and 95% for urban). Giving allowance to estimation vagaries, the prevailing trend over time however, suggests attainability of almost cent percent coverage by 2015, including both rural and urban sectors. In other words, halving the proportion of households without access to safe drinking water sources from its 1990 level (about 34%), i.e. of the order of 17% to be reached by 2015, has already been attained by 2007-08, much before the target timeline. The sustainability of the level of achievement however, depends on creating safe drinking water supply facilities for the ever increasing population at a rate at least the same as the average rate observed in the last two decades. The proportion of rural households having access to improved drinking water sources is likely to reach 99% by 2015 (against target of 79.5%) and that of the urban households is likely to reach 98% (against the target of 94%).

Access to Improved Sanitation Facilities

Sanitation includes water supply, safe disposal of human waste, waste water and solid waste management, control of vector borne diseases, do mestic and personal hygiene, food, housing etc. India, one of the most densely populated countries in the world, has the lowest sanitation coverage. In 1991, only about one-tenth of its rural population of 627 million reported to have access to latrines (Census of India, 1991). By 2001, sanitation coverage in terms of population of India increased to 36% with 22% in rural areas. 'Improved' sanitation facility has not been defined for the purpose of surveys and population Census in the period prior to 2006. As a result, the typology of the categories of sanitation facilities used in household surveys or in population Census is found to differ and no particular grouping of the types can really give comparable data for use or access to improved sanitation. Between 1990 and 2006, estimates available for households using sanitation facilities have been brought out with typologies which cannot be aligned one-to-one or in any other manner to provide estimates for people's/households' access to/use of 'improved' sanitation facilities. From NFHS-3 for 2005-06, categorisation towards improved and not-improved types of sanitation could be roughly figured out, though there was ample scope for classificatory discretion for distinguishing the two types.

The proportion of households using improved sanitation facilities, according to NFHS-3 estimates for 2005-06, is 40.6% (considering the shared facilities of the categories of improved facilities as also improved). The latest estimate based on DLHS-3 for 2007-08 however, indicates that about 42.3% households have access to improved sanitation, i.e. 57.7% households of the country still don't have improved sanitation facility.

Table 15: Households using improved sanitation (%)

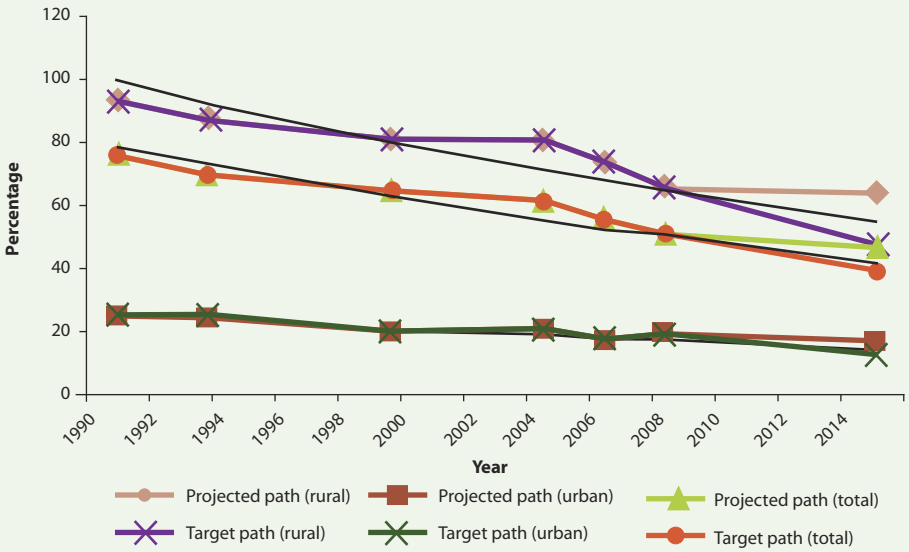
% of households using improved sanitation	2005-06 NFHS-3	2007-08 DLHS-3
Rural	22.9	26.2
Urban	77.0	75.9
Total	40.6	42.3

At the current rate of decline, India is likely to have the proportion of households without any sanitation reduced to about 46% by 2015 against the target of 38%.

As the types of sanitation facilities that can be classified under 'improved' category in the Indian context still require standardisation and estimates for it cannot be had unambiguously for the years prior to 2005-06, it is not appropriate to try to derive estimates for use/access to 'improved' sanitation for the purpose of MDG tracking. On the other hand, there are fairly consistent estimates available for the proportion of households having no sanitation facility right from 1991 population Census. In the Indian context, the size of the population which has no access to or doesn't use any sanitation facility being huge and much higher than the population which has access to or use sanitation facilities of different types, and also being mainly composed of the openly-defecating people, it is no less pertinent to use the proportion of households having no sanitation facility of any type. However, this fails to provide an indirect measure for no access to 'improved sanitation', which is a hygienically defined concept and composed of the types of facilities that meet the requirement of environmental quality of people's life.

Given the 1990 level for households without any sanitation facility at 76%, India is required to reduce the proportion of households having no access to improved sanitation to 38% by 2015. The proportion of households having no sanitation facility has declined from about 70% in 1992-93 (24% urban and 87% rural) to about 51% in 2007-08 (19% urban and 66% rural). It is expected that at this rate of decline, India may achieve to reduce the proportion of households without any sanitation to about 46% by 2015, missing the target by about eight percentage points. By 2015, India is likely to reduce the rural proportion of no sanitation to 63% (against target of 47%) and urban proportion of no sanitation to 15% (against target of 12%).

Figure 93: Households without sanitation facility (India)



	1990	1993	1999	2004	2006	2008	2015
Projected path (rural)	93.29	87.10	81.10	80.80	74.00	65.80	63.24
Projected path (urban)	24.28	24.10	19.30	20.20	16.80	19.20	15.84
Projected path (total)	75.52	69.70	64.00	60.80	55.30	50.70	46.33
Target path (rural)	93.29	87.10	81.10	80.80	74.00	65.80	46.64
Target path (urban)	24.28	24.10	19.30	20.20	16.80	19.20	12.14
Target path (total)	75.52	69.70	64.00	60.80	55.30	50.70	37.76

Target 11

By 2020, to have achieved, a significant improvement in the lives of at least 100 million slum dwellers.

With a population of well over one billion people, India is the second most populous nation in the world. India is home to 63% of all slum dwellers in South Asia. This amounts to 170 million people, 17% of the world's slum dwellers. The expansion of India's slums is partly due to the rise in India's total population, which increased from 683 million in 1981 to 1.03 billion in

2001. That has been exacerbated by mass migration from the countryside as millions of farmers have forsaken the diminishing returns of small scale agriculture to seek the relatively high wages of manual labourers in India's cities.

As India continues to develop its infrastructure and tries to compete economically with the West, it is important that significant improvement in the lives of slum dwellers in terms of secure tenureship and other civic facilities takes place at a fast pace.

The percentage of BPL[45] population in the urban areas in India has declined from 32.3% in 1993-94 to 25.7% in 2004-05 (based on URP estimate of NSS 61st round). The survey shows that urban poverty has registered a decline in percentage term, but it has increased in absolute terms by 4.4 million persons. The number of urban poor is, in fact, rising continuously since 1973-74, when it was 60.04 million (based on URP estimate of NSS).

In India, slum data have been collected for the first time in Census 2001 for towns/cities having urban population of 50,000 or more. 640 towns spread over 26 States/UTs reported existence of slums. 42.6 million people consisting of 8.2 million households resided in slums of these towns in 2001.

Table 16: Slum Population – Census 2001

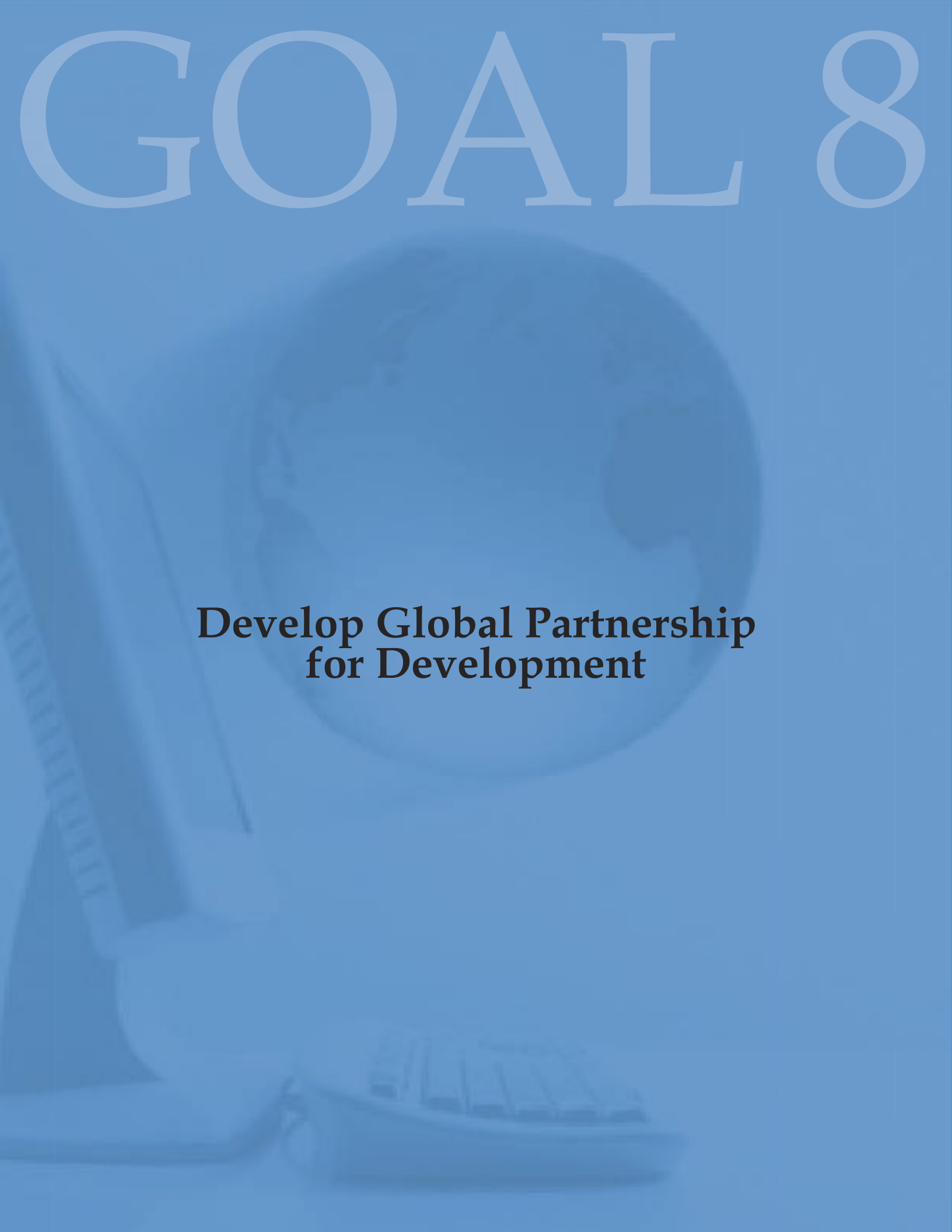
Slum population 1991 (TCPO estimates)	46.26 million
Slum population 2001 (TCPO estimates)	61.82 million
No. of towns reporting slums in Census 2001	640#
Reported slum population in 640 towns, 2001	42.58 million
Population of towns/cities reporting slums, 2001	184.35 million
Share of slum population to population of towns/cities reporting slums, 2001	23.1%

Note: # Towns with population of 50,000 or more.

For the purpose of temporal comparison on progress in terms of the prescribed indicator, viz. proportion of households with access to secure tenure, the indicator adopted for this report is share of slum population as percentage of urban population. As indicated in the table above, this proportion in respect of town/cities reporting slums stands at 23.1% in 2001. Comparative figures for any other period are not available for assessing any progress in the situation.

[45] *Below Poverty Line*

GOAL 8



Develop Global Partnership for Development

While the principal responsibility of achieving the MDGs, like other development objectives, lies with national Governments, the need for assistance as embodied in Goal 8, is one the key elements to the attainment of MDGs universally. The key issue in this regard is of significantly enhancing ODA as it is estimated that over US $50 billion increase in ODA would be required every year till 2015 just to meet the MDGs, and the developed countries would have to move to the long-set targets of 0.7% of GNI as ODA. However, as trends show, most of the donors are not on track to meet their stated commitments despite a clear recognition by almost all panels. It is, therefore, felt that unless aid commitments translate into actual delivery, securing MDGs will remain elusive. It is also felt necessary that additional resources for implementing the development agenda should be channelised through the existing multilateral agencies, though individual countries still have a preference to bilaterally negotiate aid requirements rather than channelise aid through multilateral agencies.

In the context of G8/G5 (Brazil, China, India, Mexico and South Africa) Heiligendamm process (a dialogue process between G8 and G5), there is a working group on development and development cooperation. A key focus of the G8 in this context is to rope in the bigger developing countries for "shared responsibility" in development and development cooperation. While India has been active in South-South Cooperation, it needs to be clear that this is in the nature of a development partnership and not in the mode of traditional donor/recipient relationship. Thus, it is felt that need of the developed countries to meet their commitments on MDG aid to developing countries should not be diluted.

India, like other developing countries, does not have aid responsibility as part of the global partnership, but the country has been doing its bit both in the multilateral framework as well as through South-South Cooperation. This includes writing off loans to seven Heavily Indebted Poor Countries (HIPCs) amounting to over US$ 25 million, concessional loans and credit lines of over US$ 400 million to Small Island Developing States (SIDS) and other developing countries apart from very significant development cooperation with land-locked countries in its neighbourhood.

In the global discussions on ODA, the developed countries have been able to introduce several issues including good governance, transparency, accountability, aid harmonisation and capacity to absorb aid. Several ideas of "innovative" means of financing development and MDGs have also

been floated and with the general acceptance that ODA levels are not likely to increase as required, there needs to be a willingness to look at innovative sources. Though India is supportive of the efforts for various innovative sources of financing such as the International Financing Facility (IFF) and levy on airline tickets, it feels that innovative financing is not a substitute for traditional ODA, but is just complementary to it.

Target 12

In cooperation with the private sector, make available the benefits of new technologies, especially information and communication.

Starting from early 1990s, India began to implement trade liberalisation measures that include market access. Over the last several years, India has emerged as one of the major development partners for fostering techno-economic and intellectual assistance to various developed countries across different regions of the world. The Indian ICT industry, in particular the IT software and services, and ITES sectors, have not only managed to catch up with their more technology savvy global leaders, but they are also being actively sought by companies worldwide for their on-site, offshore expertise and wealth of manpower resources. Indian ICT organisations are now counted among the more well known and reputed ICT solutions and providers across the world. As India is also keen to join with other countries to benefit the third world countries, the triangular cooperation is likely to play a major role in the days to come as professional skills and other necessary inputs such as finances and technology are combined for optimising returns on development expenditure. But as regards the issue of international trading and financial systems, India is in support for fair trade; for open, democratic and transparent trade negotiations; for more equal terms of trade; and for rules that do not override local and national economic policy and democratic decision making in terms of labour laws, environmental laws, human right laws, and affirmative actions, among others.

The exponential growth in the telecom sector has been mainly due to the positive and corrective policies consistently pursued by the Government. The Government of India plans to raise internet subscriber base to 100 million and provide internet connectivity to all villages in the country by 2014. Currently, India has about 45 million internet users. Common service centres with broadband facility in 0.1 million Panchayats are proposed to be set up in three years, of which 0.07 million are already in place. The broadband connectivity at present is available to only 2% of the country's population and penetration of Personal Computer (PC) is just 3%.

Overall tele-density has remarkably increased from 0.67 per 100 population in 1991 to 36.98 per 100 population in March 2009.

The overall tele-density has remarkably increased from 0.67 per 100 population in 1991 to 18.22 per 100 population by March 2007, and further to 36.98 per 100 population in March 2009. The tele-density has more than doubled in the last two years. The total number of telephones (Fixed + Wireless) increased from 22.8 million in 1999 to as high as 207 million in March 2007 and to 467.69 million by March 2009. The number of wireless phones increased from only 1.2 million lines in 1999 to over 166 million lines in March 2007 and about 430 million lines by March 2009. Consequently, the overall tele-density, which was only 0.67 per 100 population in 1991, has increased to cover almost 4 persons out of 10 of the country's population in March 2009. Use of personal computers has also increased from 5.4 million PCs in 2001 to 19.6 million in 2006. There are 13.5 million internet subscribers by March 2009.

There has been a spectacular increase in tele-density to 43.50 per hundred population at the end of September 2009 with rural tele-density of 18.46 and urban tele-density of 102.79 per hundred population against a tele-density of 36.98 per hundred population at the end of March 2009 with rural tele-density of 15.11 and urban tele-density of 88.84 per hundred population. The high rate of increase in tele-density has been mainly due to very high increase in telephone connections in the urban circles of most of the States. The tele-density in the urban areas of the States of Andhra Pradesh, Bihar, Himachal Pradesh, Kerala and Rajasthan apart from the telephone circles of North-East-I, Kolkata, Chennai, Delhi and Mumbai is more than 100, which signifies more

Table 17: Number of telephones/mobile phones (in million) [At the end of March each year]

	1999	2002	2006	2007	2008	2009
No. of telephones (Wireline)	21.61	38.29	40.23	40.77	39.42	37.97*
No. of wireless phones (WLL+ GSM)	1.20	6.68	101.86	166.05	300.50	429.72*
No. of internet subscribers	0.21	3.23	6.96	8.61	12.24@	13.54

@ At the end of September 2008.

**By the end of September 2009, the total telephone subscriber base has reached 509.03 million with 471.03 million wireless connections and 37.31 million wireline connections. The rural subscriber base is 151.81 million against the urban base of 357.22 million.*

Table 18: Telephone per 100 population (Tele-density)

Telephone Circles or States/ UTs	31st March, 2009			31st March, 2007			31st March, 2004		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
A&N Islands	16.57	28.89	21.24	14.17	23.00	17.39	8.40	17.50	11.56
Andhra Pradesh	15.22	103.38	39.59	3.11	63.03	19.62	2.33	22.70	7.85
Assam	9.36	86.98	20.65	1.35	62.04	9.92	0.56	1.47	2.13
Bihar	9.17	133.00	22.18	0.88	64.15	7.52	0.50	11.64	1.67
Chhattisgarh	1.81	16.69	5.15	0.99	11.28	3.24	0.47	6.02	1.63
Gujarat[46]	25.21	75.43	45.16	3.71	55.93	24.14	2.52	22.46	10.14
Haryana	28.10	75.98	43.75	4.50	63.15	23.11	2.42	22.01	8.38
Himachal Pradesh	40.47	179.81	55.50	11.66	179.40	29.33	5.51	51.12	10.14
J&K	16.72	77.42	32.76	9.92	33.58	16.08	0.61	10.12	3.01
Jharkhand	1.44	13.02	4.11	1.08	11.33	3.43	0.45	7.34	2.00
Karnataka	14.36	98.73	45.21	3.18	64.06	25.05	2.41	22.58	9.46
Kerala[47]	35.43	125.35	58.48	14.44	88.68	33.54	8.60	32.82	14.87
Madhya Pradesh	11.07	80.36	30.08	1.16	43.52	12.68	0.68	12.91	3.99
Maharashtra[48]	21.70	69.67	37.90	3.98	48.74	18.78	2.31	19.99	8.00
North-East-I[49]	14.67	139.10	44.49	2.55	63.79	16.99	1.08	10.89	3.35
North-East-II[50]	3.69	27.36	9.21	2.89	22.58	7. 41	1.01	9.07	2.71
Orissa	12.55	78.09	23.30	2.24	49.19	9.78	0.95	13.86	2.95
Punjab	33.11	95.85	58.25	7.44	83.42	37.05	4.81	38.25	17.33
Rajasthan	16.71	102.56	37.15	2.89	56.08	15.49	4.50	14.83	1.32
Tamil Nadu[51]	25.62	79.48	50.46	4.49	45.49	22.55	2.35	17.21	8.54
Uttarakhand	6.04	25.97	11.59	4.36	23.19	9.50	1.48	15.17	5.10
UP(E&W)	6.60	44.24	14.78	1.33	45.26	10.77	0.47	12.24	2.96
West Bengal[52]	13.50	77.86	22.51	1.81	51.95	8.80	2.18	9.79	2.18
Kolkata	-	89.68	89.68	-	45.21	45.84	-	18.92	18.92
Chennai	-	127.38	127.38	-	73.90	75.46	-	38.81	38.81
Delhi	-	140.18	140.18	-	86.89	86.89	-	41.79	41.79
Mumbai	-	110.52	110.52	-	64.99	64.99	-	36.08	36.08
India	15.11	88.84	36.98	2.91	55.74	18.31	1.57	20.74	7.02

than one telephone per head in these areas. The high penetration of mobile phones in urban areas has contributed to high urban tele-density.

Penetration of telephone connections is comparatively low even in March 2009 in the urban areas of the States of Chhattisgarh, Jharkhand and Uttarakhand apart from the telephone circle of North-East-II comprising Arunachal Pradesh, Nagaland and Manipur, the lowest being 13.97 per hundred people for urban Jharkhand and the highest 25.97 per hundred people for urban Uttarakhand.

[46] *Gujarat+Dadra & Nagar Haveli+Daman & Diu*
[47] *Kerala+Lakshadweep*
[48] *Maharashtra+Goa-Mumbai*
[49] *Meghalaya+Mizoram+Tripura*
[50] *Arunachal Pradesh+Manipur+Nagaland*
[51] *Tamil Nadu+Puducherry-Chennai*
[52] *WB+Sikkim*

Technical Note on MDG Tracking

The tracking methodology followed in this report is based on that prescribed by the UNSD for developing countries. There are a number of alternative ways of statistical projections, which generally use various assumptions about the behaviour of data series in question. Such assumptions are required particularly when the measures for the prescribed indicators are derived from alternative indicators or using proxy variables. The principles for such alternative methods also differ from those advocated for the sake of uniformity among different countries, regions or population groups. The UN methodology is characterised by the simplicity of its formulation and ease of interpretation. As the indicators in India's MDG framework are mostly direct indicators, available data series of the indicators and their measures at any given point of time do not involve any imputation or indirect derivation. This simplifies the review exercise and eliminates the need to depend on assumptions. Following is the schematic description of the tracking technique adopted for the review exercise of this report.

Indicator selection criteria

1. Indicators that are directly related to a target
2. Indicators for which progress is measured for developing countries
   a. i.e. not for developed countries
   b. i.e. not for targets meant for least developed or island countries
3. Indicators that have quantitative targets to be reached by 2015
   a. Explicit target values for 2015
      i. Relative (reduce by ½, 2/3, ¾)
      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
  - Most MDG indicators move relatively slowly over time
  - Data gaps and number of observations don't allow sophisticated time series analysis
- Use all the information available
  - More efficient estimates

Indicator tracking technique

- Calculate 'required' rate of change, from the last available value, for the target to be met on time
- Calculate 'historical' rate of change between 1990 and the latest year an indicator value is available for
- Compare the required with the historical rates of change

Estimate historical rate of change

$X_t = ae^{bt}$ where X_t is indicator value for year t

$\text{Ln } X_t = a + bt$ Taking natural logarithm of both sides of equation above

r = exp(b^) -1 where r is historical rate of change

Regression run twice

1. On all observations from 1990 onwards
2. Same, but excluding the first observation
   a. In case the signs of b-hat differ, the value of the second run is used to calculate r
   b. Reasons: catch the outliers at the beginning of the series
      i. Particular issue for countries in which the social sector (health and education) collapsed in the early 1990s

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

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

$r^* = 0$ 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
  - 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:
  - Reducing e.g. child mortality rates by two-thirds from some already achieved low levels might be tremendously costly
  - 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

Eradicate Extreme Poverty and Hunger

Achieve Universal Primary Education

Promote Gender Equality and Empower Women

Reduce Child Mortality

Improve Maternal Health

Combat HIV/AIDS, Malaria and TB

Ensure Environmental Sustainability

Develop Global Partnership for Development