

Report
of the
Working Group on Labour Force & Employment Projections
constituted for the
Eleventh Five Year Plan (2007 – 2012)

Government of India
Planning Commission
(Labour, Employment & Manpower Division)

(September 2008)

FOREWORD

A quantitative scenario of the population, labour force and work force is the starting point of the plan exercise on employment and unemployment. It also serves as a baseline, with reference to which, the impact of the various plan initiatives, policies and programmes can be articulated in a quantitative manner.

2. The Eleventh Five Year Plan is being evolved as an ‘Education Plan’, and a novel feature of the exercise on projections of labour force is the explicit treatment of the influence of the levels of education on participation in labour force. The concerns of employment strategy for the Eleventh Five Year Plan differ from the earlier Plans, in that now there is an explicit focus at the quality of employment, and not merely at the aggregate unemployment. Of course, it also poses the technical issue(s) as to what is the most appropriate measure of labour force and employment. This issue has been examined at some length in this Report, and suggestions put forward.

3. Besides the focus on growth in output, the strategy for creation of employment opportunities should carefully look at the institutional environment that governs the exchange of labour for wages received in the labour market. The issues pertaining to different types of employing establishments – ranging from proprietary (i.e., the unorganized) to the corporate and the public sector (organized), as also the nature of self employment have been examined in proposing the strategy for creation of employment opportunities.

4. The Eleventh Plan aims to address many economic and social problems, such as inadequate physical infrastructure, in the rural areas, in particular – roads, housing, drinking water, sanitation, housing, and access to electricity; urban renewal; care of the child and adolescent girls; children out of school; improving productivity and income from agriculture; and unemployment among the rural labour households. The Plan therefore envisages a large step-up in outlays for about 15 main flagship programmes. When implemented properly, these programmes can yield substantial outcomes by way of creation of new employment opportunities..

5. In its recommendations the Working Group has emphasized on measurement of ‘Quality of employment’. There is a need to supplement the existing methodology for measurement of labour force and employment. Many technical issues have to be contended with in determining the right approach to measurement of employment and unemployment, if the quality of employment is also to be accounted for. Accordingly, the Working Group has underlined the need for further work on the same lines as was done nearly four decades earlier by the Committee of Experts on Unemployment Estimates constituted by the Planning Commission in 1969, popularly referred to as the Dantawala Committee (1970).

6. The Working Group has looked at the employment and unemployment situation for the Country as a whole. However, in dealing with the planning issues pertaining to labour and employment, a differential approach across regions is required. While the elements of such an approach are perceptible in the region-specific programmes and policies, including the district-specific programmes such as the NREGA, the Working Group underlines the need for more intensive work. Best use of the data that already exists, and a new approach to collect location-specific employment data through more frequent surveys / census of households and establishments, than once in 5 to 10 years as is done now, are required.

7. Wage is the key price variable that balances, in a specific labour market, the supply of labour in response to demand i.e., the opportunities for employment. And the levels of labour productivity strongly influence what wage the employer can afford to pay, and so also, the level of wage a worker can expect to receive. While the Working Group is not making any recommendations in regard to wages policy, there is need for further in-depth technical work to bring out the imperatives for a policy, or otherwise, on wages.

8. The Members of the Working Group provided deep insight into the intricate issues at the deliberations of the Working Group. It benefited immensely from the work done by the two Sub Groups, both of which were coordinated in the Labour, Employment and Manpower Division of the Planning Commission.

9. Shrimati Jayati Chandra, Principal Adviser (Labour, Employment & Manpower), led the effort for preparing this Report. Shrimati Padamja Mehta Director (LEM) (upto January 2007), and followed by Shri Raj Kumar Deputy Adviser (LEM) as Convenor of the Group provided research and organizational support. Shrimati Sunita Sanghi assisted at various stages of the work. Shri Shailendra Sharma provided important inputs on many technical issues dealt with in the Report.

Bhalchandra Mungekar

Member (Labour and Employment), Planning Commission,

and

Chairman, Working Group on Labour Force and Employment Projections

for the Eleventh Five Year Plan

In Memoriam
Late Prof. Mari Bhatt,
(1951 - 2007)

The Working Group had the privilege to have Prof. Mari Bhatt, *an eminent demographer*, and the then Director of International Institute of Population Studies, Mumbai, as one of its Members. Prof. Bhatt, as Chairman of the Sub Group on Labour Force Projections carried out the exercise to link projections of labour force with the emerging characteristics of our population. He provided a quantitative basis for relating the levels of education of population with the participation in labour force, and thus relate the participation rates expected in future with the efforts being made for education and training of our children and the youth, in the current period and the recent past. Effect of education & training has been built into the scenario for labour force, for the first time, in the Eleventh Five Year Plan.

Prof. Bhatt had completed and presented the labour force projections by November 2006, but fate drew him away from us before the release of 11th Plan Document. His in-depth knowledge will be missed by all, including the Planning Commission. Indeed Prof. Mari Bhatt leaves behind him a large number of persons trained by him, and a rich body of literature, and thus continues to be with us, in our further pursuits to address the planning issues in demography and labour force.

Contents

| Chapter No. (Ch.) | Title & Sub Title | Page |
|----------------------|--|---------|
| | Foreword | Ii |
| | In Memoriam (<i>Late Prof. Mari Bhatt</i>) | Iii |
| | Contents | iv – vi |
| | I. Text | |
| | Introduction | Vii |
| Ch. 1 | Measurement of Labour Force, Work Force & Employment – the Concepts 1.1 The Alternative Measures of Labour Force and Employment – Concepts & Definitions 1.2 Linking of Poverty with Unemployment under the alternative basis of measurement – UPSS & CDS 1.3 The choice between the alternative basis of measurement 1.4 Quality of employment | 1-8 |
| Ch. 2. | Labour Force Projections 2.1 Population projections 2.2 Participation in Labour Force 2.3 Developments in Labour Force – certain features 2.4 Labour Force Projections | 9-14 |
| Ch. 3. | Employment Projections: 3.0 The Macro economic Considerations 3.1 Imperatives from developments in Labour Force 3.2 Projections of Employment -a multi stage iterative exercise 3.3 Employment Projections – Agriculture & Non Agriculture | 15-17 |
| Ch. 4. | Strategy for creation of Employment Opportunities: 4.1 The Employment Challenge 4.1.1 The Challenge 4.1.2 Towards meeting the Challenge 4.2 Imperatives for the strategy from projections of Employment, and Labour Force 4.2.1 Agricultural activities 4.2.2 Non agricultural activities (i) Manufacturing (ii) Construction (iii) Services 4.3 Public Sector (Government programmes & the PSEs) 4.4 Private Corporate Sector 4.5 Unorganised Private Sector 4.6 The rural employment scenario 4.7 The approach to the Livelihood Sector. | 18-32 |
| Ch. 5. | Summary of Recommendations to Steering Committee: 5.1 Size of Labour Force, and target for employment 5.2 Strategy for creation of employment 5.3 Further work on concepts & measures 5.4 Regular and more frequent inflow of objective facts, and their analysis and interpretation – Employment data from the full scale Annual NSS rounds 5.5 Further work on Regional labour and employment Issues 5.6 Other Issues | 33-36 |

| II. Tables | | Page |
|-------------------|---|-------------|
| 1.1 | Basis of measuring Labour Force & Employment in the previous Five Year Plans | 3 |
| 1.2 | Incidence of Unemployment by the level of Household Consumer Expenditure under the alternative measures for unemployment – UPSS & CDS: 2004-05 | 5 |
| 2.1 | Assumed Levels of Indicators of Fertility, Mortality and Migration | 9 |
| 2.2 | Increase in Male and Female Population in Rural and Urban Areas-All India during 2007 – 2012 & 2012 – 2017 | 10 |
| 2.3 | Increase in Population by Age Group during 2007 – 2012 & 2012 - 2017 | 11 |
| 2.4 | Summary Results of the Labour Force Projection, 2002-2022 | 12 |
| 2.5 | Trends in Labour Force Participation – Female Persons | 13 |
| 2.6 | LFPR of Female Persons (Rural & Urban Combined) 1993-94, 1999-2000 & 2004-05 - (UPSS) | 14 |
| 3.1 | Agricultural and Non agricultural Employment creation in the 11 th Plan – <i>the baseline case</i> | 17 |
| 4.1 | Number of Establishments enumerated in Economic Census classified by workers Size Class – 1998 and 2005 | 19 |
| 4.2 | Creation of Employment Opportunities in the Eleventh Plan 2007 – 2012 – <i>the baseline case and the intentions of the 11th Plan</i> | 22 |

| III. Boxes | | |
|-------------------|--|-------------|
| Box | Title | Page |
| 1.1 | Concepts and Definitions for Labour Force, Employment and Unemployment | 1 |
| 1.2 | The Three Kinds of Estimates of the Unemployed | 2 |
| 1.3 | Measurement of Employment and Unemployment | 4 |

| IV. Charts | | |
|-------------------|--|-------------|
| Chart | Title | Page |
| 1.1 | Unemployment rates of rural persons by monthly per capita expenditure class of the household | 6 |
| 1.2 | Unemployment rates of urban persons by monthly per capita expenditure class of the household | 7 |

| V. Annexures | | |
|---------------------|---|-------------|
| Annexure | Title | Page |
| I. | Planning Commission Order on constitution of the Working Group | 37-42 |
| II. | Methodology used by the Sub Group on Labour Force Projections | 43-45 |
| III. | Composition of two Sub Groups constituted by the Working Group | 46-49 |
| IV. | Participants in Working Group Meetings on 09.05.2006 and 23.11.2006 | 50-53 |

| V. Statistical Appendix Tables | | Page |
|---------------------------------------|---|-------------|
| A1. | Projected Population by Age & Sex, All India : 2002-22: | |
| a. | -Urban Areas | 54 |
| b. | -Rural Areas | 55 |
| A2 | Proportion of Population in an Age Group having the specified level of Education All India 2004-05, 2007 and 2012: | |
| a. | -Urban Male | 56 |
| b. | -Urban Female | 57 |
| c. | -Rural Male | 58 |
| d. | -Rural Female | 59 |
| A3 | Labour Force Participation Rate (Usual Status) by Age Sex and Education Level, All India : 2004-05 (61 st Rnd) | |
| a. | -Urban Areas | 60 |
| b. | -Rural Areas | 60 |
| A4. | Projected Population and Labour Force by Educational Level, Sex and Residence, All India, 2007 and 2012 | 61 |
| A5 | Projected Labour Force Participation Rate (Usual Status) by Age and Sex, All India | |
| a. | - Urban Areas | 62 |
| b. | -Rural Areas | 63 |
| A6 | Projected Size of Labour Force by Age and Sex, All India: | |
| a. | - Urban Areas | 64 |
| b. | -Rural Areas | 65 |

Introduction

The Planning Commission Steering Committee on Labour and Employment for the Eleventh Plan set up a Working Group on Labour Force and Employment Projections under the Chairmanship of Prof. Bhalchandra Mungekar, Member (Labour & Employment) Planning Commission. Terms of reference and composition are given at Annexure I.

Two Sub Groups were set up by the Working Group:

- i) Sub Group on Labour Force Projections under the Chairmanship of Prof. Mari Bhatt, Director, Indian Institute for Population Sciences, Mumbai, and,
- ii) Sub Group on Employment Projections under the Chairmanship of Shri C. Chandran, CEO & Commissioner, KVIC, Mumbai.

The Draft Reports of the two Sub Groups were considered by the Working Group at its final meeting on 20th November, 2006.

2. This Report of the Working Group has been prepared on the basis of the recommendations of the two Sub Groups, as considered at its final meeting and the overall development perspective that had been laid out for the Eleventh Plan in the Approach Paper approved by the National Development Council.

Chapter 1: Measurement of Labour Force, Work Force & Employment – the Concepts

1.1 The Alternative Measures of Labour Force and Employment – Concepts & Definitions

The National Sample Survey Organisation (N.S.S.O.) has developed and standardised the concepts and definitions of labour force, employment and unemployment based on the recommendations of the Committee of Experts on Unemployment Estimates set up by the Planning Commission in 1969 (Dantwala Committee), (Box 1.1).

Box 1.1: Concepts and Definitions for Labour Force, Employment and Unemployment¹

“ In the light of long experience in field surveys and the recommendations of the Committee of Experts on Unemployment Estimates set up by the Planning Commission in 1969 (Dantwala Committee), the National Sample Survey Organisation (N.S.S.O.) has developed and standardised the concepts and definitions of labour force, employment and unemployment suitable to our socio-economic conditions and adopted them in quinquennial surveys on employment and unemployment since 1972-73 (27th Round). The various estimates are based on three concepts namely, Usual Status, Weekly Status and Daily Status. These are explained below:—

- i. Usual Status Concept: This concept is meant to measure the usual activity status—employed or unemployed or outside the labour force of those covered by the survey; thus the activity status is determined with reference to a longer period than a day or a week*.
- ii. Weekly Status Concept: Here the activity status is determined with reference to a period of preceding 7 days. A person who reports having worked at least for one hour on any day during the reference period of one week while pursuing a gainful occupation was deemed to be employed. A person who did not work even for one hour during the reference period but was seeking or available for work was deemed to be unemployed.
- iii. Daily Status Concept: Here activity status of a person for each day of the preceding 7 days is recorded. A person who worked at least for one hour but less than four hours was considered having worked for half a day. If worked for four hours or more during a day, he was considered as employed for the whole day.

* The period of reference in the NSS 27th Round (1972-73) was a one year period 'spanning over' the past and future. The period was restricted to the preceding 365 days in the NSS 32nd Round (1977-78).”

¹ GOI, Planning Commission; Sixth Five Year Plan; Chapter 13: Manpower and Employment, paragraph 13.3.

The magnitude of incidence of unemployment differs substantially among the three concepts of measurement. This is due to the differences in the nature of enquiry made during the household survey on employment / unemployment in regard to disposition of time of a person. (Box 1.2)

Box 1.2: The Three Kinds of Estimates of the Unemployed¹

Unemployment rate is defined as the number of persons unemployed per 1000 persons in the labour force. Three kinds of estimates for the unemployed are obtained following the three different approaches. These are:

- i) number of persons usually unemployed based on 'usual status' approach,
- ii) number of persons unemployed on an average in a week based on the 'weekly status' and
- iii) number of person-days unemployed on an average during the reference period of seven days preceding the survey.

The first estimate indicates the magnitude of persons unemployed for a relatively longer period during a reference period of 365 days and approximates to an estimate of chronically unemployed. Some of the unemployed on the basis of this criterion might be working in a subsidiary capacity during the reference period. The former is called as the usually unemployed according to the principal status (p.s.) and the latter, the usually unemployed excluding the subsidiary status workers (u.s. adjusted) which admittedly will be lower than the former. The second estimate based on the weekly status gives the average weekly picture during the survey year and includes both chronic unemployment and also the intermittent unemployment, of those categorized as usually unemployed, caused by seasonal fluctuations in the labour market. The third estimate based on the daily status concept gives average level of unemployment on a day during the survey year. It is the most inclusive rate of 'unemployment' capturing the unemployed days of the chronically unemployed, the unemployed days of the usually employed who become intermittently unemployed during the reference week, and the unemployed days of those classified as employed according to the priority criterion of current weekly status.

¹NSSO Report No. 409: Employment and Unemployment in India 1993-94: NSS 50 th Round; Chapter 7.

The earlier Five Year Plans; Measurement concepts used in -

The basis of measurement, as used for presenting the estimates of labour force and employment, and for making projections, during the various Five Year Plans are indicated in Table 1.1. It will be seen that as the concepts and definitions and measurement practices got refined through the successive surveys on employment and unemployment, the basis of measurement of employment and unemployment, as used for carrying out the Five Year Plan exercises also changed.

Table 1.1: Basis of measuring Labour Force & Employment in the previous Five Year Plans

| Five Year Plan | Basis of Measurement | Reference to the relevant Five Year Plan Document | Remarks |
|----------------------------|--|---|---|
| Fifth (1974 -1979) | Labour time disposition as per current activity i.e., the Current Weekly Status (CWS) | Fifth Plan, Chapter 2: The Perspective, Para 2.36 | This was the first Plan exercise after the first household enquiry on employment and unemployment done in the 27 NSS Round (1972-73) following the methods recommended by the Committee of Experts on Unemployment Estimates (1970). |
| Sixth Plan (1980 – 1985) | Usual Principal Status (UPS), - Employment projections made in terms of Standard Person Years | Sixth Plan, Volume II, Chapter 13, Table 13.2 | Detailed work on estimation of labour input at level of industrial sector was done in preparation of the first Draft of the Sixth Plan which was to cover the period 1978 – 1983. Labour input, was related to sectoral output, in terms of standard person years, and thus the projections of employment were made in terms of standard person years. However, as noted in a later Plan document, the use of a fixed labour input coefficient implied a unit elasticity of employment with respect to output, which is not borne out by the actual observations. |
| Seventh Plan (1985 – 1990) | Usual Principal Status (UPS) | Seventh Plan, Volume II, Chapter 5: Employment, Manpower Planning and Labour Policy, Table 1. | |
| Eighth Plan (1992 – 1997) | Current Weekly Status (CWS) was preferred over the UPS, in making projections of employment. | Eighth Plan, Volume I, Chapter 6: Employment Perspective, Para 6.4.1 | |
| Ninth Plan (1997-2002) | Usual Principal Status (adjusted for the subsidiary workers) i.e., the Usual Principal and Subsidiary Status. (UPSS) | Ninth Plan, Volume I, Chapter 4, Employment Perspective, Para 4.8. | |
| Tenth Plan (2002 – 2007) | Current Daily Status (CDS) | Tenth Plan, Volume I, Chapter 5, Employment Perspective, Para 5.9. | CDS basis was adopted after considering the recommendations made in the Report of the Planning Commission ‘Special Group on Creation of 10 million Employment Opportunities per Year during the Tenth Five Year Plan period.’ |

The Tenth Plan presented, in detail, the rationale for changing over to the ‘current daily status’ basis of measurement Box 1.3:

Box 1.3: Measurement of Employment and Unemployment¹

In the Ninth Plan, the calculations of employment and unemployment were based on Usual Principal and Subsidiary Status basis (UPSS). The Report of the Special Group² has viewed current daily status (CDS) as a better measure to capture unemployment and underemployment than the usual status, and therefore recommended the use of CDS basis for estimation purpose.

The rationale for using CDS for measuring employment and unemployment is the following:

i) The Approach Paper to the Tenth Plan recommended creation of gainful employment opportunities for the entire additions to labour force during the Tenth Plan and beyond. Therefore, policies and programmes to fill the gap between requirement and availability of gainful employment opportunities are to be worked out. At any point of time, there is a large unemployed and under-employed workforce i.e., not having any gainful employment, although by using the measurement on UPSS basis, several of them are declared employed. This results in over-estimation of the level of employment. To avoid this, largely, the Special Group suggested estimation of the extent of employment and unemployment on CDS basis.

ii) According to the NSSO employment and unemployment survey report of 1999-2000 ‘The usual status approach adopted for classification of the population is unable to capture the changes in the activity pattern caused by seasonal fluctuations. But the estimate obtained by adopting the current weekly or current daily status approaches are expected to reflect the overall effect caused by the intermittent changes in the activity pattern during the year. The latter (CDS) reflects also the changes, which take place even during the week. The estimate of the employed based on current daily status gives average daily picture of employment.’

Therefore the Special Group regarded the CDS measurement as the most appropriate measure to have an estimate of the gap i.e., jobs to be created on gainful basis, in order to bring out recommendations as to how they can be filled up by changes in policies and programme.

¹Tenth Five Year Plan, Volume 1, Chapter 5: Employment Perspective, Paragraphs 5.8 to 5.10.

² Special Group on Targetting Ten Million Employment Opportunities Per Year; Planning Commission (May 2002).

1.2 Linking of Poverty with Unemployment under the alternative basis of measurement – UPSS & CDS

In the UPSS basis of measurement, the estimate of unemployment of the better-off persons (those having higher levels of consumer expenditure) turns out to be higher than that of the poor. As per the CDS basis of measurement, the poor have a higher level of unemployment than the rich. Table 1.2. illustrates this feature both for the rural and the urban areas. UPSS unemployment rates of the rural rich are nearly double that of the poor. And the CDS unemployment rates of the rural poor are 10 percentage points higher than the UPSS unemployment rates of the poor. It may also be noted that in the CDS measure the incidence of unemployment rises sharply as the income level (*as measured by the consumption expenditure here*) falls; for example, the unemployment of urban poor being 6 percentage points higher than the rich. The UPSS measure fails to establish a monotonic relationship between unemployment and income. In other words, the CDS measure of unemployment brings out the relationship between poverty and unemployment, clearly.

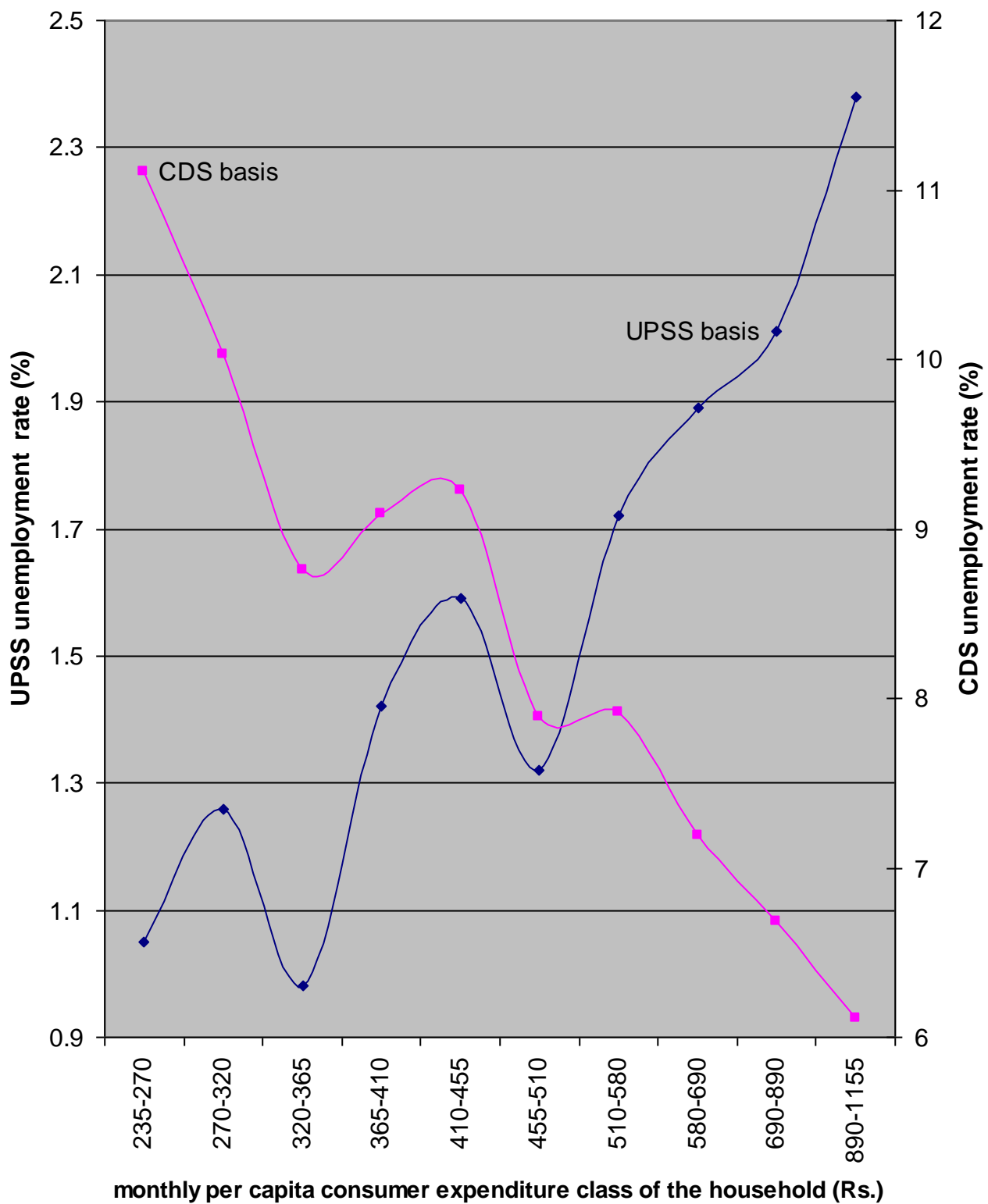
Table 1.2: Incidence of Unemployment by the level of Household Consumer Expenditure under the alternative measures for unemployment – UPSS & CDS: 2004-05

| Unemployment Rate - Rural Persons 2004-05 | | | Unemployment Rate - Urban Persons 2004-05 | | |
|--|------|-------|--|------|-------|
| MPCE class (Rs.) | UPSS | CDS | MPCE class (Rs.) | UPSS | CDS |
| 0-235 | 1.36 | 11.86 | 0-335 | 5.12 | 12.70 |
| 235-270 | 1.05 | 11.11 | 335-395 | 3.33 | 10.84 |
| 270-320 | 1.26 | 10.03 | 395-485 | 3.78 | 10.43 |
| 320-365 | 0.98 | 8.76 | 485-580 | 3.45 | 9.01 |
| 365-410 | 1.42 | 9.09 | 580-675 | 4.70 | 9.19 |
| 410-455 | 1.59 | 9.23 | 675-790 | 6.28 | 9.97 |
| 455-510 | 1.32 | 7.89 | 790-930 | 4.39 | 7.84 |
| 510-580 | 1.72 | 7.92 | 930-1100 | 4.85 | 7.71 |
| 580-690 | 1.89 | 7.19 | 1100-1380 | 4.63 | 6.40 |
| 690-890 | 2.01 | 6.68 | 1380-1880 | 4.55 | 6.48 |
| 890-1155 | 2.38 | 6.11 | 1880-2540 | 5.29 | 6.43 |
| 1155 & above | 3.65 | 6.65 | 2540 & above | 2.74 | 4.08 |

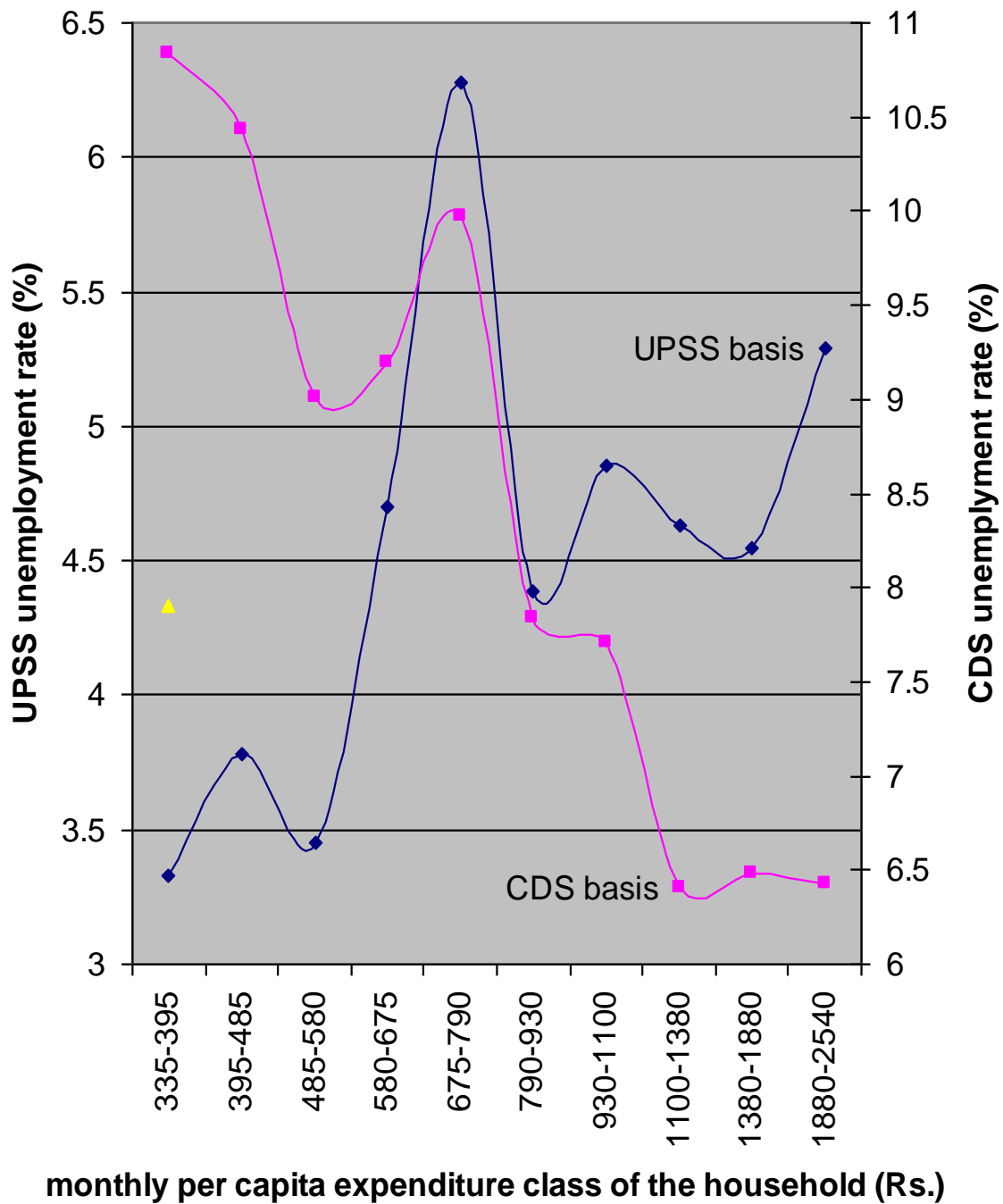
Person- specific characteristics

CDS measure being a person days measure (i.e., a time based measure), is not amenable, straightaway, to study of person specific characteristics of the workers. Current Weekly and the Usual Status measures study the activity status of a person over the reference period (week or the year) (CWS, UPSS, and UPS) and, are therefore amenable to study of person-specific characteristics. Hence, in presenting the person-specific features of employed or unemployed persons the UPSS measures should be used.

**unemployment rates of rural persons by expenditure
class of household 2004-05
- UPSS
and CDS basis**



unemployment rates of urban persons by expenditure class of household 2004-05 - UPSS and CDS basis



1.3 The choice between the alternative basis of measurement

Thus, for the purpose of making estimates of labour force, employment and unemployment, for the entire economy, current daily status, is a better measure, because:

- (i) in contrast with the usual status measures, it does not count 'the underemployed' as 'the employed',
- (ii) it is a better measure of gainful employment, and
- (iii) it captures the quality of employment better than the UPSS basis, by exhibiting a higher incidence of unemployment among the poor than the rich.

One of the purposes of making an assessment of the developments in employment situation is to understand the response of employment to output at the aggregate level of a State, a Sector of production (agriculture etc.), or the Nation as a whole. In linking the labour input with output, one should use such a measure that captures better, the gainful employment. Here, again CDS is the better measure to estimate output elasticity of employment.

However, for the study of employment / unemployment situation, for a specific category or class of persons (educated, illiterate, women, minority, S.C./S.T., etc), the usual status measure should be used.

And for the purpose of a deeper study of factors underlying the social well being of the persons, the usual status measure needs to be used in conjunction with the current daily and current weekly status measures.

1.4 Quality of employment?

Eleventh Plan focus is mainly at improving the 'quality of employment.' However the key (research) issue is '*How to quantify the quality of employment?*' The subject has been often discussed in the academic circles, but has never been addressed by the planning process as such. There is need for further work on the concepts underlying measurement of employment and unemployment. At present 'Quality of employment' is captured outside these measures by looking at supplementary information on (i) level of wage, and /or (ii) conditions of employment and / or (iii) access to social security. And on these three there does not exist a well researched document that recommends to the Government a method of collecting objective facts through survey or / census, and releasing an acceptable measure of 'employment graded by its quality.'

The present measurement concepts (UPS, UPSS, CWS, and CDS) were adopted by the statistical surveys system of Government based on the three decades old (1970) Report of Experts Committee on Unemployment of constituted by the Planning Commission. Thus, the current estimates of employment and unemployment follow the methodology recommended by this Committee. As discussed above, there is a case for revisiting the methodology of estimation of employment and unemployment to explore whether 'quality of employment' can also be made a part of the enquiry from households made by the statistical system in regard to the status of employment.

The Working Group recommends that the Planning Commission may set up a 'Committee of Experts on Estimates of Employment & Unemployment', to recommend whether, and if so how the design of the household enquiry on employment and unemployment be modified to bring in an objective measure of the quality of employment in the estimates of employment and unemployment.

Chapter 2: Labour Force

The changes in the size and composition of labour force reflect the changes in characteristics of population – by location (rural and urban), gender, age structure, level of education, etc. Changes in structure of labour force, on these lines, indicate the characteristics of those who would seek work in the labour markets, and also set before the employers, the broad agenda for creation of employment opportunities. Thus, the projections of labour force are an important starting point for creating a prospective scenario of labour supply and labour demand.

2.1 Population projections

Population projections by age and sex for the period 2001-2026 as made by the made by the Expert Committee of the National Population Commission were accepted by the Sub Group. Since labour force projections are required by age and sex, and separately for the urban and the rural areas, the Sub Group projected the population, at this level of detail, following the methodology described at Annexure II, and making certain assumptions on expectation of life at birth, fertility and migration from rural and urban areas. These assumptions are given in Table 2.1.

Table 2.1: Assumed Levels of Indicators of Fertility, Mortality and Migration

| Indicator ¹ | Unit | Period | | | | |
|--|----------|---------|---------|---------|---------|---------------------|
| | | 2001-06 | 2006-11 | 2011-16 | 2016-21 | 2021-26 |
| e ⁰ , Male | years | 68.7 | 69.5 | 70.4 | 70.9 | 71.4 |
| e ⁰ , Female | years | 71.8 | 72.5 | 73.3 | 74.0 | 74.8 |
| TFR | | 2.1 | 1.8 | 1.8 | 1.8 | 1.8 |
| Rural-Urban Migration | ('000s)* | 16,917 | 19,222 | 18,157 | 18,685 | 85,479 [@] |
| Sex ratio at birth | | 115 | 115 | 115 | 115 | 115 |
| Notes: 1. Abbreviations: e ⁰ – expectation of life at birth; TFR – total fertility rate; NPC- National Population Commission; UGRD method – urban-rural growth differential method. * Difference between the projected urban population as made by the NPC Expert Committee using URGD method and the projected urban total (population) using the component method but assuming no rural-urban migration during the 5-year projected period. @ The assumed migration during 2021-25 seems implausibly large. This is attributable to an error made in applying the URGD method in the Expert Committee Report. | | | | | | |

The projections of population under the above assumptions have been made separately for the urban and the rural areas and are presented in Tables A1a and A1b. Certain features of the developments in population scenario that have implications for the location of incremental employment and for the magnitude of new entrants to labour force are summarized in Tables 2.2 and 2.3.

Rural to urban migration during the 11th Plan period is projected at 19.2 million, and at 18.2 million during the next 5 year period (Table 2.1) Urban share of the increase in population during the 11th Plan period will be 46 percent, as compared to the base year (2007) share at 29 per cent. The increase in population during the next 5 year period (2012 – 2017) will be nearly equal in the urban and the rural areas. (Table 2.2).

Table 2.2: Increase in Male and Female Population in Rural and Urban Areas-All India during 2007 – 2012 & 2012 – 2017.

| | level of population 2007 | 2007 - 2012 | 2012 - 2017 |
|----------------------|---------------------------------|--------------------|--------------------|
| | (‘000s)) | | |
| Rural | <u>799608</u> | <u>42954</u> | <u>37956</u> |
| - Male | 411163 | 22220 | 19631 |
| - Female | 388445 | 20734 | 18325 |
| | | | |
| Urban | <u>328705</u> | <u>36704</u> | <u>37314</u> |
| - Male | 172806 | 19221 | 19599 |
| - Female | 155899 | 17483 | 17715 |
| | | | |
| Rural + Urban | 1128313 | 79658 | 75270 |
| - Male | 583969 | 41441 | 39230 |
| - Female | 544344 | 38217 | 36040 |
| | | | |

Since participation in the labour force by persons differs with age, and also differs between the male and the female persons, the projections of population have been made by quinquennial age group, and by gender. Youth population (15-29) will increase by 26.3 million during the 11th Plan but this increase drops to 9.6 million during the next 10 year period. (Table 2.3).

2.2 Participation in Labour Force

Participation by the persons in labour {measured as the labour force participation (LFPR) rate per thousand persons} depends on a number of social and economic factors pertaining to the population, and also what the labour market has to offer to them in return for the labour put in. However, the experience of variations in LFPR over during

1993 to 2004, points to the time devoted to education by the young persons as being an important determinant of their LFPR. Hence, the Sub Group on Labour Force Projections has given a break up of urban and rural population, in each age group, into 7 levels of education. These are presented in the Appendix Tables A2a through A2d.

Table 2.3: Increase in Population by Age Group during 2007 – 2012 & 2012 - 2017

| Age | Increase | | distribution of increase | |
|--------------------|----------------|--------------|---------------------------|---------------|
| | 2007 -2012 | 2012 - 2017 | 2007 -2012 | 2012 – 2017 |
| | <i>(‘000s)</i> | | <i>(percent to total)</i> | |
| 0 -14 | -9308 | -5916 | -11.70 | -7.86 |
| 15-29 | 26353 | 9601 | 33.08 | 12.76 |
| 30-44 | 20913 | 26844 | 26.25 | 35.66 |
| 45-59 | 25731 | 24006 | 32.30 | 31.89 |
| <u>15-59</u> | 72997 | 60451 | 91.63 | 80.31 |
| 60+ | 15969 | 20735 | 20.05 | 27.55 |
| All age (s) | 79658 | 75270 | 100.00 | 100.00 |

The Sub Group has projected the labour force by level of education on the basis of changes projected in educational attainments of the population, but assuming that the LFPR for a specific level of education in a specific age, gender and area (rural-urban) as observed in the survey for the year 2004-05 (61st Round) will remain fixed, and that the changes in LFPR at various age levels will be entirely due to the changes in composition of population in terms level of education. The methodology used is described in Annexure II. On this basis LFPR’s have been projected, on UPSS basis, for males and females for the period 2007 to 2012.

For the years 2017 and 2022, no attempt was made to estimate the educational composition of the population. Age-specific LFPRs combined for all educational categories were calculated for males and females in rural and urban areas for the years 2007 and 2012 (Appendix Tables A5a and A5b). The implied change in the LFPR of each age group during 2007-12 (because of the change in educational composition) is assumed to hold true for the period 2012-17 and 2017-22. The resulting age-specific LFPRs, for 2017 and 2022, for males and females, in rural and urban areas, are shown in Appendix Tables A5a and A5b.

The projections of Labour Force for the period 2007 to 2022, were made based on the LFPRs estimated and projected as above, and using the population projections, described earlier. Detailed labour force projections are given in Appendix Tables A6a and A6b, and the results are summarized in Table 2.5 below. Labour force is projected to increase by 49.24 million during the Eleventh Plan, comprising 19.68 million in the urban areas, and 29.56 million in the rural areas.

Table 2.4 : Summary Results of the Labour Force Projection, 2002-2022

| Indicator | 2002 | 2007 | 2012 | 2017 | 2022 |
|---|------------|------------|------------|------------|------------|
| Total | | | | | |
| LF size ('000s) | 440166 | 492610 | 541850 | 586464 | 623446 |
| Female share in LF (%) | 32 | 32 | 31 | 30 | 30 |
| LFPR 0+ | 421 | 437 | 449 | 457 | 461 |
| <i>LFPR 15+ (as calculated from Tables)</i> | <i>645</i> | <i>637</i> | <i>628</i> | <i>621</i> | <i>613</i> |
| LFPR 15+ (as given in Sub Group Report) | 645 | 637 | 628 | 621 | 613 |
| Increase in LF('000s) | na | 52444 | 49240 | 44614 | 36982 |
| Annual growth rate (%) | | | | | |
| Labour Force | na | 2.28 | 1.92 | 1.60 | 1.23 |
| Population | na | 1.54 | 1.37 | 1.22 | 1.05 |
| Urban | | | | | |
| LF size ('000s) | 111004 | 130991 | 150673 | 168244 | 189139 |
| Female share in LF (%) | 22 | 22 | 21 | 21 | 21 |
| LFPR 0+ | 379 | 399 | 412 | 418 | 418 |
| <i>LFPR 15+ (as calculated from Tables)</i> | <i>532</i> | <i>532</i> | <i>533</i> | <i>533</i> | <i>528</i> |
| LFPR 15+ (as given in Sub Group Report) | 539 | 538 | 537 | 536 | 530 |
| Increase in LF('000s) | na | 19987 | 19682 | 17571 | 20895 |
| Annual growth rate (%) | | | | | |
| Labour Force | na | 3.37 | 2.84 | 2.23 | 2.37 |
| Population | na | 2.32 | 2.14 | 1.96 | 2.36 |
| Rural | | | | | |
| LF size ('000s) | 329162 | 361619 | 391177 | 418220 | 434307 |
| Female share in LF (%) | 36 | 35 | 34.7 | 34 | 34 |
| LFPR 0+ | 438 | 452 | 464 | 475 | 483 |
| <i>LFPR 15+ (as calculated from Tables)</i> | <i>677</i> | <i>670</i> | <i>663</i> | <i>658</i> | <i>653</i> |
| LFPR 15+ (as given in Sub Group Report) | 691 | 682 | 672 | 664 | 658 |
| Increase in LF('000s) | na | 32457 | 29558 | 27043 | 16087 |
| Annual growth rate (%) | | | | | |
| Labour Force | na | 1.90 | 1.58 | 1.35 | 0.76 |
| Population | na | 1.23 | 1.05 | 0.89 | 0.42 |

2.4 Labour Force Projections

The Approach Paper to 11th Plan (A.P. 11th) projected an increase in labour force by 52 million, in the baseline case, and also gave a scenario of 65 million increase:

“On the supply side, the labour force will increase by about 52 million during 11th Plan if it grows at the same rate as current projections of working age population. The increase could be much higher, around 65 million, if female participation rates rise at the pace observed during 1999-2005.”

(Approach to 11th Plan; Para 5.3.3)

However, the projection by the Sub Group is an increase of 49.2 million in labour force during the 11th Plan period.

Table 2.5: Trends in LFPR of the Female Persons (CDS basis)

| Year | LFPR Female | % change |
|---------------------------------|-------------|---|
| 1983 | 200 | |
| 1993-94 | 202 | (+)0.88 |
| 1999-00 | 192 | (-)5.00 |
| 2004-05 | 210 | (+)9.79 |
| 1983 to 2004-05 (21.5 years) | | (+) 5.22 (or 0.24 % points per year on an average) |

The Approach Paper’s projection of 65 million increase in labour force during the 11th Plan period is based upon a 13 million additional increase in female labour force. This is based upon an extrapolation of the near 10% increase in female LFPR observed during the recent five years (2000-2005). The longer term trends, however, show a fluctuating pattern. (Table 2.5). The longer term trends, however, show a fluctuating pattern.

While there was indeed an increase in participation in labour force by the female persons (LFPR_{female}) during 2000 to 2005, it needs to be noted that this was on a low base of 1999-2000, since in that year LFPR_{female} had dropped by 10.04 per cent compared to 1993-94. Over the 11 year period (1994 to 2005), the LFPR_{female} increased only by 1.54 per cent. (Table 2.6). Thus extrapolation of past five years’ (2000–2005) increase of 10%, into the future, is not an acceptable proposition.

| Table 2.6: LFPR of Female Persons (Rural & Urban Combined) 1993-94, 1999-2000 and 2004-05 - (UPSS) | | | | |
|---|---|---|---|--|
| | 50th Round¹ (1993-94) | 55th Round² (1999-2000) | 61st Round³ (2004-05) | 50th Round to 61st Round (1994- 2005) |
| | <i>(per thousand persons)</i> | | | |
| II. LFPR Female Persons | 290 | 263 | 294 | |
| <i>(change) (%)</i> | | -10.04 | 10.50 | 1.54 |
| Source: | | | | |
| ¹ NSSO Report No, 406, Table 1B; Pages 53 and 56. | | | | |
| ² NSSO Report No, 458, Table 2; Page A 17 | | | | |
| ³ NSSO Report No, 515, Table 20; Page A 77 | | | | |

Moreover, the effect of increase in literacy and level of education of female would in itself moderate downwards the LFPR of young female persons. The Sub Group on Labour Force Projections has projected an increase in female LFPR by 4 % in urban areas and 1 % in rural areas during the 11th Plan period (Appendix Table A4). This projection is based upon a detailed exercise at the level of quinquennial age groups (Appendix Tables A5a and A5b), and by level of female education (Appendix Table A3a and A3b). The Approach Paper has thus projected an increase in labour force based on the aggregates. However, upon decomposition of labour force by the various characteristics of age and education a more realistic position of the future is revealed. Hence, the Working Group has accepted the Sub Group projection of 49.2 million increase in labour force in the 11th Plan period.

Chapter 3: Employment Projections

3.0 Macro- economic Considerations

The 11th Plan aims to put the economy on a sustained growth trajectory of approximately 10 per cent by the end of the Plan period. The primary objective is to create productive employment at a faster pace than before, and to aim at a robust 4% per year growth in agriculture. In this, the Plan sees an opportunity to reduce disparities across regions and communities.

Rapid growth is an essential part of the macro-economic strategy for two reasons. Firstly, it is only in a rapidly growing economy that we can expect to sufficiently raise the incomes of the mass of our population to bring about a general improvement in their living conditions. Secondly, rapid growth is necessary to generate the resources needed to provide basic services to all. Work done within the Planning Commission and elsewhere suggests that the economy can accelerate from 8 per cent per year to an average of around 9% over the 11th Plan period, provided appropriate policies are put in place. With population growing at 1.5% per year, 9% growth in GDP would double the real per capita income in 10 years. This must be combined with policies that will ensure that this per capita income growth is broad based, benefiting all sections of the population, especially those who have thus far remained deprived¹.

3.1 Imperatives for employment projections from developments in Labour Force

In the period 2012 to 2022 the number of new entrants to labour force who will seek work either in the rural areas, or spillover as first generation migrants to urban areas from the rural areas will be very high, for the reasons cited at 2.3 above. And the quality of work for them should be such as can afford them the basic civic amenities, if the slum workers population in the urban areas is to be checked. Illegal migrants will also compete with them, and drive them out of work in urban high income islands, by accepting minimal / basic survival wages. There is very little to offer on these fronts, in concrete terms, as yet, in terms of (i) our urban infrastructure planning, or (ii) in terms of providing a minimal quality of employment to rural work force, or in terms of facilitating the placement of new entrants into formal jobs. There is an urgent need to open up new locations, clusters, rural or in new towns to absorb the new entrants to labour force in the perspective period.

3.2 Projections of Employment

The Sub Group on Employment Projections, set up by this Working Group studied the past trends in employment and unemployment, and emphasized on a number of steps to increase employment in micro and village level establishments, but did not suggest the projections for employment for the Eleventh Plan period. However, the Approach to 11th Plan provides some guidance on this.

¹ Approach to 11th Plan, para 1.4.2

“On the supply side, the labour force will increase by about 52 million during 11th Plan if it grows at the same rate as current projections of working age population. The increase could be much higher, around 65 million, if female participation rates rise at the pace observed during 1999-2005. Since this increase will be over and above the present backlog of about 35 million unemployed on a typical day, and since inclusiveness requires a shift of employment from agriculture to non-agriculture we must plan for at least 65 million additional non-agricultural opportunities in the 11th Plan. This will not create full employment, but it will at least ensure that the unemployment rate falls somewhat. However, even this modest goal implies that the rate of growth of non-agricultural employment would need to accelerate to 5.8% per annum from 4.7% in 1999-2005.”²

Thus the Approach to 11th Plan suggests a target of creation of 65 million employment opportunities, basing itself on the assumption that the labour force will increase by 65 million (52 million increase, if LFPR’s do not change + 13 million additional increase in female labour force, if female LFPR increases, sharply.) The Approach Paper Scenario is a broad scenario, in which an average position of 15-59 years working age population was extrapolated. As explained in Chapter 2, the Working Group has done a detailed exercise on labour force at a disaggregated level that accounts for changes in compositional structure of population and labour force in terms of age structure, gender, and level of education.

The detailed projections of employment by sectors of production have to be based on sectoral, and sub-sectoral output growth profile, which emerges as the Plan exercise proceeds towards finalization. As these details were not firmed up, the Working Group decided to adopt the employment projection suggested in the Approach Paper, purely for the purpose of using it as a baseline scenario upon which the employment impact of various policy / programme initiatives can be superimposed.

This baseline scenario can be firmed up as the detailed sectoral and sub-sectoral programmes and output growth profile is finalized by the respective subject-specific Working Groups.

3.3 Employment Projections – Agriculture & Non Agriculture

The Approach Paper for the 11th Plan has laid out a structure for creation of employment opportunities between agriculture and non agriculture, in the baseline scenario, i.e., if normal trends were to prevail in the 11th Plan. (Table 3. 1).

² Approach to 11th Plan, para 5.3.3

**Table 3.1: Agricultural and Non agricultural
Employment creation in the 11th
Plan – the baseline case**

| Sector | <i>(million)</i> 2007 to 2012 <i>(the baseline case)</i> |
|---------------------|--|
| 1. Agriculture | 10.0 |
| 2. Non- Agriculture | 55.0 |
| | |
| Total (1+2) | 65.0 |

Chapter 4: Strategy for Creation of Employment Opportunities

4.1.1 The Employment Challenge

An agenda for handling the planning issues on employment should take note of the major problems faced by the large employment providing sectors, which also affects those persons who derive their wage or other kinds of income from these sectors as workers. The Approach to 11th Plan has focused on these problems from the perspective of workers:

i) The failures in agricultural sector have increased the burden of providing work opportunities to a large number of workers, that migrate from agriculture, and for the dependents, the women folk, who are left behind to carry on somehow:

The crisis in agriculture:

“One of the major challenges of the 11th Plan will be to reverse the deceleration in agricultural growth from 3.2% observed between 1980 and 1996-97 to a trend average of around 2.0% subsequently. This deceleration is the root cause of the problem of rural distress that has surfaced in many parts of the country and reached crisis levels in some. Low farm incomes due to inadequate productivity growth have often combined with low prices of output and with lack of credit at reasonable rates, to push many farmers into crippling debt. Even otherwise, uncertainties seem to have increased (regarding prices, quality of inputs, and also weather and pests) which, coupled with unavailability of proper extension and risk insurance have led farmers to despair. This has also led to widespread distress migration, a rise in the number of female headed households in rural areas and a general increase in women’s work burden and vulnerability. In 2004-05, women accounted for 34% of principal and 89% of subsidiary workers in agriculture, higher than in any previous round of the National Sample Survey.” (Para 1.6.2 of Approach to 11th Plan).

ii) Large differential in per worker incomes between the organized and the unorganized segments of labour market, make the lower income workers in non agricultural sectors as vulnerable to risk as the marginal farmers are:

The dualistic economy:

“The dualistic nature of our economy, with large differences in productivity between agriculture and non-agriculture on the one hand and within the non-agriculture sector between the organized and unorganized sectors poses problems, especially since the dualism appears to have intensified over the last decade or so. Labour productivity in the organized sectors was already 4 times that in unorganized non-agriculture in 1993 and this ratio increased to 7 times by 2004. During the same period, the share of the organized sector in total non-agricultural employment declined from 20% to 13%. Part of this was due to downsizing of the public sector which reduced employment by 1.3 million. However, employment growth was negligible (in fact negative after 1998) even in the private organized sectors, despite an average growth of GDP of nearly 10% per annum after 1993 in this sector. The reason is that capital intensity in the

organized sector increased rapidly, so that the real capital stock per worker is now three times what it was in 1993. On the other hand, with its 60% higher workforce now than in 1993, unorganized non-agriculture has absorbed over 60 million new workers, mostly after the late-1990s. But this sector has been unable to increase significantly either its capital - labour ratio or labour productivity. These two disparate private sectors in non-agriculture, unorganized and the organized now produce about 50% and 25% of all non-agricultural value-added respectively, with 87% and 4% of the non-agricultural workforce. These trends show is that while employment in the unorganized non-agricultural sector has expanded it is generally low quality employment constrained by low productivity. Millions of self-employed in the unorganized sector, (particularly home-based women doing putting out work and artisans, but also many in other manufacturing sub-sectors and in retail trade) have levels of labour productivity no higher than in agriculture and their number is increasing rapidly. They are as vulnerable to shocks as farmers. ”
(Para 5.3.5 of the Approach to 11th Plan)

- iii) The large size enterprises that have high productivity and thus can provide a better quality of employment opportunities to those seeking work in non agricultural activities i.e., manufacturing and services activities are not increasing, rather decreasing in number. (Table 4.1)

Table 4.1: Number of Establishments enumerated in Economic Census classified by workers Size Class – 1998 and 2005

| worker size class of establishment | economic census 1998 | economic census 2005 | change 1998 to 2005 |
|---|---------------------------------|-----------------------------|----------------------------|
| | number of establishments | | |
| 1 to 5 | 28497606 | 39764918 | 11267312 |
| 6 to 9 | 1001513 | 1430483 | 428970 |
| 10 & above | 849769 | 631588 | -218181 |
| total | 30348888 | 41826989 | 11478101 |

iv) In this backdrop, there have been certain adverse developments in the recent years. The approach to the Eleventh Plan had identified the following specific weaknesses on the employment front which illustrate the general failing just discussed.

- The rate of unemployment has increased from 6.1% in 1993–94 to 7.3% in 1999–2000, and further to 8.3% in 2004–05.
- Unemployment among agricultural labour households has risen from 9.5% in 1993–94 to 15.3% in 2004–05.
- Under-employment appears to be on the rise, as evident from a widening of the gap between the usual status and the current daily status measures of creation of incremental employment opportunities between the periods 1994 to 2000 and 2000 to 2005 (Annexure 4.1).

- While non-agricultural employment expanded at a robust annual rate of 4.7% during the period 1999–2000 to 2004–05, this growth was largely in the unorganized sector.
- Despite fairly healthy GDP growth, employment in the organized sector actually declined, leading to frustration among the educated youth who have rising expectations.
- Although real wages of casual labour in agriculture continue to rise during 2000–2005, growth has decelerated strongly, as compared to the previous quinquennium (1994–2000), almost certainly reflecting poor performance in agriculture. However, over the longer periods 1983 to 1993–94 (period I) and 1993–94 to 2004–05 (Period II), the decline is moderate for rural male agricultural casual labour, from 2.75% to 2.18% per annum.
- Growth of average real wage rates in non-agriculture employment in the period 1999–2000 to 2004–05 has been negligible. Seen over the longer period of two decades (Period I and Period II), the wages have steadily increased at over 2% per annum.
- In respect of entire rural male casual labour, the growth in real wages accelerated from 2.55% (Period I) to 2.78% per annum (Period II) (Annexure 4.6).
- Real wages stagnated or declined even for workers in the organized industry although managerial and technical staff did secure large increase.
- Wage share in the organized industrial sector has halved after the 1980s and is now among the lowest in the world.

4.1.2 Towards meeting the Employment Challenge

- i) The problems of the largest segment of workers can be addressed through the output growth in the agriculture sector.

“It is vital to increase agricultural incomes as this sector still employs nearly 60% of our labour force. A measure of self-sufficiency is also critical for ensuring food security. A second green revolution is urgently needed to raise the growth rate of agricultural GDP to around 4%. This is not an easy task since actual growth of agricultural GDP, including forestry and fishing, is likely to be below 2% during the 10th Plan period. The challenge therefore is to at least double the rate of agricultural growth and to do so recognize demographic realities — particularly the increasing role of women.”

(Para 1.6.5 of Approach to 11th Plan)

- ii) The number of workers in agriculture should reduce, so that per worker incomes can rise here.
- iii) The growth of non agricultural employment needs to be stepped up: to over 6%
- iv) Generation of non-agricultural employment should match the requirements in terms of location and by type (such as the level of skill, the wage or self employment, etc.). This is a major challenge.
- v) In the development agenda for non agricultural activities, the labour intensive activities should be at the prime focus of the policies and programmes..

4.2 Imperatives for the strategy from projections of Employment and Labour Force

- I. The baseline scenario for creation of employment opportunities and the required scenario for the 11th Plan, as implicit in the approach to 11th Plan, are presented in Table 4.2. This sets the agenda for the outcomes of the employment strategy for the 11th Plan.

Table 4.2: Creation of Employment Opportunities in the Eleventh Plan 2007 – 2012 – the base case and the intentions of the 11th Plan

| Sector | baseline case (i.e. no Plan) | Eleventh Plan intentions | Remarks on Source, etc. |
|---|------------------------------|--------------------------|--|
| | <i>Million</i> | | |
| 1. Agriculture | 10.0 | 0.0 | Approach to 11 th Plan; Para 1.6.5 |
| | | (-) 10.0 | |
| 2. <u>Non- Agriculture, of which</u> | <u>55.0</u> | <u>65.0</u> | Approach to 11 th Plan; para 1.6.5; |
| | | | 55m (baseline)+10m (shift from agriculture to non agricultural activities) |
| | | (+) 10.0 | |
| 2.1 Unorganised private establishments ¹ | 50.0 | 50.0 | Appr to 11th Plan; para 5.3.17 |
| | Rural 0.0 | Rural 25.0 | Rural (+) 25.0 |
| | Urban 50.0 | Urban 25.0 | Urban (-) 25.0 |
| 2.2 Private Organised Establishments | 2.0 | 10.0 | Approach to 11 th Plan; paras 5.3.6 & 5.3.7. Para 5.3.7 |
| | | (+) 8.0 | |
| 2.3 Public Establishments | 3.0 | 5.0 | Approach to 11 th Plan; paras 5.3.14 & 5.3.15. Para 5.3.15 |
| | | (+) 2.0 | |
| Total (1+2) | 65.0 | 65.0 | Approach to 11 th Plan; para 5.3.3 |
| | | (+) 0.0 | |

II. The employment strategy for the 11th Plan should be such as to yield the following employment outcomes:

- ii) At least 10 million more agricultural workers should find gainful employment in non agricultural activities than in the normal trends scenario.
- iii) In the unorganized sector, micro and village enterprises in rural areas should provide non-farm employment to at least 25 million more persons, compared to the baseline scenario, during the Plan.
- iv) Private organized establishments should absorb 8 million more workers, over and above 2 million, which in any case would occur under normal growth in the baseline scenario.

- v) Government and public establishments should absorb, at least 2 million more workers over and above the normal growth of 3 million through the ongoing programmes in education and health.

IV. Employment outcome of the strategy cannot and should not always be seen in terms of more of the same kind of employment. The types of employment outcomes required at sectoral levels vary from sector to sector. Broadly these are of the following types:

- i) Better wage levels and better income of the self employed workers
- ii) Reducing income uncertainty
- iii) Improvement in the physical environment of work
- iv) Better ability to cope with the risks to life and health i.e., a better risk cover – social security
- v) More employment of a better quality.

IV. In other words, the institutional environment that surrounds the life of the workers should also improve, as a result of the strategy on employment.

4.2.1 Agricultural activities

i) The 11th Plan aims at increase in agricultural GDP from 2% to 4% per annum. This will increase per worker income in rural areas and thus give a boost to the rural demand, and increase the dynamism in the rural economy.

ii) Faster agricultural growth will require diversification into higher value output, for example horticulture, floriculture etc. This is partly because demand patterns are shifting in that direction and also because in many cases this is the most efficient way to increase incomes of farmers from their limited land and water resources. Recognizing this, the newly launched National Horticulture Mission (NHM) is already the largest *single plan scheme* of MoA, which is even larger than the Macro-Management in Agriculture (MMA) scheme that provides main support from the Centre to almost all other crop activity. The NHM allocation is large because apart from including significant new interventions for ensuring availability of quality planting material; crop and regions-wise, the programme also provides for structural changes in the relationship between agriculture and non-agricultural sectors. Horticulture products are perishable commodities and therefore very efficient linkages need to be put in place between farms and final buyers. This requires modern methods of grading, post-harvest management, cold chains, etc. For this purpose, besides providing for direct public investment in marketing infrastructure, NHM incentivises amendment of APMC Acts to enable larger private sector

participation in marketing and processing. Many States have begun this process, which should be accelerated.

iii) Many states have taken steps to facilitate contract farming as a way of assisting the process of diversification. A much greater focus is also necessary on enabling small farmer participation by encouraging group formation and providing suitable and effective regulatory frameworks. Entrenched interests dominating traditional trade channels often oppose the change. But such opposition, if it seeks simply to restrict market competition or to hinder the growth of co-operation among farmers, is against the interest of both farmers and consumers.

4.2.2 Non agricultural activities

First we consider the role of demand from development programmes of Government and other public institutions in creating employment opportunities. Certain large programmes are cited here for illustrating the point.

I. Public Sector (Government programmes and other public institutions):

The broad approach

- i) While encouraging private sector growth the 11th Plan must also ensure a substantial increase in the allocation of public resources for Plan programmes in critical areas. This will support the growth strategy and ensure inclusiveness. These resources will be easier to mobilise if the economy grows rapidly. A new stimulus to public sector investment is particularly important in agriculture and infrastructure and both the Centre and the States have to take steps to mobilize resources to make this possible. The growth component of this strategy is, therefore, important for two reasons: a) it will contribute directly by raising income levels and employment and b) it will help finance programmes that will ensure more broad based and inclusive growth.

Provision of basic services will create demand for labour

- ii) A key element of the strategy for inclusive growth must be an all out effort to provide the mass of our people the access to basic facilities such as health, education, clean drinking water etc. While in the short run these essential public services impact directly on welfare, in the longer run they determine economic opportunities for the future. It is important to recognize that access to these basic services is not necessarily assured simply by a rise in per capita income. Governments at different levels have to ensure the

provision of these services and this must be an essential part of our strategy for inclusive growth. At the same time it is important to recognize that better health and education are the necessary pre-conditions for sustained long-term growth.

Education Sector

- iii) The Sarva Shiksha Abhiyan seeks to provide elementary education to all children in the 6-14 years age group by 2010. It also aims to bridge all social, gender, and regional gaps with the active participation of the community in the management of schools. This is a flagship programme and a 2% education cess has been levied on all taxes and earmarked to fund this programme³.
- iv) Experience has shown that the Mid-day Meal Scheme can help increase attendance and improve the children's nutritional status. It also helps in removing caste barriers as all children sit together for their meals.. SHGs formed by mothers should be given the task of preparing mid-day meals. This will guarantee better quality food. Wherever possible, particular attention should be paid to the scope for using the MDMS to tackle micro-nutrient deficiencies through nutrient supplementation and provision of fortified foods. Management and supervision mechanisms must be improved and changes in the nutritional status of children monitored regularly. School health programmes must be revived and converged with MDMS and MDMS itself merged with the SSA at an appropriate time.
- v) The pre-school education component of ICDS-Anganwadi at present is very weak and the repetition rate in primary classes is, therefore, quite high. This, in turn, discourages many students from continuing their education. The SSA should also have a separate component for at least one year Early Childhood Education(ECE) which can be universalized in a phased manner.

National Rural Health Mission

- vi) A seven year National Rural Health Mission (NRHM), which spans the duration of the 11th Plan, has been launched to address infirmities and problems across rural primary health care .Converging the public health approach with primary health care has been one of the primary objectives of this mission. Another objective is to genuinely empower and support Panchayati Raj Institutions to manage, administer, and be accountable for health services at community levels. Supervision of health sub-centres by gram panchayats will improve attendance of staff, motivate appropriate quality of care and provide constant feedback on patient satisfaction.

³ Later an additional 1% cess has been levied for support to secondary and higher education.

The NRHM will also converge the management of health delivery across all systems of medicine (including ISM) at primary health care levels.

4.4 Private Corporate Sector

- i) If the high unemployment among the educated youth is to be reduced and if quality of overall employment is to improve, there must be a robust growth in organized sector employment. In other words, a massive reversal is required from the negative employment growth, in this sector, during the last decade.
- ii) State governments should take steps to create an investor - friendly climate. There is a need to ensure that delays in land registration, water and utility connections, environmental and other clearances are minimized through a single window clearance of applications for establishment of industrial units.
- iii) Labour - intensive mass manufacturing based on relatively lower skill levels provides an opportunity to expand employment in the industrial sector. China has done exceptionally well in this area and has opened up the world market in which we could compete effectively. A key issue in this context is whether some of our labour laws may be discouraging the creation of employment opportunities in the organized manufacturing sector, inducing capital-intensive rather than labour-intensive industrial development. For example, the Contract Labour (Abolition and Regulation) Act allows governments to limit the ability of enterprises to outsource jobs and *Chapter VB* of the Industrial Disputes Act requires an establishment with more than 100 workers to obtain written permission of government for lay-off, retrenchment, and closure. There are different views on the actual impact of these laws on employment, and the fact is that outsourcing has been growing rapidly and permission to downsize have been fairly easily accorded to existing enterprises in the past few years. Nonetheless, many potential new entrants into large scale manufacturing see these discretionary provisions as a major disincentive. A consequence is that Indian manufacturers often set up a number of small enterprises (in garments, sports goods, and toys, for instance) rather than having one large efficient enterprise. It is not being suggested that the entire gamut of labour laws need to be reviewed or that an automatic hire and fire system should be introduced. The National Common Minimum Programme recognizes that some changes in labour laws may be needed but this requires legislation and therefore sufficient consensus. A few amendments in the laws mentioned above, with concomitant changes to improve worker welfare as a whole, should therefore be proposed for discussion with stakeholders with view to early legislation within this framework. This could stimulate investment and fuel the creation of jobs. Similarly, although small enterprises are particularly burdened by multiple inspections, and the need to submit many reports, and maintain a large number of registers, workers in this sector have virtually no security. There is therefore a case to relax legal requirements on SMEs if state governments adopt a comprehensive social security scheme for workers, say along lines proposed recently by the National Commission for Enterprises in the Unorganized Sector. For example, state governments that put in place such a

scheme could be empowered to exempt SMEs from the application of some laws like the Employer's Liability Act, Weekly Holidays Act, Employment Exchange (Compulsory Notification of Vacancies Act), and the Apprentices Act.

- iv) The services sector accounts for 54 per cent of GDP and is currently the fastest-growing sector of the economy, growing at 9 per cent per annum since the mid-1990s. The sector has the unique opportunity to grow due to its labour cost advantage reflecting one of the lowest salary and wage levels in the world, coupled with a rising share of working age population. The 11th Plan must, therefore, put special focus on this sector so that its potential to create employment and growth is fully realized.

Professional Services

v) Professional services include a wide array, namely, IT Services, Customer Relations Management, Health Services, Accountancy Services, Legal Services, Educational Services, Construction and Engineering Services, Architectural and Design Services etc. The Information and Communication Technology revolution has made it easy to provide such services all over the world and Indian professionals have made a mark in many fields leading India to being recognized all over the world as an important player in the knowledge economy.

Construction, Housing and Real Estate

- vi) Construction industry provides a large scope for direct and indirect employment of persons with a wide range of skills and also of unskilled persons. It employs over 30 million people, many of them women and migrants, and has been growing at over 10% per year over the last five years. It covers rural and urban infrastructure, roads, airports, sea-ports, and commercial and residential buildings. Infrastructure development has been identified as a major thrust area emphasized through such projects as Bharat Nirman, Pradhan Mantri Grameen Sadak Yojana, the National Highways Development Programme, airport modernization etc. In housing we have a large unmet need and a growing demand due to growing working population and nuclear families. Construction has great possibilities for creating employment which need to be fully exploited.
- vii) An important component of the 11th Plan should be measures for ensuring adherence to safety requirements, environmental regulations, and occupational health and safety requirements of labour. Given the nature of employment in this sector and the fact that a large number of workers are women, especially migrant women, it is vital to put in place measures which prevent the exploitation of women and children. Care should be taken to ensure equal wages for women and to provide amenities like emergency medical aid, feeding centres, toilets and crèches at the construction site.
- viii) The scope for expanding construction activity is limited by constraints on land development in many states. The most important of these arise from the Urban Land Ceiling Act which is still in operation in some states. Non-transparent land use policies, which are almost ubiquitous, also add to the problem. Urban Rent Control, high stamp duty, and other transfer costs also restrict construction. State governments and municipal bodies should undertake a comprehensive review of such policies and amend

necessary laws/regulations in line with the requirement of modern city development to formulate their Master Plans and Zonal Plans in a given timeframe. Joint ownership of urban housing will be mandatory and ownership in the name of women will be incentivized. State governments should also make their rural/urban land-use conversion processes simpler and quicker. The situation is aggravated by low investment in urban roads and rapid transport systems, which if developed can help disperse population and mitigate the high cost of urban properties.

- ix) Lack of affordable housing in urban areas forces people to live in unsatisfactory and unhygienic conditions. Government polices should facilitate access to social housing in urban areas, especially for the urban poor.

Tourism

- x) Tourism is an important component of demand in the services sector which has shown considerable dynamism in recent years and is poised for even more rapid growth. It is difficult to estimate the full contribution of tourism to the economy since much of it shows up indirectly in sectors such as hotels and restaurants, transport, handicrafts etc but there is general agreement that the sector has great potential and needs to be encouraged.

Retail Trade and Organized Retail

- xi) Retail trade and services provide employment to large number of persons at varying levels of income. For many hawkers, street vendors, etc. these are sources of livelihood open to almost anyone. While the bulk of retailing will continue to be in the small scale and informal sector, it must be recognized that modern organized retailing brings many advantages to producers and also to urban consumers, while also providing employment of a higher quality. Organized retailing in agricultural produce can set up supply chains, give better prices to farmers for their produce, reduce spoilage and wastage, and facilitate the development of agro-processing industries. Modern retailing can bring in new technology and reduce consumer prices, thus stimulating demand and thereby providing more employment in production industries.

4.5 Unorganised Private Sector

i) The private sector, including farming, micro, small and medium enterprises (MSMEs), and the corporate sector, has a critical role to play in achieving the objective of faster and more inclusive growth. This sector accounts for 76% of the total investment in the economy and an even larger share in employment and output. MSMEs, in particular, have a vital role in expanding production in a regionally balanced manner and generating widely dispersed off-farm employment. Our policies must aim at creating an environment in which entrepreneurship can flourish at all levels, not just at the top.

ii) A legal framework for this sector has now been provided with the enactment of the Micro, Small and Medium Enterprises Development Act, 2006. However, it is necessary to recognize the continuing need to facilitate graduation of these enterprises to higher levels, particularly from small to medium. Incentivizing graduation of micro and small

enterprises to medium and larger units, through well-calibrated fiscal and non-fiscal measures, is necessary and would be one of the steps in the 11th Plan.

iii) One of the important tasks of the 11th Plan should be to review the position regarding the availability of timely and adequate credit (both term loan and working capital) to small and medium enterprises from commercial banks and other financial institutions and suggest measures to eliminate the shortcomings that are noticed. The inadequacies in credit delivery to these enterprises arise from several causes:

- o The State Financial Corporations have become defunct in most states and SIDBI has a very limited branch network;
 - o Commercial banks are reluctant to meet the credit needs of these enterprises on account of perceptions of high risks and higher transaction cost of dealing with a large number of small borrowers;
 - o They do not even comply with RBI guidelines and continue to seek collaterals from SMEs.
 - o There is lack of familiarity among managers of commercial banks with the business model of the diverse activities of SMEs;
- iv) These inadequacies need to be addressed by means of measures such as a significant branch expansion of SIDBI to cover all clusters, expansion of credit guarantee scheme in order to obviate the need of banks seeking collaterals, and training and sensitization of the managers of public sector banks.

4.6 The rural employment scenario

i) The importance of agricultural growth arises not only from the need to provide for adequate food production and a broader base of income generation but also because of the increasingly important role rural demand will need to play in order to support non-agricultural growth from the demand side. Much of this demand would be for non-agricultural products produced in rural areas which would also generate non-agricultural employment in rural areas. It may be noted that if agriculture grows at the recent trend growth rate of only 2%, the industrial growth required to meet the GDP growth targets becomes much higher, and a much higher export growth is required to absorb the additional industrial growth. Export growth in the 9% growth scenario would have to be nearly 26% per year instead of the 16.4% necessary if agriculture grows at 4%. Such very high export growth requirements may not be easily attainable, despite the recent performance. Therefore, a strategy aiming at acceleration in the growth rate should provide for the acceleration in agricultural growth not only because it is more consistent with reducing poverty and generating income in rural areas, but also because it is more consistent with the likely constraints on export performance.

ii) The divide between urban and rural India has become a truism of our times. The central government has already adopted a multi-pronged strategy to reduce this divide in its various dimensions. For example, the Bharat Nirman programme addresses gaps in rural infrastructure and covers irrigation, road connectivity, housing, water

supply, electrification, and telecommunication connectivity; the National Rural Employment Guarantee Act (NREGA) attempts to ensure a social safety net as it provides minimum guaranteed employment in rural areas and at the same time has the capacity to build rural infrastructure especially if resources from other programmes are pooled in; the Sarva Shiksha Abhiyan and National Rural Health Mission are ambitious programmes for providing elementary education and primary health services respectively. All these programmes indicate the priority being given by the Government to Rural Development and are meant to give a new hope to rural India. While making these provisions for rural India, the 11th Plan must also provide basic amenities to the growing number of poor in urban areas.

iii) Further, because the basic strategy is to exploit existing technology more intensively, it will require either much more effort from farmers or more labour saving machinery. Mechanization has accelerated during the last decade despite slow agricultural growth (for example tractor numbers went up to 70% between 1997 and 2003 Livestock Censuses) and this trend will normally intensify if growth increases, particularly because young males in relatively better off farm families now prefer off-farm work. But while higher labour productivity is desirable, and so is voluntary exit from farming to better non-farm alternatives, NSS reports a rapid rise in involuntary unemployment among agricultural wage workers due to large absolute decline in days of agricultural wage employment. There is also evidence of increase in unrecorded tenancy. Despite this more land is being left fallow. Current land distribution and laws governing tenancy need to be re-examined.

National Rural Employment Guarantee Programme (NREGP):

iv) The National Rural Employment Guarantee Act 2005 (NREGA) assures every rural household at least 100 days of manual work at minimum wages. Initially introduced in 200 districts, the Act will be extended to the entire country over a five-year period⁴. Unlike employment programmes in the past that were supply driven, bureaucracy controlled, and suffered from large leakage including misuse of funds arising from false muster rolls and poor project design, this is demand driven, based on a legal right and requires PRIs to select projects relevant to the needs of the community. Initial assessments are mixed, for example muster rolls continue to be problematic in many places, but it is clear that the demand-driven nature of NREGP has not led to as high leakages or cost as some had originally feared. If anything, the main teething problems appear to be insufficient information and unduly high task norms, which have caused demand to be much less than earlier estimated. Where these have been addressed, it is a very popular scheme effective in providing fallback income, reducing distress migration and creating assets. To fulfil the rights created, the 11th Plan must ensure that NREGP is adequately funded and effectively implemented. State governments should address existing problems, meet employment demand promptly and, by using NREGP in convergence with other schemes, develop land and water resources effectively, especially to benefit the scheduled castes and tribes.

⁴ The NREG Act has since been extended to all districts in the Country.

4.7 The approach to the Livelihood Sector.

i) The survival of pastoralism is crucial for sustainable land use. Besides conserving domestic biodiversity, it is a means of producing food in dry lands without depleting groundwater resources. However, there are many constraints on expansion in this area. Grazing permits are denied in traditional grazing sites that have been converted into protected areas/wildlife sanctuaries, national parks/Joint Forest Management (JFM) programme. Original pasture lands or stipulated animal drinking water ponds are encroached upon, or used for other purposes. Bio-diesel (Jatropha) planting is being promoted through state agencies without seeing all the consequences such as blocking the migration routes of animals and encroaching upon herd-passing pathways. It is vital to ensure that the commons are protected and women, who make up a substantial portion of the workforce in this sector, are given control over them. This will prevent their use for other purposes.

ii) Some of the important initiatives that are needed are:

- Promotion of appropriate crossbreeds while conserving indigenous breeds of livestock.
- Establishment of livestock marketing system.
- Promotion of rural backyard poultry in a cooperative marketing setup.
- Development of cooperative dairy firms.
- Enhancing livestock extension services.
- Encouraging private veterinary clinic.
- Institutionalizing a framework for utilizing synergy between restoration and creation of water bodies for water harvesting and fishery.
- Provision of an insurance package to avoid distress.

iii) The dispersed and decentralized micro and small enterprises (MSE) sector poses a special challenge and opportunity to our policy makers. This sector has the second largest share of employment after agriculture and spans a wide range, including small-scale, khadi, village and coir industries, handlooms, handicrafts, sericulture, wool, powerlooms, food processing, and other agro and rural industry segments. It touches the lives of the weaker and unorganized sections of the society with more than half of those employed being women, minorities, and the marginalized. Fifty-seven per cent of the MSE units are owner-run enterprises with one person. They account for 32 per cent of the workforce and 29 per cent of the value added in non-agricultural private unincorporated enterprises. Infusion of appropriate technology, design skills, modern marketing capacity building and easier access to credit can make this segment an expanding base for self-sustaining employment and wealth generation and also foster a culture of creative and competitive industry. Agro-food processing, sericulture and other village enterprises can check rural-urban migration by gainfully employing people in villages. This will also take pressure off agriculture. The MSE sector can open up a window of opportunities in regions like the North East where large industries cannot be set up due to infrastructure gap & environmental concerns.

Access to Credit and Risk Management

iv) Access to financial resources enables the poor to exploit investment opportunities, reduces their vulnerability to shocks, and promotes economic growth. But lack of credit at reasonable rates is a persistent problem, in large part, reflecting the collapse of the cooperative credit system. The failure of the organized credit system in extending credit has led to excessive dependence on informal sources usually at exorbitant interest rates. This is at the root of farmer distress reflected in excessive indebtedness. There are of course some recent positive developments, for example, the acceptance by the government of the Vaidyanathan Committee report on co-operatives and the success of commercial banks to almost double the flow of agricultural credit after 2003. Nonetheless, problems still persist. Implementation of the Vaidyanathan report has been slow because of the reluctance of states to cede control over cooperatives. Problems of the long-term credit structure have hardly been addressed, and the large increase in commercial bank credit does not appear to have significantly improved access in either regions with poor banking support or for small/ marginal farmers and tenants.

v) Micro-finance is another new development in which Indian institutions have acquired considerable expertise and where up-scaling holds great promise to expand the nature of financial services offered to micro enterprises and also to make these the springboard for entrepreneurial development. The 11th Plan must ensure that our policies are sufficiently flexible to support the development of micro-finance. Interest rates in the micro-finance sector have to be significantly higher than in the banking sector reflecting the much higher cost of doing business. This sometimes attracts criticism but they still remain much lower than rates charged by the money lenders and therefore provide competition to them. There are instances of legal/administrative restrictions on micro-finance institutions in a manner which does not foster their growth. This will require remedial action.

vi) Improved production infrastructure, credit, skill upgradation and market linkages are vital, but they are not enough given the pitiable condition of most of our weavers and artisans. They need a social safety net and assured access to basic amenities to productively engage in their profession. So, under the 11th Plan we should have two kinds of schemes for this sector - one focusing on the lives of the small firm workers, artisans, and crafts people and the other on their livelihoods.

Chapter 5: Summary of Recommendations

5.1 Size of Labour Force, and target for employment

5.1.1 The Working Group accepted the magnitude of additions to labour force projected by the Sub Group on Labour Force at 49 million for the 11th Plan period (2007 – 2012) and 44 million for the next five year period (2012 – 2017).

5.1.2 Details of sector wise Employment Projections may be firmed up on the basis of Sector wise plans drawn up by the subject specific Groups.

5.2 Strategy for creation of employment

5.2.1 The employment strategy for the 11th Plan should be such as to yield the following employment outcomes:

Additional Employment Opportunities over and above the Autonomous Employment created in the base line scenario

- i) At least 10 million more agricultural workers should find gainful employment in non agricultural activities than in the normal trends scenario.
- ii) In the unorganized sector, micro and village enterprises in rural areas should provide non-farm employment to at least 25 million more persons, compared to the baseline scenario, during the Plan.
- iii) Private organized establishments should absorb 8 million more workers, over and above 2 million, which in any case would occur under normal growth in the baseline scenario.
- iv) Government and public establishments should absorb, at least 2 million more workers over and above the normal growth of 3 million through the ongoing programmes in education and health.

5.2.2 Employment outcome of the strategy cannot and should not always be seen in terms of more of the same kind of employment. The types of employment outcomes required at sectoral levels vary from sector to sector. Broadly these are of the following types:

- i) Better wage levels and better income of the self employed workers
- ii) Reducing income uncertainty
- iii) Improvement in the physical environment of work
- iv) Better ability to cope with the risks to life and health i.e., a better risk cover – social security
- v) More employment of a better quality.

5.2.3 The Working Group emphasizes on an approach that sensitizes the various development programmes to their employment outcomes measured as outlined above. The Report has identified a number of developmental initiatives of the 11th Plan Approach in regard to:

- i) Development programmes for agricultural activities
- ii) The Public Sector flagship programmes
- iii) The Private Corporate Sector
- iv) The Unorganised Sector
- v) Programmes that have a direct bearing on rural non-farm employment, and ,
- vi) The Livelihood Sector.

5.3 Further work on concepts & measures:

5.3.1 The Working Group recommends that the analysis of trends in labour force and employment be done on the basis of UPSS and CDS measures. The projections should be made on the basis of CDS measure following the practice used in the 10th Plan.

Quality of employment

5.3.2 The present measurement concepts (UPS, UPSS, CWS, and CDS) were adopted by the statistical surveys system of Government based on the 1970 Report of Planning Commission Employment Committee constituted by the Planning Commission. The present estimates of employment and unemployment follow the methodology recommended by this Committee. As discussed in Chapter1, there is a case for revisiting the methodology of estimation of employment and unemployment to explore whether ‘quality of employment’ can also be made part of the enquiry from households made by the statistical system in regard to status of employment.

5.3.3 The Working Group recommends that Planning Commission may set up a ‘Committee on Employment’, to recommend whether, and if so how the design of the household enquiry on employment and unemployment be modified to bring in an objective measure of quality of employment in the estimates of employment and unemployment.

5.4 Regular and more frequent inflow of Facts on Employment Data, its Analysis and Interpretation of facts:- full scale NSSO Survey on Employment / Unemployment every year:

5.4.1 Collection and dissemination of employment data from households, on an annual basis, is a critical input to understand the employment outcomes, across locations and through time, the impact of economic policies and programmes of the Central and States Governments. At present a thin

sample of households is canvassed every year, which cannot be used for State-wise analysis of employment / unemployment situation, and for study of situation of employment / un-employment / under-employment of specific groups of persons in the labour force, because the sample size is too small.

Planning Commission had recommended to the Department of Statistics in 2003 that a full-scale household enquiry on employment and unemployment should be conducted every year. Such an enquiry is done at present through a large-scale sample survey of households once in five years. NSSO has been considering this proposal through its various technical fora. The Working Group reiterates the need for carrying out a full-scale annual survey of households on the subject of employment and unemployment by NSSO.

5.4.2 Compilation, processing and release of State Sample Surveys Data on Employment & Unemployment is in a state of utter neglect in most of the States.

- i) While National level surveys on employment and unemployment bring out a comprehensive picture of the characteristics of labour force and patterns in employment and unemployment, the real action to address the labour and employment issues is taken at the level of States and Districts Administration. This requires availability of objective information, duly supported by quantifiable facts at the level of sub regions within a State. However, the most of the State Planning Departments, and the State Statistical Bureaus do not process the survey schedules filled up at the level of households as a part of the State Sample of Employment and Unemployment Surveys. In its absence, certain very broad conclusions for State and sub-State level employment situations are available to support programme and policy planning at the level of States. This impedes the ability of the planning process to address the labour and employment planning issues in a regionally differentiated manner.
- ii) The State Governments should accord a high priority to processing of State sample data of employment and unemployment surveys.

5.5 Further work on Regional labour and employment Issues

- 5.5.1 A differential approach across regions is required. Elements of this are perceptible in the region specific programmes and policies, including the District specific programmes such as the NREGA.
- 5.5.2 At present labour and employment issues receive little or no priority in the deliberations on State Plans. There is need to carry out the regional

analysis of labour and employment issues, in a quantitative manner immediately, prior to the Mid-Term Appraisal of the 11th Plan, so that a regionally differentiated approach to employment in the future Planning exercises may be devised. This would provide us the factual base for a dialogue with the State Governments on the developmental efforts made.

5.6 Other Issues:

- 5.6.1 Wage is the key variable that balances, in a specific labour market, the supply of labour in response to demand i.e., the opportunities for employment. And levels of labour productivity strongly influence what wage the employer can afford to pay, and so also, the level of wage a worker can expect to receive. While the Working Group is not making any recommendations in regard to the need for a policy on wages, or otherwise, it identifies this as an area that should receive attention, in further work in the Planning Commission.

No.Q-20017/3/06/LEM/LP
Government of India
Planning Commission
(Labour, Employment & Manpower Division)

Yojana Bhawan, Sansad Marg,
New Delhi-I, dated 3rd March 2006

ORDER

Subject: Constitution of Working Group on Labour Force and Employment Projection for the Eleventh Five-Year Plan (2007-2012)

In the context of preparation of the Eleventh Five-Year Plan, it has been decided to set up a Working Group on Labour Force and Employment Projection. The composition of the Working Group will be as follows:


- | | |
|---|-------------------|
| 1. Prof. B.L. Mungekar, Member, Planning Commission, Sansad Marg, New Delhi-1100 01. | Chairman |
| 2. Dr. Ms. Jeemol Unni, Gujarat Institute of Development Research, Gota, Ahmedabad-380060. | Member |
| 3. Prof. Amit Bhaduri, Professor Emeritus, JNU, IES Flats, A-12, Mayur Vihar Phase-I, New Delhi-110091 | Member |
| 4. Prof. Subhashish Gangopadhyay, Director, India Development Foundation, 249-F, Sector-18, Udyog Vihar, Phase IV, Gurgaon-122015, Haryana. | Member |
| 5. Dr. Bibek Debroy, Secretary General, PHDCCI, 4/2, PHD House, Siri Institutional Area, August Kranti Marg, New Delhi-1100 49. | Member |
| 6. Dr. Surjit S. Bhalla, Principal, OXUS Investment, S-160, Second Floor, Panchsheela Park, New Delhi-110017. | Member |
| 7. Dr. T.S. Papola, Institute for Studies in Industrial Development, Narendra Niketan, I.P. Estate, P.O.Box No.7151, New Delhi-1100 02. | Member |
| 8. Shri N. Srinivasan, Director General, CII, 23-26, Institutional Area, Lodhi Road, New Delhi- 1100 03. | Member |
| 9. Dr. Amit Mitra, Secretary General, FICCI, Federation House, Tansen Marg, New Delhi- 1100 01 | Member |
| 10. Prof. P.N. Maribhat, Institute of Economic Growth, University Enclave, Maurice Nagar, New Delhi-1100 07 | Member |
| 11. Prof. Arup Mitra, Institute of Economic Growth, University Enclave, Maurice Nagar, New Delhi-1100 07 | Member |
| 12. Director General, National Sample Survey Organisation, Sardar Patel Bhawan, Parliament Street, New Delhi-110 001. | Member |
| 13. Registrar General of India, 2A, Mansingh Road, New Delhi-1100 11. | Member |
| 14. Shri C. Chandaran, CEO & Commissioner, KVVC, 3, Irla Road, Vile Parle (West), Mumbai-4000 05. | Member |

K

-Contd.2/-

| | |
|---|----------|
| 15. Secretary (Employment), Government of Maharashtra, Mantralaya, Mumbai-400032. | Member |
| 16. Labour Secretary, Government of Gujarat, Block No.5, New Sachiwalya, Gandhinagar-382010. | Member |
| 17. Labour Secretary, Government of Tamil Nadu, Secretariat, Fort St. George, Chennai-600009. | Member |
| 18. Labour Secretary, Government of Orissa, Orissa Secretariat, Bhubaneswar-751001. | Member |
| 19. Labour Secretary, Government of Madhya Pradesh, B-9, CHAKUMILLI, Bhopal-452004. | Member |
| 20. Director, IAMR (or his nominee), Plot No.25, Sector A-7, Institutional Area, Narela, Delhi-110040. | Member |
| 21. Advisor (LEM), Planning Commission, Sansad Marg, New Delhi-110001. | Member |
| 22. Director (Employment Studies Unit), (LEM Division), Planning Commission, Sansad Marg, New Delhi. | Convener |

2. The Terms of Reference of the Working Group will be as under:
 - a. To review the employment situation in general and in respect of specific groups like women and educated persons, and in different regions of the country.
 - b. To project the labour force and work opportunities that should form the basis of the strategy for the Eleventh Plan.
 - c. To suggest strategies for creating work opportunities.
 - d. To assess the unemployment situation in general and among groups such as youth and the educated and to suggest ways to deal with it.
 - e. Any other issue(s) concerning employment policy & programmes, with the consent of the Chairman of the Working Group.
3. The Chairman of the Working Group may co-opt any other person as Member of the Working Group, if considered necessary.
4. The Working Group will submit its report by April 30, 2006. LEM Division of the Planning Commission will provide Secretariat for the Working Group.
5. The expenditure on TA/DA of official members in connection with the meetings of the Committee will be borne by the parent Department/Ministry to which the official belongs as per the rules of entitlement applicable to them. The non-official members of the Committee will be entitled to TA/DA as permissible to Grade 1 officers of the Government of India under SR190(a) and this expenditure will be borne by the Planning Commission.

 -Contd. RA-

6. Smt. Padmaja Mehta, Director (Labour, Employment & Manpower Division), Room No. 501, Yojana Bhawan, New Delhi (Telephone No. 23096541), will be the Nodal Officer for this Steering Committee for all further communications.



(K.K.Chhabra)

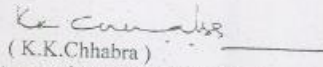
Under Secretary to the Government of India

To

Chairman and all Members (including Convener) of the Working Group on Labour Force and Employment Projection

Copy to:

1. PSs to DCH/MOS (Planning)/Members/Member-secretary, Planning Commission.
2. All Principal Advisers/Advisers/HODs in Planning Commission.
3. Prime Minister's Office, south Block, New Delhi.
4. Cabinet Secretariat, Rashtrapati Bhawan, New Delhi.
5. Information Officer, Planning Commission.



(K.K.Chhabra)

Under Secretary to the Government of India

No.Q-2001/3/06-LEMP
Government of India
Planning Commission
(Labour, Employment & Manpower Division)

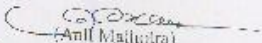
Yojana Bhawan, Sansad Marg,
New Delhi-1, dated, April 19, 2006

ORDER

Subject: Constitution of Working Group on Labour Force and Employment Projection for the Eleventh Five Year Plan (2007-2012)

In continuation of the earlier order of even number dated 3rd March, 2006, on the above subject, it has been decided to include Shri Madhu Mohite (Former Secretary of the Mumbai Municipality Kamgar Sangha) in the Working Group on Labour Force and Employment Projection as a Member.

The composition and Terms of Reference of the Steering Committee are available in the earlier order of even number dated 3rd March, 2006.

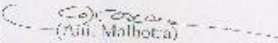

(Anil Malhotra)
Deputy Secretary (Administration)

To

1. Chairman and all Members (including Convenor) of the Working Group on Labour Force and Employment Projection
2. Shri Madhu Mohite [Former Secretary of the Mumbai Municipality Kamgar Sangha] C-9, Govind Madhav Society, Arya Chamakya Nagar, Akurli Road, Kandivli East, Mumbai-400101] alongwith a copy of the Planning Commission Order No.Q-2001/3/06-LEMP dated 3-3-2006

Copy to:

1. PSs to DLH/MOS (Planning)/Members/Member-secretary, Planning Commission.
2. All Principal Advisers/Advisers/HODs in Planning Commission.
3. Prime Minister's Office, South Block, New Delhi.
4. Cabinet Secretariat, Rashtrapati Bhawan, New Delhi.
5. Information Officer, Planning Commission


(Anil Malhotra)
Deputy Secretary (Administration)

No.Q-20017/3/06/LEM/LP
Government of India
Planning Commission
(Labour, Employment & Manpower Division)

Yojana Bhawan, Sansad Marg,
New Delhi-1, dated 18th May, 2006

ADDENDUM

Subject: Constitution of Working Group on Labour Force and Employment Projection for the Eleventh Five Year Plan (2007-2012) – Addition of one more Member in its Composition.

In continuation of Planning Commission's earlier order of even number dated 3rd March, 2006 and the subsequent Order dated 19th April, 2006, on the above subject, it has been decided to include Dr. S.K. Sasikumar, Fellow, V.V. Giri National Labour Institute, NOIDA as a Member of the Working Group on Labour Force and Employment Projection.

The Terms of Reference and all other terms and conditions as in the earlier Order dated 3rd March, 2006 will remain in force unchanged.



(K.K.Chhabra)

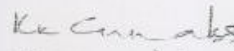
Under Secretary to the Government of India

To

Chairman and all Members of the Working Group on Labour Force and Employment Projection as per its revised composition.

Copy to:

1. PSs to DCH/MOS (Planning)/Members/Member-secretary, Planning Commission.
2. All Principal Advisers/Advisers/JS (SP & Admn.) in Planning Commission.
3. Prime Minister's Office, South Block, New Delhi.
4. Cabinet Secretariat, Rashtrapati Bhawan, New Delhi.
5. Information Officer, Planning Commission



(K.K.Chhabra)

Under Secretary to the Government of India

No.Q-20017/3/06-LEM/LP
Government of India
Planning Commission
(Labour, Employment & Manpower Division)

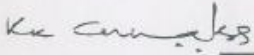
Yojana Bhawan, Sansad Marg,
New Delhi, dated 13th October, 2006

ORDER

Subject: Working Group on Labour Force and Employment Projection for the Eleventh Five Year Plan (2007-2012) –Extension of its tenure

Reference is invited to Planning Commission's earlier order of even number dated 3rd March, 2006, regarding setting up of Working Group on Labour Force and Employment Projection for the Eleventh Five Year Plan. It has been decided to extend the tenure of the Working Group to submit its report upto 20th November, 2006.

2. All other Terms and Conditions as contained in the earlier Order of 3rd March, 2006 will remain in force unchanged.



(K.K.Chhabra)

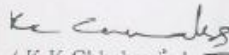
Under Secretary to the Government of India

To

Chairman and all Members (including Convener) of the Working Group.

Copy to:

1. PSs to DCH/MOS (Planning)/Members/Member-Secretary, Planning Commission.
2. All Principal Advisers/Advisers/JS (SP & Admn.) in Planning Commission.
3. Information Officer, Planning Commission


(K.K.Chhabra)

Under Secretary to the Government of India

Methodology for Projecting Labour Force

Projected Urban-Rural Population by Age and Sex

Population projections by age and sex for the period 2001-2026 as made by the Expert Committee of the National Population Commission were accepted. Urban-Rural Population totals as projected by the same committee for the period 2001-2026 were also used as input. But for labour force projections, projected population for urban and rural areas by age and sex were required. For this purpose, age-sex distribution of the urban population from the 2001 Census was projected forward for 2006 using the cohort-component method but assuming no migration from rural areas. Before the projection, the census age-sex distribution was smoothed using a three-point, moving average formula. The assumed levels of fertility and mortality used in the component projection are shown in Table 1. The projected urban total population obtained using the component method was compared with that made by the NPC expert committee using the urban-rural growth difference method (URGD). The difference between the two projected populations for 2006 was assumed to be because of rural urban migration during 2001-06. This population was added to the projected age-sex distribution of urban population in 2006 obtained from the component method by using a model age distribution of rural-urban migrants. For each five year period, 2006-1, 2011-16, etc. projections were carried out in a similar fashion, first projecting the natural growth of urban population by age and sex and then adding the estimate of migrants implied by URGD method. The population for rural areas by age and sex was derived by subtracting the urban population from the total population as projected by the NPC Expert Committee. The projected populations in this manner refer to March 1 of 2006, 2011...2026. From this data, the estimates for April 1st of 2002, 2007, 2012...2022 were computed using log-linear interpolation. Statistical Appendix Tables A1a and Table A1b show the projected rural-urban population by age and sex for 2002 to 2022, at five year time intervals.

Table1. Assumed Levels of Indicators of Fertility, Morality and Migration for Urban Areas of India, 2001-2026.

| Indicator | Period | | | | |
|-------------------------------|---------|---------|---------|---------|---------|
| | 2001-06 | 2006-11 | 2011-16 | 2016-21 | 2021-26 |
| e ⁰ , Male | 68.7 | 69.5 | 70.4 | 70.9 | 71.4 |
| e ⁰ , Female | 71.8 | 72.5 | 73.3 | 74.0 | 74.8 |
| TFR | 2.1 | 1.8 | 1.8 | 1.8 | 1.8 |
| Rural Urban Migration (000s)* | 16,917 | 19,222 | 18,157 | 18,685 | 85,479 |
| Sex ratio at Birth | 115 | 115 | 115 | 115 | 115 |

*Difference between the projected urban populations made by the NPC Expert Committee using URGD method and the projected urban total using the component method but assuming no rural-urban migration during the 5 year projection period. The

assumed migration during 2021-25 seems implausibly large. This is attributable to an error made in applying the URGD method in the Expert Committee report.

Projection of Educational Composition of Labour Force for 2007 and 2012

Labour force participation rates (LFPRs) at ages under 25 strongly influenced by changes in educational composition of the population. Also, for employment planning, it is useful to have information on educational composition of the labour force. Therefore, an attempt has been made to project the labour force size by educational level for the 11th plan period. For this purpose, data from the 61st round (2004-05) of the National Sample Survey (NSS) on population and Labour Force Participation rates (usual status) by educational level were used. From this data, for each 5 year age group, the percentage of population in the following completed levels of education were computed for rural and urban areas and males and females separately: illiterate, primary or less, middle, secondary, higher secondary, certificate and diploma and graduation. The logical basis of our projection is that if the impact of mortality and migration differentials can be ignored, after certain age, the educational composition of those aged $x-x+5$ at time t would be the same as those aged $x-5-x$ at time $t-5$. For example, those aged 30-34 in 2007 would have more or less the same educational composition as those aged 25-29 in 2002. However, at younger ages the educational composition would change with time even for the same cohort. Nevertheless, it is found that the percentage of illiterates in a cohort hardly changes after age 10-14 years, the percentage with primary or less schooling after 15-19 years, percentage that completed middle or secondary school after age 20-24 and percentage that completed higher secondary school or graduation after age 25-29. Thus, we can carry forward these cohort-specific percentages unchanged with time, after certain age.

Accordingly, the data on educational composition of the population from the 61st round was carried 5 years forward by aging the cohorts. But in doing so, the percentage of illiterates below the age of 15, percentage with primary and less schooling at age below 20, percentage completed middle or secondary school at age less than 25 and the percentages with higher secondary school or graduation at age below 30 were changed by examining their trends indicated by the age specific data from the 61st round. For example, the 61st round data shows that the percentage of illiterate women in urban areas steady decreases from 43 percent for those aged 55-59 to 6 for those aged 10-14, or by 4 percent in every 5 years. Therefore, while projecting 5 years forward, the percentage of illiterate women was reduced by 4 percent at ages below 15 years, but the percentage at ages 15-19 were assumed to be the same as at age 10-14 five years earlier, the percentage at ages 20-24 the same as that at age 15-19 five years ago, and so on....

The projected educational composition of the population from 61st round data would be applicable to 2009-10. To get the estimates for 2007, the percentages for each age group from the 61st round and those projected for 2009-10 were linearly interpolated. To get the estimates for 2012, the estimates for 2007 were projected forward cohort wise, as detailed

above. Tables A2a to A2d show the educational composition of population by age group from the 61st round and the projected composition for 2007 and 2012

To estimate the size of the labour force by the educational level in 2007 and 2012, it was assumed that labour force participation rates specific to age, sex, education level and residence (rural-urban) as estimated in 61st round would be applicable also for 2007 and 2012. In other words in the calculation it is assumed that the overall LFPR would change only because of the changes in the composition of population by age, sex, educational level and residence. By multiplying the projected population by age, by the corresponding age, sex, educational level and residence by the corresponding LFPR the size and composition of the labour force were derived for 2007 and 2012. Table A3 shows the LFPRs used in the calculation and Table A4 shows the projected labour force by age, sex, educational level in rural and urban areas in 2007 and 2012.

Projection of Labour Force for 2017 and 2022

For these years no attempt was made to estimate the educational composition of the population. However, to know the likely changes in labour supply for the years beyond the 11th Plan period, overall size of the labour force was projected for 2017 and 2022 as follows. Age specific LFPRs combined for all educational categories were calculated for males and females in rural and urban areas for the years 2007-12 (because of the change in educational composition) and females in rural and urban areas for the years 2007 and 2012 (see Table A5). The implied change in the LFPR of each age group during 2007-12 (because of the change in educational composition) is assumed to hold true for the period 2012-17 and 2017-22. The resulting age-specific LFPRs for male and females in rural and urban areas are shown in Table A5. By multiplying the age-specific LFPRs with the projected age distribution of population for 2017 and 2022, the size of the labour force was estimated for 2017 and 2022 (see Table A6).

1. Sub Group on Labour Force Projections

Prof. P.N. Mari Bhat, Director
International Institute of Population Sciences
Mumbai Chairman of the Sub Group

Smt. Padamja Mehta,
Director (LEM),
Labour, Employment & Manpower Division,
Planning Commission

Shri Ram Kripal,
Director (CPD), NSSO,
Ministry of Statistics & Programme Implementation

Dr. D. Roy Roy Chaudhuri,
Assistant Registrar General of India (Demography)
Office of the Registrar General of India,
Ministry of Home Affairs

Shri Raj Kumar,
Senior Research Officer (LEM),
Labour, Employment & Manpower Division,
Planning Commission

2. Sub Group on Employment Projections

Shri C. Chandran,

CEO & Commissioner, KVIC, Mumbai Chairman

Dr. T.S. Papola, Director,

Institute for Studies in Industrial Development, New Delhi

Dr. Arup Mitra,

Institute of Economic Growth, Delhi 110007

Principal Secretary (Labour & Parliamentary Affairs),

Government of Madhya Pradesh, Bhopal

Principal Secretary (Labour),

Government of Gujarat, Gandhinagar

Principal Secretary (Labour),

Government of Tamil Nadu,
Chennai

Secretary (Employment & Self Employment),

Government of Maharashtra, Mumbai

Labour Secretary,

Government of Orissa, Bhubaneswar

Dr. Amit Mitra,

Secretary General, FICCI, New Delhi

Shri Mohit Gandhi,

Deputy Director, CII, New Delhi

Smt. Padamja Mehta,

Director (LEM),
Labour, Employment & Manpower Division,
Planning Commission

Shri Raj Kumar,

Senior Research Officer (LEM),
Labour, Employment & Manpower Division,
Planning Commission

Annexure IV

| List of Participants in the 1st Meeting of the Working Group held on May 9, 2006 | | | |
|---|------------------------|--|----------------------------|
| S.No. | Name | Designation / Organisation | |
| 1. | Dr. B.L. Mungekar | Member (Labour & Employment), Planning Commission. | Chairman |
| 2. | Dr. T.S. Papola | Director, Institute for Studies in Industrial Development, N.Delhi | Member |
| 3. | Prof. P.N. Mari Bhat | Director, International Institute of Population Sciences, Mumbai | Member |
| 4. | Dr. Surjit S. Bhalla | Principal, OXUS Investment, New Delhi | Member |
| 5. | Dr. (Ms.) Jeemol Unni | National Commission on Enterprises in Unorganised Sector | Member |
| 6. | Shri Vinod Babbar | Principal Secretary, Labour & Employment, Government of Gujarat, Gandhinagar | Member |
| 7. | Shri R. Sellamuthu | Principal Secretary, Labour & Employment, Government of Tamil Nadu, Chennai | Member |
| 8. | Shri Rakesh Bansal | Principal Secretary (Labour & Parliamentary Affairs), Government of Madhya Pradesh, Bhopal | Member |
| 9. | Shri Govind Swarup | Principal Secretary (Employment & Self Employment), Government of Maharashtra, Mumbai | Member |
| 10. | Shri C. Chandran | CEO & Commissioner, KVIC, Mumbai | Member |
| 11. | Shri Shailendra Sharma | Adviser (Labour, Employment & Manpower), Planning Commission | Member |
| 12. | Shri Madhu Mohite | Former Secretary of the Mumbai Municipality Kamgaar Sangha, Mumbai | Member |
| 13. | Shri K. Narayanan Unni | Deputy RGI, Office of the Registrar General of India, | Representative of RGI |
| 14. | Dr. D. Roy Chaudhuri | Assistant RGI, Office of the Registrar General of India | Representative of RGI |
| 15. | Shri Ram Kripal | Director (CPD), NSSO, | Representative of DG(NSSO) |
| 16. | Shri Mohit Gandhi | Deputy Director, CII, New Delhi | Representative of DG, CII |
| 17. | Smt. Padamja | Director (LEM), Labour, Employment & Manpower Division, Planning | Convenor |

| List of Participants in the 1st Meeting of the Working Group held on May 9, 2006 | | | |
|---|---------------------|---|--------------|
| S.No. | Name | Designation / Organisation | |
| | Mehta | Commission | |
| 18. | Shri R.K. Bhatnagar | Director (LEM), Labour, Employment & Manpower Division, Planning Commission | LEM Division |
| 19. | Shri A.K. Saxena | SRO, Labour, Employment & Manpower Division, Planning Commission | LEM Division |
| 20. | Ms. Kusum Mishra | SRO, Perspective Planning Division, Planning Commission | PP Division |

Annexure IV (Contd.)

List of Participants in the 2nd and Final Meeting of the Working Group held on
November 22, 2006

1. Dr. B.L. Mungekar, - Chairman
Member (Labour & Employment)
Planning Commission.
2. Dr. Chandrapal, Principal Adviser (LEM), Planning Commission
3. Sh. H.N. Gupta, Principal Adviser, Planning Commission & Director, IAMR.
4. Smt. Sudha Pillai, Principal Adviser, Planning Commission
5. Sh. C. Chandran, CEO, KVIC, Mumbai.
6. Sh. Subhashis Gangopadhyay, IDF, Gurgaon
7. Dr. (Ms.) Jeemol Unni, Professor, GIDR.
8. Ms. Padmaja Mehta, Director (LEM), Planning Commission.
9. Sh. S.G. Raoot, Joint Adviser, Village & Small Enterprises Division,
Planning Commission
10. Sh. Ram Kripal, CPD, N.S.S.O.
11. Sh. B.P. Pant, Joint Director, FICCI.
12. Sh. Navin Bhatia, BHARTI, C.O.O., New Delhi.
13. Sh. Mohit Gandhi, Deputy Director, CII.
14. Sh. D. Roy Choudhury, Office of the RGI.
15. Sh. Madhu Mohite
16. Sh. Shailendra Sharma, Consultant (LEM), Planning Commission
17. Sh. Rajkumar, SRO (LEM), Planning Commission.
18. Ms. Kusum Mishra, SRO, PPD, Planning Commission.

Statistical Appendix

to the

Report of the

Working Group on Labour Force & Employment Projections

constituted for the

Eleventh Five Year Plan (2007 – 2012)

Table A1a. Projected Population by Age & Sex, All India - Urban Areas: 2002-22

| Age - Group | 2002 | | | 2007 | | | 2012 | | | 2017 | | | 2022 | | |
|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 0-4 | 27067 | 14163 | 12904 | 26953 | 14408 | 12545 | 27951 | 14948 | 13003 | 30788 | 16476 | 14312 | 32721 | 17504 | 15217 |
| 5-9 | 29107 | 15225 | 13882 | 27810 | 14536 | 13274 | 27797 | 14833 | 12964 | 28762 | 15361 | 13401 | 32346 | 17274 | 15072 |
| 10-14 | 31171 | 16449 | 14722 | 30293 | 15994 | 14299 | 29123 | 15389 | 13734 | 29065 | 15660 | 13405 | 31000 | 16814 | 14186 |
| 15-19 | 31166 | 16569 | 14597 | 34145 | 17939 | 16206 | 33555 | 17639 | 15916 | 32267 | 16986 | 15281 | 34529 | 18464 | 16065 |
| 20-24 | 29428 | 15565 | 13863 | 35063 | 18266 | 16797 | 38405 | 19810 | 18595 | 37654 | 19455 | 18199 | 39397 | 20192 | 19205 |
| 25-29 | 26587 | 13896 | 12691 | 31535 | 16682 | 14853 | 37360 | 19493 | 17867 | 40589 | 20986 | 19603 | 41747 | 21677 | 20070 |
| 30-34 | 23882 | 12385 | 11497 | 27791 | 14631 | 13160 | 32849 | 17486 | 15363 | 38577 | 20245 | 18332 | 42982 | 22471 | 20511 |
| 35-39 | 21398 | 11201 | 10197 | 24591 | 12822 | 11769 | 28568 | 15111 | 13457 | 33550 | 17920 | 15630 | 39988 | 21138 | 18850 |
| 40-44 | 18348 | 9831 | 8517 | 21725 | 11405 | 10320 | 24954 | 13052 | 11902 | 28871 | 15303 | 13568 | 34276 | 18388 | 15888 |
| 45-49 | 14953 | 8164 | 6789 | 18429 | 9863 | 8566 | 21807 | 11441 | 10366 | 24981 | 13056 | 11925 | 29176 | 15477 | 13699 |
| 50-54 | 11588 | 6333 | 5255 | 14799 | 8030 | 6769 | 18227 | 9701 | 8526 | 21525 | 11237 | 10288 | 24874 | 12946 | 11928 |
| 55-59 | 8749 | 4659 | 4090 | 11259 | 6102 | 5157 | 14373 | 7740 | 6633 | 17676 | 9344 | 8332 | 21051 | 10919 | 10132 |
| 60-64 | 6871 | 3486 | 3385 | 8306 | 4355 | 3951 | 10694 | 5716 | 4978 | 13640 | 7256 | 6384 | 16913 | 8824 | 8089 |
| 65-69 | 5302 | 2605 | 2697 | 6244 | 3105 | 3139 | 7580 | 3902 | 3678 | 9771 | 5138 | 4633 | 12577 | 6575 | 6002 |
| 70-74 | 3662 | 1790 | 1872 | 4578 | 2200 | 2378 | 5434 | 2647 | 2787 | 6626 | 3347 | 3279 | 8632 | 4446 | 4186 |
| 75-79 | 2372 | 1211 | 1161 | 2917 | 1395 | 1522 | 3684 | 1732 | 1952 | 4408 | 2100 | 2308 | 5444 | 2680 | 2764 |
| 80+ | 1503 | 703 | 800 | 2267 | 1073 | 1194 | 3048 | 1387 | 1661 | 3973 | 1756 | 2217 | 4998 | 2188 | 2810 |
| Total | 293154 | 154235 | 138919 | 328705 | 172806 | 155899 | 365409 | 192027 | 173382 | 402723 | 211626 | 191097 | 452651 | 237977 | 214674 |

Note: Projected population refers to April 1 of each year.

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

| | | | | | | | | | | | | | | | |
|------------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 60+ | 19710 | 9795 | 9915 | 24312 | 12128 | 12184 | 30440 | 15384 | 15056 | 38418 | 19597 | 18821 | 48564 | 24713 | 23851 |
|------------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

Table A1b. Projected Population by Age & Sex, All India - Rural Areas: 2002-22

| Age-group | 2002 | | | 2007 | | | 2012 | | | 2017 | | | 2022 | | |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 0-4 | 92960 | 48084 | 44876 | 88208 | 46467 | 41741 | 86758 | 45712 | 41046 | 82727 | 43571 | 39156 | 77179 | 40643 | 36536 |
| 5-9 | 93321 | 48443 | 44878 | 90191 | 46775 | 43416 | 85651 | 45244 | 40407 | 84419 | 44597 | 39822 | 79817 | 42160 | 37657 |
| 10-14 | 89260 | 46858 | 42402 | 91322 | 47285 | 44037 | 88189 | 45598 | 42591 | 83792 | 44137 | 39655 | 81657 | 42898 | 38759 |
| 15-19 | 75956 | 40120 | 35836 | 85484 | 44981 | 40503 | 87339 | 45299 | 42040 | 84418 | 43705 | 40713 | 77787 | 41073 | 36714 |
| 20-24 | 64080 | 33131 | 30949 | 71062 | 37947 | 33115 | 80219 | 42632 | 37587 | 82311 | 43043 | 39268 | 76469 | 40110 | 36359 |
| 25-29 | 57821 | 28920 | 28901 | 60896 | 31472 | 29424 | 67660 | 36151 | 31509 | 76900 | 40871 | 36029 | 77162 | 40278 | 36884 |
| 30-34 | 53222 | 26444 | 26778 | 55540 | 27605 | 27935 | 58514 | 30076 | 28438 | 65330 | 34772 | 30558 | 73365 | 38745 | 34620 |
| 35-39 | 47974 | 24273 | 23701 | 51381 | 25344 | 26037 | 53663 | 26479 | 27184 | 56710 | 28983 | 27727 | 62771 | 33185 | 29586 |
| 40-44 | 41044 | 21225 | 19819 | 46391 | 23295 | 23096 | 49784 | 24368 | 25416 | 52138 | 25548 | 26590 | 54751 | 27756 | 26995 |
| 45-49 | 33805 | 17665 | 16140 | 39505 | 20271 | 19234 | 44807 | 22332 | 22475 | 48250 | 23449 | 24801 | 50330 | 24459 | 25871 |
| 50-54 | 27177 | 14110 | 13067 | 32187 | 16678 | 15509 | 37800 | 19245 | 18555 | 43075 | 21309 | 21766 | 46318 | 22334 | 23984 |
| 55-59 | 22219 | 11156 | 11063 | 25334 | 12998 | 12336 | 30230 | 15499 | 14731 | 35743 | 18019 | 17724 | 40789 | 19983 | 20806 |
| 60-64 | 19189 | 9343 | 9846 | 20139 | 9964 | 10175 | 23202 | 11756 | 11446 | 27947 | 14164 | 13783 | 33195 | 16566 | 16629 |
| 65-69 | 15628 | 7600 | 8028 | 16658 | 7953 | 8705 | 17764 | 8641 | 9123 | 20730 | 10347 | 10383 | 25190 | 12603 | 12587 |
| 70-74 | 12516 | 6185 | 6331 | 12713 | 6041 | 6672 | 13906 | 6497 | 7409 | 15098 | 7198 | 7900 | 17852 | 8757 | 9095 |
| 75-79 | 3959 | 2097 | 1862 | 9320 | 4459 | 4861 | 9805 | 4503 | 5302 | 10990 | 4959 | 6031 | 12136 | 5595 | 6541 |
| 80+ | 1965 | 972 | 993 | 3277 | 1628 | 1649 | 7271 | 3351 | 3920 | 9940 | 4342 | 5598 | 12312 | 5180 | 7132 |
| Total | 752096 | 386626 | 365470 | 799608 | 411163 | 388445 | 842562 | 433383 | 409179 | 880518 | 453014 | 427504 | 899080 | 462325 | 436755 |

Note: Projected population refers to April 1 of each year.

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A2a: Percentage of Population in an Age Group having the specified level of Education All India 2004-05 (61st Round), 2007 and 2012 -Urban Male

| Age - Group | Illiterate | | | Up to Primary | | | Middle | | | Secondary/Matric | | | Higher Secondary | | | Diploma / Certificate | | | Graduate and Above | | |
|--------------|------------|------|------|---------------|------|------|------------|------|------|------------------|------|------|------------------|------|------|-----------------------|------|------|--------------------|------|------|
| | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 |
| 0-4 | 93.4 | 93.4 | 93.4 | 6.6 | 6.6 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5-9 | 23.5 | 22.9 | 21.6 | 73.4 | 77.0 | 78.3 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10-14 | 5.0 | 4.3 | 1.9 | 73.6 | 73.8 | 75.1 | 20.7 | 21.1 | 22.3 | 0.6 | 0.6 | 0.6 | 0.0 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 15-19 | 6.4 | 5.7 | 4.3 | 20.0 | 19.8 | 19.5 | 31.4 | 31.8 | 32.5 | 27.1 | 27.4 | 28.0 | 13.5 | 13.5 | 13.8 | 1.2 | 1.2 | 1.3 | 0.4 | 0.5 | 0.5 |
| 20-24 | 7.8 | 7.1 | 5.7 | 17.9 | 18.9 | 19.8 | 21.7 | 21.6 | 21.7 | 13.7 | 13.6 | 13.7 | 19.7 | 19.6 | 19.7 | 4.0 | 3.9 | 4.0 | 15.3 | 15.3 | 15.4 |
| 25-29 | 9.4 | 8.6 | 7.1 | 17.4 | 17.6 | 18.9 | 21.0 | 21.3 | 21.6 | 15.6 | 14.6 | 13.6 | 10.7 | 11.0 | 11.3 | 4.8 | 4.9 | 5.0 | 21.3 | 21.9 | 22.5 |
| 30-34 | 10.8 | 10.1 | 8.6 | 18.3 | 17.9 | 17.6 | 16.9 | 18.9 | 21.3 | 16.1 | 15.8 | 14.6 | 11.1 | 10.9 | 11.0 | 4.9 | 4.8 | 4.9 | 21.9 | 21.6 | 21.9 |
| 35-39 | 13.8 | 12.3 | 10.1 | 22.9 | 20.6 | 17.9 | 17.4 | 17.2 | 18.9 | 13.4 | 14.7 | 15.8 | 9.7 | 10.4 | 10.9 | 3.7 | 4.2 | 4.8 | 19.2 | 20.5 | 21.6 |
| 40-44 | 14.0 | 13.9 | 12.3 | 20.7 | 21.8 | 20.6 | 16.4 | 16.9 | 17.2 | 15.0 | 14.2 | 14.7 | 10.0 | 9.8 | 10.4 | 4.3 | 4.0 | 4.2 | 19.6 | 19.4 | 20.5 |
| 45-49 | 13.8 | 13.9 | 13.9 | 22.0 | 21.4 | 21.8 | 15.9 | 16.2 | 16.9 | 16.2 | 15.6 | 14.2 | 8.7 | 9.3 | 9.8 | 3.6 | 4.0 | 4.0 | 19.8 | 19.7 | 19.4 |
| 50-54 | 15.5 | 14.7 | 13.9 | 19.8 | 20.9 | 21.4 | 14.7 | 15.3 | 16.2 | 15.1 | 15.6 | 15.6 | 9.0 | 8.8 | 9.3 | 3.4 | 3.5 | 4.0 | 22.5 | 21.1 | 19.7 |
| 55-59 | 16.4 | 15.9 | 14.7 | 22.0 | 20.9 | 20.9 | 12.4 | 13.5 | 15.3 | 15.9 | 15.5 | 15.6 | 9.3 | 9.1 | 8.8 | 3.0 | 3.2 | 3.5 | 21.0 | 21.7 | 21.1 |
| 60+ | 23.7 | 22.1 | 19.4 | 24.7 | 24.4 | 23.3 | 11.5 | 11.8 | 12.5 | 16.5 | 16.6 | 16.7 | 6.6 | 7.1 | 7.8 | 2.5 | 2.6 | 2.8 | 14.5 | 15.5 | 17.5 |
| Total | 19.5 | 18.6 | 16.9 | 30.0 | 28.7 | 27.8 | 16.0 | 16.0 | 17.2 | 12.1 | 12.5 | 12.6 | 8.3 | 8.7 | 9.1 | 2.5 | 2.7 | 3.0 | 11.6 | 12.4 | 13.4 |

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A2b: Percentage of Population in an Age Group having the specified level of Education All India 2004-05 (61st Round), 2007 and 2012 -Urban Female

| Age - Group | Illiterate | | | Up to Primary | | | Middle | | | Secondary/Matric | | | Higher Secondary | | | Diploma / Certificate | | | Graduate and Above | | |
|--------------|------------|------|------|---------------|------|------|------------|------|------|------------------|------|------|------------------|------|------|-----------------------|------|------|--------------------|------|------|
| | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 |
| 0-4 | 93.3 | 93.3 | 93.3 | 6.5 | 6.7 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5-9 | 23.4 | 22.4 | 20.4 | 76.5 | 77.5 | 79.5 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10-14 | 6.4 | 5.4 | 3.4 | 70.0 | 69.6 | 68.6 | 22.3 | 23.5 | 25.9 | 1.2 | 1.4 | 1.9 | 0.1 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15-19 | 9.4 | 7.9 | 5.4 | 17.6 | 16.7 | 14.8 | 27.7 | 28.2 | 28.8 | 26.9 | 27.7 | 29.5 | 16.5 | 17.5 | 19.9 | 0.9 | 1.0 | 1.2 | 0.9 | 1.0 | 1.1 |
| 20-24 | 15.6 | 12.5 | 7.9 | 16.5 | 17.0 | 16.7 | 18.5 | 18.7 | 19.0 | 13.0 | 13.2 | 13.4 | 15.9 | 16.8 | 18.7 | 2.6 | 2.7 | 3.0 | 18.0 | 19.1 | 21.2 |
| 25-29 | 18.8 | 17.2 | 12.5 | 17.7 | 17.1 | 17.0 | 18.4 | 18.4 | 18.7 | 12.6 | 12.8 | 13.2 | 9.5 | 10.1 | 11.3 | 2.4 | 2.5 | 2.8 | 20.7 | 21.9 | 24.5 |
| 30-34 | 26.2 | 22.5 | 17.2 | 19.1 | 18.5 | 17.1 | 16.3 | 17.3 | 18.4 | 12.6 | 12.6 | 12.8 | 8.4 | 9.0 | 10.1 | 1.7 | 2.0 | 2.5 | 15.8 | 18.1 | 21.9 |
| 35-39 | 28.4 | 27.3 | 22.5 | 21.8 | 20.5 | 18.5 | 15.8 | 16.1 | 17.3 | 12.4 | 12.5 | 12.6 | 6.6 | 7.5 | 9.0 | 2.0 | 1.9 | 2.0 | 12.9 | 14.3 | 18.1 |
| 40-44 | 33.2 | 30.8 | 27.3 | 21.0 | 21.4 | 20.5 | 14.3 | 15.1 | 16.1 | 12.4 | 12.4 | 12.5 | 6.3 | 6.5 | 7.5 | 1.6 | 1.8 | 1.9 | 11.3 | 12.1 | 14.3 |
| 45-49 | 36.1 | 34.6 | 30.8 | 21.7 | 21.4 | 21.4 | 14.2 | 14.3 | 15.1 | 10.7 | 11.5 | 12.4 | 5.4 | 5.8 | 6.5 | 0.9 | 1.2 | 1.8 | 11.1 | 11.2 | 12.1 |
| 50-54 | 38.2 | 37.1 | 34.6 | 21.6 | 21.6 | 21.4 | 13.3 | 13.7 | 14.3 | 10.8 | 10.8 | 11.5 | 6.1 | 5.7 | 5.8 | 1.1 | 1.0 | 1.2 | 9.0 | 10.0 | 11.2 |
| 55-59 | 43.2 | 40.7 | 37.1 | 22.4 | 22.1 | 21.6 | 12.4 | 12.9 | 13.7 | 8.3 | 9.5 | 10.8 | 4.2 | 5.1 | 5.7 | 1.3 | 1.2 | 1.0 | 8.2 | 8.6 | 10.0 |
| 60+ | 57.4 | 53.8 | 47.0 | 23.1 | 23.6 | 24.0 | 7.9 | 8.9 | 10.8 | 6.3 | 7.0 | 8.5 | 1.5 | 1.9 | 3.0 | 0.4 | 0.5 | 0.8 | 3.4 | 4.2 | 6.0 |
| Total | 30.7 | 28.8 | 25.6 | 29.4 | 27.9 | 26.4 | 14.4 | 15.0 | 15.8 | 9.7 | 10.4 | 11.1 | 6.4 | 7.2 | 8.3 | 1.1 | 1.3 | 1.5 | 8.2 | 9.3 | 11.4 |

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A2c: Percentage of Population in an Age Group having the specified level of Education All India 2004-05 (61st Round), 2007 and 2012 - Rural Male

| Age - Group | Illiterate | | | Up to Primary | | | Middle | | | Secondary/Matric | | | Higher Secondary | | | Diploma / Certificate | | | Graduate and Above | | |
|--------------|------------|------|------|---------------|------|------|------------|------|------|------------------|------|------|------------------|------|------|-----------------------|------|------|--------------------|------|------|
| | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 |
| 0-4 | 97.2 | 97.2 | 97.2 | 2.8 | 2.8 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5-9 | 32.7 | 30.5 | 26.1 | 67.3 | 69.5 | 73.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10-14 | 8.8 | 6.6 | 2.2 | 76.3 | 76.7 | 77.3 | 14.4 | 16.2 | 19.8 | 0.4 | 0.5 | 0.6 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15-19 | 12.7 | 10.8 | 6.6 | 27.9 | 27.1 | 25.5 | 33.5 | 35.1 | 38.3 | 19.2 | 20.0 | 21.9 | 6.1 | 6.3 | 6.9 | 0.4 | 0.4 | 0.5 | 0.2 | 0.3 | 0.3 |
| 20-24 | 17.7 | 15.2 | 10.8 | 27.0 | 27.5 | 27.1 | 23.6 | 24.5 | 26.5 | 12.9 | 13.4 | 14.5 | 11.8 | 12.3 | 13.3 | 1.6 | 1.7 | 1.8 | 5.3 | 5.5 | 5.9 |
| 25-29 | 23.8 | 20.7 | 15.2 | 27.1 | 27.1 | 27.5 | 21.3 | 22.4 | 24.5 | 12.9 | 12.9 | 13.4 | 6.9 | 7.7 | 8.9 | 1.5 | 1.7 | 2.0 | 6.6 | 7.4 | 8.6 |
| 30-34 | 27.9 | 25.8 | 20.7 | 27.2 | 27.2 | 27.1 | 20.0 | 20.6 | 22.4 | 10.5 | 11.7 | 12.9 | 6.4 | 6.6 | 7.7 | 1.6 | 1.5 | 1.7 | 6.4 | 6.5 | 7.4 |
| 35-39 | 35.9 | 31.9 | 25.8 | 28.0 | 27.8 | 27.2 | 16.2 | 18.1 | 20.6 | 9.2 | 9.9 | 11.7 | 4.6 | 5.5 | 6.6 | 1.2 | 1.4 | 1.5 | 4.8 | 5.6 | 6.5 |
| 40-44 | 39.4 | 37.6 | 31.9 | 28.4 | 28.2 | 27.8 | 15.2 | 15.7 | 18.1 | 8.0 | 8.6 | 9.9 | 3.9 | 4.3 | 5.5 | 1.0 | 1.1 | 1.4 | 4.1 | 4.4 | 5.6 |
| 45-49 | 41.4 | 40.4 | 37.6 | 29.5 | 28.9 | 28.2 | 14.5 | 14.8 | 15.7 | 6.7 | 7.3 | 8.6 | 3.7 | 3.8 | 4.3 | 0.8 | 0.9 | 1.1 | 3.5 | 3.8 | 4.4 |
| 50-54 | 44.2 | 42.8 | 40.4 | 27.9 | 28.7 | 28.9 | 12.9 | 13.7 | 14.8 | 7.6 | 7.2 | 7.3 | 3.2 | 3.5 | 3.8 | 0.7 | 0.7 | 0.9 | 3.4 | 3.5 | 3.8 |
| 55-59 | 48.4 | 46.3 | 42.8 | 29.2 | 28.6 | 28.7 | 9.8 | 11.3 | 13.7 | 6.2 | 6.9 | 7.2 | 2.5 | 2.9 | 3.5 | 0.8 | 0.8 | 0.7 | 3.1 | 3.3 | 3.5 |
| 60+ | 58.2 | 55.2 | 49.4 | 26.8 | 27.7 | 28.9 | 7.2 | 8.1 | 10.1 | 4.5 | 5.0 | 6.3 | 1.3 | 1.6 | 2.1 | 0.6 | 0.7 | 0.8 | 1.4 | 1.7 | 2.3 |
| Total | 36.4 | 34.4 | 30.3 | 36.1 | 35.3 | 35.0 | 14.0 | 15.3 | 17.3 | 6.9 | 7.6 | 8.6 | 3.5 | 4.0 | 4.7 | 0.7 | 0.7 | 0.9 | 2.4 | 2.7 | 3.3 |

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A2d: Percentage of Population in an Age Group having the specified level of Education All India 2004-05 (61st Round), 2007 and 2012-Rural Female

| Age - Group | Illiterate | | | Up to Primary | | | Middle | | | Secondary/Matric | | | Higher Secondary | | | Diploma / Certificate | | | Graduate and Above | | |
|--------------|------------|------|------|---------------|------|------|------------|------|------|------------------|------|------|------------------|------|------|-----------------------|------|------|--------------------|------|------|
| | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 | 61st Round | 2007 | 2012 |
| 0-4 | 97.3 | 97.3 | 97.3 | 2.7 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5-9 | 35.0 | 32.5 | 27.5 | 64.9 | 67.4 | 72.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10-14 | 14.7 | 12.2 | 7.2 | 71.7 | 71.8 | 71.5 | 13.1 | 15.4 | 20.1 | 0.3 | 0.5 | 0.9 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15-19 | 25.3 | 20.0 | 12.2 | 26.6 | 26.6 | 25.0 | 26.9 | 29.3 | 33.2 | 15.2 | 17.0 | 20.6 | 5.6 | 6.4 | 8.4 | 0.3 | 0.4 | 0.5 | 0.2 | 0.3 | 0.4 |
| 20-24 | 40.6 | 32.9 | 20.0 | 23.4 | 25.1 | 26.6 | 16.6 | 18.9 | 23.1 | 8.6 | 10.0 | 12.6 | 6.9 | 8.3 | 11.3 | 0.9 | 1.0 | 1.4 | 3.1 | 3.7 | 5.0 |
| 25-29 | 48.9 | 44.7 | 32.9 | 23.1 | 23.3 | 25.1 | 13.9 | 15.3 | 18.9 | 6.8 | 7.7 | 10.0 | 3.3 | 4.0 | 5.8 | 1.0 | 1.2 | 1.7 | 3.2 | 3.8 | 5.6 |
| 30-34 | 58.8 | 53.8 | 44.7 | 21.3 | 22.3 | 23.3 | 10.5 | 12.1 | 15.3 | 4.9 | 5.8 | 7.7 | 2.2 | 2.8 | 4.0 | 0.5 | 0.7 | 1.2 | 1.7 | 2.4 | 3.8 |
| 35-39 | 63.2 | 61.0 | 53.8 | 21.1 | 21.3 | 22.3 | 8.6 | 9.5 | 12.1 | 4.2 | 4.6 | 5.8 | 1.6 | 1.9 | 2.8 | 0.5 | 0.5 | 0.7 | 0.8 | 1.2 | 2.4 |
| 40-44 | 68.8 | 66.0 | 61.0 | 19.2 | 20.2 | 21.3 | 7.2 | 7.9 | 9.5 | 3.0 | 3.6 | 4.6 | 0.9 | 1.2 | 1.9 | 0.3 | 0.4 | 0.5 | 0.8 | 0.8 | 1.2 |
| 45-49 | 73.7 | 71.2 | 66.0 | 17.1 | 18.2 | 20.2 | 5.5 | 6.3 | 7.9 | 2.5 | 2.7 | 3.6 | 0.6 | 0.7 | 1.2 | 0.2 | 0.2 | 0.4 | 0.5 | 0.6 | 0.8 |
| 50-54 | 78.0 | 75.8 | 71.2 | 15.3 | 16.3 | 18.2 | 4.2 | 4.8 | 6.3 | 1.4 | 1.9 | 2.7 | 0.5 | 0.5 | 0.7 | 0.3 | 0.2 | 0.2 | 0.3 | 0.4 | 0.6 |
| 55-59 | 82.7 | 80.3 | 75.8 | 12.7 | 14.1 | 16.3 | 2.7 | 3.4 | 4.8 | 1.1 | 1.2 | 1.9 | 0.3 | 0.4 | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.4 |
| 60+ | 88.5 | 85.0 | 78.3 | 9.4 | 11.9 | 16.0 | 1.3 | 1.9 | 3.4 | 0.4 | 0.6 | 1.2 | 0.2 | 0.3 | 0.5 | 0.1 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 |
| Total | 55.1 | 51.8 | 46.0 | 29.3 | 29.9 | 30.2 | 8.9 | 10.3 | 12.7 | 3.8 | 4.5 | 5.8 | 1.8 | 2.2 | 3.1 | 0.3 | 0.4 | 0.5 | 0.8 | 1.0 | 1.5 |

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A3a: Labour Force Participation Rate (Usual Status) by Age, Sex and Education Level : 2004-05 (61st Round), All India - Urban Areas

| Age - Group | Illiterate | | Up to Primary | | Middle | | Secondary/Matric | | Higher Secondary | | Diploma / Certificate | | Graduate and Above | | All Educational levels | |
|-------------|------------|---------|---------------|---------|--------|---------|------------------|---------|------------------|---------|-----------------------|---------|--------------------|---------|------------------------|---------|
| | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 10 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 10-14 | 375 | 175 | 40 | 30 | 21 | 12 | 4 | 1 | 0 | 0 | 276 | 0 | 426 | 0 | 53 | 35 |
| 15-19 | 796 | 285 | 731 | 287 | 381 | 130 | 172 | 65 | 90 | 57 | 423 | 272 | 138 | 68 | 381 | 144 |
| 20-24 | 938 | 298 | 975 | 230 | 954 | 192 | 876 | 196 | 395 | 164 | 751 | 542 | 573 | 359 | 769 | 250 |
| 25-29 | 955 | 306 | 985 | 246 | 992 | 187 | 994 | 162 | 940 | 208 | 984 | 603 | 876 | 345 | 957 | 261 |
| 30-34 | 974 | 386 | 989 | 315 | 985 | 231 | 988 | 200 | 994 | 185 | 989 | 594 | 987 | 368 | 987 | 308 |
| 35-39 | 966 | 433 | 984 | 323 | 983 | 256 | 991 | 231 | 972 | 183 | 998 | 711 | 997 | 398 | 984 | 340 |
| 40-44 | 945 | 392 | 981 | 316 | 986 | 187 | 991 | 178 | 993 | 256 | 998 | 658 | 996 | 399 | 983 | 317 |
| 45-49 | 957 | 363 | 973 | 234 | 974 | 143 | 980 | 140 | 982 | 164 | 970 | 637 | 991 | 341 | 976 | 269 |
| 50-54 | 906 | 339 | 938 | 186 | 937 | 168 | 935 | 145 | 931 | 181 | 940 | 770 | 971 | 362 | 939 | 259 |
| 55-59 | 851 | 282 | 832 | 151 | 851 | 115 | 794 | 132 | 887 | 261 | 786 | 500 | 820 | 236 | 832 | 218 |
| 60+ | 421 | 128 | 433 | 65 | 398 | 67 | 280 | 22 | 300 | 47 | 279 | 190 | 280 | 96 | 366 | 100 |
| 15+ | 838 | 305 | 873 | 241 | 794 | 175 | 703 | 142 | 635 | 153 | 865 | 574 | 844 | 349 | 792 | 244 |
| All ages | 381 | 202 | 430 | 124 | 689 | 148 | 700 | 141 | 635 | 153 | 864 | 572 | 844 | 349 | 570 | 178 |

Note : Rate per 1,000 population

Source:Report of the Sub Group on Labour Force Projections (November, 2)

Table A3b: Labour Force Participation Rate (Usual Status) by Age, Sex and Education Level : 2004-05 (61st Round), All India - Rural Areas

| Age - Group | Illiterate | | Up to Primary | | Middle | | Secondary/Matric | | Higher Secondary | | Diploma / Certificate | | Graduate and Above | | All Educational levels | |
|-------------|------------|---------|---------------|---------|--------|---------|------------------|---------|------------------|---------|-----------------------|---------|--------------------|---------|------------------------|---------|
| | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 6 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 10-14 | 309 | 243 | 47 | 44 | 54 | 54 | 0 | 101 | 0 | 0 | 0 | 306 | 0 | 59 | 70 | 75 |
| 15-19 | 885 | 505 | 703 | 364 | 431 | 260 | 294 | 170 | 267 | 159 | 473 | 509 | 405 | 218 | 529 | 331 |
| 20-24 | 956 | 484 | 977 | 415 | 955 | 406 | 862 | 393 | 598 | 317 | 822 | 637 | 706 | 418 | 891 | 435 |
| 25-29 | 980 | 592 | 992 | 499 | 993 | 446 | 986 | 428 | 957 | 382 | 979 | 758 | 934 | 484 | 982 | 530 |
| 30-34 | 981 | 656 | 989 | 521 | 990 | 479 | 996 | 490 | 992 | 413 | 997 | 713 | 991 | 483 | 988 | 593 |
| 35-39 | 987 | 699 | 994 | 567 | 993 | 526 | 994 | 476 | 989 | 440 | 1000 | 734 | 995 | 614 | 991 | 642 |
| 40-44 | 982 | 677 | 987 | 540 | 987 | 483 | 978 | 457 | 999 | 384 | 989 | 730 | 997 | 619 | 985 | 627 |
| 45-49 | 982 | 661 | 978 | 516 | 981 | 419 | 987 | 420 | 985 | 562 | 999 | 882 | 996 | 621 | 982 | 616 |
| 50-54 | 956 | 592 | 966 | 460 | 976 | 425 | 967 | 428 | 960 | 311 | 921 | 774 | 980 | 643 | 963 | 562 |
| 55-59 | 929 | 541 | 935 | 358 | 935 | 328 | 920 | 434 | 951 | 281 | 938 | 532 | 934 | 328 | 931 | 509 |
| 60+ | 615 | 260 | 684 | 213 | 703 | 194 | 703 | 229 | 718 | 188 | 478 | 244 | 620 | 208 | 645 | 254 |
| 15+ | 894 | 552 | 905 | 455 | 815 | 384 | 756 | 337 | 744 | 304 | 889 | 681 | 907 | 475 | 859 | 494 |
| All ages | 510 | 393 | 454 | 215 | 715 | 329 | 751 | 335 | 743 | 303 | 883 | 678 | 906 | 474 | 555 | 333 |

Note : Rate per 1,000 population

Source:Report of the Sub Group on Labour Force Projections (November, 2006)

Table A4: Projected Population and Labour Force by Educational Level, Sex and Residence, All India, 2007 and 2012

| Educational Level | Urban Males | | Urban Females | | Rural Males | | Rural Females | | Total Males | | Total Females | | Total, both sexes | | Per cent Distribution | |
|--|-------------|--------------|---------------|--------------|-------------|--------------|---------------|--------------|-------------|--------------|---------------|--------------|-------------------|--------------|-----------------------|--------------|
| | Population | Labour Force | Population | Labour Force | Population | Labour Force | Population | Labour Force | Population | Labour Force | Population | Labour Force | Population | Labour Force | Population | Labour Force |
| 2007 | | | | | | | | | | | | | | | | |
| Illiterate | 32071 | 12490 | 44867 | 9064 | 141602 | 71496 | 201059 | 78306 | 173673 | 83986 | 245926 | 87370 | 419599 | 171356 | 37.2 | 34.8 |
| Up to primary | 49670 | 22945 | 43542 | 5687 | 145041 | 69392 | 115972 | 25514 | 194711 | 92337 | 159514 | 31201 | 354225 | 123538 | 31.4 | 25.1 |
| Middle | 28566 | 20296 | 23442 | 3533 | 62893 | 45152 | 40120 | 12899 | 91459 | 65448 | 63562 | 16432 | 155021 | 81880 | 13.7 | 16.6 |
| Secondary | 21510 | 15202 | 16277 | 2260 | 31207 | 23220 | 17464 | 5658 | 52717 | 38422 | 33741 | 7918 | 86458 | 46340 | 7.7 | 9.4 |
| Higher Secondary | 14953 | 9664 | 11283 | 1715 | 16355 | 12050 | 8502 | 2517 | 31308 | 21714 | 19785 | 4232 | 51093 | 25946 | 4.5 | 5.3 |
| Diploma/Certificate | 4655 | 4027 | 1971 | 1118 | 3016 | 2657 | 1422 | 955 | 7671 | 6684 | 3393 | 2073 | 11064 | 8757 | 1.0 | 1.8 |
| Graduate and above | 21380 | 17938 | 14519 | 5051 | 11050 | 9950 | 3905 | 1852 | 32430 | 27888 | 18424 | 6903 | 50854 | 34791 | 4.5 | 7.1 |
| Population / Labour Force (As shown in Tables A1a, A1b, A6a & A6b) | 172805 | 102562 | 155900 | 28429 | 411163 | 233917 | 388445 | 127702 | 583968 | 336479 | 544345 | 156129 | 1128313 | 492608 | 100.0 | 100.0 |
| LFPR 0+ | | 594 | | 182 | | 569 | | 329 | | 576 | | 287 | | 437 | | |
| column sum-all levels of education | 172805 | 102562 | 155901 | 28428 | 411164 | 233917 | 388444 | 127701 | 583969 | 336479 | 544345 | 156129 | 1128314 | 492608 | 100.0 | 100.0 |
| 2012 | | | | | | | | | | | | | | | | |
| Illiterate | 32418 | 12549 | 44398 | 8826 | 131167 | 65730 | 188376 | 73511 | 163585 | 78279 | 232774 | 82337 | 396359 | 160616 | 32.8 | 29.6 |
| Up to primary | 53468 | 26074 | 45739 | 6159 | 151486 | 75422 | 123622 | 29124 | 204954 | 101496 | 169361 | 35283 | 374315 | 136779 | 31.0 | 25.2 |
| Middle | 33116 | 24347 | 27424 | 4196 | 75170 | 54686 | 52170 | 16986 | 108286 | 79033 | 79594 | 21182 | 187880 | 100215 | 15.6 | 18.5 |
| Secondary | 24181 | 17342 | 19150 | 2666 | 37224 | 28152 | 23764 | 7831 | 61405 | 45494 | 42914 | 10497 | 104319 | 55991 | 8.6 | 10.3 |
| Higher Secondary | 17409 | 11605 | 14286 | 2220 | 20417 | 15356 | 12745 | 3843 | 37826 | 26961 | 27031 | 6063 | 64857 | 33024 | 5.4 | 6.1 |
| Diploma/Certificate | 5685 | 4923 | 2610 | 1484 | 3784 | 3339 | 2197 | 1469 | 9469 | 8262 | 4807 | 2953 | 14276 | 11215 | 1.2 | 2.1 |
| Graduate and above | 25749 | 21444 | 19776 | 6838 | 14136 | 12712 | 6306 | 3015 | 39885 | 34156 | 26082 | 9853 | 65967 | 44009 | 5.5 | 8.1 |
| Population / Labour Force (As shown in Tables A1a, A1b, A6a & A6b) | 192027 | 118283 | 173382 | 32390 | 433383 | 255397 | 409179 | 135780 | 625410 | 373681 | 582561 | 168168 | 1207971 | 541849 | 100.0 | 100.0 |
| LFPR 0+ | | 616 | | 187 | | 589 | | 332 | | 597 | | 289 | | 449 | | |
| sum-all levels of education | 192026 | 118284 | 173383 | 32389 | 433384 | 255397 | 409180 | 135779 | 625410 | 373681 | 582563 | 168168 | 1207973 | 541849 | 100.0 | 100.0 |

Source: Report of the Sub Group on Labour Force Projections (November, 2006)

Table A5a: Projected Labour Force Participation Rate (Usual Status) by Age and Sex, All India Urban, 2007 to 2022

| Age - Group | 61st round | | 2007 | | 2012 | | 2017 | | 2022 | |
|-------------|------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 |
| 10-14 | 53 | 35 | 51 | 33 | 42 | 30 | 33 | 26 | 25 | 23 |
| 15-19 | 381 | 144 | 376 | 139 | 368 | 129 | 359 | 120 | 350 | 111 |
| 20-24 | 769 | 250 | 770 | 249 | 770 | 248 | 769 | 247 | 768 | 246 |
| 25-29 | 957 | 261 | 956 | 261 | 956 | 261 | 955 | 261 | 955 | 261 |
| 30-34 | 987 | 308 | 987 | 306 | 987 | 303 | 987 | 300 | 987 | 297 |
| 35-39 | 984 | 340 | 985 | 338 | 985 | 333 | 986 | 328 | 987 | 323 |
| 40-44 | 983 | 317 | 983 | 315 | 984 | 313 | 985 | 310 | 986 | 307 |
| 45-49 | 976 | 269 | 976 | 268 | 976 | 264 | 976 | 261 | 976 | 257 |
| 50-54 | 939 | 259 | 939 | 259 | 939 | 258 | 939 | 257 | 938 | 256 |
| 55-59 | 832 | 218 | 833 | 215 | 832 | 211 | 832 | 207 | 832 | 203 |
| 60+ | 366 | 100 | 364 | 98 | 359 | 94 | 355 | 90 | 350 | 85 |
| 15+ | 792 | 244 | 802 | 246 | 805 | 242 | 807 | 239 | 801 | 234 |
| All ages | 570 | 178 | 594 | 182 | 616 | 187 | 626 | 188 | 627 | 186 |

Note : Rate per 1,000 population

Table A5b: Projected Labour Force Participation Rate (Usual Status) by Age and Sex, All India Rural, 2007 to 2022

| Age - Group | 61st round | | 2007 | | 2012 | | 2017 | | 2022 | |
|-------------|------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| 10-14 | 70 | 75 | 65 | 70 | 54 | 61 | 42 | 51 | 31 | 42 |
| 15-19 | 529 | 331 | 516 | 316 | 490 | 290 | 463 | 265 | 436 | 240 |
| 20-24 | 891 | 435 | 889 | 428 | 883 | 416 | 877 | 404 | 871 | 392 |
| 25-29 | 982 | 530 | 982 | 525 | 981 | 509 | 981 | 494 | 980 | 478 |
| 30-34 | 988 | 593 | 989 | 584 | 989 | 569 | 990 | 554 | 990 | 539 |
| 35-39 | 991 | 642 | 991 | 639 | 992 | 627 | 992 | 615 | 993 | 603 |
| 40-44 | 985 | 627 | 985 | 622 | 986 | 613 | 986 | 604 | 986 | 595 |
| 45-49 | 982 | 616 | 982 | 612 | 982 | 603 | 982 | 594 | 983 | 585 |
| 50-54 | 963 | 562 | 963 | 569 | 963 | 552 | 964 | 545 | 964 | 538 |
| 55-59 | 931 | 509 | 931 | 505 | 932 | 497 | 932 | 488 | 932 | 480 |
| 60+ | 645 | 254 | 647 | 253 | 651 | 249 | 655 | 246 | 659 | 243 |
| 15+ | 859 | 494 | 864 | 493 | 860 | 476 | 859 | 462 | 858 | 450 |
| All ages | 555 | 333 | 569 | 329 | 589 | 332 | 608 | 334 | 624 | 333 |

Note : Rate per 1,000 population

Source: Report of the Sub Group on Labour Force Projections (November 2007)

Table A6a: Projected Size of Labour Force by Age and Sex, All India Urban: 2002-2022

('000s)

| Age - Group | 2002 | | | 2007 | | | 2012 | | | 2017 | | | 2022 | | |
|-------------|---------|-------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 84 | 42 | 42 | 79 | 39 | 40 | 77 | 38 | 39 | 78 | 37 | 40 | 85 | 40 | 45 |
| 10-14 | 1390 | 877 | 513 | 1282 | 808 | 474 | 1053 | 646 | 407 | 874 | 523 | 350 | 739 | 418 | 321 |
| 15-19 | 8503 | 6308 | 2195 | 9000 | 6753 | 2247 | 8543 | 6485 | 2059 | 7930 | 6095 | 1835 | 8243 | 6463 | 1779 |
| 20-24 | 15438 | 11974 | 3464 | 18252 | 14072 | 4180 | 19854 | 15244 | 4610 | 19449 | 14954 | 4495 | 20230 | 15503 | 4727 |
| 25-29 | 16612 | 13296 | 3316 | 19834 | 15951 | 3883 | 23300 | 18631 | 4669 | 25169 | 20050 | 5119 | 25941 | 20703 | 5238 |
| 30-34 | 15760 | 12222 | 3538 | 18460 | 14439 | 4022 | 21909 | 17259 | 4649 | 25479 | 19985 | 5494 | 28273 | 22186 | 6096 |
| 35-39 | 14492 | 11024 | 3468 | 16606 | 12626 | 3980 | 19374 | 14890 | 4484 | 22800 | 17669 | 5132 | 26950 | 20854 | 6096 |
| 40-44 | 12366 | 9668 | 2698 | 14468 | 11214 | 3253 | 16567 | 12846 | 3721 | 19281 | 15074 | 4207 | 23015 | 18130 | 4885 |
| 45-49 | 9798 | 7970 | 1828 | 11922 | 9628 | 2294 | 13906 | 11168 | 2739 | 15850 | 12743 | 3107 | 18624 | 15104 | 3519 |
| 50-54 | 7312 | 5949 | 1363 | 9295 | 7542 | 1753 | 11310 | 9109 | 2200 | 13196 | 10548 | 2647 | 15208 | 12149 | 3059 |
| 55-59 | 4768 | 3878 | 890 | 6188 | 5080 | 1108 | 7841 | 6442 | 1399 | 9498 | 7775 | 1723 | 11138 | 9084 | 2054 |
| 60+ | 4578 | 3585 | 993 | 5604 | 4410 | 1194 | 6938 | 5526 | 1413 | 8639 | 6952 | 1687 | 10694 | 8656 | 2037 |
| All ages | 111004 | 86795 | 24210 | 130991 | 102562 | 28429 | 150673 | 118283 | 32390 | 168244 | 132407 | 35837 | 189139 | 149291 | 39848 |

Table A6b: Projected Size of Labour Force by Age and Sex, All India Rural: 2002-2022

('000s)

| Age - Group | 2002 | | | 2007 | | | 2012 | | | 2017 | | | 2022 | | |
|-------------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|---------|--------|---------|
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 0-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5-9 | 253 | 127 | 125 | 234 | 119 | 116 | 203 | 106 | 97 | 182 | 96 | 86 | 154 | 82 | 71 |
| 10-14 | 6468 | 3303 | 3165 | 6144 | 3066 | 3078 | 5023 | 2440 | 2583 | 3900 | 1862 | 2038 | 2957 | 1323 | 1633 |
| 15-19 | 33075 | 21213 | 11862 | 36016 | 23226 | 12790 | 34391 | 22179 | 12212 | 31028 | 20231 | 10796 | 26722 | 17915 | 8807 |
| 20-24 | 42994 | 29534 | 13461 | 47912 | 33732 | 14180 | 53282 | 37635 | 15647 | 53611 | 37734 | 15877 | 49183 | 34916 | 14267 |
| 25-29 | 43720 | 28398 | 15323 | 46328 | 30890 | 15438 | 51509 | 35465 | 16043 | 57862 | 40076 | 17786 | 57111 | 39475 | 17636 |
| 30-34 | 42005 | 26138 | 15867 | 43619 | 27293 | 16326 | 45939 | 29753 | 16185 | 51342 | 34418 | 16924 | 57018 | 38373 | 18645 |
| 35-39 | 39282 | 24060 | 15222 | 41756 | 25128 | 16627 | 43299 | 26263 | 17036 | 45802 | 28756 | 17046 | 50775 | 32937 | 17838 |
| 40-44 | 33341 | 20908 | 12433 | 37325 | 22951 | 14374 | 39606 | 24019 | 15587 | 41257 | 25192 | 16065 | 43445 | 27381 | 16063 |
| 45-49 | 27293 | 17345 | 9948 | 31684 | 19907 | 11776 | 35495 | 21936 | 13559 | 37779 | 23039 | 14740 | 39181 | 24036 | 15145 |
| 50-54 | 20930 | 13588 | 7342 | 24728 | 16064 | 8665 | 28782 | 18542 | 10240 | 32401 | 20537 | 11864 | 34442 | 21532 | 12910 |
| 55-59 | 16025 | 10391 | 5634 | 18337 | 12108 | 6229 | 21757 | 14441 | 7316 | 25449 | 16794 | 8654 | 28615 | 18630 | 9985 |
| 60+ | 23776 | 16893 | 6883 | 27535 | 19435 | 8101 | 31891 | 22618 | 9273 | 37607 | 26862 | 10746 | 44705 | 32096 | 12610 |
| All ages | 329162 | 211899 | 117263 | 361619 | 233917 | 127702 | 391177 | 255397 | 135780 | 418220 | 275596 | 142623 | 434307 | 288698 | 145609 |