Employment and Growth

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1. Introduction

Accelerating growth and expanding employment opportunities are the goals of economic policy. To provide productive employment for the continuing increase in the labour force is an integral part of our objective of inclusive growth. In a broad sense, there is no conflict between the two objectives of growth and employment. Over time, the two go together. Higher growth leads to enhanced employment. However, the question that arises is at what rate? Employment elasticity with respect to output measures the percentage increase in employment due to a percentage increase in output. The overall employment elasticity of an economy is the combined effect of the sectoral employment elasticities and the composition of output. It is also true that as an economy grows, employment elasticity may fall which is in part a reflection of the improved productivity of labour. Improved productivity of labour is necessary in order to sustain higher real wages. In this context, it is important to note that while the unemployment rate according to the CDS measure was only 7 per cent in 1999 – 2000, the percentage of population below the poverty line was 26 per cent. Thus an overall employment policy needs to address not only the quantity or the number of people employed but also the quality of employment in terms of real wages of the employed.

Employment elasticity varies from sector to sector. Some sectors, by their very nature, are labour intensive. Also demand for labour depends on the relative prices of capital and labour. In a labour abundant economy, the price of labour is cheaper than that of capital, favouring labour intensive technologies wherever feasible. Thus any

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programme aimed at expanding employment opportunities must focus on three factors – growth, productivity of labour and relative price of labour and capital. The structural changes that occur in the process of growth have also a bearing on employment trends. India has come a long way in establishing and guaranteeing the rights of labour. We need to modify our labour laws as circumstances change without diluting the basic rights guaranteed to workers. It is recognized by all that improved productivity holds the key to raising real wages and this has to become the concern of both management and labour. Confrontation should give way to cooperation without compromising the basic rights of labour or the larger national goals.

This paper is divided into four sections. Section I deals with the structural changes in the Indian economy both with respect to output and employment and compares these developments with other developed and developing countries. Section II provides a detailed picture of the trends in employment and unemployment in India and pinpoints the areas of concern. Section III offers an employment strategy, which will help to absorb the increase in labour force and clear the backlog of unemployed. Section IV makes some concluding observations.

2. Structural Changes in the Economy

The structural changes in the process of economic growth have been studied at length. The historical experience of the developed countries in this regard spanning nearly 200 years is now available. The pattern of economic development of today's developed countries has followed a common pattern. Initially, the share of agriculture in total output declines, while that of industry registers an increase. Historically this process has lasted for considerably long period. However, eventually the share of services increases with the share of industry declining. Thus typically the process of economic development is marked by three distinct phases: an initial phase of the dominance of agriculture, an intermediate phase dominated by industry and a final phase dominated by services. The timing of the different phases of structural change and the duration of such changes have, however, been different across different countries. At its peak, industry had accounted for 50 per cent of the total output in many of these countries. In most of these countries, it declined in the later phase to around 25 per cent.

To cite the example of UK, in 1801 the shares of agriculture, industry and services in the national output were 32 percent, 23 percent and 45 percent respectively. In 1901, the shares were 6 percent, 40 percent and 54 percent respectively. In 2002, the shares were 1.5 percent, 23.5 percent and 75 percent respectively.

Most of the developed countries today have a remarkably similar structure of output. The general pattern is that agriculture contributes less than 5 per cent to GDP, industry 25 to 30 per cent and services around 70 per cent. In fact, another remarkable feature is that the share in employment of the different sectors is also similar to the share in output. Typically, the share of agriculture in employment is around 5 per cent, that of industry between 21 per cent and 33 per cent and that of services between 63 per cent and 74 per cent (Table 1a).

The pattern of structural changes seen in the growth process can be analytically explained in terms of income elasticity of demand and supply side factors such as technology. The experience of the newly emerging industrial countries also seems to follow the pattern seen in the case of developed countries. However, the time dimension for the structural shift has changed. The shift from agriculture to industry and from industry to services has all been telescoped in to a shorter span. For example, China's path of development has been somewhat similar to those of the developed countries. China still seems to be in the intermediate phase. The share of agriculture in output in 2002 has come down to 15 per cent, while industry accounts for 51 per cent and services for 34 per cent of the GDP.

India's experience in this regard is somewhat unique both with regard to the pace of structural transformation as well as with regard to the impact of that transformation on employment. In India too, the structural transformation followed the typical pattern of agriculture yielding to industry, and industry in turn yielding to the service sector. However, what distinguishes our experience is the dynamics of this shifting pattern. There was a period during which the share of agriculture in total output was declining and the share of industry was increasing. This trend had however come to an abrupt halt with the share of services going up sharply. In 2002 for example, the share of agriculture in the GDP had fallen to 24 per cent. While the share of industry remained somewhat constant at around 25 per cent, share of services had touched 51 per cent. Such a large share for services in the total output at a relatively early stage of development is untypical – a trend that has prompted some economists to wonder if India has defied the conventional paradigm of economic development by 'leapfrogging' over the manufacturing sector by shifting directly from agriculture to services.

The second distinguishing feature of our development experience relates to the change in the pattern of sectoral shares of employment. Typically the employment shares have shifted in tandem with sectoral shares in output (Table 1b). That is, as the share of industry in output went up and the share of agriculture came down, the employment shares too shifted with labour shifting from agriculture to industry and then on to services. Thus, for example, between 1960 and 2000, the share of agriculture in China's GDP declined from 30 per cent to 15 per cent. Correspondingly, the share of agriculture in China's employment fell from 70 per cent to 47 per cent. These dynamics have been much slower in India. That is the pace of employment shift has lagged behind the pace of sectoral shift in output. For instance, although the share of agriculture in total output declined substantially, the share of agriculture in total employment has not declined by as much as we would expect by extrapolating from other country experiences. Conversely, even though services accounted for nearly 51 per cent of the output in 2002, their share in employment was only 22 per cent. This is particularly striking because in our case agriculture yielded share not so much to industry but to the service sector which has an employment elasticity higher than the employment elasticity of agriculture.

What could be a plausible explanation for the employment shift lagging behind sectoral shift in output? Could it be that part of the explanation lies in the initial conditions in the sense that the initial share of labour in agriculture was disproportionately high? This is another area of further research in order to have a satisfactory answer. It might take a much longer time for the excess population in agriculture to be absorbed by the other sectors.

3. Current Scenario of Employment and Unemployment

What is the current situation relating to employment and unemployment in India? An analysis of the recent trends in these variables and an understanding of the factors accounting for those trends is essential if we are to formulate an effective strategy to promote employment. At the outset, we need to preface that with a few words on the data that is available. The major source of information on employment and unemployment has been the National Sample Surveys conducted periodically by the Department of Statistics (National Sample Survey Organization). Besides, there are other sources such as the Employment Exchange Registers, the Decennial Population Census and Economic Census by CSO. The NSSO conducts quinquennial large sample surveys as also annual thin sample surveys. Results of thin sample annual surveys have to be examined with care as to their statistical significance. The National Sample Surveys provide three different measures of employment and unemployment: usual principle status (ups) that indicates a status in terms of major time over the 365 days before the date of interview; current weekly status (cws) where the reference period is the week i.e. the 7 days preceding the interview and current daily status (cds) that reflects labour time disposition during each day of the week in terms of two half days. For each ups status person (employed, unemployed, out of labour force) a subsidiary status (ss) is also recorded. There is no agreement among analysts on which of these measures provides a more accurate insight into the employment and unemployment situation. The Task Force on Employment Opportunities used the usual principal and subsidiary status for analyzing employment and unemployment whereas the Special Group on Targeting Ten Million Employment Opportunities per year used the current daily status data. Given the availability of different sets of data, it will be a good practice to compare the conclusions drawn from one set of data with conclusions from another set just for a reality check.

An analysis of the data for the period 1972-73 to 1999-2000 shows that changes in labour force and employment have been broadly in line with changes in population. However, the growth in employment has always lagged behind the growth in GDP.

The rate of unemployment as measured by the National Sample Surveys appears to have increased in the 1990s. The unemployment rate, as measured by the current daily status, increased from 6.03 per cent in 1993-94 to 7.32 percent in 1999-2000. On the usual principal and subsidiary status also, unemployment has increased during this period from 1.90 per cent to 2.20 per cent. It may be noted that on the UPSS basis, the increase in unemployment has been modest. Also the absolute level is much lower (Table 2).

Areas of Concern

What has attracted much attention in recent discussions is the fact that the rate of growth of employment has declined sharply in the 1990s as compared to the 1980s. It has come down from 2.04 per cent per year in the period 1983-84 to 1993-94 to 0.98 percent per year in the period 1993-94 to 1999-2000.This sharp deceleration in employment growth must be carefully interpreted. It has to be seen in the context of the fact that the rate of growth of labour force too has fallen from 2.05 per cent in the period 1983 to 1993-94 to 1.03 percent in the period 1993-94 to 1999-2000 (Table 3). Also in the computation of the absolute level of employment, the labour force participation rate as well as the percentage of employed workers to total number of workers obtained from the surveys are used. Notwithstanding these qualifications, there is no denying that the growth of employment has lagged behind the growth of the labour force (Table 3).

The decline in the labour force growth rate has a positive feature. It will mean a reduction in the new employment opportunities required to be created. In part, the decline in the growth rate of labour force is explained by the decline in population growth rate, which fell from 2.14 per cent per year in the period 1983 to 1993-94 to 1.93 percent in

the period 1993-94 to 1999-2000 (Table 3). But the deceleration in the growth rate of labour force is much steeper than that in population. There must, therefore, be other factors contributing to the decline such as more people in the younger age group staying back in schools or colleges longer thereby delaying their entry into the labour force. That the annual increment to labour force in the 15-29 year age group has declined adds credence to this view.

With employment growth lagging behind output growth, sectoral employment elasticities with respect to output as well as the aggregate economy-wide elasticity have come down. Between the two periods, 1983 to 1993-94 and 1993-94 to 1999-2000, the aggregate elasticity has come down from 0.41 to 0.15 (Table 4). At a disaggregated level, the sharpest fall has been in agriculture and mining where the employment elasticity in the later period has come down to zero. The decline in elasticity need not be viewed as a disturbing feature as there are reasons to believe that part of the decline in elasticity is due to increased productivity as evidenced by an improvement in real wages for both rural agricultural and non-agricultural labour between the two periods. Employment elasticity has also come down sharply in community, social and personal services from 0.50 to 0.07 between the two periods (Table 4). This is mainly because of the deceleration in public sector employment including government employment. Employment growth in this sector declined from 2.90 per cent in the earlier period to 0.55 per cent in the later period (Table 5).

Another area of concern in recent years has been the decrease in organized employment as measured by the Employment Market Information (EMI) System maintained by the Director General of Employment and Training. These data show a decline in employment from 28.1 million in 1999 to 26.4 million in 2004 (Table 6). There are reasons, however, to believe that the DGE&T data understates the number of workers in the organized sector. Some studies have suggested that the regular wage and salary-earning workers as measured in the

NSS data is a better measure of the organized segment of workers than the DGET data. Based on NSS data, it has been shown that average annual increments in the organized sector employment during the 1990s was higher than in the previous ten years for all categories of workers. Indeed, according to NSS data, the number of regular wage and salary earners increased from 39.0 million in 1983 to 48.6 million in 1993-94 and then on to 57.4 million in 1999-2000 (Table 7). Consistent with this is the finding that unemployment among educated youth has declined from 18.5 per cent in 1993-94 to 14.8 percent in 1999-2000(Table 8).

There is a wide variation in unemployment rate across states. Measured on current daily status basis, unemployment ranges from a low of around 3 per cent in Himachal Pradesh and Rajasthan to a high of 21 per cent in Kerala. Tamil Nadu at 12.05 percent and West Bengal at 14.95 per cent also have high unemployment rates (Table 9). Surprisingly, the ranking of states according to unemployment rate has poor correlation with the ranking of states either according to the level of per capita SDP or the growth rates. This counter-intuitive variation among states needs a deeper probing.

The recently published Report of the Fifth Economic Census 2005 shows the employment picture in a better light. Provisional results published in the Report show that in the year 2005, there were 42.12 million enterprises in the country engaged in different economic activities other than crop production and plantation. Out of this 25.81 million enterprises (61.3%) were in the rural areas and 16.31 million enterprises (38.7%) were in the urban areas. These enterprises employed 98.96 million people. More importantly, the average annual growth rate in total employment in these enterprises since 1998 is 2.49 per cent which was higher than the growth in the labour force. According to the previous census, the annual growth rate of employees in such enterprises between 1990 and 1998 was 1.71 per cent. There is thus a distinct improvement in the period 1998-2005. While this development is reassuming, it still represents only a partial picture of the employment scene.

4. Towards an Employment Strategy

While there may be some divergence of opinion on the extent of underemployment and unemployment, there is convergence of views on the need to expand employment and on the broad policy to achieve that. The employment strategy must seek to achieve two things. First, create productive employment opportunities to absorb the annual addition of 8 million or more to the labour force and second to improve the 'quality' of employment in several sectors such that real wages rise through improved productivity. In line with the recommendations of Task Force on Employment Opportunities, the four components of an employment strategy should be:

(i)   Accelerating the rate of growth of the economy;

(ii) Special emphasis on relatively more labour intensive sectors and inducing a faster growth of such sectors;

(iii) Improving the labour skills endowment in general, paying particular attention to identifying specific skill gaps and taking effective steps to fill them; and

(iv) Improving the functioning of the labour markets through such modifications as may be necessary without eroding the core labour standards.

It is pertinent to mention that the first two components are aimed at generating demand for labour, the third has to do with improving the supply and the last relates to regulating the labour market to match the supply with demand. These aspects are dealt with one by one.

(i) Accelerating Growth

Let us first turn to economic growth. Accelerating and sustaining a higher growth rate of the economy is central to improving employment opportunities. As already indicated, the employment elasticities across all sectors of the economy have declined over time. This is in some ways to be expected. However, the derived employment elasticities for the period of 1993-94 – 1990-2000 might have been depressed for a variety of reasons. The Task Force on Employment Opportunities assumed slightly higher employment elasticities than was observed in the period 1993-94 – 1999-2000 while making projections. The higher the rate of economic growth, the larger will be the resultant employment. In line with this, the projections provided in this Report indicate that with an annual growth rate of 8 per cent in GDP, in the terminal year 2012, the unemployment rate will fall to 1.03 per cent if the labour force grows at 1.5 per cent per annum. With a 9 per cent rate of growth under the same assumption of growth in labour, there will be no unemployment in the terminal year 2012. If labour force growth is not 1.5 per cent, but higher at 1.8 per cent, there will still be an unemployment of 1.99 per cent in the terminal year. In some ways, these are mechanical calculations. Nevertheless, they point to the powerful impact that growth will have on employment.

The Report of the Task Force on Employment Opportunities was released in June 2001. Its projections were made on the assumption that the economy would grow at 8 Per cent per annum from 1999-2000. However, the actual growth rate between 1999-2000 and 2004-05 was lower at six per cent. We have, therefore, reassessed the projections starting from the base 2004-05. Assuming an overall elasticity of .22 and corresponding sectoral elasticities, we find that employment grew between 1999-2000 and 2004-05 only at an annual rate of 1.3 per cent. This is lower than the growth rate of labour force. Our projections now show that with an annual growth rate of 8 per cent in GDP and a labour force growth of 1.5 percent per annum, it will take up to 2017 to reach the point when there is no unemployment

(Table 10). However, with a 9 percent rate of growth and under the same assumptions of growth in labour force and sectoral elasticities, there will be no unemployment by 2012 (Table 11). Obviously, if the labour force growth is not 1.5 per cent but higher at 1.8 per cent, the unemployment rate in 2012 will be 2.48 per cent. It is now generally believed that it will be safe to assume a growth rate of 8.5 per cent for the next five-year period and beyond. An assumption of a growth rate of 8.5 per cent will mean that it will take up to 2015 to eliminate unemployment. It is interesting to note that with an overall growth rate of 9 per cent, in 2012, agriculture will still account for 50 percent of the total employment.

Achieving a growth rate of 8 per cent is very much in our grasp. Indeed, the average growth rate for the last three years including the current year comes to this figure. Sustaining this growth rate into the future over a period of 10 years will demand that we evolve an appropriate macro-economic policy framework to achieve this goal. As one surveys the period since 1991-92, it is clear that the economy has shown distinct improvement in several areas. The broad philosophy of promoting a competitive environment must be pursued. It is this which will pave the way for improving the productivity and efficiency of the system. However, in order to sustain the growth momentum of the order achieved in the last few years, we must pay special attention to three areas. These are (a) enhance the level of savings and investment, (b) substantively improve and expand the infrastructure facilities; and (c) continue with the process of fiscal consolidation. Going back to the basic issue of employment, it needs to be stressed that without a substantial growth in GDP, the problem cannot be resolved. It is this which must receive central attention in our employment strategy.

(ii) Sectoral Policies

The second demand side intervention for generation of employment lies in the pursuit of sector specific policies. Sector specific policies are intended to accelerate growth of the labour intensive sectors. This has to be done within a framework which promotes efficiency in resource use. Both the Task Force on Employment Opportunities and the S.P. Gupta Committee has identified the sectors which would require focused attention. These include among others agriculture, food processing and small-scale units in various sectors. In sectors such as agriculture, higher growth will result not in an increase in employment but in improving the incomes of the people dependent on agriculture. The focus here is on 'quality' rather than quantity of employment. In fact, we must recognize that as the agriculture sector grows, its employment elasticity must not only decrease but turn negative such that the excess unproductive labour in the agriculture sector shifts to productive employment in industry and services.

In the context of sectoral policies, small-scale industries have received special attention because of their higher employment intensity. In all countries, the large coexists with the small. Apart from goods and services which require specific customer orientation, small scale industries can be efficient and competitive in all areas where production is scale neutral. In fact, the advent of computer-communication technologies has made several activities scale neutral. The broad approach should be to remove the impediments that come in the way of their effective functioning such as, for example, the bottlenecks in the provision of credit. In short, the focus should be on creating an environment in which such units can produce goods and services efficiently. Market imperfections which adversely affect such units must be remedied.

Employment elasticities differ widely across sectors. In some sectors, there is no further scope for employment even as output increases. Apart from pure agriculture, this is true of the 'Mining and quarrying' sector. The service sectors have an elasticity ranging fro 0.3 to 0.5. However, to have an impact on the overall level of employment, the sector should not only have a higher employment elasticity but also a large base. From our projections, it is seen that even if the service sector grows at more than 10 per cent, its share in employment by 2013 will still be only 29 percent rising from the level of 23 per cent in 1999-2000.

(iii) Skill Development

Augmenting the skill endowment of our labour force is fundamental to improving the productivity of labour. Our workers have native talents and potential. However, much of their skills have also to come from 'learning by doing'. Focused training will go a long way in improving their capabilities. Much of our work force at the bottom rung has not had adequate schooling. Almost 44 per cent of the labour force in 1999-2000 was illiterate and 33 per cent had schooling only to secondary education level. A silver lining though is that the new entrants to the labour force will be better educated than their predecessors.

There is, however, a much broader question to address, that of the mismatch between the supply and demand for skills. As the economy grows and diversifies, we will need people with varied skills. In fact, we need more technicians than engineers, more para medical staff than doctors. Our educational system is yet to come to grips with these problems. Even at school level, vocational training has lost much of its focus. There must be a constant effort to identify gaps in the supply of labour and to provide training to make available the skills that are in short supply. Even in the burgeoning IT industry, which is the flagship of our emergence as a knowledge economy, some analysts feel that we may run into a supply constraint with respect to higher quality professionals. Industry Associations and Governments at various levels must attend to this all-important task of expanding and improving the skill endowment of our labour force. We need to improve the 'employability' of our labour force by matching the supply with the demand for skills.

(iv) Modifications in Labour Laws

Government regulation of labour markets has typically been on three fronts: the wage setting process, the labour working conditions and the hiring & firing process. Labour market regulation, like regulation in other areas of public policy, has been justified on the ground of market failure – that an unregulated market will not deliver efficient and equitable outcomes because of unequal bargaining power, information asymmetries and market rigidities.

Although set in the context of balancing the interests of the labour vis-à-vis the interests of firms, labour market regulations have an impact which extends far beyond the impact on the immediate stakeholders which are the firms and workers. For instance, very stringent regulations on job protection can reduce incentives for firms to hire more workers. The net effect is protecting existing jobs at the expense of creating new jobs.

The issue of labour reforms has been a matter of intense debate for the last decade and half. Firms in India no longer enjoy the comfort of protected markets. The environment in which they operate has become more competitive, both nationally and globally, challenging them to be innovative and efficient. They need flexibility in dealing with labour as well. Labour reforms are a sensitive issue. It is extremely important not to give the impression of going against the interest of labour. At the same time, firms need to be given larger flexibility, but in a manner that does not militate against the basic concerns of the labour.

In recent times, discussion of labour reforms has centered around two issues. One relates to Chapter V-B of the Industrial Disputes Act and the other relates to the Contact Labour Act. Under this Chapter V-B, all establishments employing above 100 workers have to seek prior permission for closure, retrenchment and lay offs. At the outset, it must be noted that the labour rigidity effect of this Chapter has implications for only 2.5 per cent of the work force and 10 per cent of the industrial establishments. Several commissions and committees have gone into the advisability of relaxing or modifying this provision. Employers want this provision relating to prior permission to be deleted. One approach, as recommended by the Second National Commission on Labour, is to raise the limit and apply the rule only to establishments employing over 300 persons. It is understood that the Maharashtra State, with the permission from the Centre, had raised the limit to 300 workers for mandatory sanction. The other preferred alternative is to delete the provision but to pitch the compensation payable at a much higher level to prevent trivial attempts on the part of employers to close the establishments.

The Contract Labour Act seeks to abolish contractual employment in activities and processes which are identified as core or perennial activities of the concerns. Too rigid an application of this provision can prevent outsourcing which is becoming an increasingly common practice. An option would be to define the concept of core activities more narrowly and simultaneously to improve the working conditions of contract employees.

One significant factor in the employment situation in our country is that the bulk of the employment is in the unorganized sector. It should be the endeavour of our policy to shift as much of the labour force as possible from the unorganized to the organized sector. This would give the workers a better deal in terms of wages. This is possible only if the rigidities in the labour market are relaxed and wage determination begins to reflect the resource endowment in our country. This would discourage firms to prefer capital-intensive technologies over labour intensive technologies.

There are many regulations outside of wage determination and hiring process such as, for example, regulations relating to working condition, which are cumbersome, but less contentious. These regulations do not have a direct impact on the workers. Streamlining these regulations should be less of a problem.

No discussion of the employment situation or an employment strategy will be complete without a reference to the social safety nets for workers. Social security in a broad sense is available to workers in the organized sector. We must also recognize that social safety nets are needed in the context of the structural transformation in the economy when some segments decline and some others expand. The process of transition of workers from one industry to another must be managed both by the provision of financial compensation and through retraining of skills. Closely related is the issue of providing social security to workers in the unorganized sector. This has to be done without imposing too much of a burden on the employers in this sector who may themselves be weak.

The launching of the National Rural Employment Guarantee Scheme (NREGS) in 200 districts of the country last month is by far one of the largest social safety-net programmes instituted anywhere in the developing world. The NREGS is also historic for we now have for the first time a demand driven employment scheme unlike the several supply driven schemes of the past. By assuring 100 days of manual work, it provides a fall back position to at least one member of every household in the rural areas. In fact, if the rural economy improves and there is a substantial growth in agriculture as well as in other allied activities, the demand for work under this programme will decrease.

5. Conclusion

In conclusion, let us summarize the employment scenario and the thrust of the appropriate employment strategy. The growth process has brought about significant changes in the structure of the Indian economy. Defying somewhat the conventional paradigm of development, the share of services has touched 51 per cent of GDP at a relatively early stage of development. However, the employment shift has lagged behind shift in output. The share of services in employment is only 22 per cent. The last decade has seen a decline in the aggregate sectoral employment elasticities. This is in part a reflection of increased productivity. The rate of growth of employment has declined in the 1990s. But this must be seen in the context of the deceleration in the rate of growth of labour force. All the same, the growth rate of employment has lagged behind the growth rate of labour force.

Accelerating growth is central to expanding employment opportunities. We need actions both from the demand and supply sides in order to achieve higher levels of employment. On the demand side the most potent force is growth. Estimates show that with a sustained growth of 8.5 per cent per annum, by 2015, unemployment will be totally eliminated. The macro economic policy framework must be such as to facilitate accelerated growth. The second demand side strategy lies in the pursuit of sector specific policies aimed at the growth of labour intensive sectors. This must be managed in such a way that there is no compromise with efficiency. The supply side interventions should be in capacity building and enhancing the skill endowment of the labour force. There must be constant efforts to identify gaps in skills and to provide training to make available the skills that are in short supply. The labour market should be made more flexible to enable a shift of labour force from the unorganized to the organized sector. Providing additional employment opportunities to 8 million people every year is going to be a formidable challenge. With growth rate picking up and with a harmonious relationship between management and labour, we are confident we can meet this challenge.

**Table1 (a): Share of Employment by Economic Activity (%)
(Year 2002)**

Developed Countries

Country	Agriculture	Industry	Service
UK	1.5	23.5	75.0
USA	2.0	22.0	76.0
France	1.5	23.5	75.0
Japan	5.0	29.0	65.0
Germany	2.5	31.0	66.0
Italy	5.5	29.5	65.0
Australia	4.5	20.0	75.5

Source: World Development Indicators (WDI), 2005, pp 56-58

**Table1 (b): Share of Employment by Economic Activity (%)
(Year 2002)**

Emerging Economies

Country	Agriculture	Industry	Service
China	49.8	23.5	26.7
Indonesia	55.5	14.0	31.0
Thailand	49.0	18.5	32.5
Philippines	35.0	15.0	50.0
Malaysia	17.5	31.5	51.0
Korea Rep.	10.5	26.5	55.5
Pakistan	58.5	14.5	27.0
India	57.0	21.0	22.0

Sources: 1. World Development Indicators (WDI), 2005 pp 56-58
2. Data for Indonesia is for 1990-92 as the most recent year given in WDI, 2005
3. Data for China is for year 1998, taken from article 'Eco-reform & labour market regulation in China by Ying Zhu
4. Data for India's sectoral employment share is derived from various sources.

Table 2: Unemployment Rates- Alternative Measures (Percentage of Labour force)

	Usual Principal Status (UPS)	Usual Principal and Subsidiary Status (UPSS)	Current Weekly Status (CWS)	Current Daily Status (CDS)
Rural				
1977-78	3.26	1.54	3.74	7.70
1983	1.91	1.13	3.88	7.94
1987-88	3.07	1.98	4.19	5.25
1993-94	1.80	1.20	3.00	5.63
1999-00	1.96	1.43	3.91	7.21
Urban				
1977-78	8.77	7.01	7.86	10.34
1983	6.04	5.02	6.81	9.52
1987-88	6.56	5.32	7.12	9.36
1993-94	5.21	4.52	5.83	7.43
1999-00	5.23	4.63	5.89	7.65
All-India				
1977-78	4.23	2.47	4.48	8.18
1983	2.77	1.90	4.51	8.28
1987-88	3.77	2.62	4.80	6.09
1993-94	2.56	1.90	3.63	6.03
1999-00	2.81	2.23	4.41	7.32

Note: These estimates of Employment are based on NSS data combined with census data. The NSS gives Labour Force Participation Rate (LFPR) and Work Force Participation Rate (WFPR) for four categories: rural male (RM), rural Female (RF), urban male (UM) and urban female (UF) separately. We obtain estimates of the total labour force and total work force in each year by applying LFPR and WFPR to the total population of each category (RM, RF, UM & UF) obtained from the interpolation for inter-census years. However, for the year 2001 the four component (RM, RF, UM & UF) are not available in the key results of Census released in April 2001. Hence, estimates of population for these four categories made by the Technical Group (which was chaired by Registrar General) in 1996 have been used to combine the component-wise LFPR's and WFPR's to the level of Rural, Urban and All India.

Source: Report of Task Force on Employment Opportunities, Planning Commission, p-17

Table 3: Rate of Growth of Population, Labour Force and Employment

Period	Rate of Growth of Population (% per annum)	Rate of Growth of Labour Force (UPSS) (% per annum)	Rate of Growth of Employment (UPSS) (% per annum)	Rate of Growth of GDP[1] (% per annum)
1972-73 to 1977-78	2.27	2.94	2.73	4.70
1977-78 to 1983	2.19	2.04	2.17	4.05
1983 to 1987-88	2.14	1.74	1.54	4.23
1987-88 to 1993-94	2.10	2.29	2.43	5.85
(1983 to 1993-94)	(2.12)	(2.05)	(2.04)	(5.20)
1993-94 to 1999-2000	1.93	1.03	0.98	6.63

[1]   GDP data is for financial years

Source: Report of Task Force on Employment Opportunities, Planning Commission, p-19

Table 4: Elasticity of Employment to GDP

Sector	Estimated Elasticities		
	1977-78 to 1983	1983 to 1993-94²	1993-94 to 1999-00
1. Agriculture¹	0.45	0.50	0.00
2. Mining & Quarrying	0.80	0.69	0.00
3. Manufacturing	0.67	0.33	0.26
4. Electricity	0.73	0.52	0.00
5. Construction	1.00	1.00	1.00
6. Wholesale & Retail Trade	0.78	0.63	0.55
7. Transport, Storage & Construction	1.00	0.49	0.69
8. Finance, Real Estate, Insurance & Business Services	1.00	0.92	0.73
9. Community, Social and Personal Services	0.83	0.50	0.07
All Sectors	0.53	0.41	0.15

Note : Manufacturing includes workers engaged in repair services, except for the year 1977-78.

1/ Estimated elasticities for agriculture have been calculated on the basis of 3 year moving average of GDP at 1980-81 prices for the period 1977-78 to 1983 to 1993-94. For the period 1993-94 to 1999-00 we have used the GDP series with base 1993-94 but a three year average is not used since data are not available for 1992-93 or 2000-01.

2/ This period combines two distinct periods for which data are separately available i.e. 1983 to 1987-88 and 1987-88 to 1993-94. However, 1987-88 was a drought year when employment was abnormally low and this distorts elasticities in both periods. The combined period 1983 to 1993-94 has been used to avoid this distortion.

Source: Report of Task Force on Employment Opportunities, Planning Commission, p-46

Table 5: Growth of Employment by Sectors (UPSS)

Industry	Employed workers²/ (million)			Annual growth Rate (Percentage)	
	1983	1993-94	1999-00	1983-94	1994-00
Agriculture	207.23	242.46	237.56	1.51	-0.34
Mining & Quarrying	1.76	2.70	2.27	4.16	-2.85
Manufacturing	34.03	42.50	48.01	2.14	2.05
Electricity, gas & WS	0.85	1.35	1.28	4.50	-0.88
Construction	6.78	11.68	17.62	5.32	7.09
Trade	19.22	27.78	37.32	3.57	5.04
Transport, Storage & Commn.	7.39	10.33	14.69	3.24	6.04
Financial Services	1.70	3.52	5.05	7.18	6.20
Community Social & Pers. Services	23.80	32.13	33.20	2.90	0.55
Total Employment	302.76	374.45	397.00	2.04	0.98

1. Notes to Table 2 refers.

2/ The NSS gives the percentage distribution across industries of each of the four categories of workers. We apply this distribution to the absolute numbers of workers of each category for each year and add up the four categories in each industry to derive estimates of total workers in each industry.

Source: Report of Task Force on Employment Opportunities, Planning Commission, p-22

Table 6: Estimates of Employment in Organised Public and Private Sectors

(Lakh persons as on March 31st of the year)

Year	Public	Private	Total
1999	194.15	86.98	281.13
2000	193.14	86.46	279.60
2001	191.38	86.52	277.89
2002	187.73	84.32	272.06
2003	185.80	84.21	270.00
2004 (Q)	179.41	84.24	263.65

Q – Quick Estimates
Source: Ministry of Labour & Employment (DGE&T)

Table 7: Total Workers by Employment Status

Employment Status	No. of Workers (in '000)					Average Annual Incremental (in '000)	Compound Growth Rate (% p.a.)
Period	1983	1993-94	1999-00	I	II	I	II
RWS	38964	48647	57377	922	1455	2.14	2.79
% share	14.70	14.81	15.90	15.27	26.95		
CL	79279	106786	120599	2620	2302	2.88	2.05
% share	29.91	32.51	33.42	43.38	42.65		
SE	146817	173038	182884	2497	1641	1.58	0.93
% share	55.39	52.68	50.68	41.35	30.40		
All	265060	328471	360860	6039	5398	2.06	1.58

Note: RWS: Regular Wage/Salary
CL: Casual Labour
SE: Self-employed
Period I: 1983 to 1993-94 (10.5 years)
Period II: 1993-94 to 1999-2000 (6 years)

Source: Sundaram, K. and Tendulkar, S.D. (2005), "Changing Structure of Indian Workforce, Quality of Employment and Real Earnings 1983-2000", Draft paper for World Bank.

Table 8: Unemployment Rates* (%) amongst Educated Youth

Year	Secondary Education & above			All types of Technical Education		
	Rural	Urban	Combined	Rural	Urban	Combined
1983	20.4 (2.5)	30,0 (10.7)	20.7 (4.2)	25.0	23.9	24.4
1987-88	15.9	16.6 (3.8)	16.2 (12.1)	24.0 (5.4)	20.7	22.1
1993-94	17.0	20.8 (2.9)	18.5 (10.8)	29.0 (4.6)	25.9	27.3
1999-2000	12.5	18.3 (3.7)	14.8 (11.2)	22.8 (5.4)	24.5	23.7

* On Usual Status Basis

Note: 1. Technical Education comprises of Additional Diplomas or certificates in Agriculture, Engineering/Technology, medicine, crafts and other subjects.

2. Youth means age group 15-29

3. Figures in the parentheses show the unemployment rate among youth as a whole.

Source: Report of Task Force on Employment Opportunities, Planning Commission, p-29.

Table 9: Unemployment Rates* in Major States

(Per cent of labour force)

States	Unemployment rate		
	1987-88	1993-94	1999-2000
1. Andhra Pradesh	7.35	6.67	7.94
2. Assam	5.09	7.96	8.00
3. Bihar	4.04	6.25	7.35
4. Gujarat	5.79	5.73	4.63
5. Haryana	7.59	6.59	4.67
6. Himachal Pradesh	3.12	1.82	2.93
7. Karnataka	5.06	4.89	4.61
8. Kerala	21.19	15.50	20.77
9. Madhya Pradesh	2.86	3.42	4.60
10. Maharashtra	4.67	4.97	7.09
11. Orissa	6.44	7.28	7.38
12. Punjab	5.07	3.08	4.15
13. Rajasthan	5.74	1.33	3.06
14. Tamil Nadu	10.36	11.44	12.05
15. Uttar Pradesh	3.44	3.45	4.27
16. West Bengal	8.13	9.87	14.95
17. Delhi	4.77	1.91	4.58
All India	6.09	6.03	7.32

* Current daily status basis
Source: Report of Task Force on Employment Opportunities, Planning Commission, p-33.

Table 10: Employment Projections (at 8% growth rate)

	1999-2000	2004-05	Projected Elasticity	Growth Rate	Employment Growth rate	2017
Agriculture	237.56	240.32	0.10	4.00	0.40	252.11
Mining& quarrying	2.27	2.24	0.00	4.70	0.00	2.24
Manufacturing	48.01	51.79	0.22	10.50	2.31	68.11
Electricity, gas and water supply	1.28	1.29	0.00	8.30	0.00	1.29
Construction	17.62	21.10	0.60	8.50	5.10	38.32
Trade, hotels & restaurant	37.32	45.76	0.50	9.20	4.60	78.49
Transport, Storage and communication	14.69	18.78	0.40	10.50	4.20	30.76
Financing, insurance, real estates and business services	5.05	5.90	0.50	11.00	5.50	11.21
Community, social and personal services	33.20	35.95	0.30	7.60	2.28	47.11
Total Employment	397.00	423.13	0.22	8.00	1.76	529.64
Labour Force (1.5%)	406.05	437.43				522.99
Labour Force (1.8%)	406.05	443.93				549.90
Unemployment rate (1.8%)	2.23					3.68

Source: Planning Commission

Table 11: Employment Projections (at 9% growth rate)

	1999-2000	2004-05	Projected Elasticity	Growth Rate	Employment Growth rate	2012
Agriculture	237.56	240.32	0.10	4.00	0.40	247.13
Mining& quarrying	2.27	2.24	0.00	5.50	0.00	2.24
Manufacturing	48.01	51.79	0.22	12.50	2.75	62.62
Electricity, gas and water supply	1.28	1.29	0.00	10.00	0.00	1.29
Construction	17.62	21.10	0.60	11.00	6.60	33.00
Trade, hotels & restaurant	37.32	45.76	0.50	11.50	5.75	67.67
Transport, Storage and communication	14.69	18.78	0.40	11.00	4.40	25.38
Financing, insurance, real estates and business services	5.05	5.90	0.50	11.50	5.75	8.72
Community, social and personal services	33.20	35.95	0.30	8.00	2.40	42.44
Total Employment	397.00	423.13	0.22	9.00	1.98	490.49
Labour Force (1.5%)	406.05	437.43				485.47
Labour Force (1.8%)	406.05	443.93				502.97
Unemployment rate (1.8%)	2.23					2.48

Source: Planning Commission

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