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Economic Survey & Government Plan Programme & Policies

for Civil Services Preliminary (CSAT) & Main Examination 2013

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Chapter 7

TWELFTH PLAN : AN OVERVIEW

CONTENTS OF THE CHAPTER

INTRODUCTION

India's 1.25 billion citizens have higher expectations about their future today, than they have ever had before. They have seen the economy grow much faster in the past 10 years than it did earlier, and deliver visible benefits to a large number of people. This has understandably raised the expectations of all sections, especially those who have benefited less. Our people are now much more aware of what is possible, and they will settle for no less. The Twelfth Five Year Plan must rise to the challenge of meeting these high expectations.

The Initial Conditions

Though expectations have mounted, the circumstances in which the Twelfth Plan has commenced are less favourable than at the start of the Eleventh Plan in 2007–08. At that time, the economy was growing robustly, the macroeconomic balance was improving and global economic developments were supportive. The situation today is much more difficult. The global economy is going through what looks like a prolonged slowdown. The domestic economy has also run up against several internal constraints. Macro-economic imbalances have surfaced following the fiscal expansion undertaken after 2008 to give a fiscal stimulus to the economy. Inflationary pressures have built up. Major investment projects in energy and transport have slowed down because of a variety of implementation problems. Some changes in tax treatment in the 2012–13 have caused uncertainty among investors.

These developments have produced a reduction in the rate of investment, and a slowing down of economic growth to 6.5 per cent in 2011–12, which was the last year of the Eleventh Plan. The growth rate in the first half of 2012–13, which is the first year of the Twelfth Plan, is even lower. The downturn clearly requires urgent corrective action but it should not lead to unwarranted pessimism about the medium term. India's economic fundamentals have been improving in many dimensions, and this is reflected in the fact that despite the slowdown in 2011–12, the growth rate of the economy averaged 7.9 per cent in the Eleventh Plan period. This was lower than the Plan target of 9 per cent, but it was marginally higher than the achievement of 7.6 per cent in the Tenth Plan. The fact that this growth occurred in a period which saw two global crises, one in 2008 and another in 2011, is indicative of the resilience which the economy has developed.

The Policy Challenge

The policy challenge in the Twelfth Plan is, therefore, two-fold. The immediate challenge is to reverse the observed deceleration in growth by reviving investment as quickly as possible. This calls for urgent action to tackle implementation constraints in infrastructure which are holding up large projects, combined with action to deal with tax related issues which have created uncertainty in the investment climate. From a longer term perspective, the Plan must put in place policies that can leverage the many strengths of the economy to bring it back to its real growth potential. This will take time but the aim should be to get back to 9 per cent growth by the end of the Twelfth Plan period.

The preparation of a Five Year Plan for the country is an opportunity to step back, take stock of the 'big picture', identify the strengths that can be leveraged to enable the country to move forward, and the constraints that could hold it back, and on this basis develop a strategic agenda. In developing such an agenda, the Planning Commission has relied on four key elements.

- First, the strategy must be firmly grounded in an understanding of the complexities of the development challenges that India faces, recognising the transformation that is taking place in the economy and in the world. This understanding of the ground reality must be used to identify the critical leverage points where government action could have the maximum impact. The focus must be on identifying the strategic leverage points where successful action could trigger many supportive reactions rather than fixing everything everywhere.
- Second, progress will be achieved through a combination of government action in both policies and public programmes, and the efforts of many private actors that are important in the economy. Much of the inclusive growth we hope to achieve depends on investment in the private sector which accounts for over 70 per cent of total investment. This includes not only the organised corporate sector, but also Micro, Small and Medium Enterprises (MSMEs), individual farmers and myriads of small businessmen who add to Gross Domestic Product (GDP) and create jobs. The dynamism of this segment, and its ability to seize economic opportunities, is critical for inclusive growth and the Plan must address the constraints faced by all these private actors in achieving better results.
- Third, the outlay on government programmes has to increase in many areas but this must be accompanied by improved implementation. For this, it is necessary to focus on capacity building and governance reforms, including system change that will increase accountability in the public sector. The Twelfth Plan must back this focus by making specific allocations to improve the ability of government to work better.
- Finally, the planning process must serve as a way of getting different stakeholders to work together to achieve broad consensus on key issues. These stakeholders include (i) different levels of the government sector: Centre, States and Panchayati Raj Institutions (PRIs)/Urban Local Bodies (ULBs); (ii) the private sector, both big companies and small businesses, whose investments will drive our growth and (iii) citizens' groups and the voluntary sector, who bring the key element of people's participation and can greatly help improve the quality of government action.

VISION AND ASPIRATIONS

The broad vision and aspirations which the Twelfth Plan seeks to fulfil are reflected in the subtitle: 'Faster, Sustainable, and More Inclusive Growth'. The simultaneous achievement of each of these elements is critical for the success of the Plan.

The Need for Faster Growth

Planners are sometimes criticised for focusing too much on GDP growth, when the real objective should be to achieve an improved quality of life of the people across both economic and non-economic dimensions. The Twelfth Plan fully recognises that the objective of development is broad-based improvement in the economic and social conditions of our people. However, rapid growth of GDP is an essential requirement for achieving this objective.

There are two reasons why GDP growth is important for the inclusiveness objective. First, rapid growth of GDP produces a larger expansion in total income and production which, if the growth process is sufficiently inclusive, will directly raise living standards of a large section of our people by providing them with employment and other income enhancing activities. Our focus should not be just on GDP growth itself, but on achieving a growth process that is as inclusive as possible. For example, rapid growth which involves faster growth in agriculture, and especially in rain-fed areas where most of the poor live, will be much more inclusive than a GDP growth that is driven entirely by mining or extraction of minerals for exports. Similarly, rapid growth which is based on faster growth for the manufacturing sector as a whole, including MSME, will generate a much broader spread of employment and income earning opportunities and is therefore more inclusive than a growth which is largely driven by extractive industries.

The second reason why rapid growth is important for inclusiveness is that it generates higher revenues, which help to finance critical programmes of inclusiveness. There are many such programmes which either deliver benefits directly to the poor and the excluded groups, or increase their ability to access employment and income opportunities generated by the growth process. Examples of such programmes are the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Sarva Siksha Abhiyan (SSA), Mid Day Meals (MDMs), Pradhan Mantri Gram Sadak Yojana (PMGSY), Integrated Child Development Services (ICDS), National Rural Health Mission (NRHM), and so on. This is also relevant for the sustainability objective since programmes aimed at making development more sustainable also involve additional costs.

Growth Prospects

The Approach Paper to the Twelfth Plan, approved by the National Development Council (NDC) in 2011, had set a target of 9 per cent average growth of GDP over the Plan period. That was before the Eurozone crisis in that year triggered a sharp downturn in global economic prospects, and also before the extent of the slowdown in the domestic economy was known. A realistic assessment of the growth prospects of the economy in the Twelfth Plan is that it concludes that the current slowdown in GDP growth can be reversed through strong corrective action, including especially an expansion in investment with a corresponding increase in savings to keep inflationary pressures under control. However, while our full growth potential remains around 9 per cent, acceleration to this level can only occur in a phased manner, especially since the global economy is expected to remain weak for the first half of the Plan period. Taking account of all these factors, the Twelfth Plan should work towards bringing GDP growth back to an inclusive 9 per cent in the last two years of the Plan, which will yield an average growth rate of about 8.2 per cent in the Plan period. The outcome is conditional on many policy actions as is described in scenario one.

Within the aggregate GDP growth target, two sub-targets are especially important for inclusiveness. These are a growth rate of 4 per cent for the agricultural sector over the Twelfth Plan period and around 10 per cent in the last two years of the Plan for the manufacturing sector.

The Twelfth Plan's strategy for growth depends crucially on productivity gains as one of the key drivers of growth. Productivity is the additional contribution to growth after taking account of the effect of capital accumulation and growth in labour. These traditional sources of growth are not likely to be enough for India in the coming years and we must therefore focus much more on productivity improvements among all constituents: big businesses, MSMEs, farmers and even government. This can be done by improving the business regulatory environment, strengthening the governance capacity of States, investing more in infrastructure rather than subsidies, and by using Science and Technology (S&T) to drive innovation.

Alternative Scenarios

The projection of 8.2 per cent growth in the Twelfth Plan period should not be viewed as a 'business as usual' outcome that can be realised with relatively little effort. It is in fact a projection of what is possible if we take early steps to reverse the current slowdown and also take other policy actions needed to address other key constraints that will otherwise prevent the economy from returning to a higher growth path. Failure to act firmly on these policies will lead to lower growth and also poorer outcomes on inclusiveness.

To illustrate the consequences of inaction on key growth promoting policies, the Planning Commission has undertaken a systematic process of 'scenario planning' based on diverse views and disciplines to understand the interplay of the principal forces, internal and external, shaping India's progress. This analysis suggests three alternative scenarios of how India's economy might develop titled, 'Strong Inclusive Growth', 'Insufficient Action' and 'Policy Logjam'.

The first scenario 'Strong Inclusive Growth', describes the conditions that will emerge if a well-designed strategy is implemented, intervening at the key leverage points in the system. This in effect is the scenario underpinning the Twelfth Plan growth projections of 8.2 per cent, starting from 6.7 per cent in the first year to reach 9 per cent in the last year and the second scenario 'Insufficient Action' describes the consequences of half hearted action in which the direction of policy is endorsed, but sufficient action is not taken. The growth in this scenario declines to around 6 per cent to 6.5 per cent. The third scenario 'Policy Logjam', projects the consequences of Policy Inaction persisting too long. The growth rate in this scenario can drift down to 5 per cent to 5.5 per cent.

The Meaning of Inclusiveness

Inclusiveness means many different things and each aspect of inclusiveness poses its own challenges for policy.

Inclusiveness as Poverty Reduction

Distributional concerns have traditionally been viewed as ensuring an adequate flow of benefits to the poor and the most marginalised. This must remain an important policy focus in the Twelfth Plan. It is worth noting that the record in this dimension of inclusiveness is encouraging. The percentage of the population below the official poverty line has been falling but even as that happens, the numbers below the poverty line remain large. According to the latest official estimates of poverty based on the Tendulkar Committee poverty line, as many as 29.8 per cent of the population, that is, 350 million people were below the poverty line in 2009–10. Questions have been raised about the appropriateness of the Tendulkar poverty line which corresponds to a family consumption level of `3900 per month in rural areas and `4800 per month in urban areas (in both cases for a family of five). There is no doubt that the Tendulkar Committee poverty line represents a very low level of consumption and the scale of poverty even on this basis is substantial. An Expert committee under Dr. C. Rangarajan has been set up to review all issues related to the poverty line keeping in view international practices.

It is well established that the percentage of the population in poverty has been falling consistently but the rate of decline was too slow. The rate of decline in poverty in the period 2004–05 to 2009–10 was 1.5 percentage points per year, which is twice the rate of decline of 0.74 percentage points per year observed between 1993–94 and 2004–05. Normally, large sample surveys used for official estimates of poverty are conducted every five years, but because 2009–10 was a drought year, the National Sample Survey Office (NSSO) felt that it would tend to overstate poverty and it was therefore decided to advance the next large sample survey to 2011–12. The results of this survey will yield an official estimate of the extent of poverty in 2011–12, that is, the position at the end of the Eleventh Plan period, but this will be available only in mid-2013. However, preliminary results from the survey have been published and they suggest that the percentage of the population in poverty will decline significantly compared to 2009–10. According to some non-official estimates, the rate of decline in poverty between 2004–05 and 2011–12 will be close to 2 per cent per year, which was the Eleventh Plan target. If this turns out to be the case, it can be claimed that the Eleventh Plan has indeed delivered on inclusiveness.

Inclusiveness as Group Equality

Inclusiveness is not just about bringing those below an official fixed poverty line to a level above it. It is also about a growth process which is seen to be 'fair' by different socio-economic groups that constitute our society. The poor are certainly one target group, but inclusiveness must also embrace the concern of other groups such as the Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs), Minorities, the differently abled and other marginalised groups. Women can also be viewed as a disadvantaged group for this purpose. These distinct 'identity groups' are sometimes correlated with income slabs—the SCs and STs, for example, are in the lower income category—and all poverty alleviation strategies help them directly. Women on the other hand span the entire income spectrum, but there are gender-based issues of inclusiveness that are relevant all along the spectrum.

Inclusiveness from a group perspective obviously goes beyond a poverty reduction perspective and includes consideration of the status of the group as a whole relative to the general population. For example, narrowing the gap between the SCs or STs and the general population must be part of any reasonable definition of inclusiveness, and this is quite distinct from the concern with poverty, or inequality. For example, it is perfectly possible for anti-poverty strategies to be reducing income poverty among SCs and STs without reducing the income gap between these groups and the general population.

Inclusiveness as Regional Balance

Another aspect of inclusiveness relates to whether all States, and indeed all regions, are seen to benefit from the growth process. The regional dimension has grown in importance in recent years. On the positive side, many of the erstwhile backward States have begun to show significant improvement in growth performance and the variation in growth rates across States has narrowed. However, both the better performing and other States are increasingly concerned about their backward regions, or districts, which may not share the general improvement in living standards experienced elsewhere. Many of these districts have unique characteristics including high concentration of tribal population in forested areas, or Minorities in urban areas. Some districts are also affected by left wing extremism, making the task of development much more difficult.

In the Twelfth Plan, we must pay special attention to the scope for accelerating growth in the States that are lagging behind. This will require strengthening of States' own capacities to plan, to implement and to bring greater synergies within their own administration and with the Central Government. As a first step, the Planning Commission is working with it's counterpart Planning Boards and Planning Departments in all State Governments to improve their capabilities. An important constraint on the growth of backward regions in the country is the poor state of infrastructure, especially road connectivity, schools and health facilities and the availability of electricity, all of which combine to hold back development. Improvement in infrastructure must therefore be an important component of any regionally inclusive development strategy.

Inclusiveness and Inequality

Inclusiveness also means greater attention to income inequality. The extent of inequality is measured by indices such as the Gini coefficient, which provide a measure of the inequality in the distribution on a whole, or by measures that focus on particular segments such as the ratio of consumption of the top 10 per cent or 20 per cent of the population to that of the bottom 10 per cent or 20 per cent of the population, or in terms of rural–urban, such as the ratio of mean consumption in urban versus rural areas. An aspect of inequality that has come sharply into focus in industrialised countries, in the wake of the financial crisis, is the problem of extreme concentration of income at the very top, that is, the top 1 per cent and this concern is also reflected in the public debate in India.

Perfect equality is not found anywhere and there are many reasons why it may not even be a feasible objective. However, there can be no two opinions on the fact that inequality must be kept within tolerable limits. Some increase in inequality in a developing country during a period of rapid growth and transformation may be unavoidable and it may even be tolerated if it is accompanied by sufficiently rapid improvement in the living standards of the poor. However, an increase in inequality with little or no improvement in the living standards of the poor is a recipe for social tensions. Static measures of inequality do not capture the phenomenon of equality of opportunity which needs special attention. Any given level of inequality of outcomes is much more socially acceptable if it results from a system which provides greater equality of opportunity. As a society, we therefore need to move as rapidly as possible to the ideal of giving every child in India a fair opportunity in life, which means assuring every child access to good health and quality education. While this may not be possible to achieve in one Plan period, the Twelfth Plan should aim at making substantial progress in this dimension.

Inclusiveness as Empowerment

Finally, inclusiveness is not just about ensuring a broad-based flow of benefits or economic opportunities, it is also about empowerment and participation. It is a measure of the success we have achieved in building a participatory democracy that people are no longer prepared to be passive recipients of benefits doled out by the Government. They are slowly beginning to demand these benefits and opportunities as rights and they also want a say in how they are administered. This brings to the fore issues of governance, accountability and peoples participation to much greater extent than before. This also covers areas like access to information about government schemes, knowledge of the relevant laws and how to access justice. The growing concern with governance has also focused attention on corruption. How to tackle corruption is now at the centre stage of policy debates.

Inclusiveness through Employment Programmes

One of the most important interventions for fostering inclusion during Eleventh Plan was the MGNREGA. While its achievements in ameliorating poverty and preventing acute distress during times of drought have been recorded and appreciated, there are also some complaints against MGNREGA, primarily on the grounds that it is a dole, involving huge expenditures that could have been spent more productively. There are also complaints that it is leading to increase in wages of agricultural labour and construction workers.

The view that rising wages by themselves represent a problem is not credible since this is the only mechanism through which landless agricultural labour can benefit from economic growth. If rising wages squeeze farm profitability, the solution lies in raising farm productivity to accommodate higher wages. In any case, rural labour relations in large parts of the country continue to be feudal, and use of migrant labour for both agriculture and construction continues to be exploitative. These inequities would not get corrected by themselves. We should not be looking to perpetuate a situation where low-cost labour provides the necessary profit margins for farmers, removing incentives to invest in efficiency improvement.

The main point to note is that employment schemes are not new in India, and they have a wellestablished poverty reducing impact. With National Sample Survey showing an eightfold increase in employment in public works after MGNREGA, there is no doubt that its impact on rural wage earnings and poverty has been much larger than all previous rural employment schemes. What is less appreciated is that this has been achieved with a rather modest increase in the share spent on rural employment schemes out of total Central Plan expenditures. It has increased from an average of 11.8 per cent in the three years before MGNREGA (2002–03 to 2004–05) to 13.3 per cent in the last three (2009–10 to 2011–12). This means that although MGNREGA is not free of leakages, these have declined considerably. Thus, far from opening a bottomless pit as some critics still claim, the provision of employment as a legal right, has greatly improved the share of intended beneficiaries in what government spends for development of rural areas.

There is also evidence that wherever land productivity has improved and greater water security been delivered, small and marginal farmers working in MGNREGA sites have reverted back to farming and allied livelihoods. There is also evidence that MGNREGA is enabling crop diversification, particularly into horticulture, wherever it has adequately converged with schemes of Agricultural Departments. An important lesson from this experience is that it is the quality of assets created, which will determine whether MGNREGA can go beyond the safety net to become a springboard for entrepreneurship, even at the lowest income levels.

Each of the dimensions of inclusiveness discussed above is relevant, and public attention often focuses on one or the other at different times. We should aim at achieving steady progress in each of these dimensions. Accelerated growth in recent years has yielded distinct benefits to many and the prosperity which this has generated is visible to all, raising the expectations of all sections of the population, and creating a demand for a fair share of the benefits of growth. Policymaking has to be watchful of developments in each dimension of fairness and be quick to take corrective steps as soon as the need arises. Box 1.1 provides an assessment of trends in some key variables which point to the greater inclusiveness of growth in recent years.

Environmental Sustainability

While striving for faster and more inclusive growth, the Twelfth Plan must also pay attention to the problem of sustainability. No development process can afford to neglect the environmental consequences of economic activity, or allow unsustainable depletion and deterioration of natural resources. Unfortunately, the experience of development in many countries, and our own past experience in some respects, suggests that this can easily happen unless appropriate corrective steps are taken at early stages. The Twelfth Plan must devise a strategy of development which effectively reconciles the objective of development with the objective of protecting the environment.

Box 1.1 : Eleventh Plan Achievements on Inclusive Growth

The following are some important indicators showing the extent to which the Eleventh Plan succeeded in fulfilling the objective of inclusive growth. (In some cases, where the data relate to the NSSO surveys, the time period for comparison is before and after 2004–05.)

- GDP growth in the Eleventh Plan 2007–

08 to 2011–12 was 7.9 per cent compared with 7.6 per cent in the Tenth Plan (2002–03 to 2006–07) and only 5.7 per cent in the Ninth Plan (1997–98 to 2001–02). The growth rate of 7.9 per cent in the Eleventh Plan period is one of the highest of any country in that period which saw two global crises.

- Agricultural GDP growth accelerated in the Eleventh Plan, to an average rate of 3.3 per cent, compared with 2.4 per cent in the Tenth Plan, and 2.5 per cent in the Ninth Plan.
- The percentage of the population below the poverty line declined at the rate of 1.5 percentage points (ppt) per year in the period 2004–05 to 2009–10, twice the rate at which it declined in the previous period 1993–94 to 2004–05. (When the data for the latest NSSO survey for 2011–12 become available, it is likely that the rate of decline may be close to 2 ppt per year.)
- The rate of growth of real consumption per capita in rural areas in the period 2004–05 to 2011–12 was 3.4 per cent per year which was four times the rate in the previous period 1993–94 to 2004–05.
- The rate of unemployment declined from 8.2 per cent in 2004–05 to 6.6 per cent in 2009–10 reversing the trend observed in the earlier period when it had actually increased from 6.1 per cent in 1993–94 to 8.2 per cent in 2004–05.
- Rural real wages increased 6.8 per cent per year in the Eleventh Plan (2007–08 to 2011–12) compared to an average 1.1 per cent per year in the previous decade, led largely by the government's rural policies and initiatives.
- Complete immunization rate increased by 2.1 ppt per year between 2002–04 and 2007–08, compared to a 1.7 ppt fall per year between 1998–99 and 2002–04. Similarly, institutional deliveries increased by 1.6 ppt per year between 2002–04 and 2007–08 higher than the 1.3 ppt increase per year between 1998–99 and 2002–04.
- Net enrolment rate at the primary level rose to a near universal 98.3 per cent in 2009–10. Dropout rate (classes I–VIII) also showed improvements, falling 1.7 ppt per year between 2003–04 and 2009–10, which was twice the 0.8 ppt fall between 1998–99 and 2003–04.

Development cannot take place without additional energy and the energy requirement of development will have to be reconciled with the objective of protection of environment. The economy depends heavily on coal and hydro power to meet its energy needs and the development of each of these energy sources involves potential trade-offs with conservation of forests and the objective of avoiding displacement of people. We need to manage these conflicting objectives more efficiently, with adequate compensation for those dispossessed and appropriate remedial steps to correct for loss of forest cover where this is unavoidable. Nuclear energy is another important energy source for the country, and has the greatest potential over the next 20 years, of providing a substitute for coal-based electricity. However, here too environmental and safety issues have arisen, especially after the Fukushima accident. These concerns are being addressed.

The achievement of environmental sustainability will impact the life of communities in several dimensions. It will require the need development of new energy efficient practices in urban housing and transport to contain the growth in the demand for energy. It would mean use of far more energy efficient technologies in coal-based electricity generation such as the introduction of super critical and ultra super critical boilers. It would require active promotion of energy efficiency in industries, farms and offices, and the promotion of more energy efficient appliances through policies of branding and mandatory standards. Transport policies and related technologies for more energy efficient vehicles will need to be developed and adopted.

The issue of sustainability also has a global dimension because of the threat of climate change caused by the accumulation of carbon dioxide and other Greenhouse Gases (GHG) in the atmosphere due to human activity. Since GHG emission in any country accelerates the process of global warming, this is obviously an area where a global cooperative solution is needed. No country will have sufficient incentive to contain its own emissions unless it is part of a global compact. Such a compact in turn is possible only if there is a fair distribution of the burden. Developing countries have consistently argued that since it is the industrialised countries that have historically contributed the bulk of the accumulated stock of GHG, and are also the most able to pay, they must bear burden of global mitigation and adjustment. India is participating in the ongoing international negotiations under the UN Framework Convention on Climate Change, but progress thus far has been minimal.

We cannot, however, abstain from taking action to deal with climate change until an international solution is found. It is known that India will be one of the countries most severely affected if global warming proceeds unchecked and as such appropriate domestic action is necessary. A National Action Plan for climate change has been evolved with eight component Missions. Implementation of these missions must be an integral part of the Twelfth Plan. Policies should be closely monitored to ensure that we achieve the stated objective of reducing the emissions intensity of our GDP by 20 per cent to 25 per cent between 2005 and 2020.

Resolving the conflict between energy and the environment is not without cost. It involves additional upfront costs both of mitigating the adverse impact on the environment and of switching to more expensive renewable energy sources. These costs must be built into the cost and the pricing of the energy produced. The reluctance to bear these costs arises largely because the cost of environmental damage is not properly measured. It is only when this is done that the cost of avoiding such damage can be compared with the environmental benefits to reach a rational decision on whether the costs are worth it. Part of the problem is that the conventional ways of measuring GDP in terms of production do not take account of environmental damage caused by production of certain goods which should properly be reflected as a subtraction from GDP. Only if GDP is adjusted in this way for environmental costs that growth of adjusted GDP can be called a measure of the increase in total production in the economy. Recognising this problem, the Planning Commission has commissioned an Expert Group under Professor Partha Dasgupta to prepare a template for estimating green national accounts which would measure national production while allowing for negative effects on national resources.

To summarise, the Twelfth Plan must be guided by a vision of India moving forward in a way that would ensure a broad-based improvement in living standards of all sections of the people through a growth process which is faster than in the past, more inclusive and also more environmentally sustainable.

DEVELOPING CAPABILITIES

In this section, we focus on the capabilities we need to develop to achieve the objective of faster, more inclusive and sustainable growth. We first consider the development of human capabilities, which are in many ways the most important. Then we focus on institutional capabilities and the development of infrastructure which is a general capability enhancer for all agents. Both the Central and State Governments have a large role to play in developing these capabilities and the Twelfth Plan at the Central and State level should accord high importance to this effort.

Development of Human Capabilities

The development of human capabilities must be the first priority, for three reasons. First, these capabilities are actually ends in themselves. Second, they are also important instrumentalities which interact positively with others to raise the productive capacity of our economy and therefore its ability to satisfy the material needs of our population. Third, proper development of human capabilities will also ensure that our growth is more inclusive in the sense that the marginalised and disadvantaged sections of our society will be more able to access the opportunities thrown up by the growth process.

Life and Longevity

The most fundamental of all human capabilities is life itself and the steady rise in life expectation in the country suggests that significant progress has been made in this dimension. Life expectancy which was only 32 years at the time of Independence is now 67 years. In other words, every Indian can expect to live twice as long as was the case at Independence! Nevertheless, the level of life expectancy in India remains lower than in many emerging market economies and it is appropriate to plan for significant further improvements in this important dimension.

The infant mortality rate (IMR) is another dimension of human capability where we are making progress. IMR fell from 80 in 1991 to 66 in 2001 and at a faster rate thereafter to 47 in 2010. The rate of decline was 14 in the first period and 19 in the second period. Nevertheless, the level of IMR remains high and we need to do much better for our children. We must strive to bring the IMR down to 28 by the end of the Twelfth Plan. Maternal mortality rates (MMRs) are another indication of weakness in our performance. MMR has been falling over time, thanks to the initiatives for promoting institutional deliveries under the NRHM. The percentage of women giving birth in institutions with the benefit of skilled birth attendants has increased from 53 per cent in 2005 to 73 per cent in 2009. We need to do even better, and the Twelfth Plan must bring MMR down to 1 per 1000 by the end of the Plan period.

While there has been progress in the dimensions discussed above, the decline in the child sex ratio rings an urgent alarm. This is an area of grave concern since it implies that society is denying life to female children, and increasingly resorting to female foeticide. The spread of diagnostic and medical facilities has paradoxically actually worsened the situation, as the falling child sex rate is being seen in the more developed areas and cities.

Education

India has a young population, and consequently, the labour force, which is expected to decline in most developed countries and even in China, is expected to increase over the next 20 years. This 'demographic dividend' can add to our growth potential through its impact on the supply of labour and also, via the falling dependency ratio, on the rate of domestic savings. Besides, a young population brings with it the aspirations and the impatience of youth, which in turn can become strong drivers for bringing about change and innovation. To reap this demographic dividend we must ensure that our younger citizens come into the labour force with higher levels of education and the skills needed to support rapid growth. The SSA has brought us close to the target of universalisation of primary education and the Right to Education Act (RTE) 2009 makes eight years of elementary education a fundamental right for all the children. The MDM Scheme has ensured that retention in schools has improved greatly. However, the learning outcomes for a majority of children continue to be disappointing. Addressing the quality issue in our schools is critical for the effective development of human capabilities and for achieving the objective of equality of opportunities. The quality of teachers and, even more important, their motivation and accountability will need to be improved. Many of the children who are presently in school are first-generation learners, and these children need supplementary instruction. This is not easy due to shortage of qualified teachers in many schools across the country. New and innovative approaches such as multigrade learning, which has been successfully tried in Tamil Nadu, could be adopted in such cases.

The success of the SSA has put pressure on expanding the capacity of secondary schools and the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) addresses this issue. Although there is considerable focus on providing secondary school access, the dropout rates between elementary and secondary schools continue to be high, and between the secondary and post-secondary stage they are even higher. This is a particularly serious problem for girls, who have to travel longer distances to attend secondary schools. Curricular and examination reforms in secondary schooling would receive special attention aimed at fostering critical thinking and analytical skills, and preparing students for further education. All this requires innovative approaches, some of which are already in evidence in certain States.

The last decade has also seen a huge increase in the demand for higher education and this is expected to increase further as more children complete school and more and more jobs are seen to require higherlevel qualifications. However, our higher education institutions also suffer from problems of quality. Too many of our universities are producing graduates in subjects that are not required by the changing job market, and the quality is also not what it should be. Higher education policy has to be driven by three 'E's: expansion, equity and excellence. Of these, the third E, 'excellence', is the most difficult to achieve. India cannot hope to be competitive in an increasingly knowledge driven world if our higher education institutions do not come up to the high standards of excellence needed to be able to be globally competitive. Not even one Indian university figures in the latest list of the top 200 universities in the world. We should work towards ensuring that there are at least five by the end of the Twelfth Plan. For this, universities at the top of the quality hierarchy should be identified and generously supported so that they can reach the top league. Centres of excellence within existing universities should be created. A special initiative should be launched to attract high calibre faculty from around the world on non-permanent teaching assignments. All these initiatives should be pooled into an India Excellence Initiative in the Twelfth Plan.

Skill Development

The Skill Development Mission has been launched to skill at least 50 million individuals by the end of the Twelfth Plan. Skill development programmes in the past have been run mainly by the government, with insufficient connection with market demand. To ensure that skills match demand, special efforts are needed to ensure that employers and enterprises play an integral role in the conception and implementation of vocational training programmes, including managing Industrial Training Institutes (ITIs) and in the development of faculty. An enabling framework is needed that would attract private investment in Vocational Training through Public–Private Partnership (PPP). We should try to optimise on the respective strengths of the public and private sector entities engaged in skill development. Mobilising the required investments, setting up first rate ITIs, ensuring efficiency in operations and management and enabling post-training employment will be the primary responsibilities of private sector entities while the government will provide the enabling framework and the requisite financial support especially in respect of SC, ST, Minorities and differently abled persons and other deprived sections of society.

Nutrition

Poor learning outcomes in our schools are partly because of poor quality of teaching but they are also partly due to high incidence of child malnutrition, which reduces learning ability. India has had the largest and the longest running child development programme in the world in the form of ICDS, but the problem of malnutrition remains large. Unfortunately, the latest data on child malnutrition are from the National Family Health Survey (NFHS- 3) conducted in the period 2005–07 which pre-dates the Eleventh Plan. The full impact of the Eleventh Plan programmes on this aspect of human capability is therefore not yet known. Surveys undertaken by the State Governments seem to suggest that malnutrition has fallen in many States. The next Annual Health Survey for 2012–13 will include data on malnutrition and these data will provide a reliable basis for assessing what has happened since NFHS-3. Meanwhile, the ICDS programme will be expanded and comprehensively restructured in the Twelfth Plan to make it more effective.

Malnutrition is also a problem among adults, especially women. The incidence of anaemia and low body mass among women is very high in the country. The causes of this persistent malnutrition are not well understood. The availability of food, especially better quality food products such as fruits, vegetables and dairy products, is significantly better today than it was in the past. Nevertheless, the incidence of malnutrition remains high. There is a need to bring this dimension of human capability to the fore front of policy attention. The Food Security Bill under consideration will address some of these issues, but the problem of nutrition is actually much more complex and a multidimensional approach is necessary.

Health

Health is another critical dimension of human capability, which needs much greater attention in the Twelfth Plan. At present, less than 30 per cent of outpatient and less than half of inpatient health care capacity of the country is in the public sector, and the majority of the population relies on private health care provision which often imposes a heavy financial burden. It is, therefore, essential to expand public sector capacity in health care especially in the rural areas. The NRHM, launched during the Tenth Plan, made an important start in expanding health care facilities in rural areas. While additional infrastructure has been created, there are large shortages of personnel, especially specialists in rural health facilities, reflecting the fact that trained human resources in health are in short supply and it takes many years to set up new medical colleges to train the required number of doctors.

Ideally, the public health care system must be expanded to address the health needs of the vast majority of citizens, recognising that upper-income groups may opt for private health care. The Twelfth Plan will therefore see the transformation of the NRHM into a National Health Mission, covering both rural and urban areas. Unlike rural residents, those in urban areas have access to private health care providers, but private health care is costly and large numbers of urban residents especially slum dwellers cannot afford it. An important component of the National Health Mission will be the Urban Health Initiative for the Poor, providing public sector primary care facilities in selected low-income urban areas. This will require additional resources in the public sector from the budgets of both the Centre and the States, and cities.

There is a massive shortage of healthcare professionals in the country and their supply must therefore be expanded rapidly if we want to fulfil our commitments in this sector. We must therefore plan for an expansion of teaching and training programmes for healthcare professionals, particularly in the public sector institutions.

Finally, attainment of good health outcomes is not just a matter of providing curative care. We need to give much greater attention to public health which has traditionally suffered from neglect. We also need to focus much more on a provision of clean drinking water and sanitation, which can make a major contribution to improved health. This was the experience in industrialised countries over a hundred years ago, and this is also true for us today.

The longer-term objective of Health Policy must be the provision of Universal Health Care (UHC), whereby any one who wants it is assured of access to a well defined set of health care entitlements. Putting a UHC system in place will take time, but we need to start building an appropriate architecture.

Drinking Water and Sanitation

The problem of providing safe drinking water is particularly acute in the rural areas. Successive plans have emphasised programmes for expanding the coverage of rural drinking water but they have not had as much success, as desired. The incidence of 'slipped back' habitations appears to be accelerating and serious problems of water quality have emerged in many areas. Part of the problem is that rural drinking water schemes are not fully integrated with national system of aquifer management. Excessive drawal of groundwater for irrigation is leading to lowering of water tables causing drinking water hand pumps to run dry and lowering of the water table is also causing salinity and chemical pollution, making the water non-potable. A sustainable solution to the rural drinking water problem has to be found as part of a holistic approach for aquifer management.

Sanitation and clean drinking water are critical determinants of health and are complementary to each other. Without proper sanitation, the incidence of diarrhoeal diseases due to contaminated drinking water will not come down, and without adequate water supply, improved sanitation is generally not possible. It is, therefore, necessary to adopt a habitation approach to sanitation and to institutionalise the integration of water supply with sanitation in each habitation. The problem of sanitation in urban areas is also very serious since almost all our cities, including even the State capitals and major metros, have a large percentage of the population (45 per cent in Delhi) not connected to the sewer system. Urban development must give top priority to planning for water, toilets and sewerage as an integrated whole taking into account the likely expansion of the urban population.

Enhancing Human Capabilities through Information Technology

The ability to access information is an important institutional capability we need to develop. Lack of ready access information is often a major impediment in efforts to improve the well-being of the people. With improvement in literacy and education, and developments in information technology, we are in a position to provide our people with access to information, including obtaining birth records, land records, payment records for utilities and so on.

The rapid spread of mobile telephony, including in rural areas has facilitated innumerable innovations which directly benefit the ordinary citizen. Farmers in some parts of the country are able to subscribe to commercial services which deliver relevant information for a particular crop to the farmer through Short Message Service (SMS). The parents of babies born in municipal hospitals in Bengaluru get an SMS alert, when the next vaccination is due. Such innovations need to be encouraged. Yet another human capability that is important is the ease and effectiveness of establishing identity. The Aadhar project, which provides a unique identification (UID) number, backed by biometric data capture, to establish identity unambiguously, is a major step forward. Identity can be difficult to establish, especially for the poor, when they move from their place of origin, whether by choice or by compulsion. The UID project has already enrolled 200 million persons. Experiments with using Aadhar to make payments under MGNREGS electronically into no frill bank accounts which can be accessed through mobile phones have begun in 51 districts. It will soon be possible for large-scale use of the Aadhar platform to make various types of government payments due to individuals in a seamless manner electronically, avoiding problems of misuse and leakage.

The Aadhar platform will also facilitate a shift from the physical delivery of subsidised commodities through the Public Distribution System (PDS) to a system of cash payment, if desired. Some States have indicated that they would be interested in such a shift. Adoption of a target to move the major subsidies and beneficiary payments to a cash basis linked to Aadhar by the end of the Twelfth Plan period would be a major step towards improving efficiency.

Development of Institutional Capabilities

The Twelfth Plan also needs to focus on developing the capabilities of our institutions to perform the increasingly complex and demanding tasks expected of them. We have three pillars of governance (Legislature, Executive and Judiciary) and three tiers of government (Centre, State and Panchayats/ULBs). The capabilities of these institutions to deliver on their mandate need to be greatly improved. The gaps are most evident at the lowest level of PRIs and ULBs, where trained personnel are lacking and the training systems are also inadequate. It is also true at higher levels, where trained personnel may be available, but the capability of the systems is poor because they are not performance oriented and motivation is low.

Implementation Capability

The consultations undertaken by the Planning Commission in the course of preparing the Twelfth Plan have revealed a near universal perception that the capacity to implement is low at all levels of government. The government simply does not function with the efficiency that is required in the twenty-first century. This is partly because of the lack of motivation at various levels, but it is primarily because governmental systems and procedures are largely process-driven. They are not outcomeoriented. Accountability is often viewed as adhering to procedures with no incentive to depart from procedures to secure better results. Unless this weakness is overcome, mere provision of more funds for programmes implemented in the same old way will not help.

Where implementation rests within one Ministry, there are problems of (i) insufficient attention to evidence-based analysis in the design of policies and programmes, (ii) insufficient concurrent evaluation that would give feedback on outcomes achieved and (iii) lack of willingness or ability to bring about systemic changes needed to improve outcomes. Even when it is known that a change in procedures will help, it takes very long to bring about that change. The problem is greatly multiplied when the effectiveness of a programme depends, as it often does, on actions that have to be taken by several different Ministries. Inter-ministerial consultations take far too long, and more importantly, are typically not oriented to resolving problems. This is because each Ministry works in a silo, applying its own rules and procedures. The effort is to seek a consensus if possible, with little ability to over rule positions taken by individual Ministries in the interest of a holistic problem solving approach. Resolving conflicting stands by consensus is of course desirable if possible, but beyond a point, it may not be possible, and some systems for conflict resolution are needed.

To deal effectively with these problems it may be necessary to redesign governmental decision making systems. There has been a great deal of system redesign in the private sector in response to the new environment created by economic reforms. A similar redesign of government is needed. For example, one way of accelerating the processing of large infrastructure projects is to set up a National Investment Approval Board chaired by the Prime Minister and including all key Ministers and to amend the Transaction of Business Rules so that statutory clearances under various Acts for all infrastructure projects above a given size are given by the Board, taking into account the views of all Ministries. The allocation of business rules could provide that such clearances would be issued by the Cabinet Secretariat based on the decision of the Board. This would be a systemic change which would ensure a holistic consideration of complex issues and greatly accelerate decision-making.

Delivery of Public Services

Delivery of public services in many States is hampered by weak institutional capacity. Thus, although public hospitals may have trained doctors and nurses, and public schools may have trained teachers, neither of these institutions will have administrators who are trained in the operation of health care or educational institutions. Too much of the knowledge needed to manage public service delivery is learnt on the job, which detracts from the institution's effective functioning.

The first step in reforming public service delivery is to devise mechanisms for measuring the extent of public satisfaction with public services and publicising the results. The Public Affairs Centre at Bengaluru has done excellent work in conducting systematic surveys of public perception or satisfaction with various types of public services ranging from water and sanitation, health and education, public transport, police and so on. Such surveys periodically conducted produce valuable information for the political leadership on where performance is felt to be poor and where it is improving

Greater involvement of citizens' organisations can help focus government attention on these problem areas. The Delhi Government's experiment with Bhagidhari is example of citizen involvement and consultation operating through Resident Welfare Associations.

Regulatory Institutions

An area where the lack of institutional capability is beginning to manifest itself is in our expanding system of regulatory bodies. As areas that were earlier dominated by the public sector have been opened up for private operators, often competing among themselves or with existing public sector operators, independent regulatory institutions have been established to oversee the functioning of the players in the system. The effectiveness of regulatory organisations depends critically upon the quality of the personnel running the institutions and the degree of independence established. Too many of the regulatory agencies are staffed by former bureaucrats and there is not enough induction of specialists with domain knowledge. A thorough review of the regulatory system established in different sectors is needed to determine the weaknesses of the system currently in place and recommend ways of correcting them. This is especially true as the next two five year Plans are likely to see faster change in the global economy and in the structure of the Indian economy too.

Development of Infrastructure

Infrastructure provides the basic support system for other sectors of the economy expanding capabilities everywhere. A distinguishing characteristic of infrastructure is that where imports can meet the gap between demand and supply, deficiencies in infrastructure cannot be made good through imports. Infrastructure requirements can only be met through development of the relevant infrastructure capacity in the domestic economy. Furthermore, Good quality infrastructure is important not only for faster growth but also to ensure that growth is inclusive.

Power

Electric power is a critical input into all economic activity and rapid and inclusive growth is only possible if reliable electricity is made available everywhere. It is essential not only for agriculture, industry and commercial business but also for basic household lighting. The percentage of households with electricity has increased from 56 in 2001 to 67 in 2011, but even so almost 45 per cent of rural households have no electricity connection. Furthermore, those that do typically do not have assured power, even in urban areas.

The Eleventh Plan added 55000 MW of generation capacity which, though short of the target, was more than twice the capacity added in the Tenth Plan. The Twelfth Plan aims to add another 88000 MW. This level of additional capacity is not infeasible but delivery of power depends critically on solving serious fuel availability problems that have arisen relating to coal and natural gas. Uncertainties about fuel availability would seriously dampen investment activity, especially since about half the generation capacity is expected to come from the private sector, and they will not be able to achieve financing if fuel supply issues are not resolved. The problem is not that fuel cannot be made available since domestic shortfalls can be met by imports but since imports are at much higher prices, power producers are reluctant to accept. The problem can be resolved by resorting to price pooling and thus must be explored. Equally important is the need to address the financial weakness of the distribution segment of the power sector. Almost all the distribution companies (discoms) are running large financial losses, reflecting high transmission and distribution losses and also an unwillingness to raise tariffs in line with rising cost. Some discoms have recently raised tariffs after many years, which is a welcome development but most have yet to do so.

Renewable energy, especially wind energy and solar energy are potentially promising alternatives to conventional fossil fuel-based electric power. They are more expensive at present, but given likely trends in fossil fuel prices globally, and technological developments in these sectors there is a need to expand the contribution from these sectors.

Telecommunications

Telecommunications has seen impressive expansion and large investments in the past several years with a tele-density increasing from 26.2 per cent in 2008 to 78.7 per cent in 2012. The expansion has been led by private sector service providers whose market share (in terms of number of connections) increased in this period from 73.5 per cent to 86.3 per cent. Unfortunately, issues related to alleged improprieties in the allocation of spectrum in 2008 have dominated public discussions. Several 2G licenses and associated spectrum allotted in 2008 were cancelled by the Supreme Court in 2011 and the court ordered the government to auction the spectrum.

There is tremendous scope for further expansion in telecommunications, especially with the introduction of 3G services. Telecommunications, and the associated increase in Internet connectivity is clearly a productivity enhancing development, and India is well placed to benefit from this. Already, a large number of services benefiting ordinary people have come into being. For a small fee, farmers can sign up for a service which provides customer specific information through SMS on market prices in nearby markets, conditions and possible disease outbreaks in specific crops in which the farmer is currently interested. Mobile banking, through business correspondents acting as agents, is giving ordinary people in villages, far from a brick and mortar bank branch, virtually direct access to simple banking service.

There is scope for using the Universal Services Obligation Fund (USOF) creatively to enhance access to mobile telephone including especially as a platform for delivery of a range of services to the underserved in rural areas.

Road Transport

In the area of transport, there has been some progress in the roads sector, both in the development of national highways and in rural roads, but much more needs to be done. The National Highway Development Programme needs to be stepped up with an aggressive pursuit of PPP to construct toll roads on a Build-Operate-Transfer (BOT) basis. The States too need to expand their road programmes to provide good quality connectivity in all areas. Many States have resorted successfully to PPP as a mode of road development.

A special effort is needed to speed up road connectivity in Jammu & Kashmir, the North East and other Special Category States. A good start has been made in the SARDP-NE in the Eleventh Plan and this needs to be pursued with greater vigour in the Twelfth Plan. Enhanced connectivity of the North East should be a high priority. This is also true for districts affected by Left-Wing Extremism.

Railways

Development of capability in the Railways is another urgent priority for the Twelfth Plan. Capacity in the Railways has lagged far behind what is needed and feasible, especially given the need to shift from road transport to rail in the interest of improving energy efficiency, and reducing the carbon footprint of our development. Expansion of the system must be accompanied by technological modernisation, greater attention to safety and steps to ensure financial viability. Several important new initiatives are underway which will materialise in the course of the Twelfth Plan. These include flagship projects such as the Western and Eastern Freight Corridor, the Mumbai Elevated Rail Corridor and the High Speed Corridor.

Airports

Airport development is a basic infrastructure requirement for connectivity, especially since the demand for air travel is projected to grow rapidly. This area has seen a sea change in the Eleventh Plan with the development of four new airports through private participation in the PPP mode (Bengaluru, Hyderabad, Delhi and Mumbai), the upgradation of two metro airports by Airport Authority of India (AAI) (Chennai and Kolkata) and the development of 35 non-metro airports by AAI.

There is need for further expansion in the Twelfth Plan with the creative use of PPP wherever possible. Several projects are likely to be taken up in the Twelfth Plan. These include the Navi Mumbai Airport, the Goa Airport and the Kannur Airport. A policy to make some of our airports into international hubs is also being considered.

Ports

Ports are another critical capability for international trade connectivity. Progress in this area in the Eleventh Plan was disappointing as far as major ports were concerned because several institutional issues had to be resolved for the proposed PPP expansion plans to materialise. These have now been resolved and it is expected that the Twelfth Plan will see a much greater expansion. In contrast minor ports (which come under State Governments) have done very well in the Eleventh Plan. An aggressive expansion of port capacity in the major ports based on PPP is essential in the Twelfth Plan. In addition, two entirely new PPP ports are proposed by the Central Government; one in West Bengal and the other in Andhra Pradesh.

Financing Infrastructure

Traditionally, infrastructure development used to occur through the public sector. However, given the scarcity of public resources, and the need to shift scarce public resources into health and education, efforts have been made to induct private participation in the development of infrastructure. These efforts have met with a fair degree of success. As of 31 March 2012, 390 PPP projects have been approved involving an investment of `305010 crore. According to a report published by the World Bank, India has been the top recipient of PPP investment since 2006 and has accounted for almost half of the investment in new PPP projects implemented in the first half of 2011 in developing countries. An Asian Development Bank report states that India stands in the same league as developed economies like South Korea and Japan on implementation of PPP projects and the Model Concession Agreements prepared in India and used in our PPP projects have also been commended.

The total investment in infrastructure sectors in the Twelfth Plan is estimated to be `56.3 lakh crore, which is roughly one trillion dollars at prevailing exchange rates. The share of private investment in the total investment in infrastructure rose from 22 per cent in the Tenth Plan to 38 per cent in the Eleventh Plan. It will have to increase to about 48 per cent during the Twelfth Plan if the infrastructure investment target is to be met. These projections have also been validated by the high level committee on infrastructure set up under the chairmanship of Shri Deepak Parekh. The committee has however qualified its projections as dependent on several policy initiatives that the government would need to take for ensuring this level of investment.

The Twelfth Plan lays special emphasis on the development of social sectors in view of their impact on human development and quality of life. Unlike the case with other infrastructure, experiments with PPP in the social sector have been more limited. Many States have experimented with PPPs in health and education. The Central Government has approved setting up of 2500 Model Schools in PPP mode and a proposal for setting up 3000 ITIs through PPP is under consideration. These initiatives will be strengthened during the Twelfth Plan.

Resort to PPPs in the social sector often raises concerns about the commercialisation of services that are normally expected to be provided free or highly subsidised. These are important concerns but they can be addressed by well-drafted concession agreements and strict monitoring to ensure that PPP concessionaires abide by their commitments. This must be reinforced with penalties for non compliance. While extending the concept of PPP to social and urban sector projects, the need for 'people's' participation in the design and monitoring of PPP schemes becomes crucial. Local citizens are direct stakeholders in such projects and therefore their support becomes crucial. Therefore, some cities and States have begun to shape PPPs in the social and urban sectors as People–Public–Private Partnerships (PPPPs). This is a valuable innovation which should be applauded.

The Reach of Banking and Insurance

Like infrastructure, development of an efficient financial services system is a key enabler of capabilities which affects how well individuals can manage life cycle needs and also affect the functioning of enterprises and their prospects of growth. More broadly, it affects the extent of entrepreneurship and of competition. India is underserved by financial services on every parameter. More than 40 per cent of households avail no banking service at all. The ratio of total bank credit outstanding to

GDP is only about 57 per cent as against over 140 per cent in East Asia and Pacific. Insurance premia account for less than 1 per cent of GDP, which is only about a third of the international average. The organised financial sector does not reach out to large segments of the population which are serviced if at all by all manner of informal financial entities at terms and costs that retard their growth prospects.

Lack of insurance products is an example of under-supply of financial services. It can be nobody's case that the Indian economy has lower inherent risks than others, or that life cover is any less important. It is rather that costs of providing cover and assessing claims are currently so high relative to the cover itself that either premium-to-cover ratios become exorbitant or appropriate insurance products are simply not created. High transactions costs relative to size of accounts are also the main reason for low banking coverage and this is compounded by high risk perception of banks, in part because of lack of insurance. Agriculture and other forms of MSMEs are particularly ill-served and the situation has in fact deteriorated in some ways over the last two decades because of problems afflicting the cooperative banking sector.

In recent years, financial inclusion has come back into focus, partly because technology (such as the IT-infrastructure, set-up of a core banking network, mobile phones, satellite imagery and automatic weather stations) now permits solutions such as banking correspondents and weather insurance which cut down on overhead costs; and partly because the power of cooperation, whether through SHG–bank linkage, Joint Liability Groups or simply the old fashioned Primary Agricultural Co-operative Society is again being revitalised. Cooperatives still have the widest credit reach and their local knowledge and risk sharing potential is an asset for the financial sector as a whole which has not been fully exploited. They should be given increased prominence during Twelfth Plan because potential benefits and cost of inaction are both very high. An area that government should take a lead is in creation of suitable databases of registry information both for easier collateral and finer actuarial calculations. The UID project can help with this, but there are also more basic requirements such as proper land records and property titling which should not meet the same fate as the so far disappointing record on registering births and deaths.

In the industrial sector smaller firms are credit constrained. The size distribution of firms in India shows that there are a number of large firms, as in other countries, but there are not enough firms in the middle range with employees ranging from 100 to 500. Instead an overwhelming number of firms are concentrated at the small end with less than 50 employees. This suggests that our small firms do not operate in an environment in which they can graduate to the middle category. One of the constraints is finance. Banks and other financial institutions have to be more creative to respond to the needs of potentially dynamic entrepreneurs capable of rapid growth. Indian banks typically do not exercise judgement in expanding credit limits in a manner which favours companies that are more likely to grow.

The capital market has been an important source of funding for larger companies and the opening of the economy to portfolio flows from Foreign Institutional Investors (FIIs) in recent years has produced a buoyant capital market where companies have raised significant funds through new issues. However, this mechanism has been used mainly by the larger companies to raise funds. We do not have effective institutions that can channel equity funding to smaller companies and start-ups. In a knowledge economy, we need to do much more to encourage the growth of venture capital funds and angel investors. The Planning Commission had appointed a Committee on Angel Investment and Early Stage Venture Capital which has since submitted its report.

Science and Technology

S&T is a vital aspect of national capability. Science Departments/Agencies have played a significant role in solving the socio-economic issues. The Department of Space through satellite-based system has provided nationwide land use/land cover mapping for natural resources management, thematic mapping for national urban information system, the process of measuring forest and wasteland, locating potential drinking water zones and potential fishing zone and crop production forecasting. The Twelfth Five Year Plan must build on the scientific base created by earlier Plans and give a renewed thrust to emphasise creative and relevant research and innovation. The central focus must be to ensure that S&T becomes a major driver in the process of the national development.

The Twelfth Plan programmes of the Indian Science should aim at three outcomes:

1. Realisation of the Indian vision to emerge as global leader in advanced science;
2. Encourage and facilitate Indian Science to address the major developmental needs of the country like food security, energy and environmental needs, addressing the water challenges and providing technological solutions to affordable health care requirements and
3. Gain global competitiveness through a welldesigned innovation ecosystem, encouraging global research centres of multinational corporations (MNCs) to be set up in India.

S&T endeavours over the last decade have placed increasing emphasis on contributing to the societal development and improving the quality of life of citizens. Such new initiatives in turn have also created in some cases societal reactions stemming from issues like health and environmental safety. In the recent past, introduction of genetically modified (GM) foods and Nuclear Energy are two such examples. The Twelfth Plan envisages a more effective institutional framework in linking S&T with society through a variety of outreach strategies. This is proposed to be carried out both through the scientific establishments as well as through educational programmes including initiatives from nongovernmental organisations (NGOs).

MANAGING NATURAL RESOURCES AND THE ENVIRONMENT

Achievement of rapid and sustainable growth is critically dependent on our ability to manage our natural resources effectively. India is not liberally endowed with natural resources. In fact, we are among the lowest in the world on almost all measures of resource availability on a per capita basis. In recent years, the deficiencies in the way in which we manage natural resources have come under increasingly critical scrutiny. Agitations around land acquisition, deforestation, water use, air and water pollution, and also our response to natural disasters, have become more common. These are no longer peripheral issues: They are issues which demand mainstream attention and pose challenges which this Plan must address squarely.

Soil Health and Productivity

Soil is one of the basic natural resources that support life on earth and this resource is under threat in India from soil erosion due to natural factors compounded by deforestation which increases run off and also from excessive use of chemical fertilisers. The soil ecosystem is a living self-balancing system and excessive use of synthetic chemical fertilisers disturbs this balance often causing long-term damage to the soil.

Chemical fertilisers, especially urea, are highly subsidised and the fertiliser subsidy has grown exponentially during the last three decades. These heavy subsidies on some fertilisers prompt overuse of the subsidised chemical fertilisers which has resulted in severe depletion of micronutrients and degradation of soil in many parts of the country. Chemical fertilisers should be used with great care and in conjunction with other means of using organic sources to replenish the soil. The way forward is to rejuvenate the soil and restore soil health through addition of organic matter in large quantities. Use of organic manures will gradually bring down the dependence on chemical fertilisers. However, the use of organic manures is discouraged because they receive no subsidy while urea is heavily subsidised. This price distortion is an important factor discouraging the shift.

More generally, support for ecological/organic fertilisation is scattered under various schemes and hence it is not getting its due. The best practices of soil fertility management need to be adopted, which include generation of biomass for bulk addition of organic matter in the soil to maintain proper soil health, in situ degeneration of biomass through sole cropping/inter-cropping/bund cropping of green manure crops, recycling of farm and household waste through use of intensive nutrient recycling methods such as composting, production of biofertilisers at regional and local levels, adoption of bio-dynamic farming methods and crop rotations to enrich the soil.

Rational Use of Land

Land is a fixed resource and its availability in India on a per capita basis is relatively low compared with most countries. Furthermore, the country's population is likely to continue to grow till at least 2040 whereas the land mass may actually shrink with increased coastal erosion and flooding due to climate change. In these circumstances, the rational and planned use of land must be an issue that needs the highest priority, and should be made a central focus of our resource planning. Land is a state subject, but the issues are so critical that there is need for better coordination at the national level.

There are three main areas of conflict that need to be addressed. The first relates to the allocation of available land between agriculture, industry and urban use. The second potential conflict arises from the fact that allocation across different uses cannot occur simply through market processes and some land acquisition is therefore necessary, but the terms on which this had been done in the past are no longer acceptable. The third potential conflict arises because most of our mineral resources are in areas, which are forested and the effective exploitation of these resources calls for acquisition, which may disrupt some tribal communities.

As far as the allocation to alternative sectors is concerned, it is important to recognise that diversion of land from agricultural to non-agricultural uses is inevitable in any development process since industry must expand and cities must also expand and in both cases land needed for this expansion can only come from agriculture. Concern is often raised in this context about the impact on food security. This problem is greatly exaggerated because the productivity of land in agriculture at present is very low and the shift of some land from agriculture to nonagricultural use can easily be offset by productivity increases, which are feasible and have been seen in many other developing countries. We need a clearer articulation of a strategy for dealing with such shifts while ensuring the continuing increase in the supply of agricultural products of the appropriate mix of grains, horticulture products and cash crops.

If the shift of land from agriculture to nonagricultural use could take place without any compulsory acquisition it would not pose a major problem since all such shifts would be voluntary. Unfortunately, this is not always possible. Land required for constructing a road or a railway line or even a dam has to be location specific and this effectively gives the landowner a veto right over the project. Given the large number of landowners involved, problems can arise even if the vast majority of the landowners are adequately compensated which is why compulsory acquisition provisions are unavoidable and exist in every country. Compulsory acquisition is unavoidable where there is a genuine public purpose such as acquiring land for infrastructure development. There may be a case for using acquisition for certain lands of privately owned facilities which serve a public purpose but this needs to be carefully defined. To remedy the deficiencies in the existing legislation for land acquisition which dates back to colonial times, the government has introduced the Land Acquisition Relief and Rehabilitation Bill in Parliament which is expected to create a much more balanced framework protecting the rights of those whose land is being acquired, as well as those whose livelihood will be disrupted.

The third potential conflict between accessing our mineral resources and minimising disturbance to forests also poses difficult problems. The services that are rendered by forests are unique and cannot be easily replaced. They include sustaining the life styles of the adivasis, but go well beyond that to include critical ecological services such as acting as a carbon sink and as a natural harvester of water through enhanced groundwater recharging. Mining encroaches on forest land and involves displacement of tribals, but the conflict can be reconciled if mining is combined with scientific replanting or regeneration, plus compensatory forestation on a larger scale, which may enable effective exploitation of our mineral resources with an actual increase in total forest cover. There may be some areas of forests that we view as sacrosanct, such as special reserves and biodiversity hotspots, where no intrusion is allowed, but other than these it should be possible to reconcile the two conflicting objectives, extracting valuable minerals and protecting the forests, through scientific methods of exploitation combined with steps which can protect and even enhance forest cover.

Resolution of this conflict is particularly necessary in view of the energy challenge facing the country. Most of our coal resources and hydro potential are in ecologically sensitive areas and a successful resolution of these problems is critical if we are to be able to exploit our potential energy resources. The alternative is to either accept a much lower rate of growth, or rely even more than we already do on imported energy, which has implications for both the balance of payments and energy security.

Alternative energy sources, including a variety of renewable energy sources, provide another route for energy security especially in the longer run. However, its quantitative potential over the next 10 years is small at present though it is expected to expand to 50000 MW by the end of the Twelfth Plan. The costs of these sources are also are much higher though they are falling. This is a potentially profitable area for further research, which is of special interest for us.

Expansion of nuclear energy as an important potential alternative to coal-based electricity poses a new set of concerns following the Fukushima accident in Japan which has heightened fears of possible accidents with leakages in radiation. This has promoted agitations against nuclear power in some parts of the country but it is an option that cannot be closed if we are to meet the essential energy needs of the country. However, much greater attention will have to be paid towards improving the confidence of the people and especially in providing world-class systems to counter the risks associated with this form of energy.

Water as a Scarce Natural Resource

Water is another key natural resource in fixed supply and its availability is now at a level which is just about equal to demand on average. Availability in some areas is greater than demand but there are other areas which are seriously water-stressed. While intensive use of groundwater made a great contribution to the Green Revolution, today in large parts of west, central and south India there is a man-made crisis of falling water tables. Economic growth at between 8 per cent and 9 per cent a year will only be possible if the water requirements of the expanding population, with a growing degree of urbanisation and the water requirement of expanding GDP can be met. Detailed studies suggest that on a business as usual basis, the total demand for water by 2031 is likely to be 50 per cent higher than today. This gap has to be bridged if the projected GDP growth is not to be choked. It is estimated that about 20 per cent of the gap at most can be bridged by taking steps to augment available supply through additional storage and groundwater retention. The rest of the deficit has to be bridged through greater water use efficiency.

Fortunately, there is large scope for improving water use efficiency in our economy. Agriculture consumes around 80 per cent of our available water resources at present and its water use efficiency is among the lowest in the world. Absence of rational pricing for canal water, combined with free or very cheap power for agriculture, has encouraged agricultural practices which are extremely wasteful. Cheap power has encouraged excess drawal of groundwater leading to falling water tables in large parts of the country. However, the man-made crisis of falling water tables is forcing some change as farmers are beginning to recognise the need to adopt technologies that economise on water.

The Twelfth Plan must break new ground in bringing sustainable management of our aquifers to the forefront of policymaking. Although efforts are being made for recharging of groundwater sources, these are yet to show sustained results across most parts of the country. An aquifer mapping programme that would enable more informed participatory management and better alignment of cropping patterns to water availability across the country will need to be the starting point of our efforts. This must be combined with a massive groundwater recharge programme based on integrating a reformulated MGNREGS with programmes on watershed development and restoration of water bodies.

It is also necessary to consider whether a new legislative framework is necessary to help manage our water resources better. Water, except for interstate rivers, is a state subject and as such, it is largely up to the States to consider what initiatives are feasible to avoid a steady intensification of the problem. A framework law, that is, an umbrella statement of general principles governing the exercise of legislative and/or executive (or devolved) powers by the Centre, the States and the local governance institutions needs to be developed. Such a framework law is not intended to either centralise water management or change Centre–State relations or alter the Constitutional position on water in any way. It is intended to be justiciable, in the sense that the laws are passed, and the executive actions are taken by the Central and State Governments, and the devolved functions exercised by PRIs conform to the general principles and priorities laid down in the framework law, and that deviations can be challenged in a court of law. These are, indeed, sensitive issues, and action on them must be receded by the largest possible consensus across States. However, the urgency of moving forward on these critical matters can no longer be disputed.

New model legislation is needed for protection, conservation, management and regulation of groundwater. The present model bill amounts to little more than grandfathering existing uses. What is remarkable is that some of the most important legal principles governing groundwater even today were laid down in British common law as early as the middle of the nineteenth century and have not been updated since then. The new model bill would need to recognise that over the last two decades, not only has the groundwater situation in India acquired crisis proportions, new developments in jurisprudence have created the basis as well as the necessity to redefine the legal framework for use of groundwater. These include the Public Trust Doctrine enunciated by the Supreme Court, principles of environmental law and the 73rd and 74th amendments to the Constitution.

Parallel efforts are needed to contain pollution of surface water and contamination of groundwater, which is reaching serious proportions. Industry must be pushed to adopt the best international practices to improve water use efficiency. Consumption of fresh water can be substantively reduced through use of water-efficient technologies or changed processes in various manufacturing activities and also by reusing and recycling the waste water from water using industrial processes and making the reclaimed water available for use in the secondary activities within or outside the industry. Enforcing pollution control measures in a context where the vast majority of producers are small and widely dispersed is not easy. However, this is a challenge in policy design, which cannot be ignored. States have to ensure that it is fully integrated into local planning.

Increased urbanisation will also pose additional problems for water management since urban populations need to be serviced with piped water systems available on a 24 × 7 basis and these systems should be accompanied by sewerage systems, which ensure that only cleaned water is returned to rivers or other disposal sites. At present, no Indian city is in a position to boast of a complete sewerage system. We have installed capacity to treat only about 30 per cent of the human waste we generate. Just two cities, Delhi and Mumbai, which generate around 17 per cent of the country's urban sewage, have nearly 40 per cent of the country's installed capacity. The Twelfth Plan must ensure that no water scheme in urban India will be sanctioned without an integrated sewage treatment component, which ensures that city waste does not pollute our fresh water sources.

ENGAGEMENT WITH THE WORLD

Economic reforms over the past two decades have made India a much more open economy. The share of exports of goods and services in total GDP has increased from 6.9 per cent in 1991 to 24.6 per cent in 2012. Imports of goods and services as a percentage of GDP have also increased from 8.3 per cent to 29.8 per cent in the same period. These changes are the result of conscious efforts to open up the economy. Import duties have been reduced over time and a number of preferential trading arrangements have been introduced as part of Comprehensive Economic Partnership Arrangements with individual countries and groups of countries, especially Association of Southeast Asian Nations (ASEAN), Japan, Korea, Singapore and Sri Lanka. More such agreements are being negotiated with the European Union and with Australia. Investment into India, and also from India to other countries has increased. For all these reasons, India's growth prospects in the years ahead cannot be viewed in isolation from what is happening in the world economy.

Global Economic Prospects

The global economy is currently going through a very difficult phase. The financial crisis of 2008–09 interrupted what had been a long period of global growth. Initially, the global economy appeared to respond well to the stimulus policies introduced by many countries in 2009, but the horizon was again clouded by the Eurozone crisis which is currently seen as a major fault line in the world economy. Many European countries are facing severe social and economic pain in their effort to introduce fiscal discipline aimed at regaining market confidence. The International Monetary Fund (IMF) projects zero growth in the Eurozone in 2012 with only a gradual improvement thereafter, on the assumption that a disruptive outcome is avoided.

The major industrialised and developing countries, meeting at Summit level in the G20, have repeatedly emphasised the importance of avoiding disruptive outcomes and the need for all countries to act in concert and cooperation to bring the global economy back on a path of sustainable growth. It is to be hoped that global economic cooperation will prove strong enough to avoid a hard landing. Although uncertainty remains high, and downside risks are significant, the most reasonable assumption on which to plan is that the global economy will recover gradually. However, the structural change that has been underway for some time, with industrialised countries growing more slowly while the emerging market countries, especially in Asia, grow more rapidly, will continue in the foreseeable future. We must, therefore, plan for a world in which the share of global GDP will therefore shift steadily away from the current industrialised countries and towards the faster growing emerging economies, especially in Asia.

Implications for the Balance on Current Account

Slower growth in industrialised countries will mean that our exports to these countries will be adversely affected. Fortunately, India's export basket is relatively diversified and since emerging market countries are expected to grow more rapidly in the years ahead, we may be able to benefit from this. There is also scope for increasing our share in industrialised country markets by competing more aggressively with countries like China, which will experience loss of competitiveness because of rising labour costs at home. This is especially true of services, where India's increasing sophistication will allow it to win more business from cost-conscious developed countries However, there is no room for complacency, because other developing countries, such as the Philippines, are improving their capabilities and there are moves within developed countries to 'on shore' services hitherto outsourced. It is difficult to quantify the net effect of all these factors, but it is reasonable to plan for merchandise exports growing at an average annual rate of 17 per cent in the Twelfth Plan than compared with 20.7 per cent in the Eleventh Plan. Growth of earnings from tourism and also remittances are likely to be subdued.

On the import side, a target growth of GDP over 8 per cent per annum will require a rapid growth of imports, especially since most of our incremental energy needs will have to be imported. The impact on the balance of payments will of course depend on what happens to oil and gas prices, but these are not expected to moderate significantly in the short to medium term, and indeed may even go up as the world economy recovers gradually from the global crisis, or due to any sudden shocks in the Middle East. High import payments combined with modest export growth means that the current account deficit will be an important source of stress in the coming years.

Another contingency that we have to keep in mind is the likely trend in global food prices. For a variety of reasons, most notably rising demand from emerging markets as their incomes expand, combined with lagging agricultural productivity in many emerging market countries and possible diversion of land to production of renewable energy in industrialised countries, global food prices are likely to be high in the years ahead. Fortunately, our domestic food grain production has been expanding but food security considerations may require import in certain conditions. Domestic import and export policies and our buffer stock policy have to be calibrated to meet domestic demand while responding to developments in global markets.

India's current account deficit was a surplus 2.3 per cent of GDP in 2003–04. Since then it has gone into deficit, reaching 2.7 per cent of GDP in 2010–11 and 4.2 per cent in 2011–12. A large part of the increase in 2011–12 was due to imports of gold, which are not expected to be repeated. Even so, the current account deficit in the first year of the Twelfth Plan will be around 3.6 per cent, which exceeds what has traditionally been regarded as a sustainable level. So the Twelfth Plan period averages around 2.9 per cent. On current prospects, it is likely to be somewhat higher. The ability to finance this deficit through stable capital flows is therefore critical.

Capital Flows

India has followed a calibrated policy of opening up the capital account, differentiating according to the nature of capital flows. Foreign Direct Investment (FDI) is regarded as the most stable capital flow which also provides technology and marketing links, and has therefore been most freely allowed. Portfolio flows are not as stable as FDI, but they are also not as volatile as short-term debt and have been allowed freely from qualified FIIs. Short-term debt from abroad is the least stable form of capital flow and is, therefore, highly controlled except for trade credit. Longer-term external borrowing is allowed more liberally, but subject to caps. This policy produced good results in the Eleventh Plan, yielding an annual average net capital inflow of 4.1 per cent of GDP during the Eleventh Plan. Since the average current account deficit was 2.7 per cent of GDP, the net capital inflows exceeded what was required to finance the current account deficit and contributed to a build up of forex reserves.

Looking ahead, if we assume that worst case outcomes will be avoided, then even though Europe may grow very slowly in the coming years, world financial markets can be expected to stabilise. On this assumption, it is reasonable to assume that India can finance a current account deficit of around 2.5 per cent of GDP relying mainly on FDI and FII flows, with some recourse to long-term borrowing. Since the projected current account deficit for 8.2 per cent growth is somewhat higher, financing the deficit will be a stress point in the years ahead. Capital flows from Europe may well be subdued, but there is scope for diversifying to tap other markets, notably Japan and also the sovereign wealth funds in the Middle East. The key element that will make this possible is that India must be seen to be set on a high growth path, with macroeconomic balances coming under control over the medium term, and policies towards foreign investment being viewed as supportive.

KEY POLICY INITIATIVES NEEDED

In this section, we discuss some of the major policy initiatives needed to achieve rapid, more inclusive and sustainable growth. Policies and programmes to improve human capabilities, institutional capabilities and to develop infrastructure, have been discussed earlier. They are all necessary for achieving the Twelfth Plan objectives and should have high priority.

Immediate Priorities: Reviving Investor Sentiments

An immediate policy objective in the very first year of the Plan must be to revive investor spirits, which have suffered for a variety of reasons. Some of the reasons for a downturn in investor sentiment can be easily corrected. For example, the perception among investors, that some of the tax changes introduced in the Budget are anti-investor need to be allayed as quickly as possible. The Finance Ministry has appointed two expert committees to look into these issues and it is hoped that the recommendations of these committees will provide a reasonable basis for reviving investor confidence on these issues. A firm decision on the recommendations of the Committee should be announced as early as possible.

The next important short-term action must be to remove the impediments to implementation of projects in infrastructure, especially in the area of energy. The following steps are especially urgent.

Fuel Supply to Power Stations

The fuel supply problem affecting electric power generation stations that have been commissioned but do not have adequate assurance of supply of coal or gas, and the problems of power stations currently under implementation which have yet to tie up fuel supply agreements, need to be addressed urgently. Coal India is the dominant domestic producer of coal because of nationalisation. It must take on the responsibility of making coal available to all power plants which are governed by regulated tariffs or have entered into PPAs based on competitive bidding for tariffs. Coal India must take steps to enhance its domestic production capability as much as possible, including by exploring possible PPP arrangements with mine development operators working on a contract basis. In the short run, however, the shortage can only be made up by imports. Additional imports are possible but the fact that imported coal is available only at much higher prices discourages potential consumers. One way of resolving this problem is through a system of pricing pooling. This should be explored and it should be implemented urgently.

Financial Problems of Discoms

Many discoms have accumulated high volumes of debt to finance their large current losses. Commercial banks are increasingly unwilling to finance the losses any further. This in turn has created unwillingness on the part of banks to finance power generation projects that are being set up because of doubts that they will be paid by the discoms. A debt restructuring plan, in which State Governments take over a large part of the burden of paying back the debt has been approved by the Cabinet and must be implemented by all the affected Sates. The commercial banks will have to bear part of the burden by restructuring the loans, and the Reserve Bank of India (RBI) may have to allow some regulatory forbearance relieving the banks of treating the restructured loans as non-performing assets (NPA) and making suitable provisions for them. As envisaged in the package, these steps must be combined with credible steps on the part of the State Governments and the discoms to ensure restoration of the operational viability of the discoms in future. An early implementation of open access would help create an environment that would promote efficiency and competitiveness.

Clarity in Terms of NELP Contracts

Several problems have arisen in interpreting existing New Exploration Licensing Policy (NELP) contracts especially related to the process for approving expenditure on the development plan and the approval for gas prices. This uncertainty is not conducive to attracting private investment in this very important part of the energy sector. A committee under Dr. C. Rangarajan has been set up to make recommendations on future NELP contracts, which would avoid uncertainty and establish clear rules regarding the pricing of oil and gas from future NELP fields.

The Size of the Public Sector Plan

Although planning should cover both the activities of the government and those of the private sector, a great deal of the public debate on planning in India takes place around the size of the public sector plan. The Twelfth Plan lays out an ambitious set of government programmes, which will help to achieve the objective of rapid and inclusive growth. These programmes add up to a total plan size for the Centre of `4769841 crores including both budget resources and the resources of the public sector enterprises which comes to about 6.98 per cent of GDP. This compares with `2025130 crores in the Eleventh Plan which was 5.96 per cent of GDP. The total plan size of the States is `3716385 crore or 5.44 per cent of GDP compared with `1725848 crore in the Eleventh Plan, which was 5 per cent of GDP.

Although the proposed Plan size is large, the demand from various sectors is also very high. However, resource constraints are a reality and even the plan size projected is conditional on high growth rate of revenue and a significant degree of control over subsidies. If for any reason these assumptions prove too optimistic, the size of the Plan may have to be trimmed at the time of the Mid Term Review.

In view of the scarcity of resources, it is essential to take bold steps to improve the efficiency of public expenditure through plan programmes. To this end the Planning Commission had established a Committee under Member, B. K. Chaturvedi to make recommendations for rationalisation and to increase efficiency of Centrally Sponsored Schemes (CSSs) and for improving their efficiency. There has been a proliferation of CSS over the years, many of which are quite small. The Chaturvedi Committee had recommended that the number of CSSs should be drastically reduced and the guidelines under which the schemes are implemented should be made much more flexible. The recommendations have been discussed with the Ministries and the States and have generally been welcomed. It is proposed to implement these recommendations with effect from 2013–14.

Longer-Term Increase in Investment and Saving Rates

Bringing the economy back to 9 per cent growth by the end of the Twelfth Plan requires fixed investment rate to rise to 35 per cent of GDP by the end of the Plan period. This will require action to revive private investment, including private corporate investment, and also action to stimulate public investment, especially in key areas of infrastructure especially, energy, transport, water supply and water resource management.

The strategy of expanding investment will help to counter the weakening of external demand on account of the global downturn. It is important that the expansion in domestic demand should not be in the form of consumption, but in the form of higher levels of investment. This not only provides demand in the short run to support higher levels production but also strengthens the longer-term growth potential of the economy. We should also ensure that a large part of the increase in investment goes into infrastruc-ture as this would have a positive effect on reviving private investment in other sectors and would ease supply constraints, which limit future growth. The Eleventh Plan succeeded in raising investment in infrastructure from 6.2 per cent in 2007–08 to about 7 per cent in 2011–12. The Twelfth Plan should aim to raise it further to 9 per cent by 2016–17.

Higher levels of investment have to be supported by a sufficient expansion in domestic savings to keep the investment savings gap, which is also the current account deficit, at a level which can be financed through external capital. India's domestic savings capacity has been an important strength of the economy, although recent years saw a distinct weakening in this area because of deterioration in both government and corporate savings. Household savings, however, have remained strong and are likely to increase in the future, both because of our age composition and as result of increased financial inclusion. Nonetheless, reversal of the combined deterioration in government and corporate savings has to be a key element in our strategy.

The Need for Fiscal Correction

The decline in public savings in the past few years is largely a reflection of the stimulus policies that were followed, which are reflected in the expansion in the fiscal deficit. The Central Government fiscal deficit was 5.9 per cent of GDP in 2011–12. Allowing for a fiscal deficit of just under 3 per cent for the States, the combined deficit of the Centre and the State Governments, which had fallen to 4.7 per cent in 2007–08, expanded to just under 9 per cent in 2011–12. This has to be reversed through a credible correction over the medium term. The Finance Ministry has set up an Independent Expert Committee to advise on a credible medium-term road map for fiscal correction. The Committee has recommended a new road map for fiscal deficit reduction to bring the Central government deficit down to 3 per cent by the end of the Twelfth Plan. It will be necessary to take action on two fronts:

1. The Centre must persevere with reforms of the tax structure, notably the introduction of Good and Services Tax (GST), which will represent a major modernisation of the indirect tax system. GST will greatly simplify the system and improve revenue mobilisation, primarily by plugging loopholes. Since introduction of GST requires a Constitutional amendment, it needs a broad political support which has taken time to build. However, if it can be introduced soon, it will give a boost to efficiency and to revenue mobilisation without raising rates.
2. It will require a reversal of the trend witnessed in recent years for Central Government subsidies to grow as a percentage of GDP. It must be emphasised that the objective is not to eliminate subsidies. Subsidies can even increase in absolute terms as the GDP grows, but they must be reduced as a percentage of the GDP. There is a role for targeted subsidies that advance the cause of inclusiveness, but such subsidies can be contained within a predetermined level of affordability. It should be possible to do this without hurting the poor. Some subsidies such as under the proposed Food Security Act will be predetermined. Others such as on fertiliser can be redesigned to serve their purpose at less cost. Subsidies, on petroleum products are untargeted and do not benefit the poor and the most needy. They will have to be reduced.

The State Governments also need to take steps to reduce the growing burden of subsidies, most especially the large and growing losses in the power sector.

Managing the Current Account Deficit

The initiatives described above to increase government savings and corporate savings will create conditions conducive to keeping the current account deficit at 2.5 per cent of GDP. This level of deficit can be financed through long-term capital flows as long as India's macroeconomic parameters are seen to be improving and GDP growth recovers above 7 per cent. India is still under weight in most global portfolios given its economic size and growth potential and positive signals about the revival of growth, combined with a credible commitment to improve macroeconomic balances and a welcoming stance towards foreign investment will ensure the financing needed to maintain a current account deficit of 2.5 per cent.

The steps taken to liberalise FDI, especially in areas where there is evident investor interest such as for example, FDI in retail, would help by sending the right signals. We must build on the success of previous liberalisation in FDI in other sectors, such as insurance, and before that telecom.

Transparency in Allocating Scarce Natural Resources

The economic reforms successfully eliminated discretionary decision-making in areas such as industrial licenses and import licenses. The process of extending transparent policies and mechanisms to allocation of scarce natural resources to private companies for commercial purposes has also been initiated. This is an extremely important gain. It will be further carried forward during the Twelfth Plan.

Agricultural Growth

It is well recognised that faster growth of agriculture makes the overall growth process more inclusive. A positive feature of the experience is that agricultural growth increased from 2.4 per cent in the Tenth Plan to 3.3 per cent in the Eleventh Plan. Further acceleration to 4 per cent is essential to ensure inclusiveness.

Action is needed on several fronts including provision of basic support services such as technology and irrigation infrastructure, access to credit, good and reliable seeds and improved post-harvest technology. The latter is particularly important since the bulk of the acceleration in growth will come from diversification towards horticulture, animal husbandry and fisheries. The greatest potential for improving productivity is in the rain-fed areas, which account for 58 per cent of net sown area and where most of the poor live. Land productivity is low in these areas, but a combination of effective water management combined with better seeds, promotion of soil health and critical on farm investments combined with public sector efforts to improve infrastructure can make a big difference. Rain-fed farming requires a natural resource management perspective with a farming systems approach focusing on producing diverse products that mutually reinforce each other and stabilise the system. These areas are ecologically fragile and highly vulnerable to the vagaries of climate, so the resilience of the system has to be increased. They require knowledge and institutional investments to improve soil moisture management, enhance soil productivity, revitalise common pool resources, provide appropriate seed and low external input systems as also farm mechanisation, along with diverse livelihood options such as livestock and fisheries. Some of the government's key inclusiveness promoting programmes, such as MGNREGA, can make a major contribution to improving land productivity, if the projects under it are structured to increase on farm productivity. Properly designed and converged, MGNREGA can contribute to creating positive synergy with agricultural growth.

In addition, the Twelfth Plan must address some basic imbalances. First, to increase rice productivity in Eastern India and at same time relieve North-West India from the stress on groundwater caused by this water-intensive crop. Second, to focus on growing imbalances in nutrient use that can affect productivity seriously. Third, to ensure that there is enough parity between procurement operations for crops such as oilseeds and pulses as for rice and wheat, so that we can avoid situations like at present when huge stocks of the latter coexist with huge imports of the former. Fourth, to put at the centre of our agricultural policies.

Manufacturing

The manufacturing sector provides the best opportunity for creating quality jobs, which require skills which are relatively easily imparted to someone who has finished secondary school. However, this is also an area where business as usual will not produce rapid growth and a paradigm shift is needed. The reasons why manufacturing in India has not grown sufficiently rapidly and also not created as much employment in the formal sector as might have been expected. The following are some of the initiatives needed to correct this performance:

- First, India ranks towards the bottom of international comparisons of ease of doing business. The business regulatory environment in the country is intimidating for manufacturers, especially smallscale enterprises. It saps their productivity and deters further investments. The Plan proposes some initiatives to tune up India's business regulatory environment. Much of the action needed lies with State Governments.
- Second is the state of the physical infrastructure—power and transport, in particular—on which manufacturing enterprises depend much more than IT-based service enterprises, strategies for improving infrastructure are a core of the Plan and they will make a difference to performance of manufacturing as a whole.
- Third, India needs to increase the technological depth of its manufacturing sector to improve its competitiveness and also the country's trade balance. India is increasingly importing high-tech and capital goods and exporting raw materials in return. Strategies are required to induce more depth and value-addition in India's manufacturing sector that are not 'protectionist' and that leverage FDI and are compatible with an open global trade regime.
- Fourth is a rethinking of the role of human resources in manufacturing. Successful manufacturing requires learning and absorption of technologies and the ability to improve them and this takes place principally through the human side of the enterprise. Sustainable competitiveness will also require a new way of dealing with labour Refurbishing of India's outdated labour laws is necessary, but improvement of industrial relations and the collaboration that is necessary between employees and management will not be obtained

merely by changing the laws. It will require a new social contract founded on a developmental orientation and on partnerships in India's Manufacturing and Industrial sectors and in the enterprises within them.

- Fifth, the growth of the MSME sector must be a central focus of India's manufacturing strategy. This sector is the foundation for a strong manufacturing sector providing more employment with less capital. It has a complementary relationship with large industries because it supplies components and inputs to them. It is the entry point for workers and entrepreneurs who move through it to larger-scale enterprises. Whereas much government attention is given to consult with and address the issues of larger enterprises, the development of the MSME sector must become more central to the deliberations about the challenges of Indian industry and the Indian economy. The sector must be viewed not as a static and weak sector, requiring constant support and protection, but as an integral part of the industrial system with upward mobility for individual units within it.
- Lastly, many of the changes in policy and implementation that are required to improve the environment for manufacturing—in the business regulatory environment, in implementing infrastructure projects, in industrial relations, and the requirements of SMEs—are within the domains of the States. This includes the quality of power supply, much of road connectivity, implementation of sales tax administration, implementation of laws relating to safety, pollution control and labour, industrial parks and so on. The Centre also has a critical role to play in areas such as rail transportation, income tax, Cenvat, export regulation and the functioning of the financial system.

These issues are also relevant for India's entire business sector, which apart from manufacturing, covers services and off-farm rural enterprises. All of them will benefit from better business regulation and better infrastructure.

Energy Policies for Long-Term Growth

A rate of growth of about 8.2 per cent in GDP requires a growth rate of about 6 per cent in total energy use from all sources. Unfortunately, our capacity to expand domestic energy supplies to meet this demand is severely limited. We are not well-endowed with energy resources except for coal and the existence of policy distortions make management of demand and supply more difficult. Some of these problems have already been discussed earlier in this Chapter in connection with the immediate need to revive investor sentiment. There are also longer-term constraints that need to be addressed.

Coal Production

Coal is the most abundant primary energy source available in the country, but most of the country's coal resources are in forest areas, traditionally inhabited by our tribal population. Coal production for supply to third parties is nationalised but projects in some sectors are allowed to have captive coal mines. Coal India was not able to meet its coal production targets in the Eleventh Plan and, as pointed out earlier, domestic coal supplies are not assured for coal-based power projects coming on stream in the Twelfth Plan. It is absolutely essential to ensure that domestic production of coal increases from 540 million tonnes in 2011–12 to the target of 795 million tonnes at the end of the Plan. This increase of 255 million tonnes assumes an increase of 64 million tonnes of captive capacity with the rest being met by Coal India Limited. However, even with this increase, we will need to import 185 million tonnes of coal in 2016–17. Environmental and forest clearances of coal projects have presented problems. A special mechanism for inter-Ministerial coordination needs to be set up to accelerate processing of these projects in a time bound manner. Unless this is done, India's energy needs will be in jeopardy and investor sentiment will weaken irreversibly, at least for the duration of the Twelfth Plan. Taking a longerterm view, the policy of nationalisation of coal itself needs to be reviewed as was pointed out in the Eleventh Plan. If private sector producers are allowed in petroleum, which is a more valuable resource, there is no reason why they should not be allowed in coal. They are allowed to a small extent in the State of Meghalaya, which has private ownership of coal, because the tribal land there is not government land.

Petroleum Price Distortions

The petroleum sector suffers from a serious distortion in product prices which lead to huge under-recoveries and discourage private investment. Domestic prices for diesel charged by Oil Marketing Companies (OMCs) was 35.3 per cent lower than trade parity prices before the recent price adjustment. Prices for kerosene and LPG are 72.6 per cent and 53.6 per cent lower than they should be.

Continuation of these systems indefinitely, without provision of a budgetary subsidy, would seriously damage the petroleum industry, limiting its ability to invest in the discovery and development of new oil sources and discouraging all new private investment. If on the other hand, the gap is covered by a budgetary subsidy, it will impose an impossible burden on the budget, necessitating either a sharp cut in other government expenditures or a highly destabilising increase in the fiscal deficit. It is in this context that the diesel prices had to be raised to reduce the gap or a cap was placed on the number of subsidised cylinders. The Twelfth Plan must ensure a move to more rational petroleum product pricing, It may not be possible to remove all distortions immediately, but a phased price adjustment is needed that would reduce subsidy to manageable levels. As a general rule small increases in prices effected over time can help reduce the gap by manageable levels.

Natural Gas Pricing

Natural gas also faces problems of price misalignment. At present, the price of gas paid to domestic producers is \$4.25 per MMBtu, whereas the spot imported liquefied natural gas (LNG) price is around \$11–14 per MMBtu. Producers argue that unless they are assured of prices linked to world prices, no investment will take place in this sector. The government has appointed an expert committee under Dr. C. Rangarajan to advise on the form of NELP contracts. The Committee is expected to submit its report very shortly and it is hoped that it will recommend steps to introduce clarity about the policy regarding pricing of gas without which new investment may be inhibited.

Urbanisation

More effective management of the process of urbanisation in the country will be critical for more inclusive, more sustainable and faster economic growth. Urbanisation is a natural part of the development process because cities provide substantial economics of scale and of agglomeration. In India the cities are also effective drivers of inclusiveness because barriers of caste, creed, and language are bridged in interconnected efforts by residents to earn better livelihoods. At present, about 31 per cent of the population, that is, about 380 million, live in urban areas and this will increase to about 600 million by 2030. Providing reasonable quality services to the growing urban population presents a major challenge. Urban services are very poor, particularly sanitation, solid waste removal, water, roads and public transportation. Affordable, decent housing is woefully inadequate in all Indian cities, leading to the formation of slums, health and living conditions in which are aggravated by poor water and sanitation services.

The Jawaharlal Nehru National Urban Renewal Mission-II (JNNURM-II) was a landmark initiative because it put India's urban agenda centre stage. It set about providing resources to the States linked to incentives for reforms which would trigger to focus on improvements to cities and towns. The seven years' experience with JNNURM has been a substantial learning experience which has also revealed weaknesses in the governance systems and the capabilities of cities, States and even the Centre to manage the process of urbanisation. Urban governance is very weak, with poor coordination amongst the many agencies that must work together to create and maintain good functioning habitats. Personnel and institutional capabilities for urban management have to be developed on a massive scale across the country. Capabilities for planning locally are woefully inadequate, which is leading to projects not aligned with local priorities and poor coordination amongst separate initiatives.

Monitorable Targets for the Plan

The aspirations and challenges that guide the Twelfth Plan have been discussed in the body of this chapter. To focus the energies of the government and other stakeholders in development, it is desirable to identify monitorable indicators, which can be used to track the progress of our efforts. Given the complexity of the country and the development process, there are a very large number of targets that can and should be used. However, there is a core set of indicators which could form the objectives towards which all development partners can work, which includes not only the Central and State Governments, but also local governments, CSOs and international agencies.

Twenty-five core indicators that are listed below reflect the vision of rapid, sustainable and more inclusive growth:

Economic Growth

1. Real GDP Growth Rate of 8.2 per cent.
2. Agriculture Growth Rate of 4.0 per cent.
3. Manufacturing Growth Rate of 10.0 per cent.
4. Every State must have a higher average growth rate in the Twelfth Plan than that achieved in the Eleventh Plan.

Poverty and Employment

5. Head-count ratio of consumption poverty to be reduced by 10 percentage points over the preceding estimates by the end of Twelfth Five Year Plan.
6. Generate 50 million new work opportunities in the non-farm sector and provide skill certification to equivalent numbers during the Twelfth Five Year Plan.

Education

7. Mean Years of Schooling to increase to seven years by the end of Twelfth Five Year Plan.
8. Enhance access to higher education by creating two million additional seats for each age cohort aligned to the skill needs of the economy.
9. Eliminate gender and social gap in school enrolment (that is, between girls and boys, and between SCs, STs, Muslims and the rest of the population) by the end of Twelfth Five Year Plan.

Health

10. Reduce IMR to 25 and MMR to 1 per 1000 live births, and improve Child Sex Ratio (0–6 years) to 950 by the end of the Twelfth Five Year Plan.
11. Reduce Total Fertility Rate to 2.1 by the end of Twelfth Five Year Plan.
12. Reduce under-nutrition among children aged 0–3 years to half of the NFHS-3 levels by the end of Twelfth Five Year Plan.

Infrastructure, Including Rural Infrastructure

13. Increase investment in infrastructure as a percentage of GDP to 9 per cent by the end of Twelfth Five Year Plan.
14. Increase the Gross Irrigated Area from 90 million hectare to 103 million hectare by the end of Twelfth Five Year Plan.
15. Provide electricity to all villages and reduce AT&C losses to 20 per cent by the end of Twelfth Five Year Plan.
16. Connect all villages with all-weather roads by the end of Twelfth Five Year Plan.
17. Upgrade national and state highways to the minimum two-lane standard by the end of Twelfth Five Year Plan.
18. Complete Eastern and Western Dedicated Freight Corridors by the end of Twelfth Five Year Plan.
19. Increase rural tele-density to 70 per cent by the end of Twelfth Five Year Plan.
20. Ensure 50 per cent of rural population has access to 55 LPCD piped drinking water supply and 50 per cent of gram panchayats achieve the Nirmal Gram Status by the end of Twelfth Five Year Plan.

Environment and Sustainability

21. Increase green cover (as measured by satellite imagery) by 1 million hectare every year during the Twelfth Five Year Plan.
22. Add 30000 MW of renewable energy capacity in the Twelfth Plan.
23. Reduce emission intensity of GDP in line with the target of 20 per cent to 25 per cent reduction by 2020 over 2005 levels.

Service Delivery

24. Provide access to banking services to 90 per cent Indian households by the end of Twelfth Five Year Plan.
25. Major subsidies and welfare related beneficiary payments to be shifted to a direct cash transfer by the end of the Twelfth Plan, using the Aadhar platform with linked bank accounts.

States are encouraged to set state-specific targets corresponding to the above, taking account of what is the reasonable degree of progress given the initial position. Sector-wise growth targets for each State are given in Chapter 11.