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Let noble t<mark>houghts come to us from</mark> every side Rig Veda

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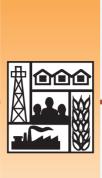
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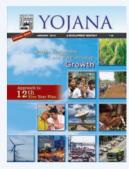


YOJANA-

About the Issue

The Draft Approach to the 12th Five Year Plan (2012-2017) has been approved by the National Development Council. The theme of the Approach Paper is "faster, sustainable and more inclusive growth". The document was prepared by the Planning Commission after wide ranging consultations with the states, various stakeholders, economists, web based interactions and in-house discussions.

The Approach Paper lays down the major targets of the Twelfth Plan, the key challenges in meeting them and the broad approach to be followed to achieve the stated objectives. It proposes a growth target of 9 percent. However in view of the uncertainties in the global economy, and challenges in the domestic economy, achieving the growth rate of 9 percent may not be feasible unless difficult decisions are taken.



Emphasis is on inclusive development which focuses on agriculture and crucial social sectors including education, health, women and children. There is also an emphasis on strengthening institutions and delivery mechanisms that takes the benefits of high growth to the poor.

On the agricultural front, the Approach emphasizes the need to intensify its efforts to have 4 percent average growth in agriculture sector during the 12th Plan period from 3.2 percent growth in the first four years of the 11th Plan. Higher agricultural growth would provide broad-based income benefits to the rural population and also help restrain inflationary pressure. The Paper also draws attention to evolving a holistic water management policy aiming at more efficient conservation of water and also in water use efficiency particularly in the field of agriculture.

The major flagship programmes instrumental in promoting inclusiveness in the Eleventh Plan, would continue in the Twelfth Plan with greater focus on issues of implementation and governance to improve their effectiveness. Health, education and skill development continues to be focus areas in the Twelfth Plan and ensuring adequate resources to these sectors. The Approach also emphasizes the need to harness private sector investment in these sectors. Allocation in the health sector is all set to double with the High Level Expert Group on Universal Health Coverage recommending an increase on health spending to 2.5 percent of the GDP in the Plan period from the current level of 1.2 percent of GDP.

In order to meet the ambitious growth rate, meeting the energy requirement will be a major challenge. Since domestic energy supplies are limited, dependence on imports will increase. There is therefore a greater need to redouble efforts to increase the domestic supply of energy and reduce energy intensity of production processes. The Approach Paper also recognizes that achieving 9 percent growth will require investments in infrastructure sector development. In order to address issues of infrastructure shortages, greater thrust on public investment and public private partnerships in infrastructure sector would be required.

The Approach Paper notes that as resources are limited there is a need for prioritization, and some priority areas like health, education and infrastructure will have to funded more than others. Available resources should also be efficiently used. The Paper makes several suggestions on giving implementing agencies greater amount of freedom, flexibility, promoting convergence between resources from different plan schemes and the need for greater attention to capacity building, monitoring and accountability.

This issue of Yojana has write-ups on a wide range of issues concerning the Approach Paper to the Twelfth Five Year Plan from those involved in the planning process, experts and academicians.

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PM's ADDRESS

Towards Rapid, Inclusive and Sustainable Growth



Our aim has always
been inclusive
growth, by which
we mean growth
which ensures
a broad spread
of benefits to all
sections of our
population

he Approach Paper outlines the challenges we face in achieving our goal of rapid, inclusive and sustainable growth over the next five years. As we chart our course for the 12th Plan, we must take note of what is happening in the world economy, and in our neighbourhood and shape our policies accordingly. The world is going through a major realignment of economic power. Industrialised countries are slowing down, emerging market economies are gaining weight and regionally, Asia is gaining weight. As an emerging market economy in Asia, we stand to gain on both counts. Our policies in the 12th five year Plan must therefore be shaped to take full advantage of these emerging possibilities.

As planners, we need to ask what government should do to achieve our social and economic objectives? Much of the growth process is now driven by actors outside the direct control of government. This includes small and big farmers, small and medium entrepreneurs and of course the private corporate sector, all of whom respond to

market forces. This, however, does not mean that government has no role to play in the development process. It has a very large role and I would distinguish four areas in this context.

First, government must provide a policy environment in which the creative spirit of our farmers and entrepreneurs is given full support and encouragement. This includes an environment of macro-economic stability, efficient functioning markets which ensure competitive discipline on private sector producers, a sound financial system for allocating financial resources, good governance with transparency and effective enforcement of the rule of law.

Second, the government has a very big role to play in developing the infrastructure needed in both rural and urban areas to support broad and inclusive growth.

Third, the government must have special programmes for livelihood support for the poor and vulnerable, aimed at directly increasing their income earning capabilities and at mainstreaming them in the overall growth process.

YOJANA January 2012 5

Fourth, government must ensure that every citizen must have access to essential public services of acceptable quality in health, education, skill development, provision of safe drinking water and sanitation. Without such services, effective inclusion is simply not possible.

The Approach paper proposes a growth target of 9 percent per year. It is relevant to ask whether this is feasible since the economy is currently slowing down. The current slowdown is a matter of concern, but it should be seen as a short term phenomenon, reflecting highly unsettled conditions in the global economy. Growth rates are being revised downwards in all countries for the current year.

We must guard against the mood of negativism that seems to have gripped the country. Recently a distinguished business leader said that in India "the business is better than the mood". Investment is, after all, a reflection of the 'animal spirits' of enterprise. As we in government seek to create the foundations for higher investment, higher employment and growth, we must be particularly mindful of the impact of our policies and politics on public and private investor sentiment.

In setting targets for the Twelfth Plan we must look at longer term potential, assuming that the immediate short term problems will be overcome. I have absolutely no doubt that our country's longer term prospects are very good. Twenty years ago, in my first Budget speech as Finance Minister, borrowing a phrase from Victor Hugo, I had said, "No power on earth can stop an idea whose time has come". I went on to say that "the emergence of India as a major economic power in the world happens to be one such idea".

I am happy to say that in the past two decades, different political

parties, ruling in different times in different States, and also in the Centre, have pushed in the same general direction to ensure that my prediction is now a widely accepted reality. In the seven years since the UPA government first came to power in 2004, the economy has grown at an average rate of 8.5 percent. India is now regarded one of the fastest growing emerging markets. What is particularly encouraging is that many states, including some that grew relatively slowly in earlier years, have shown an acceleration in growth performance. I congratulate the Chief Ministers of all these States. If each of our States adopts the 'national best practice', if not 'global best practice', our nation as a whole will benefit enormously.

Of course, growth has never been our sole objective. Our aim has always been inclusive growth, by which we mean growth which ensures a broad spread of benefits to all sections of our population, particularly the Scheduled Castes, the Scheduled Tribes, the Other Backward Castes and other marginalised groups and also protects the environment. A criticism often advanced is that while we have delivered high growth, we have not done nearly as well on inclusiveness. I believe there is some truth in this criticism. in the sense that we should have done better. However, it is not true to say that progress on this front has not been significant.

An important aspect of our performance which is relevant for inclusiveness is that agricultural growth, which had decelerated to an average 2.2 percent per year in the Tenth Plan, is likely to clock an average 3.5 percent in the Eleventh Five Year Plan. This distinct improvement testifies to the success of many efforts made by the Central and State Governments in this area. Faster agricultural growth, combined with the implementation of MGNREGA, has produced an

impressive increase in rural wages in real terms.

Education and health have been critical focus areas in our inclusiveness strategy and there is encouraging news in these areas. The Right to Education Act is now on the statute books. Enrollment of children in primary schools is near universal. Dropout rates are high, but they are falling. There remains a gap between Scheduled Castes, Scheduled Tribes and the rest of the population, which must be eliminated, but this gap is progressively becoming narrower. The gap between girls and boys is also falling. As we strive to reduce these gaps further, we must now address the next big challenge which is to improve the quality of education, and the employability of the educated.

The National Rural Health Mission, which took off only in 2007, has begun to address the large gaps in health infrastructure. Much remains to be done but there is evidence of progress. Institutional deliveries have increased from 54 percent in 2006 to 73 percent in 2009. The infant mortality rate has fallen from 57 to 50, over the same period. A major initiative in health for the poor has been the Rashtriya Swasthya Bima Yojana, which now provides an insurance cover for inpatient treatment to well over 100 million people. We must build on this experiment to move towards a system of universal health coverage in the Twelfth Five Year Plan.

Improving infrastructure in both rural and urban areas is critical for inclusive growth. The Bharat Nirman programme, which focussed on rural infrastructure development, has channelled substantial volumes of resources into rural roads, rural electrification, irrigation, rural drinking water and rural housing. This effort will have to continue. Special efforts will be necessary to control degradation of our land and water resources which adversely

affects the livelihood of millions of small and marginal farmers who live on the edge of subsistence.

General infrastructure development of the economy is also critical. Both the public sector and the private sector can play a major role, with public investment concentrating on areas where the private sector is unlikely to go. I am happy to say that both the Central Government and State Governments have successfully implemented many Public Private Partnership projects in infrastructure in the Eleventh Five Year Plan. A recent international report has ranked India second in the number of PPP projects taken up.

The Eleventh Plan, for the first time, presented an infrastructure plan for the North East. It has made a good start and we must continue this thrust in the Twelfth Five Year Plan. The special requirements of Jammu & Kashmir have also to be factored in our plan calculus. The tribal dominated districts in the heartland of the country, which are the focus of left wing extremism, also need a better infrastructure, particularly roads. This is essential for their development and we must give special emphasis to this task.

In many of these areas it is the State Governments that have the major implementing role. The Central Government can only provide support through Centrally Sponsored Schemes. I am aware that there are complaints about the proliferation of these schemes and the lack of flexibility in their guidelines. The Twelfth Plan provides an opportunity to streamline and restructure Centrally Sponsored Schemes to overcome these gaps. The Planning Commission had appointed the B.K. Chaturvedi Committee to look into these issues and the Report of the Committee has been circulated to all Chief Ministers.

Let me also touch on the complex issue of the interaction between politics and development policies. Managing this interaction effectively is crucial if India is to achieve her full development potential.

Our democracy, our civil society and our free Press, all face a revolution of rising expectations. This is to some extent caused by the visible success achieved in some areas, which has made people realise what is possible and therefore, they demand a fair share of benefits in terms of the new opportunities created. The fact that we are a functioning democracy, in which vast numbers of our people participate and have a voice, magnifies the phenomenon.

I believe we should be proud of the way our democracy forces the government to address these problems. But it is also true that this tidal wave of rising expectations puts tremendous pressure on our institutions. Since democracy is a politically competitive process, political parties naturally give voice to the demands of the people. But development also requires time and patience for policies to have an impact. It also requires cooperation.

Elected governments can deliver only if, once elections are over and a government is formed, the political process works to allow governments to function in a manner where the needs of long term development do not become hostage to short term concerns. What this means is that Parliamentary Parties have to strike a difficult balance between maintaining adversarial political positions on many issues, while also co-operating to advance a shared longer term national agenda. This balance is not easy to strike.

At times like these, it is of vital importance that each of our democratic institutions – the Executive, the Judiciary, the Parliament and State Legislatures,

the various constitutional and regulatory authorities, understand what their due role is, and play that due role in a constructive manner.

It is our collective responsibility to reverse the mood of negativism today. The future is what we make of it. Nothing is ordained or predetermined. India can rise, but India can also falter. We live in a world of rising and faltering economies. We can either become victims of negativism, criticising ourselves all the way, or work together to put ourselves firmly in the group of rising economies.

I am confident that we can overcome the challenges we confront. But, I also realise that to do so we must first understand the enormity of the change underway globally and the challenge this poses for us. I urge you, Honourable Chief Ministers, to work together with the Central government to help accelerate the pace of growth and improve the quality of development of our people. Let us dedicate ourselves to implementing the 12th Plan in this spirit of nation building.

The world is watching India with great interest. I also believe it is watching us with great good will. The world has a stake in India's success because a peaceful prosperous democratic India is a stabilising force in the world. Let us therefore embark on the Twelfth Five Year Plan journey with ambition tempered with humility and confidence, combined with determination. Let us show the world that democratic India is capable of building a prosperous, inclusive, secular and plural nation on the path of sustainable growth. The world has a great stake in the success of this Indian model of development.

(Prime Minister's Address at the 56th National Development Council Meeting held on 22nd October 2011.)



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YE-234/2012

Prospects and Policy Challenges in the Twelfth Plan

Montek S Ahluwalia



A much broader
effort at "systemic
reform" was
initiated in 1991,
based on a wider
play of market
forces, gradual
liberalisation of the
financial sector,
and opening of the
economy to world
trade and capital
flows

HE INDIAN economy will enter the Twelfth Plan period in an environment of great promise, but the next five years will also be a period of major challenges. The economy has done well on the growth front during the Eleventh Plan, but, going by the information that is at least currently available, not so well on inclusion.

Much of what needs to be done to accelerate GDP growth during the Twelfth Plan will be done by the private sector, but the central and state governments have a crucial role to play in providing a policy environment that is seen as investor-friendly and is supportive of inclusive growth. Four critical challenges facing the economy in the Twelfth Plan, which are perhaps more serious than they were at the start of the Eleventh Plan, are those of (a) managing the energy situation, (b) managing the water economy, (c) addressing the problems posed by the urban transformation that is likely to occur, and (d) ensuring protection of the environment in a manner that can facilitate rapid growth. In addition, the efficiency in implementation of projects on the ground needs to be greatly improved.

1. Review of Recent Performance

The Eleventh Plan aimed at delivering faster and more inclusive growth and it is logical to assess performance against this dual objective. Growth and inclusiveness were presented as coequal objectives in recognition of the fact that GDP growth can never be an end in itself. However, faster growth, especially of a particular type, accompanied by economic and social support programmes, which are themselves made more feasible by high growth and buoyant revenues, can bring about an improvement in incomes and living standards for the bulk of the population, which is the end objective.

India's Growth Performance

There is no doubt that the economy has done very well on

The author is Deputy Chairman, Planning Commission, New Delhi.

the growth front, and this is best appreciated when viewed in a longterm perspective. For two decades in the 1960s and 1970s, India's GDP growth rate averaged only 3.5 percent per year at a time when other developing countries were growing much faster. The 1980s saw the beginning of a reorientation of policies to achieve higher growth and indeed growth accelerated to 5.6 percent in that decade. A much broader effort at "systemic reform" was initiated in 1991, based on a wider play of market forces, gradual liberalisation of the financial sector, and opening of the economy to world trade and capital flows. The growth rate of the economy accelerated significantly in the first half of the 1990s, but then slowed down in the second half, averaging 5.7 percent over the decade as a whole, which was not very different from that in the 1980s.

India's performance improved significantly in the first decade of the 2000s, spurred by favourable global conditions and the cumulative effect of the systemic reforms initiated in 1991. The Tenth Plan (2002-03 to 2006-07) had targeted a growth rate of 8 percent and achieved an average growth rate of 7.8 percent. The Eleventh Plan (2007-08 to 2011-12) aimed at 9 percent growth and as shown in Table 1. the economy achieved 9.3 percent growth in the first year, but this momentum was interrupted by the global financial crisis of 2008 when GDP growth dropped to 6.8 percent for the year 2008-09. However, thanks to contra-cyclical stimulus measures, the economy recovered quickly to record 8 percent and 8.6 percent growth, respectively, in the next two years. Growth in 2011-12 was initially projected at 9 percent in the central government budget but is likely to be lower at around 8.5 percent. Even so, the average for the Eleventh Plan would be 8.2

percent, a remarkable performance considering that this period saw the greatest economic crisis the world has faced since the Great Depression.

Improved economic performance has dramatically altered global perceptions of India's potential. An early recognition of this was a Gold man Sachs report of November 2002, which included India, with Brazil, Russia and China in a new BRIC group of emerging market countries which was predicted to overtake the G-8 in terms of total GDP by 2035. Continued strong performance in the decade of the 2000s and resilience in the face of a global slowdown, has reinforced this positive assessment. The

general perception today is that India may now be on the path of sustained high growth based on high rates of domestic savings, high quality of entrepreneurial and managerial skills, and the cumulative effect of economic reforms on productivity. Similar transitions have been achieved by the other Asian countries such as Japan, Korea, Taiwan, and most recently China, and it is felt that India may also now be in the same position.

Performance on Inclusiveness

It is more difficult to assess performance on inclusiveness than on growth for three reasons. First, inclusiveness is a multidimensional concept and progress therefore

	Table 1: Macroeconomic Balance						
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1	Rate of growth of GDP	9.5	9.6	9.3	6.8	8.0	8.6
2	Rate of inflation % (average over previous year)						
	• WPI	4.4	6.5	4.8	8.0	3.6	8.2
	• GDP deflator	4.2	6.4	5.8	6.7	7.5	9.6
	• CPI (IW)	4.4	6.7	6.2	9.1	12.4	10.0
3	Fiscal deficit (% GDP)	3.97	3.32	2.55	6.04	6.39	5.1
	• Centre						
	• States	2.33	1.82	1.49	2.40	3.00	2.62
	• Combined	6.30	5.14	4.04	8.44	9.39	7.72
4	Current account deficit (% GDP)	-1.2	-1.0	-1.3	-2.3	-2.8	2.5*
5	Foreign direct investment inflows (\$ billion)	8.96	22.83	34.84	35.18	37.18	24.0
6	Foreign portfolio investment inflows (\$ billion)	12.49	7.00	27.27	-13.86	32.38	35.0*

^{*} Advance Estimates.

needs to be assessed in many different dimensions. Second, the data relating to various aspects of inclusiveness become available only after a considerable lag, and information for the Eleventh Plan period is often not available. Third, most policies aimed at inclusiveness have an impact only over a relatively long term, and this means that even when policies are moving in the right direction, the results may only be evident much later. For example, steps taken to improve education for the poor will improve their earning ability in future, but this impact will only be reflected in actual income earning much later.

Multidimensionality of Inclusion

The multidimensional nature of inclusiveness is best illustrated by listing some of the many dimensions that are relevant. The extent of reduction in the percentage of the population below the poverty line is clearly a very important indicator of progress. However, many families that are above the poverty line in terms of per capita consumption may lack access to basic services such as education, health, clean drinking water and sanitation. Inclusiveness must obviously include progress in delivery of these essential services. Inclusiveness must also extend to addressing concerns about inequality. It is sometimes argued that inequality should not matter as long as the poor are getting better off and it is probably true that a rapid rate of improvement in incomes for the poor may make them willing to accept some increase in inequality. However, large increases in inequality, accompanying only modest improvements in the levels of living of the poor, are unlikely to be acceptable. Inequality in this context relates not only to the distribution of income or consumption across individuals, but also inequality across states, and in some cases, even across regions within states.

Inclusiveness in the Indian context also requires a special focus on particular social groups such as the scheduled castes (SC) and scheduled tribes (ST), and also the minorities. Since these groups are concentrated in the lower ranges of the income distribution, it may be thought that an effective strategy for reducing poverty or inequality addresses the concerns of these groups. However, if inclusiveness is defined as bringing these groups at par with the rest of the population, it has to address the issue of achieving a fair representation for these groups along the entire income distribution. This is conceptually very different from reduction in overall poverty or inequality, in the sense that it can be achieved leaving the incidence of poverty and the level of inequality unchanged. The Eleventh Plan explicitly recognised the multidimensional nature of inclusiveness by enumerating 27 monitorable targets of which GDP growth was only one. The others focused on different aspects of inclusion such as growth in agriculture, reduction in poverty, growth of employment opportunities, etc. One consequence of multidimensionality is that the extent of progress in different dimensions will vary. For example, it is perfectly possible for poverty to decline while inequality increases. Similarly, inequality among households in the country as a whole may decrease, or remain unchanged, while inequality across states increases. Any overall assessment of progress on inclusiveness will

have to be based on a composite view of all these developments.

Both the extent of poverty and the lack of access to essential services remain serious problems. However on the positive side, there is steady improvement in many areas and if the rate of improvement observed in the period for which data are available has continued - and there is every reason to think it would have - the current situation may be significantly better than what the latest data suggest. Nevertheless, it cannot be denied that we have seen slower progress in ensuring inclusion than on accelerating growth and this contrast feeds the public perception that rapid growth has only led to a concentration of income and wealth at the upper end.

The perception of concentration of wealth and widening disparities is sharpened by the tendency of the media, including especially the electronic media which now has very wide reach, to publicise success at the top end, including the conspicuous consumption with which it is often associated, while simultaneously focusing attention on the depth of poverty at the other end. Both extremes are understandably viewed as newsworthy, but in focusing disproportionately on them, the steady improvement in living standards of the very substantial population in the middle, and the associated rise of a growing middle class receives much less attention than it should. And yet this not only represents an important welfare gain, but also an important social development, with potentially large positive effects in terms of expectations, values and a rising demand for better and more accountable government.

Inflation and Macro Balance

A weak spot of recent economic performance, which is relevant for both growth and inclusiveness, is the build-up of inflationary pressure over the past three years. A modest rate of inflation is tolerable, and may even be necessary to accommodate relative price changes that have become unavoidable. However inflation beyond this tolerable level – usually put at 5 percent to 6 percent by the government and 4 percent to 5 percent by the Reserve Bank of India (RBI) - is regressive and also distortionary, damaging both inclusion and growth. Inflation has been well above this level in the past two years and while India is not the only emerging market country experiencing this problem - the resurgence of inflation is a concern in most emerging markets - the rate of inflation in India has been higher than in most other countries.

Table 1 presents alternative measures of inflation since 2005-06. The GDP deflator is perhaps the best measure of overall inflation and the average inflation rate on this measure has averaged about 7.4 percent in the first four years of the Eleventh Plan whereas it averaged at 5.3 percent in the Tenth Plan. High rates of inflation in food prices, especially vegetables, fruits, milk, eggs, etc, have been a matter of special concern, and this is reflected in double digit rates of inflation as measured by the Consumer Price Index (CPI) in the past two years. Inflationary pressure in India has been variously attributed to (a) the rise in global prices of crude oil, foodgrains and metals, (b) domestic supply constraints in the food economy other than foodgrains, and (c) overheating caused by the fiscal expansion initiated in response to

the global crisis. All these factors have probably been at work, but whatever the specific factors that triggered the inflationary upsurge, once inflation becomes broad based – and that seems to be happening – it becomes a macroeconomic phenomenon, and must be tackled through a suitable combination of fiscal and monetary policy combined with efforts to remove specific supply constraints which are identifiable.

Monetary policy is the traditional instrument for dealing with overall inflation, and it has been tightened gradually, but it can be effective only if it is supported by appropriate fiscal policy. As shown in Table 1, fiscal stimulus policies led to the fiscal deficit of the centre and the states taken together increasing from 4 percent of GDP in 2007-08 to 9.4 percent in 2009-10. While the stimulus succeeded in countering the effects of the recession, it has clearly raised the fiscal deficit to an unsustainable level. A process of correction was initiated in 2010 and the combined fiscal deficit was reduced from 9 percent in 2009-10 to 7.7 percent in 2010-11. These policies will need to be pursued further to bring the fiscal deficit back to pre-crisis levels.

2. Growth Prospects for the Twelfth Plan

This section presents a macrolevel assessment of the prospects for rapid growth in India. In making such an assessment, it is important to avoid the complacent view that since growth has been accelerating it will continue to remain high, as long as the policies which generated this growth in the past continue. This approach is overly simplistic because there are examples of countries that grew rapidly for a while and then slowed down. This can happen for two reasons. First, the economy may come up against new internal constraints, themselves often emerging from structural changes produced by rapid growth. Continuing the old policies without addressing these constraints is not enough in these circumstances. Second, the external environment may have changed, necessitating a different approach.

Demand-side Constraints on Growth

The most important demandside constraint on future growth arises from the change in the global environment in the post- crisis period, whereby the industrialised countries are expected to grow more slowly. The pace at which exports can increase to the US and Europe will therefore be lower. It is often pointed out that although India has become a more open economy in the post-reform period. It is still less dependent on export demand than other emerging market countries, and its growth prospects should therefore be less affected. Nevertheless, it is relevant to ask how India can actually expect to grow faster in an environment in which export demand will be weaker.

One part of the answer is that even if export demand from industrialised countries is weaker, many emerging market countries are projected to grow more rapidly, and our export performance could be improved by targeting the faster growing markets. It is sometimes argued that India is much more dependent on domestic demand and in this context domestic consumption can be a strong driver of growth in India. This particular argument ignores the fact that since savings ratios are projected to increase - and indeed this is often listed as one of India's strong fundamentals – consumption is not expected to grow faster than GDP. The real solution to the demand deficiency resulting from slower growth of exports lies in ensuring higher levels of domestic investment, particularly investment in infrastructure. Poor infrastructure is a critical weakness in India and an expanded investment programme in this area will not only bolster demand in the short run, it will also increase competitiveness and thereby boost the supply-side of growth in the medium run.

Higher levels of investment in an environment where export growth may be subdued may lead to a widening of the deficit in the balance of payments and this strategy therefore depends critically upon our ability to finance the higher deficit. Traditionally, we have viewed current account deficits of around 2 percent of GDP as comfortable. As shown in Table 1, the current account deficit in 2010-11 was already around 2.5 percent of GDP. An aggressive effort to push investment could take the current account deficit to say around 3 percent of GDP for some years. The key issue therefore is whether a deficit of this order can be financed through long-term capital flows, including especially FDI. It can be argued that India has only recently begun to attract global capital and given the size of the economy, and its perceived high growth potential, it will remain an attractive investment destination as long as policy towards investment in general and FDI in particular is seen to be supportive and the macroeconomic environment is judged to be sound.

This positive assessment needs to be qualified by noting that the external environment is vulnerable to growing concern about the fiscal situation in some industrialised countries. Worries about fiscal unsustainability, especially in the US, could lead to higher long-term interest rates globally and also greater volatility in capital flows to emerging markets. However, India's relative attractiveness as an investment destination could offset this effect if the policy environment is viewed as macroeconomically sound and investor-friendly.

Supply-side Constraints on Growth

Supply-side constraints on India's growth potential at the macro level are best examined using the traditional growth accounting framework which explains growth of GDP in terms of growth of capital and labour inputs and the growth of total factor productivity. There are good reasons to be optimistic on all three counts.

Growth of Capital

The growth of capital inputs depends on the rate of investment, which in turn depends on the investment climate and the scope for financing the investment from domestic savings and foreign capital inflows. Although a great deal of attention is rightly focused on the financing constraint, we need to keep in mind that in a dominantly private sector led development process, a favourable investment climate is an essential precondition for potential investors to undertake new investment or expand capacity. One can envisage a situation in which resources to finance investment are available. but investment does not take place simply because entrepreneurs do not find investment opportunities attractive, i e, "animal spirits" are missing.

Private investment in India was very buoyant prior to the crisis. As

shown in Table 2, private corporate fixed capital formation increased from 9.1 percent of GDP in 2004-05 to a peak of 14.3 percent in 2007-08 just before the crisis. Thereafter, it declined to 10.4 percent in 2008-09, and was only slightly higher at 10.8 percent in 2009-10. Data for 2010-11 are not yet available, but this percentage is likely to have increased further, though not back to the previous peak.

The decline in private corporate fixed investment after 2008-09 has been partly offset by higher investment by the household sector and by the public sector. As a result, gross fixed capital formation (GFCF) in the household, private corporate and public sector combined increased from 28.7 percent of GDP in 2004-05 to a peak of 33 percent in 2007-08 after which it fell to 32 percent in 2008-09 and declined further to 30.8 percent in 2009-10.

It is difficult to predict what will happen to private investment in the short run. However, allowing for a continuing recovery in fixed investment from the post-crisis trough, we could end the Eleventh Plan with GFCF somewhere around 33 percent of GDP. Allowing for some further increase in the Twelfth Plan period, including especially a return of private corporate investment to the peak level observed in 2007-08 and some improvement beyond that level, the average rate of GFCF in the Twelfth Five-Year Plan could be around 36 percent, which should suffice to generate sustained GDP growth of 9 percent per year. The gross domestic capital formation rate consistent with this projection is around 40 percent of GDP.

The ability to finance this level of capital formation depends largely on what happens to domestic savings and foreign capital inflows. Prospects on both fronts are

positive. As shown in Table 2, the average gross domestic savings rate increased to a peak of 36.9 percent in 2007-08, declining thereafter to 32.2 percent in the crisis year 2008-09. The deterioration of 4.7 percentage points of GDP is very largely accounted for by the deterioration of as much as 3.8 percentage points in government savings, reflecting the fact that the contra-cyclical expansion in India was largely on account of an increase in subsidies because petroleum and fertiliser prices were not adjusted.

The savings rate recovered to 33.7percent in 2009-10 reflecting an improvement in all categories, including government administration, though the public sector enterprises savings rate continued to be low. With further improvement expected in 2010-11, and hopefully also in 2011-12, as fiscal consolidation takes hold we could end the Eleventh Plan with a gross domestic savings rate of around 35 percent. Allowing for some further improvement during the Twelfth Plan, particularly in government savings, we can reasonably plan for an average saving rate in the Twelfth Plan period of around 37 percent. This together with a current account deficit of around 3 percent of GDP should be able to finance a gross capital gormation rate of around 40 percent.

The macroeconomic parameters presented above are tentative at this stage, and their internal consistency will be more rigorously tested through various models used by the Planning Commission in the formulation of the Twelfth Five-Year Plan. However, they do suggest that with some effort, there is scope for increasing both domestic savings and investment to levels broadly consistent with 9 percent growth, or even a little more.

Labour Inputs

Labour supply prospects are also favourable for high growth. It is well known that the working age population in India is expected to increase over the next 20 years, whereas in the industrialised countries, and also in China, it will be going down. While this is sometimes presented as a potential demographic dividend, it is worth cautioning that a growing workforce is an advantage only if (a) sufficient investment is taking place to generate the GDP growth needed to absorb labour productively, and (b) if the education and skill level imparted to the new entrants is consistent with employability. In the absence of these two conditions, a growing number of young entrants

to the labour force could as easily be a recipe for unemployment and consequent unrest. The prospects for achieving a high level of investment are good, for the reasons outlined above. The task of ensuring that the new entrants to the labour force have employable skills is more challenging.

Table 3 presents data on the mean years of schooling for the population over 15 years for India and for selected comparator countries.

Mean years of schooling in India increased from 3.45 in 1990 to 4.20 in 2000 and 5.12 in 2010. This compares with 5.62 in China in 1990, 7.11 in 2000 and 8.17 in 2010. India clearly lags significantly behind China in terms of the average

Table 2 : Savings and Investment						
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
1 Gross domestic saving (% GDP) of which:	32.4	33.5	34.6	36.9	32.2	33.7
Household sector 10.1	11.9	11.3	11.7	10.8	11.8	
Private corporate sector	6.6	7.5	7.9	9.4	7.9	8.1
Government administration	-2.3	-2.1	-1.0	0.5	-3.3	-1.2
Public enterprises	4.6	4.5	4.6	4.5	4.0	3.4
2 Gross domestic capital formation (% GDP)	32.5	34.3	35.9	38	35.4	35.8
3 Gross fixed capital formation (% GDP) of which:	28.7	30.3	31.3	32.9	32.0	30.8
Household sector	12.7	11.2	10.9	10.6	13.1	11.5
Private corporate sector	9.1	11.8	12.5	14.3	10.4	10.8
Public sector	6.9	7.4	7.9	8.1	8.6	8.4

Source: Central Statistical Organisation, Ministry of Statistics + Programme Implementation.

education level of the labour force. However, India's position today is roughly comparable to China's in the 1985, and starting from that position, China achieved an average growth of GDP over 10 percent per annum for 30 years. There is no reason why India cannot do the same, especially because efforts to expand enrolment and reduce dropout rates over the past several years will ensure that the quality of the new addition to the labour force will be much higher than the present average.

The Eleventh Plan period saw several important initiatives including near universalisation of primary education, the passage of the Right to Education Act, the initiation of a massive programme for expansion in secondary education, combined with several

Table 3: Mean Years of Schooling (Population aged 15 and over)

(1 opulation aged 13 and over)				
	Mean Years of Schooling			
India				
1990	3.45			
2000	4.20			
2010	5.12			
China				
1990	5.62			
2000	7.11			
2010	8.17			
Indonesia				
1990	4.25			
2000	5.23			
2010	6.24			
Thailand				
1990	5.41			
2000	6.11			
2010	7.50			

Source: Barro and Lee (2010), "A New Data Set of Education and Attainment in the World, 1950-2010", NBER Working Paper No 15902.

steps in higher education. The Eleventh Plan placed considerable emphasis on quantitative expansion to improve access and this will have to continue in the Twelfth Plan. In addition, greater emphasis will have to be placed on quality. Initiatives in these areas have to be taken by the centre and states and also by the private sector.

Skill development has been neglected in the past and needs much faster expansion. Over 90 percent of our labour force at present has received no formal training prior to employment and skills are typically acquired only on the job. This is simply not consistent with 9 percent growth in GDP per year in an increasingly modernising economy. The Eleventh Plan had set a target of having 500 million individuals in the labour force with some formal training by 2020. Several initiatives have been launched in pursuit of this objective, including the establishment of a National Skill Development Council under the chairmanship of the prime minister, with parallel state level councils chaired by the chief ministers. A Skill Development Corporation has been established with government funding to support private sectorled skill development initiative. Involving the private sector in skill development is extremely important as it increases the likelihood that the skills imparted are marketable.

Factor Productivity Growth

It is well recognised that a high rate of growth of GDP requires not only rapid growth of primary inputs such as capital and labour, but also high rates of total factor productivity growth (TFPG). TFPG itself is a combination of pure technical progress and the ability to utilise factors more efficiently, the

latter often being made possible by economic and institutional reforms which enhance productivity.

Much of the rationale of the reform agenda pursued since 1991 was that it will enable realisation of higher TFPG.

Studies of TFPG focusing on the manufacturing sector alone have vielded mixed results. Early studies focusing on the 1990s found a slowdown in TFPG compared to the previous decade, e g, Das (2004), Balakrishnan et al (2000), or near constancy in TFPG, as reported by Goldar (2004). In a more recent paper Hashim and Virmani (2011) have asserted a J curve phenomenon, in which TFPG first declines but then rises, with a considerable further potential for high TFPG growth, conditional on additional reforms being implemented. Studies of TFPG at the aggregative level of the economy as a whole have been generally more positive. Virmani (2006) estimates that whereas TFPG contributed only 0.1 percentage points to the annual growth rate in the period 1965-66 to 1979-80, this increased to 2.9 percent in the period 1980-81 to 1991-92 and finally to 3.6 percent in the period 1992-93 to 2003-04. Bhalla (2011) has estimated TFP growth for the period 1985-2003 to be at 3 percent, increasing to 3.7 percent for the period 2003-10.

These results are subject to all the usual caveats associated with estimations of TFP growth – and there are many – reflecting concerns about data and also model specification. However, the studies, especially at the aggregate economy level, do suggest that the economic reforms initiated in 1991 have increased the growth potential of

the economy by increasing the level of TFPG. The critical issue, looking ahead, is whether we can count on continuing high rate of tfpg. In this context it is worth noting that high TFPG rates in the early stages of economic reform reflect not only pure productivity growth but also the fact that the economy is moving from a position well inside the production possibility frontier to a position closer to the frontier. The contribution of the latter is obviously large initially but moderation in TFPG should be expected over time as the economy moves closer to the frontier. However, India is still at an early stage of the transition, with considerable scope for exploiting potential total factor productivity gains, provided economic reforms are systematically pursued and deepened.

3. Some Critical Policy Challenges

Favourable macro factors are important, but they can at best create an enabling environment that needs to be supported by specific policy initiatives in a number of areas. A comprehensive analysis of these issues is beyond the scope of this paper although it will be part of the process for formulating the Twelfth Plan. What is attempted in this section is the identification of some of the critical sectoral and policy issues that will need to be addressed if growth is to be pushed to 9 percent or a little more in the Twelfth Plan, and also made more inclusive and sustainable. Some of the items in the agenda involve completion of what is in the pipeline, but there are several areas where new initiatives are needed.

Financing the Plan with Macroeconomic Balance

The combined fiscal deficit of the centre and the states had

expanded because of the stimulus, and has to be brought back to sustainable levels. This process has begun, and the centre's fiscal deficit is projected to fall from 5.1 percent of GDP in 2010-11 to 4.6 percent in 2011-12 followed by further reduction of 0.5 percentage point, per year in the next three years, to reach 3 percent by 2014-15. Adding a fiscal deficit of around 2.5 percent for the states, the combined deficit of the centre and the states is therefore projected at about 5.5 percent by 2014-15.

The proposed reduction in the combined deficit from 7.7 percent in 2010-11 to 5.5 percent in 2014-15 involves an improvement of 2.2 percentage points of GDP over four years. This is not too onerous. In fact, the proposed deficit for 2014-15 would still be higher than the 4.8 percent achieved in 2007-08, eight years earlier. However, the real challenge is that the reduction in the fiscal deficit has to be achieved while also achieving an increase of at least around 1.5 percentage points of GDP in Plan expenditure of the centre and states combined. This order of increase is the minimum necessary if we are to provide adequately for the essential requirements of education, health and public financing of critical infrastructure, including especially in rural and other backward areas.

Plan expenditure on education and health taken together may have to be increased by about 2 percentage points of GDP and expenditure on critical infrastructure, by at least 0.5 percent of GDP taking the total increase on these accounts to 2.5 percentage points. If total Plan expenditure is increased by only 1.5 percentage points, it implies a considerable moderation in the demands of other Plan schemes.

Reducing the fiscal deficit by 2.2 percentage points, while also increasing Plan expenditure as a ratio of GDP to around 1.5 percentage points, requires an improvement of around 3.7 percentage points of GDP which has to be achieved through some combination of increased revenues and reduced non-Plan expenditure, as a percentage of GDP. A reasonable expectation would be to aim for an increase in revenues as a percentage of GDP by a little over 2 percentage points and a reduction in non-Plan expenditure as a percentage of GDP by about 1.5 percentage points.

As far as revenues are concerned. the aim should be to achieve higher tax ratios without resorting to distortionary taxation. We can count on some increase in the tax ratio on account of buoyancy, but a substantial part of the targeted improvement must come from tax reforms. The most important initiative in this context is the Goods and Services Tax (GST), for which a Constitution Amendment Bill has been introduced. The GST, once implemented, will convert the present regime in which the central and state governments levy multiple indirect taxes separately on different tax bases, into a more rational system with separate central and state taxes, but applied on a common base, preferably with a single common rate (subject to a few exceptions). Since taxes on the input stage in each of the central and state streams will be netted out at the next stage, the GST would be a true value added tax, contributing hugely to both economic efficiency and revenue collection. Because implementation of the GST involves a constitutional amendment, a successful outcome may take time, but once achieved, it will be a major achievement. Progress of this legislation in Parliament will be closely watched by analysts and potential investors and credible signs of progress will be widely welcomed.

Some reduction in non-Plan expenditure as a ratio of GDP will happen automatically if there is high growth, because government employment is not expected to increase significantly, and no new pay commission impact is expected in the Twelfth Plan period. However, progress in this area will also depend on whether subsidies, which have grown in scale in both the central government and the states, can be curtailed. The major subsidies in the centre are on food, fertilisers and on petroleum products, which together account for around 2 percent of GDP. State budgets also have subsidy elements, but the major "subsidy" is the very large losses of the state power utilities, which has now touched almost 1 percent of GDP.

Food subsidies, which amount to about 0.7 percent of GDP, will be difficult to contain in view of the commitments on National Food Security. The focus of attention for subsidy control by the centre should therefore be on the subsidy on fuel and fertilisers. In the case of the states, the principal focus must be on the large losses in the power sector. The latter reflects a combination of very substantial underpricing of electricity to farmers (with free electricity in some cases) combined with inefficiency and competition in billing and collection.

Reducing subsidies will not be easy and a conscious effort is needed to build public and political support for a significant reduction in inefficient and non-targeted subsidies as a percentage of GDP, in order to finance the much needed additional Plan expenditure in health, education and agriculturerelated infrastructure.

Policies for Better Agricultural Performance

The 4 percent target for growth in agriculture, which will be missed in the Eleventh Plan, must be achieved in the Twelfth Plan as it is critical for inclusiveness. Fortunately, this is technically feasible as there is ample evidence that productivity per hectare can be increased by 80 percent to 100 percent for many crops in large areas by applying modern agronomic practices based on existing technology. However, achieving these increases in productivity requires action on several fronts, most of which lie in the domain of state governments.

Water is a key input, and better systems of water management, including especially the ability to control timing and quantity of water application, are critical. This must be combined with availability of better quality seeds, and adoption by farmers of optimal levels of seed replacement. Much greater attention also needs to be paid to soil health, focusing particularly on micro-nutrients and carbon content. Since micronutrient deficiencies are area-specific, a system of soil health cards issued to farmers, with periodic soil testing, must be put in place. Carbon content can be increased by shifting from the traditional practice of burning crop residue to leaving it in the field. Shifting to more efficient use of water requires new practices such as land levelling, use of drip irrigation, zero till cultivation, raised seedbed planting, and in the case of rice, adoption of the System of Rice Intensification (SRI), etc.

State governments must act on several fronts to present a package

of interventions tailored to the requirements of particular agroclimatic zones. Delivering only a few elements of the package will not produce optimal results. The farmer has to be persuaded of the importance of the complete package, and both physical and knowledge inputs needed to implement the package, have to be made available.

Since most of the growth in agriculture in future will come not from foodgrains, but from sectors such as horticulture, dairying and fisheries, where the produce is perishable, much greater attention needs to be paid to the logistics of transporting produce from the farm to the consumer, with minimum spoilage. This requires active involvement of the private sector. To facilitate such involvement, state governments must amend the Agricultural Produce Marketing Committee (APMC) Acts which at present prevent private sector buyers from dealing directly with producers. There is an overwhelming case for exempting horticultural produce entirely from the APMC Act. Much of the reluctance to make these changes reflect the operation of vested interests who control the mandis. Establishing better road connectivity in rural areas helps market access and the Pradhan Mantri Gram Sadak Yojana is an important intervention in this regard.

Another area for policy intervention by state governments is the reform of laws relating to leasing of land. As holdings are subdivided and become uneconomic, very small and marginal farmers may be better off leasing out their land to more viable farmers, while seeking paid employment themselves. They would be more willing to do this

if they felt that they could lease out their land and get it back when they want. Yet, leasing is not legal in some states. Where it is allowed, the law is biased towards the tenant, whereas the need of the hour is to protect the interest of the small farmers leasing out land.

Unfortunately, despite the importance of agriculture for rural prosperity very few state governments have taken up the challenge of bringing about the multifaceted transformation that is needed. There is too much focus on delivering a variety of subsidies in power, seeds, and credit, and not enough on bringing about a change in farming practices and adoption of new technology that would actually raise land productivity and enable farmers to become less dependent on subsidies in the long run.

Employment Generation

A key challenge in the Twelfth Plan is how to ensure creation of a sufficient number of productive jobs in the non-agricultural sector to absorb the expected increase in the labour force and also absorb surplus labour that must be shifted out of agriculture. The need to shift labour out of agriculture follows from the fact that productivity in agriculture is relatively low and if agriculture is not expected to grow at more than 4 percent, the only way labour productivity in agriculture can rise at a rate higher than 4 percent is for employment in agriculture to shrink. This is actually necessary to reduce the present underemployment in agriculture and a steady improvement in real wages in this sector. Needless to say, the proposed shift out of agriculture should occur not as distress migration, but as a natural movement to higher paid employment in non-agricultural

activity, some of which could be in ruralareas itself. Agricultural development will itself give rise to new demands for non-agricultural services and generate employment in agriculture-related sectors such as modernised marketing and agroprocessing activity.

A large part of the job opportunities we need must come from a more rapid expansion in manufacturing. The industrial sector was targeted to grow at an average rate 10 percent to 11 percent per vear in the Eleventh Plan, but the actual achievement is unlikely to exceed 8 percent. Most economic simulations suggest that if the economy is to grow at 9 percent in the Twelfth Plan, and agriculture, which now accounts for only 15 percent of GDP, is constrained to grow at 4 percent, then services should grow at around 10 percent and industry at 11 percent. Industry must not only grow faster than it has thus far, it must also be more able to absorb labour with relatively simple skills of the type which migrants from rural areas can acquire.

Micro, small and medium enterprises, are generally more labour absorbing, and are also potential seedbeds for innovation and entrepreneurship. The policy environment must encourage the growth of these industries and this does not mean sops and subsidies. Rather, the main effort should be to provide these smaller industrial units with first class infrastructure which includes both reliable power supply at reasonable cost, good transport connectivity, a pool of skilled labour to draw upon and a financial sector capable of making resources available to potentially successful entrepreneurs.

Expansion of industrial activity must also be regionally balanced since demographic projections suggest that the growth of labour supply in future will be much greater in the northern states that are industrially backward at present. Migration will take care of some of the regional mismatch but there is a strong case for doing more to ensure that employment opportunities expand in states that are expected to generate larger growth of labour.

This is best achieved by state governments paying much greater attention to the infrastructure needs and skilled labour requirements of industry that could locate in those states.

State governments must also be more active in reducing the transactions cost of doing business and this means making regulatory bodies, tax authorities, and utilities more business friendly.

Finally, some consideration has to be given to the long-standing issue of the need to rationalise our labour laws to give employers more flexibility to shed labour when faced with a downturn. This is not to advocate policies of hire and fire, but only to say that more flexibility needs to be built into the labour laws than exist at present.

Infrastructure Development

The Eleventh Plan recognised the importance of investing more in infrastructure sectors such as power, roads, ports, airports, and railways, and sought to raise investment in these sectors from about 5.6 percent of GDP in the base year of the Eleventh Plan 2006-07 to around 9 percent by the last year, i e, 2011-12. The actual achievement is likely to be around 8.5 percent, with some sectors, e g, telecommunications, achieving higher levels of investment than projected, while others achieved

significantly less. The task begun in the Eleventh Plan has to continue in the Twelfth Plan, which should aim at increasing the rate of investment in infrastructure to around 10.5 percent by 2017-18. This implies that investment in infrastructure, which was targeted at \$500 billion in the Eleventh Plan period, would have to increase to about \$1 trillion over the Twelfth Plan period 2012-13 to 2017-18. This poses two major challenges. One is how to finance the investment needed, and the second is how to overcome implementation hurdles, which currently delay project completion.

As far as financing is concerned, it is clear that public sector resources will be scarce and, as noted above, the first priority for these resources must be education and health. which are crucial for inclusiveness and are currently underfunded. Critical infrastructure in rural areas and backward areas is another priority. Both the central and state governments must therefore follow an infrastructure strategy which consists of a combination of public investment and publicprivate partnership (PPP). Public investment would have to be directed to areas where the private sector is unlikely to come, with the rest of infrastructure being developed as far as possible through PPP. Valuable experience has been gained in this area and many of the teething problems related to procedures for structuring PPP projects have been overcome. We need to build on this experience and launch a renewed effort in which the role of PPP in infrastructure investment may have to increase from around 30 percent in the Eleventh Plan to as much as 50 percent in the Twelfth Plan.

The second major challenge in infrastructure development relates

to implementation. Infrastructure projects are often delayed due to difficulties in land acquisition, and where land has been acquired, due to other difficulties such as dealing with encroachments and lack of coordination with other utilities. Projects are also held back by difficulties in obtaining forest and environmental clearances. Protecting forests and the environment is obviously an extremely important objective, but the current processes are often not sufficiently transparent and predictable.

However, project developers are not without blame. They have got used to laxity in application of environmental regulations and there is a tendency to ignore environmental regulations or act in anticipation of clearances in the belief that such actions can be regularised later. We need to move to a system with much greater transparency, predictability and also tighter enforcement in future.

Reforms in the Financial Sector

Rapid growth needs to be supported by an efficient financial system capable of mobilising the savings in the system and using them to support economically efficient units. By financial system in this context we mean the whole range of institutions such as banks, non-bank finance companies, microfinance institutions, efficient and well-regulated capital markets, mutual funds, insurance companies, pension funds and venture capital funds, each of which has an important role to play.

In one sense, India's financial sector can be said to be in a strong position having benefited from a process of carefully calibrated liberalisation, combined with steps to strengthen the regulatory

framework. The system certainly proved resilient during the global financial crisis, and this was a very strong positive factor in maintaining growth. However, while the financial system scores high on stability, there is room for improving the efficiency of financial intermediation and increasing innovation, both of which are necessary. This calls for a continuation of the process of calibrated financial reform. Stopping the process of liberalisation because it was excessive liberalisation with weak regulation which produced the financial crisis in industrialised countries would be a serious misreading of the situation.

Several important initiatives related to financial sector reform are already in the pipeline. These include (a) announcement of the road map for new private sector banks and foreign investment in banks, (b) deregulation of the savings rate offered by banks which remains regulated, though it was recently raised from 3.5 percent to 4 percent, (c) legislation increasing the limit on FDI in insurance from 26 percent to 49 percent, (d) passage of the Pension Fund Regulatory and Development Bill, (e) passage of the legislation allowing shareholders to vote their equity share in banks instead of being limited to 10 percent as at present, and (f) passage of the Company Laws Amendment which will modernise bankruptcy proceedings.

The creation of a vibrant and liquid corporate bond market should have particularly high priority, especially in view of the need to finance large private investments in infrastructure. Several of the regulatory changes recommended by various expert committees to help develop bond markets

have been implemented, but the response thus far remains limited. One reason is the very high fiscal deficit, which effectively crowds out corporate borrowing and the fiscal consolidation programme discussed above will clearly help. Reform of the government securities market in terms of building institutions, introduction of technology, etc. of the kind that was seen in the equity markets, is also necessary for the establishment of a G-sec vield curve for all maturities against which corporate bond yields can be priced. The creation of the Public Debt Management Office outside the RBI, which has been announced and is in the process of being established, will be another important step as it would free the RBI from having to perform the role of debt manager. Improved access to liquidity for primary dealers in the bond market is another important step.

Investment policies of LIC, EPFO, etc, are very conservative at present, leading these institutions to prefer lower yielding government debt to higher yielding corporate debt, except of the very highest investment grade. A possible reason could be the absence of efficient mechanisms for debt recovery in the event of default. Unlike banks, which benefit from SARFAESI, bond holders can only have recourse to liquidation and bankruptcy procedures which are hopelessly time consuming. The passage of the Company Law Amendment Bill mentioned above, which contains provisions to modernise bankruptcy proceedings, is an important step in this context. Proposals for establishing infrastructure debt funds based on investors abroad investing in longterm debt issued by infrastructure project companies are currently being examined by the finance ministry. The establishment of such funds would help infrastructure companies to refinance shorter term bank debt with longer term debt while freeing banks to finance new projects. A positive decision on this proposal would be an important signal to investors.

The size of Indian banks is another important issue. Even the largest Indian bank, the State Bank of India, is actually quite small by global or even Asian standards. Since banks will continue to be the source of medium-term capital in India for some time, until the capital market becomes a credible source for corporate long-term debt, the capital of the banks has to be increased greatly to allow larger exposures to individual projects and also to sectors. Public sector banks must therefore have a larger capital base. This could be done by allowing them to issue additional capital in the market and reducing government equity below 51 percent to some lower level which would in no way reduce effective government control. If this is not politically feasible at present, then government must be willing to increase its capital contribution pari passu with fresh issue of capital, so that the government share of equity in these institutions remains at 51 percent.

A more flexible policy for allowing existing private sector banks to grow more rapidly is also urgently needed. While branch expansion is now more freely allowed, it remains linked to opening rural branches. With the growing scope for bringing banking to the rural areas through the system of banking correspondents, insistence on opening rural branches may not be as necessary as it once was.

Managing the Energy Challenge

The global supply of fossil fuels is expected to become much tighter in the years ahead, and prices of these fuels are therefore likely to remain high, with a possible upward trend. Achieving high growth in this situation requires reducing the energy intensity of GDP while simultaneously taking steps to limit dependence on imports by increasing the domestic supply of energy from both conventional and non-conventional resources.

Reducing Energy Intensity

Reducing the energy intensity of GDP calls for rationalising energy prices and adopting nonprice measures to improve energy efficiency.

Action is necessary on both fronts and the agenda is large.

As far as rationalisation of energy prices is concerned, our energy prices at present are significantly below world prices and unless this is corrected, it is difficult to believe that energy efficiency can be sufficiently incentivised. The Integrated Energy Policy, adopted by the government in 2009, endorsed the principle that prices of imported energy inputs must be aligned with world prices, but this policy has yet to be fully implemented. Prices of motor spirit have been successfully decontrolled. However, diesel, which is four times larger than motor spirit, has only been decontrolled in principle. The decision is yet to be implemented. LPG and kerosene prices remain under administrative control and are currently set well below global levels. It is necessary to implement diesel decontrol as quickly as possible and to bring about a phased alignment of kerosene and LPG prices with world prices, while at the same time protecting the poor.

There is an understandable reluctance to raise kerosene and LPG prices because of the impact on vulnerable groups, but it must be recognised that the subsidy implicit in the present low prices of kerosene and LPG is completely untargeted. In the case of kerosene, it also leads to large-scale black marketing, adulteration and criminalisation. The best way of helping the poor to cope with higher prices of kerosene and LPG would be to shift to a targeted direct subsidy delivered to deserving groups linked to the implementation of a unique identification number. This option is being explored.

Coal is technically not under price control, but the nationalised coal companies have set domestic coal prices well below world prices, even after adjusting for the lower quality of Indian coal. The discrepancy between domestic coal prices and much higher import prices leads to an unwillingness on the part of power producers to import coal and keep lobbying for domestic coal linkages. This problem would not arise if domestic coal prices are equated with import prices. If that is not immediately feasible, the second best option is for Coal India to import coal to meet demands from the power sector, while also introducing a system of pooled pricing whereby the higher cost of the coal it imports is absorbed in a higher price charged by Coal India for coal supplied to all power plants based on the overall mix of domestic and imported coal. Over time, domestic coal prices must be adjusted in time with global coal prices reducing the need for price pooling.

Electricity prices are set by supposedly independent state regulators, but there is strong political pressure on regulators in many states to hold back price increases, even when these are justified by economic costs. This only leads to financial unviability of distribution system, which is under strain in any case. The system must be allowed to function properly so that electricity prices are not artificially depressed, especially as coal prices are expected to rise.

Rationalising energy pricing along the lines spelt out above will encourage energy efficiency, but prices alone will not suffice to promote efficiency. Action on prices needs to be supported by a proactive use of non-price mechanisms. Regulation can be used to push major energy using industries to achieve internationally benchmarked levels of energy efficiency. We should also resort to standard setting and labelling for appliances, equipments, transport vehicles and buildings to encourage energy efficiency. Standards for buildings are particularly important because India has a leap-frogging advantage in this area since most of the commercial buildings likely to be in place by 2030 are yet to be built!

Finally, energy efficiency for the economy as a whole would be greatly helped by intra-sectoral shifts in the transport sector that would economise on energy. The most notable shift in this context is shifting freight from road to rail, and shifting from private to public transport in urban areas. These shifts can be facilitated by appropriate tax and tariff policies.

In the case of the Railways, it requires a shift away from the current practice of overcharging freight to subsidise passenger traffic. India's passenger fare to freight tariff ratio is 20 percent of what it is in China suggesting that freight tariffs should be lowered and passenger fares raised. These price changes need to be supported by action to build necessary freight carrying capacity in the Railways. The capacity has to be created urgently, in anticipation of increased financial strength from tariff reforms. A more proactive stance is also needed to promote PPP in railways, especially in container traffic movement.

Increasing Domestic Energy Supply

Steps to reduce energy demand have to be accompanied by strong action on the supply side to expand domestic production of petroleum, natural gas and also coal to avoid excessive import dependence.

There are a number of policy gaps that need to be addressed. Both petroleum and natural gas are open for investment by the private sector, including foreign investment, and private sector investors have a good record in discovery of new sources. However, the public sector oil companies currently bear a large part of the burden of keeping domestic petroleum prices low, because they are not given the full benefit of high oil prices. This reduces the potential surpluses available for investment by these companies. Rationalisation of energy price as discussed above will help the domestic effort to enhance energy supply.

Coal production is constrained by the fact that the industry is nationalised, although private investment is allowed in captive coal mines (i e, coal mines linked to power plants or steel and cement plants). This window for private investment provides some flexibility and there is significant investor

interest in this area. However, looking ahead, the policy for the coal industry should be liberalised - allowing private investment in non-captive mining subject to appropriate regulation for safety and environment standards. There are obvious political sensitivities here, but it has to be kept in mind that what is being proposed is not privatisation of Coal India but only allowing private sector mining. On present projections of likely domestic production, we will need to import about 250 million tonnes of coal by 2016-17. Considering that the total world trade in coal at present is around one trillion tonnes. we should do everything possible to remove domestic impediments to production. There cannot be any rationale for allowing private investment in petroleum and natural gas, as we do, but not in coal.

We must also take steps to exploit the full potential of other energy sources notably nuclear, solar and wind power. The share of these sectors is small and will remain modest in the medium term but in the longer term they could become substantial. Expansion of nuclear power is an important element of India's long-term energy strategy and this has been facilitated by the recent agreement with the Nuclear Suppliers Group which gives India access to imported uranium, and also opens windows for other cooperation in this area. Plans for nuclear power all over the world are being reviewed in light of the recent Japanese experience at Fukushima, and lessons learnt will have to be incorporated in our own strategy. We should avoid kneejerk reactions that might derail the nuclear power programme though we must clearly recognise the need to undertake a thorough review of our safety standards and

benchmark them against evolving best practice.

India is also engaged in developing solar-based generation using both photovoltaic and thermal solar technology and a programme has been initiated to install 20,000 MW of solar power by 2020. This programme needs to be nurtured and supported in the hope of building a substantial domestic industry in this area. India has the potential to be a significant supplier of equipment to other countries.

Both nuclear and solar power are more expensive than conventional thermal generation and this means that while increased reliance on these sources will contribute to energy security, and also mitigation of climate change, it does imply higher energy costs. Costs can be expected to come down as technology develops further, but in the next decade at least all indications are that unit cost of energy will rise.

The energy challenge in the Twelfth Plan is how to deal with a situation in which global energy prices will be high and the cost of alternative energy sources will also be high. Our ability to grow rapidly in this environment depends critically on our ability to transmit the high energy prices to energy users in the economy, rather than keep the prices artificially low. Only then will users be incentivised to reduce energy intensity and energy producers will have the resources they need to expand investment in these sectors.

Making this transition is not easy. It will be argued that energy prices should not be raised in a situation where inflationary pressure is high, but the need to control inflation is not a valid reason for holding

back relative price changes which contribute to efficiency. In fact, raising energy prices will reduce the pressure of demand for other products and thus help moderate price pressures elsewhere. The poor certainly need help to handle the impact of higher energy prices, but it is better to do this through an income transfer rather than keeping energy prices artificially low.

Managing Water Resources

Managing water scarcity in the Twelfth Plan period is in some ways even more daunting than the challenge posed by energy. India's available supply of fresh water is the same as it was 5,000 years ago, and the population has grown and so has the GDP, with a concomitant increase in demand for water. Until recently, official estimates showed the available supply of water to be well above total demand, albeit with areas of regional scarcity. More recent studies indicate that the demand for water at present is roughly equal to supply for the country as a whole and this near balance at a national level hides wide regional variations with acute shortages in many parts. Since growth in GDP implies expanded water use, the water situation can be expected to worsen rapidly. Already, there is evidence of excessive drawal of groundwater in many parts of the country leading to lowering of the water table and increasing salinity, which makes the water less usable for agriculture and harmful for health.

If things are left to business as usual, the situation will worsen steadily. The Twelfth Plan must signal the need for a radically new approach. Since water is largely a state subject, success depends critically on the state governments. They need to act on both the supply and the demand side.

Supply Side

On the supply side, action is necessary on several fronts including building storage dams, investing in watershed management to improve surface water retention and groundwater recharge, and forcing industry to treat waste water for reuse. Each of these involves costs and we need to prioritise between alternative investments keeping relative costs in mind. Traditionally, most of our resources have been absorbed by large irrigation projects. These are indeed important and need to be pursued to optimise storage, though their implementation needs to be greatly improved. In terms of prioritisation we need to do much more on watershed management projects, which involve one-tenth of the cost per hectare as compared to large irrigation projects, have fewer environmental problems, and generally provide a much higher return on investment.

Demand Side

Efforts at expanding supply are important but they will not suffice and they will have to be accompanied by efforts on the demand side to improve efficiency of water use. About 80 percent of India's water use is for agriculture and it is technically feasible with better agricultural practices, to reduce water use in agriculture by 40 percent to 50 percent. For example, the System of Rice Intensification (SRI) enables rice to be grown with much less water than in traditional flood irrigation. However, while it requires less water, SRI requires water to be given at the right time which calls for complementary investments in land levelling drip irrigation, etc. Additional costs have to be allowed to pass through into the system in the form of higher food prices. Over the longer term, agricultural research will have to factor in the need to achieve greater water efficiency by evolving crop varieties capable of dealing with water stress. This is particularly important given the likely impact of climate change.

One reason why managing the water crisis is more difficult than the energy crisis is that whereas most people recognise that energy has to be paid for, there is much less acceptance, or even understanding, of the need to price water. Policies are often enunciated on the principle that water is scarce and we must "conserve every drop", but if water is underpriced, there is no incentive to achieve efficiency. Pricing of canal water in large irrigation projects is supposed to be based on the principle of covering operation and maintenance (O&M) costs, but in most places it is priced at levels which cover only about 15 percent of O&M costs. This eliminates any incentive to adopt less waterintensive cropping patterns in the command area, especially among upper end users. It also leads to poor maintenance of the canal system, which in effect means that although water is severely underpriced, farmers have no assurance that they will get the water they need at a predictable time. Farmers would be much better off paying higher prices for water, if this is accompanied by greater predictability of supply of a certain quantity at a particular

The first step in evolving a rational water policy is to make a scientific assessment of the available water resources in each basin in the country and then define basin specific strategies for water management. This mapping exercise should be undertaken on a priority basis, with the involvement

of the science departments, and should be completed in the Twelfth Plan. Rational water pricing is important and must be pursued but pricing by itself may not solve the problem since prices would have to be set at unacceptably high levels to get anywhere close to optimal water use. State governments would therefore be well advised to combine price rationalisation with establishment of statutory water regulators to determine water allocation for different uses such as household needs, agriculture and industrial use. A start has been made in some states, e.g., Maharashtra and Andhra Pradesh using somewhat different approaches, but we have a long way to go and we must learn from different experiments. One way of incentivising the process is to link central assistance for capital-intensive irrigation projects to the implementation of critical regulatory reforms in this area and to undertakeparallel work on completing command area development.

A controversial issue that needs to be faced is whether a system of rational management of the country's water resources can be achieved without bringing in legislation that would empower the central government to act in this area. The Constitution provides that the central government can determine rational use of water in interstate rivers, provided Parliament passes a law for this purpose.

Regulating Groundwater

There is also a case for revisiting the various laws in place to regulate the use of groundwater. The present laws only provide for banning new tubewells in areas where the water table has fallen too far. This only confers a monopoly on existing tubewell owners who can pump as much water as they wish and sell

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it to other farmers. Free power or very cheap power for agriculture provides a wholly unjustified incentive for such activity. At the very least, state governments should consider imposing a cess on electricity for agricultural use in all areas where the water level has sunk too low, and earmark the proceeds for groundwater recharge.

Managing the Urban Transition

Managing the urban transition will pose special challenges in the years ahead. India has been slow to urbanise, but this is expected to change with faster growth. The urban percentage of the population is currently around 30 percent, and is expected to reach 40 percent by 2030, implying an increase in numbers from 350 million today. to around 600 million. This will require a massive expansion in urban infrastructure, especially since only about half of those currently in urban areas are adequately served even by the current very low standards.

The resources needed to achieve this expansion in urban infrastructure are much larger than what the cities or local urban bodies can mobilise on their own. Most of the revenue generated from economic activity in the country occurs in urban areas, but the revenue generated from this activity accrues to the central or state governments, and there is much less devolution to city governments than there should be. Cities and urban local bodies in India also have limited capacity to raise their own resources. It is possible to generate revenue through user charges for some services such as water, sewerage and urban transport, but a long tradition of fixing low user charges has limited the flow of revenues from these sources. High land values in urban areas could be used to leverage resources to finance urban infrastructure, particularly through PPP projects, but this opportunity has not been adequately exploited although the recent decision of the Andhra Pradesh government to adopt the PPP route for a metro in Hyderabad may provide a model for the future.

Even in the industrialised world. cities have rarely financed all the infrastructure they need themselves and national governments have contributed in various ways. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) introduced in the Eleventh Plan is a mechanism for channelling resources from the centre to the states linked to specific reforms in urban governance and finances. The results thus far are mixed. partly because of inadequate implementation capacity at the city level and also because of reluctance to pursue reforms. The JNNURM initiative will have to be expanded in the Twelfth Plan but it is also true that the cities and the states have to take on a much larger share of the burden than they do today the former through user charges and the latter through stronger devolution of resources.

Steps to close the financing gap for urban infrastructure have to be accompanied by improved governance structures at the city level. The system of city government at present is such that city governments are not effectively empowered to plan for infrastructure development. Critical decisions on the infrastructure needs of the metropolitan cities are typically made by the state governments, which necessarily respond to the electorate in the state as a whole. This has to change so that city government is in the hands of

elected representatives responsible to their local electorate.

Environment Protection and Sustainability

A difficult issue which has to be addressed in the Twelfth Plan is how to achieve the transition to higher growth without inflicting unacceptable damage to the environment. The qualification "unacceptable" is important since some stakeholders take an extreme position in which no damage must be done. That would rule out an enormous range of developmental activity, since all such activity alters the environment in some way. There is merit in taking an uncompromising approach in certain cases, e g, tiger reserves and very select biospheres, but the general approach must be one of balancing conflicting objectives.

The threat to the environment posed by high growth arises from many different sources. These include (a) the need to meet the energy requirements of growth and the consequent demand for coal and hydropower, both of which could run into forest clearance problems even if we ignore for the present the longer term effect of carbon emissions, (b) the impact of industrialisation upon industrial effluents which leads to water pollution and of gaseous and particulate emissions which lead to air pollution, (c) the effect of expanding urbanisation and the consequent need to treat 100 percent of the sewage generated instead of only 30 percent, as at present, in order to avoid damage to our rivers and water bodies, and (d) the challenge of managing the large quantities of solid waste generated in cities in a manner that is environmentally benign. In addition to these endogenous sources of environmental stress, we also have to deal with external threats to the environment arising from climate change. This will require proactive steps to increase afforestation and to harness and manage our water resources better.

The measures related to price rationalisation in energy and water, and the various non-price initiatives in these areas, designed to increase energy efficiency and water use efficiency are critical for economic efficiency and will also help to moderate the environmental stress. These measures need to be supplemented by transparent and scientifically based environmental regulations which are strictly enforced.

It must be emphasised that environmental protection is not cost less. The problem arises because economic agents do not take into account the external costs of their actions, some of which fall on future generations. Such actions must be discouraged as far as possible and the residual damage must be repaired or compensated.

This is best done by enforcing the "polluter pays principle". However, though often asserted in theory, this principle is largely ignored in practice. Tax policies often fail to reflect this principle – the total tax burden on commercial vehicles for example is higher than on private vehicles. The regulatory mechanisms for enforcing pollution controls in the states are also extremely weak. We need a comprehensive review of tax policies (including state taxes) and also our pollution control mechanisms to ensure that the total impact is environmentally benign.

A new initiative introduced in the Budget for 2010-11 is the

imposition of a cess of 5 percent on coal (both domestic and imported), the proceeds of which are earmarked to a separate fund to promote green energy. Mechanisms of this sort can be used to meet the cost of environment protection and are justified by the principle that the polluter must pay. Another environmentally supportive measure is the imposition of a cess on electricity for agricultural use to be imposed in areas where the groundwater has sunk too low, with the proceeds being earmarked for use in groundwater recharge in the same area.

Market Manipulation, Crony Capitalism and Corruption

Greater reliance upon market forces was a key element of the economic reforms and it has yielded tangible benefits in terms of higher growth and efficiency. However, it is also seen to have produced an increase in manipulative crony capitalism, and the corruption it brings in its wake. Corruption and corporate wrongdoing is obviously not a problem unique to India. In recent years there has been a great deal of attention internationally on corporate corruption and various types of illegality as exemplified by high profile cases such as Enron. Worldcom, Parmalat and Bernie Madhof. The financial crisis has also drawn attention to various instances of conflicts of interest and regulatory capture which call into question the notion that markets always promote efficiency.

Rajan (2010) has drawn special attention to two areas in India which are especially vulnerable to the charge of crony capitalism. These are land-related development and those areas where other scarce resources such as minerals or

spectrum are to be allocated by the government through licensing. Non-transparency in land related issues has become a major problem which needs urgent attention.

The problem surfaces in two different types of situations. First, land values in the major cities are hugely inflated because of highly non-transparent controls on land and there are large rents to be enjoyed by those who can obtain the relevant permissions to develop land. Non-transparent mechanisms for grant of such permissions inevitably lead to suspicion of corruption and cronyism. These areas of discretionary policy need to be comprehensively reviewed and more transparent mechanisms put in place. Second, acquisition of agricultural land for industrial development and for creating infrastructure presents many problems.

Non-transparency in methods of allocating scarce resources such as minerals and spectrum has also given rise to criticism from many quarters. Allegations of corruption and cronyism have surfaced in both these areas, and they call for a thorough review of existing procedures. As a general rule, competitive bidding among qualified bidders provides the most transparent way of allocating scarce resources such as mining rights in known mineral bearing areas or spectrum. The absence of competitive bidding in the allocation of 2G licences has evoked intense criticism. In sharp contrast, the 3G auction, conducted in 2010, evoked no criticism at all, and is in fact a model which deserves careful study. There are circumstances where competitive bidding may not be the best method but the alternatives require very

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complex methods of evaluating the choices that have to be made, that invariably bring in discretionary decision-making, which can always become a matter of controversy ex post. Similar problems arise in allocating mining rights. A new Mines and Minerals Development Bill is currently under consideration in the government which must address those issue satisfactorily.

Government procurement procedures also need to be thoroughly modernised and made much more transparent as a means of reducing the probability of corruption and cronyism. OECD reports show that introducing such changes cuts costs by up to 25 percent in industrialised countries. Many countries have a public procurement law whereas in India government procurement is governed by rules. The government has appointed a committee to make recommendations in this area. Early action to modernise government procurement and make the procedures transparent, including through the adoption of e-procurement, would be a major step forward. It needs to be kept in mind that under the Right to Information Act, all these issues are available to the public ex post. There is no reason why the transparency should not be introduced ex ante.

Implementation of Government Programmes

In addition to influencing the pace and pattern of growth, and including especially its employment generating capacity, the strategy of inclusiveness also relies heavily on government programmes designed to promote inclusiveness. Programmes for health and education are particularly important in this context, and have been discussed earlier. In addition, there

are a number of programmes which together constitute a structure of social security and provision of direct benefit for the poor.

The most important of the other programmes relevant for inclusiveness are (i) the supply of subsidised foodgrains through the PDS, (ii) the Mid-Day Meal Scheme for schoolchildren, (iii) the Integrated Child Development Services (ICDS) which provide nutrition and pre-school education for the zero to six-year age group and also for adolescent girls, (iv) the National Social Assistance Programme (NSAP) which provides an old age pension, plus a pension for widows and disabled persons, (v) the Mahatma Gandhi National Rural Employment Guarantee, which provides assured employment for 100 days at the notified minimum wage, (vi) the National Rural Drinking Water Programme which aims at covering villages which do not have an assured supply of potable water, (vii) the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) which extends electricity to all uncovered villages and provides free connection to all BPL families, and (viii) the Indira Awas Yojana (IAY) which provides assistance to the rural poor to build pucca homes. The total provision for these programmes in 2010-11 was Rs 1,55,000 crore or about 1.9 percent of GDP.

There is broad agreement that these programmes are aimed at desirable objective but there is a great deal of scepticism about whether these programmes are being implemented in a manner that will ensure that these objective are actually realised. Complaints of leakages, inefficiency and corruption are widespread and while these are sometimes advanced by those who do not sympathise

with the welfare objectives of the programmes, there is no doubt that there is also a genuine problem of implementation.

It is important to note that the central government only finances these programmes, and actual implementation is carried out by state government agencies. As one would expect, the effectiveness of implementation varies greatly from state to state, with many examples of good implementation but also examples of abject failures. These failures can be traced to one or all of three problems: poor design ab initio, underfunding and poor implementation. In practice all three are probably present to some degree.

Problems of poor design and inadequate funding can and should be addressed by the central government. Central government guidelines are often inflexible and not tailored to the requirement in particular states. Furthermore, many areas involve cooperation between different arms of government, e g, of agriculture, irrigation and rural development or the departments of health, education and women and child development. Unfortunately, government typically works in silos which makes effective interdepartmental cooperation very difficult. As far as adequacy of funding is concerned, scarcity of resources is a genuine problem. The solution lies in better prioritisation. It is much better to fully fund schemes that are working well and squeeze other rather than spread resources thinly. However, this is easier said than done and enforcing prioritisation in this way will be a major challenge in the Twelfth

Improving implementation on the ground has to be a major

objective in the Twelfth Plan. Opinions vary on how this can be achieved. A committed political leadership at the state level, working with an effective administration, can obviously make a big difference. Devolution of decision-making and accountability to panchayati raj institutions (PRIs) is also a potential instrument improving accountability. This is in line with the 74th Amendment which provided for devolution of functions, finances and functionaries from the state government to the PRIs. Some progress has been made in devolution, but most state governments have devolved functions with very little devolution of either funds or functionaries. The central government can perhaps help in this area by structuring its schemes of assistance in a way which increases the role of the PRIs. For this to work, it will also be necessary to build capacity at the PRI level. Earmarking some portion of central funds for capacity building may be necessary.

Greater participation by civil society organisations promoting greater involvement of the community, with a greater awareness of its rights, will also help. The Right to Information Act is an important new initiative which empowers civil society and individual stakeholders to hold government at all levels accountable.

Conclusions

As stated at the outset, the purpose of this paper was not to present firm conclusions, but rather to pose the issues we need to address in preparing the Twelfth Plan, in the hope of provoking a wider debate. However some broad conclusions can be drawn.

The economy will enter the Twelfth Plan period in an environment of great promise but also one that presents major challenges.

We have done well on the growth front, but not so well on inclusion, though it is possible that when the data for the entire period become available, we may find that the situation is better than currently envisaged.

Much of what needs to be done to accelerate GDP growth to 9 percent or so will be done by the private sector, but the central and state governments have a crucial role to play in providing a policy environment that is seen as investor friendly and is supportive of inclusive growth. A credible time path for bringing the fiscal deficit under firmer control must have top priority. This must be accompanied by continued progress on reforms that are in the pipeline in many areas, especially those that are likely to generate an early investment response. A financial sector capable of mobilising and deploying resources efficiently is extremely important and there are many steps that can be taken in this area that are entirely in the domain of the central government.

The government's own resources have to be deployed with a clear sense of priority. In this context, health and education and critical infrastructure development, especially in water management and rural infrastructure, and infrastructure development in backward areas must have top priority. For other infrastructure areas the maximum use must be made of PPPs both by the central government and by the states. Impediments in the implementation

of large projects should be speedily removed.

Four critical challenges facing the economy in the Twelfth Plan, which are perhaps more serious than they were at the start of the Eleventh Plan, are the challenges of (a) managing the energy situation, (b) managing the water economy, (c) addressing the problems posed by the urban transformation that is likely to occur, and (d) ensuring protection of the environment in a manner that can facilitate rapid growth. Difficult choices have to be made in each of these areas and both the central government and the states have an important role in bringing about a successful outcome. The prize, if we succeed, is that we will have put India in the small group of countries that have achieved the transition to sustained high growth and elimination of poverty.

Finally, the efficiency in implementation of projects on the ground needs to be greatly improved. Most of what needs to be done in this context rests with state governments but the central government must find ways of improving project design, prioritising resources to fund well designed interventions that work, devolving resources to lower levels and helping build capacity. Evidence-based evalution is critical for redesign and prioritisation.

We need to greatly strengthen capacities in the area and the proposed Independent Evaluation Office which is expected to be set up during 2011-12 will be a major step in this direction.

(Excerpts of the article published in the May 21, 2011 issue of Economic & Political Weekly).

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Rural Transformation and Sustained Growth of Agriculture

M S Swaminathan



There are immense opportunities for us to make agriculture the major instrument of job-led economic growth through appropriate technologies, services and public policies

AHATMA GANDHI frequently pointed out, "Gram Swaraj is the pathway to Purna Swaraj". Also while addressing some young

students who wanted to serve rural India, he made the following observations about eighty years ago:

"The fact is the villagers have lost all hope. They suspect that every stranger's hand is at their throats and that he goes to them only to exploit them. The divorce between intellect and labour has paralysed our agriculture. The worker should enter villages full of love and hope, feeling sure that where men and women labour unintelligently and remain unemployed half the year round, he working all the year round and combining labour with intelligence cannot fail to win the confidence of the villagers."

Gandhiji's emphasis on marrying brain and brawn in order to achieve rural regeneration is a very important one. For example, we can restructure the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on the following lines to get optimum benefit from this largest social support programme in the world.

- 1. Set up a Technical Support Consortium for each District to end the prevailing divorce between Intellect and Labour
- Enlarge the concept of labour in the case of women to include the operation of creches, balvadis and School Noon-Meal programmes.
- 3. Achieve Convergence and Synergy among different programmes involving labour, eg. 60,000 Pulses Villages, National Horticulture Mission, etc.
- 4. Initiate a "beyond 100 days" programme convert watersheds into bioindustrial watersheds, to provide opportunities for running micro-enterprises supported by micro-credit, thus integrating on-farm and non-farm employment opportunities. This will also help to convert unskilled into skilled labour.

The author is Member of Parliament (Rajya Sabha) and Chairman, M S Swaminathan Research Foundation, Chennai.

5. Provide dignity and prestige to work, and help the labour to gain in self-esteem and pride by establishing Environment Saviour Awards, to recognise the work of outstanding MGNREGA Teams in the areas of watershed development, rainwater harvesting, soil conservation and building soil carbon banks through fertilizer trees.

If the above 5-point programme is initiated, MGNREGA will become a powerful instrument for combining labour with intelligence.

The Census of 2011 estimates that 833 million people currently live in rural India. They depend for their livelihood largely on crop and animal husbandry, fisheries, agroforestry and agro-processing. In spite of all government programmes in the area of social safety nets, we find that the weight and height of Indians on average have not shown significant improvement over the last 25 years. Also, 21.5 percent of babies are born with low birth weight, a problem which begins with malnutrition in the womb (India – Human Development Report, 2011). The Human Development Report concludes that the degree of coordination required for ensuring the success of multi-sectoral interventions like safe drinking water, sanitation, public health services and balanced nutrition is not in place. This is a governance and not investment issue.

Currently, the Government of India is planning to introduce a National Food Security Bill in Parliament for making access to food a legal right. During the last five years, there has been a shift from a patronage to a rights approach in relation to important human requirements. For example, we now have rights to education, employment, information and land

(for scheduled tribes and other traditional forest dwellers). The right to food, when it becomes a legal entitlement, will mark the brightest jewel in the crown of Indian democracy. Such a right to be enforced will require concurrent action in the following three areas:

- Availability of Food which is a function of production or imports when necessary (as in the case of pulses)
- Access to Food which is a function of purchasing power (this is the area which the National Food Security Bill 2011 addresses)
- Absorption of Food in the body which is a function of clean drinking water, sanitation, primary health care and nutrition literacy.

What is important during the Twelfth Five Year Plan period is learning "how to deliver as one" in relation to multiple needs like drinking water, sanitation, health care and environmental hygiene. If we do not learn how to deliver the entitlements in a mutually reinforcing manner, the unenviable reputation of our country being the home for the largest number of undernourished children. women and men will continue to prevail. Therefore, governance and entitlement issues have to be dealt with together.

Managing Climate Risks

The other disturbing aspect of the rural economy is the growing indebtedness of farm families. According to the data released by the National Sample Survey Organisation (NSSO) in May 2005, 48.6 percent of farmer households are indebted, often to money lenders. The highest number of indebted households occurs in Andhra Pradesh (82 percent) and the second highest

in Tamil Nadu (74.5 percent). Even in a State like Punjab, which has mostly irrigated agriculture, the percentage of indebted farm households is 65.4. In Maharashtra characterized by frequent farmers' suicides 54.8 percent of households are indebted (the figure is higher for Vidarbha). The wellbeing of farmers in our country depends largely on the monsoon and the market. We are now entering an era of climate change as a result of global warming and it is essential that we develop and spread climate resilient farming systems as soon as possible. Panchayati Raj institutions should be involved in both climate risk adaptation and mitigation. For this purpose, Community Climate Risk Managers should be trained in order to enhance the coping capacity of local communities in the event of adverse changes in precipitation, temperature and sea level. Along the sea coast of Kerala, where large numbers have their homes very near the sea, we may have to be prepared to make arrangements for the resettlement of climate refugees, i.e. those who have no option except to find an alternative home in the hinterland.

Price Volatility

Price volatility is an important factor in increasing household food insecurity. Unfortunately food inflation has remained at a high level for a long time. We therefore need a National Mission for the Containment of Food Inflation during the Twelfth Plan Period. Such a Mission could consist of the following components:

• Identification of the drivers of food inflation, as for example the contribution of vegetables, pulses, milk, egg, meat etc. A generic approach will not help and hence we need to disaggregate the components of the price rise. Also, it is necessary to map the hotspots where imbalance between demand and supply leads to a rise in prices during certain seasons. Such a mapping of the hotspots for inflationary tendencies will help to checkmate the casual factors. Checkmating price rise should be an important component of the National Horticulture Mission, National Food Security Mission, Rashtriya Krishi Vikas Yojana and the 60,000 Pulses Villages programme.

- Understanding the relationship between public policy and price rise is very important. For example, nearly eighty percent of the cost of a litre of milk is due to the cost of feed and fodder. Unfortunately grazing lands are shrinking and fodder production is receiving inadequate attention. Also, concentrates like Soyabean meal are being exported, while we have nearly a billion farm animals crying for adequate nutrition. The policy relating to the export of animal feed, particularly concentrates, needs review.
- A national grid of storage structures should be established both for foodgrains and perishable commodities. In 1979 I had initiated a programme for the establishment of rural godowns designed to help in avoiding both panic purchase and distress sale. Unfortunately there has been little attention to post harvest technology with the result the mismatch between production and post-harvest infrastructure is growing, resulting in losses both in quantity and quality in food grains, vegetables and fruits. Codex alimentarius standards of food safety are receiving very little attention.
- There is need to add in the existing Krishi Vigyan Kendras

a section to impart training in food processing, value addition, and agri-business, so that KVKs become Krishi cum Udyog Vigyan Kendras.

Agricultural Advance

Technology is the prime mover of change. We have seen this with reference to the dwarfing genes in wheat and rice and also in the case of mobile telephony in small scale farming and fisheries. We are entering an era where we are experiencing uncertain and often extreme weather events. Our capacity to bridge the growing gap between scientific know-how and field level do-how is inadequate in relation to the challenges faced by farmers. The rural technology environment has changed now as compared to the 1970s because there are many private players. Private seed, pesticide and fertilizer companies give their own advice to the farmers. Often the money lender is also the input supplier as well as the extension expert. Therefore, there is unscientific and excessive use of chemicals adding to both cost and ecological damage. Government policies such as the supply of free electricity also encourage unsustainable exploitation of the ground water, as a result of which the water table is going down in the Punjab and other areas which constitute the heartland of the original green revolution.

The call for technologies tailored to specific rural environments is yet to be heeded. Scientists are busy with generic solutions rather than with location specific technologies. Developing sustainable and location specific technologies will need more of participatory research jointly with farming families. This is not happening. The scientists of MSSRF (M S Swaminathan Research Foundation) work in the tribal areas of Koraput in Odisha and Kalpetta in Kerala jointly with

tribal women and men in developing new varieties of climate resilient and locally adapted rice varieties. Such participatory research has led to the breeding of outstanding rice varieties like Kalinga Kalajeera.

Technologies developed for agribusiness are vet to make a real impact. In 1992, I had proposed the establishment of a Small Farmers Agribusiness Consortium (SFAC) for bringing the power and economy of scale to small producers. This was appreciated by Shri Narasimha Rao who was then the Prime Minister and Dr Manmohan Singh who was then the Finance Minister. In fact in his budget speech in 1992 Dr Manmohan Singh announced the formation of SFAC to bring the benefits of agribusiness to small and marginal farm families. Unfortunately SFAC exists but without any spectacular effort in taking agribusiness to the resource poor farmers. Wherever there are large government subsidies, as for example, drip irrigation, the companies are able to market their goods. Successful extension efforts should result in self-replicating models of the spread of new technologies. Organised efforts are needed to promote farmer-farmer learning, through the establishment of Farm Schools in the fields of outstanding farmers.

Mobile phones have started making a difference with reference to meteorological and marketing factors. Even small farmers now access such information. Similarly fishermen going in Catamarans are getting information on wave heights and location of fish shoals in Tamil Nadu. This technology is now being extended to Andhra Pradesh, Odisha and Paschim Bangla.

The spectacular successes during the last three and half decades are in the areas of milk production (we are now the first

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in the world in milk production), continuation of the progress in wheat and rice production, and the introduction of GM technologies in cotton. The failures in the field of public policy and investment relating to post-harvest technology, particularly grain storage and rural infrastructure for the safe handling and preservation of perishable commodities. There was a steady decline in the availability of credit and investment in rural India during the nineties, which is now being corrected.

An urgent need of the Indian Council of Agricultural Research (ICAR) is in the area of human resources development. A large number of vacancies exist in scientific positions. There is need for a special North-east cadre in the Agricultural Research Science (ARS) of ICAR. The National Academy of Agricultural Research Management (NAARM) located in Hyderabad should be developed as an apex level in-service Training Institution on the lines of the National Defense Academy, New Delhi. This will help to improve the management of Agricultural Universities and ICAR institutions. NAARM should not become one more deemed University, giving degrees.

The challenges during the next 5 years will be largely in the areas of ecology, economics and technology. From the point of environment, we have to be prepared for adverse changes in temperature, precipitation and sea level as a result of global warming. In the case of economics, the costrisk-return structure of farming is becoming adverse with the result that the younger generation is unwilling to live in villages and take to farming as a profession. Since over 50 percent of our population is below the age of 35, attracting and retaining youth in farming will be our greatest challenge. This will happen only if farming becomes both intellectually stimulating and economically rewarding. This will in turn call for a technological upgrading of both production and post-harvest operations.

Climate change has introduced uncertainties in global foodgrain markets. Therefore, we will not be able to make access to food a legal right with imported grains. Our food security system should be based on home grown food. This is also important since in our country, agriculture is not just a food producing machine, but is the backbone of the livelihood security system of over sixty percent of our population. This is why if agriculture goes wrong, nothing else will have a chance to go right in our economy. In order to ensure multiple sources of income to small holders, there is need for a Rural System Research (RSR) programme which would involve concurrent attention to farm and non-farm employment. With small holdings, a single source of income will not be adequate, particularly because nearly sixty percent of the cultivated area is rainfed. Similarly in coastal areas, we need a Coastal Systems Research (CSR) programme which will involve simultaneous attention to the seaward and landward sites of the shoreline. We also need to promote a Seawater Farming Movement along the coast based on the cultivation of economically useful halophytes (i.e. salt tolerant plants) and marine aquaculture. Such agri-aqua farms along the coast, based on ecological and economic considerations will help to strengthen the livelihood security of coastal communities, and at the same time improve the ecological security of coastal areas.

Empowerment of Women Farmers

Women constitute more than 50 percent of Indian Farmers and

about 60 percent of the agricultural workforce. In view of the increasing feminization of agriculture, as a result of out-migration of men, greater attention to the gender specific needs of women farmers are essential for the future growth and health of agriculture as well as for the protection of food security in an era of climate change. The Mahila Kisan Shashaktikaran Pariyojana initiated during 2010-11 needs to be enlarged so as to address the needs of women in the areas of access to land, water, technology, credit, insurance and market. It will be useful to set up a Central Agricultural Fund for Women Farmers during the XII plan to promote the development of women farmer friendly technologies, training and capacity building, creation of market facilities, organization of crèches and day care centres and old age pension.

We introduced for the first time a chapter on Women and Development in the VI Five Year Plan (1980-85). The time has come to give special attention to the special needs of women farmers, since farming is the single largest occupation in our country for women.

There are immense opportunities for us to make agriculture the major instrument of job-led economic growth through appropriate technologies, services and public policies. The green revolution of the sixties owed its origin to a combination of scientific skill, political will and farmers' enthusiasm. Unfortunately today a majority of farmers would like to quit farming if there are alternative sources of livelihood. Similarly, youth are unwilling to take to farming. This is why Gandhiji's advice that we should marry technology and labour in rural India is even more relevant today.

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NORTH EAST DIARY

TOURISM DEVELOPMENT IN NORTH EAST

he Union Tourism Ministry has proposed a package of Rs 600 crore in the 12th five year plan for development of tourism in the Northeastern region. Union Tourism Minister Subodh Kant Sahai has said that tourism sector holds great potential in developing the region. The Ministry has therefore sought Rs 600 crore during the 12th five year plan.

Altogether, the Union Ministry has proposed a package of Rs 2,200 crore from the Planning Commission for development of the tourism sector in the entire country. All the Northeastern States



are being asked to develop the sector so that tourist flow into the region is doubled from the current figure.

As part of the larger plan to develop the fledgling tourism sector in the region theme parks showcasing the region's heritage, culture together with modern amenities would be brought under one roof. All the Northeastern States would have such theme parks in the coming years. The Centre has started training young people in select villages to develop and run new 'rural tourism clusters' across the North-East. Each of these parks would have a convention centre, ethnic bazaar and places where tourists can visit in the evenings.

The Union Ministry has targeted inflow of tourists in the country to be 73 million by 2016 from 2010's figure of 53 million. The tourism sector has the potential of creating 25 million new jobs and women would be the biggest beneficiaries. Awareness campaigns would also be undertaken in schools, colleges and at the local administrative level so that tourists are given their due respect. Meanwhile, West Bengal Government has also announced that a special packages would be developed to encourage tourists from West Bengal to visit the North- eastern region.

SERICULTURE POTENTIAL IN MIZORAM

The identification of sericulture potential with remote sensing and geographical information system in six of the eight districts in Mizoram has found that 1439 sq km are suitable for mulberry cultivation in the state.

The report, prepared by the Mizoram Remote Sensing Application Centre (MIRSAC) revealed that another 8322 sqkm are ideal for rearing on non-mulberry silkworms. Sericulture potential if tapped properly could boost the state's economy to a great extent.

The atlas would be a great help in exploring sericulture potential in the state.



MIRSAC senior scientist Lalnunsiama Colney has said that Mizoram has a large area of wasteland due to the destructive slash-and-burn or shifting cultivation and mulberry and other trees can be successfully grown for silkworm rearing. The project had been jointly conducted by the North East Space Application Centre (NESAC) and MIRSAC, under the sponsorship of Central Silk Board (CSB).

Putting Growth in its Place

Jean Drèze Amartya Sen



There is probably no other example, in the history of world development, of an economy growing so fast for so long with such limited results in terms of broadbased social progress

S INDIA doing marvellously well, or is it failing terribly? Depending on whom you speak to, you could pick up either of those answers with some frequency. One story, very popular among a minority of Indians who are doing very well, runs something like this. "After decades of mediocrity and stagnation under 'Nehruvian socialism', the Indian economy achieved a spectacular take-off during the last two decades. This take-off, which led to unprecedented improvements in income per head, was driven largely by market initiatives. It involves a significant increase in inequality, but this is a common phenomenon in periods of rapid growth. With enough time, the benefits of fast economic growth will surely reach even the poorest people, and we are firmly on the way to that."

But looking at contemporary India from another angle, one

could equally tell the following more critical - story: "The progress of living standards for common people, as opposed to a favoured minority, has been dreadfully slow - so slow that India's social indicators are still abysmal. For instance, according to World Bank data, only five countries outside Africa (Afghanistan, Bhutan, Pakistan, Papua New Guinea and Yemen) have a lower "youth female literacy rate" than India. To take some other examples, only four countries outside Africa do worse than India in child mortality rate; only three have lower levels of "access to improved sanitation"; and none (anywhere – not even in Africa) have a higher proportion of underweight children. Almost any composite index of these and related indicators of health, education and nutrition would place India very close to the bottom in a ranking of all countries outside Africa."

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Growth and Development

So which of the two stories - unprecedented success or extraordinary failure – is correct? The answer is both, for they are both valid, and they are entirely compatible with each other. This may initially seem like a bit of a mystery, but that initial thought would only reflect a failure to understand the demands of development that go well beyond economic growth. Indeed, economic growth is not the same thing as development, in the sense of a general improvement in living standards and enhancement of people's well-being and freedom. Growth, of course, can be very helpful in achieving development, but this requires active public policies to ensure that the fruits of economic growth are widely shared, and also requires making good use of the public revenue generated by fast economic growth for social services, especially for public health care and public education.

We referred to this process as "growth-mediated" development in our 1989 book, Hunger and Public Action. This can indeed be an effective route to a very important part of development; but we must be clear about what can be achieved by fast economic growth on its own, and what it cannot do without appropriate social supplementation. Sustainable economic growth can be a huge force not only for raising incomes but also for enhancing people's living standards and the quality of life. Yet it is also important to recognise that the impact of economic growth on living standards is crucially dependent on the nature of the growth process (for instance, its sectoral composition and employment intensity) as well as of the public policies – particularly relating to basic education and health care - that are used to enable common people to share in the process of growth. There is also, in India, an urgent need for greater attention to the destructive aspects of growth, including environmental plunder as well as involuntary displacement of communities – particularly Adivasi communities – affected by development projects.

India's recent growth achievements are indeed quite remarkable. And India does need rapid economic growth, if only because average incomes are so low that they cannot sustain anything like reasonable living standards, even with extensive income redistribution. Having said this, it would be a mistake to rely on economic growth per se to transform the living conditions of the unprivileged. Along with our discussion of "growth-mediated" development, in Hunger and Public Action, we also drew attention to the pitfalls of "unaimed opulence" - the indiscriminate pursuit of economic expansion, without paying much attention to how it is shared or how it affects people's lives. A good example, at that time (in the late 1980s), was Brazil, where rapid growth went handin-hand with the persistence of massive deprivation. Contrasting this with a more equitable growth pattern in South Korea, we wrote "India stands in some danger of going Brazil's way, rather than South Korea's". Recent experience vindicates this apprehension.

Interestingly, in the meantime, Brazil has substantially changed course, and adopted far more active social policies, including a constitutional guarantee of free and universal health care as well as bold programmes of social security and economic redistribution (such as Bolsa Familia). This is one reason why Brazil is now doing quite well, with, for instance, an infant mortality rate of only 9 per 1,000 (compared with 48 in India), 99 percent literacy among women aged 15-24 years (compared with 74 percent in India), and only 2.2 percent of children below five being underweight (compared with a staggering 44 percent in India). While India has much to learn from earlier experiences of growthmediated development elsewhere in the world, it must avoid unaimed opulence - an undependable and wasteful way of improving the living standards of the poor.

India's Decline in South Asia

One indication that something is not quite right with India's development strategy is the fact that India has started falling behind every other South Asian country (with the partial exception of Pakistan) in terms of social indicators, even as it is doing so well in terms of per-capita income. This point is illustrated in Table 1.

The comparison between Bangladesh and India is a good place to start. During the last twenty years or so, India has grown much richer than Bangladesh: per-capita income was estimated to be 60 percent higher in India than in Bangladesh in 1990, and 98 percent higher (about double) in 2010. But during the same period, Bangladesh has

Table 1									
	South A	sia: Selected Indicators (1990 and latest) South Asia Chi							
							Sri Lanka	China	
CM (DDD (1.4.ft)	1000*				Nepal			012	
GNI per capita (PPP, current int \$):	1990*	877	543	1,280	513	1,210	1,420	813	
	2010	3560	1,800	4,950	1,200	2,780	4,980	7,570	
Life expectancy at birth (years):	1990	58	54	52	54	61	69	68	
	2010	64	67	67	67	67	74	73	
Infant mortality rate (per 1,000 live births):	1990* 2010	81 48	99	96 44	97 41	96 70	26 14	38 16	
Under-5 mortality rate:	1990*	115	143	139	141	124	32	48	
	2010	63	48	56	50	87	17	18	
Maternal Mortality Ratio:	1990	570	870	940	870	490	91	110	
	2008	230	340	200	380	260	39	38	
Total fertility rate (children per woman):	1990*	3.9	4.5	5.7	5.2	6.0	2.5	2.3	
	2009	2.7	2.3	2.5	2.8	3.5	2.3	1.6	
Access to improved sanitation (%):	1990	18	39		11	28	70	41	
	2008	31	53	65	31	45	91	55	
Infant immunization (DPT) (%):	1990*	59	64	88	44	48	86	95	
	2008*	66	94	96	82	80	98	96	
Infant immunization (measles) (%):	1990*	47	62	87	57	50	78	95	
	2008*	71	98	97	80	82	97	94	
Mean years of schooling:	1990	3.0	2.9		2.0	2.3	6.9	4.9	
	2010	4.4	4.8		3.2	4.9	8.2	7.6	
Female literacy rate, age 15-24 years (%):	1991 ^a	49	38		33		93	91	
	2009 ^b	74	77	68	77	61	99	99	
Proportion (%) of underweight children Aroun	1990° d 2007 ^d	59.5 43.5	61.5 41.3	34 12	38.8	39	29 21.6	13 4.5	

^{*}Three-year average centered on the reference year (e.g. 1989-91 average when the reference year is 1990).

Sources: Mean years of schooling and life expectancy from *Human Development Report 2010*, on-line (http://hdr.undp.org); other indicators from *World Development Indicators*, on-line (www.data.worldbank.org). Some of the country-specific figures for 1990 are subject to a significant margin of error; the focus is best kept on broad patterns rather than exact numbers.

overtaken India in terms of a wide range of basic social indicators: life expectancy, child survival, fertility rates, immunization rates, and even some (not all) schooling indicators such as estimated "mean years of schooling". For instance, life expectancy was estimated to be four years longer in India than in Bangladesh in 1990, but it had become three years *shorter* by 2008. Most social indicators now

look better in Bangladesh than in India, despite Bangladesh having barely half of India's per-capita income.

No less intriguing is that Nepal also seems to be catching up rapidly with India, and even overtaking India in some respects. Around 1990, Nepal was way behind India in terms of almost every development indicator. Today, social indicators for both countries are much the same (sometimes a little better in India still, sometimes the reverse), in spite of per-capita income in India being about *three times as high* as in Nepal.

To look at the same issue from another angle, Table 2 displays India's "rank" among South Asia's six major countries, around 1990 as

^a 1990 for China; the Sri Lanka figure is an interpolation between 1981 and 2001 figures.

^b 2006 for India, 2005 for Bhutan, 2008 for Pakistan and Sri Lanka, 2009 for other countries (latest World Bank estimates).

c 1988 for Bhutan, 1991 for Pakistan, 1987 for Sri Lanka.

d 2005 for China, 2006 for India and Nepal, 2007 for Bangladesh, 2008 for Bhutan, 2009 for Sri Lanka (latest World Bank estimates).

well as today. As expected, in terms of per-capita income, India's rank has improved – from fourth to third. But in most other respects, India's rank has *worsened*, in fact quite sharply in many cases. Overall, India had the best social indicators in South Asia in 1990, next to Sri Lanka, but now looks *second-worst*, ahead of only Pakistan. Looking at their South Asian neighbours, the Indian poor are entitled to wonder what they have gained – at least so far – from the acceleration of economic growth.

The Case for a Comprehensive Approach

The need for growth-mediated development has not been

completely ignored in Indian policy debates. The official goal of "inclusive growth" could even claim to have much the same connotation. However, the rhetoric of inclusive growth has gone hand in hand with elitist policies that often end up promoting a twotrack society whereby superior ("world class") facilities are being created for the privileged, while the unprivileged receive secondrate treatment, or are left to their own devices, or even become the target of active repression - as happens for instance in cases of forcible displacement without compensation. Social policies, for their part, remain quite restrictive (despite some significant, hardwon initiatives such as the National Rural Employment Guarantee Act), and are increasingly steered towards quick fixes such as conditional cash transfers. Their coverage, in many cases, is also sought to be confined to "below poverty line" (BPL) families, a narrowly-defined category that tends to shrink over time as per-capita incomes increase, which may even look like a convenient way of ensuring that social welfare programmes are "self-liquidating".

Cash transfers are increasingly seen as a potential cornerstone of social policy in India, often based on a distorted reading of the Latin American experience in this respect. There are, of course, strong arguments for cash transfers (conditional or unconditional) in some circumstances, just as there are good arguments for transfers in kind (such as midday meals for school children). What is remarkably dangerous, however, is the illusion that cash transfers (more precisely, "conditional cash transfers") can replace public services by inducing recipients to buy health and education services from private providers. This is not only hard to substantiate on the basis of realistic empirical reading, it is, in fact, entirely contrary to the historical experience of Europe, America, Japan and East Asia in their respective transformation of living standards. Also, it is not how conditional cash transfers work in Brazil or Mexico or other successful cases today. In Latin America, conditional cash transfers usually act as a complement, not a substitute, for public provision of health, education and other basic

Table 2 India's Rank in South Asia (Six Countries)								
Indicator	India' rank among 6 South Asian countries (Top = 1, Bottom = 6)							
	In 1990	Around 2009						
GNI per capita	4	3						
Life expectancy	3	6						
Infant mortality rate	2	5						
3. Under-5 mortality rate	2	5						
4. Maternal mortality ratio	3	3						
5. Total fertility rate	2	4						
6. Access to improved sanitation ^d	4-5ª	5-6ª						
7. Child Immunization (DPT)	4	6						
8. Child Immunisation (Measles)	6	6						
9. Mean years of schooling	2-3ª	4-5ª						
10. Female literacy rate, age 15-24	2-3ª	4						
12. Proportion of underweight children	4-5ª	6						

^a Ambiguous rank due to missing data for Bhutan (or Nepal, in the case of "underweight children").

Source: See Table 1. The six countries considered here are Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka.

services. The incentives work for their supplementing purpose because the basic public services are there in the first place. In Brazil, for instance, basic health services such as immunisation, antenatal care, and skilled attendance at birth are virtually universal. The state has done its homework almost half of all health expenditure in Brazil is public expenditure, compared with barely one quarter (of a much lower total of health expenditure) in India. In this situation, providing incentives to complete the universalisation of health care may be quite sensible. In India, however, these basic services are still largely missing, and conditional cash transfers cannot fill the gap.

The pitfalls of "BPL targeting" have become increasingly clear in recent years. First, there is no reliable way of identifying poor households, and the exclusion errors are enormous: at least three national surveys indicate that, around 2004-5, about half of all poor households in rural India did not have a "BPL card". Second, India's official poverty line is abysmally low, so that even if all the BPL cards were correctly and infallibly allocated to poor households, large numbers of people who are in dire need of social support would remain excluded from the system. Third, BPL targeting is extremely divisive, and undermines the unity and strength of public demand for functional social services, making a collaborative right into a divisive privilege.

The power of comprehensiveness in social policy is evident

not only from international and historical experience, but also from contemporary experience in India itself. In at least three Indian states, universal provision of essential services has become an accepted norm. Kerala has a long history of comprehensive social policies, particularly in the field of elementary education – the principle of universal education at public expense was an explicit objective of state policy in Travancore as early as 1817. Early universalization of elementary education is the cornerstone of Kerala's wideranging social achievements.

Less well-known, but no less significant, is the gradual emergence and consolidation of universalistic social policies in Tamil Nadu. Tamil Nadu was the first state to introduce free and universal midday meals in primary schools. This initiative, much derided at that time as a "populist" programme, later became a model for India's national midday meal programme, widely regarded today as one of the best "centrally sponsored schemes". The state's pioneering efforts in the field of early child care have gone a long way towards the provision of functional Anganwadis, accessible to all, in every habitation. Tamil Nadu, unlike most other Indian states, also has an extensive network of lively and effective health care centres, where people from all social backgrounds can get reasonably good health care, free of cost. The National Rural Employment Guarantee Act (NREGA), another example of universalistic social programme,

is also doing well in Tamil Nadu: employment levels are high, wages are usually paid on time, and leakages are relatively small. Last but not least, Tamil Nadu has a universal Public Distribution System (PDS), which supplies not only foodgrains but also oil, pulses, and other essential commodities.

Himachal Pradesh began this journey much later than Kerala and Tamil Nadu, but is catching up very quickly. This is most evident in the field of elementary education: starting from literacy levels similar to the dismal figures for Bihar or Uttar Pradesh around the time of India's independence, Himachal Pradesh caught up with the highest-performing Kerala within a few decades. This "schooling revolution" was based almost entirely on a policy of universal provision of government schools, and even today, elementary education in Himachal Pradesh is overwhelmingly in the public sector. Like Tamil Nadu, Himachal Pradesh has a wellfunctioning Public Distribution System, providing not only foodgrain but also pulses and oil and covering both "BPL" (Below Poverty Line) and "APL" (Above Poverty Line) families. Himachal Pradesh has also followed comprehensive principles not only in the provision of essential social services (including schooling facilities, health care, and child care) but also in the provision of basic amenities such as roads, electricity, drinking water and public transport. For instance, in spite of adverse topography and scattered settlements, 98 percent of Himachali households had electricity in 2005-6.

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It is perhaps not an accident that Kerala, Tamil Nadu and Himachal Pradesh also tend to have the best social indicators among all major Indian states. For instance, a simple index of children's health, education and nutrition achievements clearly places these three states at the top. Despite wide historical, cultural and political differences, they have converged towards a similar approach to social policy, and the results are much the same too. There is a crucial lesson here for other Indian states, and indeed for the country as a whole.

A Concluding Remark

We hope that the puzzle with which we began is a little clearer now. India's recent development experience includes both spectacular success as well as massive failure. The growth record is very impressive, and provides an important basis for all-round development, not least by generating more public revenue (about four times as much today, in real terms, as in 1990). But there has also been a failure to ensure that rapid growth translates into better living conditions for the Indian people. It is not that they have not improved at all, but the pace of improvement has been very slow even slower than in Bangladesh or Nepal. There is probably no other example, in the history of world development, of an economy growing so fast for so long with such limited results in terms of broad-based social progress.

There is no mystery in this contrast, or in the limited reach of India's development efforts. Both reflect the nature of policy priorities in this period. But these priorities can change through democratic engagement – as has already happened to some extent in specific states. However, this requires a radical broadening of public discussion in India to development-related matters. An exaggerated concentration on the lives of the minority of the better off, fed strongly by media interest, gives an unreal picture of the rosiness of what is happening to Indians in general, and stifles public dialogue of other issues. Imaginative democratic practice is essential for broadening and enhancing India's development achievements.

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Infrastructure Investment in the Eleventh Plan and Prospects

Manoj Singh



The approach to
the Twelfth Plan is
marked by enhanced
requirements
of funds for all
the sectors of
infrastructure
to keep up the
momentum of not
only meeting the
deficit in quantum
required but also for
improving the quality
of infrastructure

MID-Term Appraisal of the Eleventh Plan reiterated a known fact that weaknesses in infrastructure, particularly in the energy and transport sectors, are possibly the most important constraints in the growth of the economy in the medium term. Recognizing the importance of the infrastructure development, the Eleventh Plan had estimated that the investment needed over the Plan period was about US\$500 billion, compared to a likely 'business as usual' projection of US\$ 300 billion. It was envisaged that the gross capital formation (GCF) in infrastructure should rise as a share of GDP from 5 percent in 2006-07 to 9 percent by the end of the Plan period. On the

above basis, the aggregate capital

formation would rise from Rs.2.6

lakh crore in 2007-08 to Rs.5.74

lakh crore in 2011-12 at constant

2006-07 price. Total investment

on this basis during the Eleventh

Plan was projected at Rs.20.5 lakh

crore (or US\$ 514.04 billion at

40/\$) or 7.6 percent of GDP. This

investment was to be achieved

through a combination of public

investment and private initiative, including through PPP. The relative role of the public and private sectors was expected to vary. In some sectors such as irrigation and water resources management, construction of rural roads, capital dredging at major ports, as well as in certain economically or situationally disadvantaged regions, the bulk of the investment in infrastructure would have to come from the public sector. The strategy for the Eleventh Plan encouraged the private sector participation directly as well as through various forms of PPP. It was envisaged that the share of the private sector in infrastructure investment would rise from 20 percent anticipated in the Tenth Plan to around 30 percent or Rs.6.2 lakh crore in the Eleventh Plan. The expectation was that as in the telecom sector, competition and private investment would not only expand capacity but also improve the quality of service in Indian infrastructure. It was expected that there would be sectoral variations in the quantum of private sector funding; roads and bridges, telecommunications, ports, airports, storage and gas distribution are projected at higher than average

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private sector contribution ranging upwards of 30 percent with over 60 percent in ports, airports and telecommunications.

Looking ahead to the Twelfth Plan, the mid-term appraisal document projected that the investment in infrastructure will be around 8.37 percent of the GDP in the base year of the Twelfth Plan (2011-12) which would go up to 10.70 percent in the terminal year (2016-17) aggregating to 9.95 percent of the GDP during the Plan period. This is, of course, predicated on the growth of GDP at 9 percent during the Twelfth Plan period. These projections of investment in infrastructure in the Twelfth Plan. if realized, would be of the order of Rs.40.99 lakh crore or US\$ 1,025 billion (at Rs.40/\$) or US\$ 1 trillion. The Mid-Term Appraisal estimates that at least 50 percent of this investment would have to come from the private sector i.e. the private sector investment would have to increase from Rs.13.11 lakh crore to Rs.20.5 lakh crore (at 2006-07 prices) which would be an increase of 9.34 percent in real terms.

As we approach towards the end of the Eleventh Plan and the launch of the Twelfth Plan, the above projections are in the process of getting compiled and analysed by the Planning Commission. The focus of this paper is to look at each of the important infrastructure sectors and see how the same has performed in generating the investment that was forecasted. This review is done on the basis of preliminary analysis of the reports of the working group for different sectors set up by the Planning Commission as part of the preparatory work for the Twelfth Plan formulation exercise. It has to be appreciated, however, that the projections of investments made by the working group are only in the nature of requirements of investment and not necessarily what has been made available to each of the sector. The exercise of resource allocation will be taken up as part of the Twelfth Plan formulation exercise which is currently going on as pointed earlier.

Power

The Eleventh Plan had projected investment of Rs.6.6 lakh crore in the electricity sector and as per the mid-term appraisal the expected investment would be close to this figure mainly on the strength of the growth of nearly 55 percent in private sector investment. The Twelfth Plan is targeting additional power capacity creation of 100 GW. The share of the private sector in the total incremental capacity is likely to increase to 50 percent from the level of 33 percent achieved in the Eleventh Plan. Most of the incremental capacity being thermal, issues related to coal availability will be very crucial to be sorted in the Twelfth Plan. Domestic coal production targeted to touch 680 million tonnes in the terminal year of the Twelfth Plan would reach only 554 million tonnes. In the Twelfth Plan, the production is not likely to touch more than 750 million tonnes which would be substantially short of the demand of 900 to 1,000 million tonnes. This leads to requirement of substantial imports leading to its own problem of evacuation capacity of ports and transport links apart from the cost differential between domestic and imported coal.

Telecom

The telecom sector has really grown during this Plan period and as per estimates of the mid-term appraisal, the investment in this sector is likely to be Rs.3.5 lakh crore, which is 34 percent higher than the original estimate. This over-achievement is due to a 60 percent higher level of investment by the private sector as compared to the original projections in contrast with the nearly 24 percent lower investment by the central sector. The total connections have gone

up to 899 million according to a TRAI report, which despite the concerns of multiple connections, is a sizeable number. This sector can be easily classified as a success story of the Eleventh Plan.

Oil and Gas Pipelines

This sector has also done well in terms of attracting investment. It is expected to receive investment worth Rs.1.27 lakh crore as against the target of Rs.16,855 crore. The Twelfth Plan is expected to lay greater emphasis on developing strategies which will permit the expansion of gas usage including LNG so that the portfolio of hydrocarbons is more evenly spaced out. Expansion of gas pipeline will be an important part of this strategy. The expansion in oil pipeline is likely to continue due to the advantages of transport of oil by pipeline vis-à-vis the surface transport modes and coastal shipping.

Irrigation

Investment in irrigation and watershed management is a critical part of the rural infrastructure which remains almost exclusively in the domain of the public sector since water charges account for only around 20 percent of the operating costs. The mid-term review estimates that the total investment in this sector in the Eleventh Plan is likely to be Rs.2.46 lakh crore which is 7.5 percent higher than the original projections and more than double the investment of Rs.1.19 lakh crore in the Tenth Plan.

Rural Infrastructure

Bharat Nirman, launched in 2005 for upgradation of rural infrastructure comprehensively across the sub-sectors, aims to provide electricity to 1,25,000 villages and to 23 million households; connect the remaining 66,802 habitations with all weather roads; provide drinking water to 55,067 uncovered habitations; provide irrigation to an additional

10 million ha; and connect the remaining 66,822 villages with telephones. It is estimated that out of the total projected investment of Rs.13.11 lakh crore to be incurred by the Centre and the states on all infrastructure sectors during the Eleventh Plan, about 3.94 lakh crore or 30% would be invested towards improving rural infrastructure.

Railways

Railways were expected to generate investment of Rs.2.33 lakh crore in the Twelfth Plan against which the actual investment is likely to be Rs.2.03 lakh crore i.e. a shortfall of nearly 13 percent. The financing pattern of the Railways has progressively shifted towards greater reliance on support from general exchequer and market borrowings during the course of the Eleventh Plan.

The Twelfth Plan for Railways is being formulated in the perspective of Vision 2020. Some key issues that have to be considered are urgent need to modernize, problem of saturated routes, low average speed & payload to tare ratio; safety; an extremely large shelf of projects and new projects still being sanctioned; huge committed financial liabilities on assured offtake models, equity requirements and counterpart funding for DFC, ROBs/RUBs, feeder route strengthening, debt servicing of IRFC; setting up of North Eastern Region Railway Development Fund; growth of earnings not commensurate with increase in expenditure and rising pension liabilities. There is a growing realization that investment will have to be hiked for the railways to address the capacity constraints in the sector. In the coming Plan period, the two dedicated freight corridors are likely to be completed. There are Plans for the feasibility of another three or four more dedicated freight corridors – Delhi–Chennai, Howrah-Mumbai, Mumbai-Chennai and Chennai-Kolkata -

to be taken up during the Twelfth Plan. There is a need for taking up a high speed rail corridor also. The capacity of passenger segment needs augmentation by adding coaches and increasing speeds as does the freight segment by addition of wagons and enhancing speeds. The projection of investment by the Working Group of the Railways for the Twelfth Plan is Rs.7.19 lakh crore of which more than 50 percent is expected from the budgetary support and less than 10 percent from the private sector. Among the transport sectors railways have to be given priority in view of the energy, land and environmental considerations. Despite this thrust, Railways may have to work out a strategy for attracting a higher share of the planned investment from the private sector including PPP given the likely difficulties in generating such a high level of budgetary support.

Rural Roads

As an effective poverty alleviation strategy, "Pradhan Mantri Gram Sadak Yojana" (PMGSY) was launched in the year 2000, as a centrally sponsored programme and a onetime special intervention. The primary objective of the programme was to provide connectivity by way of all-weather roads to unconnected habitations with population 1000 and above by 2003 and those with population 500 and above by 2007 in rural areas. In respect of hilly/desert/tribal areas, the objective is to link habitations with population 250 and above. Up-gradation of selected rural roads to provide full farm to market connectivity is also an objective of the scheme, though not central. The programme has since been implemented by the Ministry of Rural Development, Government of India. The basic time frame for completion of the programme was perceived to be 2007, however, because of constraints of capacity of implementation in the States and availability of funds, the targets

of the programme have not been achieved so far. On the whole this scheme is considered to be a successful scheme. The investment in this scheme in the Eleventh Plan is expected to be 59,751 crore. The projected investment by the working group for the Twelfth Plan is Rs.2 lakh crore. Since the opportunity of attracting PPP in this sector is not high, the working group has projected the entire demand from the budgetary support.

Central Roads

In the Eleventh Plan, around 9,044 kms of road would be constructed under various phases of the NHDP programme. Besides this, 1,012 km in the North-East package and 1,051 km under the road building under the Left Wing Extremism affected area would be completed. At present, out of 71,772 km of National Highways about 24 percent length is of 4-lane and above standard, 52 percent length is of Two-Lane standard and 24 percent length of single and intermediate standard. Out of the projected investment of Rs.1.9 lakh crore expected in the Eleventh Plan, the actual investment is likely to be Rs.1.52 lakh crore which reflects a shortfall of 25 percent. The share of private investment is expected to be Rs.62,630 crore or 41 percent. This shows that the PPP programme in the road sector has stabilized and progressing well. The working group on central roads for the Twelfth Plan has projected an investment requirement of Rs.4.83 lakh crore of which the private sector component is Rs.1.78 lakh crore or 37 percent, the rest expected to come from budgetary and extrabudgetary sources, including Cess on petrol and diesel. More than 30,000 kms of national highways as well as 7000 km of roads under the North East and nearly 13,000 km of roads under the LWE areas would also be targetted to be completed during the Twelfth Plan. There is a Plan to invest in expressways also,

although these may not be very cost effective.

Civil Aviation

During the last five years, India has become the ninth largest civil aviation market in the world with the passenger handling capacity having risen three-folds from 72 million (FY 2006) to over 220 million (FY 2011) and cargo handling capacity having risen from 0.5 million MT (FY 2006) to 3.3 million MT (FY 2011). The projected investment in the Eleventh Plan in the civil aviation sector is Rs.50,000 crore from GBS and extra-budgetary sources and Rs.30,000 crore of private investment in the airports. In the Twelfth Plan, the working group has projected an investment requirement of Rs.75,000 crore for airports of which 75 percent is expected from the private sector and another Rs.55,000 crore for other aspects of civil aviation investment such as Air India which is expected to be funded from the budgetary and extra-budgetary sources.

Ports

Progress in the port sector has been relatively lower than expectations. The original target was Rs.87,995 crore, including private sector investment. The public sector component was Rs.30,305 crore of which the amount likely to be realized is lower at a value of Rs.7,685 crore. The private sector investment in the port sector is likely to be Rs.36,868 crore thereby bringing the total investment to around Rs.44,500 crore, nearly 50% of the originally targeted. The main reason for the slow progress is because the ministry of shipping did not award any PPP projects during the first two years of the Plan because of the pending amendments to the model contract agreement. The major expansion has taken place in the non-major port sector being promoted by the states which have contributed to nearly 80 percent of the private sector investment.

In the Twelfth Plan period, port capacity expansion is a major thrust area for both the major and non-major ports. The total investment proposed in the Twelfth Plan (without the private sector) is Rs.4,338 crore. It is expected that the thrust of the private sector port expansion strategy will continue in the Twelfth Plan and it is expected that the capacity in the non-major segment will overtake the major ports capacity during the Twelfth Plan period. Looking at capacity expansion in the port sector overall, it seems that the capacity will be more than the demand which will be a positive aspect for the quality of service.

Constraints

The Working Group set up by Ministry of Road Transport and Highway on Central Roads has expressed the view that the existing policy of environmental clearances is causing substantial delay in project award and implementation. It has been observed that wildlife proposals also take more than 3 years for clearance. The Working Group has proposed to delink the grant of environmental clearance from the forest clearance and exempt environmental clearance if widening is within the standard Right of Way (RoW) for National Highway and up to 100 km length. A rational time line for processing and finalizing the various clearances should be prescribed by the Ministry of Environment and Forest.

Land acquisition is also a long drawn process which causes serious delays to road and other infrastructure projects. The policy of land acquisition is presently governed by the Land Acquisition (LA) Act, 1894. The government has taken up initiatives for amendment of this which is in advanced stages of finalization. Land acquisition for national highway projects needs constant support of the concerned state. However, there is absence of any overall framework

or mechanism specifying the role and steps to be undertaken by the state government in providing assistance to NHAI in acquiring land in their state.

Review of the port sector projects by Planning Commission has shown that procedural bottlenecks have come in the way of finalizing projects. During the review, it was found that more than 10 projects are still pending with Ministry of Home Affairs (MHA) for more than three months for security clearance. During the year, not more than 8-10 projects can be awarded at this pace. Non-major ports don't require any security clearance from MHA and these ports are operating without MHA clearance. Administrative procedures need to be streamlined and simplified so that most of the projects are approved in time. This includes enhancement of limits of the departmental finance committee so that most projects can be cleared within the Ministry itself.

Conclusion

Investment in infrastructure sector in the Eleventh Plan has shown definite improvement over the previous Plans. While computations and analysis is going on to look into the actual performance, it is apparent that performance has varied over various sectors of infrastructure. Telecom and gas and oil pipelines have received good investments where as many other sectors have not been able to secure the investments outlined in the Eleventh Plan. The approach to the Twelfth Plan is marked by enhanced requirements of funds for all the sectors of infrastructure to keep up the momentum of not only meeting the deficit in quantum required but also for improving the quality of infrastructure so that the wider economy can receive benefits from better quality infrastructure.

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(हिन्दी & English Medium) with Saroj Kumar

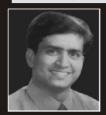
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Corruption and the Twelfth Plan

Bibek Debroy



Public perception
of corruption as a
pervasive problem
has increased. This
is in part because of
greater awareness
and increased
transparency and
also the operation
of a vigilant Press

F ONE is writing on the 12th Five Year Plan (2012-17), corruption is an odd issue to pick. After all, Planning Commission is not

perceived as an organization that has done a great deal of work on corruption. However, corruption is an important and topical issue. A Google search on Planning Commission's website shows there are several hundred studies (341 to be precise) that have referred to bribery and corruption. The Approach Paper to the Twelfth Five Year Plan has just been finalized and there is acknowledgement there too.

That acknowledgement requires a longish quote. The Approach Paper states, "Poor governance leads to corruption, both petty and large, both of which corrode the moral fabric of the society. Large scale corruption occurs either because of mishandling of government contracts, or because discretionary decision making in some areas is used to the advantage of some. Corruption undermines the legitimacy of the system in

the eyes of the public and reduces potential for achieving efficiency through competition. Corruption surfaces in many forms, all of which erode the confidence of the citizen in the quality of governance. They range from petty corruption associated with getting permissions that should be routinely available, large scale corruption associated with faulty procedures for handing large contracts and also corruption arising from discretionary decision making. However, public perception of corruption as a pervasive problem has increased. This is in part because of greater awareness and increased transparency (e.g., the Right to Information Act) and also the operation of a vigilant Press, especially the electronic media. ... The view that economic reforms have bred corruption is not correct. Many reforms, such as the abolition of industrial licensing and import licensing have actually ended corruption in areas where it was earlier widely prevalent. However, rapid economic growth has caused sharp increase in the value of scarce resources, e.g., minerals, spectrum, or land and as long as these are allocated on the basis

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of discretion exercised in a nontransparent manner, the likelihood of corruption increases. It is the lack of reforms in these areas to reflect the needs of the situation that is the real source of the problem. We must aim at preventing corruption through further simplification of procedures for delivery of public services introducing greater transparency in public procurement processes. We must also strengthen mechanisms for dealing with corruption after it occurs through institutions such as the Lokpal and Lokayuktas. Corruption associated with government contracts can be minimized by restructuring government procurement processes. An Expert Committee has recommended enactment of a National Public Procurement Act in line with international practice in many countries. UNCITRAL has recently published a new model Public Procurement Law, replacing its earlier model law published in 1994. The Government has announced its intention to put a suitable law in place along these lines as soon as possible... Corruption in the interface between the aam aadmi and the government is a common source of public unhappiness. It is vital that systems for delivery of public services should be made citizen-friendly and time-bound. This requires reforms in the implementing agencies, including in the State Governments where most of the public services are delivered at the grassroots level. Information and Communication Technology (ICT) can play a major role in achieving these results. A citizen's charter which lays down the quality standards in delivery of services will help greatly. Perceptions of public services and quality of governance can be measured and evaluated by independent institutions in terms of citizens' report cards or social audits through surveys focusing on levels of satisfaction from public services as perceived by citizens."

There are several elements in this longish quote and let us focus on the ones that deal with petty corruption, that is, corruption associated with the delivery of public goods and services. That there is greater awareness about petty corruption is probably true and examples can be given about countervailing pressure, directly and indirectly.

First, there is the central Right to Information (RTI) Act, enacted in 2005. This followed State-level laws enacted in Tamil Nadu (1997), Goa (1997), Rajasthan (2000), Karnataka (2000), Delhi (2001), Maharashtra (2002), Assam (2002), Madhya Pradesh (2003) and Jammu and Kashmir (2004) and followed the movement spearheaded by Mazdoor Kisan Shakti Sangathana (MKSS) in the 1990s. While reservations have legitimately been expressed about quality of information disseminated through RTI applications and the exclusions permitted and there are instances of RTI activists actually having been murdered, there have been several successes because of RTI. However, the performance of RTI does vary across States. Public Cause Research Foundation's RTI Awards are not quite a ranking of States. Nevertheless, this shows the inter-State variations.

Second, there have been citizens' charters, an initiative launched in 1997. They resulted from a Chief Ministers' Conference in May 1997. where an "Action Plan for Effective and Responsive Government at the Centre and the State Levels" was adopted. Citizen charters aren't only about the Central government and its ministries and departments. They also extend to State governments. In 2007, the Public Affairs Centre, Bangalore, undertook a review of these citizen charters and the overall finding was as follows. "Most government agencies seem to have viewed implementing a Citizen's Charter simply as an exercise in drafting a short document rather than an opportunity to fundamentally institute systemic changes to improve service delivery quality and increase accountability." States like Andhra Pradesh and Tamil Nadu tended to perform better.

Third, States like Karnataka have had a Lokayukta. The Karnataka Lokayukta Act was passed in 1984. The first Administrative Reforms Commission, which submitted a report in 1966, had recommended that anti-corruption Ombudsmen should be set up at the Centre and in the States. This would be called the Lokpal at the Centre and Lokavuktas in States. Other than Karnataka, Lokayuktas, or their equivalents, exist in Andhra Pradesh, Assam, Bihar, Chhattisgarh, Delhi, Gujarat, Jharkhand, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttarakhand and Uttar Pradesh. However, State-level Lokayuktas have been set up under State-specific legislation. This means that there is no centralized template and powers of Lokayuktas vary widely. This also largely explains why Lokayuktas haven't made a systemic difference, success being contingent on the individual who has been appointed as a Lokayukta. Very few have undertaken suo motu investigations. There are also problems with the Lokayukta's powers. Some areas are outside Lokayukta's jurisdiction. The recommendations of Lokayuktas are not mandatory and Lokayuktas do not have the power to punish. In parallel with Lokayuktas in States, there was supposed to be a Lokpal at the Centre and several Bills (1968, 1971, 1977, 1985, 1989, 1996, 1998, 2001, 2005, 2008) have lapsed and haven't yet led to the enactment of a Central legislation. The success of any such institution is contingent on it being independent of government, including the

selection process. Hong Kong's Independent Commission Against Corruption (ICAC), established in 1974, is a case in point.

Fourth, there might be a law for protecting whistleblowers soon. More specifically, this is the Public Interest Disclosure and Protection to Persons Making the Disclosure Bill, which has been approved by the Cabinet. There have been high-profile instances of whistleblowers like Satyendra Dubey and Shanmughan Manjunath being murdered, though Shanmughan Manjunath was not quite a whistleblower. Countries like USA, UK, Australia and New Zealand have laws to protect whistleblowers.

Fifth, there have been initiatives like the zero rupee note, created by a NGO named 5th Pillar. These are meant for public servants who demand bribes for public services. These have evidently been successful in reducing corruption in cities like Chennai, Bangalore and Hyderabad. In similar vein, there has been the "Jaago Re" campaign of Tata Tea and Janaagraha and the Ipaidabribe campaign.

Sixth, there have been initiatives like the Citizen Report Cards of Public Affairs Centre, Bangalore. The use of citizen report cards has led to improvements in the quality of service delivery and reduction in corruption. The Centre for Innovations in Public Systems (CIPS) at ASCI (Administrative Staff College of India, Hyderabad) has also experimented with such ratings.

Seventh, Madhya Pradesh was a pioneer in enacting a Public Service Guarantee Act in 2010. For some public services (birth certificate, caste certificate, domicile certificate, water supply through taps, khasra copies and death certificate), this piece of legislation has time-lines for delivery. If there is a delay

in delivering the service, a fine is imposed on the relevant officer. Jammu and Kashmir, Rajasthan, Chhattisgarh, Himachal Pradesh, Delhi, Uttar Pradesh and Punjab have followed suit and there may also be a Central law along similar lines.

Is it true that with reforms, these petty kinds of corruption have declined? On balance, this is probably true, except in instances where fresh public expenditure has provided newer avenues for corruption. MGNREGS is an example. But is it invariably the case that public monopolies have been eroded, offering choice and private sector delivery, monopoly being a prerequisite for systematizing corruption? That is certainly not the case and choice is often restricted to richer and urban India. The countervailing pressure by civil society changes the demand, triggering pressure for better quality of public goods and services. However, supply-side changes require civil service reform. Despite several recommendations about what should be done, nothing has significantly changed on this. Nor have there been any improvements on the anticorruption legal machinery. More importantly, the interface between the citizen and the government, for petty kinds of corruption, is at the level of the local body, not at the level of the Centre or the States. Supply-side changes require improvements in the channel of supply. Who determines what these public goods and services are? Who determines how resources are devoted to these? With proper decentralized planning and devolution of powers to local bodies, such questions should be answered by local bodies. However, they continue to be determined centrally and countervailing pressure has succeeded in demanding more (and better) from local body officials,

who are often inadequately placed to cater to these needs.

Not long ago, Kaushik Basu, the Chief Economic Adviser, created a flutter by writing a paper which suggested that, for some types of bribes, the giving of bribes should become legal. He meant harassment bribes, bribes paid for goods and services that people are entitled to. For such kinds of corruption, there is an oft-cited formula that has a lot of validity. Corruption = (Monopoly + Discretion) -(Accountability + Integrity + Transparency). "The most cited causes of corruption include: (1) the absence of rules, regulations, policies and legislation; (2) weak systems of enforcement; (3) weak systems of oversight (i.e., the absence of a watchdog institution); (4) lack of accountability; (5) lack of transparency; (6) lack of checks and balances in the system (e.g., institutional weaknesses in the legislative and judicial systems); (7) lack of integrity; (8) monopoly of power; (9) high degree of discretion; (10) low salaries; (11) high rewards compared to risks; and (12) low detection rate." Therefore, the antidote to corruption also follows. First, there is an issue of reforming the civil services. including codes of conduct, salaries, entry and promotions and laws against corruption that are credible. Second, this implies the existence of independent anti-corruption bodies. Third, the monopoly in providing public services can be ended by enabling private sector delivery, since many such public goods and services are no longer instances of market failure. Fourth, public procurement needs to become much more transparent. Fifth, countervailing pressure must be created by civil society, which in turn, requires awareness and dissemination of information. Only a few of these pre-conditions have been met so far.

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BEST PRACTICES

The Jasmine Blooms

Lasya B

N ONE of the streets of Mysore, just before dusk when the soft glowing light from the sky spreads twilight all around, a dark, sturdy woman appears carrying a basket placed precariously on her head. The sweet fragrance from the basket tells, from yards before you reach her, that the basket she is carrying has flowers in it. Minutes later she can be seen going to almost every doorstep of that locality, giving out a shout to announce her arrival. Her voice pulls out the house owner who obediently comes out to take the flowers. The scene may appear to be just run-of-themill, something that can be seen on any street of a city; but, there is something remarkable about this woman who has been selling flowers in the J.P.Nagar area of Mysore for the 6-7 years.

Mahadevamma is a 38-year-old lady residing in a remote village of Nanjangud, 30 kms from Mysore city. She was married to a mason when she was as young as 14 years. The starry-eyed girl entered her new phase of life with numerous dreams. But by the time she found out

that her husband was a drunkard, irresponsible and insensitive person, she already had two daughters and was pregnant with third child. The real trouble came when her husband started shirking from work and squandering away all the money Mahadevamma had saved on gambling and alcohol. He would thrash her inhumanely whenever she pleaded him to stop. With no



Women like Mahadevamma have time and again proved the enormous potential women have in them.

one from her family, including her parents, to provide any financial help, it was imperative for her to go out and work. To quench the hunger of the growing children, to provide them with a frugal meal everyday, she had to earn. She decided to work in a nearby hotel. Years of ceaseless work took a toll on her health. Doctors diagnosed her with

arthritis. Unable to move even an inch from where she laid, she spent awful days and nights looking at the naked, diseased tree that was so symbolic of her from the window of her home. Her mind was brimming with questions about her future, her two daughters' future, and the ways of earning livelihood. However, she could not afford to lavishly take rest sleeping all the day. All the savings was already spent on the medicines and lying on the bed only made the condition worse. When she came up with this idea of selling flowers, she mustered all her strength and got out of the house. It was not long before she found out that the traditional way of selling flowers would not be sufficient for her family. So, she adopted this new approach. Here is a quick summary of her daily routine.

Mahadevamma wakes up early in the morning to buy fresh *jasmine*, *kanakaambara*, *marle*, *kaakada*, *sampige*, and other flowers from the market in Nanjangud. Later she distributes them to eight different ladies in her neighbourhood who start tying them into beautiful garlands. Mahadevamma has outsourced this job to others to

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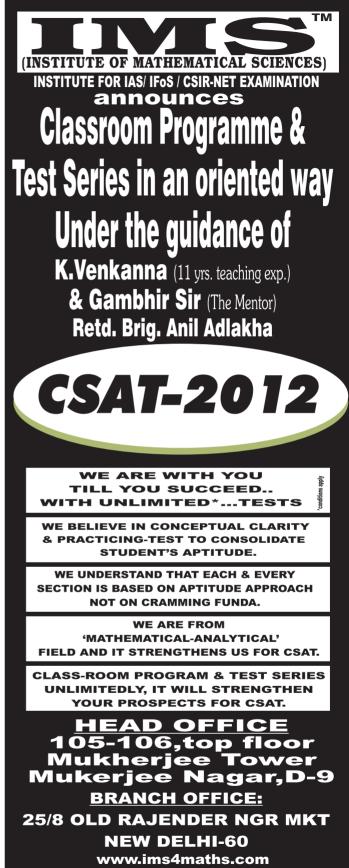
whom she pays a part of her profit. Meanwhile, she comes back home to finish other household chores. Neither her drunkard husband nor her lazy son has ever helped her in her flower business or in the kitchen. After finishing all the cleaning, cooking, and washing work at home, she collects the tied flowers from the houses and brings them to Mysore city by evening train. She has more than 70 regular customers in Mysore. She goes to each of these houses and delivers their favourite flowers to their doorstep. As a shrewd florist, she makes considerable business by selling in front of wedding halls and temples on festivals and other special days. If it gets dark by the time she finishes distributing the flowers she sleeps in one of her customers houses, who has been generous enough to provide her with a warm place to sleep. She wakes up early to catch the train back to her village to fetch flowers for her next day's business and she is back into her brisk schedule.

Mahadevamma has come a long way. She has been in this business for a little less than seven years now. She is not just feeding her own family but has also been a source of income for eight other families. She makes a business of 25-30 thousand Rs every month and a clean profit of 7-8 thousand Rupees per month. She pays about 600-700 Rupees every month to those eight ladies who tie garlands for her. The flower business has given her enough money to finish the marriages of her two daughters. She is no university-graduate feminist who talks of women empowerment and domestic violence; nonetheless, has empowered eight families in her neighbourhood by providing them means to earn money by utilizing their spare time. The payment she makes them may be small, but it is by no means negligible.

She has built a life worth living all by herself, a self-propelled journey which has taught her to be diligent and honest. Her daughters are leading a good life and she is happy about it. She never forgets to go to Chamundeshwari temple where she offers a metre of flowers everyday to the goddess as a token of love and gratitude. She is so committed and energetic that she cheerfully says she wants to work till the last day of her life.

Women like Mahadevamma have time and again proved the enormous potential women have in them. Mahadevamma is just one example. There are more such examples around us, where in women from different walks of life have shown their true mettle and exhibited entrepreneurial spirit, setting examples to many others who are in similar distress.

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Agriculture in the 12th Plan Approach

Yoginder K Alagh



The rural urban continuum estimates that an increase of 7 percent in the real wage rate in agriculture is possible if the cropping intensity outcomes of successful water projects are replicated. This is a lot and worth aiming at

HAD WRITTEN an invited piece on the future of Indian agriculture in a rural urban continuum which was published in the Special number of Yojana. I followed it up in a more elaborate technical piece in the Indian Society of Agricultural Economics Society journal (Yoginder K. Alagh, April-June 2011, pp.165-177). These pieces looked at emerging problems and opportunities. Many of these ideas have been incorporated in the Approach Paper and some are not. I decided to revisit the projections and policies in the rural urban

The Approach Paper is good in agriculture. It does not have many new ideas, but it is practical. It does not have the fire of the Mid Term Appraisal (MTA) of the Tenth Plan and the Eleventh Plan but discusses in a reasonably complete manner most issues relating to agriculture. We discuss the issues they have laid out.

continuum paper in the light of the

Approach Paper so that we can be

of assistance to the policy makers

in the course ahead.

Water

This is an issue highlighted outside agriculture and yet is critical for it. In fact many issues for agriculture are strictly outside the sector but are critical in the new development ray of the economy. The Approach paper says:

'Based on the aquifer mapping exercise, we need to develop sustainable groundwater management plans for each aquifer. This requires action on the ground involving partnerships of stakeholders at the villagelevel with hydro-geologists and social mobilizers, who would guide collective sharing and sequential use of groundwater based on a careful understanding of the storage and transmission characteristics of different aquifers in each of the hydrogeological settings outlined in the MTA of the XIth Plan. Promising work on a reasonable scale has started in this direction in Andhra Pradesh. The Andhra Pradesh Farmer Managed. Groundwater Systems (APFAMGS) project is supported by the Food and Agriculture Organization and implemented by NGOs in seven drought-prone districts of Andhra

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Pradesh. The project employs participatory hydrogeological monitoring, by engaging farmers in data collection and analysis, and building their understanding of the dynamics and status of groundwater in local aquifers. This is complemented with *crop water* budgeting, whereby the quantity of water required for crops is assessed at the aquifer level and compared with the amount of groundwater actually available to arrive at a suitable cropping pattern that would permit sustainable groundwater use. The total outreach of the programme is estimated at 1 million farmers. Such initiatives need to be undertaken at many more locations in the Twelfth Plan.'

In the rural urban continuum paper we refer to the report which highlights the APFAMGS (Yoginder. K. Alagh, 2009. Evaluation Report of FAO Cooperation with India: 2003-2008, Rome, FAO), but more is necessary, as we see later.

Food Demand and Food Security

The Approach Paper says 'On the demand side, a 9 percent growth of the economy as a whole is expected to generate the demand to support 4 percent growth in agriculture with foodgrains growing at about 2 percent per year and non-food grains (notably, horticulture, livestock, dairying, poultry and fisheries) growing at 5 to 6 percent.

7.9 The challenge is how to feed India's growing population with rising incomes, but limited land and water resources. The economy is expected to grow strongly and, pressure on food demand is likely to remain strong over the Twelfth Plan period although consumption is likely to be more diversified as cereals now account for only 15 percent of the total consumption expenditure.

7.10 The food consumption basket is getting increasingly diversified and though cereals still dominate, this dominance is being increasingly eroded by rising expenditure on fruit, vegetables, milk, eggs, meat and fish which together is sometimes referred to as "high value" segment. This transformation of the Indian food consumption basket is in-line with expectations. The NSSO data also shows that between 1993/94 and 2004/05 per capita human consumption of cereals increased among the poorest 5 percent of the population, while it fell among the remaining 95 percent. The decline was also sharper in rural areas than in urban ones. However, cereals demand for animal feed is accelerating.

I am very happy because the planners have fallen in line. We have said this all along also in the rural urban continuum. 'My projections contained in Table 2 for the UN, include diversification away from grains and are lower for cereals and foodgrains as compared to the IFFPRI and other Normative projections. However the non foodgrain projections are much higher than those of the High Foodgrain Indian Projections. Our projections from the UN Alagh model (Y.K. Alagh, UNU, 2000, 2001, 2006) as described in decadal growth earlier are as follows:

Table 2: Agricultural Projections for India 2020: Commodity 2020 (mn. tonnes); Foodgrains 225, Edible Oil 19, Sugar 42, Potato 40 Fruits and Vegetables 176, Milk 128, Meat 6, Eggs 5; Fish 14.

We showed earlier that for the poor, Cereals have a low expenditure elasticity in the Nineties for the same group. The elasticity was low for the poor in the Seventies and is less than 0.5 for the same group in the Nineties. Table 2.5 gives another feature. For commodities like milk and milk products, eggs and meat, edible oil and sugar, the estimates of expenditure elasticities were high for poor households, in

some cases above 2, but were below 1 although not very low for the nonpoor. There is a large literature on the declining consumption share of grains by poor households in India and its impact on poverty estimates. The horror story that targeting the poor will hurt diversification is wrong. We have always argued that the really poor must be targeted. These are the women headed households, the destitutes, the girl child and so on. It may be noted that the NAC has also opposed the EGOM which was leaving this category of beneficiaries to the States. Actually I worry about the severely malnourished girl child in the areas called the geography of hunger in India. For the country as a whole my worry could be as low as a sixth, but for some areas that cohort will be three out of four.

We will of course make mistakes. To begin with all such estimates are stochastic in nature and only the charlatans and some politicians are always sure. But corresponding to market signals, India's vibrant democracy will tell us where we are wrong. Everybody will want free food. Who doesn't, but once its known its not given our people are realistic enough to accept that the subsidy has to go according to need as the Planning Commission says. Areas and population cohorts of severe malnutrition or what is called chronic deprivation will need a special focus. The correlates of these distributions are known but will be finessed with praxis. The really deserving must get food free. Here the Planning Commission seems to suggest some market elements and that needs serious relooking. It will frighten away the really deserving and market logic can be carried too far. The Commission talks of need. It must operationalise that. Beyond that they are right. Actually the idea that the above poverty line population is entitled to grain from the PDS at an MSP plus price is a googly, if there ever was one. The average Indian well-to-do housewife is clever enough to stay away from the ration shop at an MSP plus price.

Action on Major Policies

Widespread agricultural growth is the answer. It is not enough to project but also act on Markets (already shown as weak), water, technology and economic support.

Water Management the Approach says is critical for agriculture :

'Steps to greatly improve governance in water management through Water User Associations such as Pani Panchayats and similar PRI-based institutions. A focus on Command Area Development and the rehabilitation and physical modernisation of existing major irrigation systems. Extensive rainwater harvesting assisted by space-based maps with active ground truthing and convergence with other development schemes. Comprehensive aguifer mapping and extensive ground water recharge.Move towards sprinkler and drip irrigation and away from flood irrigation. Enable assured irrigation to much more land far beyond the present 42 percent of arable land. Strengthen drinking water resources. Integrate these activities with existing surface reservoir based canal irrigation.'

The rural urban continuum says 'While a lot of research has been done and is available, (Alagh, FAO/ UNESCO, 2002) the real issues are policy rules for fast replicability of existing knowledge and success stories. Community institutions have to be at the heart of this process. Successful projects examined have varied considerably. Watershed development, for settled agriculture alternately tree crops, reclamation of saline lands, farmers run lower level irrigation systems, aquifer management in difficult situations, like coastal aquifers, tribal irrigation cooperatives, tank irrigation have all been reported as success stories and studied. The question is replicability on a larger scale. We have (YK Alagh, 2003) tried to set out some policy rules which we argued if applied in functioning policies may reverse the tide. Progress has recently been reviewed (Planning Commission, 2007).'

The rural urban continuum estimates that an increase of 7 percent in the real wage rate in agriculture is possible if the cropping intensity outcomes of successful water projects are replicated. This is a lot and worth aiming at.

The Approach Paper says; 'Technology is the main prime mover of productivity in agriculture where natural resources are fixed. Studies have shown that at least one third of the future growth in productivity should come through innovations in crop technologies. Public sector technology generation often fails to take into account farmers' needs, perceptions and location-specific conditions for each crop, leading to significant gaps between the varieties released by public sector institutions and the number of varieties actually used by the farmers. Private sector research and the seed industry often focus on those crops and varieties which have adequate scale (massive markets) and scope (repeated sales). As a result, some crops/crop groups get little research attention. This phenomenon is most visible predominantly rainfed crops like pulses and some oilseeds,'

This recognition of technology gives us great happiness and that technology will source a third of growth was the rural urban continuum swan song by me and so I said;

'Technology is going to be the kingpin of solutions. We saw earlier that the high rate of capital formation in Indian agriculture of 21 percent of agricultural GDP is not leading to a commensurate increase in agricultural growth. Groups pushing technology should be in the drivers seats and that should be with performance markers. Since the land base has stopped growing, productivity growth will have to be much higher. Indian Statistical Institute team (Rabin Mukherji, et.al., 2001) worked out

that the past growth of productivity in agriculture was 1.62 percent annual in the decade 1981-90 and 1.55 percent annual in the decade 1991-2000. This growth will have to be 1.72 to 2.08 percent annual in the period 2001-2020 if agriculture grows at roughly 3.5 to 4 percent annual and 1.9 to 2.5 percent annual if agriculture grows at 3.8 to 4.8 percent annual in the period 01-20. Thus to source higher growth factor productivity will have to rise at least by a third, which is difficult in agriculture.' Bulls eye for lone ranger outside the government.

The Approach's severe indictment of public sector research, while factually correct needs careful review. The belief that the private sector left to itself will solve the research gap in dryland areas and for a rapidly diversifying agriculture is interesting but may be misplaced in terms of a reading of experience. The rural urban continuum has another approach. It wants PPPs and goes back to the Hybrid Paddy experience which was a PPP, but led strategically by the ICAR. The failure now is that the ICAR is not even mandated to play a strategically leading role. I discovered to my horror that we still don't have a road map for example for pulses to reach the average yield levels of Canada or Australia of 20 qtls./hec plus. Back of envelope calculations show that when the ICAR builds up such a road map it may cost us more than three thousand crores of rupees to get going in a five year strategy and that needs a PPP, but not the way the Approach wants it, for the private sector wont do it, left to itself.

But first the happy news. The Planning Commission has declared that 'it is necessary to remain abreast with latest advances in bio-technology', I hope putting at rest the brinjal episode. Now more is needed which they don't say. Given the long-term nature of the problem and the fact that large investment is needed to develop new molecules, a degree of regulation will be needed. Investors need a reasonable assurance of returns

or they will not commit financial and, more importantly, experienced managerial and technical resources. For pulses itself for example, the research plan will cost hundreds of crores of rupees, if the experience of hybrid paddy is any indication. Such PPP projects will need public resource commitments in terms of meeting the so-called viability gaps. Also, public-sector involvement is essential for sustainability and environmental-safety aspects. A Central organization working on what are called long-range, marginal cost principles, which have been advocated for power projects, for example, could work out fair pricing solutions. Anybody doing better than the average efficiency cost estimates, giving a fair rate of return, would keep the profits. It has been demonstrated time and again that the nation gains in such strategies. For example, pricing strategies which rely on group efficiency cost norms have given very powerful returns in terms of energy savings in the nitrogenous fertilizer industry and after eight years of discussion, it is reported that a committee under a planning commission member is suggesting this approach, which was the basis of pricing which a committee that I chaired had recommended many years ago.

The planners say that 'farmers suffer even in years of a good harvest, since they are not able to get good price realization. The obvious solution is for these farmers to aggregate their produce and reach bigger markets... Alternative models based on the idea of Producers' Companies and Commodity Interest Groups are now beginning to take off, But there is no overarching strategy for this as we saw.

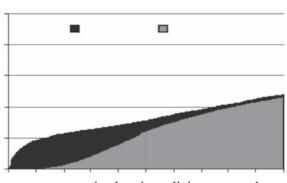
For infrastructure having missed the emerging markets the Approach Paper needs more emphasis. 'Road connectivity, development of horticulture, dairying & other animal husbandry and expansion of cash crops, provide the necessary wherewithal for greater market access of the farm sector. This is particularly important for the segment of "high value" agriculture, where the demand pressures are going to be most intense in the coming years, and major investments are needed in the development of efficient value chains

to save on high wastages and intermediation costs. This is logically the domain of the private sector.'

Missing the Rural Urban Continuum

The chapter on rural transformation in the Approach begins by saying that 'The Census of 2011 estimates that 833 million people continue to live in rural India.' But until very recently the Planning Commission was projecting that 870 million persons would live in Rural India in 2011. They underestimated the rural population moving to small (Census, not official) towns by 37 million people. That is a lot of people and for an approach titled 'inclusive growth' missing them is a problem. Also Planning Commission has not changed projections for the future and this could lead to problems in the formulation of the Twelfth Plan. According to these rural population will be 60 percent in 2030.

In the rural urban continuum, we say 'We project that the rural population share will go down to 58 percent in 2020 and 55 percent in 2025. This compares with the official projection of 68 percent in 2020 and 64 percent in 2025 (GOI, 2006, Table 10,) ...in my S K Dey Centenary Memorial Lecture in 2006 at the National Institute of Rural Development (Y.K. Alagh, 2007) I had argued that urbanization in Guiarat was clearly underestimated and that the actual growth of urbanization was around 5 percent and not half of that.' We give UN studies and so on to butress our work. Such serious



mistakes in policies are made on account of an inability to catch major societal trends. The rural urban continuum paper argued that this mistake ignores the potential of large villages and small towns as market centres terribly important for a diversifying agriculture. The FAO go on to add: "This is particularly important, discussed in more detail below, when we look at the villagelevel economies. If we measure how isolated the rural population is in terms of market access, using a definition of more than five hours of travel time to reach a market town of more than 5,000 people, only five percent of South Asians live in "remote areas" whereas more than 30 percent of Africans are in this situation. Similar characteristics hold true for the percent of the population living in higher potential agricultural areas, as shown below." (FAO, 2008, p.4). Our argument therefore is that urbanization is proceeding much faster than earlier estimated and that recognition is critical for agricultural growth. A satellite picture from the Center for International Earth Science Information (2004) given in the rural urban continuum is illuminating.

 Y axis is % of population and X axis is population density Black is Brazil and grey is India

For the planners to miss out that infrastructure for a diversifying agriculture is a planning task and even PPPs are difficult in small towns because they don't have the comfort as CRISIL brings out is sad. The strategy in the Approach Paper on widespread agricultural growth will need detailing.

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GEOGRAPHY

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TE-232/2012

The Social Sector Challenges

Shashanka Bhide



The improvements
in the delivery of
social services
are possible not
only from better
institutional
arrangements,
better targeting and
greater convergence
of services but also
adopting innovative
technologies

NDIA HAS achieved a significant transition in its quest for economic development. It has now moved into the group of countries

called "lower middle income" from its earlier status as "lower income" economy. The prospects for maintaining reasonably high rate of growth have been rooted in the large earning age population, representing the potential 'demographic dividend'. The progress should also be contrasted with the limited progress in meeting some of the basic goals of human development. The challenge of development has always been to find ways of achieving satisfactory quality of life for all the population in the economy in the fastest and sustainable way. The challenges of human development were eloquently articulated in the Millennium Development Goals in the international community. The progress has become harder to achieve after the initial successes.

In setting the context for the Twelfth Five Year Plan (TFYP), the Approach Paper by the Planning Commission noted that in the Eleventh Five Year Plan, 'rapid GDP growth was regarded necessary for two reasons: first, to generate the income and employment opportunities that were needed for improving in living standards for the bulk of the population; and second, to generate the resources needed for financing social sector programmes, aimed at reducing poverty and enabling inclusiveness'. The two way relationships between social sector development and economic growth provide an opportunity for exploiting synergies between the two processes. Recognition of similar virtuous linkages between physical infrastructure and economic growth played a critical role in raising the investments in building infrastructure. The synergies between economic growth and social sector development are also equally meaningful and investments in social sectors need to be stepped up to build the development resources for the future.

Building human capital is necessary for improving quality of life for the individual citizens now

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as much as it is for improving living conditions for generations to come. The Human Development Index, developed by the UN, a broad indicator reflecting the capacity of the economy to provide health, education and purchasing power to the citizens places India in relatively low position among the many countries in the world. The India Human Development Report 2011 (Institute of Applied Manpower Research, 2011) notes that India ranked 119th among 192 countries considered in terms of the Human Development Index, moving up by just one step as compared to the rankings in 2005. The same report also points out that India ranks among the top 10 countries in the world in terms of GDP growth performance. Thus, while the measure of purchasing power has shown considerable improvement over the years, the measures relating to health and education remain harder to improve. Strategies to achieve faster improvements in the social sectors, therefore, must receive increased priority in the coming years.

Economic growth has certainly increased the government spending. The Centre and State governments put together spent Rs 2100 per capita in 1990-91. This went up to more than Rs 17,000 in 2009-10. Out of this, the development expenditure rose from Rs 1262 in 1990-91 to more than Rs 10,000 in 2009-10. In other words, the capacity of the government to raise the resources has gone up sharply as economic growth maintained strong momentum. In the Ninth Five Year Plan period (1997-2002) the plan outlay on social services averaged 20 percent of the total plan outlay of the centre and states. In the next plan period (2002-2007) when GDP growth accelerated the share of social services remained roughly the same. It is in the Eleventh Five Year Plan that a fresh impetus was given to social sectors

by raising the projected spending to 30 percent of the total plan outlay. The allocation of resources increased not only because of the increased availability of financial resources but also because of the greater priority assigned to the sectors in the overall plan. It is expected that the same pattern of increased allocation of plan outlay to the social sectors would continue in the medium term to sustain the development of the human resources. Several initiatives in the health and education sectors that were taken up in the Tenth and Eleventh Plans are expected to be broadened.

Thus, both in terms of capacity of the governments to allocate resources and increase the share of resources allocated to these sectors, the social sectors have benefitted in the recent years. Nevertheless, the progress has yet to dent the large deficits in the human development indicators. Moreover, it is not enough to look at improvement in the absolute conditions but one must also consider the fact that progress has been faster in many other developing countries.

It must also be recognized that there are competing claims on government resources and there is a need to improve the effectiveness of the resources employed in generating the desired outcomes. The strategies adopted to improve the effectiveness of the programs have continued to evolve on the basis of experience in the implementation of the various programs.

One of the strategies adopted in the government policies to improve the effectiveness of the programs has been to target specific services. The last decade saw launching of a number of programs aimed at improving the social services or services relating to health, education and income opportunities for the less advantaged in the society. Whether it is the National Rural Employment Guarantee Scheme, Rural Health Mission, Integrated Child Development Services or Sarva Siksha Abhiyan when combined with infrastructure development programs such as Bharat Nirman or a variety of medical insurance schemes reflect a powerful set of interventions in the social sectors.

The strategies have also come to rcognise the concentration of deficiencies among socio-economic groups, geographic groupings, demographic classes and gender. This recognition has led to targeting of programs to specific groups of population. Targeting does improve the economy of interventions. But there is also another dimension of the impact of interventions. Convergence of interventions also improves the effectiveness of each intervention. Providing access to health as well education and physical infrastructure addresses multiple deficiencies simultaneously. This approach also improves the economy of administering the programs.

There is also a need to exploit the complementarities between public sector resources and private sector resources. While many public services may be free of cost the system of delivery of services may not address the issue of cost of access. The very nature of provision of services may render them more expensive. The private sector has often filled this gap perhaps not with variable quality of service, some times good and often poor. The impact of a well coordinated public-private approach is likely to be significantly positive.

In a large and diverse country like ours, there will be a need for finding locally optimal solutions for overcoming challenges of the delivery of social services. By the very nature, public services would require accountability and

responsiveness to public needs. Among the many experiments in the delivery of public services has been the decentralization of governance of the delivery systems. In the rural setting, the Panchayti Raj system of local governance has taken roots. There is an increasingly considerable quantum of resources becoming available to the local government bodies to expend on social services. The nature of devolution has not yet been significant but the direction appears to be distinct. From being mere approving agencies for benefits, the local bodies are beginning to make plans for meeting local needs, determining priorities for spending at the local level. The strategy of decentralization requires building of capacity to plan, monitor and take corrective actions. Benefits of decentralization will be achieved only when these capacities are developed at the local level. The social sector services will require effective delivery systems. Strategies for the sector would have to combine multiple approaches rather than limit the options that may work well under different conditions. Decentralized systems may have greater chance of success in the diverse environment of socioeconomic conditions prevailing in the country.

One set of challenges for the TFYP are, therefore, to build on efforts to improve the effectiveness of government spending, improve the ability of the citizens to benefit from this public spending, design and plan ways of delivering the social services and exploit synergies from private and public sector providers of social sector services.

But there is also another set of challenges that must inform strategies for social sector development. There has been recognition of the concentration of vulnerabilities or deficits as we noted earlier. But there is also the issue of insulation and exclusion often leading to persistence of lack of development.

Apoint that has been increasingly recognized now is the fact that weak human development conditions, whether it is ill health, lack of education combine to unfavourable income outcomes in a persistent way. Poverty becomes persistent or chronic as ill health and lack of education or more particularly skills do not provide opportunities for escaping the poverty trap.

The India Chronic Poverty Report (Mehta and others, 2010) draws attention to the role of ill health and lack of education as being two important factors that lead to persistence of poverty or the latter being a major cause of leading households into poverty. The report also points to the challenge of addressing the deep seated problem of under-nutrition and malnutrition. Further, it is not any more just literacy that would be needed to get the poor emerge out of poverty but is the vocational skills that would fetch them jobs that pay better wages. For instance in a comprehensive survey of human development Desai et al (2010) point out to the low labour participation rates for women and low relative wages to them when employed. The pervasive informal sector employment reflects quality of employment, especially with respect to duration of employment besides the level of income. The study by Desai and others (2010) point to the rampant nature of teacher absenteeism in government schools, with "barely half the children aged between 8-11 able to read a simple paragraph and less than half able to do two-digit subtractions".

The social sector programmes will have to ensure that the poor get access to services in a consistent manner that will allow them to achieve capabilities that can raise their income levels well above the poverty line. To overcome persistence of multiple deficiencies in human capability there will be a need for resources that must be spent efficiently. To limit the vulnerability to shocks, poor also require access to social safety nets.

The improvements in the delivery of social services are possible not only from better institutional arrangements, better targeting and greater convergence of services. Improvements are also possible through adoption of innovative technologies. The communication revolution has made it possible to extend a variety of information services extensively. The information relating to health and education for example can be more widely available now with access to telecommunication services. Technology has also made it possible to bring advanced health and education services to the population which may have been left unserved without such technologies. Expansion of public-private cooperation in the delivery of social services also requires appropriate regulatory mechanisms.

The challenge of providing social sector services is, therefore, not merely one of expanding the services but also of expanding the services so that they remain affordable to the individuals and also to the society. The challenge is also that the outcomes matter for these interventions. The decades of efforts to achieve development have also provided ample lessons. The technological innovations have continued to expand the reach of interventions. The next generation of strategies for the social sector must take advantage of these advantages to achieve the goals of development to all citizens.

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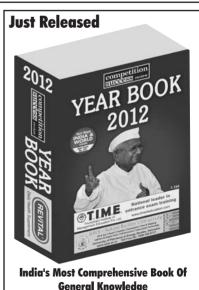
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General Knowledge

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The Relevance of MSMEs

P M Mathew



The Government
of India, of late,
has come out
with its National
Manufacturing
Policy (NMP) which
seeks to achieve
inclusive growth of
the Indian economy
by implementing
cohesive policy
measures for
creating state-of-the
art manufacturing
facilities

M

OST ECONOMIES of the world are in serious crisis today. This gets manifested in the form of the worst social and

economic symptoms, such as, a high level unemployment, and especially of the young and women, in many countries, and high suicide rates. The initial stimulus packages following the post -Lehman period being exhausted, many countries have opted for drastic steps such as, cuts in overall public sector spending, with dire consequences. Governments themselves have endorsed wage cuts. Adding fuel to fire, mounting inflation steals away even the limited purchasing power of the poorer people, thereby making life miserable. Initiatives such as micro finance and livelihood programmes, of late, have started yielding poor results.

The United Nations, on the eve of 2011, made a significant warning: that at least 22 million new jobs need to be created immediately, in order to avoid the world plunging into a

more serious crisis in 2011. It has become a reality now. The answer, obviously, is with micro, small and medium enterprises (MSMEs). In India, there is a category of policy makers, who seem to have too much illusions regarding the role of macro fundamentals, especially growth rates. But, macro fundamentals, by themselves, cannot give a true picture of the state of the economy. Accelerated growth rates often create distributional anomalies: thus, in the long run, growth itself is likely to be retarded. In many countries, SME development is a key item in the populist agenda of employment promotion, leading to a phenomenon pseudo entrepreneurship. The more recent evidence available from various countries, demonstrate the bursting of the entrepreneurship bubble. The experience of MENA countries, especially Egypt, gives enough food for thought. Even in the best of the integrated economies, having strong policy regimes and institutional structures, such as the US, EU and Italy in specific, the sector is sinking,

The author is Director, Institute of Small Enterprises and Development, Cochin.

along with their macro economies. In fact, governments have failed to understand the potential of the SME sector and to act upon.

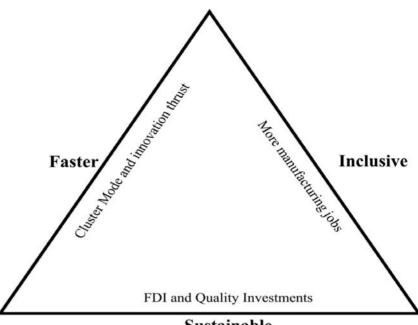
The thrusts of India's Twelfth Plan, as it relates to MSMEs. need a closer look against this background. Has it adequately addressed the MSME relevance? Such an examination need to be on the basis of two key aspects: 1) The strategic role of MSMEs is the macro production system of the country: and 2) its emerging relevance in the context of the most recent changes and challenges of the economy.

Twelfth Plan Thrusts

The basic objective of the Twelfth Plan (2012-17) is "faster and more inclusive, and sustainable growth". Among the thrusts meant for such an inclusive growth, faster creation of jobs, especially in manufacturing, is given a special thrust. The strategy for the industrial sector under the Plan admits that manufacturing performance is weak. The sector should grow at 11-12 percent annually, in order to create two million additional jobs per year.

Improvements in the regulatory framework, reduction of transaction costs, transparency, and thrust on innovation, are important items in the Plan's strategy kit. Productivity enhancement through the cluster mode, and better consultation and coordination in industrial policy making, are key imperatives.

MSMEs, as in 2011, are much less a subject of local economic development, as in the past. Investment and trade today are inextricably intertwined. The rules of the game in global trade, however, are changing, with accelerated emphasis on standards regime,



Sustainable

exchange rates, investment flows and climate change. The global value chains today are influenced significantly by these criteria, thereby implying new challenges and opportunities for SMEs.

In India, the latest findings emerging from the Fourth MSME Census show a mixed picture of the Sector. An overall scaling up is visible, both in terms of number of units, and of the average investment size. But the sector also shows a marginal growth in the number of sick units from 13.98 percent in 2001-02, to14.47 percent in 2006-07. The death rate has come down from 39 per cent to 21.6 percent during the period. But, growth rate of the sector is greater than that of the overall growth of the economy. States like Uttar Pradesh have demonstrated greater birth rate of MSMEs, thus, are commendably placed and lead the way to the Indian economy.

Though India was spared from the serious global crisis of 2008, there is no reason why the Country can remain permanently insulated. Manufacturing in India has significantly got weakened over time; it has to grow. Innovation is the sine qua non for such growth. Beyond temporary relief measures, the country needs a complete recast of policies under the Twelfth Five Year Plan. Some key steps are required. Inflation need to be brought down. Credit by itself will not help; what is needed is relevant financial products that address the life cycle of the firm. This means that, the banking sector should introduce new and relevant financial products that address the reality of SMEs, on the basis of an identified business case.

The Twelfth Five Year Plan has a logical strategy for the MSME sector. But the operational part, as also the underlying assumptions, need to be made more realistic. MSME programmes, in many cases, are considered as a stop-gap arrangement. The effectiveness of policy depend upon the different phases of the enterprise development cycle. Both governments and NGOs have a key role to make relevant interventions at these specific stages appropriately, and to ensure

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meaningful results. Stereotype policies and strategies need a relook; a search for informed interventions is vital. In the States, competition for attracting FDI, by itself, will not help. There should be a new thrust on innovation and local economic development with focus on IPR. Public-private partnership should take a new form, with active involvement of NGOs, and other actors.

The alternative approach, as above, requires a focus on human resources. The financial institutions should shift themselves to an approach of investing in entrepreneurship, than on enterprises. A due recognition of entrepreneurship as a resource, should be the keystone of a new policy approach. This will lead to better targeting of their lending policy. Women and youth should be ensured that they get the care they deserve. Entrepreneurship education is one method of bringing them into the mainstream.

In the States, priority should change from simply attracting FDI, to development of regions having particular advantages. The concept and strategies of 'regional regeneration' in the context of countries like UK, though historically distinct, can be adapted to the Indian context. For that, the focus on FDI plus livelihoods, "which is often described as an inclusive growth strategy, is not enough. A synergy of several other components, such as BDS, new financial products, innovation, communication, and an ecosystem approach to development are vital.

Most Recent Evidences

Monitoring of the developments in the MSME scene of the country,

by the ISED small Enterprise Observatory, at the Institute of Small Enterprises and Development (ISED), Cochin, has brought to light some important imperatives. The latest evidences are available from eighteen MSME centres of the country, under its flagship programme, India MSME Darshan 2011. These evidences indicate that the Twelfth Five Year Plan exercises need to focus significantly on four major recent developments in the economy:

- (1) National Manufacturing Policy;
- (2) FDI in the Retail Sector;
- (3) Labour Shortage and Skill Gap; and
- (4) Challenges of entrepreneurship

1. National Manufacturing Policy

The Government of India, of late, has come out with its National Manufacturing Policy (NMP) which seeks to achieve inclusive growth of the Indian economy by implementing cohesive policy measures for creating state-ofthe art manufacturing facilities aimed at making India the next "manufacturing destination". Through various policy instruments like creation of National Investment and Manufacturing Zones (NIMZs), rationalization / simplification of business regulations, provision of exit mechanisms for sick units, creation of financial and institutional mechanisms for technology development, implementing industrial training and skill up gradation measures, providing incentives for Small and medium enterprises ('SMEs'), the NMP seeks to achieve the following broad objectives:

a) Increase the share of manufacturing in Gross

- Domestic Product (GDP) to 25 percent by 2022;
- b) Create 100 million additional jobs by 2022;
- c) Creation of appropriate skill sets among the rural migrant and urban poor to make growth inclusive:
- d) Increase domestic value addition and technological depth in manufacturing;
- e) Enhance global competitiveness of Indian manufacturing through appropriate policy support; and
- f) Ensure sustainability of growth, particularly with regard to the environment including energy efficiency, optimal utilization of natural resources and restoration of damaged / degraded eco-systems.
- In line with the objectives sought to be achieved, the NMP has also outlined certain focus industries which will receive special attention. These focus industries would primarily comprise - a) employment intensive industries; b) capital goods industry; c) industries with strategic significance (like aerospace; shipping; IT hardware and electronics; telecommunication equipment; defence equipment; and solar energy); d) industries where India enjoys a competitive advantage; e) SMEs and f) Public sector enterprises ('PSU').
- h) Though the policy is ambitious in terms of its coverage and content, it is important to explore several of the operational aspects, in relation to the present State of MSME development, and Strategies of development today. Unless the policy is not grounded

on extensive deliberations of these grass root level realities, it is likely to create a new form of dualism: between Bharat and India

2. Foreign Direct Investment and Retailing

The opening up of the retail sector is likely to have important implications on the prospects of the MSME sector. The need of the hour is not to jump into conclusions based on broad estimates, or extrapolation based on the experience of other countries. The draft policy visualises a retail policy insisting on 30 percent procurement from small enterprises. Besides, it can also be construed that, investment induced linkage effects may work in favour of the MSMEs. It can also be argued in a contrary fashion, that the big fish will eat away the small fish. What is needed today is a subsector analysis of the opportunities and constraints, in order to arrive at sensible policies. Irrespective of the actual nature of the impacts, one thing is sure. Across the country, both in the rural and urban areas, consumer tastes and demand patterns have been fast changing. This is likely to lead to a progressive decline of the manufacturing share of MSME units, as against services. While manufacturing need to be promoted through policy initiatives, it is necessary to initiate serious efforts towards improving the quality of services. If the MSMEs fail out in this regard, multi-brand retailing would work against the interests of MSMEs.

3. Challenges of Entrepreneurship Development

As noted above public policy induced entrepreneurship development, especially in a context of economic slows down would imply a phenomenon of pseudo entrepreneurship. The overall policy environment and developments in the economy would seriously affect business start ups, rather than existing businesses. The special provisions of the National Manufacturing Policy, such as, incentives for capital gains reinvestment and venture capital, can by no means help to improve the situation. An approach focused on entrepreneurship resource development, rather than support to growth, can yield better results of a sizeable nature. Remember that generating confidence is the mantra of fighting economic slows down.

4. Labour Shortage and Skill Gan

India faces the paradoxical situation of unemployment, on the one side ,and labour shortage on the other. Reports available from across the country demonstrate a serious shortage of labour for the MSMEs. In fact, this shortage need to be related to the particular growth phase of the economy, characterized by enhanced national and international migration. The traditional conceptualization of MSMEs as the breeding ground of skills is fast disappearing. Labour has become so volatile that the process of skill generation has been seriously stalled, with dire consequences on the process of development itself.

The Twelfth Five Year Plan need to address not only the challenges within the economy, but unlike in the past, have to constantly monitor and make mid-term corrections in the Plan process at its various stages. Even with all these challenges, MSMEs stand as the single source of inclusive growth in an economy that is troubled with serious internal and external shocks.

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SHODHYATRA

Multi-Purpose Sugarcane Based Farm Machinery



The proposed innovation has the advantages of three simultaneous operations for better mulching in sugarcane cultivation, which is not available with existing multipurpose devices

NNASAHEB (72), an enterprising farmer, is a prolific innovator. He is also an outstanding sculptor and specializes in repairing old Buddhist

statues. He has made an implement that can be attached to a tractor and can perform multiple tasks related to sugarcane cultivation. He has a wife, two sons and their families apart from a daughter who is married and settled elsewhere. Though he and his wife are illiterate, their sons are graduates and look after the fields. From their twenty acres, they earn a reasonable income because of their hard work and innovative farming practices. Annasaheb did not go to school, as he had to assist his parents in work. The innovator in him started to surface when he was in his late twenties and the urge to innovate has become stronger in the last five decades.

In 1960, he made his first innovation, a clock, which ran on drops of water. The second's hand of the clock moved forward when a drop of water fell on it from a dispenser, which had been timed properly.

For this innovation, he received an appreciation certificate from the then Prime Minister, Mr. Jawaharlal Nehru.

In 1962, he made a horizontal charkha that was foldable and could fit into a suitcase. He displayed this at Sabarmati Ashram, which improvised on his design, and increased number of *belanis* from three to eight in conventional one, in order to increase the output.

More than twenty-five years ago, when hardly anybody knew about drip irrigation, he pondered and developed the idea in his own way. To save his betel vine orchard from acute water scarcity, he fitted PVC pipes used in electrical fittings with perforations made on them using nails. By irrigating each day for one hour, he ran the crops for seven years. Poor prices of betel leaf made him switch to sugarcane.

It was during 1980s, that he innovated the rotor sprinkler system that could cover a radius of 140 feet. He named it after the goddess Chandra Prabha. Thus was born the Chandra Prabha Rotor sprinkler: the Rain Gun.

The advantages of the Chandraprabha rain gun are manifold. It can irrigate one acre in about one and half hours. Since it has a pipe of three inches and a wide nozzle, even composts such as biogas slurry can be applied to the crop through it. When water is applied with force, pests like aphids and white flies can be washed down. It does not even need additional pipelines because of its ability to cover a radius as much as 140 feet.

For this innovation, he was awarded in the First National Grassroots Technological Innovation and Traditional Knowledge Awards of NIF in 2001.

In early 1990s, Annasaheb made a foot-operated milking machine using a suction pump. Apart from his mechanical innovations, he has also been innovating in farming by developing new varieties. He received the state award for the high the problem of aphids and white flies was a highpressure water spray. yielding "Gangavathi-6081" sugarcane variety from the University of Agricultural Sciences, Dharwad during the year 2001-02.

In 2005, he tried his hands on generating electricity from sea waves. He took his machine to seashore near Ambaghat on the Goa-Maharashtra border and successfully operated his machine by generating enough electricity through sea waves to light up four bulbs of 100 watts each. The machine worked on the principle of compression of air through the force of sea waves and thus using it to move the turbine and to generate electricity.

He has had the support of his wife and grandchildren in his long journey of innovations, and this has inspired him in all his endeavours.

Genesis

Annasaheb was involved with sugarcane cultivation.

He encountered difficulty in getting farm workers in his area, particularly in peak season when he needed over fifteen people and twenty litres of diesel per acre for sowing and adding manure.

The manual methods of operations like planting, applying manure and stubble shaving takes about 30-35 man-days/hectare/day for each operation. He found that the tractor drawn rotovators available in the market would not give the shaving effect on the sugarcane ratoon crop and manual cutting did not give uniform height.

Ideally, farmers would like to have a machine that would do multiple operations such as stubble shaving, fertilizer drilling and earthing simultaneously. This would not only save time, cost and effort, by reducing number of passes, but also preserve health of the soil (since too much of tractor movement compacts the soil).

The proposed innovation has the advantages of three simultaneous operations for better mulching in sugarcane cultivation, which is not available with existing multipurpose devices.

Innovation

It is multipurpose equipment that can be attached to a 30-40 hp tractor. This machine can simultaneously perform the farm operations like bund forming, seed sowing, manure application and harvesting in sugarcane cultivation. The arrangements consists of cultivator for land ploughing, seed metering device for sowing and manure application, blade harrows for earthing up and cutting blade for sugarcane harvesting.

With an output of 0.4 hectare/hour, it is superior to existing multipurpose cultivators and can apply about 105 kg of fertilizer per hour. The height of the stubble shaving can be adjusted upto two

inches from the ground using a nut-bolt arrangement on the side. It requires only one person to operate it and consumes less diesel thereby reducing operational costs, emissions and pollution. The current model costs Rs 40,000.

Performing the three operations simultaneously, minimizing the number of passes and time, it is superior to existing single or multiple purpose devices such as multipurpose cultivators which do not have stubble shaving option or which can only do only one operation at a time. Rotary tillers, if employed for stubble shaving end up cutting the roots of ratoon crop. This risk is eliminated in this device, which deploys the 'Roto Slasher' principle.

At 225 kilograms, it is onethird the weight of multipurpose cultivators and hence there is less damage to soil due to compaction when it is used.

The innovator has filed a patent for this innovation and is using it for many years. The tractor drawn multipurpose devices for sugarcane cultivation, which can perform land preparation, cane planting intercultural operation, fertilizer application, hilling and earthing up are known in the art viz. multipurpose tractor operated equipment (http://iisr.nic.in/ technology.htm), multipurpose cultivator for sugarcane (www. pref.okinawa.jp/arc/kikai/parts/ topic.htm). Specific task oriented implements are also available in art, viz. tractor drawn sugar cane ridger plough (www.everestindustrie.com, NIF data base and text books), animal drawn ridge former, bakhar, etc (www.agricoop. nic.in and text books). Tractor or power tiller operated rotary tillers are usually employed for stubble shaving of sugar cane, but they have risk of cutting the roots of ratoon and hence not as effective as roto-slasher.

(E-mail: campaign@nifindia.org, www.nifindia.org)

DO YOU KNOW?

NATIONAL DEVELOPMENT COUNCIL

What is the National Development Council?

The National Development Council (NDC) or the Rashtriya Vikas Parishad was set up on August 6, 1952 to strengthen and mobilize the effort and resources of the nation in support of the Plan, to promote common economic policies in all vital spheres, and to ensure the balanced and rapid development of all parts of the country. The Council, which was reconstituted on October 7, 1967, is the highest decision-making authority in the country on development matters.

Who Constitutes the NDC?

The National Development Council is presided over by the Prime Minister of India and includes all Union Ministers, Chief Ministers of all the States and Administrators of Union Territories and Members of the Planning Commission. Ministers of State with independent charge are also invited to the deliberations of the Council.

What are the functions of NDC?

National Development Coucil is mainly concerned with:

(i) Approval of Five Year Plans; (ii) implementation of integrated Rural Development Programme; (iii) implementation of community development programmes; (iv) approval of implementation of assessment of all major development projects in India.

What was the outcome of the first NDC meeting?

The first meeting was chaired by the then Prime Minister, Pt. Jawaharlal Nehru on November 8-9.1952. Referring to the draft report, he had observed that it was obviously essential that both State Governments and the Centre should accept certain basic principles; agree on certain major policies and programmes in the Plan. Then alone could the Plan be 'finalised'. Referring to the preparation of the Plan, he felt that the Planning Commission had, during the preceding 14 months, succeeded in making the country planningconscious. The draft report had been finalised after consulting various political organisations, economists, industrialists and women's organisations, and so on. By and large, through this democratic process the structure of the Plan had been very largely accepted by the country. Its implementation would also have to be a democratic. It had to become not merely a Government's plan but a people's plan. It would, therefore, be necessary to reach to the people and explain to them

the main principles of Planning in the language they understood. Suitable literature in popular style would have to be produced. The Plan would also have to be explained to the people through discussions, talks and speeches.

What were the main features of the 56th Meeting of the NDC?

In the 56th Meeting of the NDC held on 21-22 October 2011, the Prime Minister had stated that in the past decade the Central Government has taken several major steps to improve the fiscal position of the States, which seem to have succeeded to a substantial extent. Today. most States of the Union are in a relatively strong position, and, perhaps in a stronger fiscal position than the Centre itself. The projections made in the Approach Paper suggest that by the end of the Twelfth Plan period, the States would have larger share of Plan funds than the Centre, if the CSS allocation to the States are included. The States should, therefore, be able to launch interventions that address their own specific problems, provided they make reasonable efforts to raise their own resources.

The Five-Year Plans and Future

Ashima Goyal



This is where the strategies of active inclusion in the Plan come inby neutralizing factors causing upward creep, they make high growth with low inflation possible. The economy will then achieve its potential and the 12th Plan becomes a resounding success

HE PLANS have always been concerned about growth, but growth as an instrument to remove poverty and create prosperity,

given India's poverty and its large diverse population. Over the years, however, the philosophy of how to achieve that growth, and how to ensure that growth does reduce poverty, has changed.

The big push of the Second Five Plan, in line with the development ideas of the time, prioritized massive public sector investment in industry. A number of schemes especially targeting the poor were also launched.

Growth and equity: the past

But State intervention that suppressed the market and distorted prices delivered neither growth nor equity, while the government accumulated large debt and deficits, vitiating the possibilities of government intervention. International development ideas also changed towards the virtues of markets and of more open systems.

But in democratic India, change is slow. After a forced Plan holiday in the late sixties planning resumed in much the earlier way. But public investment slowly withered even as the various transfer schemes started proved difficult to prune.

Liberalizing changes were being made by the mid-eighties, and following this new philosophy of development, the responsibility for investment was shifted to the private sector. The latter responded but in fits and starts. By the late nineties it became clear the private sector alone would not be able to remove infrastructure bottlenecks—a better balance of private and public effort was required.

The planning effort gained salience once more, but as an indicative coordinating exercise to direct resources the Government no longer fully commanded to critical areas and expected future bottlenecks. A good example of the combined effort is the push given to public private partnerships in infrastructure. Considerable effort went into designing these to achieve an optimal combination of incentives, fund-raising, and risk-allocation.

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The funds crunch and the continued emphasis on welfare schemes made it difficult, however, to achieve a real turn around in public investment.

Growth and equity: active inclusion

The solution therefore lies in morphing the schemes so that they effectively add to capacity. This means two things: First, changing the composition of Government expenditures towards investment-like expenditures, with capacity defined broadly to include human capacity. Second, making those expenditures effective, or selecting those that deliver the biggest impact for each rupee spent.

For a while, as high growth and some tax reform raised revenues over 2003-08 it seemed the Government would be able to continue spending in the same way, with equity defined as using resources from growth to spend on multiple schemes for the poor.

But moderation of growth, return of high deficits, and persistent high inflation suggest the status quo is not sustainable. Moreover, an alternative is growing more politically feasible.

"Inclusive growth" has become the government's objective. The 11th Plan used it in the sense of sharing the fruits of growth. But debates have refined the meaning of the term, and the wider polity also leans to a more active rather than a passive sharing. As growth creates more rungs in quality ladders, the cost of activity falls and its rewards rise. For example, although the output of Indian education is heterogeneous, and leaves much to be desired, it does make transition from illiteracy to semi and neo-literacy possible. Jobs are available for the wide range of skills produced. Independence from erratic doles with high corruption costs becomes possible. Inclusive growth can then be understood not as redistribution from a productive section to the rest, but as creating conditions for the masses to contribute to and participate in growth. This is active inclusion.

But those conditions cannot be created without active planning and government initiative.

In many types of soft infrastructure, including in developing human capital, spillovers that are not internalized mean private provision will always be below the social optimal. Negative externalities from failures in social infrastructure also raise the cost of private provision.

Active inclusion requires jobs as well as wages to rise-it turns the focus from output alone to higher productivity jobs and output. If wages rise without a rise in productivity the only result is inflation. Given the still large share of food in the average consumption basket a rise in agricultural productivity is critical for a non-inflationary rise in wages.

The old and the new in the 12th Plan

But here old ideas continue to dominate the Plans. For example, the 11th Plan talked of the importance of agriculture-but as a provider of raw materials for industry, since development was defined as moving people and resources from agriculture to manufacturing. But this shift is only possible if productivity in agriculture rises sufficiently to feed those moving elsewhere. It is not a coincidence that the equally populous China's successful transition was preceded by a sharp rise in agricultural productivity. Moreover, productivity-based lower prices, of the major items the poor consume, are one of the most effective ways to reduce poverty.

In India the modern service sector has expanded much more than manufacturing. Perhaps we are following a new development path. It may be hubris to try and force it into the old straitjacket. Planners must now only facilitate a thousand initiatives and let the details emerge from those. In the current international clime, moreover, India may find it difficult to follow the Chinese manufacturing export model.

The Chapter on agriculture in the approach to the 12th Plan is an impressive list of different welfare schemes. But these have not delivered the required rise in productivity in the past. Agriculture must be strengthened to deliver, not treated as a basket case to be subsidized.

The 12th Plan is to be commended for its emphasis on health and education since improvements in these are also elements of active inclusion. Better governance and delivery of public services are also critical since while the rich can compensate for these failures through expensive private provision the poor cannot do so. The 12th Plan is again prescient in exploring a variety of measures to build decentralized pressures for better delivery.

The elements that will be important in the future are therefore all there in the Plan, but perhaps need to be brought together as the ingredients that further active inclusion. Such a repackaging would include further development of the reasons agricultural productivity is important, and of the ways to achieve it. These are largely also the ingredients of active inclusion.

Important among these ingredients is a strict prioritizing of Government expenditure, using the two criteria: that which creates future capacity; that which can be delivered effectively. This will in effect change the composition of government expenditure towards investment more broadly defined. Successfully achieving this will require creating incentives for millions of the poor to improve their lives.

Incentive compatibility

For example improving infrastructure and public service delivery increases the rewards

to hard work. Using, and further developing, technology-such as mobile phones-that the poor use has great potential. Given India's successes in software it is unfortunate that broadband penetration continues to be poor and even the best service is twice as slow and four times as expensive as in the US.

Successes with conditional cash transfers in Brazil suggest that subsidizing activities that improve human capital is a good way of incentivizing the very poor and compensating for market failures that exclude them-with the transfers made in technology-enabled leak-proof ways. If the objective of MGNREGA expenditure is given as the creation of assets, it will also create employment, because of constraints on use of machinery.

A major problem in agricultural production and distribution, education and health is these are all on the concurrent list. While the Centre can take some initiatives. progress also requires effective action in diverse States. Experience suggests incentives work with States if they are not subject to political renegotiation. Incentives given in the 12th and 13th Finance Commissions worked well to improve State finances while those in the JNNURM to improve urban infrastructure have not been as effective. Incentives require to be legally structured to be independent of political renegotiation.

Potential growth

Active inclusion will make available a large labour supply. Similar activism is required to secure the finances to equip and employ labour-through financial inclusion. Savings have risen structurally-the Indian savings/GDP ratio has varied between 36-32 percent in the recent period. A safe level of the current account deficit is about 2-4 percent of GDP. An incremental capital output ratio of 4, and capital availability of 40 percent of GDP gives a ten percent rate of growth. But investment

requirements are also very large. To take just one example, infrastructure spending is currently about 6 percent of GDP-and expected to reach 9-12 percent, as over the next five Plan years one trillion dollars is spent on infrastructure. Given a CAD of about 3 percent only one-quarter of this, or 250 billion dollars, can come from foreign savings. This is a large absolute amount, but since the bulk has to come from domestic resources. better financial intermediation of domestic savings is also required. This is still very poor. Financial innovation has obviously not met the real needs of households. It is difficult to understand why inflation indexed bonds are still not available. Perhaps the focus has been too much on the needs of foreign institutional investors. Even if they do come without the essential domestic counterparts, they will create large risks.

Indian entrepreneurs have demonstrated they can become competitive given the opportunity. The potential availability of labour, finance, and productivity implies aggregate supply is elastic in the longer-run since increasing output levels do not increase marginal cost. But if this is the framework why is inflation high?

Obstacles to growth

Inefficiencies, distortions, discretionary permissions, delays and cost shocks tend to push costs upwards over the entire range of output. For example, a rise in administered prices raises costs independently of the level at which output is produced. Oil shocks, poor systems and governance, wages rising in response to high food prices, since food is a large share of the consumption basket, are all possible sources of such an upward creep.

This framework differs from the early idea that output cannot be demand determined in a developing economy because of supply bottlenecks. Here output is demand determined but the supply-side raises costs. It also differs from the structural school that while industrial output is demand determined agricultural output is fixed at a time period. The difference arises because in an open economy supply bottlenecks are easier to alleviate. Even agricultural commodities can be imported.

If markets are perfectly clearing and prices and wages are flexible, then a fall in one price balances a rise in another with no effect on the aggregate price level. But prices and wages rise more easily than they fall. So, a rise in a critical price raises wages and therefore other prices, generating inflation. Some relative prices, among them food prices and the exchange rate, have more of such an impact. Food prices are critical for inflation in India and, since international food inflation now influences domestic. the exchange rate also matters. That India's current bout of high inflation started with the jump in world food prices in 2007, and was sustained by the large depreciation in 2008, favours such an explanation. Also contributing was a rise in subsistence wages that exceeded that in agricultural productivity. In the context of high food inflation States competed with each other in raising minimum wages since the Centre was footing part of the bill through MGNREGA.

Reaching potential

With a high long-run elasticity of aggregate supply, reducing aggregate demand does lower firms' ability to pass through price increases, but it entails a large output sacrifice for a small effect on prices. It would be much better to find innovative ways to reduce costs, thus shifting the supply curve down. This is where the strategies of active inclusion in the Plan come in-by neutralizing factors causing upward creep, they make high growth with low inflation possible. The economy will then achieve its potential and the 12th Plan becomes a resounding success.

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J&K WINDOW

'MISSION SAFFRON' PROJECT IN PAMPORE

ampore would have just been a small nondescript town 11 km away from Srinagar but for the swathe of saffron flowers that bloom just above the fields outside it every autumn. Last October the painstaking plucking of these purple flowers have brought a rare happiness among farmers here. There has been a marginal increase in both the production and prices of saffron. "Prices fluctuate because of demand and supply problem but this time it is around Rs 1,000 to Rs 1,020 per 10 grams," says Bilal Ahmad Rather, a farmer.

"Last year we produced around 9,460 kg of saffron but this year our expectation is at around 10,500 to 11,000 kg because we have more area under this crop now," says Dr Farooq Ahmad Lone, Director Agriculture, Jammu & Kashmir. "We are working towards a target of producing 18,500 kg within four years by increasing per hectare yield from 2.5 kg to 5 kg which is reasonably possible." The effort is getting impetus from the government's Rs 372-crore 'Mission Saffron' project aimed at reviving the sector completely. With a five year deadline, the project will reduce the country's dependence on imports. India's saffron consumption is estimated at 20 tons a year, half of which is met by Iran, Spain and China, world's major saffron producers. Kashmir, one of the only four producers of saffron in the world, barely consumes a fraction of what it produces. Most of its output goes to the plains with exports of just about 4,000 kg. Historically, Pampore has remained Kashmir's main saffron grower for over thousand years.

Years of continuing unrest in the state had forced the farmers to look for other means of livelihood. A drought and the corm rot disease that hit the saffron in the last few years had also reduced the land under saffron from 5,707 hectares in 1997 to 2,713 hectares in 2002. "Last year it was sown on 3700 hectares and this year it is much more," Dr. Lone said. Dr Firdous A Nehvi, a professor of plant breeding and genetics at Sher-e-Kashmir University of Agricultural Science and Technology and the expert behind drafting 'Mission Saffron', says climate change also played a role.

Through most of the spring and summer there has been too much of rain leading to over-irrigation of the corm. Corm rot is caused by over irrigation as increased humidity leads to fungal attacks of the corm, the source of the plant and the flower. 'Mission Saffron' hopes to undo all that and restore Pampore its saffron glory. A vital component of the project is to install an elaborate sprinkling irrigation system. The project envisages establishing 128 tube wells — one well for 30 hectares, and offering growers 3715 sprinkling sets at half the cost. More land has been brought under saffron this year due to the incentives offered by the government.

Under the scheme every grower will get Rs 25,530 for a kanal by way of fertilisers, fungicides besides guidance. In the first year, the government has already dispensed Rs 10 crore from the Rs 17 crore incentives covering more than 3,500 growers. The onetime incentive will be extended to all the 3,700 hectors in four years.

The major part of the mission is to set up a saffron park that has a world-class quality control laboratory and an e-auction centre, which will end the monopoly of brokers. "We have already issued the tenders for the Rs 22 crore project and progress on this should be visible early next year," Dr Lone said. Authorities say this park is the answer to the menace of fakes-synthetic saffron made by drying anther lobes (of flower), colouring it tan red and adding starch to it. Apart from being used in pharmaceuticals, pan masala, perfumes and confectionery, saffron is also used in temples.

The saffron sales are also witnessing an increase in demand with the advent of the wedding season in the mainland. The rising demand has fueled the need to disperse saffron cultivation. The success of 'Mission Saffron" will determine the future geographic dispersal of this costly spice. "Right now there are 226 villages that grow saffron but once the project clicks the number should cross 300 in a few years," says an optimistic Dr Lone.

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