SUMMARIES OF GROUP DISCUSSION

Subject I

Agricultural Development Perspective and Strategy
Planning for the Twelfth Five Year Plan

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Concerted efforts are made by the government to promote the inclusive economic growth which has been the main development goal in India. Since most of the rural poor depend on agriculture for their livelihood and food security, accelerating agricultural growth involving disadvantageous sections and eco-regions is likely to remain main thrust of the XII Five Year Plan (FYP). The discussion in this session was centred around this theme with an objective to explore the approaches and pathways to attain the target growth of 4 per cent. The discussion specifically focused on the trends in investment and growth in Indian agriculture, delivery of farm inputs and services, irrigation water management, technology delivery, price incentives, small farmers’ access to markets, etc. Some of these issues have been discussed in various contexts but this session considered them in an integrated manner to accelerate the agricultural growth.

The Session began with a brief introduction of the theme, issues raised in the contributed papers, and discussions being held at various levels regarding the Twelfth FYP. It was reiterated that agricultural growth is essential for the inclusive economic growth. The importance of agriculture is also emphasised in terms of its direct poverty reduction impacts, which in the case of agriculture is twice of that for non-agricultural sector. The government has made significant interventions in terms of increasing public investment in the last decade, promoted decentralisation in planning and incentivized the states to invest more in agriculture. The strategy has paid dividend in terms of higher agricultural growth in XI Plan and registered a record foodgrain production of 241 million tonnes. The efforts in XII Plan should build on these achievements and attain the target growth of 4 per cent, which is a realistic target considering the impressive growth in some states. Realisation of this growth is also essential for ensuring food security, meeting consumption needs and increase agricultural income.

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The keynote paper presented under this theme spelt out the broad trends in Indian agriculture and priorities given to different sectors of agriculture in the different FYPs. The interstate comparison of agricultural growth performance revealed that some states like Gujarat have unprecedented high growth rates. An upward trend in the minimum support prices has driven the supply of foodgrains, but technological and other real factors continued to be helpful in increasing the production. The price realisation is still less than the minimum support price in some of the states which needs attention as the net profitability has gone down. Although public investment in agriculture is rising in the last few years, the allocations are inadequate perhaps because of demand for resources from other uses like rural development and various subsidies. Fertiliser use is rising but there are issues of imbalanced use and deficiency of micro-nutrients. There is significant decline in the share of co-operative credit to agriculture and the share of commercial banks has risen to 75 per cent. But the targets of priority sector lending to agriculture are not met.

The presentation on trends in rice production and future prospects showed that although there is overall growth in the production, the area is declining in some states, especially in Assam, Kerala, and Tamil Nadu in the last decade. The profitability is under squeeze in the states of Tamil Nadu, Kerala, West Bengal and Orissa. The gap between actual and potential yield is declining because of improvement in seed supply. Climate change is likely to impact rice economy through changes in area and productivity, especially in coastal areas, and therefore, research programmes are under implementation to reduce the impact of climate change on rice and evolve the adaptation strategy.

Hill agriculture has shown signs of growth because of technological interventions and investment in irrigation and soil and water conservation. In the initial years of development, agricultural diversification was confined to selected pockets like valleys in the higher and mid-hills, but now it has descended to new areas in the low or foot-hills. The share of different sub-sectors in the Plan outlays in agriculture indicated that most of the resources were taken by irrigation, animal husbandry, soil and water conservation, but considering the diversification trends, more resources should be allocated to horticulture sector. There are issues of rejuvenation of old orchards of apple. The cultivation of apple may shift to higher altitude because of rise in temperature due to climate change. Emphasis on the diversification should continue and marketing infrastructure in the form of controlled atmosphere chambers and cold chains and technological support need to be strengthened by allocating more public resources.

After a long period of stagnancy, public investment in agriculture started rising, especially in XI Plan. But the allocations are lower in view of rising incremental capital output ratio in agriculture and resources needed to develop infrastructure in some parts of the country. Private investment, mainly farm household, has an
impressive growth but the share of private investment going for land improvement has declined, which is an undesirable trend. Also, the share of capital investment in the total resource spent on agriculture is quite low and some support is provided through investment in rural roads, which has direct positive impact on agricultural productivity. There is little evidence of corporate investment coming to agriculture and allied sector. This trend should be reversed through appropriate regulatory and policy reforms. This is amply demonstrated by development in seed and biotech sector, where private investment is growing rapidly. Another important area where private sector can play an important role is marketing and development of value chains. This will increase competition in the market, add value to the products and link production with consumer demand, all eventually help increase farm income.

IRRIGATION WATER

The issue raised in the contributed papers on water use in agriculture were discussed at length, as water has been identified one of the main thrust areas of XII Plan. Since agriculture uses more than 80 per cent of water, its management for irrigation becomes important. It was mentioned that the capacity to augment the existing irrigation potential by conventional technologies, is fast reaching the limit, and therefore focus should be on the demand management. Irrigated areas are increasingly facing the threat of land degradation and putting pressure on the productivity. The small and marginal farmers face several constraints in adopting water saving technologies like micro-irrigation due to lack of funds, which needs to be addressed to improve the land and water productivity. There should be enough incentive for farmers to allocate water to high value and water-efficient crops. The experience of Gujarat has shown that volumetric pricing of groundwater promotes its efficient and equitable use. Collective investment in tubewell irrigation by small farmers raises their access to groundwater and farmers make water allocation decisions to improve the efficiency. In water scarce regions, more funds should be earmarked for providing subsidies for agricultural interventions such as micro-irrigation for social benefits.

The evidence from different case studies indicated that participatory approaches help in controlling over-exploitation of groundwater. This is done through formation of user groups, developing mutually agreed regulations and creating awareness among the user farmers. The studies have shown that institutions can help improve efficiency of these water users associations. These institutional issues relate to size and objective of the association, communication among the members, conflict resolution mechanism and overall governance. The Integrated Watershed Management Programme (IWMP) underscores these institutional issues, along with an effective monitoring mechanism for implementation of the programme. It would be useful if the performance of IWMP is assessed and necessary corrections are made to ensure effective participation of farmers and working of water user associations.
Farmers are responsive to policy initiatives, and demand for assured availability of public services. For example, assured supply of electricity can help manage water better and can increase crop yields. Similarly, making available credit, including that for consumption needs, in bad agricultural year, can help farmers in managing the risk effectively and prepare for the next crop season. This also applies to other inputs like seed, pesticides etc. which have quality problems. In particular, there is a need for strengthening quality assurance mechanism for seed and pesticide, including genetically modified (GM) seed. Such a mechanism will involve providing information to farmers about the input and strengthening input testing labs and enforcement of quality regulations. Another major problem relating to inputs is the emergence of monopoly tendency in the markets like seed market, which must be monitored and corrective steps should be taken wherever necessary. Also, reliable information on input market, prices and quality should be provided to farmers so as to enable them to make an informed choice.

Access to technology and associated information is essential to increase agricultural productivity. Although a number of technologies are available but these are not reaching the farmers. There is considerable gap in delivery of information based technologies for better management of natural resources. Consequently, there is a large gap between potential yield and actual farm yield in most of the crops, and the notable examples are paddy in eastern India, and pulses and oilseeds in the semi-arid tropics. Therefore, technology transfer efforts should be intensified by making available more resources for extension, integration of extension efforts by various agencies and stronger research and extension linkages. Private companies, especially those dealing with inputs and quality products under contract farming are providing information and skill to farmers. The same holds true for input dealers. This synergy between public and private efforts should be harnessed in the partnership mode.

A number of programmes are under implementation for increasing crop yields. Important among these are Rashtriya Krishi Vikas Yojana, National Food Security Mission, Integrated Watershed Management Programe and technology mission for crops. All these programmes involve technology transfer and input supply activities. For their effectiveness, common activities under these programmes could be integrated so that a uniform message goes to farmers regarding package of practices, varietal recommendations, etc. This is particularly important for dryland agriculture where there is greater interaction among various inputs, resources and farm practices. Input decisions are influenced by risk, which have direct implications for crop yields and farm income. Therefore, extension agencies can play a significant role in managing risk and promoting optimal use of inputs. In fact, a more diversified extension approach involving horticultural, livestock, forestry and water resources could be more appropriate for dryland agriculture.
CREDIT AND MARKETS

Agricultural credit system has changed significantly with rising share of commercial banks in the institutional credit and innovations in the delivery mechanism. The co-operative sector has shown a drastic decline in terms of its share in the total credit for agriculture. Therefore, agriculture’s share in the total institutional credit remained around ten per cent—much below the target of priority sector lending. Therefore, revival of the co-operative sector through institutional reforms and linking them with various agricultural programmes and commodity groups is a must. Commercial banks should be asked to meet the priority sector lending target and improve delivery of credit to farmers in a timely manner. The focus should be on the eastern region where the degree of financial exclusion is quite high.

Although there is considerable expansion of marketing infrastructure, there are a vast majority of farmers with limited or no access to product market. The impact of market reforms like amendment of the Agricultural Produce Marketing Committee Act is yet to be seen in the states where it has been amended. The issues relate to lack of information flow, limited participation of private sector, extending benefit of price support scheme to the newer areas, and improving storage and other marketing infrastructure. On the positive side, some private input and agro-processing companies have started providing market information for farmers and direct procurement of produce under contract farming or other marketing arrangement. Sometimes such arrangement also involves provision of technical information which is useful for increasing crop yields. Hill areas and eastern regions need special attention to strengthen marketing infrastructure.

EMPLOYMENT SCHEME AND AGRICULTURE

The discussion on the Mahatma Gandhi National Rural Employment Guarantee Scheme revealed that the Scheme has provided moderate level of employment. However, there is self selection of the rural poor, especially women, for employment. There are instances of linking wage rates with the work performance. It is also found that sometimes there is little capacity at village level to manage the scheme, as there is pressure on Panchayats for other development activities. The Scheme is doing well in the hilly and tribal areas, and there is evidence that it will increase the investment for agriculture through development activities and help the poor by providing them gainful employment. The Scheme has served its purpose, but there are concerns of rising rural wages, having adverse implications for profitability of agriculture. This impact along with positive contributions through development work like water management and rural connectivity needs to be analysed further. The field-level evidence also indicates that there is reduction in inter-state migration of agricultural labour. However, migration of rural youth for seeking skilled employment or high wage employment in urban areas is still common.
KEY RECOMMENDATIONS

There are a number of issues which can be taken for achieving the target growth and promote transformation of Indian agriculture. The recommendations are confined to the discussion held during the conference, mainly focusing on the production and value chain management.

1. First and foremost requirement is continued government support by allocation of more resources for investment in agriculture. The investment in agricultural R&D should be raised to at least one per cent of agricultural gross domestic product. This should be supported by the measures to increase efficiency of public investment and attract private corporate investment in agriculture and allied sector.

2. Second important issue stems from the experiences of the states witnessing high agricultural growth. In these states, improvement in the governance and delivery of public services has contributed to the higher growth. Efforts on these fronts should be intensified. Better governance, improved infrastructure and growing agriculture sector are also helpful in attracting corporate investment.

3. Promoting water use efficiency is a must and this should be done using both technological and institutional factors. In both the cases, participation of water users is helpful in achieving the desired outcome. Also, farmers should have better access to credit for investment in micro-irrigation. Local solutions with farmers’ participation can also be useful for control of over-exploitation of groundwater. Technological interventions are also needed to maintain soil health and reclaim degraded and problem soils.

4. There is a need to maintain a balance between foodgrain production and production of high value commodities for food and nutritional security. In the event of supply-side constraints in any sector may lead to excess demand and shifting the allocation of area and inputs. In livestock and fisheries, animal health and nutrition can provide immediate productivity gains, which is necessary to meet the rising demand.

5. Technological interventions and institutional change would be the major sources of growth in the years to come. These need adequate public investment, policy to promote the institutional change and the mechanism to monitor the changes. This is extremely important for agricultural technology systems where a number of new regulations like intellectual property rights and bio-safety regulations are being institutionalised. Linkages down in the
system with private sector, civil society organizations and farmers can help integrate available technologies and take them to farmers on a larger scale.

6. Indian agriculture will continue to be dominated by small farmers. Therefore, viability of small holdings, aggregation of production and value creation through innovations along the value chains are necessary. There was rather less discussion on this. Research focusing on viable and equitable business development model will go in a long way in creating value and its distribution with farmers and other actors. This coupled with development of rural non-farm sector will go a long way in improving livelihood of small farmers and agricultural labour and thereby reducing rural poverty.

7. There are a number of government programmes under implementation for increasing agricultural productivity, but targeting different commodities, resources etc. It would be worthwhile to examine these programmes for coordination of efforts, especially for extension and input delivery, and providing integrated recommendations to the farmers. Also, quality assurance mechanism for critical inputs should be strengthened.

8. Development efforts for the rainfed agriculture should be intensified. Integrated farming for higher income in dryland areas should be promoted, while dissemination of improved technologies, both crop varieties and management practices, along with development of infrastructure and risk management are necessary for increasing the productivity of wet rainfed agriculture in eastern India.

9. Capital intensity of Indian agriculture is rising and therefore, access of farmers to institutional credit must be improved. The calls for strengthening of co-operative credit institutions, innovations in delivery of credit and pressing commercial banks to meet the lending target for agriculture as a priority sector.