

OVERVIEW

Agriculture is the mainstay of the Indian economy, as it constitutes the backbone of the rural livelihood security system. It is the core of planned economic development in India, as the trickle-down effect of agriculture is significant in reducing poverty and regional inequality in the country. Growth in agriculture has a maximum cascading impact on other sectors, leading to the spread of benefits over the entire economy and the largest segment of population.

2.2 India's total geographical area is 328.7 million hectares, of which 141 million hectares is the net sown area, while 190 million hectares is the gross cropped area. The net irrigated area is 57 million hectares with a cropping intensity of 134 per cent. The agriculture sector contributes about 21 per cent of India's Gross Domestic Product (GDP); 11 per cent of total exports; and provides employment to around 56.4 per cent of the work force. The rapid growth of agriculture is essential not only for self-reliance but also for meeting the food and nutritional security of the people, to bring about equitable distribution of income and wealth in rural areas, and to reduce poverty and improve the quality of life.

2.3 **Agricultural Growth Rate during the Tenth Plan:** The National Agriculture Policy (NAP) 2000, as well as the Tenth Five Year Plan envisaged a growth rate exceeding 4 per cent per annum in the agriculture and allied sectors during the Tenth Plan. In fact, the overall target of GDP growth of 8.0 per cent per annum set for the Tenth Plan was based on an annual average growth rate of 4.0 per cent in agriculture, 8.9 per cent in industry and 9.4 per cent in the services sector. The position of annual targets of growth and achievements during the Tenth Five Year Plan, year-wise, are shown below:

Year	Total GDP \$			Agriculture & Allied Sectors		
	Tenth Plan Target	Actual Growth	Tenth Plan Target	Actual Growth		
2002-03	6.8	3.8	3.5	-6.9		
2003-04	7.4	8.5	3.7	10.0		
2004-05	8.2	7.5	4.0	0.7		
2005-06	8.8	9.0	4.2	6.0		

Source: Planning Commission, CSO

\$ with 1999-2000 base year.

2.4 For the year 2006-07, the overall growth was targeted to be 9.3 per cent, while the growth rate for agriculture and allied sectors was fixed at 4.4 per cent. However, the average growth in the first four years (2002-06) of the Tenth Five Year Plan in agriculture and allied sectors was about 2.45 per cent as compared to 7 per cent for all sectors in the economy. It is, therefore, expected that the growth in agriculture and allied sectors would fall short of the targeted growth rate of 4 per cent in the Tenth Plan, though the overall growth in GDP in real terms may touch the target of 8.1 per cent, despite the agriculture and allied sector growth below the targets.

2.5 **National Common Minimum Programme (NCMP):** The NCMP has identified a number of items in the agriculture sector for focused and priority attention. Of the agriculture-related issues, the Department of Agriculture and Cooperation are dealing with the following items:

- Farmers will be given greater say in the organisations that supply inputs to them.
- The Government of India will bring forward a Constitutional amendment to ensure the democratic, autonomous and professional functioning of cooperatives.
- Controls that depress the incomes of farmers will be systematically removed.
- Crop insurance schemes will be made more effective.
- The Government of India will introduce a special programme for dry-land farming in the arid and semi-arid regions of the country.
- The government will ensure that adequate protection is provided to all farmers from imports, particularly when international prices fall sharply.
- The Government will ensure that public investment in rural infrastructure is stepped up in a significant manner at the very earliest. The Government will pay special attention to augmenting and modernizing rural infrastructure consisting of irrigation, cold-chain, and marketing outlets.

2.6 In pursuance of these thrust areas, the Department of Agriculture and Cooperation has supplemented the ongoing programmes through new schemes in respect of horticulture development in mission mode, micro irrigation, national bamboo mission, reforms in agricultural marketing, etc. In addition, the programmes relating to the (i) National Cotton Mission; (ii) Revival of Plantation Crops Economy; (iii) institutional reforms in terms of (a) decentralization; (b) simplification; (c) transparency; (d) accountability; and (e) e-governance; and (iv) Revamping Agriculture Extension have also been identified for focused attention.

2.7 **Credit:** The easy and timely availability of institutional credit in a trouble-free manner to the farmers at a reduced rate of interest is the key ingredient for meeting their credit needs and encouraging investment for accelerated agricultural growth. In line with this requirement, the Government announced a comprehensive credit policy in June 2004. The measures enumerated and the follow-up action taken are briefly discussed below:

- **Doubling the flow of credit in three years:** In line with the policy announcement of 2004, the target for agri-credit was increased from Rs 87,000.00 crore in 2003-04 to Rs 1,05,000 crore in 2004-05. The target actually achieved at the end of March 2005 was Rs 1,25,309.00 crore, representing an increase of almost 44 per cent over the previous year. In the year 2005-06, Rs 1,67,775.00 crore was provided as against the target of Rs 1,41,000.00 crore. During the year 2006-07, as against the target fixed at Rs 1,75,000.00 crore, Rs 149343.16 crore has already been disbursed as on 31 December 2006, representing 85.34 per cent of the target.
- **Enhancement of the coverage of institutional credit through Kisan Credit Cards (KCCs):** The KCC scheme provides, inter alia, a revolving cash credit

facility enabling frequent withdrawals and repayment at the convenience of the farmers, leading to reduction in the interest burden; flexibility for the purchase of inputs from any approved source of farmer's choice; and rescheduling of loans in case of damage to crops due to natural calamities. This scheme has been in operation since 1998-99 and in all, 6.45 crore cards have been issued up to 31 December 2006. Further, the scheme has been extended to the borrowers of the long-term cooperative credit structure to address all the loan requirements of borrowers of the State Cooperative Agriculture Rural Development Banks (SCARDBs) under the KCC viz. short term/ medium term and long term and reasonable components of consumption credit within the overall limit sanctioned to the borrowers.

- **New Farmers:** 197.61 lakh new farmers were brought under the network of institutional farm credit during June 2004 to September 2006. During 2006-07, 50 lakh new farmers are proposed to be covered under the institutional credit scheme. The total number of farmers financed by commercial banks and regional rural banks together aggregated to 53.37 lakh. In addition to this cooperative banks have financed 9.66 lakh new farmers during the year, taking the total number of new farmers financed by the banking system to 63.03 lakh.
- **Reduction in rate of interest:** It has been decided that beginning from Kharif 2006-07, farmers would receive crop loans up to a principal amount of Rs 3 lakh at 7 per cent rate of interest, and the Government of India and State Governments would provide necessary interest subvention to NABARD/banks for this purpose. Further, in order to provide relief to the farmers who have availed of crop loans from commercial banks, Regional Rural Banks (RRBs) and PACS for Kharif and Rabi 2005-06, an amount equal to two percentage points of the borrower's interest liability on principal amount up to Rs 1 lakh has been credited to his/her bank account before 31 March 2006. The Government provided a sum of Rs 1,700 crore for this purpose in the Union Budget for the year 2006-07.
- **Rehabilitation Package:** The Government of India has announced a rehabilitation package of Rs 16978.69 crore for 31 suicide-prone districts in the states of Andhra Pradesh, Karnataka, Kerala and Maharashtra. The package is envisaged to be implemented over a period of three years and includes both immediate and medium-term measures.

2.8 **Strengthening of Cooperative Credit Structure:** Cooperative credit institutions play a crucial role in meeting the agricultural credit requirement because of their deep penetration into the rural belt. However, the cooperative credit structure is beset with a number of problems and is not in a position to achieve the mandated task of providing adequate and timely credit to the farmers. This is reflected in their key financial parameters marked by low deposits and high cost of funds; heavy dependence on borrowings; declining loan disbursements; deteriorating loan recovery rates; and low or negative profitability. The urgent revitalisation of the cooperative credit structure is, therefore, imperative. Towards this end, a task force on the revival of cooperative credit

institutions was constituted under the chairmanship of Professor A. Vaidhyanathan, to examine the reforms required in the cooperative banking system. The task force in its report has, inter-alia, recommended (i) special financial assistance to wipe out accumulated losses and strengthen the capital base of co-operative credit institutions; (ii) institutional restructuring to ensure democratic institutions; and (iii) changes in the legal framework to empower the Reserve Bank of India (RBI) to enforce prudent financial management. The government has accepted the recommendations of the task force in principle and is now working on the modalities for implementation of its recommendations.

2.9 A package for the revival of short-term rural cooperative credit involving financial assistance of Rs 13596 crore has since been announced. NABARD has been designated as the implementing agency for this purpose. The state governments are required to sign an MOU with NABARD, committing to implement the legal, institutional and other reforms as envisaged in the revival package.

2.10 Yet another important measure initiated to strengthen the cooperative credit structure was the introduction of the Constitutional (One Hundred and Sixth) Amendment Bill, 2006, in the Lok Sabha in May 2006. The Bill essentially seeks to ensure democratic, autonomous and professional functioning of cooperatives. The Bill has been referred to the Parliamentary Standing Committee on Agriculture.

2.11 **Risk Management:** In India, crop insurance is one of the instruments that protects farmers from agricultural variability, mainly weather-induced. A broad-based central scheme, the National Agricultural Insurance Scheme (NAIS), was introduced from Rabi 1999-2000 to: (i) provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crops as a result of natural calamities, pest and diseases; (ii) encourage the farmers to adopt progressive farming practices, high value inputs and higher technology in agriculture; and (iii) help stabilise farm incomes, particularly in disaster years.

2.12 This scheme is available to all the farmers – loanee and non-loanee – irrespective of their size of their holdings. It envisages coverage of all the food crops (cereals, millets and pulses), oilseeds and annual commercial/horticultural crops, in respect of which past yield data is available for an adequate number of years. The scheme operates on the basis of ‘area approach’, i.e., defined areas for each notified crop.

2.13 At present, 23 State Governments and 2 UT Administrations are implementing the scheme. During the last 14 crop seasons (i.e., from Rabi 1999-2000 to Kharif 2006), 858 lakh farmers were covered over an area of 1390 lakh hectares insuring a sum amounting to Rs 83327.45 crore.

2.14 In order to make the existing crop insurance regime more broad based and farmer friendly, a joint group on crop insurance was constituted to study the existing crop insurance schemes and suggest necessary modifications. The Joint Group has in its report made a number of recommendations/suggestions including declaring the Gram

Panchayat as the unit area for major crops. The government is in the process of consultation with various stakeholders on the implementation of the recommendations of the Group.

2.15 MSP Scheme: In order to enable farmers to obtain remunerative prices for their produce, and to encourage crop diversification, the government is implementing this scheme for 25 agriculture commodities. It provides protection to the farmers against decline in prices in the market.

2.16 Water Management: Water management holds the key for agriculture growth in India. About 20 million hectares of additional land can be brought under irrigation by completing ongoing major and medium irrigation projects and by constructing field channels in command areas. In dry-land/rain-fed areas, it is necessary to increase the efficiency of water use for the optimum utilization of available water; reduce the cost of production and stabilize the production for which a new centrally-sponsored scheme of micro irrigation, launched in March 2006, is under implementation. Under this scheme, drip and sprinkler irrigation is being promoted on a large scale. The dry-land farming system approach, which leads to improved soil moisture retention; ground water recharging; and facilitates alternate land use by adopting an 'agri-horti-livestock' approach, needs to be promoted to enhance productivity and sustainability of dry-land agriculture in rain-fed areas. To address these issues, the government is in the process of formulating a scheme for enhancing the sustainability of dry-land agriculture.

2.17 Further, the Central Government has recently decided to constitute a high-level authority, the National Rainfed Area Authority (NRAA), to address the problems being faced by the farmers in rain-fed areas in a holistic manner. The Authority will be chaired by the Union Agriculture Minister and co-chaired by the Union Minister for rural development.

2.18 The mandate given to the NRAA is to bring about convergence and synergy among the numerous ongoing programmes and advise, guide and monitor their implementation. This will be the Central Authority for preparing and outlining the strategy and road map for holistic and sustainable development of rain-fed farming areas and evolving common guidelines for schemes of different ministries. The NRAA will also suggest modalities to strengthen national and state-level institutions concerned with rain-fed/dry-land areas and monitor rural credit insurance and safety net programmes in these areas. It will also have the task of evaluating the effectiveness of completed watershed programmes and concurrent evaluation of ongoing programmes and also set a research agenda for segments particularly important for rain-fed areas.

2.19 Agricultural Diversification: Agricultural diversification to high value crops/activities has to be a major element in the strategy for accelerating agricultural growth. Towards this end, horticulture has been identified as one of the major areas for priority attention and immediate action. The National Horticulture Mission was approved for implementation in May 2005 to give a new impetus/momentum to the development of horticulture so as to generate employment and enhance farm incomes. The Mission is

envisaged to address problems related to generation of technology, production, post-harvest management, processing and marketing under one umbrella.

2.20 In addition, a new centrally-sponsored scheme, the National Bamboo Mission, was approved during 2006 to bring in an additional area of 1.76 lakh hectares under bamboo in the forest and non-forest areas, besides improving the existing stock in 0.36 lakh hectares. The ancillary industry, which would be established, will be able to generate income through handicrafts, bamboo shoots, paper, housing etc., apart from generating employment opportunities.

2.21 Further, in order to promote crop diversification from cereals to non-cereal crops, like oilseeds and pulses and to provide flexibility to the states in implementation based on a regionally differentiated approach, the following four erstwhile schemes: the Oilseeds Production Programme (OPP); National Pulses Development Programme (NPDP); Oil Palm Development Programme (OPDP); and the Accelerated Maize Development Programme (AMDP) have been merged into one centrally-sponsored scheme known as the Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM), with effect from 1 April 2004. The restructured scheme, inter alia, provides flexibility to the states to (i) utilise the funds for the scheme/crop of their choice; (ii) utilise up to 10 per cent of the financial allocation for introducing innovative measures or any special component; and (iii) engage the private sector in the implementation of the programme with a financial cap of 15 per cent.

2.22 **Seeds:** The government has made concerted efforts to make quality seeds available to the farmers. In this direction a National Seed Plan for the whole country has been prepared for all major crops including a seed production system to form a continuous chain within the cycle.

2.23 In order to bring the existing provisions governing the regulation of quality of seeds in conformity with the present trade policy, technological innovations, consumer protection, globalisation of economy and development of the private sector, the Government introduced in the Rajya Sabha, a comprehensive legislation titled The Seeds Bill, 2004, in December, 2004. This Bill is, at present, under the consideration of the Parliamentary Standing Committee on Agriculture.

2.24 In pursuance of the Protection of Plant Varieties and Farmers' Rights Act, 2001, the Protection of Plant Varieties and Farmers' Rights Authority has been set up for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. The Authority has so far notified 12 crops for registration under the Plant Varieties and Farmers' Rights Act, 2001.

2.25 **Agricultural Marketing:** Agricultural marketing reform is another important area to which the Government is attaching significance. Post-harvest and marketing infrastructure, including grading, packaging, transportation and storage, needs to be created on a large scale.

2.26 The State Agricultural Produce Marketing Committee (APMC) Acts do not allow the setting up of competitive markets, direct and free marketing, competitive trading, information exchange and adoption of innovative marketing system and technologies.

2.27 The Department of Agriculture and Cooperation has formulated a model Act on agricultural marketing in order to assist the States in drafting a suitable law for the removal of barriers, whether legal or policy induced, which introduce inefficiencies and monopoly trends in the functioning of agricultural markets. The State Governments and UTs are being persuaded to change the restrictive provisions of the law dealing with agricultural markets in line with the provisions of this model Act in order to facilitate private sector investments for the development of post-harvest and cold-chain infrastructure close to the farmers' fields and to establish effective linkage between farm production and the retail chains including the food processing industry. The progress of reforms in agricultural markets as on 31 December 2006 is briefly indicated below:

Sl.	Stage of Reforms	States/UTs
1.	States/UTs where APMC Acts have been suitably amended	Madhya Pradesh, Himachal Pradesh, Punjab, Sikkim, Nagaland, Andhra Pradesh, Rajasthan, Chhattisgarh, Orissa, Arunachal Pradesh, Maharashtra and Chandigarh
2.	States/UTs where reforms to APMC Act have been partially modified a) by amending APMC Act / Resolution. b) by Executive Order	Haryana, Karnataka, Gujarat and National Capital Territory of Delhi Uttar Pradesh
3.	States/UTs where there is no APMC Act in operation	Bihar, Kerala, Manipur, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu and Lakshadweep
4.	States/UTs where APMC Acts already provide for the reforms	Tamil Nadu
5.	States/UTs where administrative action has been initiated for introducing the reforms	Assam, Mizoram, Tripura, Meghalaya, Jammu & Kashmir, Uttarakhand, Goa, West Bengal, Pondicherry and Jharkhand

2.28 In the wake of economic liberalisation, the concept of contract farming in which national or multinational companies enter into contracts for marketing of agricultural and horticultural produce and also provide technologies and capital to contract farmers has gained importance. Its main features are that selected crops are grown by farmers under a buy-back agreement with an agency engaged in trading or processing. Small farmers in India are generally capital starved and cannot make major investment in land improvement and use of modern inputs. Contract farming can fill up this gap by providing the farmers with quality inputs, technical guidance and management skills. The contractual agreement with the farmer provides him access to production services and credit, as well as knowledge of new technology. The model law circulated by the

Government of India provides an institutional framework to support contract farming by way of registration and equitable resolution of disputes.

2.29 Recently, the Department of Agriculture and Cooperation has taken the initiative to promote state-of-the-art terminal markets for fruits, vegetables and other perishables in important urban centres. The Terminal Markets (TM) under National Horticulture Mission scheme was approved in November 2006 at an outlay of Rs 150.00 crore for implementation during the remaining period of the Tenth Five Year Plan. These markets are envisaged to provide modern facilities for electronic auction, cold chain and logistics and operate on a 'hub-and-spoke' format, wherein the terminal market (hub) would be linked to a number of collection centres (spokes) conveniently located in key producing areas to allow easy access to farmers for marketing their produce.

2.30 In the field of marketing and storage, the schemes of Gramin Bhandaran Yojana, construction of cold storage; and development/strengthening of the agricultural marketing infrastructure, grading and standardisation are being implemented. A network of rural godowns and cold storages is also being created throughout India to provide the facility of safe and scientific storage to the farming community thus avoiding produce deterioration and distress sales. As against the revised target of creating 140 lakh tonne storage capacity during the Tenth Five Year Plan, storage capacity of 180.88 lakh tonne under the Grameen Bhandaran Yojana as on 31 December 2006 has been created so far. The physical target of creating a storage capacity of 140 lakh tonnes has thus been improved upon.

2.31 **Agriculture Extension:** It is imperative to rejuvenate and reform the existing agricultural extension support system by adopting innovative strategies to fill the extension gap through existing resources and public-private partnership. The integration of research, education and extension is of prime importance in bridging the gap between current productivity levels and the potential of existing production technologies.

2.32 The centrally-sponsored scheme, Support to State Extension Programme for Extension Reforms, approved in March 2005, aims to provide decentralised and demand-driven extension services through the active involvement of farmers, subject matter specialists, NGOs, Krishi Vigyan Kendras (KVKs), etc. It provides flexibility to the States to propose institutional framework similar to but not the same as, the ATMA of Innovations in Technology Dissemination (ITD) component of the National Agricultural Technology Project (NATP), suited to these situations while preserving the key features of ATMA consistent with Article 243 G of the Indian Constitution. Under the scheme, 256 districts in 28 States and 2 UTs have been identified for the establishment of ATMAs. They have been set up in 261 districts as on 31 January 2007.

2.33 A central sector scheme, the Establishment of Agriculture-Clinics and Agri Business Centres by Agriculture Graduates, implemented since 2001-02, is aimed at increasing self-employment opportunities for eligible agriculture graduates, as well as to support agriculture development through economically viable ventures. The scheme is being jointly implemented by the Small Farmers Agri-business Consortium (SFAC),

MANAGE, and NABARD, in association with about 67 reputed training institutes in India.

2.34 **Mass Media Support to Agriculture Extension:** This scheme has been under implementation since 2003-04, and the infrastructure of DD and AIR is being utilised for providing information and knowledge to the farming community under it. The agriculture programmes under the scheme are being broadcast/telecast from 96 AIR stations; 176 high/low DD power transmitters; 18 regional DD kendras and the DD national channel. All the above stations are transmitting 30-minute programmes 5-6 days every week.

2.35 **Kisan Call Centres:** The Kisan Call Centres are now operating from 6.00 am to 10.00 pm seven days a week. A total of 116 call centre agents respond to farmer queries throughout India in 21 local languages, through toll-free telephone lines. However, Interactive Voice Response System (IVRS) calls have been discontinued due to poor response. The vendor for operationalising the Kisan Knowledge Management System (KKMS) to provide current, speedy and consistent information to the queries of the farming community has commenced work and developing the data structure. The Administrative Staff College of India (ASCI), Hyderabad, has on behalf of the Department of Agriculture and Cooperation, undertaken an impact evaluation study of these call centres. The report submitted is presently under consideration.

2.36 A national gender resource centre, the NGRCA, has been set up in the Directorate of Extension (DOE) as a focal point for convergence and coordination of gender-related issues within the Department of Agriculture and Cooperation. The Centre has initiated studies on the development of participatory material, production and documentation of success stories, gender sensitisation of programme implementers and review and analysis of existing schemes/projects of the Department. The Gender Budgeting Cell of the Department of Agriculture and Cooperation has also been constituted under the NGRCA.

2.37 **Plan Outlay:** In the current Annual Plan 2006-07, an outlay of Rs 4800.00 crore was allocated at the BE stage to this Department. This constituted an increase of 14.85 per cent over the BE of Rs. 4179.32 crore in 2005-06. The major interventions by the Department in the current Annual Plan are in the field of production programmes of various agriculture crops including oilseeds and pulses. Horticulture is another thrust area identified for priority attention for which mission mode has been adopted. Other thrust areas, inter alia, include strengthening of the agriculture marketing infrastructure, promotion of agriculture extension, water and soil conservation through a watershed approach under natural resource management and insurance schemes for risk management.

2.38 Some of the major schemes being implemented by the Department along with their outlays for Annual Plan 2006-07 are listed below:

Rs in crore

Sl.	Scheme	Budgeted Outlay
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1.	National Horticulture Mission	1000.00
2.	Macro Management of Agriculture	910.00
3.	NAIS	500.00
4.	ISOPOM	270.00
5.	Technology Mission on Horticulture for North-Eastern States including Sikkim, Jammu & Kashmir, Himachal Pradesh & Uttarakhand	205.00
6.	Mass Media Support to Agriculture Extension	126.00
7.	National Horticulture Board (including Cold Chain)	100.00
8.	Support to State Extension Programmes for Extension Reforms	75.00
9.	Technology Mission on Cotton	74.00
10.	Grameen Bhandaran Yojana	70.00
11.	Development/Strengthening of Agricultural Marketing Infrastructure, Grading & Standardisation	67.00
12.	Investment in Debentures of State Land Development Banks (SLDBs)	50.00

2.39 Formulation of multi-pronged strategy for development of agriculture and allied sector during the Eleventh Five-Year Plan period: In pursuance of the decision taken in the fifty-first meeting of the National Development Council (NDC) held on 27 and 28 June 2005 to consider the mid-term appraisal of the Tenth Five-Year Plan, the Government of India had set up a sub-committee of the NDC under the chairmanship of the union agriculture minister, consumer affairs, food and public distribution, for drawing up action plans that can be implemented on agriculture and related issues for the Eleventh Five-Year Plan. The sub committee in turn constituted six working groups on the following subjects:

- Marketing Reforms and Contract Farming under the Chairmanship of the Chief Minister of Punjab.
- Irrigation and Minor Irrigation under the Chairmanship of the Chief Minister of Maharashtra.
- Dry-land/Rain-fed Farming System including Regeneration of Degraded/Wasteland and Watershed Development under the Chairmanship of the Chief Minister of Gujarat.
- Region/Crop-specific Productivity Analysis and Agro-climatic Zones under the Chairmanship of the Chief Minister of Orissa.
- Credit and Risk Management under the Chairmanship of Member (Agriculture) Planning Commission and Chairperson, NABARD.
- Animal Husbandry, Dairying, Poultry and Fisheries under the Chairmanship of the Chief Minister of Andhra Pradesh.

2.40 The aforementioned six working groups have extensively deliberated on the issues assigned to them and are in the process of submitting their final reports. Their

recommendations would constitute a critical input for formulating a multi-pronged strategy to accelerate the growth rate in agriculture and allied sectors.