

# **NATIONAL POLICY FOR FARMERS**

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**Department of Agriculture & Cooperation  
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## PREFACE

The National Commission on Farmers (NCF) under the chairmanship of Prof. M.S. Swaminathan submitted its final report in October 2006. The NCF prepared, along with its final report, a draft National Policy for Farmers incorporating its main recommendations. Based on the draft prepared by the NCF and after consultations with State Governments and the Central Ministries concerned, Government of India approved the National Policy for Farmers, 2007.

The primary focus of this policy is on 'farmer' defined holistically and not merely on agriculture. In that sense, it is much more comprehensive than an Agriculture Policy. The objective is, inter alia, to improve the economic viability of farming through substantially improving net income of farmers. Needless to say, there is emphasis on increased productivity, profitability, institutional support, and improvement of land, water and support services apart from provisions of appropriate price policy, risk mitigation measures and so on.

The 53<sup>rd</sup> meeting of the National Development Council (NDC) held on the 29<sup>th</sup> May 2007 was exclusively for addressing issues of the agriculture sector. Government of India has recently taken several initiatives such as the National Horticulture Mission, the National Bamboo Mission, reforms in agricultural marketing, the revitalization of cooperative credit structure and setting up of the National Fisheries Development Board and the National Rainfed Area Authority. More recently, the National Food Security Mission and the Rashtriya Krishi Vikas Yojana (Additional Central Assistance Scheme) have been approved to substantially enhance investment in agriculture and increase production and productivity. All these initiatives are in consonance with the intent, direction and measures suggested in the National Policy for Farmers.

I am confident that the new policy, together with the initiatives already taken by the government, would help accelerate the overall growth of the sector and improve the well-being of millions of farmers in the country.

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## 1

**NEED FOR POLICY RE-ORIENTATION**

- 1.1 The importance of agriculture in the socio-economic fabric of India can be realised from the fact that the livelihood of majority of the country's population depends on agriculture. The agriculture sector contributes only about 18 per cent of the total Gross Domestic Product (GDP), with more than 60% population dependence, resulting in low per capita income in the farm sector. Consequently, there is a large disparity between the per capita income in the farm sector and the non-farm sector. Therefore, it is essential to deal with those issues which impact the income levels of farmers. The income levels are determined by the overall production, supported by reasonable levels of yield and prices realised by the farmers. Several constraints such as preponderance of small and marginal holdings accounting for about 82 per cent of total holdings, imperfect market conditions and lack of backward and forward linkages affect the income levels of farmers adversely. Accordingly, an appropriate policy needs to be evolved to ensure that farming activity becomes more viable and the economic condition of farmers is improved on a sustainable basis.
- 1.2 Several steps have been taken in the past to strengthen agricultural research, education and extension, as well as to ensure timely and adequate availability of essential inputs such as seeds, fertilizer and electricity. Also, several major and minor irrigation projects have been implemented. An integrated programme of agricultural development was initiated in the early 1960s to improve productivity and to benefit farmers. Our scientists contributed by developing high yielding varieties / hybrids of crops. These were introduced to farmers who, in turn, adopted the new seeds and technology. As a result, a major breakthrough in productivity and production occurred in wheat in the late 1960s. Moreover, the new strategy laid emphasis on greater cropping intensity. Since then, the progress of agricultural production was steady and the growth rate in food production maintained a level above that of population growth. This came to be known as the "Green Revolution Era" that resulted in a situation of self sufficiency in foodgrains. This era was characterised by synergy among technology, services, public policy and farmers' entrepreneurship. However, during the past decade, the growth rate shows a declining trend; production and productivity have remained almost stagnant. A considerable effort, therefore, is required to reverse the deceleration and get agriculture moving forward once again.
- 1.3 The National Agriculture Policy approved by the Government of India during 2000, aimed to achieve annual growth of more than 4 per cent in the agriculture sector on a sustainable basis, through the efficient use of natural resources and combination of other measures. However, the annual growth rate achieved during the Tenth Five Year Plan (2002–03 to 2006–07) averaged around 2.3 per cent. On the other hand the non-farm sector has grown faster. Considering the high growth of GDP in the recent past, a major reorientation in

the policy is necessary to make this growth more inclusive. The decline in agricultural growth coupled with declining profitability in the agriculture sector, in the face of rapid growth of non-farm sector, is one of the major concerns. The declining profitability is partially due to fluctuating world prices of agricultural commodities and the efforts to keep the domestic prices low to protect consumers' interest, which resulted in decline in the terms of trade for the farm sector. This, coupled with the stagnating and declining yield levels, resulted in low income to the farmers.

- 1.4 Another major problem confronting the rural areas in general and farm households in particular, is the lack of employment opportunities. Efforts are needed to increase job opportunities in the farm sector through increased investment in irrigation, watershed development, wasteland development, land reclamation, etc. In addition, there has to be a greater focus on the accelerated development of the rural

non-farm sector and development of clusters around towns/market centres. A growing farm sector, better rural infrastructure and connectivity, skill development, adequate power supply and easy availability of credit would help in the creation of more employment opportunities in the rural non-farm sector and, in turn, enhance the income of farm households.

1.5

In view of the above, there is a need to focus more on the economic well-being of the farmers, rather than just on production. Socio-economic well-being must be a prime consideration of agricultural policy, besides production and growth. The aim of the Policy is, therefore, to stimulate attitudes and actions which should result in assessing agricultural progress in terms of improvement in the income of farm families, not only to meet their consumption requirements but also to enhance their capacity to invest in farm related activities.

## 2

## RECENT INITIATIVES

- 2.1 Several significant initiatives have already been taken in recent years by the government to reverse the downward trend in agricultural production and to find sustainable solutions for strengthening the farmers' livelihood and income. Some of these important initiatives include: (i) Bharat Nirman; (ii) National Rural Employment Guarantee Programme; (iii) National Horticulture Mission; (iv) Expansion of Institutional Credit to Farmers; (v) Establishment of the National Bee Board; (vi) Establishment of the

National Rainfed Area Authority; (vii) Establishment of the National Fisheries Development Board (NFDB); (viii) Watershed Development and Micro Irrigation Programmes; (ix) Reforms in Agricultural Marketing and Development of Market Infrastructure; (x) Revitalisation of Cooperative Sector; (xi) Agri-business Development through Venture Capital Participation by the Small Farmer Agri-business Consortium; (xii) Reform and Support for Agriculture Extension Services; (xiii) National Rural Health Mission;

(xiv) National Food Security Mission; (xv) *Rashtriya Krishi Vikas Yojana* to incentivise the states to invest more in agriculture; (xvi) Integrated Food Law; (xvii) Legislative Framework for Warehousing Development and

Regulation; (xviii) Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001; (xix) National Bamboo Mission and (xx) Knowledge Connectivity through Common Service Centres (CSC) and IT initiatives.

### 3

## MAJOR POLICY GOALS

3.1

The major goals of the National Policy for Farmers are:

- (i) To improve economic viability of farming by substantially increasing the net income of farmers and to ensure that agricultural progress is measured by advances made in this income.
- (ii) To protect and improve land, water, bio-diversity and genetic resources essential for sustained increase in the productivity, profitability and stability of major farming systems by creating an economic stake in conservation.
- (iii) To develop support services including provision for seeds, irrigation, power, machinery and implements, fertilizers and credit at affordable prices in adequate quantity for farmers.
- (iv) To strengthen the bio-security of crops, farm animals, fish and forest trees for safeguarding the livelihood and income security of farmer families and the health and trade security of the nation.
- (v) To provide appropriate price and trade policy mechanisms to enhance farmers' income.
- (vi) To provide for suitable risk management measures for adequate and timely compensation to farmers.

- (vii) To complete the unfinished agenda in land reforms and to initiate comprehensive asset and aquarian reforms.
- (viii) To mainstream the human and gender dimension in all farm policies and programmes.
- (ix) To pay explicit attention to sustainable rural livelihoods.
- (x) To foster community-centred food, water and energy security systems in rural India and to ensure nutrition security at the level of every child, woman and man.
- (xi) To introduce measures which can help attract and retain youths in farming and processing of farm products for higher value addition by making it intellectually stimulating and economically rewarding.
- (xii) To make India a global outsourcing hub in the production and supply of the inputs needed for sustainable agriculture, products and processes developed through biotechnology and Information and Communication Technology (ICT).
- (xiii) To restructure the agricultural curriculum and pedagogic methodologies for enabling every farm and home science graduate to become an entrepreneur and to

- make agricultural education gender sensitive.
- (xiv) To develop and introduce a social security system for farmers.
- (xv) To provide appropriate opportunities in adequate measure for non-farm employment for the farm households.

### 3.2 Definition of Farmer

For the purpose of this Policy, the term "FARMER" will refer to a person actively engaged in the economic and/or livelihood activity of growing crops and

producing other primary agricultural commodities and will include all agricultural operational holders, cultivators, agricultural labourers, sharecroppers, tenants, poultry and livestock rearers, fishers, beekeepers, gardeners, pastoralists, non-corporate planters and planting labourers, as well as persons engaged in various farming-related occupations such as sericulture, vermiculture, and agro-forestry. The term will also include tribal families / persons engaged in shifting cultivation and in the collection, use and sale of minor and non-timber forest produce.

## 4

## ASSET REFORMS TO EMPOWER FARMERS

4.1 The purpose of asset reforms is to ensure that every farmer household in villages possesses and/or has access to productive assets like land, livestock, fishpond, homestead farm and/or income through an enterprise and or market-driven skills, so that the household income is increased substantially on a sustainable basis. This, in turn, would ensure nutrition and livelihood security and their education and health requirements.

### 4.2 Land

4.2.1 Considering the skewed ownership of land, it is necessary to strengthen implementation of laws relating to land reforms, with particular reference to tenancy laws, land leasing, distribution of ceiling surplus land and wasteland, providing adequate access to common property and wasteland resources and the consolidation of holdings. Following the conferment of land rights to women under the Hindu Succession

(Amendment) Act, 2005, the provision of appropriate support services to women farmers has become urgent. Joint *pattas* for both homestead and agricultural land are essential for empowering women to access credit and other services.

4.2.2 The Land Acquisition Act would be reviewed with particular reference to the assessment of compensation. Prime farmland must be conserved for agriculture except under exceptional circumstances, provided that the agencies that are provided with agricultural land for non-agricultural projects should compensate for treatment and full development of equivalent degraded / wastelands elsewhere. Further, the commitment under the existing re-settlement policy of the Central / State governments would be fulfilled in letter and spirit. For non-agricultural purposes, as far as possible, land with low biological potential for farming would be earmarked and

allocated. State governments would be advised to earmark lands with low biological potential such as uncultivable land, land affected by salinity, acidity, etc., for non-agricultural development activities, including industrial and construction activities.

### 4.3 Water

4.3.1 Non-availability of timely and adequate water for irrigation is now becoming a serious constraint in achieving higher productivity and stability of farming in many parts of the country. Therefore, assured irrigation is the need of the hour. Though the total rainfall in our country is satisfactory, its distribution is highly skewed. Therefore, rainwater harvesting and improving the efficiency of water-use are important. It has been assessed that even a 10 per cent increase in the present level of water-use efficiency in irrigation projects may help to provide life-saving irrigation to crops in large areas. Water-use efficiency can be further enhanced by generating synergy with seed varieties, nutrients (macro and micro) and farm implements. The concept of maximising yield and income per unit of water would be used in all crop production programmes. Water users' associations would be encouraged to gain expertise in maximising the benefits from the available water.

4.3.2 The majority of farmers depend on groundwater for irrigation. This resource, in which farmers may have invested their hard-earned savings, is being depleted and the water table is receding fast. Therefore, rainwater harvesting and aquifer recharge would be accorded priority for ensuring the stability and sustainability of water

supply. Water quality also needs attention, since it often gets polluted at the source due to its over-exploitation and the indiscriminate use of fertilizers, pesticides and toxic chemicals.

4.3.3 Besides addressing the problems relating to adequacy and quality, equity in water distribution would be ensured. Water is a public resource, and not a private property. Therefore, priority would be given to evolve mechanisms for just and equitable access to water and to include local people in managing water resources. Women would be given a significant role as water users, both in access and management.

4.3.4 The following steps would be taken for augmentation of water availability and its efficient use:

- (i) Rainwater harvesting and aquifer recharge would be given priority for ensuring the stability of supply. Necessary legislative measures to regulate and control the development and management of ground water would be taken up simultaneously.
- (ii) Existing wells and ponds would be renovated.
- (iii) Demand management through improved irrigation practises, including sprinkler and drip irrigation, and through *Pani Panchayats* or water users associations would be accorded a high priority.
- (iv) A water literacy movement would be launched and regulations would be put in place for the sustainable use of ground water.
- (v) Integrated and coordinated development of surface and ground water resources and their

conjunctive use would be envisaged right from the project planning stage and would form an integral part of project implementation.

- (vi) In water-scarce areas, the land-use system would emphasise the cultivation of crops of high value and requiring less water such as pulses and oilseeds.

4.3.5 Symbiotic interaction and convergence of efforts would be made through various initiatives of the central / state governments such as the National Rainfed Area Authority, the National Horticulture Mission, the Technology Missions on Oilseeds and Pulses and the National Rural Employment Guarantee Programme to promote water-use efficiency and water conservation measures.

4.3.6 For drought-prone areas, a Drought Code would be introduced identifying the action needed to minimise the impact of adverse monsoons and to maximise the benefits of a good season. Similarly, in areas prone to heavy rainfall, a Flood Code would be introduced to mitigate distress, take care of the needs of the farmers immediately after floods and help convert the flood-free seasons into major agricultural production periods. For the arid areas, a Good Weather Code would be introduced for taking advantage of occasional heavy rainfall for strengthening the ecological infrastructure essential for sustainable livestock production, drinking water security and sand dune stabilisation. The National Rainfed Area Authority would provide technical and other support in this regard.

## 4.4 Livestock

4.4.1 Livestock, including poultry, is also one of the important sources of livelihood, contributing about one fourth of the agricultural GDP. These activities engage women in much larger proportion. The ownership of livestock is much more egalitarian since poor farmer families mostly own cattle, buffalo, sheep and goats. The major constraints experienced by farmers relate to breed, fodder, feed, healthcare and remunerative prices for their produce. There is a need to address these issues through an appropriate strategy. Further, to enhance the income of livestock owners, agri-clinics operated by veterinary and farm science graduates would be encouraged to improve productivity and overall efficiency of livestock. At the same time, crop-livestock mixed farming systems would be promoted, apart from encouraging production of organic manures and bio-fertilizers. Livestock insurance would also be revamped and made accessible to all farmers.

4.4.2 For poultry farming, the following steps would be taken:

- (i) Quarantine and testing facilities for imported birds and vaccines at all ports of entry would be established and strengthened, since such safeguards are necessary for the health and survival of the poultry industry and for the protection of life and livelihood.
- (ii) Testing for safety and efficacy of imported poultry vaccines before they are allowed to be marketed, as is done in the case of human vaccines, would be made compulsory.

- (iii) Poultry rearing would be recognised as an agricultural activity and appropriate support would be provided to backyard poultry farmers to promote clusters or small holders' poultry estates.

## 4.5 Fisheries

4.5.1 Both coastal and inland fisheries provide employment and livelihood to millions of families. There is considerable scope for improving the income of fishermen families on an environmentally sustainable basis by encouraging scientific fish rearing, harvesting and processing. In the area of public policy, there is a need for well-planned aquarian reforms in order to provide landless labour families access to village ponds and other water bodies in the public domain for aquaculture.

4.5.2 The NFDB has been established by the Government of India to bring major activities relating to fisheries and aquaculture for focused attention and professional management. The guiding principles for the NFDB would be ecology, economics, gender equity, employment generation and advising the state governments to facilitate rational and equitable allocation of public water bodies and reservoirs for practising modern aquaculture.

4.5.3 Following steps will be taken to promote modern aquaculture practices and value addition:

- (i) "Fish for All" training and capacity building centres to impart training to fisher families and fisher-women in all aspects of the capture / culture / consumption chain, quality literacy

for hygienic handling and other aspects.

- (ii) Provision of small dredgers for ensuring the efficiency of fish-landing centres.
- (iii) Centralised services to support the decentralised capture and culture fisheries sectors.
- (iv) Inland aquaculture, including the culture of ornamental fish and air-breathing fish, by providing necessary space in ponds and reservoirs.
- (v) Artificial coral reefs to compensate for the loss of natural coral reefs to revive the fish catch.
- (vi) Raising bio-shields comprising Mangroves, Casuarina, Salicornia, Aatriplex and other halophytic plants, to safeguard the lives and livelihoods of coastal fisher and farm families in the event of cyclonic storms and seawater inundation during calamities like tsunamis.

4.5.4 A dynamic policy for the management and economic use of the Exclusive Economic Zone (EEZ) for a variety of economic activities, including fisheries, will be evolved and put in place with the assistance of NFDB.

## 4.6 Bio-resources

4.6.1 Bio-resources refer to the abundant wealth of flora and fauna, including soil micro flora and micro fauna, which, after land and water, form the third important natural resource available to farmers. Efforts will be made to conserve as well as enhance these resources and to ensure their sustainable use with equitable sharing of benefits. Two major legislations—the Protection of Plant

Varieties and Farmers' Rights (PPVFR) Act, 2001 and the Biological Diversity Act, 2002—are in place to achieve some of the above aims. Implementation of these Acts would be strengthened and detailed guidelines would be developed in such a manner as to recognise the rights of farmers and the farming community. The National Gene and Biodiversity Fund would be used to recognise and reward contributions of farmers and to support revitalisation of *in situ* farm conservation traditions of such communities. A beginning has already been made by the government in establishing the Plant Genome Saviour Community Recognition Award for farmers.

4.6.2 For conservation and development of bio-resources, the following would be promoted:

- (i) Documentation of traditional knowledge through community bio-diversity registers with the involvement of women, who hold much of this knowledge.
- (ii) Support to tribal and rural people for revitalising their *in situ* farm conservation traditions.
- (iii) Participatory breeding procedures involving scientists and local conservers for improving the productivity of land races.
- (iv) Genetic engineers working in public institutions to perform the role of pre-breeding i.e., development of novel genetic combinations for important biological and economic traits, such as resistance to biotic and abiotic stresses, in participatory breeding programmes with farmers, to integrate genetic

efficiency and genetic diversity in an effective manner.

- (v) Genetic homogeneity enhances genetic vulnerability to pests and diseases. Therefore, pre-breeding and participatory breeding would be integrated to help insulate small farmers from the risks of pest and disease epidemics.
- (vi) Launch of literacy movement on genetic and legal aspects, in areas rich in agro-biodiversity such as the North East, Western and Eastern Ghats and the arid and semi-arid zones.
- (vii) Genome clubs will be encouraged in rural schools and colleges for imparting an understanding of the importance of genetic resource conservation.
- (viii) Literacy and awareness to help tribal and rural families understand the provisions of the PPVFR Act and the Biological Diversity Act with reference to their entitlements.
- (ix) Training of farm and tribal families in methods of preventing gene erosion.
- (x) Conservation of coastal biodiversity, including coral reefs and sea grass beds and support to traditional methods of conservation.
- (xi) Organise and support herbal bio-valleys in the Western Ghats, Eastern Ghats, Vindhya and Himalayan region for the conservation and sustainable use of medicinal plants. In such bio-valleys, farmers would be assisted through venture capital and other support to take to conservation, selection and multiplication of medicinal plants of value to health security.

- (xii) A nationwide programme will be taken up for the *ex situ* and *in situ* conservation of plant genetic resources at the field / farmer level. Farmer-level gene / seed banks would be set up in areas where traditional varieties are in danger of extinction. Seed exchange programmes undertaken by some state governments, should take due care to ensure that the traditional rice gene pool is not lost in this process.
- (xiii) Participatory management of national parks, bio-sphere reserves and gene sanctuaries.

#### 4.7 Animal Genetic Resources

- 4.7.1 A system of rewards and incentives will be developed to enable and motivate people to conserve their breeds under the Biological Diversity Act. The Biodiversity Fund would be used for such purposes. Livestock keepers' inherent rights to continue to use and develop their own breeding stock and breeding practises will be acknowledged and encouraged. The government will recognise these rights, acknowledge livestock keepers' contribution to the national economy, and adapt its policies and legal frameworks accordingly so as to protect the same and to pre-empt attempts to use the intellectual property system to obtain control over animal resources.

4.7.2 Apart from conserving genetic diversity and acknowledging the vital role of livestock keepers, there is a need to document the indigenous knowledge of pastoral communities about animal maintenance and breeding. Community-based conservation and development of indigenous livestock breeds and species will be encouraged, with a special focus on both hot and cold arid and semi-arid areas where genetic diversity and associated indigenous knowledge are particularly well developed. State farms may be used to promote *in situ* conservation of animal breeds. Grazing lands must be earmarked to enable the conservation of animal genetic resources. Documentation of special biological and economic traits would be done in the context of the new biological and nutritional needs or for other economic traits like hide/leather quality. Creation of disease-secure facilities for screening of germ plasm and selection of disease resistant varieties would be promoted.

4.7.3 Indian breeds of cattle and buffaloes are in demand in other countries. Animal science graduates, self-help groups (SHGs) and progressive livestock farmers would be encouraged and supported to maintain pedigree animals of these breeds for exploiting export opportunities. However, export of all biological material including animals would be in accordance with the provisions of the Biological Diversity Act.

## 5

### SUPPORT SERVICES

#### 5.1 Science and Technology

- 5.1.1 Science and technology are the key drivers of change in farm operations and output. New technologies which

can help enhance productivity per unit of land and water are needed for overcoming the prevailing technology fatigue. Frontier technologies like biotechnology, ICT, renewable energy

technologies, space applications and nano-technology provide opportunities for launching an “Evergreen Revolution” capable of improving productivity on a sustainable basis. In order to ensure social inclusion in access to new technologies, public investment in socially relevant agricultural research should be stepped up under the umbrella of the National Agricultural Research System (NARS) comprising large numbers of Indian Council of Agricultural Research (ICAR) institutions, state agricultural universities, all-India coordinated research projects and national bureaus. Non-governmental organisations (NGO) and private sector research and development (R&D) institutions would also be included under the NARS umbrella. NARS would be restructured so as to effectively address the problems faced by small and marginal farmers.

- 5.1.2 The research strategy should be pro-nature, pro-small farmer and gender sensitive. Community-managed seed villages and seed technology training centres are needed, with women playing the major role because of their traditional knowledge of seeds and seed management, especially in tribal communities. Scientific literacy and removal of doubts and fears about the risks and benefits associated with biotechnology and other new technologies, can be achieved through farmers selected in each *panchayat* and provided with adequate training, so as to enable them to serve as farm science managers in their respective villages.
- 5.1.3 A National Bio-technology Regulatory Authority would be set up for ensuring

the safe and responsible use of recombinant DNA technology or genetic engineering.

- 5.1.4 Need-based breeding of crop varieties would be stepped up such as processing quality fruits and vegetables.
- 5.1.5 High level multidisciplinary effort will be made for enhancing scientific inputs in organic farming that meet the needs of farmers. Integrated crop – livestock - fish production systems offer scope for the adoption of the principles and methods of organic farming.
- 5.1.6 In intensively cultivated mono-crop areas, crop diversification may be beneficial from the points of view of ecology, economics and employment generation. However, any advice on crop diversification must be accompanied by steps to ensure effective market support for the alternative crops. In planning for crop diversification, particularly from food to non-food crops, such as for the production of bio-fuels, the food security of the nation would be kept in view.
- 5.1.7 The intellectual property rights regime will make provisions for compulsory licensing of rights in the cases of research products and processes of value to farmers. In all cases of health and food security, social inclusion will be the guiding factor.
- 5.1.8 Conservation farming would be given priority in the heartland of the Green Revolution and turning the Indo-Gangetic Plains into a major food basket through an appropriate mix of technology services and public policies.

## 5.2 Agricultural Bio-security

5.2.1 Agricultural bio-security covering crops, trees and farm and aquatic animals is of great importance since it relates to both the work and income security of a majority of the population and the food and trade security of the nation. An integrated National Agricultural Biosecurity System (NABS) covering crops, animal husbandry, fisheries, forestry and agriculturally relevant micro-organisms will be established with the following objectives:

- (i) Safeguard the income and livelihood security of farmer families, as well as the food, health and trade security of the nation, through effective and integrated surveillance, vigilance, prevention, and control mechanisms designed to protect the productivity and safety of crops, farm animals, fishes and forest trees.
- (ii) Enhance national and local capacity in initiating proactive measures in monitoring, early warning, education, research, control and international cooperation.
- (iii) Introduce an integrated bio-security package comprising regulatory measures, education, improved sanitary and phyto-sanitary measures and social mobilisation.
- (iv) Organise an integrated national agricultural biosecurity programme on a hub-and-spoke model, with effective home and regional quarantine facilities capable of insulating the major agro-ecological and farming system zones of the country from invasive alien species of pests, pathogens and weeds as well as from the introduction and release of Genetically Modified Organisms (GMOs).

## 5.3 Agro-meteorology

5.3.1 The nation has considerable capacity in short, medium and long range weather forecasting. Generic information about weather has to be translated into location-specific land-use advice, based on cropping patterns and water availability. The agro-meteorological advisories issued from time to time, would be used by Panchayat-level functionaries, trained to give appropriate land-use suggestions to farmers with the least possible time lag. For marine fisheries, data on wave heights and location of fish shoals available would be transmitted to the fishermen. Frontline technologies such as internet-FM/HAM radio/cellphone services would be very helpful to fishermen in this regard.

## 5.4 Climate Change

5.4.1 Climate change leading to adverse changes in temperature, precipitation and sea level is an emerging issue. Most experts agree that the impact of global warming has been in a worrisome measure, as evident from the melting of glaciers and Antarctic and Arctic ice caps. Coastal storms and cyclones are also increasing in frequency and intensity. Consequent to these changes, droughts and floods are likely to be more frequent. Although climate change is a product of unsustainable consumption of non-renewable forms of energy, the harmful impact of climate change will be felt more by those nations with limited resources and coping capacity. Proactive measures to reduce the vulnerability to climate change will be taken. Based on simulation models, contingency plans and alternative land-

use and water-use strategies will be developed for each major agro-climatic zone. In drought and flood-prone areas, experienced farmers would be trained as “Climate Managers” in the art of managing drought, flood and aberrant monsoons.

## 5.5 Inputs and Services

- (i) **Seeds:** Good quality seeds and disease-free planting material, including in-vitro cultured propagules, are essential for crop productivity and security. Hybrids are now becoming available for many crops. In the case of new varieties, foundation seeds would be provided to grass root level seed growers and their groups such as cooperative societies and SHGs. Mutually beneficial farmer-seed company partnerships will be encouraged. Agricultural universities would be encouraged to organise courses on seed technology and business, and mainstream business principles in all applied courses. A national seed grid will be established to ensure supply of seeds across the country, as per the area specific requirement.
- (ii) **Soil Health:** Soil health enhancement holds the key to raising farm productivity. Steps would be taken to ensure that each farmer is issued with a soil health passbook containing integrated information on the physics, chemistry and microbiology of farm soils with corresponding advisories. More laboratories to detect specific micronutrient deficiencies in soils will be

established for this purpose. Soil organic matter would be increased by incorporating crop residues in the soil. Proper technical advice on the reclamation of wastelands and on improving their biological potential will be made available. Fertilizer pricing policies will be reviewed to promote balanced use of fertilizers. Agro-forestry will be encouraged for efficient nutrient cycling, nitrogen fixation, organic matter addition and for improving drainage. Appropriate production and marketing mechanisms for bio-fertilizers, organic manures etc. will be put in place to promote their use for improving/maintaining soil health.

- (iii) **Pesticides:** The triple alliance of pests, pathogens and weeds is the cause of substantial crop losses every year. The development, introduction and diffusion of environmentally safe and effective pesticides will be given priority. There is a need for incorporating the use of chemical pesticides in an Integrated Pest Management (IPM) system. Suitable quality control, safety evaluation and other regulatory systems would be strengthened. The sale of spurious and substandard pesticides would be prevented and bio-pesticides would be promoted.
- (iv) **Implements:** Farmers need region and crop specific machines and implements for timely sowing, management of weeds and improving their post-harvest operations. Women especially need woman-friendly implements / tools which can reduce drudgery, save time, enhance output and can

be handled comfortably. Agri - entrepreneurs including farm graduates and progressive farmers would be encouraged to provide implements and tools, machinery, tractors and other farm implements on a custom-hire basis.

- (v) **Vaccines and Sero-diagnostics:** Major gaps in the presently available facilities would be filled in the case of important animal diseases. Bio-technology research in the area of vaccine development would be stepped up, encouraging public private partnerships.
- (vi) **Fish Seed and Feed:** Good quality and disease-free fish seed holds the key to successful inland aquaculture. Progressive fishermen and their groups such as SHGs would be trained in induced fish seed breeding, production and availability of seed and fish seed feed at affordable prices, with appropriate technical assistance from the NFDB and other agencies.
- (vii) **Animal Feed:** Inadequate nutrition is the primary cause of low milk yield in dairy animals. Both conventional and non-conventional approaches for conversion of cellulosic wastes into good animal feed through appropriate treatment and enrichment, planting of nutrition rich fodder plants and dissemination of technologies would be encouraged.
- (viii) **Other essential support services:** These include establishing genetic evaluation systems for indigenous breeds as well as crosses, so that selection can lead to genetic improvement of production

characteristics; upgrading of breed through artificial insemination; cross- breeding suited to the farmers' resources; and improved processing and marketing. The livestock sector has to become sanitary and phyto-sanitary compliant. A cadre of para-veterinarians would be trained to set up support service centres for the farmers, to promote early detection and treatment of diseases and other veterinary services.

- (ix) **Support Services for Women Empowerment:** For capacity building and livelihood, women working in the farms need appropriate support services like crèches, child care centres, nutrition, health and training, etc. For funding such activities, existing schemes of the Ministry of Panchayati Raj, the Ministry of Rural Development and the Ministry of Agriculture would be augmented and utilised and new schemes would be introduced, if required.

## 5.6 Credit and Insurance

- 5.6.1 Improvement in the outreach and efficiency of the rural banking system is the need of the hour. Towards this end, the financial services would be galvanised for timely, adequate and easy reach to the farmers at reasonable interest rates. The banking system would endeavour to meet the large credit potential needed to raise agriculture to higher thresholds and for the growth of rural and agri-business enterprises and employment, and would take steps to achieve financial inclusion.

- 5.6.2 The Government of India has already put in place an agriculture credit policy to improve access of farmers to institutional credit. Steps would be taken for extensive coverage of farmers under the *Kisan Credit Card Scheme*. Micro credit and micro insurance will be promoted as an effective tool for encouraging production and reducing risk. Credit cooperatives have an important position and role in the rural financial system and priority would be given to reforms and revamping of cooperative credit institutions as per the recommendations of the Vaidyanathan Committee. Credit counselling centres would be established where severely indebted farmers can be provided a debt rescue package/ rescheduling to save them from a debt trap. National Bank for Agriculture and Rural Development (NABARD), as the leader of agriculture and rural credit, should facilitate convergence between credit availability and credit absorptive capacity of the farmers and other rural borrowers and an efficient credit delivery system. NABARD should actively involve itself in institution building and provide backup support through research and development initiatives. NABARD should function like a national bank for farmers.
- 5.6.3 Since agriculture is a high-risk economic activity, farmers need user-friendly insurance instruments covering production, right from sowing to post-harvest operations. The insurance should also cover the market risks for all crops, in order to insulate the farmers from financial distress and in the process make agriculture financially viable. Steps would be taken to revamp the National Agricultural Insurance Scheme to make it more farmer friendly.
- 5.6.4 There is also a need for credit and insurance literacy in villages. *Gyan Chaupals* (village knowledge centres) can help in this task. Awareness on credit and insurance issues among farmers would be promoted.
- 5.6.5 Women need special attention in credit access because of their lack of land title/collateral. *Kisan* credit cards would be issued to women speedily with joint *pattas* for homestead / agricultural land. For the cases without joint *pattas*, indemnity bonds / guarantees from husband, and relatives would be considered by the banks for extending credit and *kisan* credit cards to the women farmers.
- ## 5.7 Cooperatives
- 5.7.1 Cooperatives have an important role to play in banking, input supply, marketing, agro-processing and other agri-businesses to protect farmers from the vagaries of existing imperfections in the supply of inputs, production, value addition and marketing. Cooperatives should function as economic enterprises and not as an extended arm of the state. They require an entrepreneurial approach, competitive edge through suitable enterprise focus and strategic alliances with private and public sector units. Appropriate mechanisms would be put in place so that farmers have greater control of the market channels and improve profit opportunities through cooperatives and SHGs.
- 5.7.2 With economic liberalisation and market competitiveness, cooperatives would require much larger capital and other financial resources. Changes in the legal framework and regulatory system would

help gain greater access to capital/financial resources. The policy and legal framework under which cooperatives are functioning would be reviewed so as to create an enabling environment for them to attain autonomy and run their operations in a business-like manner, subject to provisions of law. The management of the cooperatives needs to be made professionally competent, with clear demarcation of functions of the elected members and the managers. The audit and accounting systems would be improved and made transparent so as to give greater confidence to all the members of cooperatives.

## **5.8 Extension, Training and Knowledge Connectivity**

5.8.1 The gap between scientific know-how and field level do-how has been widening in the recent years. This knowledge deficit would be overcome speedily to enhance farm productivity and profitability. *Krishi Vigyan Kendras* (KVKs) would take up training and lab-to-land demonstrations in the area of post-harvest technology, agro-processing and value addition to primary products to provide skilled jobs in villages. State governments would be supported for strengthening the extension machinery through retraining and retooling of existing extension personnel and for promoting farmer to farmer learning by setting up farm schools in the fields of outstanding / progressive farmers. The farm schools with linkages to KVKs can speed up the process of technological upgradation of crop and animal husbandry, fisheries and agro-forestry. Efforts will be made to bring

farmers, processors, retailers and other stakeholders together to support modern agricultural practices. Convergence of extension efforts especially at the district level and below would be ensured.

5.8.2 The potential of ICT would be harnessed by establishing *Gyan Chaupals* in villages. Further, the common service centres of the Department of Information Technology, Government of India and those set up by the state governments and private initiative programmes will be evolved for inclusive and broad-based development. Thus, the structure of the ICT-based knowledge system would, inter alia, include setting up of such village centres. Last-mile and last-person connectivity would be facilitated with the help of technologies such as broadband internet, community radio, or internet-mobile phone synergies.

5.8.3 Empowering farmers with the right information at the right time and place is essential for improving the efficiency and viability of small and marginal holdings. Mass media, particularly the radio, television and local language newspapers, will be used to play an important role in this regard.

## **5.9 Social Security**

Coverage of farmers, particularly small and marginal farmers and landless agricultural workers, under a comprehensive national social security scheme is essential for ensuring livelihood security. The government would, therefore, take necessary steps to put in place an appropriate social security scheme.

## 5.10 Agricultural Prices, Marketing and Trade

5.10.1 Assured and remunerative marketing opportunities hold the key to continued progress in enhancing farm productivity and profitability. Several significant market reforms have already been initiated by the Central and the State governments. These reforms provide more options to farmers for selling their produce, allowing the private sector, including cooperatives, to develop markets, promote direct sales to consumers, processors and retail chain suppliers / exporters and remove scope for corruption and harassment. The following steps would be taken:

- (i) The Minimum Support Price (MSP) mechanism would be implemented effectively across the country.
- (ii) The Market Intervention Scheme (MIS) would be strengthened to respond speedily to exigencies especially in the case of sensitive crops in the rainfed areas.
- (iii) The establishment of community foodgrains banks would be promoted to help in the marketing of underutilised crops and thereby generate an economic stake in the conservation of agro-biodiversity.
- (iv) The food security basket will be enlarged by storing and selling nutritious millets such as bajra, jowar and ragi and other crops through the network of the Public Distribution Systems (PDS).
- (v) Efforts will be made to develop a single national market by relaxing internal restrictions. All controls and regulations hindering increase in farmers' income will be reviewed and abolished.

(vi) Terminal markets for agriculture would be developed in public-private partnership mode to provide better market access to farmers with better price realisation in a transparent trading environment with suitable backward linkages to give technical backstopping services needed for quality and demand driven production.

(vii) The role of the Agriculture Produce Market Committees and State Agriculture Marketing Boards would be transformed from mere regulatory focus to promotion of grading, branding, packaging and development of markets for local produce.

5.10.2 Farmers require authentic advice based on meteorological, marketing and management information for land-use decisions and investments. Infrastructure support would be put in place to minimise post-harvest losses and enable agro-processing and value-addition at the village level itself to increase employment and income. Farmers' organisations and other entities like cooperatives and small farmers' estates would be encouraged so that farmers can get a fair deal and enjoy the economies of scale. Producer groups and cooperatives will be encouraged to promote agro-processing industry. Constraints would be removed for improving the negotiability of warehouse receipts.

5.10.3 The trade policies in agriculture would aim at protecting the livelihood of farmer families and fostering their economic well-being. Effective livelihood security for farmers would be put in place. Quality and trade literacy

programmes would be launched across the country. Appropriate measures would be introduced to mitigate price risks and enable the stakeholders, particularly the farmers, to hedge their risk.

5.10.4 Farmers' associations and SHGs would be supported to export on competitive terms by spreading awareness of the opportunities available for external agricultural trade and for value addition. The agri-export zones would be further strengthened to become places where farmers will get the best possible price for their produce.

5.10.5 The twin goals of ensuring justice to farmers in terms of a remunerative price for their produce and to consumers in terms of a fair and affordable price for staples (as farmers are also consumers) would be achieved through the following integrated strategy:

- (i) The government, while taking decisions on MSP, would ensure that the farmers' interests in receiving remunerative prices for their produce are adequately safeguarded.
- (ii) Stable and efficient market environment, including effective implementation of MSP in rainfed areas, would add to the improvement in productivity and income in dry land farming.

5.10.6 The terms of reference and status of the Commission for Agricultural Costs and Prices (CACP) would be reviewed to make the MSP regime more effective.

## **5.11 Integration with Processing and Value Chain**

5.11.1 It is well recognised that value addition to agricultural produce increases income

levels of the farmers. Therefore, it is necessary to integrate their production with processing and other value chain activities. However, the post-harvest infrastructure in the country is grossly inadequate, resulting in huge inefficiencies and wastages. The percentage of post harvest losses at various stages of storage, grading, packing and marketing due to improper handling and transportation, vary greatly, depending on the nature of crop and climatic conditions. The food processing industry has the potential to provide long-term economic sustainability to the farmers by adding value to their produce, improving post-harvest management linking the farmers to the market and promoting demand-driven farming. Further, the food processing activities also need modernisation. Hence, effective steps would be taken to facilitate and stimulate this process, modernise the food processing sector and enhance its competitiveness.

## **5.12 Curriculum Reform**

5.12.1 **Agricultural / Animal Sciences Universities:** The motto of these universities would be to groom "every scholar/student as an entrepreneur". This will call for integrating business management principles with major applied courses. The agriculture/farm universities would also restructure their curricula in a manner that the gender roles in farming are recognised and they are equally empowered technologically. There is a need to restructure the curricula to focus on nutrition, post-harvest technology, quality and safety standards. The farm universities would be reoriented to give emphasis on

entrepreneurship and capacity building on quality including sanitary and phyto-sanitary measures and Codex Alimentarius standards of food safety.

5.12.2 The mandate of the ICAR would be expanded to provide for registration and accreditation to the farm graduates as registered farm practitioners to provide quality service to the farmers. Centres of excellence in agriculture (crop, animal husbandry, fishery and forestry) modelled after the Indian Institutes of Technology (IITs) and Indian Institutes

of Management (IIMs) would be developed to enhance the competitiveness of the graduates. Taking into account the new opportunities opened up by ICT, pedagogic methodology for promoting a learning revolution among students would be adopted. University centres would also establish employment and business advisory services and promotion centres and special one-stop windows for generating awareness of self-employment opportunities.

## 6

## SPECIAL CATEGORIES OF FARMERS

### 6.1 Tribal Farmers

Tribal farmers are among the most disadvantaged category of farmers. A majority of tribal communities across the country are dependent on forests and animal husbandry for their livelihoods. These include cultivation (shifting cultivation in many cases), collection of fuel, fodder and a range of non-timber forest produce. Uplifting of their economic conditions would be a priority for the government. For this purpose, the following actions would be initiated:

- (i) Updating land records in areas inhabited by tribal farmers.
- (ii) Strengthening the institutional structure to enable a more participatory process in decision making.
- (iii) Easy access to institutional credit to all tribal farmers and adequate provision of *kisan* credit cards for them.
- (iv) Documentation of the traditional crops and knowledge of the tribal farmers and creating an economic stake in conservation of such crops.

- (v) Provision of appropriate technology and extension services and relaxed criteria for providing inputs such as water, fertilizers, seeds, etc. for tribal areas.

### 6.2 Pastoralists

The following steps would be initiated to ensure better livelihood opportunities for pastoralists:

- (i) Restoration of traditional grazing rights and camping rights in respect of forest areas and in those areas earmarked for grazing purpose in village common lands.
- (ii) Formalising entitlements (including issue of permanent grazing cards) for traditional pastoralists/herders maintaining native animal breeds to enable free access to notified or demarcated grazing sites and migration routes.
- (iii) Grazing land and drinking water sources for livestock will be conserved and expanded to the extent feasible.

- (iv) In-depth documentation and characterisation of indigenous livestock breeds and preservation thereof would be carried out to recognise and protect the intellectual property rights of the local communities / individuals conserving these livestock breeds.
- (v) Pastoralists would be involved in all local natural resource management programmes, including village forest committees and joint forest management.

### 6.3 Other Categories

6.3.1 Besides the above two groups, there are several small groups with distinct and special needs such as small plantation farmers, island farmers, urban farmers and organic farmers.

#### 6.3.2 Plantation Farmers

A large number of small farmers are engaged in the cultivation of plantation crops like tea, coffee, rubber, cardamom, pepper and vanilla. Price fluctuation and competition from products imported from abroad are among the major problems facing them. Therefore, the Price Stabilisation Fund for plantation crops will help them to be insulated from the vagaries of the market.

#### 6.3.3 Island Farmers

The farming and fisher families in the Andaman and Nicobar Islands, Lakshadweep group of islands and other islands need special attention including technology, training, techno-infrastructure and trade. Island agriculture also has the problem of transport costs, particularly for perishable commodities like fish which may have to be sold in the mainland. The ancient tribes of the Andaman and Nicobar Islands have rich traditional knowledge and wisdom. Steps would be taken to recognise and reward their indigenous knowledge in the areas of biodiversity conservation and traditional healthcare. Horticulture development programmes would be taken up in islands wherever feasible. The creation of mangrove and non-mangrove based bioshields would be initiated to safeguard the lives and livelihoods of island populations in the event of the rise of sea levels due to global warming and calamities like tsunamis.

#### 6.3.4 Urban Farmers

In urban areas, home gardens and nurseries would be encouraged. Nutrition gardens would be supported to supplement the nutritional requirement.

## 7

## SPECIAL CATEGORIES OF FARMING

### 7.1 Organic Farming

The organic farming movement in India suffers from a lack of adequate institutional support in the areas of research, extension, certification and marketing and it requires more

scientific support than chemical farming. KVKs would be equipped to provide training in organic agriculture. Internationally accepted certification procedures would be strengthened to make them farmer-friendly and affordable. Organic

farming zones would be identified, like the hill areas, islands where chemical fertilizer use is low, and for medicinal plants where the use of chemical pesticides and fertilizers is not advisable. Organic farming would also be encouraged in selected rainfed areas backed up by required supports, including marketing. It would also be supported through contract farming. Food safety and quality specifications should conform to the Codex Alimentarius standards since there are occasional reports of heavy metals being present in organic foods. Farmers engaged in organic farming should be linked to niche markets where they will obtain a premium price. Progressive farmers and farm graduates would be supported for establishing agri-clinics and agri-business centres for organic farming. Bio-fertilizers, organic manures and bio-pesticides would be treated at par with the chemical fertilizers for support and promotion.

## **7.2 Green Agriculture**

Green agriculture involving integrated pest management, integrated nutrient supply and integrated natural resources management is recognised as the pathway to an “Evergreen Revolution”. Unlike organic farming, green agriculture permits the safe and minimal use of mineral fertilizers and chemical pesticides, as well as crop varieties developed by genetic modification. Green agriculture products would be encouraged with distinct labelling and certification as in the case of organic farming.

## **7.3 Genetically Modified (GM) Crops**

There is a need to assess the risks and benefits associated with GM crops in a credible and transparent manner. Priority would be given for genetic modification to incorporate genes which can help impart resistance to drought, salinity and other stresses. Water-use efficiency as well as improvement of both nutritive and processing quality would also be accorded priority in the research agenda. Training and awareness in agronomic management procedures in respect of GM crop varieties would be introduced.

## **7.4 Protected (Greenhouse) Agriculture**

With the rapid growth of horticulture, there is an opportunity for greenhouse cultivation of vegetables, fruits and flowers supported by economic methods of water and fertilizer use such as fertigation (the application of nutrients through irrigation systems). Support would be given to farm and home science graduates and other entrepreneurs to undertake green house horticulture under the agri-business programme and horticulture development programmes. Low-cost green houses, along with micro-irrigation and fertigation techniques, would be popularised in areas where evaporation exceeds precipitation during several months in a year. Suitable support would be given for such technologies that would increase income in water deficit areas.

## 8

## SPECIAL REGIONS

## 8.1 Distress Hotspots

Several steps have been taken by the government to mitigate agrarian distress experienced in some parts of the country. It is important that special attention is paid to such areas to reduce risk and promote inputs for sustainable agricultural practices. In such areas, knowledge connectivity, social support systems and marketing infrastructure will be strengthened. Convergence of the benefits under different schemes would also be encouraged.

## 8.2 Mega Bio-diversity Areas

Local communities would be involved in the conservation of mega bio-diversity areas such as Western and Eastern Ghats, eastern Himalayan region, other North East and tribal areas. These communities would be given an incentive and their contributions would be appropriately recognised. Steps would also be taken to enable local communities in mega bio-diversity areas to convert bio-resources into economic wealth in a sustainable manner.

## 9

## FARMERS OF THE FUTURE

9.1 The slow growth of opportunities in the non-farm employment sector has led to the proliferation of tiny and economically non-viable holdings. Increase in small farm productivity and creating multiple livelihood opportunities through crop-livestock integrated farming systems as well as agro-processing would be supported for increasing farmers' incomes. Methods of achieving economies of scale by small and marginal farmers through the farming groups would be popularised to enhance yield and income. Women would be encouraged to participate in such group activities. The following are some of the methods which may benefit the small and marginal farmers for gaining efficiency and economies of scale in their farming operations.

(i) **Cooperative Farming and Service Cooperatives:** These have been successful in the case of the dairy industry. Marketing cooperatives are successful since members cooperate on the basis of

enlightened self-interest. Other forms of service cooperatives are slowly emerging, but the pace needs to be accelerated. Small farmers' cooperatives would, therefore, be encouraged and supported to take up activities such as processing, value addition and marketing of agro products.

(ii) **Group Farming by SHGs:** SHGs for supporting micro-enterprises operated by women with the help of micro credit have been highly successful. With the growing diminution in the size of operational holdings, it will be useful to promote SHGs and commodity-based farmers' organisations at the production end of the farming enterprise by encouraging groups for consolidating farming activities. This will be particularly helpful in the case of "Green Agriculture" involving integrated pest management, integrated nutrient supply, scientific water management

and improved post-harvest technology. SHGs would also be promoted for improving access to credit.

- (iii) **Small Holders' Estates:** The formation of small holders' estates, for example, in cotton, horticulture, medicinal plants, poultry and aquaculture will help promote group cooperation among farmers living in a village or watershed, or the command areas of irrigation projects. Improving productivity, reducing the cost of production and entering into marketing contracts with textile mills, food processing industries, pharmaceutical companies, and fish marketing agencies will be some of the advantages. Such small holders' estates can also manufacture products under brand names and enhance income security so that group insurance becomes feasible. Agri-clinics and agri-business centres would be linked to such estates.
- (iv) **Contract Farming:** Symbiotic contracts which confer benefits to both producers and purchasers would be encouraged for ensuring assured and remunerative marketing opportunities to the farmers. Contract cultivation based on a well-defined code of conduct will be

helpful to small producers in getting good quality inputs, fair prices and prompt payment for their produce. A code of conduct for contract farming or a model contract will be developed to meet the commodity-specific requirements. Farmers will not be alienated from their land under any circumstances under contract farming. State governments may set up a monitoring committee involving farmers to encourage a farmer-friendly contract farming system.

- (v) **Farmers' Companies:** Private limited companies, registered under the Companies (Amendment) Act, 2002, are now coming into existence in the area of seed production, the production of bio-fertilizers, bio-pesticides and other forms of biological software essential for sustainable agriculture. Small farmers and the SHGs would be associated in such companies as stakeholders and not just as shareholders.
- (vi) **State Farms:** State farms inter alia, would also be used for developing Living Heritage Gene Banks of the germ plasm of local crops and breeds of cattle, sheep and poultry in order to preserve the plant and animal genetic wealth.

## 10

### ATTRACTING YOUTH

Educated youths would be helped and supported for setting up agri-clinics and production-cum-processing centres to undertake outsourcing jobs both from within and outside the country. In order to attract youths to the agriculture sector, a number of vocational training courses

in different aspects of agricultural and allied activities including value addition and processing of agro-products shall be introduced and recognised. The KVKs, institutions of state governments/ICAR and competent private institutions may also provide such recognised vocational

training to the youth. Trained persons would be supported through various schemes to launch self-employment

ventures for value addition to improve productivity and income of the farmers.

## 11

## OTHER POLICY MEASURES

- 11.1 The following policy measures will also ensure well-being and livelihood security of the farmers:
- (i) Existing state land use boards would be revamped and linked to district-level land-use committees to be constituted by the state government so that they can provide quality and proactive advice to farmers on land use. These are expected to emerge as virtual organisations with the capacity to link land-use decisions with ecological, meteorological and marketing factors on a location and season-specific basis.
  - (ii) Major thrust would be given to the development of floriculture, roots and tuber crops, aromatic and medicinal plants, bee-keeping and sericulture. Appropriate market linkages would also be provided so that such efforts would improve employment and income opportunities in rural areas.
  - (iii) Market Intervention Scheme would continue and would be strengthened. Suitable measures would be taken for expeditious processing and sanctions.
  - (iv) A well-defined food security policy with homegrown foodgrains is important for eradicating rural poverty and malnutrition. In order to strengthen and regularly monitor food security issues, the government would constitute a Cabinet Committee on Food Security.
  - (v) Farm families would also be protected from becoming victims of HIV/AIDS and tuberculosis (TB). Anti-retroviral drugs would be made available in villages free of cost. The approach to the treatment of farmers who are victims of serious diseases like HIV/AIDS and TB in villages would take into account access of the patient to food and nutrition to assist recovery and restoration of productive life.
  - (vi) There is a need for a rural non-farm employment initiative for farm households. The initiative would bring all rural non-farm employment programmes together in order to generate convergence and synergy among them. A consortium approach involving the different agencies concerned would be adopted.
  - (vii) Along with production growth rates, income growth rates would also be measured and published. Improving income and livelihood of farmers would be incorporated as a primary objective of all schemes implemented in the agriculture sector.
  - (viii) Article 243 G of the Constitution (73<sup>rd</sup> Amendment) Act, 1982, entrusts *panchayats* with the responsibility for agriculture including agricultural extension. If the problems faced by farmers are disaggregated and dealt with by

the *gram sabhas* and *panchayats*, location-specific problems can be attended to speedily and effectively. In order to implement various schemes and programmes at the grass roots level, the Government of India would support state governments for devolution of functions and functionaries for empowering the *panchayats*. Steps would be taken to strengthen and accord centrality to *panchayats* in addressing the problems of farmers.

- (ix) Mass media (conventional, electronic and the internet) constitute an important pillar of our democratic system of governance. In order to assist the

mass media with timely and scientifically accurate information on issues relating to agriculture, food security and farmers welfare, regional media resource centres would be set up, associating farmers, media representatives and scientists, including extension personnel.

- (x) There is a need for integrated approach for rural energy where renewable energy systems / devices, biofuels would be promoted apart from improving the rural infrastructure, including rural electrification, which is essential for agricultural development.

## 12

### OPERATIONALISATION OF THE POLICY

12.1 The National Policy for Farmers will be adapted and operationalised to suit the local needs in different states and union territories. State governments would be supported to convert national goals into local action points by preparing operational plans for implementing this policy, taking into account the agro-climatic and other local conditions. Such operational plans will be prepared at the district level by a multi-disciplinary professional group and integrated at the state level. States would be encouraged to have an effective mechanism for continuous feedback from the farmers to ensure that measures taken under the

policy address the problems of the farmers.

12.2 The Department of Agriculture and Cooperation would constitute an Inter-Ministerial Committee to suggest a plan of action for operationalisation of this policy. Appropriate mechanisms and guidelines would be evolved by concerned Ministries / Departments to implement this policy.

12.3 The Agriculture Coordination Committee under the chairmanship of the Prime Minister would oversee and coordinate the integrated implementation of this policy.

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