

REPORT
OF THE
INTER MINISTRY TASK GROUP
ON

**Investment, Credit and Technical Support to Promote
Self-employment in Agriculture, Horticulture,
Afforestation, Dairying and Agro-processing**



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Executive Summary

ES 1 Need for promoting self-employment in agriculture & agro related activities





- ES 1.1 The magnitude of self-employment in agriculture and allied areas is at present 130 to 140 million. In rural areas, the share of self employed persons decreased from 62.6% in 1977-78 to 55.8% in 1999-2000. Bulk of the self-employed are the cultivators, many of them having very small land holdings. Since such self-employment does not yield sufficient income, small cultivators shift towards wage employment, either in rural areas as landless agricultural labour or in the urban informal sector. Accordingly, casual wage labour in rural areas increased from 29.7% of rural employment in 1977-78 to 37.4% in 1999-2000.
- ES 1.2 To be able to attract the youth and the educated into self-employment, there is a pressing need to improve productivity and hence the income from the work opportunities available for self-employment in rural areas. Given the fact that a large part of the produce in rural areas is disposed off as unprocessed, there is tremendous scope for creation of higher income self-employment opportunities in agriculture, horticulture, afforestation, dairying and agro-processing.
- ES 1.3 The natural process of economic growth related shift from primary to secondary and tertiary sectors is not fast enough to address the issues of increasing unemployment, poor quality of employment, educated unemployment and massive under-employment in agriculture. As such there is a need to stimulate the creation of self-employment opportunities in agriculture and allied areas.
- ES 1.4 Swarnajayanti Gram Swarozgar Yojana (SGSY) is the major ongoing self-employment programme for the rural poor in the country which has so far helped nearly 1.84 lakh Self Help groups and 47.77 lakh Swarozgaries to take up economic activities. During the first two years of the current Five Year Plan, the scheme has provided sustainable employments to 17.22 lakh persons from BPL families. But the major concerns are lack of proper in planning and implementation at district and block level, poor delivery of credit from bank,

inadequate training plan for skill development and insufficient marketing support. The Ministry of Rural Development and the other line Ministries are also not ready to share their resources and expertise in specialized areas.

ES 2 Four-Pronged Strategy for stimulating self-employment



ES 2.1 The IMG has observed that there are significant opportunities for self-employment that can be tapped in agriculture, horticulture, livestock, fishing and forestry. Moreover, **stimulating agricultural output growth is also expected to have an associated increase in non-farm employment through Input Linkages** (ploughs, tools, engines etc), **Consumption Linkages** (agriculturalists need for locally produced goods and services), **and Agro-processing linkages** (spinning, milling, canning etc).

ES 2.2 Accordingly the IMG recommends a four-pronged strategy for creation of self-employment opportunities in agriculture and allied areas:

-  **Sustaining the growth rate in agriculture and allied sector at 4% for the next 5 years.**
-  **Shifting large number of farm labours to employment in non-farm sectors.**
-  **Providing Livelihood Development Services that include creation of assets, timely availability of cheap credit, technological support and marketing support in an integrated manner.**
-  **Promoting the growth of small and micro enterprises including house based enterprises.**

ES 3 Strategy 1: Sustainable agricultural growth

ES 3.1 To operationalise this strategy, it is pertinent to distinguish between:

-  Agricultural growth as a driver for direct self-employment
-  Agricultural growth as a driver for non-farm employment through farm & non-farm linkages

ES 3.2 Direct self-employment opportunities in Agriculture could be tapped through the following strategies:

- Bringing additional land under cultivation through:
 - (i) Rehabilitation of 107 million hectares of eroded, saline, alkaline, water logged, acidic, rocky land and ravines. Raising trees on highly sodic soils for 7 years has potential to create employment opportunities of about 1000 mandays / ha.
 - (ii) Legalising commercial leasing of degraded and wasteland so that 24 million ha of cultivable wasteland and permanent fallow could be used to create employment in agriculture.
- Diversification into higher value and more manpower intensive crops like vegetables, spices etc by creating demand and providing marketing support.
- Quality seed production as a means towards diversification and also as a direct source of self-employment in production and supply of low volume high value hybrid seeds and disease free planting materials for domestic and export markets. A cottage industry based on micropropagation could be structured in a three-tier set up at districts-taluk and village levels.
- Promoting bio-fertilizers, green manuring, recycling of residues into soil, and converting wealth into waste. This could be done through a suitable programme for production of bio-fertilizers through micro-enterprises at village level, in composting, vermin composting, biological nitrogen fixation.
- Promoting agribusiness by strengthening the only scheme of Ministry of Agriculture & Cooperation that aims to create self-employment directly in agricultural sector - 'Agri-Clinics and Agri-business Centers'

ES 3.3 For stimulating agricultural growth as a driver for non-farm employment through farm & non-farm linkages, the following should be done:

- **Enhancing public investment in agriculture related infrastructure such as micro-irrigation, land development, water conservation, rural road connectivity, marketing infrastructure.**

- **Arresting the decelerating growth rates of all principal crops**
- **Tapping the growing world market for organic produce and for supply of fresh produce including vegetables, tropical fruits, flowers, herbal products for cosmetic and pharma-centred use**
- **Exploitation of biotechnology**
- **Prioritising completion of ongoing irrigation projects over new projects**
- **Enhancement of water use efficiency through efficient water charges**
- **Reduction in subsidy on nitrogenous fertilizers**

ES 3.4 Horticulture Development

With more than 146 million tonnes of horticultural produce, India is second only to China, which produces 454 million tonnes. The horticulture sector employs 1.66 crore, with 50% self-employed, 30% waged and 20% salaried. Moreover small and marginal farmers are primarily engaged in horticulture production. The sector is labour intensive – 84.33 mandays / acre or 34.18 mandays / Rs 1000 output for vegetables compared to 34.56 mandays / acre or 9.73 / Rs. 1000 production for foodgrains. As such growth of horticulture is the cornerstone for creating self-employment opportunities in agriculture. As the sector is by itself self employment oriented, the thrust of policies to develop self employment opportunities should be to:

- **Encourage steps to improve productivity and reduce wastes**
 - Providing better quality seeds and planting materials
 - Better micro irrigation facilities for small and marginal farmers
- **Encourage value addition** – only 2% of horticultural produce in India is commercially processed as compared to 30% in Thailand, 70% in Brazil, 78% in Philippines and 80% in Malaysia.
- **Establish better markets: Integrate supply chains through Terminal markets in all major cities with:**
 - **Electronic auction**
 - **Multi chamber cold Storage facility**
 - **Grading facilities**

- **Common Processing facilities**
- **Backward linkages in form of collection centres**
- **Forward linkages in form of Wholesalers Distribution Centers, Cash and Carry Counters and Retail Store network.**

For design of the recommended terminal markets read chapter on marketing support.

- **Encourage exports specially of organic produce** – India's contribution to the world export market for fruits is 1.18% and for vegetables is 0.2% only. As organic produce markets world wide are expected to grow rapidly and also they command premium, government should:

- Make plans for organic farming
- Help create an organized network of organic producers on line of NECC for eggs.
- Do market promotion to boost domestic organic markets
- Take steps to reduce certification costs and provide subsidies to organic producers
- Make funds available to NGOs for promoting organic farming
- Increase the retail chain of organic products
- Develop a fast track for exports
- Launch an internet portal to enable easy access to information on Indian organic products.

- Tapping self-employment potential of horticulture in NorthEast and hilly areas by addressing issues like non-availability of quality planting material, inadequate or absence of area expansion, productivity improvement/rejuvenation of the existing farms, upgrading technical knowhow; non-availability of plant health clinics, mechanization on farm handling of fruits.

ES 4 Strategy 2: Shifting large number of farm labours to employment in non-farm sectors

ES 4.1 With high agriculture share of employment (about 60%) and low ratio of land per farm worker (0.61 hectares), it would be very difficult to raise per capita output

and income in farming unless large numbers of farm labours are shifted to non-farm sectors. The non-farm sector (afforestation, animal husbandary, food processing, trade, crafts, industry and services) in small semi-urban township and village enterprises can absorb much farm labours.

ES 4.2 **Employment Opportunities in Afforestation**

ES 4.2.1 A three-fold increase in the rate of afforestation, from about 1.23 million hectares per year is required, to increase forest cover from the present 23.03% (75.70 m hectares) to the national goal of one-third forest/tree cover by 2012. Every two hectares of additional area under plantation of forest crop can generate year-round employment for one person. As such there is scope to **upscale employment generation from the present level of 246 million mandays (mmd) per year, to 850 mmd annually.**

ES 4.2.2 **This will require an additional investment of Rs. 5,732.42 crore in 10th Plan period in order to generate 653.57 million mandays of new wage & self employment in three years 2004-05 to 1006-07.** The investment will comprise Rs. 3,713.37 crore from budgetary support and Rs. 2,019.05 crore as credit inflow from banks and financial institutions in agro forestry, farm forestry and Non-Wood Forest Products (NWFP). **For recurring self-employment in NWFP sector as well as in Eco-tourism, the IMG supports the new 100% central sector scheme ‘Van-vasi Van-dhan’ proposed by the Support group, for integrated development of Non-Wood Forest Products with an estimated budget support cost of Rs. 331.20 crore and initial credit support of Rs. 9.75 crore in the 10th Plan. This will generate 23.13 million mandays directly and 4.65 million jobs (100 days employment in a year) in ancillary activities in each year. Another new scheme ‘Eco-tourism’ with an allocation of 41.42 crore in the Tenth Plan which will generate 0.41 million jobs for at least 100 days in a year.** The Support group has also suggested a new scheme entitled “Panchayat Van” for afforestation of 50 to 100 hectares non-forest land in each Gram Panchayat with multi-purpose tree species with an investment of Rs. 627 crore in the Tenth Plan. This Panchayat Van will provide wood and non-wood

forest produce for self employment opportunities through the process of value addition to village artisans besides providing wage employment (58.16 million mandays) in the initial afforestation phase.

Additional investment and employment generation in the last three years of Tenth Plan. (2004-05 to 2006-07)

Scheme / Programme	Status	Addl. Fund requirement (crores)	Addl. Employment (million mandays)
National Afforestation programme	Existing	1048.00	97.80
Grants-in-aid to NGOs and Vas	Existing	84.50	7.80
Agro forestry and farm forestry	New	2009.30	293.02
Herbs, shrubs & medicinal plants	Existing	131.00	10.50
National Mission on Bio-fuels	New	860.00	77.30
National Mission on Bamboo	New	600.00	44.45
Panchayat Van Scheme	New	627.00	58.16
Van-vasi Van-dhan Scheme	New	331.20	23.13
Eco-tourism	New	41.42	41.41
Total		5732.42	653.57

ES 4.2.3 The following constraints have to be overcome in order to achieve the targets:

- Availability of non-forest land
- Policy measures for enabling environment for investment in plantation
- Mobilization of resources- public, private and institutional financing
- Appropriate technology
- Linkage of afforestation with industrial and non-industrial end-users
- Legislative barriers like felling and transit permit for agroforestry and farm forestry products.

ES 4.2.4 The following activities can be promoted in order to generate employment:

- Promoting woodcraft including carpentry, fabrication of tools and household articles. Plantation of suitable varieties of trees in homesteads and farm boundaries is needed for assured supply of timber at village.
- Programme for improvement of Common property resources for fodder
- Ensuring remunerative prices for collectors of Non Wood Forest produce like mahua flowers and fruits, sal leaves and seeds and kendu leaves etc. and providing facilities for value addition.

ES 4.3 Employment Opportunities in Animal Husbandry & Dairying

ES 4.3.1 Animal Husbandry is a self-employment oriented sector – it provides job opportunity to about 20 million persons, not including persons employed in sale, re-processing and transport of animal products at secondary market level. 'Access to asset' is the pre-condition for any self-employment activity. In comparison to land, livestock are more than proportionately controlled by the poor. There is a high potential for demand driven growth.

ES 4.3.2 Self Employment in Dairying:

- Address the problem of milk marketing during flush season (November to March) when many milk unions refuse to take milk from the farmers in Operation Flood Areas through
 - Greater promotion of milk products
 - Tapping export markets for powdered milk etc
- More investments in Integrated Dairy Development Project in Non Operation Flood areas: investment of Rs. 500 crore will create additional full employment of 40,000 every year reaching about 2 lakhs by the end of the fifth year.
- Establishing good governance in project implementation and strengthening of the Department, which lacks adequate technical manpower to implement such project at national level.

ES 4.3.3 Self Employment in Backyard Poultry Farming:

- Adopt at national level the model for promoting backyard poultry farming suggested by the Support Group. The model envisages a cluster of mother units around a central grower unit. The mother unit, which will be controlled by NGOs/Self-help units, will provide chicks to beneficiary along with inputs, services and marketing facilities.
- Investment of about Rs. 120 crore in 5 years will benefit around 2 lakh poor families to earn supplemental income. This is equivalent to creation

of 50,000 full time employments (starting with about 17,000 in the first year and reaching 50,000 by the third year).

- Export potential of diversification into turkey, quail and guinea fowl may be fully exploited to generate additional employment opportunities.

ES 4.3.4 Piggery in NorthEast & tribal areas:

The entire Northeast and many other areas, primarily tribal areas, depend on piggery as a source of protein and additional income. The IMG supports the Rs. 117 crore three year project suggested by the Support Group to benefit about 70,000 families by creating additional employment equivalent to about 50,000 full time jobs.

ES 4.3.5 Self Employment in Inland Aquaculture:

- Increase coverage from present 10 lakh hectares (out of total ponds and tanks of 23 lakh hectares), to 13 lakh hectares in about five years, thereby increasing employment by 4.5 lakh in five years
- Increase annual allocation of the Central scheme 'Inland Aquaculture' from present level of Rs. 27 crore per year to Rs. 80 crore per year, and change the funding pattern of the scheme from 75:25 ratio to 100% central assistance.
- Introduction of processing and value addition
- Introduction of innovative marketing mechanism
- Setting up of fish disease diagnostic centers and fish health and pond ecosystem management training facilities.
- Assured technical support with training and demonstration

ES 4.3.6 Self-Employment in brackish water aquaculture:

- Increase coverage from present 1.1 lakh hectares (out of the estimated 12 lakh hectares available), by 1lakh hectares in five years, thereby creating

additional employment rising from 60000 in the first year to 3 lakh in the fifth year.

- This would require enactment of “Coastal Aquaculture Authority Bill” (already decided by government) in the next session of Parliament to overcome legal issues raised by 1996 Supreme Court judgement.
- Investment of Rs. 4000 crore (at the rate of Rs. 4 lacs per hectare) to be mainly funded by financial institutions. The institutional finance required will be on an average Rs. 700 crore per year.
- Subsidy at existing rate of Rs. 40,000 per hectare will have to be provided by Government from the Plan. The annual plan allocation will have to be around Rs. 80 crore. Further the 75:25 ratio will have to be relaxed in this case also, as the states are unwilling to provide funds for this.

ES 4.4 Employment Opportunities in Food Processing

ES 4.4.1 The total processing of raw material is estimated at 4289.2 lakh tones as against 11174.7 lakh tones of production of raw material produced in the country that is 38.4 per cent during 1997-98. Out of this total of 38.4 percent raw material processing, 14.5 per cent is in the organized sector and 23.9 per cent is in unorganized sector. Value addition in India is only about 7% compared to as much as 23% in China and 45% in the Phillipines.

ES 4.4.2 There are significant untapped self-employment potential in Fruit & Vegetable Processing (high wastage levels, only 1% is processed), Processing of Fish: (only 4% is processed), Preparation and preservation of meat, crustacea, manufacture of dairy products, manufacture of prepared animal and bird feed and mushrooms. The main strategies to address this are:

- Increasing Self employment in ‘Own Account Manufacturing Enterprises’ that account for 89.9% of number of enterprises, 66.1% of employment and 34% of value added of the food-processing sector, by breaking the vicious cycle of **Low demand→Low capacity utilization→ High per unit cost→ Low demand:**

- Increasing availability of credit at reasonable interest rates, through microfinance institutions etc.
 - Disintermediation to increase margins and viability
 - Overcoming demand constraints and preference for fresh food through research on new processed foods—like popular flavours of chips etc., and promotion of processed foods through umbrella brands
 - Organising integrated supply chains, whereby certain pre-processing is done at household levels and main processing, quality control, grading and packaging is done at common facilities (like terminal markets), where the best technology, machinery and management practices can be housed.
 - Creation of post-harvest infrastructure facilities to reduce the losses and thereby input costs
-
- Reducing costs by extending the tax holiday for the Fruits & Vegetables sector, to other perishable commodities viz. Dairy, Fish, Meat & Poultry sectors
 - Creating a conducive environment for contract farming with its backward and forward linkages.
 - Setting up a network of quality testing/certification laboratories across the country will help export.
 - Create an environment, which supports both private sector and co-operative sector development of post-harvest preservation, quality testing & control labs, silos & warehouses, cold storage facilities, air-conditioned transport and agro-processing. BOT/BOOT mode could be adopted for high outlay projects including the food park projects. There is a need to emulate Public-private collaborative projects on the lines of Andhra Pradesh State Warehousing Corporation (APSWC), which has pioneered third party warehouse construction to promote private participation.
 - Encouragement of foreign investment into food processing: The Foreign Investment Promotion Board (FIPB) may consider looking into the rules

and regulations pertaining to foreign investment, make it more liberal, impart flexibility in sourcing of technology imports and technology transfer may be delinked from equity investment in this sector.

- Government should focus on R&D, information dissemination, extension & training and development of rural industrial estates (food parks).
- **Streamlining of Laws:** The multiplicity of Acts of Ministries creates contradictory definitions, which make it difficult to comply with all requirements. **These disparate laws should be integrated into a single Food Act, and a single Food Regulatory Authority should be set up to regulate all the health and safety aspects of food processing, handling etc.**
- New initiatives suggested:
 - **Special Purpose Vehicle (SPV) for Agro Processing:** to explore the possibility of covering infrastructure requirements under RIDF. Government may provide necessary budgetary support so that banks are enabled to provide credit to the ultimate borrowers at 200 basis points below the current PLR level. Further, Capacity building of bankers through awareness creation and training needs to be taken up to ensure proper evaluation and appraisal of project.
 - **Agro processing Development Bank of India (ADBI)** for funding all activities of the agro-processing industry and supporting infrastructure sectors like marketing, post harvest handling, transportation, storage and export.
 - **Agro Processing Infrastructure Development Fund (AIDF)** for financing infrastructure for agro processing, with a corpus of Rs. 1000 crore. The corpus could be raised through deposits by commercial banks to the extent of shortfall in their agro-processing financing (10% of priority sector lending proposed in this document) or through a special Line of Credit that may be provided by GOI.

- **Venture Capital** : Venture capital is an ideal form of finance to enable dynamic small enterprises to graduate to newer and sophisticated technologies.

■ Investments Required for the Sector

- Total Investment of Rs. 62100 crore during 2004-05 to 2009-10. : Rs. 52700 crore in organized and unorganized sector (including depreciation, modernization etc.) and investment of Rs. 9400 crore for development of cold chains, linking of production base, removing market hindrance, and developing horticulture.
- To stimulate a further private sector investment of Rs. 25500 crore,
 - (i) Additional investment of Rs. 4600 crore in infrastructure is needed (over and above Rs. 9400 crore)
 - (ii) Tax reliefs to be accorded to the perishable sector as a whole, on specific cold chain equipments and specialized inputs to packaging.

ES 5 **Strategy 3: Providing Livelihood Development Services**

ES 5.1 Bulk of the rural poor complement their main income from wage labour or from their small farm with incomes through additional activities. Providing appropriate services to these people may increase their survival capacity considerably. These types of services geared towards households, small farms and micro-enterprises can be called “livelihood development services”. The basic services are discussed below.

ES 5.2 **Creation of Assets:** Access to other assets like livestock and poultry are more than proportionately controlled by the poor. **The future programme of the government should focus on empowering the poor with non-land based assets like livestock, poultry, fishing nets and boat etc. and improving returns from such stock through better marketing, extension and research and supporting institutions.**

ES 5.3 **Financial Services:** The **micro-finance revolution** has shown that poor people are bankable and that the transaction cost of banking with the poor can be cut down to levels which makes financial services to the poor viable. But the **farmers cannot manage only with micro-credit, they need much larger sums** and

they cannot simply work with social guarantees through group pressure. **New forms of innovative credit schemes (like Kisan Credit Card) are needed** to cover their needs. Further, in order to enhance their capacity to invest, it is crucial to provide necessary infrastructure that will **promote household micro-saving** (saving a small amount weekly or monthly). The savings would help these families to consolidate their assets, which will then allow them to generate more incomes, for instance by growing vegetables, rearing some goats or sheep, selling some milk and eggs.

ES 5.4 **Access to markets and increasing the value added**

ES 5.4.1 **Green revolution, White revolution and egg production have shown that the Key Success Factor for all the strategies is the availability of assured market to farmers, so that it was ensured that market was not constrained by deficient demand. Access to markets for the commercialization of the tradable surplus is crucial for rural prosperity.** The state of market infrastructure in India is summarized below:

- Primary Grading/ Collection centers - Non Existent
- Storage – Inadequate
- Cold Chain - Non existent
- Quality Certification System - Non existent
- Transportation for Perishables - Non Existent
- Rural Markets - Complete lack of Infrastructure
- Wholesale markets - in Government control, lack modern facilities
- Private / Direct markets - Not permitted

ES 5.4.2 The domestic market scenario for agriculture sector comprises of organized marketing through a network of markets regulated under the APMC Act. The restrictive regulation of markets have led to the following undesirable consequences that hinder the growth and by implication the self employment opportunities in this sector:

- No option to the producer to sell his produce
- Multiple intermediaries and high value loss
- Companies prevented from directly sourcing from farmers and therefore from entering into bulk marketing operations.

- Major disincentive for private sector investment-despite subsidies
- Fragmented industry
- Income generated by regulated markets is not ploughed back

ES 5.4.3 It is recommended that:

- **The process of enacting the model agricultural marketing law should be completed immediately by pursuing the State Governments.**
- **Terminal markets should be set up for fruits & vegetables for all major cities for direct marketing.** State agricultural marketing Boards should be asked to prepare Detailed Project Reports (DPR), with help of competent external consultancy agency. State Governments should provide support by liberalizing existing APMC regulations, providing exemptions from levy or cess, providing required land for the Terminal Market, as its equity contribution. GOI should incentivise this by providing additional equity support, facilitating loans from national/international agencies and including financing terminal markets as an item in Priority Sector Lending. The concept is developed on the lines of NDDB's Terminal market for Bangalore City. The terminal markets should include:
 - **Cold Storage with attached facility to handle, grade and pack fruits and vegetables.**
 - **Processing unit**
 - **Transport logistic support system**
 - **Electronic auction center**
 - **Backward Linkages: Collection Centers**
 - **Forward Linkages: Wholesalers Distribution Centers, Cash and Carry Counters and Retail Store network.**

The Market should operate outside the purview of the Agricultural Produce Marketing Act and be owned by a registered company led by Private Investors or Company with part ownership by Farmers Association, Wholesalers and Retail Trade Associations. The terminal Market should be professionally managed, self-financed with income generated by service charges levied on growers/ buyers and rentals/ fees for use of

facilities. Volume and price information should be rapidly and widely disseminated backward to Farmers' Associations as well as forward to Retailers and Consumers. The backward and forward linkages would be owned and operated jointly by private entrepreneurs, farmers associations, farmer co-operatives or private individuals. Infrastructure at collection centers would be set up by farmers/ producers from respective areas, with or without financial involvement from traders, management of Terminal Market and the Government. Similarly Cash and Carry Counter, Distribution Center and Retail stores will be set up by private entrepreneurs and or farmers associations or public sector.

■ **Private initiatives in supply chain integration through handholding of the farmer in a partnership mode**, on technology, seeds and other inputs should be encouraged. This integration of the supply chain will be a symbiotic relationship between farmer and industry, thereby enabling infusion of new technology, yield improvements, assured markets, reduced price risks, better value capture by the farmer in return for assured supply of raw materials to the industry for processing. The farmer can benefit from the industry's better market intelligence to create value in the supply chain that both partners can share. The industry / corporate will benefit from **regular availability of raw material; maximising period of availability through controlled and phased cultivation & harvesting; delivery of the produce to the factory at a competitive price; reduction in multiple handling and intermediaries; and efficient recovery during processing and ensuring quality standards.**

- Tax deductions on investments made in the creation of extension services for participating farmers linked to procurement of output
- Reform in Legislation on agricultural marketing to allow direct purchase from farmers.
- Tax breaks on import of agricultural equipments to be used in a registered contract farming program

- Make purchase interference by a third party in a contract farming program, a cognisable offence
- Set up a quasi judicial system of contract enforcement
- Single tier regulation for contract farming at the state level
- Contract farming organisations be allowed to take out realistic & deregulated crop insurance policies
- Incentivise Ph.D. Candidates in agricultural studies to work on contract farming programs
- State governments to do away with the requirement to process, grade, value add etc., the produce procured, within the state in which it is procured, in order to qualify for any rebates, duties, taxes, exemptions, etc

ES 5.5 Technological support, Human and institutional development:

ES 5.5.1 Technological support and skill development should take care of the following aspects:

- Entrepreneurship development has to be taken up through handholding of new entrepreneurs.
- apart from creating new employment, education and skill improvement are also needed for those who are already employed.
- State agriculture and animal husbandry departments' training institutions are inadequate in numbers and are not specially designed for promoting self-employment of entrepreneurs who need training of multi-skill variety, going beyond production skills to include marketing, finance and accounting and elementary management.

ES 5.5.2 Accordingly the IMG recommends that:

- Experiments like the CII initiative Bhartiya Yuva Shakti Trust (BYST) that fosters entrepreneurial activity by providing seed capital loans and practical business advice through mentors need to be replicated on a much larger scale.

- Government should continue to fund training institutions in **agriculture** sector. However, the non-government organizations could be involved gradually as training provider with financial support from government.
- ICAR has a wealth of technologies that can be used to set up rural micro-enterprises. Accordingly, the IMG recommends that Krishi Vigyan Kendras, wherever functioning in the districts of the country, should play a significant role in skill upgradation of rural youth. The ICAR should go back to the original mandates of KVK (i.e. to work as agricultural polytechnics to provide technical literacy of the vast majority of illiterate framers, farm women, young farmers, school drop-outs and field level extension workers) as recommended by the Education Commission (1964-66).
- Self-employment opportunities in India can best be created through right mix and integration of technological backstopping, entrepreneurial training, development of infrastructural facilities, availability of and access to low cost credit, marketing facilities and assured marketability of produce/product. As such efforts like e-choupal that integrate all these aspects must be encouraged.
- Only economically viable activities should be selected for training. For all such activities, a cost benefit analysis should also be undertaken to work out at least 2 working models of investment and production, and IRR should be worked out for each to ensure a feasible economic activity. The Economics Divisions of ICAR and SAUs should take a lead role in this regard.
- Training should include **personality development aspects** like diligence, knowledge of government programmes and facilities available for bank loans etc. and the procedure for seeking assistance, self-confidence, decision making, risk taking capacity; and **Management Concepts** like economic viability, elements of book-keeping, supervisory abilities, product costing, marketing; and communication skills
- The selected potential trainees should preferably be a member of self-help group, which would ensure some kind of credit assurance and common

marketing avenue. The training course itself should promote group-based working, group accounting procedures, group based marketing strategies, etc. other than promoting individual control of accounts and production.

■ **Evolving a Three-tier machinery at district-taluk-village level for making micropropagation a cottage industry with tremendous potential for self – employment.**

Tier I : Laboratory at district headquarters as the hub of the enterprise, housing specialized equipment required for such operations with responsibility of exclusively carrying out *in vitro* operations and controlling procedures involving explant collection, treatment, inoculation, incubation, subculture and prehardening

Tier II : Taluq headquarters/town that require less expensive infrastructure. Taluk functionaries receive prehardened plants ready for transplantation, perform primary hardening operations (even by illiterate women functionaries)

Tier III: Villages that do Secondary hardening entailing use of huge quantities of good soil, sand and farmyard manure (FYM), which are readily available in rural areas. Skilled/semi-skilled rural women functionaries can operate at this level of the technology.

ES 6 Strategy 4: Promoting the growth of small and micro enterprises including house based enterprises.

In respect of several sub-sectors discussed, this strategy is included in the strategy for self-employment in agriculture, non-farm sector and livelihood services. However there are certain areas that need focussed attention and summarising:

- Stimulating food processing for non-cereal sectors like fruits, vegetables, milk, egg, fish and meat, with some pre-processing done at household levels.
- Developing a cottage industry based on micropropagation
- Developing agriclinincs and agribusinesses through strengthening of the departmental scheme

- Upscaling of e-choupal type initiatives to make every village a information centre and providing self –employment opportunities to rural youth
- Creation of common brands for Pickles, Papad etc for household produce whose quality control, packaging and marketing is done through common facilities
- Support Own Account manufacturing units through common services.
- Promoting micro-enterprises in grading of agricultural produce.
- Promoting microenterprises in mushroom farming
- Promoting micro-enterprises in cut and pre cooked vegetables to serve urban populations
- Promoting village level enterprises in transportation of agricultural produce down and up the supply chain.

Chapter I : Review On Employment

1.1 Growth in Labour Force

- 1.1.1 Though growth in total population has shown a slight declining trend, the growth of labor force has decelerated much sharper from 2.43 to 1.31% per annum between the periods 1983-1993 and 1993-2000. (Table 1.1)

Table 1.1: Comparative Growth Rates

Average Per Annum Growth of:	1983-1993	1993-2000
Total Population	2.00%	1.95%
Labour Force	2.43%	1.31%
Employment*	2.70%	1.07%
GDP	5.20%	6.70%
* NSSO employment survey data on CDS basis		

- 1.1.2 This is because of a decline in participation rates in labour force. Participation rates dropped sharply in the younger age groups. There were marginal declines in the age groups from 29 to 55 and significant declines in the upper age groups. Table 1.2 illustrates this for the rural male population; this group has three-fourth share in the labour force.

Table 1.2: Labour Force Participation Rates – Rural Male
(per thousand of population)

Age Group	1983	1987-88	1993-94	1999-00
5-9	25	23	11	7
10-14	239	193	139	93
15-19	658	630	598	532
20-24	915	918	902	889
25-29	976	981	980	975
30-34	986	990	988	987
35-39	988	991	992	986
40-44	981	984	989	984
45-49	978	982	984	980
50-54	957	962	970	953
55-59	920	929	941	930
60+	660	670	699	640
All Ages	548	549	561	540
* NSSO employment survey data				

1.2 Growth of Employment

NSS data show that the growth of employment has dropped sharply from 2.70% in 1983-93 to 1.07% in 1993-00. The deceleration in employment growth has attracted a great deal of attention but it is not adequately recognized that the estimate of employment is derived by applying unemployment percentage in the NSS Survey to the labour force estimate derived from the Survey. Since the NSS Survey shows a sharp deceleration in the growth of the labour force from 2.43% in the period 1983 to 1993-94 to a little over 1.0% in the period 1993-94 to 1999-2000, the employment growth shows a comparable deceleration.

1.3 Status of Unemployment

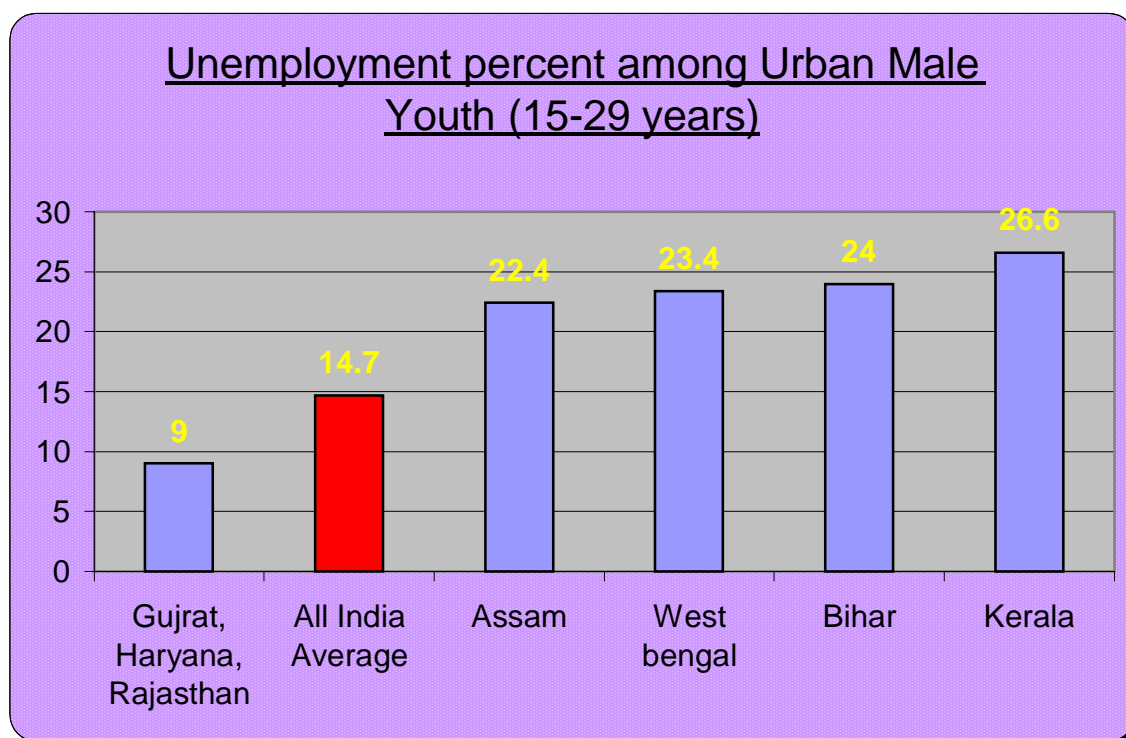
- 1.3.1 Unemployment rate measured on current daily status (CDS) basis, had declined from 8.3% of labor force in 1983 to 5.99% (20 million) in 1993-94; however it rose to 7.32 percent (27 million) in 1999-2000 and about 9.21% (34.85 million) in 2001-02 (base year of Tenth Plan).
- 1.3.2 Unemployment among youth (15-29 years age group) in rural areas has increased between 1993-94 and 1999-2000: from 9.0% to 11.1% among males, and from 7.6% to 10.6% among females.
- 1.3.3 Unemployment is much higher among the poor. In the lowest consumption expenditure class, the unemployment rate is more than twice the level compared to the highest expenditure class.

Table 1.3: Unemployment Rates* by Household Monthly Per Capita Expenditure Class (1999-2000) (per cent of labour force)

Monthly Per Capita Expenditure Class (<i>Rupees</i>)		Unemployment Rate (CDS)	
Rural	Urban	Rural	Urban
0-225	0-300	11.31	9.61
225-255	300-350	9.62	9.67
255-300	350-425	8.12	8.20
300-340	425-500	7.46	9.20
340-380	500-575	6.56	9.20
380-420	575-665	6.18	8.63
420-570	665-775	6.48	8.19
470-525	775-915	6.14	7.18
525-615	915-1120	5.60	6.65
615-775	1120-1500	6.06	5.68
775-950	1500-1925	5.57	4.67
950 & above	1925 & above	5.25	4.10
All	All	7.21	7.65

Source : NSSO Survey 55th Round (1993-94)

1.3.4 There are sharp variations in the unemployment rate across States.



1.4 Self employment and Wage employment

1.4.1 Self employment is the predominant form of employment in India. Though, over the years, its share has been declining, self employed continue to constitute more than 50 % of total employment. As per 55th Round survey of NSSO, the share of self employed in 1999-2000 was about 53%. (Table 1.4) The high share of self employed in the overall employment needs to be seen in the context of demand for regular wage employment in the economy not growing fast enough to keep pace with the increase in labour supply.

Table 1.4: Distribution of Workforce by Category of Employment

Year	Self employment	Regular Salaried Employment	Wage Employment	Total Workforce
1983	57.4	13.9	28.7	100.0
1987-88	56.0	14.4	29.6	100.0
1993-94	54.8	13.2	32.0	100.0
1999-00	52.9	13.9	33.2	100.0
*Source: NSSO various rounds				

1.4.2 The increase in the share of casual labour in total employment is sometimes regarded as an indication of deteriorating employment quality since this type of employment is not associated with job security or other employment benefits. However it is worth noting that the increase in casual labour in the 1990s has been associated with a significant acceleration in the growth of real wages. Table 1.5 presents estimates of the annual growth in wage rates of casual labour between 1987-88 and 1993-94 and between 1993-94 and 2000. The rate of growth in the second period was much faster than in the first. This suggests that while dependence on casual labour may have increased, this was accompanied by a sufficient growth of productivity and tightening of the labour market to allow growth in real wages.

**Table 1.5: Growth of Average Daily Wage Earnings in 1993-94 Prices
in Rural India**

	Rural Males		Rural Females	
	1987-88 to 1993-94	1993-94 to 1999-00	1987-88 to 1993-94	1993-94 to 1999-00
Public Works	1.55	3.83	1.90	5.04
Casual Labour in Agriculture	1.36	2.80	2.34	2.94
Casual Labour in Non- Agriculture	1.33	3.70	1.32	5.07
Casual Labour in all Activities	0.77	3.59	1.95	3.19

Source : NSSO Surveys for 1987-88, 1993-94 and 1999-2000

1.4.3 The point to be noted here is that the decline in share of self-employed and increase in share of casual labour may not necessarily be regarded as a negative phenomenon. It has to be seen in the context of continuous fragmentation of landholding leading to small and marginal farmers, operating at subsistence levels, being replaced by casual labour, where rural wages have been rising.

1.5 Magnitude of Self employed workforce in Agriculture

1.5.1 As mentioned above, self employed constitute 53% of the total employment in the country. This ratio is higher in the rural areas 56% and much lower in urban areas at 42%. At the level of broad classification of economy into three sectors, the share of self employed in total employment in the primary sector (which comprises agriculture and mining & quarrying activities) in rural areas is 58%, which corresponds to about 133 to 134 million self employed in agriculture and allied sectors. (Table 1.6)

Table 1.6: Share of Self Employment in Total Employment by broad industrial Sector and by Area – 1999-2000

	SE=Self Employment TE=Total employment	Employment (Million)		
		Rural	Urban	All areas
Primary (Agriculture & Mining)	SE	133.93	4.76	138.69
	TE	231.89	8.22	240.11
	SE/TE (%)	(57.76)	(57.91)	(57.76)
Secondary	SE	15.71	10.16	25.87
	TE	34.60	30.11	64.71
	SE/TE (%)	(45.40)	(33.74)	(39.98)
Tertiary	SE	20.01	24.62	44.62
	TE	37.80	55.38	93.19
	SE/TE (%)	(52.94)	(44.46)	(47.88)
Total	SE	169.19	36.54	208.82
	TE	304.30	93.58	397.88
	SE/TE (%)	(55.60)	(42.25)	(52.48)
<i>Notes: 1. The Agriculture and Allied Activities account for 99% of employment in the Primary Sector</i> <i>2. Figures in the parentheses show percentage share of Self-Employment in Sectoral Employment</i> <i>Source: NSSO 55th Round (1999-2000), the latest Round for which the data are available.</i>				

As per the Census, 2001, out of 234.19 million total workers in the Agriculture & Allied sector, 127.31 million are cultivators and the rest are agriculture labourers. As can be seen, the estimates of self employed in primary sector, as obtained from the survey by NSSO, and estimate of cultivators, as obtained from the Demographic Census, are close to each other.

1.5.2 Processing of food crops and other agricultural and farm produce are classified as manufacturing activities i.e. in the secondary sector. Including these, the size of rural workforce being addressed by this TASK Group on 'agriculture, horticulture, afforestation, dairying and agro processing is around 150 million at present.

1.6 Issues to be addressed on self employment in agriculture.

- 1.6.1 As mentioned earlier, high share of self-employment has to be seen in the context of insufficient demand for labour for regular wage employment. As a result, self-employment is taken up as a livelihood choice by the individuals or households, which in many cases are not backed by sufficient human or physical capital base. A large part of self employment, therefore, falls under the category of marginalized form of employment. The focus of the Task Group, has therefore not been as much on expanding self employment as on improving the earnings and productivity levels of such establishments in rural areas.
- 1.6.2 It would, however, be useful to look at the physical asset base of those engaged in agriculture as cultivators, in order to ensure that programmes and policies to be framed and implemented are targeted on such of the establishments which have the potential to be run successfully on sustainable basis. In other words, for a self employment venture to be run successfully certain minimum level of physical asset is necessary, an indicator of which in the rural areas can be landholding. As per the Ministry of Agriculture data, 61.6% of the total operational holdings in 1995-96 are under the marginal category (operational holdings less than 1 hectare), with the area operated being 17.2%, implying average size of operational holdings at 0.40 hectare. This suggests the need to determine a more focused segment of the self employed workforce in the rural areas to be covered, by various productivity and income improvement programmes.
- 1.6.3 On balance, it can be presumed that the absolute size of the self-employed workforce in primary sector is likely to be in the range of 130-140 million in the medium term. There could only be a moderate increase in this magnitude. The focus of attention of Task Force has been on suggesting ways to improve income

and productivity levels of workers engaged in self-employment through necessary support facilities and diversification into newer areas.

- 1.6.4 There is however a definite potential for opening up new areas in agricultural cropping by reclaiming waste lands, expanding coverage by irrigation to low productive lands and providing the tribals with land for cultivation. Land based cropping activities in agriculture are labour-intensive. Hence such efforts would lead to an increase in work-force in agriculture, however, the effect will be location specific.
- 1.6.5 At the same time, the diversification of work force in the economy away from agriculture, in the short and medium term, is constrained by the available infrastructure base in the rural areas – physical and institutional. The primary objective of an employment strategy for agriculture and agro-related activities has therefore to be reduction in the incidence of under employment in the rural areas. Given the limitations on a large- scale industrialization to absorb the new entrants to workforce in rural areas, the efforts, in the medium term, should be aimed at creating avenues for productive self-employment.
- 1.6.6 Self-employment is created in establishments however, big or small. Therefore, the outcome of any policy or programme initiative has to be seen in terms of the number of new establishments created.

Chapter II: Strategies for Self-employment in Agriculture & Allied Sectors

2.1 Four Pronged Strategy

The present Inter-Ministry Task Group has consulted both the Task Force Report (2001) and the Special Group Report (2002) on employment. It has been found that both the Groups have made some fundamental and relevant recommendations that are still valid. Based on these reports, the broad elements of **future strategy** for creating self-employment in the agriculture and associated sectors should be:

- Sustaining the growth rate in the agriculture and allied sector at 4% for the next five years.
- Providing 'Livelihood Development Services' that *interalia* include creation of assets, availability of cheap credit in time and marketing outlet.
- Shifting large number of farm labours to employment in non-farm sectors.
- Small and micro enterprises (SME) including house-based enterprise (HBE) should be recognized as major source of self-employment particularly for the rural youth having some elementary education.

2.2 Sustainable Agriculture Growth

- 2.2.1 Action must be taken to arrest the decelerating **growth rates of all principal crops** as shown in Table 3.1

Table 3.1 Growth Rates of Principal Agriculture Crops.

	1980-81 to 1989-90	1990-91 to 1999-00	2000-01 to 2002-03
Rice	3.19	1.27	(-) 0.72
Wheat	3.10	2.11	0.73
Pulses	1.61	0.96	(-) 1.84
Foodgrains	2.74	1.52	(-) 0.69
Oilseeds	2.43	1.25	(-) 3.83
Non-foodgrains	2.31	1.04	(-) 1.02
All Principal Crops	2.56	1.31	(-) 0.87

2.2.2 The various actions which need to be taken immediately are:

- **Completion of ongoing irrigation projects:** Nearly 40% of the available irrigation potential from major and medium projects still remains to be exploited. The tendency to start new irrigation projects, when existing projects are underfunded, leads to a thin spread of available resources, with consequent loss of efficiency.
- **Enhance water-use efficiency:** Subsidized irrigation water is causing severe deterioration of the systems and also leading to ecological degradation from water logging, salinity and depletion of ground water.
- **Reduce subsidy on nitrogenous fertilizers,** which not only perpetuates inefficiencies in the domestic fertilizer industry but also leads to the degradation of soil and adverse NPK ratio.
- **Improve efficiency of financial institutions: Small and marginal farmers** (less than 2 ha), including tenants, who account for nearly 80 percent of holdings and one-third of area operated, are **compelled to avail credit from informal sources like money lenders who charges very high interest.** Even large farmers are dependent on the informal sources for their credit requirements. The direct agriculture **advances by the commercial banks declined to 11-12 percent** of net bank credit against the original target of 18 percent. The position is much worse in the eastern and northeastern states. The **share of Cooperative banks** in the institutional credit for agriculture and allied activities **has declined.**
- **Enhance public investment in agriculture**
- **Broad based agricultural research:** Till recently agricultural was primarily focused on individual crop in irrigated areas. Efforts are on to focus research in an integrated and system mode. Research on crops and cropping system in the dry lands, hills, tribal and other marginal areas need to be intensified. Focused research is required for cropping systems conditioned by the flooding cycle and harvest of floodwater for irrigation in

the post flood season. Potential of frontier technologies like biotechnologies needs to be exploited to the extent possible.

■ **Reforms in agriculture:** One of the factors holding back agricultural growth at present is the failure to extend the benefits of decontrol to the agricultural sector. Liberalization has had beneficial effects in industry but it has bypassed agriculture which continues to suffer from innumerable controls which hamper realization of potential efficiency.

■ **Legalise leasing of land:** There are 24 million hectares of land characterized as cultivable wasteland and permanent fallows. Commercial leasing of degraded and wasteland could help to exploit available resources better.

2.2.3 Growth in the non-cereal sectors: In view of the changing food preference, the demand for non-cereal food products like **fruits, vegetables, milk, egg, fish and meat will be high in the coming few decades**. These non-cereal commodities are much more labour using than cereal agriculture and will therefore help to improve the employment situation. **The critical constraint for development of such commodities is the lack of marketing linkages and also the lack of development of food processing.**

2.2.4 Although a shift in emphasis in favour of horticulture has taken place in the past few years, government policies and programmes continue to be focused on the enhancement of food production by emphasizing the supply of critical inputs like water at negligible price, fertilizers at subsidized rates, promoting mechanization in agriculture activities and creating a buffer stock (as a part of food security measures) that provides assured market to the farmers for some selected crops (wheat and rice) in some selected parts of the country. Although this approach may be still relevant but it cannot give any further incremental benefit (as evident from near stagnating growth). Thus **the strategy for the future growth should be based on creating market demand (both internal and external) as well as marketing infrastructure for transferring products from farmers doorstep to**

place of consumption. A flourishing farming sector depends on thriving markets, and these markets may be urban markets, agro-based industrial production-centers or export markets.

2.3 Livelihood development services

2.3.1 Wage labourers, especially landless or casually employed farm workers and marginal farmers form the bulk of rural poor group. **This group is too vulnerable to survive as entrepreneurs/self-employed as their asset base is not secure enough to allow them to develop their business.** For this reason, one should look at the asset creation for them with a '***Household Security Approach***'. The livelihood approach is not identical to integrated rural development. The main characteristic of **poor households, small and marginal farmers, and micro-enterprises** is the vulnerability in their livelihood; they have to balance out different competing needs. Their **survival strategy** is very often **characterized by a diversification of their economic activities**. Whereas an industrial enterprise increases its productivity through specialization and economies of scale, a household enterprise optimizes its income through diversification of their income sources; they complement their incomes through additional activities (having a job plus a garden and small animals, etc.). They may have their main income from wage labour or from their small farm, but they always have to complement this income with other diversified activities such as rearing a goat, having a kitchen garden, working in the neighbour's field, etc. **Providing appropriate services** to these people may **increase their survival capacity considerably**. These types of services geared towards households, small farms and micro-enterprises can be called "**livelihood development services**". The **basic services** are discussed below.

2.3.2 **Creation of Assets:** The creation of productive assets needs to be at the core of such services. Assets empower the rural poor by increasing their incomes, reserves against shocks, and choices to escape from harsh or exploitative conditions. The most important asset for the poor in rural areas is land. Where

land is very unequally distributed or where the poor do not have the full control over the land (land titles), economic growth is hampered. Access to other assets like livestock and poultry are more than proportionately controlled by the poor. **The future programme of the government should focus on empowering the poor with non-land based assets like livestock, poultry, fishing nets and boat etc. and improving returns from such stock through better marketing, extension and research and supporting institutions.**

2.3.3 **Financial Services:** The **micro-finance revolution** has shown that poor people are bankable and that the transaction cost of banking with the poor can be cut down to levels which makes financial services to the poor viable. But the **farmers cannot manage only with micro-credit, they need much larger sums** and they cannot simply work with social guarantees through group pressure. The risks of a farmer to lose a crop are high. Many farmers are in fact defaulters and **new forms of innovative credit schemes (like Kisan Credit Card) are needed** to cover their needs. Further, in order to enhance their capacity to invest, it is crucial to provide necessary infrastructure that will not only **promote household micro-saving** (saving a small amount weekly or monthly) but also give adequate **security of the saving**. The **savings would help** these families to **consolidate their assets**, which will then allow them to **generate more incomes**, for instance by growing vegetables, rearing some goats or sheep, selling some milk and eggs.

2.3.4 **Access to markets and increasing the value added:** Access to markets for the commercialization of the tradable surplus is crucial for rural prosperity. As prices for agricultural products frequently fluctuate, it is important to manage the commercialization process effectively and in a way that allows the optimum share of value added to flow to the marginal regions. **Agricultural processing units in the form of private enterprises or co-operatives are the key elements in such a marketing strategy.** In this sense, for instance, milk processing units may be very effective instruments in creating high value added. The **pre-requisite for marketing is creation of appropriate rural infrastructure**

particularly in isolated remote areas where delivery and maintenance of infrastructure is absent. Lower population density and lower income levels in rural areas present unique challenges for cost effectiveness and cost recovery on the delivery of services (like rural roads, electrification, access to telecommunication) and public goods (access to safe water) in these areas. The most immediate infrastructure that **rural area need** is the **Local Transport Infrastructure. Community roads, tracks, paths and footbridges often constitute the local transport infrastructure.** These serve as the first and last leg of journeys to access water and daily needs as well as access to surrounding towns and cities. However, these tracks and paths that connect to the designated transport network are not generally included in statistics of the transport system. They are usually outside the direct responsibility of the state/central government and are often overlooked by the local panchayat/organization. As per World Road Statistics 2000 (Data 1994-98), about 200 million rural people in India lack access to an all season vehicle-passable road within 1-2 km of the household.

2.3.5 **Human and institutional development:** Education and training are important tool to enhance income, but only if the education system reaches the right people with the right contents. Uneducated women are very common in rural areas who needs some informal and flexible education system, because the needs are constantly changing. This means that **training efforts should be modularized into flexible and cost- effective units.** This also facilitates the access to **continuous education systems and trainings, which are tailor-made to the needs.** Consequently, such flexible education systems are a challenge for the educational institutions which need to be much more open to change. Special emphasis is needed on **shifting the priorities from an urban to a rural bias** and to attain a significant scaling up of human development efforts.

2.3.6 **Control over critical inputs:** Some **control by the people** particularly poor people **over water and other productive inputs** is essential if they are to realize the full benefits from farmland and livestock. Frequently, the rural poor have even less access to water-yielding assets, and hence water control, than to

land. Although large irrigation is beneficial, but small divisible, farmer-controlled water supply systems (micro-irrigation) benefit the poor most. **The farmers should have direct control over the marketing of their products.** One of the successful example is the 'Anand' pattern district milk unions established under Operation Flood Programme.

2.4 Shifting of farm labours to employment in non-farm sectors

2.4.1 With high agriculture share of employment (about 60%) and low ratio of land per farm worker (0.61 hectares), it would be very difficult to raise per capita output and income in farming unless large numbers of farm labours are shifted to non-farm sectors. The non-farm sector (trade, crafts, industry and services) in small semi-urban township and village enterprises can absorb much farm labours. Part-time farming is becoming more prevalent as farm household members are also now engaged in off-farm jobs. Several studies reveal that employment and incomes in the nonagricultural sector of many developing countries are often large and sometimes even larger than in the agricultural sector of rural areas of developing countries (Lanjouw and Feder 2001, Lanjouw and Lanjouw 2000). Studies have shown that a substantial percentage of rural household income comes from non-farm income in Latin America (47 percent), Africa (42 percent) and Asia (32 percent). This is in keeping with the expected structural transformation from an agrarian to an industrial base that accompanies the development process.

2.5 Small and micro enterprises (SME) & house-based enterprise (HBE) as source of self-employment

2.5.1 Another silent but radical change has been occurring in the rural areas. Due to spread of education, a majority portion of the unemployed youth have some elementary or even higher education. The Government of Andhra Pradesh constituted an 'Employment Generation Mission' in 2000 to study the employment opportunities through wage employment, self-employment and

entrepreneurship development. The broad categories (as per level of education) of job seekers as on 31.10.2001 are given below.

Categories	Percentage of Job Seekers
Professional & Post-graduate	1.5
General Educated (Graduate, Intermediate and Matriculate)	60.4
Skilled	18.4
Teaching	4.2
Other educated	4.7
Unskilled and illiterate	10.8
Total	100.0

The above table indicates that maximum job seekers are in the category of 'General Educated' (60.4%) followed by 'Skilled' worker (18.4%) and Unskilled and Illiterate' (10.8%).

2.5.2 The major challenge before the country is how to engage the large number of general educated job seekers. We cannot expect that this group will be happy to work as daily casual workers in the farm activities. Micro-enterprises is the answer to engage these youth. Majority of the employment has to be created through owner-operated micro-enterprises like small traders/middlemen dealing with vegetables, fruits, fish, egg, milk, household goods, garments and similar types of products. The main characteristic of micro-enterprises is the vulnerability; they have to balance out different competing needs. The inter-relationship between farm and non-farm activities, discussed in Chapter 3, is also applicable to rural micro-enterprises. Besides capital, self-employment requires entrepreneurial skill, which is mostly lacking in the prevalent education system in rural areas.

2.5.3 Swarnajayanti Gram Swarozgar Yojana (SGSY), which was launched on 1st April, 1999 after restructuring the former IRDP and other allied schemes is the largest self-employment programme for the rural poor. The programme aims to bring the assisted BPL families above poverty line by providing income generating assets through a mix of bank credit and government subsidy. Large

number of micro enterprises based on key activities are identified after taking into account the resource availability and demand potential of the area. The programme also covers other aspects like organization of Self Help Groups and their capacity building, training, planning of activity clusters, infrastructure build-up, technology and marketing support. In the district SGSY is implemented by the Project Director, District rural Development Agency (DRDA). So far nearly 1.84 lakh Self Help groups had taken up economic activities and 47.77 lakh Swarozgaries were assisted with an average per capita investment of Rs.20,806. During the first two years of the current Five Year Plan, the scheme has provided sustainable employment to 17.22 lakh persons from BPL families. For the entire 10th Plan Period, the total estimated employment generation would be 46 lakh.

2.5.4 The major areas of concern in the SGSY programme are adhocism in planning and implementation at district and block level, no comprehensive data base at district level, lack of grass root planning, poor delivery of credit from bank, inadequate training plan for skill development and insufficient marketing support. There is also inadequate technology support for the SGSY activities. The involvement of line ministries in identification, formulation and implementation of the special projects under SGSY does not appear to be very strong. The basic problem is that neither the Ministry of Rural Development nor the line Ministry wants to share their resources and expertise in specialized areas like dairy development, shrimp-culture, processing of horticulture products etc. One of the alternatives to tackle these problems is to implement the programme in Mission Mode giving necessary space and flexibilities to its implementation.

Chapter III: Output and Employment in Agriculture

3.1 Background

Agriculture sector (excluding forestry and logging and fishing) provides about 22% of GDP and accounts for just fewer than 60 % of total employment. What happens in this sector is therefore influences the pattern of deployment of workforce in the entire economy. The post-independence performance of Indian agriculture is broadly characterized by three phases:

- **Pre-green revolution period** (Upto to the mid-1960s): Development of irrigation, land reforms, community development and restructuring of rural credit institutions got the priority. Despite major achievements in these spheres, the foodgrain output was inadequate to meet the needs of growing population.
- **Green revolution period** (form mid-1960s to early 1990s): With the introduction of high yielding variety of wheat and paddy , there was not only a **quantum jump** in inputs and **yields per hectare** but there was also a significant increase in the Total Factor Productivity.
- **Post-green revolution period** (after 1990): Indian agriculture entered the **present phase of diversification** and globalization. Diversification has direct effect on employment as well as on farm income.

3.2 Crisis in agriculture

- 3.2.1 There is virtual stagnation of agricultural gross domestic product (GDP) in recent years. Dependence on the monsoon has increased, so has the variability of output. The price of agricultural produce is now vulnerable to international price movements. The rising input costs make it even more difficult for Indian farmers to compete with the subsidized imports.

3.2.2 Magnitude of workforce deployed in agriculture is not increasing. The proportion of workers employed in agriculture, which declined from 68.5 % in 1983 to 64.8 % ten years later, declined more sharply to 59.8 % in the next six years.

3.3 Diversification of land-use

3.3.1 Land-use diversification has been observed **in many states**. Semi-arid states like **Haryana, Punjab, Andhra Pradesh, Gujarat** had moved towards **diversification** of water-intensive but non-perishable crops such as **rice and sugarcane**. **Whereas** northeastern states like **Tripura, Meghalaya** have responded to the comparative advantage of their climate regime; hence the tendency towards **spices, condiments and fruits**. In certain states (**Maharashtra and Gujarat**) responsiveness towards **fruits and vegetables** are due to availability of infrastructure most notably transport, power and storage facilities as well as urban demand.

3.3.2 The **major factors that determine diversification to high-value addition activities** are:

- **Land size:** As the size of holding increases, farmers mainly concentrate on crop production as their main source of income. For a fairly substantial proportion of small and marginal farmers, cultivation provides only a supplementary source of income due to land constraint. They resort to activities such as livestock and poultry rearing, plantation, pisciculture etc.
- **Credit availability** to small and marginal farmers for cultivation of higher values crops or livestock maintenance is of crucial importance.
- **Quality of irrigation**, rather than mere availability, is also extremely important for diversification.

3.3.3 The effect of diversification on total employment is evident from the employment pattern across crops (Table 3.1). By and large, the labour content of higher value crops such as fruits, vegetables, spices and flower are higher, compared to that

of foodgrains. If the indirect impact is taken into account, which includes value-addition, agro-processing and marketing, then the employment impact of diversification becomes more pronounced. Diversification also creates continuous work opportunities for family labour and therefore minimises seasonal up- and down-swings in the employment.

Table 3.1 Employment Pattern Across Crops

Crop Groups	Mandays/Acre	Mandays / Rs.1000 output
Foodgrains	34.56	9.73
Oilseeds	26.80	7.48
Commercial crops*	71.77	13.12
Spices	79.07	7.76
Horticulture crops [#]	61.33	4.39
Pulses	24.37	31.60
Vegetables	84.33	34.18

(Source: Chadha G.K., Sen S. and Sharma H.R. 2004. State of the Indian Farmer- A Millennium Study. Volume 2, Page 182)

3.4 Linkages Between the Farm and Non-farm Economies

- 3.4.1 Agricultural policies can promote non-farm activities. The non-farm sector includes all economic activities in rural areas except agriculture, livestock, fishing and hunting. The important non-farm activities in rural areas are agro-processing, commercial establishment and service sectors. In the mid-1970s, John Mellor stated an influential and optimistic position regarding the role of rural non-farm activity vis-à-vis agriculture development in India. As a **result of the green revolution technologies, a virtuous cycle could be emerging whereby increases in agricultural productivity and thus the incomes of farmers would be magnified by multiple linkages with the rural non-farm economy.** These are production linkages, both backward, via the demand of agriculturalists for inputs such as ploughs, engines and tools, and forward, via the need to process many agricultural goods, e.g. spinning, milling, canning. Consumption linkages were also thought to be important. **As agricultural income rose, it would feed primarily into an increased demand for goods and services produced in nearby villages and towns.** Furthermore there were potential

linkages through the supply of labor and capital. With increased productivity in agriculture either labor is released or wages go up. And the new **agricultural surplus would be a source of investment funds for the non-farm economy**. To complete the cycle, growth in the **non-farm economy was expected to stimulate still further growth in agricultural productivity via lower input costs** (backward linkages), profits invested back into agriculture, and technological change. Thus growth in the two parts of the rural economy would be mutually reinforcing with employment and incomes increasing in a dispersed pattern.

- 3.4.2 The **growth of non-farm activities is closely linked with rural infrastructure**; inadequate and poor quality infrastructure imposes serious costs on virtually all-economic activity. Private investment comes in areas where infrastructure is of a reasonable standard. The **important rural infrastructure**, which will improve the capacity of households to become **involved in the non-farm activities are access to electricity, rural road, telecommunication, education (skill development and technology up gradation) and credit**. The evidence to date suggests that policies promoting both agricultural and nonagricultural activities, such as investment in economic and social infrastructure (such as education), are generally more effective in stimulating non-farm activity than policies that are targeted exclusively at the non-farm economy. Even when the original impetus comes from the non-agricultural side, such as when tourism activities expand in agriculturally backward areas, intervening so as to strengthen the links between the local farm sector and this non-farm activity is likely to secure the most broad-based distribution of benefits.

3.5 Levers for Stimulating Self Employment in Agriculture

- 3.5.1 The Inter-ministry Task Group has identified the broad areas, which have direct bearing on creation of self-employment and accelerating agriculture growth to the level of 4% through diversification. These are :

- Quality Seed Production

- Rehabilitation of wastelands
- Use of bio-fertilizers
- Processing and Marketing of agricultural products
- Agribusiness

3.5.2 Production/distribution of quality seeds/planting materials is the main key to higher levels of diversification and consequently, employment. Despite laudable achievement made in increasing the seed production and facilitating the seed availability at the farm level, the sector is still experiencing low seed replacement rates in several field crops and vegetable crops. Therefore, production of seed, planting material and germplasm in case of field and horticulture crops need to be enhanced both in terms of quantity and quality.

3.5.3 Further seed production itself is a major source of employment. There is great scope for self-employment in the production and supply of low-volume high value hybrid seeds, disease free planting materials and nurseries. The country has not yet explored the possibility of export of quality seed. India is endowed with various types of agro-ecological regions/situations that enable seed production of any crop. Export of seed to other countries is insignificant. Producers of quality seed can use this opportunity. Seed production and supply in the following areas could lead to generation of wealth and employment

- (i) Seed production of field crops especially low-volume high-value hybrid seed.
- (ii) Seed production in vegetables and fruits.
- (iii) Multiplication of planting materials in vegetatively propagated crops.
- (iv) Supply of disease free planting materials in vegetatively propagated crops like potato
- (v) Tissue-culture facility for rapid multiplication and sapling production including micro-propagation.
- (vi) Export of quality seed and planting materials
- (vii) Custom seed production for foreign agencies
- (viii) Providing service(s) to seed sector, such as:
- (ix) Storage facilities
- (x) Cleaning and grading facilities

- (xi) Seed testing
- (xii) Specific quality testing
- (xiii) Seed transportation
- (xiv) Certification and regulatory support

3.5.4 Development of appropriate perennial vegetation based technologies for **rehabilitation of 107 million ha waste lands** (eroded, saline, alkaline, waterlogged, acidic, rocky terrain, ravines etc) has the potential to enhance productivity, create employment avenues. The soil and water conservation resources developed for maintaining watershed have the potential to reduce run off from 42 to 14% and soil loss from 11 to 2 ton/ha. **Raising trees on highly sodic soils for 7 years has the potential to create employment opportunities of about 1000 mandays/hectares. The watershed management technology is generating 215-person days/hectares/annum during implementation phase and 20 person days/ha/annum sustainably in post implementing phase.**

3.5.5 The country is concerned with soil related issues like increased pace of degradation due to physical, chemical and biological processes; decreasing fertility (soil organic matter), heavy metal accumulation, low efficiency of applied nutrients, specific micro-nutrient deficiencies and increased ratio of N:P:K (at present about 7:3:1 as against 4:2:1). There seems wide potential to **upgrade efficiency and soil quality through promotion of green manuring, judicious recycling of residues into the soil, converting waste into wealth through proper composting/vermin compost, biological nitrogen fixation and large scale popularization of use of bio-fertilizers. This could be done through a suitable programme for production of bio-fertilizer through micro-entrepreneurs at village level.**

3.5.6 There is tremendous potential for food and other non-food items through reduction of post harvest losses. There is also tremendous potential for **value addition through post harvest processing**. In the case of kinnow fruits produced in Punjab and Rajasthan, studies conducted by ICAR have shown that

earning from the produce could be Rs. 1.0 lakh per hectare if the fruits are harvested correctly, washed, graded, surface coated, suitably packed and transported to local mandi instead of auctioning the produce at the farm gate. The benefits of promoting efficient post harvest processing have been amply demonstrated by the promotion of modern rice milling in the country. Today about 70% of the total paddy production in the country is processed through 35,000 modern rice mills, which enhance the rice recovery by about 7%. This means 6 million tones of additional rice for the country. It is estimated that overall benefit of modernizing rice processing is about Rs. 14000 crore annually.

3.5.7 Attempts to raise production/productivity through diversification will not succeed unless markets are developed. **The size of the agri-market is currently huge but lacks adequate infrastructure.** Diversification would create scope for more expansion. In addition to being one of the largest producers in the world for rice, wheat, milk and poultry, India is also the major producer of mango, coconut, and banana. Other major horticulture products are: cashewnut, spices- cardamom, coriander, Garlic, Pepper, turmeric Ginger, chillies and Tea. With an overall food production of approximately 600 million tonnes per annum, India is the second largest producer in the world of food products. Over 16 million consumers are added each year to India 's 1 billion + existing population. The period between 2003 - 2015 is considered to be the consolidation phase for the agro food sector. International & large Indian companies existing in agriculture with substantial business proposals for expansion are: Hindustan Lever Ltd (a Unilever company), Cadbury Schweppes, Nestle, Coke, Pepsi, Kellogs, Cargill, McDonalds, Best Foods, Pizza Hut, Monsanto, Zeneca, Conagra, ITC Foods, Danone and others. **There is tremendous scope for setting up new establishments for production and providing related services and thereby creating new employment, if we are able to exploit full market potential of these agricultural products.**

3.5.8 Indian agriculture is also seen to have tremendous **potential to be able to supply a growing world market for fresh produce including vegetables, tropical fruits, flowers, herbal products for cosmetic and pharmaceutical use.** About 30% of India's agriculture relies on traditional methods of farming, thus the potential for organic produce exports to the developing countries is very high.

3.5.9 **Agribusiness:** The only scheme of the Department of Agriculture & Cooperation which aims to create employment directly in agriculture sector is the scheme entitled ' Agri-Clinics and Agri-business Centers. Under the scheme, agricultural graduates are being trained to set up agri-clinics in rural areas to provide extension services to farmers on payment basis. The scheme has, however, not made much headway due to inability of the agriculture graduates to make high initial capital investment in rural areas.

3.6 Public Investment & Credit in Agriculture

3.6.1 Public investment (mainly in the form of irrigation) has been declining in real terms in the 1980s and most of the 1990s, though there has been some increase in the last three years. **The decline in the capital formation in agriculture from 1.9% of GDP in the early 1990s to 1.3% of GDP after 2000-01 is a matter of concern.** Though private investment in agricultural (mainly on farm investment by the farming community itself), has been rising but the trend is offset by decline in public investment so that total investment in agriculture has increased at only a modest rate. Public investment in agriculture is the responsibility of state governments and is therefore severely constrained by the fiscal problems of state governments.

3.6.2 **Accelerated growth in agriculture in future will require a substantial increase in public investment in agriculture related infrastructure** such as:

- Irrigation and drainage,
- Land development,

- Water conservation,
- Rural road connectivity
- Marketing infrastructure

- 3.6.3 According to the Department of Agriculture and Cooperation enhancement of investment in the agriculture would increase the employment growth. **Experience of Gujarat revealed that the rate of growth in agriculture employment increased from 0.65% (1983 to 1993) to 2.50% (1993-2000) when the rate of growth in capital expenditure increased from 3.23% (1993-94) to 27.03% (1999-00).** The weather also plays a significant role in determining the magnitude of investment in terms of employment and farmer's income. Adverse weather may often mean more loss of wage employment, as family labour may be adequate to perform the reduced scale of agriculture operations. **The Department also referred to a study undertaken by CACP, which pointed out that in states like Assam, Gujarat, Karnataka and Maharashtra, potential of labour absorption in agriculture had not yet been fully realized.**
- 3.6.4 The Department mentions that that **if an investment of Rs. 21649 crore were made during the Tenth Plan, the ongoing schemes have the potential to create 7.37 lakh man-years of self-employment and 2.63 lakh man-years of wage employment during the remaining period of the Tenth Plan.**
- 3.6.5 For complementary private investment in agriculture related infrastructure, credit plays a critical role. Despite of 47092 branches of Scheduled Commercial Bank including regional rural banks and over one lakh outlets of cooperatives in rural and semi-urban areas, there is problem of non-availability of adequate rural credit through a low-cost network. Inadequacies of the credit delivery system are discussed in Chapter 9.

Chapter IV : Employment Opportunities in Horticulture

4.1 India's natural advantages in horticulture

It is estimated that in India, all the horticulture crops put together cover nearly 16.59 million hectares area. India with more than 146 million tonnes of fruits and vegetables (Table 4.1) is the second largest producer in the world next only to China (454 million tonnes). The country has several natural advantages that provide tremendous potential for growing a variety of horticulture crops comprising of fruits, vegetables, root and tuber crops, flowers, ornamental plants, medicinal and aromatic plants, spices, condiments, plantation crops and mushrooms:

- Availability of varied climatic and agro- ecological zones
- Abundant sunshine throughout year
- Organic growing areas (particularly in NE states)
- Round the year growing facility due to tropical climate,
- Availability of skilled labour,
- Big markets in India as well as in third countries

Table 4.1: Area and production of important horticulture crops in India (2001-02)

Commodity	Area (million ha)	Production (million ton)	Productivity (ton per hectare)
Fruit	4.01	43.11	10.72
Vegetables	6.15	88.62	14.41
Spices	2.31	3.00	1.30
Coconut	1.89	8.82	4.67
Cashew	0.77	0.50	0.65
Arecanut	0.31	0.38	1.23
Others	1.46	1.84	1.26
Total	16.59	146.27	8.79

4.2 Labour Intensive & Self Employment Oriented Sector

4.2.1 Cultivation of horticulture crops is labour intensive and as such generates lot of employment opportunities for the rural population. **Horticulture sector generates a staggering 497.70 crore mandays of employment which is equivalent to 1.66 crore employment. Out of 1.66 crore employment, nearly 50% are self-employed (0.83 crore), 30% are waged (0.50 crore) and remaining 20% are salaried (0.33 crore).**

4.2.2 **Small and marginal farmers are primarily engaged in the horticulture production.** About 80 to 85% of the farmers involved in the cultivation of fruits are in the category of small and marginal holdings whereas about 90% of the vegetable growers are in this group. Similarly more than 60% of the holdings in the case of pepper and ginger are less than one hectare.



It is estimated that more than 5 million coconut holdings are available in the country with 98% of them having a size of less than two hectare. The share of small and marginal holding in case of arecanut and cashew is about 60 to 70%. This category also has substantial share in the total production of coffee (60%) and rubber (87%).

4.3 Stimulating Self Employment in Horticulture

As the sector is by itself labour intensive and self-employment oriented, the thrust of policies to develop self employment opportunities should be to encourage

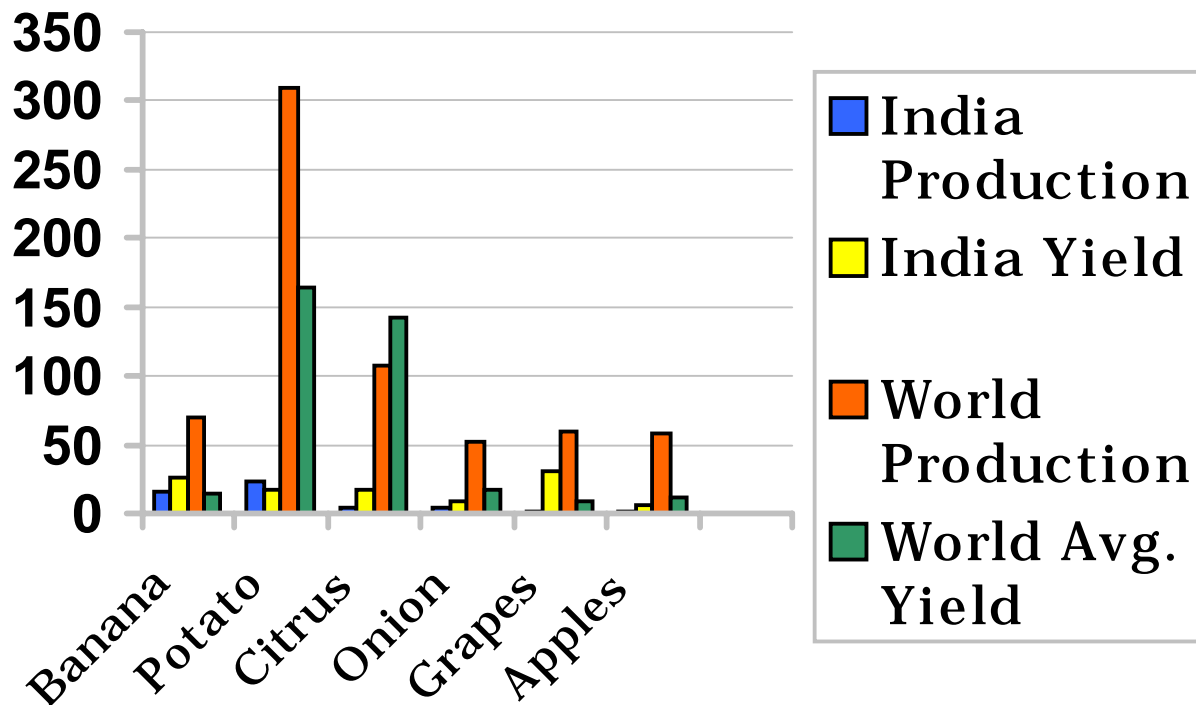
steps to improve productivity, reduce wastes, add value and establish better markets.

4.4 Productivity

4.4.1 Although India has a little edge over world productivity in banana, sapota, peas, okra and cabbage but it lags behind in various other major horticulture crops like apple, guava, papaya, pineapple, onions, tomato etc. The horticulture commodities exhibit low productivity in comparison to the potential demonstrated in the research trials. The **major constraints** identified by Working Group on Horticulture Development for the Tenth Plan and the Department of Agriculture are:

- Poor quality of seeds and planting materials.
- Predominance of old and senile orchards/plantation with poor management practices. Due to long gestation period, high capital cost is involved in establishing new orchard/plantation.
- Inadequate irrigation facilities
- Heavy losses due to poor post-harvest management.
- Weak processing infrastructure
- No risk management

Production - Million MT
Yield MT / Hectare



Source: FAO 2003

4.4.2 Problems related with poor small and marginal growers also limit the productivity and hence their incomes and sector's self-employment potential. The productivity gap between the large grower and small grower is also very large. **The major constraints for lower productivity in the small grower sector are:**

- Presence of large number of tiny growers with less than 2 hectares.
- Existence of old moribund plant material due to reluctance to replant with new varieties.
- Lack of quality awareness.
- Inadequate technology adoption.
- Inadequate financial resources.

- Lack of infrastructure like pulpers/ drying yard etc. due to high capital investment.
- Distress Sale due to – Inadequate Storage Facilities, and, dependence on traders and commission agents for funds

4.5 Processing & Marketing

4.5.1 **Marketing Infrastructure:** The sector is afflicted with inadequate marketing facilities. The entire marketing is handled by commission agents. There have been only a few success stories of cooperative marketing in some states. As such a market mechanism based on collection centers feeding terminal markets with grading facilities, storage facilities, processing facilities and electronic auction should be established and has been discussed in detail in the Chapter on marketing support.

4.5.2 **Exports:** Although India occupies the second position in global horticulture, its share in terms of exports is almost negligible. **India contributes 1.18% and 0.2% of share in the global fruit and vegetable exports respectively.**

4.5.3 **Processing:** **Hardly 2% of the horticulture produce in India is commercially processed at present as compared to 30% in Thailand, 70% in Brazil, 78% in Phillipines and 80% in Malaysia.**

4.6 Reforms in Horticulture Sector

4.6.1 The post liberalisation era has seen some large-scale changes including relaxation of government regulations in the production of processed food products. Some of the significant **changes after liberalisation include the introduction of corporate farming particularly in horticulture in some states**, bringing large scale benefits to small farmers who now produce for a single large processor from common growing material, as well as direct access to modern farming technology.

4.6.2 There is a need of **‘Public-private partnership’ (including joint venture with foreign collaboration) for creating following infrastructure:**

- Bulk storage (including silos and temperature controlled warehousing),
- Bulk handling (including packaging) transportation and logistics;
- Cold chain facilities and cold chain management of horticulture products
- Port handling equipment (loading and unloading)
- Improved seeds for horticultural produce,

4.7 Self-Employment potential in Northeast States

4.7.1 Horticulture has special importance in creating self-employment in Northeastern states and other hilly areas.

4.7.2 The major constraint is that the **producers are not getting remunerative prices due to lack of adequate marketing infrastructure**. The other constraints are non-availability of quality planting material, inadequate or absence of area expansion, productivity improvement/ rejuvenation of the existing farms, upgrading technical know-how; non-availability of plant health clinics, mechanization on farm handling of fruits.

4.8 Direct marketing for Fruits & Vegetables: terminal markets

In the chapter on Marketing, there is a detailed recommendation on setting up of terminal markets for all major cities. If implemented, this could go a long way in generating self-employment through assured markets, and better price realizations.

Chapter V: Employment Opportunities in Afforestation

5.1 Employment in Afforestation

- 5.1.1 It is well known that deforestation exacerbates loss of biological and economic productivity of land, inducing migration, thereby forcing forest-fringe people to change their traditional life-style, culture and composition of rural society. Afforestation could arrest and even reverse this trend. Presently 23.03% (75.70 m ha) of geographical area of the country is under forest/tree cover and the annual achievement of afforestation and tree planting under 20 point programme is about 1.23 million ha per year. Thus three-fold increase in the rate of afforestation is required to achieve the national goal of one-third forest/tree cover by 2012.
- 5.1.2 **Every two hectares of additional area under plantation of forest crop such as bamboo, cauarina, eucalyptus or oil-bearing plants can generate year-round employment for one person. As such afforestation is a high potential area for creating employment while serving a national goal.**
- 5.1.3 **The Support Group related to Afforestation has estimated that as against the present level of 246 million mandays (mmd) per year generated under afforestation, the scope exist to upscale it to 412 mmd during 2004-05 and 850 mmd annually thereafter. The Support Group has recommended an additional investment of Rs. 5,732.42 crore in 10th Plan period. The investment will generate 653.57 million mandays of new employment (both wage and self employment) in three years (Table 5.1). Out of the total investment, an amount of Rs. 3,713.37 crore is proposed from budgetary support and Rs. 2,019.05 crore as credit inflow from banks and financial institutions in agro forestry, farm forestry and Non-Wood Forest Products. The table 5.1 shows that additional allocation of Rs. 1263.50 crore in the three existing schemes (National Afforestation Programme, Grant-in-Aid to NGOs and Herbs, Shrubs and Medicinal Plants) would create 116.1 mmd. Thus investment of Rs. 40,000**

is needed for creating job for one person round the year. These government-funded programmes would create primarily wage employment.

5.1.4 Besides direct employment, the forestry sector is also a source of secondary employment based on the forest produce. Nearly 400 million people living in 1,73,000 forest-fringe village depend on non-wood forest products (NWFPs). NWFPs provide self-employment in May-June when the wage employment opportunity is at its lowest. **The support group has mentioned that recurring self-employment could be generated in NWFP sector as well as in Eco-tourism.** It has **proposed a new 100% central sector scheme ‘Van-vasi Vandhan’ for integrated development of Non-Wood Forest Products with an estimated budget support cost of Rs. 331.20 crore and initial credit support of Rs. 9.75 crore in the 10th Plan.** This will generate 23.13 million mandays directly and 4.65 million jobs (100 days employment in a year) in ancillary activities in each year. Another new scheme ‘Eco-tourism’ with an allocation of 41.42 crore in the Tenth Plan has the potentiality to generate 0.41 million jobs for at least 100 days in a year. The Support group has also suggested a new scheme entitled “Panchayat Van” for afforestation of 50 to 100 hectares non-forest land in each Gram Panchayat with multi-purpose tree species with an investment of Rs. 627 crore in the Tenth Plan. This Panchayat Van will provide wood and non-wood forest produce for self employment opportunities through the process of value addition to village artisans besides providing wage employment (58.16 million man-days) in the initial afforestation phase.

Table 5.1: Additional investment and employment generation in the last three years of Tenth Plan. (2004-05 to 2006-07)

Scheme / Programme	Status	Addl. Fund requirement (crores)	Addl. Employment (million mandays)
National Afforestation programme	Existing	1048.00	97.80
Grants-in-aid to NGOs and Vas	Existing	84.50	7.80
Agro forestry and farm forestry	New	2009.30	293.02
Herbs, shrubs & medicinal plants	Existing	131.00	10.50
National Mission on Bio-fuels	New	860.00	77.30
National Mission on Bamboo	New	600.00	44.45
Panchayat Van Scheme	New	627.00	58.16
Van-vasi Van-dhan Scheme	New	331.20	23.13
Eco-tourism	New	41.42	41.41
Total		5732.42	653.57

5.2 Constraints on Forest Plantations

The following areas need attention for removing the **constraints inhibiting forest plantations**:

- Availability of non-forest land
- Policy measures for enabling environment for investment in plantation
- Mobilization of resources- public, private and institutional financing
- Appropriate technology
- Linkage of afforestation with end-users, both industrial and non-industrial
- Legislative barriers like felling and transit permit for agroforestry and farm forestry products.

5.3 Potential Activities for promoting self-employment

The Inter-Ministry Task Group has identified the following activities, which could create or promote self-employment in the forestry sector:

5.3.1 **Head loading:** The organization of this type of self-employment is complex. People collect wood for the market and for home consumption. Both women and men take to head loading of collected wood in a big way to secure an income. Not only head loaders (who are usually women) and shoulder loaders (men) but also bicycle loaders exist. In certain villages/areas the women do all the collection of firewood for home consumption while the men collect the firewood to be sold for cash in the market. It is mainly people from the scheduled castes and scheduled tribe who sell head and shoulder loads. People would normally walk between 4-8 km every second to fourth day and would either bring the wood to the market to sell themselves or sell to middlemen either in the market or to those who came and collected in the village. Nowadays fuel wood from forests is generally utilized and appropriated by the Joint Forest Management institutions. As the availability of fuel wood from forests has now become limited, the occupation of headload no longer provides scope for large-scale self-employment.

5.3.2 **Improvement of Common Property Resources (CPR) will play an important role in enhancing and stabilizing income, employment and sustenance of the economy of poor rural people.** Common Property Resources are accessible to the whole community of a village to which no individual has exclusive property rights such as: village pastures, community forests, waste lands, village ponds etc.). After fuel, fodder is the major item for which poor households depend on CPR. At present the CPRs are in very poor state, both their area and productivity are declining and not only has large scale privatization of CPR taken place during the last three decades, but also the major part of the privatized CPR ended up in the hands of the non-poor. Furthermore, most of the land received by the poor households through redistribution and rural employment programmes was also given up by them as they did not have complementary resources to develop and use the newly received lands.

5.3.3 Besides fuel and fodder there are a number of other types of **Non Wood Forest Produce which are being collected individually or thorough village societies and cooperatives and sold in the open market without any value addition.**

The collection and processing of **NWFP provides for a substantial amount of self employment to the poor households**, and is mainly being undertaken by women. The most **commonly collected produce** includes **mahua fowers** and fruits, **sal leaves and seeds** and **kendu leaves**. Kendu leaves are colleted in the months of June-August. The leaf is used as a wrapper in bidi (cigarette) production. The leaves of the sal tree were said to be collected the whole year round. Making sal leaf plates was a very common activity in the forest area. Women gather the leaves and make plates out of them when they have any time to spare. The plates are usually sold at the marketplace or to middlemen. The mahua flowers are collected during a short period of time (around 15 days) in the months of April-May. They can be eaten by people, used as animal feed, used to produce alcohol, or sold. The flowers are usually sold to contractors. The major problem in this area is that **collector of forest products are not getting remunerative price and there is no facilities for value addition**. A real value addition of these products more often takes place after the products reach the high volume markets away from the forests. Even simple processing and grading at the source could enhance the value of the products collected. Small village level cottage units need to be encouraged for primary processing of NWFP.

5.3.4 Managing forests and woodlands requires many different kinds of workers like

- Forestry and conservation workers who help to develop, maintain, and protect the forests by growing and planting new tree seedlings, fighting insects and diseases that attack trees, and helping to control soil erosion. There is also scope for wage occupations in activities like plantation watchers, fire protection gangs, wildlife protection squads etc.
- Woodcraft including carpentry, fabrication of tools and households articles, handicrafts etc. are important for creating self-employment. As these

activities depend on the availability of wood, there is need for promoting planting of important trees species in homesteads and farm boundaries. Cultivation of suitable species for production of suitable timber in the underutilized/unutilized community and private lands, is a critical factor for popularizing village-based woodcrafts. Trees like neem, amla, imli, myrobalans, moringa, soapnut, maligna, grewia etc. are sources of important produce with high demand in market.

Chapter VI : Employment Opportunities in Animal Husbandry & Dairying

6.1 Self-employment Oriented sector

- 6.1.1 Animal Husbandry and Dairying is an **ideal sector where scope of self-employment is immense**. It fulfills all the criteria for generating self employment in rural areas. This **sector contributed 5.4% of total GDP in 2002-03 (22.7% of total output from Agriculture & Allied Sector)**. The value of Milk group (Rs. 103804 crore) was more compared to paddy (Rs. 73965 crore) and wheat (Rs. 43816 crore).
- 6.1.2 **Animal Husbandry provides job opportunity to about 20 million persons** (principal status 11 million and subsidiary status 9 million). **This does not include persons employed in sale, re-processing and transport of animal products at secondary market level**. The rural women play a significant role in animal husbandry and are directly involved in major operations like feeding, breeding, management and health care.
- 6.1.3 **The sector provides round the year self-employment**. The studies done at Haryana Agriculture University, Hissar have shown that on one unit of 2.5 acre (1 ha) irrigated land arable farming generated unequal labor opportunities maximum being during October, April and May with lean periods during other months. In contrast, mixed farming system (crop plus livestock in 1 ha land) generated about three time more labor days (around 600 days compared to around 190 day in arable farming). The labor days distribution was almost uniform throughout the year in mixed farming systems. Similar trend was also observed on small and marginal land holding of 1.5 acre (0.6 ha) and 1.0 acre (0.4 ha) irrigated land units and large units of 4.0 acre (1.5 ha). Under dry land conditions, rearing of units of sheep or goat generated more employment (about 400 days with 30 goats/sheep in 1 ha land).

6.1.4 **‘Access to asset’** is the pre-condition for any self-employment activity. In comparison to land, **livestock are more than proportionately controlled by the poor**. The distribution of land and livestock holding in India (1992) is presented in Table 6.1

Table 6.1: Distribution of Land and Livestock Holding In India (1992)

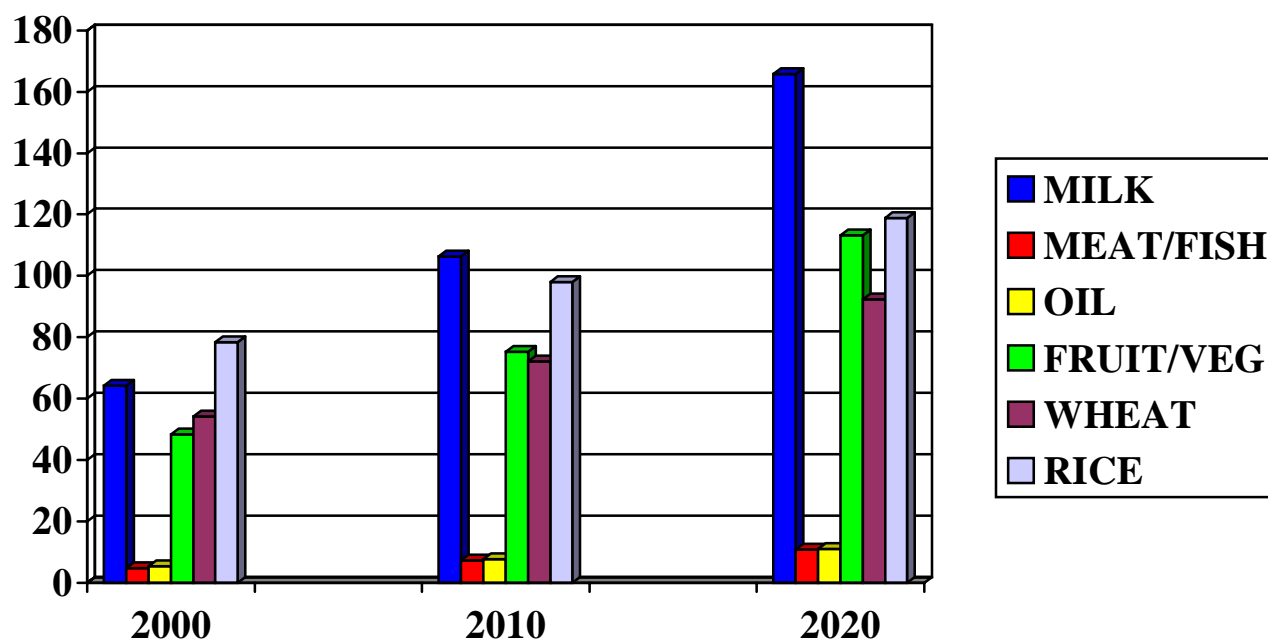
All figures indicate Percentages						
	Landless < 0.002 ha)	Marginal (0.002 – 1.0 ha)	Small (1.0 – 2.0 ha)	Medium (2.0 – 4.0 ha)	Large (> 4.0 ha)	All
Households	21.8	48.3	14.2	9.7	6.0	100.0
Distribution of Land						
Share in land area	0.0	15.5	18.6	24.2	41.7	100.0
Avg. Size of holding (ha)	0.0	0.4	1.4	2.7	7.5	1.
Distribution of livestock (%)						
Cattle and Buffalo	2.5	43.8	23.3	17.7	12.7	100.0
Sheep and Goat	5.1	46.2	19.3	15.0	14.4	100.0
Pigs	7.7	49.9	20.4	13.9	8.1	100.0
Poultry	6.4	54.9	19.0	14.4	5.3	100.0

6.2 High potential for demand driven growth

6.2.1 In the last three decades, **the growth rate of milk and egg production was always higher (> 4 % per annum) as compared to the growth rate of crop production**. However, in comparison to the Ninth Plan, the growth rate in the first two years of the Tenth Plan has declined in both milk (2.17% vs. 4.26%) and egg (1.65 vs. 7.34%) primarily due to effect of drought and inadequate marketing infrastructure. Nevertheless, with the increase in human population, growing income and awareness of the importance of animal food as an integral component of balanced diet, the demand for milk, meat, egg and fish will grow continuously in the coming years. A projection of demand of milk, meat and other animal food is shown in Figure 5.1 below.

**Fig 5.1 :Household Demand for Milk, Meat and Other Food
(Million Ton)**

(Source: India Development Report, 2002, Book:: Indian Milk Products)



6.2.2 Keeping in view the employment generation potential, the **Support Group constituted at the Department of Animal Husbandry & Dairying** has reviewed the existing programmes of the Department and identified the following thrust areas:

- Dairying
- Backyard Poultry Farming
- Piggery in North East
- Fisheries
- Food Processing

6.3 Self Employment in Dairying

6.3.1 **Success of the Operation Flood Programme (OF) spearheaded by National Dairy Development Board** proves that livestock farmers are receptive to

appropriate technologies if the programme is linked with an assured marketing opportunities to sell their milk at remunerative prices. Under the Operation Flood programme, 170 District Milk Unions are operating in 285 out of over 500 districts in the country. The Milk Unions cover nearly 1,03,281 village level societies owned by nearly 11 million farmer members. In 2002-03, average daily cooperative milk marketing stood at 137.29 lakh litres; annual growth has averaged about 4 per cent compounded over the last five years. Dairy Cooperatives now market milk in about 200 cities including metros and some 550 smaller towns. During the last decade, the daily milk supply to each 1,000 urban consumers has increased from 17.5 to 48.0 litres. The annual value of India's milk production amounts to about Rs. 850 billion. National Dairy Development Board is now implementing 'The Perspective 2010 plan' for Strengthening Cooperative Business, Production Enhancement, Assuring Quality, and creating a National Information Network,

6.3.2 However, the financial health of many District Milk Unions is not in good shape. **The tremendous untapped potentiality to create further employment in the Operation Flood areas could not materialize fully due to problem of milk marketing during flush season (November to March) when many milk unions refuse to take milk from the farmers.** This is a very serious issue and both the Department of Animal Husbandry & Dairying and NDDDB have failed to address it. Institute of Rural management, Anand has rightly pointed out that **federal cooperative structures in the country, barring a few exceptions (a few milk unions and their federations) became self-serving, operationally inefficient, loss making and oppressive.** Decisions were often not dictated by sound business practice or long-term interest of the farmer members leading to erosion of their faith in the cooperative path.

6.3.3 **There is also remarkable potentiality of creating self-employment in the Non Operation Flood areas as is evident from the achievement of Integrated Dairy Development Project (IDDP).** IDDP has already led to

creation of 10,300 village level dairy cooperative societies covering 6.5 lakh rural families. The support group estimated that broadly, investment of every Rs. 100 crore under the IDDP scheme could benefit over 1.25 lakh families by way of additional employment and supplemental income. On a conservative basis, additional employment generated for each such family could be of the order of 2.5 manhours per day. **This is equivalent to creation of about 40,000 additional full employment per Rs. 100 crore of investment. The Support Group has recommended investment of Rs. 500 crore through IDDP scheme, which would create additional full employment of 40,000 every year reaching about 2 lakhs by the end of the fifth year. While supporting the recommendation of the Support Group, the Inter-Ministry Task Group also takes cognizance of the report of two evaluation studies on IDDP and emphasizes the need for good governance in project implementation and strengthening of the Department, which lacks adequate technical manpower to implement such project at national level.**

6.4 Backyard Poultry Farming

- 6.4.1 The backyard poultry farming is one of the important means to empower the landless BPL families with assets (20 to 50 birds) that would provide some income.
- 6.4.2 The Support Group has suggested a **model for promoting backyard poultry farming**. The model envisages a cluster of mother units around a central grower unit. The mother unit, which will be controlled by NGOs/Self-help units, will provide chicks to beneficiary along with inputs, services and marketing facilities. **The expected investment of about Rs. 120 crore in 5 years will benefit around 2 lakh poor families to earn supplemental income.** Assuming additional daily employment of $\frac{1}{4}$ manday per family, **this is equivalent to creation of 50,000 full time employments** (starting with about 17,000 in the first year and reaching 50,000 by the third year). **The Inter-Ministry Task Group supports this programme.**

6.5 Diversification in poultry – turkey, quail and guinea fowl

The Department of Animal Husbandry has identified diversification in poultry development as a thrust area, by Duck and Turkey (Southern region), Japanese Quail (Northern and Western region) and Guinea fowl and Duck (Eastern region). Since these diversification programs on large scale will be taken up for the first time in the country, training in the breeding and management of Turkey, Guinea fowl, Duck and Japanese Quail etc. would be taken from countries which have developed good stock and their management practices are suited for the Indian system of rearing. If necessary these stocks may also be imported to develop a broad base germplasm. **It is recommended that export potential of this diversification may be fully exploited to generate additional employment opportunities.**

6.6 Piggery in Northeast & Tribal Areas

The entire Northeast and many other areas, primarily tribal areas, depend on piggery as a source of protein and additional income. **The Support Group has suggested a project with a cost of Rs. 117 crore in three years, which would benefit about 70,000 families.** At the rate of $\frac{3}{4}$ manday of employment per day per family the additional employment is equivalent to about 50,000 full time jobs (starting with 20,000 jobs in the first year and reaching 50,000 by the third year).

6.7 Fisheries

- 6.7.1 The significance of fisheries as an alternative source of nutritious and protein rich food, generating income and employment is well recognized. **Contribution of Fisheries is 1.2% to the overall GDP and 21% to the total agricultural exports** (Rs. 13,000 crore). Fish production has increased from a level of 4.36 million tons during 1992-93 to 6.2 million tons during 2002-2003; of this 52% is from inland and 48% from marine sectors. **About 11 million workers are directly or indirectly engaged in fisheries sector.**

6.7.2 In India, approximately 67% of the total fish production is consumed in fresh, 23% in processed form and the remaining 6% is used for production of fishmeal. The entrepreneurs carry almost all of these under medium and small scale. **Owner operators are engaged more in traditional fishing where as the mechanized fishing is dominated by wage earners.**

6.7.3 The Support Group constituted in the Department of Animal Husbandry & Dairying identified the areas where scope for generating new employment specially self-employment exists. **There is potential for increasing inland fish production by at least 50% from the present 3 million tons per year in about five years.** The water-spread area of ponds and tanks in the country is around 23 lac hectares. Present coverage of aquaculture is only about 10 lakh hectares. This could be increased by at lest 3 lakh hectares in the next five years by determined efforts. **Based on a conservative estimate of 1.5 jobs per hectare, this can increase employment by 4.5 lakh in five years (starting with 90,000 in the first year).** Similarly out of estimated 12 lakh hectares available in the country for **brackish water aquaculture**, the current utilization is only about 1.1 lakh hectares. The main difficulty for expansion in this sector arose out of a 1996 Supreme Court decision, which treats aquaculture as an industry. With the Government's recent decision to enact "Coastal Aquaculture Authority Bill", the legal difficulties are expected to be removed. It is hoped that this will be enacted in the next session of the Parliament. It can be reasonably expected that after the enactment of the Bill in the Parliament, there would be increase in the area utilization by one-lakh hectares in about five years. **The employment generated from one lakh hectares will be about 3 lakh at the rate of 3 per hectare.** Additional employment will thus rise from 60000 in the first year to 3 lakh in the fifth year.

6.7.4 To boost the inland aquaculture sector some of the measures could be:

- Establishment of adequate infrastructure

- Assured technical support with training and demonstration
- Introduction of processing and value addition,
- Introduction of innovative marketing mechanism,
- Setting up of fish disease diagnostic centers and fish health and pond ecosystem management training facilities.

6.7.5 The Indian marine fisheries sector is characteristically an open access one with free and common property rights. The multi species fishery comprises over 200 commercially important fin fish and shell fish species. Being a multi gear fishery, fishing practices vary between different regions, depending on the nature of the fishing grounds and the distribution of the fishery resources. Bottom trawls up to 13 m length are operated along the entire coast, while the second generation trawlers 13-17 m length are operated from selected harbors along both the east and west coast. The details of manpower in harvest and post harvest in marine fisheries is given in Table 6.2

Table 6.2: Manpower in Harvest and Post Harvest in Marine Fisheries

Harvesting Operations	1.025 million
Post Harvest Employment	1.200 million
Employment Potential	
Harvest	1 Man day / 5 kg. fish
Post Harvest	1 Man day / 5 kg. fish
Active Fishing	
Trawl fishing	0.15 million
Gillretters / Purseseine	0.05 million
Motorised Sector	0.17 million
Motorised Canoes and Kattumaran	0.058 million
Non-mechanised Fishing	0.655 million
Kattumaran	0.27 million
Plank built boats	0.20 million
Dug out Canoes	0.145 million

6.7.6 The Support Group has **recommended increase in the annual allocation of the Central scheme 'Inland Aquaculture' from present level of Rs. 27 crore**

per year to Rs. 80 crore per year. It also suggested to change the funding pattern of the scheme from 75:25 ratio to 100% central assistance.

6.7.7 For the Brackish Water Aquaculture the Support Group estimated **an investment of Rs. 4000 crore (at the rate of Rs. 4 lacs per hectare) which would be mainly funded by financial institutions.** Subsidy at existing rate of Rs. 40,000 per hectare will have to be provided by Government from the Plan. The institutional finance required will be on an average Rs. 700 crore per year. The annual plan allocation will have to be around Rs. 80 crore. Further the 75:25 ratio will have to be relaxed in this case also, as the states are unwilling to provide funds for this.

Chapter VII : Employment Opportunities in Food Processing

7.1 Importance of the Sector

7.1.1 The food-processing sector in India has a significant presence in the country's industrial scene. The sector contributed **12.5% share of manufacturing GDP** during 2000-01 at 1993-94 prices and **26.9% of the total employment in manufacturing sector** during 2000-01. The estimate of employment in different food processing sub- sectors is given at Table 7.1 The share of number of **enterprises in food processing sector**, as percentage of total number of enterprises in manufacturing sector is **30%** during 2000-01. Food Processing constitutes a high share of unorganized sector and also has a high rural share.

7.1.2 Expansion of food processing activity in both organized and unorganized sectors would give benefit in two ways.

- Creating new employment opportunities in quantitative terms,
- Improving the quality of employment so that traditional low quality, low income, employment opportunities is gradually replaced by higher income, better quality employment.

Table 7.1: Estimates of Employment for Various Food Processing Industries during 2000-01

Industry	Sector		
	Unorganized	Organized	Total
Slaughtering, preparation and preservation of meat	195022	4272	199294
Manufacture of dairy products	387446	75219	462665
Canning and preservation of fruits and vegetables	73164	26685	99849
Processing, canning and preserving of fish, crustacea and similar foods	101388	23681	125069
Grain milling	2804822	298617	3103439
Manufacture of bakery products	215396	44782	260178
Manufacture and refining of sugar (vacuum pan sugar factories)	84	215252	215336
Production of indigenous sugar 'boora', khandsari' gur, etc. from sugarcane; palm juice etc.	729807	76373	806180
Production of common salt	9698	25949	35647

Manufacture of coca products and sugar confectionary (including sweetmeats)	563194	8935	572129
Manufacture of hydrogenated oils and vanaspati ghee etc.	8431	15112	23543
Manufacture of vegetable oils and fats (other than hydrogenated)	170333	94983	265316
Manufacture of animal oils and fats; manufacture of fish oil	1519	51	1570
Processing and blending of tea including manufacture of instant tea	365	125640	126005
Coffee curing, roasting, grinding and blending etc. including manufacture of instant coffee	14414	5076	19490
Processing of edible nuts	194152	133804	327956
Manufacturing of ice	15796	2364	18160
Manufacture of prepared animal and bird feed	7564	22415	29979
Manufacture of starch	754	7919	8673
Manufacture of food products not elsewhere classified	1450605	45691	1496296
Distilling, rectifying and blending of spirits; ethyl alcohol production from fermented materials	7955	21358	29313
Manufacture of wines	320	3186	3506
Manufacture of malt liquors and malt	105795	11117	116912
Production of country liquor (arrack and today etc.)	247782	5194	252976
Manufacture of soft drinks and syrups	102185	17053	119238
Tobacco stemming, re-drying and all other operations connected with preparing raw leaf tobacco	142895	49947	192842
Manufacture of bidi	2632008	424988	3056996
Manufacture of cigars, cigarettes, cheroots and cigarette tobacco	20579	13223	33802
Manufacture of snuff, zarda, chewing tobacco and other tobacco products n.e.c. (except pan masala containing tobacco)	18055	12668	30723
Manufacture of pan masala, catechu ('kattha') and chewing lime	29269	4211	33480
Total	10250796	1815765	12066561

(Source: Derived by Ministry of Food Processing Industries from CSO, Annual Survey of Industries (ASI) and NSSO 56th Round.)

7.2 Government initiatives to promote growth

Various measures taken by the government to promote growth in food processing industry and initiate modernization in it during the nineties include

- i. **No government permission** is now required for setting up of **rice mills**
- ii. **All food processing industries**, except beer, potable alcohol and wines and reserved items for SSIs have been **exempted from the purview of licensing**.
- iii. **Most food processing industries**, which were hitherto considered as luxury industries have been, **accorded priority industry status**.
- iv. **Automatic approval for foreign investment up to 51 per cent** has been allowed practically in all sectors of food processing except for those that are reserved for small-scale sector and also for which an industrial license is required.
- v. **Fiscal relief provided to a large number of processed food items** by reducing custom duties on various plants and equipment
- vi. **Removal** of the requirement of **specific approvals for labels for every packed food product** is an additional incentive.
- vii. Amendments with regard to the renewal period of **fruit product order (FPO)** licenses have been made. **Instead of annual renewal**, amendments now allow **renewal** for the period ranging from **three to ten years**.

- viii. One major policy change took place is in the form of **de-reservation of items reserved for manufacturing in the small scale sector**. The major items de-reserved were ice-cream, vinegar, rice milling, dal milling, biscuits, poultry feed (except in pellet form) and synthetic syrups etc. However, 6 category of items still remain reserved.

7.3 A measure of the large untapped potential in food processing

- 7.3.1 The total processing of raw material is estimated at 4289.2 lakh tones as against 11174.7 lakh tones of production of raw material produced in the country. The raw material consumption in food processing sector as percentage of total production / availability of these raw materials total in the country is estimated at 38.4 per cent during 1997-98. The raw processing share in organized sector is estimated at 14.5 per cent and in unorganized sector at 23.9 per cent of the total raw material available in the country during 1997-98. There exist large variations in share of various products being processed (Table 7.2).

Table 7.2: Raw material used for processing in Food Processing Sector as percentage of Total Raw Material produced/available (1997-98)

Food Processing sub-sector	Raw material used for processing as percentage of total raw material produced in the country			Estimated raw material processed
	Organized sector	Unorganized sector	Total	Lakh tonnes
Slaughtering, preparation and preservation of meat	22.4	69.1	91.5	6.1
Manufacture of dairy products	9.6	12.3	21.9	157.9
Canning and preservation of fruits and vegetables	0.1	0.9	1.0	11.3
Processing, canning and preserving of fish, crustacea and similar foods	3.7	0.3	4.0	2.2
Grain milling	10.0	72.9	82.9	1486.4
Manufacture of bakery products	1.5	2.6	4.1	73.5
Manufacture and refining of sugar (vacuum pan sugar factories)	44.0	8.9	52.9	1478.6
Production of indigenous sugar 'boora', khandsari' gur, etc. from sugarcane; palm juice etc.	3.4	33.6	37.0	1034.2
Manufacture of vegetable oils and fats (other than hydrogenated)	6.8	30.7	37.5	10.7
Manufacture of vegetable oils and fats (other than hydrogenated)	6.8	36.2	43.0	12.3
Processing and blending of tea including manufacture of instant tea	40.3	56.1	96.4	7.7
Coffee curing, roasting, grinding and blending etc. including manufacture of instant coffee	12.9	7.1	20.0	0.4
Processing of edible nuts	13.7	32.7	46.4	7.0
Manufacture of prepared animal and bird feed	7.3	18.4	25.7	1.3
Weighted average of above	14.4	23.9	38.4	4289.4

(Source: Derived by Ministry of Food Processing Industries from CSO, Annual Survey of Industries (ASI) . Unit-wise data of Annual Survey of Industries and NSSO 56th Round.)

7.3.2 The salient points where high untapped potential can be tapped to create higher incomes and greater self employment are:

- **Fruit & Vegetable Processing:** Share of processed products in the total produce is lowest for the fruit and vegetable products (1.0 per cent in 1997-98). The wastage levels are very high resulting in colossal wastage of national wealth running into thousands of crore.
- **Processing of Fish:** The percentage of fish being processed in quantity terms account for only 4.0 per cent of the total fish produced in the country.
- The processing level is also low in preparation and preservation of meat, crustacea and similar foods, manufacture of dairy products, manufacture of prepared animal and bird feed.
- **Greater value addition to the raw produces:** Value addition in India is only about 7% compared to as much as 23% in China and 45% in the Phillipines.
- **Reducing the difference between the farmer's realization and the final consumer price.**
- **Breaking the vicious cycle of Low demand→Low capacity utilization→ High per unit cost→ Low demand**, by addressing the issue of high price through productivity increases, lower cost of raw material, reduced spoilage with better infrastructure, more efficient transportation, low cost and readily available finance and rationalized taxes and duties.

7.4 Self employment in 'Own Account Manufacturing Enterprises'

7.4.1 Self-employed entrepreneurs run the 'Own Account Manufacturing Enterprises' (OAME). OAME accounts for 89.9 per cent of number of enterprises, 66.1 per cent of employment and 34 per cent of value added of the food-processing sector during 2000-01.

7.4.2 The major **problems that hinder the growth of micro-enterprises** in food processing are:

- **Non-availability of credit** at reasonable interest rates. The access to seed capital and working capital is not easy. Despite having been declared a priority-lending sector, there is hardly any growth in capital flows to this industry.
- **Low margin, as too many intermediaries** eat the profit margin.
- **Seasonality of production**
- **Demand Constraint** due to preference for fresh products and high prices attributed to high cost of production.
- **Inadequate resource and skill to market the product** by small-scale producers, including traditional village industries who dominate the food processing industry
- **Long and Fragmented delivery chain** of finished products
- **Technology constraints:** OAME does not often use the best technology, machinery and management practices.
- **High cost of packaging:** The cost of packaging varies from 20 to 64 per cent of final price of processed product.

7.5 **Structural constraints for private industry and MNCs in food processing**

Large-scale wage employment could be generated through food-processing ventures set up by private industry and multi national corporations. However, there are basic constraints that have to be addressed before this happens. These are:

- **Lack of continuous food chain** starting from farming to food processing to marketing. Two major factors responsible are - **absence of an assured electricity supply** and **poor road connectivity**
- **No effort to create market demand** for the products. Indian brands are yet to establish their names in the international markets.

- Research and Development (R&D): The various R&D institutes such as CSIR, ICMR, ICAR and Universities should intensify research work of commercial importance.
- **Lack** of adequate infrastructure as well as institutional arrangement for **monitoring quality and safety of the products.**
- **Weak database** and lack of marketing intelligence
- **Multiplicity of laws and regulations** related to food processing, which are administered by different ministries. Table 7.3 lists some of the major Acts and the administering ministry and departments.

Table 7.3: Laws & Regulations impacting Food Processing Industry

Administering Ministry / Department	Statute affecting Food Processing
Ministry of Agriculture	Insecticide Act
	Meat Food Products Order, 1973
Ministry of Rural Development	Agricultural Produce (Grading & Marketing) Act, 1937
Ministry of Health & Family Welfare	Prevention of Food Adulteration Act, 1954
Ministry of Food Processing Industries	Fruits & Vegetables Products (Control) Order - FPO, 1955
Ministry of Commerce	Export (Quality Control & Inspections) Act, 1963
Ministry of Civil Supplies, Consumer Affairs & Public Distribution	Standards of Weights & Measures Act
	Standards of Weights & Measures (Enforcement) Act.

7.6 Future growth prospects

- 7.6.1 The Support Group constituted in the Ministry of Food Processing Industries has projected that the industry is likely to continue to grow at 6.5 per cent per annum in value added and 2.5 per cent per annum in employment during the period 2004-05 to 2009-10.
- 7.6.2 At the straight-line growth pattern, **the estimated number of employees in food processing sector are likely to reach 15.5 million (2009-10) from the present level of 12.1 million (2000-01). Similarly the value added will increase from**

Rs. 45286 crore (2000-01) to Rs. 78368 crore (at 2000-01 prices) during 2009-10.

7.6.3 The processing as percentage of total raw material produced in food processing sector has grown from 38.4 per cent in 1997-98 to 38.7 per cent in 2000-01 to 38.9 per cent in 2004-05. It is anticipated that at this rate, it would further grow to 39.1 per cent in 2006-07 and 39.3 per cent in 2009-10 and 39.5 per cent in 2011-12.

7.7 Issues requiring attention

- **Increase the market demand for processed products by reducing costs through rationalization and moderation of taxes.** The taxes that are imposed at various stages are Infrastructure cess, market cess, sales tax, mandi tax, turnover tax, inter-state transfer regulations, etc. on agricultural produces; Excise, income tax and other taxes are levied at the point of conversion; and heavy taxation of packaging material. The various taxes increase the cost of food products and it becomes a food/commodity for the rich, thereby reducing its demand in the domestic market and making them uncompetitive in the international market.
- **The Government has recently announced a tax holiday for the Fruits & Vegetables sector. Excise exemption to this sector already existed. Similar facilities should be offered to other perishable commodities viz. Dairy, Fish, Meat & Poultry sectors.** The matter of reducing costs for cold chains and packaging gets entangled with a matter of end use exemptions as other industries also use similar inputs. Areas where inputs are unique to the Food Processing Sector should be identified and reliefs made available. The revenue foregone shall be of a small order and notional at best given the low level of processing of perishable commodities.
- **Creating a conducive environment for contract farming** with its backward and forward linkages.
- **Creation of post-harvest infrastructure facilities** to reduce the losses

- Setting up a **network of quality testing/certification laboratories across the country will help export**. For example, the marine products could grow by adhering to a very high quality PARK standards for exports to EU, USA and Japan.
- Create an environment, which **supports both private sector and co-operative sector development of post-harvest preservation, quality testing & control labs, silos & warehouses, cold storage facilities, air-conditioned transport and agro-processing**. BOT/BOOT mode could be adopted for high outlay projects including the food park projects. **There is a need to emulate Public-private collaborative projects on the lines of Andhra Pradesh State Warehousing Corporation (APSWC)**, which has pioneered third party warehouse construction to promote private participation
- **Encouragement of foreign investment into food processing:** The Foreign Investment Promotion Board (FIPB) may consider looking into the rules and regulations pertaining to foreign investment, make it more liberal, impart flexibility in sourcing of technology imports and technology transfer may be delinked from equity investment in this sector.
- **Government should focus on R&D, information dissemination, extension & training and development of rural industrial estates** (food parks).
- **Streamlining of Laws:** The multiplicity of Acts of Ministries creates contradictory definitions, which make it difficult to comply with all requirements. These disparate laws should be integrated into a single Food Act, and a single Food Regulatory Authority should be set up to regulate all the health and safety aspects of food processing, handling etc.

7.8 New initiatives suggested by the Support Group

- I. **Special Project Vehicle (SPV) for Agro Processing:** SPV to explore the possibility of covering infrastructure requirements under RIDF. Government may provide necessary budgetary support so that banks are enabled to provide credit to the ultimate borrowers at 200 basis points

below the current PLR level. Further, Capacity building of bankers through awareness creation and training needs to be taken up to ensure proper evaluation and appraisal of project.

- II. **Agro processing Development Bank of India (ADBI)** for funding all activities of the agro-processing industry and supporting infrastructure sectors like marketing, post harvest handling, transportation, storage and export.
- III. **Agro Processing Infrastructure Development Fund (AIDF)** for financing infrastructure for agro processing, with a corpus of Rs. 1000 crore. The corpus could be raised through deposits by commercial banks to the extent of shortfall in their agro-processing financing (10% of priority sector lending proposed in this document) or through a special Line of Credit that may be provided by GOI.
- IV. **Venture Capital** : Venture capital is an ideal form of finance to enable dynamic small enterprises to graduate to newer and sophisticated technologies.
- V. **Market Development Fund**: For creating a market demand of food products, a corpus fund (Rs. 1000 crore) may be created over a seven year period for financing strategic marketing activities, enhancement of efficiency and competitiveness of processed agro products and export promotion.

7.9 Investments Required for the Sector

- 7.9.1 The gross investment is expected to be worth Rs. 52700 crore in organized and unorganized sector (including depreciation, modernization etc.) during 2004-05 to 2009-10. In addition, the likely additional investment worth Rs. 9400 crore is estimated to take place in the form of development of cold chains, linking of

production base, removing market hindrance, and developing horticulture. Thus total investment is estimated to be **Rs. 62100 crore during 2004-05 to 2009-10.**

- 7.9.2 The Support Group also envisaged that further additional investment of Rs. 4600 crore in infrastructure (over and above Rs. 9000 crore) would lead to Rs. 25500 crore of additional investment from private sector in processing sector by creating new opportunities. Thus there would be additional investment of Rs. 30100 crore (including Rs. 4600 in infrastructure) due to improvement in infrastructure facilities. The inducement however depend on tax structure for this area and it has been assumed that reliefs shall be accorded to the perishable sector as a whole, on specific cold chain equipments and specialized inputs to packaging.

Chapter VIII : Skill Development and Technical Support

8.1 Improving Education & Technical Skills for stimulating Self-employment

8.1.1 Level of education is very important in determining the type of activity in which individuals are engaged as well as the earnings accruing to these individuals. **Involvement in self-employment is usually most likely for those with some basic education, but is lower for both the illiterate and those with high levels of education.** Efforts to improve education and technical skill levels in rural areas will be necessary in order to promote self-employment in both farm and non-farm activities.

8.1.2 According to 'Employment Generation Mission' 2000 set up by Government of Andhra Pradesh to study the employment opportunities through wage employment, self-employment and entrepreneurship development, the maximum job seekers are in the category of 'General Educated' (graduates, intermediates and matriculates) (60.4%) followed by 'Skilled' worker (18.4%) and Unskilled and Illiterate' (10.8%). **The major challenge before the country is how to engage the large number of general educated job seekers, as their potential cannot be wasted as daily casual workers in the farm activities. The answer is micro-enterprises.** Majority of the employment has to be created through owner-operated micro-enterprises like small traders/middlemen dealing with vegetables, fruits, fish, egg, milk, household goods, garments and similar types of products. However, apart from capital, **self-employment requires entrepreneurial skill, which is mostly lacking in the prevalent education system in rural areas. Entrepreneurship development has to be taken up in through handholding of new entrepreneurs.**

8.1.3 **Education and skill improvement are also needed for those who are already employed.** The composition of workers of age >15 years by level of education during 1999-2000 are given in Table 8.1

Table 8.1: Composition of workers (age >15 years) by level of education (1999-2000)

Category of Worker	Male		Female	
	Rural	Urban	Rural	Urban
A. Level of Education				
1. Not literate	39.6	16.0	74.0	43.9
2. Literate and schooling upto primary level	27.3	21.9	15.5	17.6
3. With schooling upto middle and higher level	33.1	62.0	10.5	38.5
B. Possession of marketable skill				
1. No Skill	89.9	80.4	93.7	88.8
2. Some skill	10.1	19.6	6.3	11.2
C. Share in work force	49.74	19.72	25.77	4.76

Source: NSS on Employment and Unemployment, 55th Round) and the percentage distribution of persons by possession of marketable skill (NSSO Report No. 409 on Results of 50th round, 1993-94)

8.2 Strengthening the training institutions

8.2.1 The **major hindrance** in imparting technical skill in agriculture and allied activities is the **absence of formal training institutions**. Though there is some infrastructure for acquiring industrial skill through about 4200 Industrial Training Institutes and through formal apprenticeship (under the Apprenticeship Act 1961), the typical method of acquiring skill in agriculture is through hereditary skills acquired in the family and on the job training.

8.2.2 **State agriculture and animal husbandry departments' training institutions are inadequate in quantitative terms and also have serious quality problems**. They have poor infrastructure as most of their funds are going to meet salary expenditure leaving very little for maintenance. **The State institutions are not specially designed for promoting self-employment entrepreneurs who need training of multi-skill variety, going beyond production skills to include marketing, finance and accounting and elementary management.**

8.2.3 Such skills cannot be developed through structured formal training but requires the guidance of 'mentors' in actual business conditions. **The Task Force (2001) mentioned the success of The Bhartiya Yuva Shakti Trust (BYST), an initiative of CII. The Trust fosters entrepreneurial activity by providing seed capital loans and practical business advice through mentors.** About 1700 people have been employed in 500 ventures between 1991-2000 spread over rural and urban areas. However, it is worth noting that the loan recovery rate is 94%, indicating strong economic viability. **Such experiments need to be replicated on a much larger scale.**

8.2.4 Integration of vocational education at the school level is a practical way of imparting basic technical skills to large number of new entrants to the labour force. The Task Force (2001) had observed that instead of a facilitator of 'Training Institution', the government has tended to act as training provider. It had recommended that Government should withdraw from delivery of vocational training services, and foster autonomous professional bodies that can give recognition to training institutes by declaring them as eligible training providers. The Government's role should be one of monitoring the institutions that may be set up, standards of training, and evaluating and assigning rating to the private training establishments. The **present Inter-Ministry Task Group feels** that although the above recommendation is valid for sectors like industry, services (tourism, communication) etc. but **agriculture sector still needs the government funding for running training institutions. However, the non-government organizations could be involved gradually as training provider with financial support from government.**

8.2.5 **ICAR** and State Agricultural Universities have built up a vast pool of technologies that have potential to promote diversification of agriculture and to develop into village based industry for self-employment. The Support Group informed that ICAR institutes are mandated to train the trainers and to a limited extent demonstrate the frontline technologies. However, the Krishi Vigyan Kendras

(KVKs) are presently imparting training on a low scale for self-employment to school dropouts, rural youth, farm men and women. The argument given for such low scale of operation is that the KVKs are meant for assessment and refinement of technologies, technical backstopping and training of extension functionaries of the line departments in the districts. ICAR is only willing to train the trainers. **Thus, there is virtually little scope for involving the ICAR institutions in skill improvement programme of unemployed youth although a substantial amount of developmental fund is being spent to establish KVKs in every district of the country.**

Self-employment oriented technologies available at ICAR	
<ul style="list-style-type: none"> ▪ Land leveling ▪ Nursery raising for fruit crops, vegetables, flowers, ornamental plants and agro-forestry ▪ Tissue culture for high value plants. ▪ Production of high value items like flowers, medicinal and aromatic products ▪ Construction of Green Houses ▪ Hiring of farm machinery ▪ Soil and water quality testing ▪ Dairying ▪ Poultry ▪ Fishery ▪ Sericulture ▪ Raising of goats, sheep and pigs ▪ Raising of rabbits ▪ Production of quality seeds of cereals, pulses, oilseeds, vegetables, and flowers ▪ Sorting, washing, cleaning, grading, waxing and packaging of fruits and vegetable ▪ Extraction of fruit juice and bulk packing ▪ Drying/dehydration of fruits ▪ Cleaning, drying, grading and bagging of food grains and oilseeds ▪ Processing of pulses into value added products and packaging' ▪ Production of fuel from plant based materials ▪ Production of cattle, poultry and fish feed ▪ Extraction of oil from oil bearing materials including non edible oilseeds like ahua, karanj, jatropha etc. oil filtration and bulk packing 	<ul style="list-style-type: none"> ▪ Processing of seeds of fruits vegetables and flowers and their bulk packing ▪ Delinting of cotton, degumming of sunhemp, jute and mesta for fiber ▪ Primary processing of lac and bulk packaging ▪ Refining of honey and consumer packing ▪ production of spice oils and oleoresins from chillies and spices ▪ Production of paper boards from farm residues and by-products ▪ Production of feed pellets (concentrates) for dairy animals, poultry and fishery ▪ Production of feed blocks for dairy animals and other livestock ▪ Processing of cereals into value added products like pearled and flaked millets, puffed and flaked wheat, pressed pulses, and extruded products ▪ Sorting, drying, cleaning and powdering and bulk packaging of herbs as raw materials for cosmetic and medicinal products. ▪ Processing units for confectionery jaggery liquid powdered jaggery and jaggery chocolates ▪ Production of value added products from coconuts, arecanuts and other plantation produces ▪ Production of soy flour, soymilk and soy paneer

- 8.2.6 **The Krishi Vigyan Kendra (KVKs) were established on the recommendation of the Education Commission (1964-66) which suggested the creation of agricultural poly-technics to provide practical education and training to post matriculates.** The basic aim was to improve the technical literacy of the vast majority of the illiterate farmers, farm women, young farmers, school drop-outs and field level extension functionaries. Unlike the Farmers' Training Centers, **the KVKs are multi disciplinary and integrated in their approach in training the farmers and extension workers.** The subjects covered are annual crops, horticulture, animal husbandry and dairying, fisheries, forestry, home economics, post harvest technology etc. **So far 442 KVKs have been established in the country and it has been agreed to open KVK in each district of the country.** While finalizing the KVK design, it was also envisaged that the KVK teachers have to be practical and well versed in the technology as well as training pedagogy. Therefore **10 Trainers' Training Centers (TTCs) were established** at specialized Institutes. The TTCs are training the KVK teachers and the in-service staff of the State Departments of Agriculture, other institutions and agencies.
- 8.2.7 Even the Support Group constituted at Indian Council of Agriculture & Research (ICAR) pointed out that **self-employment opportunities in India can best be created through right mix and integration of technological backstopping, entrepreneurial training, development of infrastructural facilities, availability of and access to low cost credit, marketing facilities and assured marketability of produce/product.**
- 8.2.8 **As such the Inter Ministry Group recommends that the KVKs, wherever functioning in the districts of the country, should play a significant role in skill upgradation of rural youth. The ICAR should go back to the original mandates of KVK (i.e. to work as agricultural polytechnics to provide technical literacy of the vast majority of illiterate framers, farm women,**

young farmers, school drop-outs and field level extension workers) as recommended by the Education Commission (1964-66).

8.3 Increasing the Effectiveness of Training

8.3.1 The various stakeholders in training delivery system (like KVKs, SAUs, Developmental Departments, NGOs etc) should attend **Training of Trainers** (TOT) courses to ensure a uniform and streamlined conduct of training. The TTCs of ICAR should take the responsibility of ensuring a uniform and streamlined conduct of training.

8.3.2 **Activities identified should be viable and be based on a market survey which should focus on identifying the locally produced (unbranded) goods and services which have high demand, and the price of such goods/services.** The activities shortlisted based on the above criteria should be segregated into main and subsidiary occupations based on the seasonality of a trade/service. The main occupations thus identified should normally be taken to design the training programme. **For all selected activities, a cost benefit analysis should also be undertaken to work out at least 2 working models of investment and production, and IRR should be worked out for each to ensure a feasible economic activity.** The Economics Divisions of ICAR and SAUs should take a lead role in this regard.

8.3.3 **An on-job training or apprenticeship should be viewed as part of the training module.**

8.3.4 Most of the present training programme offered by the agriculture universities and ICAR mainly concentrate on the skill development. **Impetus to self-employment requires that Entrepreneurship development must equip poor people with knowledge, self-confidence, decision-making power, diligence and risk taking capacity.** As such training should include:

I. Personality development

- Diligence : no short-cut to success except sustained hard work.
- Knowledge: Information about government programmes and facilities available for bank loans etc. and the procedure for seeking assistance.
- Self-confidence: through full awareness of the procedures and about the authorities to be approached in the times of various needs.
- Decision Making: Knowledge about various alternatives available and the concept of understanding economic viability.
- Risk Taking Capacity:

II. Management Concepts:

- Concept of economic viability: minimum production per unit time required for sustainable incomes.
- Elements of book-keeping
- Supervisory abilities
- Product costing
- Marketing; and
- Communication skills

8.3.5 The selected potential trainees should preferably be a member of self-help group which would ensure some kind of credit assurance and common marketing avenue. The training course itself should promote group-based working, group accounting procedures, group based marketing strategies, etc. other than promoting individual control of accounts and production. Based on homogeneity of activity, there could be more than one such SHG in a location over time.

8.4 Using new technologies for self employment: Micropropagation

8.4.1 Planting material in horticultural crops like banana and several ornamental crops is in perpetual demand and can be met economically

if women launched micro-propagation as a cottage industry. The national requirement for planting material of vegetatively multiplied seasonal crop species (sugarcane, potato, banana, ginger, turmeric, sweet potato, tapioca, garlic etc.) is estimated to be annually Rs. 3000 crores. As against traditional low rates of multiplication obtained using conventional technologies, it is possible to raise thousands of propagules from a single starter culture in a year's time using the newer technologies.

8.4.2 Several ornamental crops have been micro-propagated successfully at the cottage industry level as demonstrated by housewives in Kerala with orchids and anthuriums. An all-woman organization in Kerala, 'Nattika Vanitha Pushpa Krishi Samrakshana Samithi', Thrissur, is engaged in production of orchids and other ornamental annuals through tissue culture. This example can serve as a shining beacon for women entrepreneurs intending to embark on a similar enterprise.

8.4.3 Commercial tissue culture laboratories in India are into production of banana microplants in a big way but the cost of production is prohibitive. Besides, these laboratories are located mainly in the cities and transportation to the end-users' farm adds to the cost of this perishable product. **If a District-level or Taluq-level machinery could be evolved involving women entrepreneurs with low-cost inputs, the above constraints can be overcome and planting material can be supplied at cheaper rates, and result in income generation for the urban/peri-urban/semi-rural and rural women through gainful employment.**

8.4.4 Considering the vast potential of this business to generate self-employment in rural areas, the ARTI, Pune has established a training-cum-production facility comprising a low-cost tissue culture laboratory and a nursery. The hardware cost of the tissue culture laboratory, producing about 20,000 to 50,000 plantlets per annum, would be only about Rs. 2 to 2.5 lakh. The major cost-saving is achieved by using air coolers instead of air conditioners, pressure cookers instead of autoclaves and ordinary jam jars instead of "Pyrex" or "Borosil" ware. Also the running cost is drastically

reduced by using rainwater instead of distilled water, and commercial grade sugar instead of Analar Grade sugar. The running cost of such a laboratory comes to hardly Rs. 25,000 per annum. ARTI plans to annually train 15 to 20 persons in the procedure of micro-propagation of sugarcane, banana, ginger and turmeric, hardening of the plantlets and secondary multiplication under nursery/field conditions. The facility would be operated as a commercial unit so that the trainees get exposure to the commercial aspect of the technology

8.4.5 A machinery for implementing this has been proposed in a paper by a scientist from Indian Institute of Horticultural Research and is as follows:

Tier I : Laboratory at district headquarters as the hub of the enterprise

- Responsibility of exclusively carrying out *in vitro* operations.
- Housing specialized equipment required for such operations
- Control procedures involving explant collection, treatment, inoculation, incubation, subculture and prehardening

Tier II : Taluq headquarters/town

- receive prehardened plants ready for transplantation
- Primary hardening operations will be carried out (even by illiterate women functionaries)
- Infrastructure required at this level is not as expensive as in Tier I

Tier III: Villages

- Primary hardened Microplants transported to the village for secondary hardening.
- Secondary hardening entails use of huge quantities of good soil, sand and farmyard manure (FYM), which are readily available in rural areas. Skilled/semi-skilled rural women functionaries can operate at this level of the technology.

The same scheme can be operated by an individual or partners on a smaller scale under single roof.

Chapter IX: Investment and Credit

9.1 Review of Rural Credit in India

- 9.1.1 Credit is one of the important inputs in development of agriculture and consequently in employment generation. Timely and adequate credit supply can ensure better use of technology and farm inputs in farming operations.
- 9.1.2 A large number of agencies, including cooperatives, regional rural banks, commercial banks, non-banking financial institutions, self-help groups and a well spread informal credit outlets together represent Indian rural credit delivery system.
- 9.1.3 The credit flow from institutional sources to rural areas improved substantially, since Independence. A quantum jump was observed in the flow of credit to agriculture through institutional sources after the nationalisation of banks. The last All India Debt and Investment Survey conducted in 1991 indicated that the **share of institutional credit in rural indebtedness increased from 7.3% in 1951 to 66.3% in 1991** (Table 9.1).

Table 9.1: Institutional Credit in Rural Indebtedness (1991).

Sources of Credit	1951	1961	1971	1981	1991
A. Non-Institutional	92.7	81.3	68.3	36.8	33.7
(i) Money lenders	69.7	49.2	36.1	16.1	17.5
(ii) Traders	5.5	8.8	8.4	3.2	2.2
(iii) Relatives/Friends	14.2	8.8	13.1	8.7	4.6
(iv) Landlords & others	3.3	14.5	10.7	8.8	6.3
(v) Unspecified	-	-	-	-	3.1
B. Institutional	7.3	18.7	31.7	63.2	66.3
(v) Government, etc.	3.1	15.5	7.1	3.9	5.7
(vi) Cooperative Society / Bank	3.3	2.6	22.0	29.8	23.6
(vii) Comm. Banks, etc.	0.9	0.6	2.4	28.8	35.2
(viii) Others	---	---	0.2	0.7	1.8
Total	100.0	100.0	100.0	100.0	100.0

9.1.4 The total flow of credit during the IX plan period was to the tune of Rs. 2,29,956 crore as against the target of Rs.2,29,750 crore during the period. The credit flow to X plan period has been projected at Rs.7,36,570 crore, with the share of production and investment credit at Rs. 3,59,701 crore and Rs.3,76,869 crore, respectively. As against this, **the credit flow during the first two years of the X plan period has been at Rs. 1,56,541 crore showing a short fall of about Rs. 32,000 crore vis-à-vis the target.** The proportion of production and investment credit in the last five years is given in Table 9.2.

Table 9.2: Production and investment credit in the last five years (1999-00 to 2003-04) (Amount in Rs. crore)

Year	Production Credit	Investment Credit	Total
1999-2000	28,965 (61%)	17303 (39%)	46,268
2000-2001	33,314 (63%)	19513 (37%)	52,827
2001-2002	40,509 (65%)	21536 (35%)	62,045
2002-2003	45,586 (66%)	23974 (34%)	69,560
2003-2004 (Prov.)	54,975 (63%)	32005 (37%)	86,980

9.1.5 Despite a wide network of rural bank branches which implemented specific poverty alleviation programmes seeking creation of self-employment opportunities through bank credit for almost two decades, **a very large number of the poor continue to remain outside the fold of the formal banking system.** A recent Rural Financial Access Survey [RFAS - 2003] conducted by the World Bank and NCAER has revealed that only **19.4 % and 24 % of the rural households accessed credit from the formal sources in the states of Uttar Pradesh and Andhra Pradesh, respectively, as against 44.1 % and 32.6 % of such households depending on non-formal sources in the**

respective states. The access to formal credit by marginal and small size households was extremely low (Table 9.3). This is not a desirable situation.

Table 9.3: Access to formal credit, total and by type of household
(percent of households)

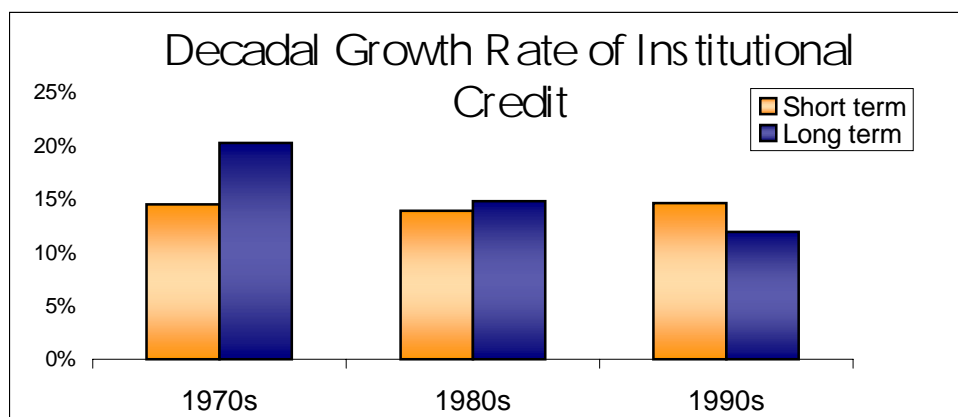
State	Marginal	Small	Medium	Large	Others	Overall
AP	11.8	33.8	41.9	56.3	20.7	24.0
UP	13.5	24.7	30.8	36.1	17.7	19.4

Source: Rural Finance Access Survey - 2003

9.1.6 As on 31 March 2003, as **against the mandate of 10 per cent, the public sector banks had extended credit only to the extent of 6.76 per cent of net bank credit [Rs.32,304 crore] to weaker sections.** The banks have been reporting **declining trends under the weaker section financing** over the last few years in terms of number of borrowers, **which declined from 1.76 crore as on 31 March 2000 to 1.43 crore as on 31 March 2003.** The reasons for these trends could partly be attributed to write-offs made by banks, erstwhile small borrowers migrating to higher loan bracket, increasing coverage of the poor under the SHG-Bank Linkage Programme, etc. Thus, **the disadvantaged sections of the society are increasingly getting sidelined when it comes to access to credit from the commercial banks.**

9.1.7 **However, credit growth in agricultural sector has scope for improvement.** Decadal growth rates of short term credit has not accelerated and has remained at 14% over the 1970s, 80s and 90s. Even this 14% growth actually reflects stagnation because it is due to Inflation and due to Replacement of non-institutional credit. Long term credit growth has decelerated from 20% to 12%.

Source: Handbook of Statistics, RBI, 2002-03



9.2 Impediments to flow of institutional credit to the disadvantaged sections

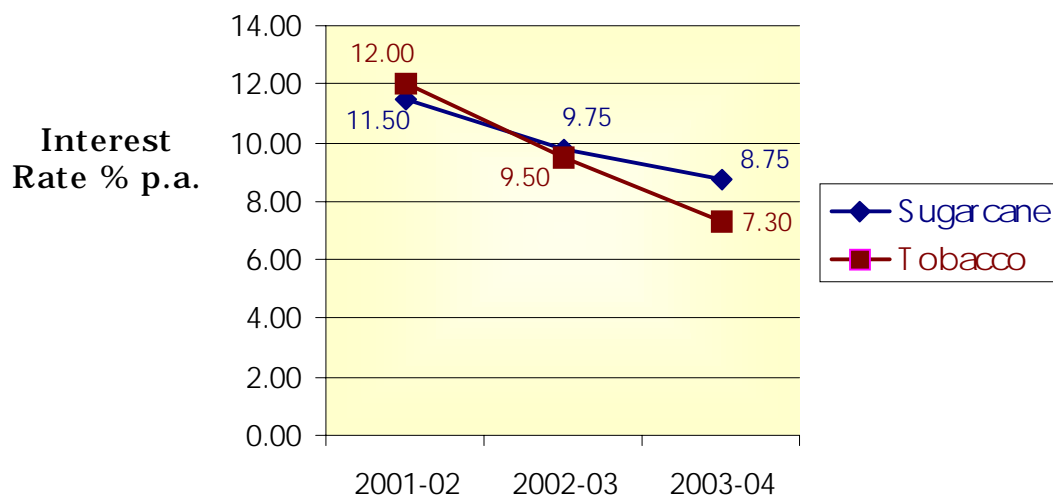
- Higher transaction cost to banks and borrowers,
- Procedures, systems and documentation formalities not being client friendly,
- Inability of borrowers to provide tangible collateral securities
- Distortion of the normal banking principles on account of linking of credit with capital / interest subsidies under various poverty alleviation programmes,
- Announcements of interest / loan waivers vitiating the recovery climate,
- Legal difficulties in foreclosure of loans,
- Non availability of tenancy agreements / updated land records,
- Inadequate risk mitigation mechanism available to small borrowers in the events of failure of their micro-enterprises and to the banks in the event of loan failures, and
- The mindset that banking with the poor is not profitable.

9.3 Risk Management as prerequisite to stimulate credit flow

- 9.3.1 Lending institutions generally have a very high perception of risks in case of agricultural loans. It is imperative to understand the nature of risks that could result in default and identify steps to manage those risks in a manner that addresses the concerns of the lending institutions.
- 9.3.2 Two main types of risks in Agri-lending are Farmer's Risks and Bank's Risks. Farmer's Risks comprises Yield Risk, Weather Risk, and Price Risk. On the other hand Bank's Risks comprise Identification of right client, and availability of effective insurance.
- 9.3.3 In order to cover the revenue risk of the farmers, weather insurance is preferred and easier to implement than crop insurance. **For a weather insurance scheme**

to be put in place there is a need for nation wide micro level weather data. Further, government has to support programme for aggressive promotion of such an insurance scheme. Government may also have to provide subsidy on premiums.

- 9.3.4 **For prudent lending there is need for a Credit Bureau for banker's to rely on.** It is feasible that each customer is given a Unique ID, which could also be based on the National ID if and when it is implemented. The credit history data should be stored in CIBIL pattern to act as a common info pool.



- 9.3.5 **Reduced risks result in reduced lending rates as evidenced in case of lending to sugarcane and tobacco farmers.**

9.4 **Link between Employment creation, Value addition and credit**

- 9.4.1 Low Value addition in agriculture leads to low credit demand. Self-employment in agriculture would not be possible without value addition. **Hence there is a need to reorient the farmer centric definition of agriculture lending towards the whole agri- value chain.**

9.4.2 The definition of agricultural lending must be broadened to include processing units as Sugar & Sugarcane factory; Paddy & Rice Mill and cotton & Ginner are inseparable and symbiotic. **As such Direct Agri-lending of banks should include financing primary value addition facilities including fruits/vegetable processing, ginning, rice milling etc - without any investment limits and lending to farmer through credit Co-operatives and Regional Rural Banks**

9.5 Review of Microfinance in India

9.5.1 Parallel to the mainstream banks, another set of players called **microfinance institutions (MFI) have also emerged in India** to provide microfinance services to the poor, both in rural and urban areas. It is estimated that **about 800 NGO-MFIs are undertaking financial intermediation in India.**

9.5.2 While a few of the MFIs have reached significant scales of outreach, the MFI sector as a whole is still in evolving phase as is reflected in wide debates ranging around

- Desirability of NGOs taking up financial intermediation
- Unproven financial and organizational sustainability of the model,
- High transaction costs leading to higher rates of interest being charged to the poor clients,
- Absence of commonly agreed performance, accounting and governance standards,
- Heavy expectations of low cost funds, including equity and the start up costs, etc.

9.5.3 The silver lining in the rural credit is the **emergence of NABARD led SHG-Bank Linkage Programme in the rural areas, with credit linkage of over 10 lakh SHGs involving 1.50 crore rural poor families by 31 March 2004, as the largest and fastest growing Micro-Finance programme of the world.** Similarly, the Micro-Finance initiatives of SIDBI and Rashtriya Mahila Kosh have

also been showing positive results in providing access to Micro-Financial services to the poor through different models of credit delivery. The SHG-Bank Linkage Programme, which was evolved by NABARD to meet the needs of disadvantaged sections of the rural society in relation to their access to financial services from the banking system, has met with significant success in southern states and states like Orissa, West Bengal, UP and Rajasthan. The experience of banks, NGOs and the poor has been excellent with nearly 95 % repayments of loans. The SHG-Bank Linkage Programme has helped in credit delivery even to some landless tenants and is also found to be working well even in the areas affected by militancy. This shows that **the poor need better access to timely financial services at affordable costs, rather than subsidized credit.**

9.5.4 However, **field problems related to SHG finance**, as mentioned below, need to be addressed by banks urgently, to make access to financial services hassle-free

- Delays / refusal to open savings bank accounts of SHGs
- Large number of visits required to be paid to branches for credit access
- Inadequate credit support being extended by banks,
- Delays in renewal of credit limits,
- Impounding of savings of the SHGs as collateral of loans.

9.6 NABARD's projections on Credit Disbursal

Keeping in view the Government of India announcement that the credit flow to agriculture and allied sectors would double in the next three years, NABARD has made broad sector-wise projection for credit disbursal for the last three years of the X Plan, based on past trends and the projected growth rate indicated by GOI (Table 9.4)

Table 9.4: NABARD's Projections for credit disbursement for the last three years of the X Plan (Amt. Rs. crore)

Year	Production Credit	Investment Credit	Total
2004-2005	68,250	36,750	105,000
2005-2006	88,725	47,775	136,500
2006-2007	115,340	62,110	177,450

9.7 Linkage of Investment Credit and Employment Generation

NABARD has also done an exercise to project the employment generation based on Investment Credit part of Ground Level Credit (GLC) as shown in Table 9.5. Although, the basic assumption that the estimated GLC in all the 8 sectors will grow at the rate of 30 percent in the coming three years may not be realistic, but it gives a broad idea about the linkage of investment credit and employment generation in different sectors.

Table. 9.5: NABARD's Estimates of recurring Employment Generation for the Projected Ground Level Investment Credit during 2004-05 to 2006-07

Sector	Employment Ratio	Credit Flow			Employment Potential for Bank Loan		
		2004-05	2005-06	2006-07	2004-05	2005-06	2006-07
	Mandays / year / Re 1 invested	Rs. Crores			Lakh Mandays / Year		
Minor Irrigation	0.00294	4200	5460	7100	1235	1525	1884
Land Development	0.00233	1050	1365	1775	245	302	373
Farm Mechanisation	0.00170	7350	9555	12420	1250	1543	1906
Plantation & Horticulture	0.00302	3150	4095	5325	951	1175	1451
Dairy, Poultry, SGP	0.00675	5250	6825	8870	3544	4377	5403
Fisheries	0.00181	1050	1365	1775	190	235	290
Hightech Agriculture	0.00147	5250	6825	8870	772	953	1177
Others	0.00732	9450	12285	15975	6917	8543	10554
Total		36750	47775	62110	15103	18652	23038

9.8 Observations / Suggestions of Inter ministerial Group

- 9.8.1 The Inter-Ministry Task Force recognized the need of easily available credit for promoting entrepreneurship among the unemployed people.
- 9.8.2 In view of the fact that the target for lending to agriculture (18 per cent of the net bank credit) has not been achieved by most of the public sector and private sector banks, the amount of credit flow projected (based on 30% annual growth rate) by NABARD in different sectors (Table 9.5) could be considered as the maximum limit of total credit absorption in the respective sector.

9.8.3 Though accessibility is more important than the interest rate charged, it would be of great help to the small borrowers, if the financial institutions **keep the interest on small loans reasonably low**. An example of low interest loan is the scheme 'Dairy and Poultry Venture Capital Fund' formulated by the Department of Animal Husbandry & Dairying in collaboration with NABARD in the Tenth Plan. The

'Dairy and Poultry Venture Capital Fund' Scheme

This is an example of low interest scheme worth emulating. **The main characteristics of the scheme are:**

- Credit at minimum rate
- No cash subsidy to entrepreneur
- Risk shared by Animal Husbandry Department & the lending FIs
- Incentive to the entrepreneur for timely repayment.

The pattern of assistance is as follows:

- | | |
|------------------------------------------------------------------|-----|
| (a) Entrepreneur's contribution | 10% |
| (b) Loan from revolving fund at 'Zero' interest | 50% |
| (c) Bank loan at interest applicable for agricultural activities | 40% |

The interest component applicable for agricultural activities will also be subsidized by Government of India to the extent of 50% only in case of regular/timely repayment by the beneficiary.

The mechanisms of releasing fund are given below:

- a) 50% of the total approved cost to be released by NABARD, on project approval, from the revolving fund set up at NABARD as GOI contribution.
- b) Balance 40% to be disbursed in suitable installments by the financier bank as sanctioned loan.

Method of Loan Recovery

- (i) The bank will open two accounts viz. Loan A/c and Revolving fund A/c and recover the amount in accordance with the repayment schedule.
- (ii) The repayment schedule will be finalized on the presumption that timely and regular installments will be paid by the borrower. In case of delayed/irregular payment, the monthly installments for that month will be calculated in such a way that no interest subsidy will be given to the borrower resulting in higher payment/recovery. Repayment in time shall be applicable to the total quantum of loan and not to repayment installments fixed.
- (iii) The amount thus recovered will be credited proportionately to the respective accounts.
- (iv) NABARD will utilize the recovered portion of Revolving fund A/c for future

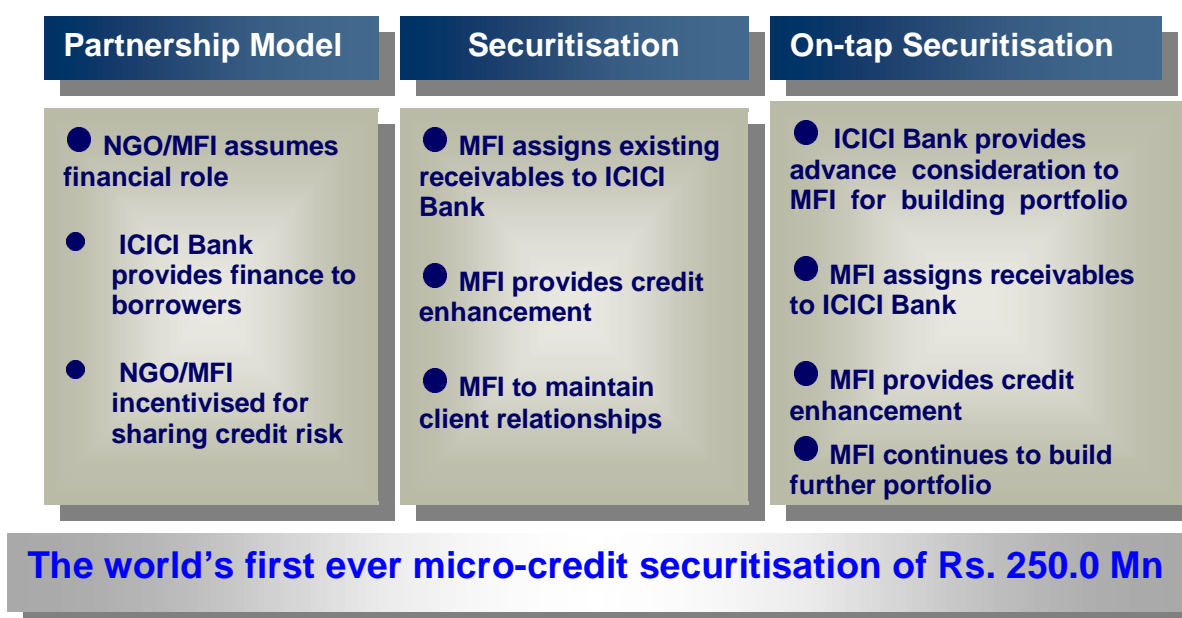
financial structure of the scheme could be replicated in other sub-sectors activities. **It is recommended that based on the above scheme NABARD**

may formulate 'Venture Capital Fund for the Micro-entrepreneur in the Agriculture, Forestry and Food Processing Sector. A revolving fund of Rs. 2500 crore can be created in five years @ Rs. 500 crore per year.

- 9.8.4 For the poor, the dividing line between production and consumption needs is very thin. In the absence of access to short term consumption loans, the productive investments are impaired. It is important to provide the small borrowers with a credit mechanism to fall back on for meeting their emergent and consumption needs. **It is therefore recommended that financial institutions may provide a separate flexible revolving credit limit to the small borrowers of production or investment loans for meeting their temporary shortfalls in family cash flow.**
- 9.8.5 **In order to remove the general lack of information among the clients about the procedures followed by banks as one of the reasons for the poor to shy away from the formal institutions, it is recommended that banks may adopt mechanisms to reduce such information gap – like inclusion on applications for different loan products, of a comprehensive check-list of documents / information to be furnished as also the procedural requirements to be complied with for availing of loans.**
- 9.8.6 Availability of individual volunteers, farmers' clubs or NGOs / SHGs as 'direct selling agents' in every village would go a long way in bridging the information gap. **It is recommended that banks may explore the possibilities of externalising loan appraisal and monitoring functions of the bank branches using such facilitators as business partners.**
- 9.8.7 **The banks need to gear up their rural branches for facilitating bank linkages of SHGs in states where the programme has not shown satisfactory progress.** Further, to give focussed attention to this successfully growing business segment, **all banks may set up adequately staffed**

Microfinance Cells at central offices and also in each state. Some of the banks have already earmarked officials to work in 'Microfinance cells'. Securitisation of microfinance portfolios of partnering Micro finance institutions could be an effective method of delivery of agricultural loans by commercial banks as depicted for ICICI Bank below:

Support to Microfinance: The ICICI Model



9.8.8 **The regulatory and supervisory framework in the micro-finance sector has to be strengthened.** This is all the more necessary because savings is an important financial service that needs to be provided by the MFI to its clients, and may be even to others who live in the operational area of the MFI, and unless certain minimum precautions are taken, these savings can always be at risk.

9.8.9 The **credit facility should be linked with training programmes** for skill improvement under the training organizations like KVKs, SAUs, NGOs and departmental training institutions.

9.9 Investment in agriculture

9.9.1 Investment in agriculture is important from viewpoint of providing self-employment and wage employment opportunities in two ways. One increased agricultural activity could absorb some labour force. More importantly, investment in agriculture will lead to higher rural incomes and consequently will drive the demand for locally produced goods, creating greater self employment opportunities in SME , HBE and Allied sectors.

9.9.2 One of the contributory factors for the low agriculture growth is the decline in capital formation in Agriculture (Table 9.6). The declining share of public sector investments in agriculture has been cited as the reason for the reduction in Gross Capital Formation (GCF) in agriculture. The public sector investment in GCF in agriculture declined in absolute terms from Rs.4,467 crore in 1993-94 to Rs.3,919 crore in 2000-01 and then recorded an increase to Rs.4,538 crore by the end of 2002-03. There is hardly any growth in public sector investment in agriculture during the last 10 years. The private sector contribution to GCF in agriculture registered a steady growth over these years from Rs.9,056 crore to Rs.14,119 crore. This reflected the decline in the relative share of public investment from 33% in 1993-94 to 24.3% in 2002-03 and increase in the share of private sector from 67.0% to 75.5%. **The overall investment in agriculture declined from a level of 1.6% of GDP in 1993-94 to 1.3% in the year 2002-07. The Task Force (2001)** also noted that private investment in agriculture has been rising but the trend is offset by decline in public investment so that total investment in agriculture has increased at only a modest rate.

Table 9.6 The Gross Capital Formation in Agriculture at 1993-94 prices
(Amount in Rs. crore)

Year	Public Investment		Private Investment		Total Investment	Total Investment as % of GDP
1993-94	4,467	33.0%	9,056	67.0%	13,523	1.6
1994-95	4,947	33.0%	10,022	67.0%	14,969	1.6
1995-96	4,849	30.1%	10,841	69.1%	15,690	1.6

1996-97	4,668	28.9%	11,508	71.1%	16,176	1.5
1997-98	3,979	25.0%	11,963	75.0%	15,942	1.4
1998-99	3,870	26.0%	11,025	74.0%	14,895	1.3
1999-2000	4,222	24.4%	13,082	75.6%	17,304	1.4
2000-01	3,919	23.5%	12,768	76.5%	16,687	1.3
2001-02	4,127	23.8%	13,201	76.2%	17,328	1.3
2002-03*	4,538	24.3%	14,119	75.7%	18,657	1.3

* Quick estimate

Source: Economic Survey 2003-04

9.9.3 Accelerated growth in agriculture in future would require a substantial increase in public investment in agriculture related infrastructure such as irrigation and drainage, land development, water conservation, development of rural road connectivity etc. Such investments are especially needed in the poorer, low rainfall areas of the country, which must now play a larger role in achieving rapid agricultural growth since productivity levels in green revolution areas appear to have plateaued.

9.10 Investment issues related to State Governments

9.10.1 Public investment in agriculture is the responsibility of state governments. It must be emphasised that there are many public investment issues in agriculture that fall in the purview of State Governments. Much depends upon the political commitment at the top to bring about these changes, which are bound to be resisted by vested interests.

9.10.2 State government's investment in agriculture is severely constrained by the fiscal problems of state governments. Resolution of these problems is therefore critical for accelerating agricultural growth. Apart from a general **improvement in fiscal performance**, there is need for **restructuring the existing allocation of resources to agriculture by reducing implicit subsidies** in this area and utilizing the savings thus achieved to increase public investment. Moreover subsidy induced distortions like excessive use of urea due

to excessive subsidization of nitrogen compared with potash and phosphates, need to be addressed.

9.10.3 Undercharging farmers for power and for irrigation in practice only leads to the power and irrigation systems being starved of resources, resulting in poor maintenance of existing assets and an inability to invest to expand the system, both of which reduce agricultural productivity. **As such it is recommended that user charges for power and irrigation need a review, for strengthening the long-term investment in agriculture. A national consensus should be developed on this issue. Any central assistance to States should be made contingent to reforms in this direction.**

9.10.4 Poor design of public investment in rural areas is also a serious problem. Many rural development programmes are of a “top down” variety, with little participation by the beneficiaries. The effectiveness of public investments in rural areas in improving productivity can be greatly increased if there is effective participation which requires genuine decentralisation and empowerment of panchayats and zila parishads.

9.10.5 The tendency to start new irrigation projects when existing projects are underfunded, leads to a thin spread of available resources, with consequent loss of efficiency. Better prioritization of expenditure to focus on completing ongoing projects is urgently needed.

9.11 NABARD's role in Capital formation

9.11.1 **Refinance** from NABARD for supporting investments in agriculture has played a significant part in enhancing the level of capital formation in agriculture through private sector participation. The amount of refinance provided under major investment purposes in agriculture is given in Table 9.7.

Table 9.7: Refinance provided by NABARD for major investment purposes

Activity	Amount of Refinance (Rs. Crores)				No. of units benefited
	2001-02	2002-03	2003-04	Cumulative since inception	Cumulative since inception
Minor Irrigation	691.06	854.97	651,045	13,194.8	74.53 lakh MI structures/ equipments
Land Development	134.62	250.69	185.56	1,308.56	30.73 lakh ha.
Farm Mechanisation	1,358.89	992.6	827.51	15,366.22	20.72 lakh units
Plantation & Horticulture	280.34	292.03	250.75	3,067.51	19.79 lakh ha.
Cold Storage /Onion godowns	82.49	6.52	21.80	188.97	807 units
Rural godowns	-	177.32	32.88	210.20	2806 units

9.11.2 **Rural Infrastructure Development Fund (RIDF)** was established in 1995-96 by the center as a way to support the states in the rural, especially agricultural, capital forming investments, without the center having to fund the same. The RIDF is an off-budget arrangement to fund the state governments' capital formation activities in the rural infrastructure sector. RIDF was set up because the commercial banks, as a whole, could not meet their directed targets of lending to the agricultural sector. The loans under RIDF are operated by NABARD at concessional rates and are given on the basis of state guarantees, to state departments, local bodies and others. The center announces the corpus for this lending. The actual fund flow is from banks that are allowed to park funds with NABARD in lieu of their lending to agriculture. Since inception, investments worth Rs.34,678 crore have been sanctioned for creating basic rural infrastructure in different states. As on 31 March 2004, investments worth Rs.21,067 crore have been grounded. Investments and benefits through RIDF in major activities till 31.03.2004 are given in Table 9.8 below. Besides the activities shown in table, loan is also sanctioned for other activities like watershed

development, flood protection, market yard/godown, cold storage, fisheries, forest development etc.

Table 9.8: Status of RIDF Investments by NABARD

Activity supported	Cumulative Investment (Rs. crore)		Benefits accrued
	Sanctioned	Disbursed as on 31.3.2004	
Irrigation	12,288.79	7,234.55	85.52 lakh ha
Roads	12,034.92	8,135.44	152483 kms
Bridges	4,192.81	2,525.3	295549 metres

9.11.3 State governments have an incentive to participate in the RIDF scheme. They are quite willing to borrow from the RIDF since the rates are lower than what they have to pay in the market. The scheme is also suitable for NABARD which takes little or no risks, and may not really worry about the project and its performance since the money is guaranteed by the state government by means of irrevocable letters of authority (mandate) executed by the state governments and registered with the Reserve Bank of India (RBI) and Time Promissory Notes (TPNs) of the state governments' (Annual Report, 2001-02, NABARD).

9.11.4 The above investments have contributed substantially to employment generation in the rural areas. Due to increased irrigation, recurring employment 44.59 lakh mandays and non-recurring 12095 lakh mandays have been generated. From other than irrigation projects, 14354 lakh mandays of employment have been estimated. Accordingly, NABARD has pointed out that **RIDF has:**

- **High social return and employment generation**
- **Near perfect repayment experience.**

However the ING notes that as most of the states are facing financial crunch, they look forward to cash inflows from new loans, which would more than cover the debt service. State governments have an incentive to

pay back since it is like 'ponzi' finance. But the day the rate of growth of lending falls such that they do not deliver net resources to the state, the incentive to default or delay payments can be high. Hence the present recovery (about 100 per cent) can not be an indication of the soundness of the scheme.

9.11.5 Under RIDF, the marginal return to investments has been very high because loan fund is primarily used to complete projects, which were near completion but awaiting funds. But that does not imply that the scheme as such has significantly improved project implementation. The completion status of projects as on 31.3.2002 is given in Table 9.9. **The IMG notes that the high returns at the margin do not indicate soundness of a scheme. Overall delays and cost overruns even on the part of the project covered by the RIDF have been substantial.**

Table 9.9 : Completion status of Projects as on 31st March 2002

Area	No. of projects sanctioned	No. of projects completed	Per cent of projects completed
Irrigation	85	40	47.1
Medium Irrigation	149	81	54.4
Minor Irrigation	17035	10996	64.5
Rural Roads	12660	9969	78.7
Rural Bridges	2546	2127	83.5
Watersheds Management	192	102	53.1
Flood Protection	120	103	85.8
Market Yard	18	0	0.0
Drainage	132	101	76.5
Others	17	13	76.5
Total	32954	23532	71.4

9.12 Assessment of Investment Requirement for Employment Generation (including self-employment)

The Central Government also makes investment in the agriculture sector through different centrally sponsored schemes. One on the 'Terms of Reference' for the

Support Group constituted in the various ministry/departments is to estimate the likely investment required to implement employment-oriented schemes. **The investment requirement as indicated by the 'Support Groups' and supported by the IMG is presented in Table 9.10**

**Table 9.10 : Investment Requirement for employment generation
(including self-employment)**

Ministry / Department	Period of estimate	Investment (Rs. Crore)	Additional Employment	Remarks
Agriculture (horticulture related activities)	10 years	10979	215 lakh jobs	As mentioned in the proposed project "National Horticulture Mission". No Support Group has been constituted.
Animal Husbandry & Dairying.	5 years	737	3 lakh jobs	Support Group Report
Fishery i) Fresh water ii) Brackish water	3 years 3 years	300 4000	4.5 lakh jobs 3 lakh jobs	Support Group Report
Agro-forestry	3 years	5732	6536 lakh mandays	Support Group Report
National Mission on Bio-Fuel (Phase I)	-	1384	1244 lakh mandays	Proposal of Ministry of Environment and Forest
National Mission on Bamboo Technology & Trade Development	-	2608	86 lakh mandays.	Proposal of Ministry of Environment and Forest for 10 th Plan.
Medicinal Plants	5 years	268.5	220 lakh mandays	Projected by National Medicinal Plan Board
Food Processing	5 years	62100	34 lakh jobs	Support Group Report.

Chapter X: Marketing Support for Self-Employment

10.1 Ensuring Availability of Assured Markets

10.1.1 Historically, the success achieved so far in the Indian agriculture could be attributed to three broad strategies:

- **Green revolution** (rice and wheat production) was the **result of the government driven programmes** to provide subsidized inputs (water, fertilizer, seeds and pesticides) aided by assured marketing support of FCI.
- **White revolution** (milk production) was the **result of government supported cooperative infrastructure** in rural areas for milk procurement at reasonable price.
- High growth rate in **egg production** in the last three decades was the **result of investment by the private sector** and their effort in balancing the demand and supply in the market.

10.1.2 **The Key Success Factor in the strategies for all the three areas was the availability of assured market to farmers. It was ensured that market was not constrained by deficient demand.**

10.1.3 **For promoting self-employment the country needs a fully unified market for all agricultural products.** India is not yet a fully unified market for all agricultural products. There are still several hurdles in the movement of agricultural goods across the country, which discourages private sector (including foreign) investment in bulk handling, stocking, large scale agro-processing and retail chain and so on.

10.1.4 It is also important that self-employed people produce goods and services competitively. In a situation where rural entrepreneurs can be counted in millions, making them competitive is a daunting task. **It is not as much their production**

cost, but the cost of collecting their products and moving them from their farms to cities or ports that is challenging. Liberalization has had beneficial effects in industry but it has bypassed agriculture, which continues to suffer from innumerable controls, which hamper realization of potential efficiency.

10.2 Need for marketing infrastructure & market reforms

10.2.1 Good marketing infrastructure facilities are crucial for increasing realization of the growers, as they lead to reduction in marketing costs and improve price discovery. Proper marketing infrastructure has a positive effect on income distribution, enabling access of small farmers to markets. Moreover, a well planned marketing system will be required to handle increasingly large volumes of agricultural commodities in future. A projection of the marketable surplus is given in Table 10.1 below.

Table 10.1: Projections of Marketable Surplus (million tonnes)

Commodity	Production		Marketable Surplus	
	2001-02	2011-12	2001-02	2011-12
Foodgrains	213	321	110	166
Oilseeds	21	46	16	37
Sugarcane	297	433	276	402
Cotton	1.7	3.2	1.7	3.2
Fruits & Vegetables	132	300	116	265
Total	665	1100	520	870
	Increase in Production	+435 Million Tonnes	Increase in Marketable Surplus	+350 Million Tonnes

10.2.2 The state of market infrastructure in India is summarized below:

- Primary Grading/ Collection centers - Non Existent
- Storage – Inadequate

- Cold Chain - Non existent
- Quality Certification System - Non existent
- Transportation for Perishables - Non Existent
- Rural Markets - Complete lack of Infrastructure
- Wholesale markets - in Government control, lack modern facilities
- Private / Direct markets - Not permitted

10.2.3 The domestic market scenario for agriculture sector comprises of organized marketing through a network of markets regulated under the APMC Act. The entire geographical area is divided as 'market area' wherein the markets are managed by committees that are governed by APMC Act. Out of the 7310 wholesale markets in the country, 7161 are covered under **APMC Regulation**. **The restrictive regulation of markets have led to the following undesirable consequences that hinder the growth and by implication the self employment opportunities in this sector:**

- **No option to the producer to sell his produce**, as private sector can not set up 'market' for agricultural commodities
- **Multiple intermediaries and high value loss.** (see figures below)
- **Preventing companies from directly sourcing from farmers and therefore from entering into bulk marketing operations.**
- **Major disincentive for private sector investment**-despite subsidies
- **Fragmented industry**, with no large organized players. Less than 2% of fruits/ vegetables production processed.
- **Income generated by regulated markets is not being ploughed back** for infrastructure or market development.
- **Post-harvest losses** estimated at 10% of food grain and 25% of fruits and vegetables production.

10.3 Agricultural Marketing: The Road Ahead

10.3.1 The critical components of marketing support to increase self-employment in Agriculture sector include the following:

- Reform in agricultural markets for integrating producers with market.
- Targeted investments and professional skills for creation and management of value chain.
- Permit legal space for private and cooperative sectors in market development.

10.3.2 **Reform initiatives have already been taken. Model APMC Act has been formulated by Ministry of Agriculture in order that States may adopt desired reforms in their agricultural marketing set up.** The objective of the model Act is to :

- Promote competitive agricultural markets in private and cooperative sector
- Encourage direct marketing and contract farming programs
- Facilitate procurement of agricultural commodities directly from farmer's fields.
- Establish effective linkages between farm production and retail chain

10.3.3 In order to convince the States to enact model provisions, a National Conference on Marketing Reforms was held at Delhi on 7.1.2004 and at Bangalore on 19.11.2004. States are generally agreeable to amend the APMC Act. The States that initiated partial or complete amendment are Karnataka, Madhya Pradesh, Maharashtra, Punjab, Haryana, Uttar Pradesh, Andhra Pradesh, Gujarat and Orissa. All States have been requested to expedite legislative amendment to APMC Act within 2-3 months. **It is recommended that the process of enacting the model agricultural marketing law should be completed immediately by pursuing the State Governments.**

10.3.4 **Scheme on Market Infrastructure, Grading and Standardization has been launched on October 20, 2004. The scheme is designed to attract large scale investment in market infrastructure and value chain projects. It will be**

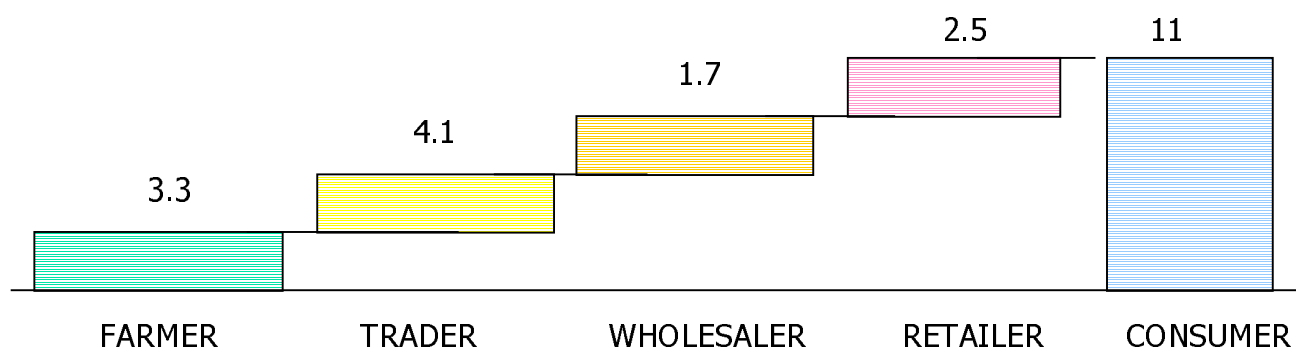
implemented in States that amend the APMC Act, allowing 'direct marketing', 'contract farming' and competitive markets in private and cooperative sectors. Under the scheme States will also provide support in allocation of suitable land to set up Markets and accord fast approval from local authorities. The Central outlay during Tenth Plan for this scheme will be Rs.190 crore. Under the scheme the following physical targets have been set for X Plan period

Items	Physical	Amount
Wholesale markets (Rs. 2 crs each)	561	1122
Rural Markets (Rs. 40 lakhs each)	6984	2793
Grading Centers (Rs. 20 lakh each)	50	10
Total		3925

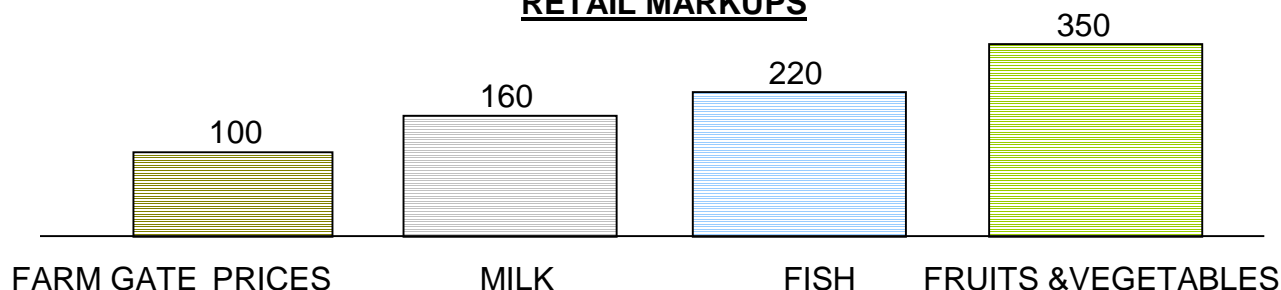
10.3.5 ~~Due to inadequate markets, a major portion of the value is captured by middlemen.~~ Moreover the demand for agricultural goods is also affected by

higher prices due to higher markups. A remedy of this situation, through market reforms and market infrastructure, can help boost both farmer's incomes as well as growth of self-employment opportunities.

COST BUILD UP FOR ONE Kg. OF AVERAGE BASKET OF FRUIT



RETAIL MARKUPS



10.4 Direct Marketing: Terminal Markets

10.4.1 **To remedy the above situation, terminal markets should be set up for fruits & vegetables for all major cities.** Terminal Market is a key component in an integrated/ comprehensive plan for marketing of horticultural produce such as fruits and vegetables to meet the consumption needs of important cities. The concept is developed on the lines of NDDDB's Terminal market for Bangalore City. The terminal markets should include modern post harvest management and marketing infrastructure including:

- **Cold Storage:** A commercial multi chamber/ multi product Cold Storage for a variety of fruits and vegetables, within the Terminal Market premises for use by the traders, the management / the operating company and other interested parties. **Attached to the Cold Storage would be a facility to handle, grade and pack fruits and vegetables.**
- **Processing unit:** Available rejects and low grade fruits & vegetables not considered suitable for fresh sale, and quality material that is available at competitive rates during peak harvest season is processed. The processing unit would be flexible enough to process a variety of produce. Transport logistic support system in terms of refrigerated trucks /insulated trucks or other means of transportation would be made available for efficient and speedy delivery in and out of the market as required.
- **Electronic auction center:** The Terminal Market has a central auction facility wherein a large number of buyers can participate. Graded produce is to be auctioned at a single time with all buyers competing for lots of each grade. **The Market should operate outside the purview of the Agricultural Produce Marketing Act and be owned by a registered company led by Private Investors or Company with part ownership by Farmers Association, Wholesalers and Retail Trade Associations.** The terminal

Market should be professionally managed, self-financed with income generated by service charges levied on growers/ buyers and rentals/ fees for use of facilities. Volume and price information should be rapidly and widely disseminated backward to Farmers' Associations as well as forward to Retailers and Consumers.

10.4.2 **Backward and Forward Linkages:** The terminal market is planned with both backward linkages, for supply of produce and forward linkages for marketing. The key backward linkage includes **Collection Centers** and the key forward linkage includes the **Wholesalers Distribution Centers, Cash and Carry Counters and Retail Store network. The backward and forward linkages would be owned and operated jointly by private entrepreneurs, farmers associations, farmer co-operatives or private individuals.** Infrastructure at collection centers would be set up by farmers/ producers from respective areas, with or without financial involvement from traders, management of Terminal Market and the Government. Similarly Cash and Carry Counter, Distribution Center and Retail stores will be set up by private entrepreneurs and or farmers associations or public sector.

10.4.3 **State Governments should provide support by:**

- Liberalizing existing APMC rules and regulations
- Provide exemptions from levy or cess
- Provide required land for the Terminal Market, as its equity contribution

Government of India should support by:

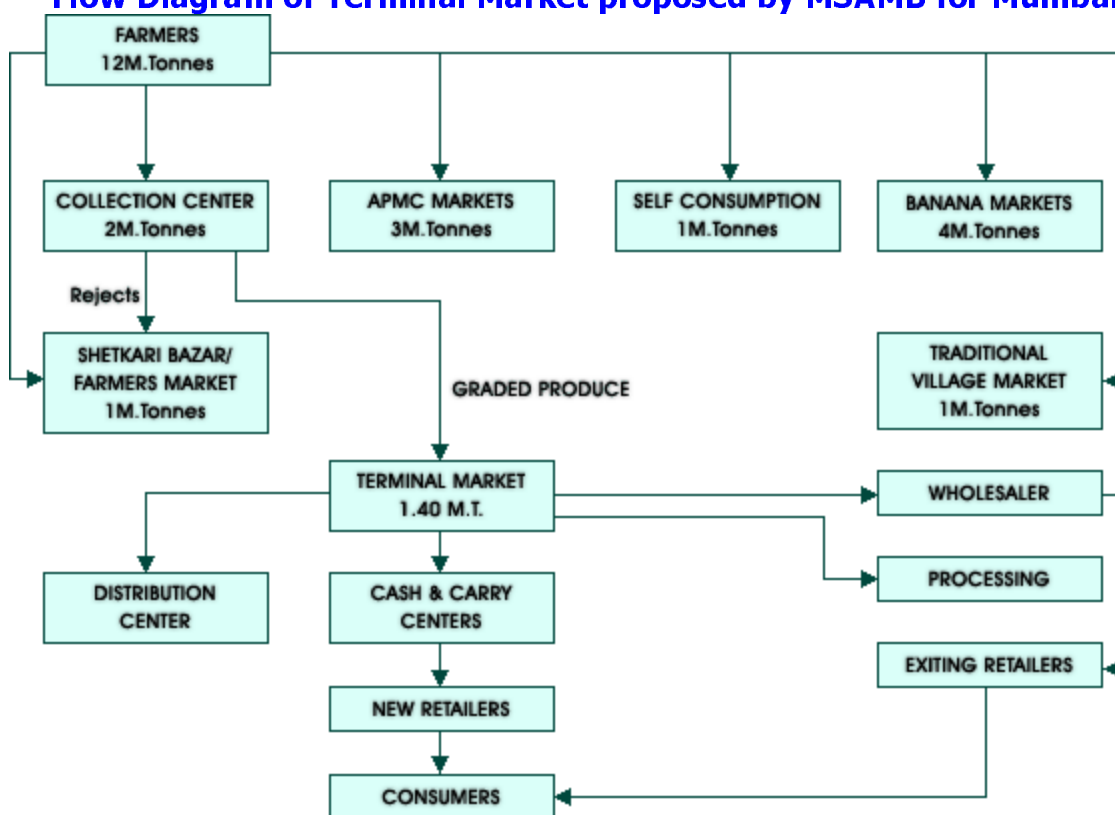
- Providing additional equity support
- Facilitating loans from national/international agencies
- Including financing terminal markets as an item in Priority Sector Lending

10.4.4 **Benefits:** With no service charges, fewer intermediaries, less handling, better and modern infrastructure for handling and processing of perishable horticultural produce, the Terminal Market will ensure better produce quality, better storability and efficient marketing thus benefiting farmers and consumers. The farmers can expect better price realisation for their produce through value addition, significant reductions in spoilage, reduced quality losses and processing activities. In

addition the Terminal Market, will act as a competition and extract better service and efficiency from traditional markets (APMCs) thus contributing to overall improvement in marketing activities in the State.

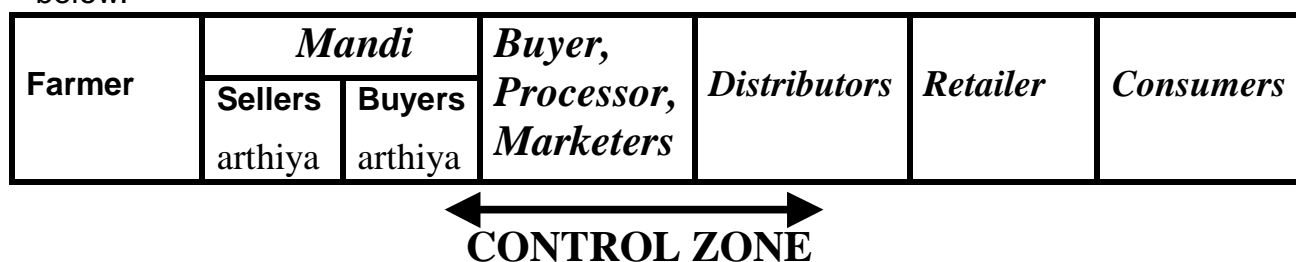
- 10.4.5 **State agricultural marketing Boards should be asked to prepare Detailed Project Reports (DPR), with help of competent external consultancy agency.**

Flow Diagram of Terminal Market proposed by MSAMB for Mumbai

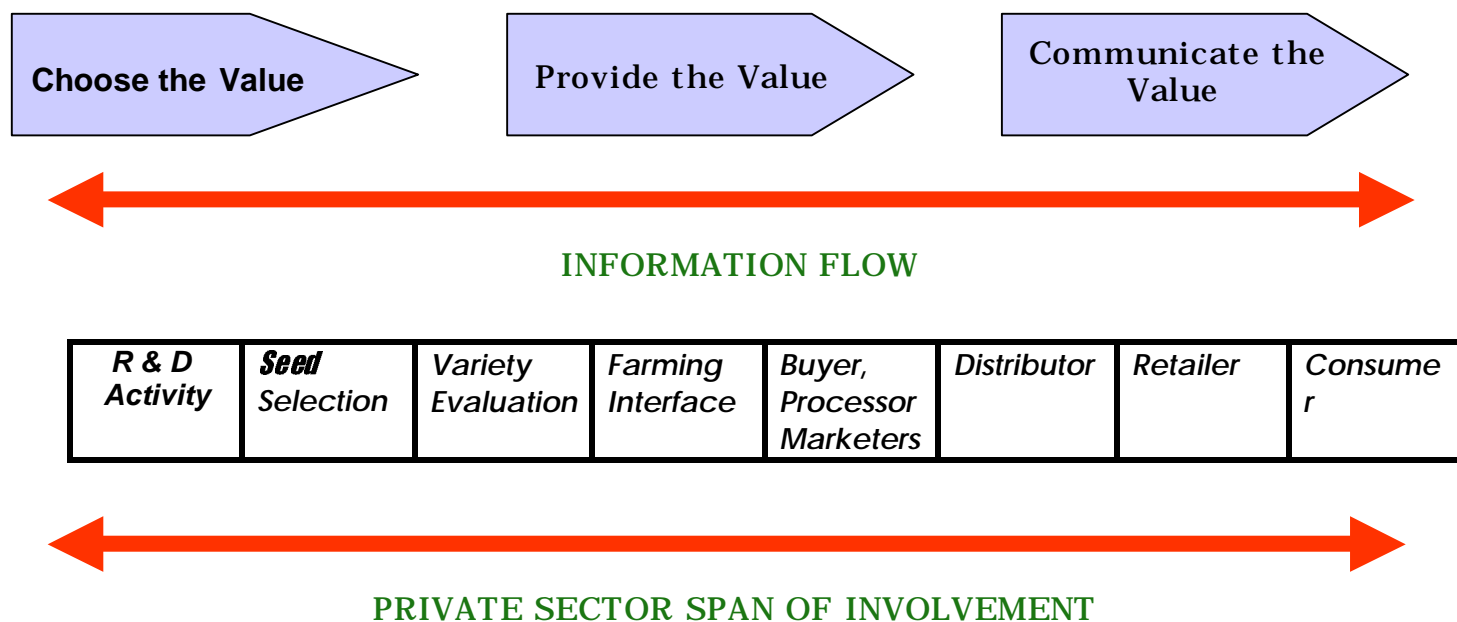


10.5 Redesigning the Supply Chain

- 10.5.1 The model of the supply chain in agriculture as it exists today is represented below:



10.5.2 The sector must move towards a **Value Delivery sequence** wherein there is an integration of the supply chain as represented below:



10.5.3 This will involve **handholding in a partnership mode**, of the farmer by private industry on technology, seeds and other inputs etc. **This integration of the supply chain will be a symbiotic relationship between farmer and industry, thereby enabling infusion of new technology, yield improvements, assured markets, reduced price risks, better and value capture by the farmer in return for assured supply of raw materials to the industry for processing.** The farmer can benefit from the industry's better market intelligence to create value in the supply chain that both partners can share. **The industry / corporate will benefit from regular availability of raw material; maximising period of availability through controlled and phased cultivation & harvesting; delivery of the produce to the factory at a competitive price; reduction in multiple handling and intermediaries; and efficient recovery during processing and ensuring quality standards**

10.6 Private Initiatives in Farmer Partnerships–Case Study: Contract Farming by PepsiCo

10.6.1 For its food processing business, PepsiCo has gone in for Contract Farming. The farmer is contracted to plant the crop on his land, harvest and deliver a quantum of produce based upon anticipated yield and contracted acreage, at a pre agreed price. Towards these ends, key equipments & inputs are supplied to the farmer.

10.6.2 For making its contract farming a success, PepsiCo created farm linkages in partnership with PAU & PAIC; focussed on setting up systems giving priority to efficient growing, procurement & storage systems. The over all approach was to make the farmer a business partner and an active participant. The R&D, Technology Transfer and commercialization building blocks had to be put in place before contract farming could yield any meaningful results. These building blocks are the base for PepsiCo services.



10.7 Virtually integrating the Supply Chain – ITC e-chaupals

10.7.1 Phase I – Eliminate pressure on small farmers to sell at discount to generate liquidity:

- Leverage IT to provide market information at village level - facilitate farmers selling decision.
- Income enhancement through transparent pricing, accurate weighment and quality testing with farmer involvement .



- Move produce directly from farmer to processing plant - eliminate cost and wastage of multiple-handling and middlemen's margin

10.7.2 Phase II – Aggregation of Orders to give bargaining power & better prices to farmers:

- Leverage IT link to provide knowledge transfer- specialist available to answer queries
- Leverage IT for weather data
- Ordering tool for agri inputs
- Virtual outlets from where farmers can procure other products and services

10.7.3 The e-choupal Infrastructure consists of :

- **ICT Kiosk with Internet Access** in the house of one trained farmer, *Sanchalak*- within walking distance of target farmers
- **Warehousing Hub / Store** managed by the erstwhile middleman, *Samyojak* - within tractorable distance of target farmers
- **Collaborative Network of Companies**, orchestrated by ITC, with a Pan-Indian presence

10.7.4 Value proposition of e-choupal for farmer

- **Output side: Value through Unbundling what was bundled together.**
A farmer had to take his produce to the Mandi where information on price and transactions both were bundled. Sunk costs of transport induced selling produce at less than optimum price.
- **Input Side: Value through bundling (information, knowledge, transaction) what was available unbundled earlier.**
- **Relevant & Real-time Information** on commodity prices, local weather, news
- **Customised Knowledge** on Farm Management, Risk Management
- **Supply Chain for Farm Inputs** - screened for quality, demand aggregation for competitive prices & efficient logistics
- **Direct Marketing Channel for Farm Produce** with lower Transaction Costs, Higher Prices because of Traceability

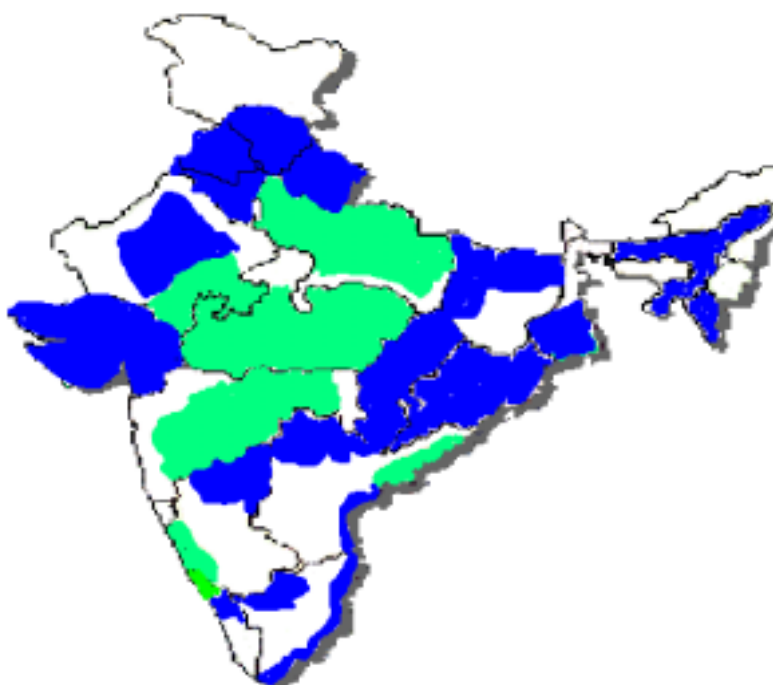
This translates into 10 -15% increase in return, because of market aligned production, higher productivity and better farm-gate prices, reduced transaction costs. It provides small farmers with power of scale, customized knowledge despite heterogeneity, and real time information despite distances.

10.7.5 Value proposition for ITC

- **Better supply chain for ITC's Food & Agri Businesses** resulting in reduced costs (3-4%), better quality, traceability Link,
- **Access to the Underserved Rural Markets** through a Virtuous Cycle created by "Larger Incomes", and founded on "Trust" that is built
- **New ITES Business Opportunities** in Health, Education, Entertainment, e-Governance

10.7.6 Value proposition for other Partners: Cost effective reach of various goods & services to the huge market in rural India, **and** competitiveness, without putting the small farmer at a disadvantage.

- 10.7.7 It has demonstrated that it is possible to create and sustain business models that can enmesh the need for shareholder value creation with the goal of making substantial contribution to society. The model captures latent value in the typically unevolved markets to provide free information services to farmers to make them willing partners in a value web



The E-choupal Network

- 2010: 16 States;
100000 villages
- Current: 6 States;
4400 choupals;
26000 villages

10.8 Supply Chain Solutions for agricultural marketing: Case Study-Banana Supply Chain in Maharashtra

Marketing of perishable commodities like fruits is critically dependent on an end-to-end supply chain design

In case of Bananas in Maharashtra, ICICI Bank has helped support and implement a supply chain solution to marketing of bananas. The elements of the solution are:

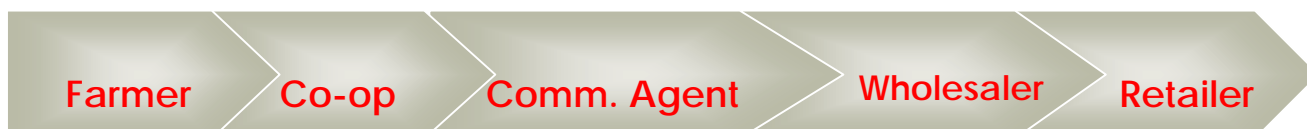
- Setting up collection centres at appropriated locations in producing area
 - 25 centres with 300 Tonne capacity set up at Rs. 2.5 crore each
- Tie-up with a reliable dedicated logistics and marketing partner
- Setting up of ripening chambers at terminal market destinations



- 12 ripening chambers with total capacity of 15000 tonnes at Rs. 20 crores

ICICI Banks role was :

- Promoting corporate participation
- Structured Agrifinancing
- Conceptualization and Implementation of the model



10.9 Government Support for Private initiatives

The following measures could help in strengthening such initiatives of the private sector:

- Tax deductions on investments made in the creation of extension services for participating farmers linked to procurement of output
- Reform in Legislation on agricultural marketing to allow direct purchase from farmers.
- Tax breaks on import of agri equipment to be used in a registered contract farming program
- Make purchase interference by a third party in a contract farming program, a cognisable offence
- Set up a quasi judicial system of contract enforcement
- Single tier regulation for contract farming at the state level
- Contract farming organisations be allowed to take out realistic & deregulated crop insurance policies
- Incentivise Ph.D. Candidates in agri studies to work on contract farming programs
- There should be no requirement to process, grade, value add etc., the produce procured, only in the state, in which it is procured, in order to qualify for any rebates, duties, taxes, exemptions, etc

LIST OF ANNEXURES

Annexure I..... Order setting up the Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in Agriculture, Horticulture, Afforestation, dairying and agro-processing

Annexure II..... Terms of Reference of the Inter-Ministry Task Group

Annexure III.....Minutes of the first meeting of the Inter-Ministry Task Group held on 27th August 2004

Annexure IV..... Minutes of the second meeting of the Inter-Ministry Task Group held on 14th October 2004

Annexure V..... Minutes of the third meeting of the Inter-Ministry Task Group held on 16th November 2004

Annexure VI.....Minutes of the fourth meeting of Inter-Ministry Task Group held on 11th February 2005

No.H-11017/7/2004-PC
Government of India
Planning Commission

Yojana Bhavan, Sansad Marg,
New Delhi, the 4th August, 2004

ORDER

Subject:- Setting up of an Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture Horticulture, afforestation, dairying and agro-processing

In pursuance of the decision taken by the Prime Minister for setting up of Inter Ministry Task Groups to consider action needed for those areas of National Common Minimum Programme where the agenda is cross sectoral and requires action encompassing a number of Ministries/Departments, it has been decided to set up an Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing.

2. The composition of the Task Group is as under:

- | | | | |
|-------|--------------------------------------------------------------|---|----------|
| i) | Secretary, Planning Commission | - | Chairman |
| ii) | Secretary, Department of Agriculture and Cooperation | - | Member |
| iii) | Secretary, Department of Agricultural Research and Education | - | Member |
| iv) | Secretary, Department of Animal Husbandry and Dairying | - | Member |
| v) | Secretary, Ministry of Agro and Rural Industries | - | Member |
| vi) | Secretary, Ministry of Food Processing Industries | - | Member |
| vii) | Secretary, Department of Rural Development | - | Member |
| viii) | Secretary, Department of Science and Technology | - | Member |
| ix) | Officer-in-charge (Banking), Ministry of Finance | - | Member |
| x) | Sectoral Officer-in-charge, Prime Minister's Office | - | Member |
| xi) | Adviser (Agriculture), Planning Commission | - | Convener |

3. The Terms of Reference of the Task Group would be developed in the first meeting of the Task Group by the Group itself keeping in view the objectives and priorities laid down in NCMP relating to the subject of the Task Group after sharing with the Prime Minister's Office.

4. The Task Group may constitute a support Group of domain specialists in the Ministries (i.e. officers in the rank of Joint/Additional Secretaries) in its first meeting to assist the Task Group in the spadework and in preparing and finalizing its Report.
5. Each Ministry/Department concerning the subject of the Task Group should make a written presentation to the Task Group on what possibilities exist in their areas of concern.
6. The Task Group will have the powers to co-opt/associate professionals/domain experts into the Group. The Task Group will also have the powers to set up Sub Groups/Steering Committees of officials/non-officials to finalize its views on specific issues. The Task Group should, however, encourage active participation of the State Governments in the areas of concern of the Group.
7. The expenditure of the members on TA/DA in connection with the meetings of the Task Group will be borne by the Ministry/Department/State Government to which the members belong. In case of private members, TA/DA will be borne by the Planning Commission as admissible to the Class I officers of the Government of India.
8. The Task Group will submit its report to the Planning Commission within Ninety days from the date of its constitution.
9. The Task Group will be serviced by the Planning Commission.

(Rajan Katoch)
Joint Secretary to the Govt. of India

To

All Members of the Task Group

Copy to:

1. Deputy Chairman, Planning Commission
2. Minister of State (Planning)
3. Members, Planning Commission
4. Cabinet Secretary
5. Secretary to the President of India
6. Pr. Secretary to Prime Minister
7. Joint Secretary to Prime Minister (Sh. R. Gopalakrishnan) with reference to his U.O.No.360/31/C/20/04-ES.II, dated 29th July, 2004
8. Pr. Advisers/Advisers, Planning Commission

Annexure - II

Terms of Reference of the Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing

In pursuance of the decision taken by the Prime Minister, an Inter-Ministry Task Group on investment, Credit and Technical Support to Promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing was constituted by the Planning Commission vide Planning Commission Order No N –11017/7/2004 – PC dated 4th August, 2004. As per this order, the Terms of References of the Task Group would be developed in the first meeting of the Task Group by the Group itself keeping in view the objectives and priorities laid down in the NCMP relating to the subject of the Task Group after sharing with the Prime Minister's Office. Accordingly, the Convener of the Task Group and Adviser (Agriculture), prepared the Terms of References (TOR) based on the discussion held in the first meeting of the group. The draft TOR was distributed along with Background Note to all the members before the second meeting of the Group. The terms of reference as agreed by the Group are mentioned below.

- I. To assess the scope of generating self-employment opportunities in agriculture, horticulture, afforestation, dairying and agro-processing, and also identify the constraints in achieving the potential with special emphasis on credit, investment, infrastructure, technical support and marketing,
- II. To suggest restructuring of on-going Central Sector and Centrally Sponsored Schemes with a view to increase employment generation and suggest new schemes/action plan to promote self-employment,
- III. To suggest an institutional mechanism for integration of programmes which are cross sectoral and require action encompassing a number of Ministries/Department,
- IV. To make projections on the future requirement of investment (both public and private) and credit in the respective sectors and suggest ways and means for augmenting resource generation,
- V. To suggest changes that are needed to make the existing infrastructure (both under Center and State Government) effective in delivering necessary inputs and services.
- VI. To suggest the changes that are needed for promotion and involvement of NGOs in delivery of inputs and services and to enhance 'Public-Private Partnership' for utilizing the existing infrastructures.

**F.No. Agri. Q-11050/17/2004-Agri.
Government of India
Planning Commission
(Agriculture Division)**

Subject: Minutes of the first meeting of the Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 27th August, 2004.

1. A meeting of Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing was held on 27th August, 2004 under the Chairmanship of the Secretary, Planning Commission. The list of the participants is enclosed at annexure -I.

2. Secretary, Planning Commission welcomed Secretary Ministry of Food Processing Industries, Secretary, Department of Animal Husbandry and Dairying, additional Secretary, Department of Agriculture and Co-operation and other participants to the meeting and requested them to make focused presentations relating to their sectors keeping in view the objectives of the Task Group.

3. Joint Secretary (Crops), Department of Agriculture and Co-operation made a presentation highlighting the need for timely and adequate availability of credit for the agriculture sector. This is one of the essential inputs for development of the agriculture and allied sectors, which in turn would help in employment generation. DAC's credit planning was confined to the agriculture sector. The strategy outlined was as follows: -

- Immediate implementation of the revitalization package for the cooperative credit structure.
- Improved links between credit and marketing. Thrust on storage, rural godown and cold storage, and marketing credit.
- New farm credit innovations such as joint liability groups, special loans to lessee farmers, contract farming, promotion of pledge financing.

4. Secretary, Planning Commission emphasized that the needs of the small and marginal farmers should be kept in view while finalizing the credit plan for the agriculture sector. He observed that long-term credit lending through co-operative banks was in shambles. Overlooking long-term credit requirement of the agriculture was not conducive for the asset building (capital formation) in the agriculture sector. Additional Secretary, Department of Agriculture and Cooperation, mentioned about the problems the banks were facing in lending to the small and marginal farmers who have run into overdues. He also mentioned

that shortfall in achievement of target of 18% under priority sector for agricultural credit by the banks was partly due to the fact the banks preferred risk free contribution to the RIDF to the extent of shortfall. He suggested that if banks were to be asked to contribute double the percentage of shortfall to the RIDF, that might help in achieving the target.

5. Joint Secretary, PMO suggested that the NCMP mainly aims at creation of new employment opportunities in horticulture, floriculture, animal husbandry, fishery and off- farm activities.

6. Adviser, LEM, Planning Commission, suggested setting up monitorable employment and self-employment targets for the sectoral and sub-sectoral programmes and monitoring of employment outcome of the economic activities. Targets for creating self employment opportunities should be specified for horticulture, afforestation, dairying etc for production, processing and distribution under the employment oriented programmes like SGSY, SJSRY, PMRY, and for the National Finance and Development Corporations for the socially disadvantaged and minorities. He also suggested to take into account indirect employment content of the various Government programmes.

7. Secretary, Ministry of Food Processing Industries mentioned that the views expressed by the participants should reflect the issue of the finalization of Support Groups. Joint Secretary, Ministry of Food Processing Industries made a presentation on the food processing sector. He highlighted the salient features and status of the food processing sector in the country. The Joint Secretary mentioned that there were about 72.72 lakh employees in the sector and the target was 74.69 lakh employees by the end of the 10th Plan. About 1.27 jobs were created for every Rs. 1 lakh of investment in the sector. Additional indirect employment generation was about 3.64 for each direct employment in the sector. He also mentioned that there was considerable potential for further employment creation in the sector. He pointed out that through an outlay of Rs 650 crore during the Tenth Plan, an investment of about Rs 3000 crore was proposed to be attracted and employment (direct and indirect) of about 2.5 lakhs was expected to be generated. He drew attention to the overlapping activities of Ministry of Food Processing Industries, APEDA, and MPEDA. Secretary, Planning Commission observed that backward States were in greater need of employment opportunities, though these were more handicapped by the infrastructural constraints, like power deficiency, for setting up of food processing industries, cold storages etc. The Ministry needed to look at these aspects also. Secretary, Planning Commission mentioned that the Ministry of Food Processing Industry need to associate representatives from the major processing industries like ITC, and industry federations/associations like CII, ASSOCHAM etc in the Support Group to be set up in the Ministry of Food Processing Industries.

8. Ministry of Agriculture made a presentation about the agricultural marketing sector and stated that standardization of the Fruits and Vegetables was important for export promotion in these commodities. Further, setting up

grading units and rural godowns could create some direct employment opportunities. He also mentioned about steps taken by the Ministry towards agricultural marketing reforms.

9. Secretary, Department of Animal Husbandry and Co-operation made a presentation on dairying, animal husbandry and aquaculture sectors. He mentioned that under IDDP, 10,300 co-operatives had been set up covering 6.5 lakh members in 149 districts. He stated that the potential areas for employment creation under the charge of the Ministry included dairy development, rural backyard poultry, piggery development, intensive fresh water aquaculture and brackish water aquaculture. These sectors have the potential to create 1 million additional employment with suitable enhancement of outlay.

10. Secretary, Planning Commission mentioned that Joint Secretary,(Banking) should look at the credit requirements of all these sectors and make presentation in consultation with RBI and commercial banks. He further stated that NABARD should also make a presentation on the credit related issues.

11. Joint Secretary, Ministry of Rural and Agro Industries made a presentation about the programmes of the Ministry, which included Rural Employment Generation Programme and Prime Minister's Rozgar Yojana. With an outlay of Rs 300 crore, the Ministry would be able to generate employment to the extent of 2.5 million jobs. The Ministry has the capacity to absorb higher outlay for creation of additional number of jobs. Joint Secretary, Ministry of Rural & Agro Industries made the following suggestions:-

- Increase margin money support for Rural Employment Generation Programme (REGP) for wider coverage of industries.
- Reduce REGP interest rates to a cap of 9% or PLR – 2 whichever is less.
- Inclusion of some activities under negative list provided they are not supported by other Government schemes.
- Increase project cost to Rs. 5 lakhs under Prime Minister's Rozgar Yojana (PMRY) with high allocations for subsidy.

12. Executive Director, NABARD mentioned that diversification/ mixed farming was important for increasing the income of the farmers. Reclamation of degraded lands with plantation of jatropha (for bio-diesel) , trees (for catering to the needs of pulp based industries) and bamboo have the potential to expand the job opportunities. Irrigation projects also add significantly to the employment generation. He stated that capacity building support was required at the growers' and cluster level. He suggested that the Task Group should highlight successful initiatives and measures needed for their replication.

13. ICAR made a presentation about the various technologies that have been developed and were ready for adoption.

14. Summing up the discussion Secretary, Planning Commission stated that

➤ The total requirement and availability of credit for agriculture and allied sectors should be assessed. There was need for proper planning so as to bridge the gap between the two. He mentioned that since the issues before the Task Group were quite complex, the Ministries concerned should involve the outside domain experts in their respective Support Groups. He further suggested that the Support Groups should also have some interactive sessions with some of the State departments dealing with subjects like Animal Husbandry, Agriculture, Horticulture, and Fisheries. While preparing their reports the Support Groups should, inter- alia, assess the credit and technical support requirements for their respective sectors.

➤ A Support Group would be set up in each of the Department of Agriculture and Cooperation, Department of Agricultural Research and Education, Department of Animal Husbandry, Ministry of Agro and Rural Industries, Ministry of Food processing Industries, Ministry of Environment and Forests and the Department of Rural Development under the chairmanship of the respective Secretary in the Ministry/Department. The Support Groups would, inter alia, assess the potential of creating additional employment/self employment, additional requirement of investment and aggregate requirement of credit in their respective sectors. It would also suggest restructuring of the on-going Central Sector and Centrally Sponsored Schemes with reference to employment generation and suggest new schemes/action plan needed to promote employment/self employment. Each support group will also suggest on how to develop an institutional mechanism for integration of programmes which are cross sectoral and also to promote and involve NGOs in delivery of inputs and services and to enhance 'Public-Private Partnership'. The chairman of the support group will decide the composition of the group. However, the support group will inter alia include representatives from financing institutions like NABARD, NCDC, marketing and export promoting organizations like APEDA, MPEDA developmental organization (like Horticulture Board, NDDB) and a representative from Agriculture Division, Planning Commission. The administrative order for constitution of a Support Group may be issued by the Department concerned.

➤ All the Members should send their comments on the suggested Terms of Reference of Task Group immediately to facilitate their early finalisation.

➤ Each of the Ministry/Department would send a write up (a base

paper) on their sectors (covering all aspects of the terms of reference) to the Planning Commission at the earliest.

➤ There would be interaction with the RBI, NABARD, FIs State Governments and other experts.

➤ There would be a technology session after the support groups have prepared their reports. Department of S&T, Bio-Technology and Atomic Energy would also be requested to make presentations on the technical issues.

➤ Secretary (E&F) should be co-opted in the Task Group.

➤ The Report of the Task Group would be finalized by the end of October 2004.

3.1.1.1 Annexure - List of participants

List of participants who attended the Meeting of Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 27th August 2004 in Yojana Bhawan, New Delhi under the Chairmanship of Secretary, Planning Commission.

1. Shri Rajeeva Ratna Shah, Secretary, Planning Commission - Chairman.
2. Shri D.P. Singh, Secretary, Ministry of Food Processing Industries, New Delhi.
3. Shri P.M.A. Hakeem, Secretary, Department of Animal Husbandry & Dairying, Krishi Bhavan, New Delhi.
4. Shri A.K. Singh, Additional Secretary, Department of Agriculture & Cooperation, Krishi Bhavan, New Delhi.
5. Shri R. Gopalakrishnan, Joint Secretary, PMO, New Delhi
6. Shri J.P. Meena, Joint Secretary, Department of Agriculture & Cooperation, Krishi Bhavan, New Delhi.
7. Shri A.P. Padhi, Joint Secretary, Ministry of Agro and Rural Industries, New Delhi.
8. Shri Amitabh Verma, Joint Secretary (Banking), Ministry of Finance, New Delhi.
9. Shri Arun Kumar, Joint Secretary, Ministry of Food Processing Industries, New Delhi
10. Shri K.D. Sinha, Joint Secretary, Department of Agriculture & Cooperation, New Delhi.
11. Dr. R. Saha, Scientist-G & Head (S&S), Deptt. of Science & Technology, Technology Bhavan, New Delhi.
12. Dr. P.V. Thomas, CEA , Ministry of Rural Development, New Delhi.
13. Shri S.K. Mitra, Executive Director, NABARD, NABARD Tower, 24, Rajendra Place, New Delhi.
14. Shri I.C. Katyal, DDG Ed ICAR., New Delhi.
15. Shri Shailendra Sharma, Adviser (LEM), Planning Commission, New Delhi.
16. Shri S.K. Roy, Adviser (Agriculture), Planning Commission, New Delhi.
17. Smt. Vandana Dwivedi, Jt. Adviser, Agriculture Division, Planning Commission, New Delhi.
18. Smt. Padmaja Mehta, Director (LEM), Planning Commission, New Delhi.
19. Dr. S.K Khandoori, Director (Forestry)
20. Dr. (Mrs.) R.S. Parmar, Director, Agriculture Division, Planning Commission ,New Delhi.
21. Shri Vijay Kumar, Director, Agriculture Division, Planning Commission, New Delhi.
22. Shri Surinder Singh, Director, Agriculture Division, Planning Commission, New Delhi.
23. Shri A.K. Gupta, Joint Director (SGSY), Ministry of Rural Development, New Delhi.
24. Dr. N. N. Das, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
25. Dr. C. Haridas, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
26. Smt. Sushma, SRO, Agriculture Division, Planning Commission.
27. Dr. Ramanand, R.O. Agriculture Division, Planning Commission, New Delhi.

**Q-11050/17/2004-Agri
Government of India
Planning Commission
(Agriculture Division)**

Subject:- Summary Record of the Second meeting of Inter Ministry Task Group on Investment, Credit and Technical Support to promote Self-employment in agriculture, horticulture, afforestation, Dairying and agro processing held on 14th Oct. 2004.

Second meeting of the Task Group on Investment, Credit and Technical Support to promote self Employment in Agriculture, horticulture, afforestation, dairying and agro processing was held under the Chairmanship of Secretary, Planning Commission on 14th Oct. 2004 in Yojana Bhavan, Planning Commission, New Delhi. List of participants is given at annexure-I.

2. The Chairman welcomed all the participants to the meeting and requested the Ministries/Departments to describe the progress made by the Support Groups.

3. Additional Secretary, Department of Agriculture and Cooperation (DAC) mentioned that no Support Group has been set up in DAC, as in the case of agriculture sector there was no scope of additional employment generation except in the case of the programme pertaining to agri-clinics and agri-business. The programmes of the Department aim at enhancing productivity and production. In fact there is a need to divert people away from agriculture to other non-farm activities for gainful employment, as there is considerable under employment in the agriculture sector. Any employment generation in agriculture sector comes in the form of additional man-hours to the already under-employed persons engaged in the farm sector.

4. The Chairman stated that large investments that are being made in the agriculture sector should result into additional employment generation, although some of these would be of the nature of supplementary employment to the under-employed in agriculture. The Chairman advised the DAC to take into consideration such employment generation also. Adviser (Agriculture) clarified that in the background Note circulated for the purpose of this Task Group, it has been clarified that the Task Group would cover wage employment also for the purpose of this Report. The Chairman stated that new areas were being brought under cultivation by reclaiming wastelands. Similarly, creation of irrigation facilities, soil and water conservation measures and promotion of water harvesting in the dryland areas were generating employment in those areas. Productivity enhancing measures such as propagation of higher yielding varieties and greater input use also lead to new employment avenues. The Chairman felt that progress made was not as anticipated and DAC needed to work fast to make up the lost time to ensure timely submission of the Report. He advised that DAC should prepare and submit their detailed paper/Report by the

end of the month.

5. Joint Secretary, Department of Animal Husbandry and Dairying (DAHD) informed that DAHD had set up a Support Group and prepared a base paper and would get the comments from Members of the Support Group through e-mail. She also apprised of the issues which the Support Group would be covering. The Chairman suggested taking up technology upgradation issues also into consideration.

6. Regarding Horticulture, the DAC's initial reaction was that there was no scope for additional employment generation. However, the Chairman mentioned that the Department has recently prepared a project report for the Horticulture Mission. The Department should work out credit, technical support and employment implications (including self-employment, wage employment, additional employment and supplemental employment) of the proposed National Horticulture Mission. Similarly, employment generation potential and credit and technical support aspects from the on-going horticulture mission for the North-East and other programmes should be worked out. As suggested earlier, the Department of Agriculture and Co-operation should prepare a write up for integration with the Report of the Task Group. Additional Secretary, DAC agreed to look into those aspects and prepare the write up which can form part of the Task Group Report.

7. Asstt. Inspector General of Forests, Ministry of Environment and Forest stated that the Secretary, Ministry of Environment and Forest was co-opted late as a Member to the Task Group. He mentioned that Bamboo, Jatropha, agro-forestry, farm forestry and marketing and processing of non-timber part of forest produce were some of the potential areas for employment generation. Adviser (E&F), Planning Commission and the representative from the Ministry of Environment and Forests stated that the Support Group in the Ministry would make their best effort to abide by the time limit of the Task Group for submission of the Report.

8. Joint Secretary, Department of Rural Development stated that the Ministry had set up the Support Group. He mentioned about the programmes of the Ministry, which were relevant to the Task Group. He agreed that Department would submit the Report by the end of this month.

9. DDG (Education), Department of Agriculture Research and Education stated that they had also set up the Support Group and would send its Report on time. He mentioned that Department of Agriculture and Cooperation and Department of Animal Husbandry and Dairying should bring out the issues requiring technological support before the Support Group set up in DARE. The Chairman suggested to both the DAC and DAHD to identify the challenging areas in their respective sectors which needed technical input from DARE and consult the Support Group set up in DARE. The Chairman mentioned that ICAR should work out new dimensions and some innovative ideas for creating employment and increasing income in the sectors under consideration of the

Task Group. ICAR has a substantial institutional set up in all parts of the country; it should be in a position to take measures for capacity building in the rural areas. The Chairman emphasized that the Report of the Support Group should give new and innovative ideas to realize greater value addition and making higher investment, while some existing issues would also need more focused attention. Additional Secretary, DAC and Joint Secretary, DAHD agreed to provide issues to the Support Group set up in DARE which required technical solutions.

10. Joint Secretary, DAHD stated that they would like to interact with the Support Group in the Ministry of Food Processing Industries also as some of the issues being dealt by the Support Group were of common interest to both DAHD and FPI.

11. Thereafter, NABARD made presentation on issues relating to credit. They brought out the projections of credit on account of doubling of agricultural credit as laid out in NCMP, and estimates of additional employment generation per unit of credit disbursed based on observations from their studies of the past projects. The issues raised by NABARD provoked intense discussion from the participants.

12. Another presentation was made by Dr. R. Saha, Scientist-G and Head (SS), Department of Science & Technology. The Chairman stated that the presentation has focused on the programmes being implemented by the Department of S&T. However, the Department of Science & Technology also needed to work out on some innovative ideas for value addition and investment relevant to the sectors of the Task Group.

13. Adviser (LEM) of Planning Commission circulated a Note giving macro level information about employment.

14. The Convener of the Task Group and Adviser (Agriculture), distributed a background Note to all the participants in the meeting requesting the Support Groups and Ministries/Departments/ Organisations to cover all aspect of the terms of reference in their reports/write up. The terms of reference were enclosed with the background Note. A copy of the background Note is appended at Annexure-II.

15. Concluding the discussions, the Chairman mentioned that the completion of reports on time was important as the time frame has been given by the Prime Minister's Office. Therefore, all the Support Groups /Ministries/ Departments/ NABARD should submit their base paper by 21.10.2004 and final report by the end of Oct. 2004 so that these can be integrated into a combined report of the Task Group and submitted to the Prime Minister's office according to the time schedule as laid down.

Annexure- List of participants

List of participants who attended the second Meeting of Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 14th Oct. 2004 in Yojana Bhawan, New Delhi under the Chairmanship of Secretary, Planning Commission.

1. Shri Rajeeva Ratna Shah, Secretary, Planning Commission - Chairman.
2. Shri A.K. Singh, Additional Secretary, DAC, Krishi Bhavan, New Delhi.
3. Shri P.K. Aggarwal, Joint Secretary (Agricultural Marketing and AMA, DAC, Krishi Bhavan, New Delhi.
4. Shri J.C. Katyal, DDG (Ed) ICAR., New Delhi
5. Dr. K.S. Khokhar, ADG, DARE, New Delhi.
6. Smt. Neerja Raj Kumar, JS (DDAP), Department of Animal Husbandry & Dairying, , New Delhi.
7. Shri Arun Kumar, Joint Secretary, Ministry of Food Processing Industries, New Delhi
8. Shri Amitabh Verma, Joint Secretary (Banking), Ministry of Finance, New Delhi.
9. Shri Mahapatra, Joint Secretary, Department of Rural Development, New Delhi.
10. Shri S.K. Ratho, Asstt. Inspector General of Forest, Ministry of Environment & Forests.
11. Shri A. Mishra, Director, Ministry of Agro and Rural Industries.
12. Dr. R. Saha, Scientist-G & Head (S&S), Deptt. of Science & Technology, Technology Bhavan, New Delhi.
13. Dr. Vinita Sharma, Director, Department of Science & Technology, New Delhi.
14. Shri S.K. Mitra, Executive Director, NABARD, NABARD Tower, 24, Rajendra Place, New Delhi.
15. Shri R. Krishnamurthy, Chief General Manager, Corporate Planning Department, NABARD, Mumbai.
16. Shri Shailendra Sharma, Adviser (LEM), Planning Commission, New Delhi.
17. Dr. R. Mandal, Adviser (E&F), Planning Commission, New Delhi.
18. Shri S.K. Roy, Adviser (Agriculture), Planning Commission, New Delhi.
19. Smt. Vandana Dwivedi, Jt. Adviser, Agriculture Division, Planning Commission, New Delhi.
20. Dr. (Mrs.) R.S. Parmar, Director, Agriculture Division, Planning Commission ,New Delhi.
21. Shri Surinder Singh, Director, Agriculture Division, Planning Commission, New Delhi.
22. Shri A.K. Gupta, Joint Director (SGSY), Ministry of Rural Development, New Delhi.
23. Dr. N. N. Das, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
24. Dr. C. Haridas, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
25. Smt. Sushma, SRO, Agriculture Division, Planning Commission.
26. Dr. Ramanand, R.O. Agriculture Division, Planning Commission, New Delhi.

**Government of India
Planning Commission
(Agriculture Division)**

Subject: - Summary Record of the third meeting of Inter-Ministry Task Group on Investment, Credit and Technical Support to promote self-Employment in agriculture, horticulture, afforestation, dairying and agro processing held on 16th November 2004.

Third meeting of the Task Group on Investment, Credit and Technical Support to promote self-Employment in Agriculture, horticulture, afforestation, dairying and agro-processing was held under the Chairmanship of Secretary, Planning Commission on 16th November 2004 in Yojana Bhavan, Planning Commission, New Delhi. List of participants is given at annexure-I.

2. The Chairman welcomed all the participants to the meeting and requested the Ministries/Departments to describe the progress made by the Support Groups and the Ministries/ Departments in sending their inputs to the Planning Commission.

3. Shri K.D. Sinha, Joint Secretary, Department of Agriculture and Cooperation (DAC) reiterated the DAC's stand that there was no scope of employment generation in the agriculture sector. He, however, mentioned that the DAC was preparing a report which they would send to the Planning Commission shortly. Shri M M Nampoothiry, Economic and Statistical Adviser, DAC stated that cost of cultivation studies have brought out that there was no simple relationship between outlay and employment in the agriculture sector and that mechanization was replacing labour. Secretary, Planning Commission mentioned that although at the macro level there might be deceleration in employment generation in the agriculture sector; however, at the regional level there were regions with potential for employment generation. Further, some net sown area expansion was taking place in some regions, besides the increasing agricultural intensity on account of various programmes like those for watershed development and reclamation of degraded land. Therefore, it was not quite right to say that these programmes were not adding to any employment generation. Moreover, horticulture development and the development of cold storages also offered scope for additional employment generation. The Secretary mentioned that in case DAC still felt that there was no scope for employment generation with even the substantial investment being made in the sector, the Task Group might take the position taken by DAC on record. Shri K.D. Sinha, Joint Secretary, DAC mentioned that they would send a report to the Planning Commission.

4. Giving account of the progress made by NABARD, Shri R. Krishnamurthy, CGM, NABARD mentioned that they have sent a report to the Planning Commission. He mentioned some of the salient features of the report. The share of institutional credit was only 39% in the rural credit. Institutional credit was growing at 12% p.a. at present, which need to grow at 30% p.a. to achieve the

objective of doubling the agricultural credit in 3 years. The additional credit of Rs. 40,000 crore that was proposed to be disbursed in the next three years would generate additional employment to the extent of 1 crore person-years, which would be mostly of the nature of self-employment although absorption capacity of such large credit flow seemed to be a constraint. There was a need to amend the APMC Act and promote contract farming and create the required infrastructure in the rural areas to give further momentum to the agriculture sector. Secretary, Planning Commission suggested the NABARD to include suggestions for revitalizing cooperatives based on their knowledge gained as Member of the Vaidyanathan Committee.

5. The Secretary directed that the copies of the material and reports received from the Members of the Inter-Ministry Task Group be circulated to other members of the Group also for their consideration.

6. Shri U.S. Bhargava, General Manager, Punjab National Bank, supported the suggestion of NABARD regarding amendment of APMC Act and promotion of contract farming.

7. Shri R. Prabha, General Manager, Canara Bank stated that improvement of rural infrastructure was important for employment generation. Opening of Krishna Barrage had led to considerable employment generation in the area benefited by irrigation facility. Roads are important for poultry and dairying development. Reacting on the suggestion for development of rural infrastructure the Secretary, Planning Commission stated that the scheme of cold storages, which was under implementation needed to be promoted in the power surplus, States. Further such infrastructure creation might lead to changes in the cropping pattern in the area with additional employment implications. The Secretary mentioned that the DAC needed to examine this issue also.

8. Mrs. Neerja Raj Kumar, Joint Secretary, DAHD highlighted the need for adoption of DAC's model act on marketing by the State Governments. Further, development of marketing infrastructure and construction of roads, which increased milk catchments area, were very important. For quickly perishable commodities like milk and poultry, Bijlee, Sadak, Pani, she thought, were essential.

9. Shri S.K. Mitra, General manager, NABARD stated that a major part of RIDF was being provided for construction of roads. The States needed to prepare suitable projects to avail further assistance under RIDF.

10. Dr. Baljeet Singh, DGM, State Bank of India suggested that the first stage processing of the farm produce in the rural areas and also utilization of bi-products of farm produce and their wastes after the first stage processing in the case of fruits and vegetable might provide substantial employment generation opportunities in the rural areas. He suggested reservation of certain identified items such as brown rice, pulping, first stage processing of vegetables etc. for rural areas. Introduction of negotiable warehouse receipt was another potential

step for employment generation for the rural youth.

11. Shri A. Mishra, Director, Ministry of Agro and Rural Industries stated that sickness in food processing industries was coming down in last two-three years. However, entrepreneurs were not coming forward.

12. Shri S.K. Ratho, AIGF, Ministry of E&F mentioned that their Ministry had sent the report to the Planning Commission. Then he mentioned of some of the salient features of the report.

13. Dr Mangla Rai, Director General, Indian Council Agricultural Research made some suggestion for employment generation relevant to the fields of interest for the Inter-Ministry Task Group. He impressed upon the need for development of infrastructure in the rural areas and especially mentioned of construction of roads, electricity and setting up schools and colleges in the rural areas. This would enhance the capacity for some value addition at the local level. This has to be supplemented with skill development of the local entrepreneurs. He stated that intensification of agriculture lead to employment generation, hence mechanization as an outcome of the intensification of agriculture lead to additional unemployment generation. Promotion of contract farming was important as it provided assured market to the farmers. A regionally differentiated strategy was required for local entrepreneur development. There was a need for developing entrepreneur skill to empower the rural youth. At present India has low processing (only 2%) and low value addition (about 7%) of the farm produce. From the technology point of view the important area, the DG identified were i) seeds, saplings and fingerlings which constrained the growth of inland fisheries, depressed the seed replacements rate in ground nut and other oilseeds and sorghum, maize etc, and ii) processing, waste utilization and vermin composting which would improve the total Factor Productivity and arrest the declining carbon content in the soil. The DG stressed that the most important issue for solving the problem of unemployment and under employment was to search for the solution at the local level.

14. Adviser (LEM) wanted to know from NABARD, if it was possible to quantify the establishments in numbers that would come up with the level of credit disbursement that NABARD had mentioned in their presentation and also the additional output that would be generated from such credit.

15. Shri Krishnamurthy, CGM, NABARD mentioned that the bank credit was obtained by individual persons, hence it was in the nature of employment generation to the individuals. However, as the scope of the present Inter-Ministry Task Group was confined to employment generation, he did not go into the issue of additional output or the number of establishments which would come up with the additional credit although from the NABARD studies it was possible to identify the number of establishments or the additional output generation.

16. Secretary, Planning Commission while thanking all the participants for taking part in the meeting and the co-operation provided in preparation of the

report of the Inter-Ministry Task Group, mentioned that the report is to be submitted to P.M.O. by 22nd Nov. 2004 so all the participants should give their inputs quickly or re-submit their reports in case they wanted to modify their earlier inputs in the light of the discussions held in the meeting and submit their respective reports to the Planning Commission immediately.

Annexure- List of participants

List of participants who attended the second Meeting of Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 14th Oct. 2004 in Yojana Bhawan, New Delhi under the Chairmanship of Secretary, Planning Commission.

- 1) Shri Rajeeva Ratna Shah, Secretary, Planning CommissionChairman.
- 2) Shri A.K. Singh, Additional Secretary, DAC, Krishi Bhavan, New Delhi.
- 3) Shri P.K. Aggarwal, Joint Secretary (Agricultural Marketing and AMA, DAC, Krishi Bhavan, New Delhi.
- 4) Shri J.C. Katyal, DDG (Ed) ICAR., New Delhi
- 5) Dr. K.S. Khokhar, ADG, DARE, New Delhi.
- 6) Smt. Neerja Raj Kumar, JS (DDAP), Department of Animal Husbandry & Dairying, , New Delhi.
- 7) Shri Arun Kumar, Joint Secretary, Ministry of Food Processing Industries, New Delhi
- 8) Shri Amitabh Verma, Joint Secretary (Banking), Ministry of Finance, New Delhi.
- 9) Shri Mahapatra, Joint Secretary, Department of Rural Development, New Delhi.
- 10) Shri S.K. Ratho, Asstt. Inspector General of Forest, Ministry of Environment & Forests.
- 11) Shri A. Mishra, Director, Ministry of Agro and Rural Industries.
- 12) Dr. R. Saha, Scientist-G & Head (S&S), Deptt. of Science & Technology, Technology Bhavan, New Delhi.
- 13) Dr. Vinita Sharma, Director, Department of Science & Technology, New Delhi.
- 14) Shri S.K. Mitra, Executive Director, NABARD, NABARD Tower, 24, Rajendra Place, New Delhi.
- 15) Shri R. Krishnamurthy, Chief General Manager, Corporate Planning Department, NABARD, Mumbai.
- 16) Shri Shailendra Sharma, Adviser (LEM), Planning Commission, New Delhi.
- 17) Dr. R. Mandal, Adviser (E&F), Planning Commission, New Delhi.
- 18) Shri S.K. Roy, Adviser (Agriculture), Planning Commission, New Delhi.
- 19) Smt. Vandana Dwivedi, Jt. Adviser, Agriculture Division, Planning Commission, New Delhi.
- 20) Dr. (Mrs.) R.S. Parmar, Director, Agriculture Division, Planning Commission ,New Delhi.
- 21) Shri Surinder Singh, Director, Agriculture Division, Planning Commission, New Delhi.
- 22) Shri A.K. Gupta, Joint Director (SGSY), Ministry of Rural Development, New Delhi.
- 23) Dr. N. N. Das, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
- 24) Dr. C. Haridas, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
- 25) Smt. Sushma, SRO, Agriculture Division, Planning Commission.
- 26) Dr. Ramanand, R.O. Agriculture Division, Planning Commission, New Delhi.

ANNEXURE - VI

**Q-11050/17/2004-Agri
Government of India
Planning Commission
(Agriculture Division)**

Subject: - Summary Record of the fourth meeting of Inter-Ministry Task Group on Investment, Credit and Technical Support to promote self-Employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 11th February 2005

Fourth meeting of the Task Group on Investment, Credit and Technical Support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing was held under the Chairmanship of Secretary, Planning Commission on 11th February 2005 in Yojana Bhavan, New Delhi to finalize the report of the Inter-Ministry Task Group. A list of participants is enclosed at Annexure-I.

2. The Chairman welcomed all the participants to the meeting. The Convener of the Inter Ministry Task Group and Adviser (Agriculture) stated that the draft report has been prepared on the basis of inputs received from the support groups and making use of other available reports, academic studies etc. He informed that comments on draft report have been received from the E&F Division of Planning Commission, the Ministry of Environment and Forests and the Indian Council of Agricultural Research. Thereafter, he made a power point presentation of the draft report of the Inter Ministry Task Group.

3. Dr S K Khanduri, Director (Forestry), Planning Commission mentioned that the report needed to mention about the Panchayat Van scheme which has a large potential for employment creation. The report should include a mention of the activity relating to value addition by simple processing of non-wood forest produce by setting up small village level units. He further suggested that head load was neither legitimate nor a feasible occupation any more. These issues were later reiterated by Shri A K Johari, Director, Ministry of E&F. The Chairman suggested that the Task Group might go by the suggestion of the E&F Division of the Planning Commission and the Ministry of E&F.

4. Reacting on the suggestion in the Inter Ministry Task Group report for giving a wider role to the KVKs, Dr Mangla Rai, Director General, Indian Council Agricultural Research mentioned that KVKs did not have the capability nor the mandate to play a lead role in training the farmers/ rural youth for setting up micro enterprises as envisaged in the report. The KVKs can, however, play a limited role in skill up gradation/ training of the rural youth. They would continue to play a lead role in training the trainers.

5. Shri K.D. Sinha, Joint Secretary, Department of Agriculture and Cooperation (DAC) mentioned that the report was by and large acceptable, although the productivity responsiveness of inputs needed to be carefully looked at.

In response to a query from Dr S Rohini from Ministry of Small Scale Industries and Agro and Rural Industries, the Convener of the Inter Ministry Task Group informed that though Planning Commission had desired Ministry of ARI to have a separate Support Group, the Ministry opted to join the support group set up in the Ministry of Food Processing Industries. Dr Rohini suggested that there should be separate sub head in the district credit plan for setting credit targets for the micro enterprises.

6. Shri A K Gupta, Jt. Director, Ministry of Rural Development stated that though the Ministry had furnished a write up on the Swarnjayanti Gram Swarozgar Yojana (SGSY), there was no mention of the scheme in the report. The Chairman advised that the scheme may be mentioned in the report in one paragraph.

7. Mrs. Neerja Raj Kumar, Joint Secretary, DAHD, Shri S K Mitra, Executive Director, NABARD, Shri B S Bhalla, Director, Banking Division, Shri J P Shukla, Director, Ministry of Food Processing Industries expressed their agreement to the report.

8. Secretary, Planning Commission while thanking all the participants for taking part in the meeting and providing co-operation in preparation of the report of the Inter-Ministry Task Group, mentioned the report would be shortly placed on the website.

Annexure-List of Participants

List of participants who attended the fourth Meeting of Inter-Ministry Task Group on Investment, Credit and Technical support to promote self-employment in agriculture, horticulture, afforestation, dairying and agro-processing held on 11th February 2005 in Yojana Bhawan, New Delhi under the Chairmanship of Secretary, Planning Commission.

- 1) Shri Rajeeva Ratna Shah, Secretary, Planning Commission, Chairman.
- 2) Dr Mangla Rai, DG, Indian Council of Agricultural Research, Krishi Bhavan, New Delhi.
- 3) Shri K D Sinha, Joint Secretary, DAC, Krishi Bhavan, New Delhi.
- 4) Smt. Neerja Raj Kumar, JS (DD&P), Department of Animal Husbandry & Dairying, New Delhi.
- 5) Shri S.K. Mitra, Executive Director, NABARD, NABARD Tower, 24, Rajendra Place, New Delhi.
- 6) Shri P V Ramachandran, NABARD, NABARD Tower, 24, Rajendra Place, New Delhi
- 7) Dr S Rohini, Ministry of SSI and Agro & Rural Industries
- 8) Shri Shailendra Sharma, Adviser (LEM), Planning Commission, New Delhi.
- 9) Shri S.K. Roy, Adviser (Agriculture), Planning Commission, New Delhi.
- 10) Dr. S K Khanduri, Director (Forestry), Planning Commission, New Delhi.
- 11) Shri J P Shukla, Director, Ministry of Food Processing Industries, New Delhi
- 12) Shri B S Bhalla, Director (Banking), Ministry of Finance, New Delhi.
- 13) Shri A.K. Johari, Director, Ministry of Environment & Forests.
- 14) Shri A.K. Gupta, Joint Director (SGSY), Ministry of Rural Development, New Delhi.
- 15) Dr. N. N. Das, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
- 16) Shri Surinder Singh, Director, Agriculture Division, Planning Commission, New Delhi.
- 17) Dr. C. Haridas, Deputy Adviser, Agriculture Division, Planning Commission, New Delhi.
- 18) Smt. Sushma, SRO, Agriculture Division, Planning Commission.
- 19) Dr. Ramanand, R.O. Agriculture Division, Planning Commission, New Delhi.