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<u>Chapter - VII</u>

Since the agricultural sector in any underdeveloped country, including India, plays a pivotal role in the development efforts, the progress in this field can and does has a cumulative effect upon the economy as a whole. However, before the agricultural sector can be expected to have any lasting and preceptible impact upon the economy as a whole, it is incumbent on the part of this sector to demonstrate number its growing strength to do so. Thus, a member of changes could lead to rapid growth in the agricultural sector. One of the most important changes required is related to easy availability of various inputs, particularly of finance for longer and long-term, permanent improvements in the agricultural practices. The Land Development Bank helps ~6brings about much a change. The Land Development Bank provides financial assistance to the agricultural sector for various improvement schemes.

Purpose for which the loans can be made by Land Development Bank -

Dry-Wells and Dry Well Improvements

The State of Maharashtra has only 10.5% of the total cultivable area under irrigation (22.16 lakh hectares out of a total 211 lakh hectares). Achieving an increase in the agricultural production of the state, therefore, depends very much upon increasing the area under irrigation. Lands can be irrigated either by tapping **sugar** surface water or by tapping ground water. Surface water is generally harnessed for irrigation by the construction of dams and canals or by lift irrigation. Utilisation of ground water for irrigation pre-supposes digging of wells either day duy well or tube/bore wells.

The Land Development Bank has been for a long time engaged in the financing of ground-water utilisation mainly through dry wells.

2. <u>Oil Engines/Electric Motor Pumps</u>

The need to increase the intensity of framing has stipulated mechanisation of of irrigation process though installation of oil engines/electric motors. In modern agriculture, pumpsets have fast replaced the conventional devices of water lifting.

Types of pumpsets

1) Plunger pumps - used for lifting water from tribtanes etc. 2) Centrifugal pumps - it is used on wells the suction lift does not exceed 20 feet. 3) Turbine pumps used in river/reservior, 4) Submersible pumps - used on bore and tube wells.

3. Pipe Lines

The system of irrigating lands by the distribution of water in the field-channels results in wastage of water which can be more usefully utilised for raising crops by use of various types of pipes. Pipes are generally laid one meter below the surface and have the following advantages - (1) Saving of water, (2) it is more compact for the purpose of field operations, (3) less account of repairs, (4) where the water of river, nalla, well is required to be lifted on the heights point in the field to be irrigated.

4. Lift Irrigation Schemes

Major sources of irrigation are dug-wells and river valley irrigation schemes. Assured irrigation water supply is essential for stepping up farm production which is the top priority programme in our country. Government used to execute lift irrigation schemes and later on the this was done through the Agency of Zilla Parishads. Land Development Bank, therefore, has to steeply step up its financing of lift irrigation scheme to bringing more and more areas under irrigation. The surface water is lifted to the highest point in the command area by means of a mechanical device through rising main for the purpose irrigation. The salient features of the lift irrigation scheme are given below : (1) Intake channel joining the sources of water to the inlet chamber, (2) Jack-well, (3) Engine House, (4) Rising main, (5) Delivery chamber, sump-well, (6) Water distribution through cement pipe line, (7) Land Development Bank command area (programme), (8) pumping machinery.

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5) <u>Tube Wells and Bore Wells</u>

The development of minor irrigation by construction of tube wells can be carried out at the rate of 202 to 302 tube wells per year. Each tube well can irrigate an area of about 50 acres and thus every year an area of at least ten thousand acres can be brought under irrigation by making an investment of about Rs.200 crores.

The programme of bore wells is proposed to be under taken in Hard Rock (Deccan trap) areas of Maharashtra. A dug well taps only the water in the first aguifer, normally at a depth of 40 feet. Bore well taps lower aquifers is more reliable.

6) <u>Tractor and Power Tillers and</u> Other Agriculture Machinery

One of the major factors in the modernization of agriculture and improved farm techniques is mechanization - the mechanical traction of the plough as it helps deeper tilling and results in economy in operational cost and also leads to increases in farm production. The tractor forms an integral part of form mechanization in as much as it can be used for agricultural operations like levelling, ploughing, harrowing, sowing, wedding threshing and even for a lifting of water or running any power motivated unit like crusher, grinder etc. It can be used for the transportation of agriculture produce either to the market or to the processing units.

7) <u>Horticulture</u>

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Maharashtra State can be divided into 5 important fruit zones depending upon the climate, temperature and topography of each zone which is required for the cultivation of Morticultural fruit crops. The second zone related to the field of study, comprises of western parts of Kolhapur, Nasik, Sangli and Pune districts in this zone fruit crops like Mango, Chikku, Coconut, Lime and Guava are cultivated.

8) Dairy Development

Milk has an important place in the predominantly vegetarian diet of our people. It helps physical and mental development.

Dairying has many advantages in a rural economy. It is an important source of subsidary income to a large number of farmers and agricultural labourers. It provides gainful employment of farmers during the lean months of agricultural operations. Cattle manure is utilised to increase crop production as well as energy. Cattle are also a major source of drøught power. Dairying has, therefore, an important place in a mixed farming. The main task of Indian dairy industry is to increase per capita milk production in rural areas through provision of better inputs such as animal breeding services, health cover for animals, supply of concentrate feeds and by provision of infrastructure for effective collection transportation, processing and marketing of milk from mural areas for WARE BADASAHEB KHARDEKAR LIBRAD MIVAJI UNIVERSITY, KOL

meeting the elements of urban areas.

9) Establishment of Poultry Farm

Poultry farming is one of the important allied activities of Agricultural, Poultry birds are reared for eggs and meat. Egg is the best source of protines and carbohydrate in human diet. The mative Indian poultry birds have a very poor laying capacity. If these are crossed with some exotic breeds the crossbreds (birds) are capable of laying 280 to 302 eggs in a year. They have greater importance not only in supplying the mutritious food to the poor-man but also in improving the rural economy through substantial income from sale of eggs and Poultry farming thus can be maintained either birds. for (i) eggs production or (ii) raising broilers for meat. And at the same time farmer also gets some income through sale of feathers and gunny bags. Poultry farming could provide employment to eligible unemployed persons and a subsidiary occuption to the already employed as well as to the farmers. It will definitely help them as a source of subsidiary income. Poultry gives comparatively quick return as compared to investment on land. Poultry manure has high fertilizer value and can be used for increasing yield of crops.

So the objective of the scheme is to encourage the farmers to start poultry farming as a side occupation to agriculture. Finance shall be made available for

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construction of shed, purchase of day old chicks, purchase of necessary utensils and for meeting the cost of food, electricity, veteninary aid charges etc.

10) <u>Purchase of Bullock Cart with</u> or Without Bullock Pairs

The farming activity in Maharashtra State has been predominantly dominated by the use of bullock carts for performing various agricultural operations and transportation of agricultural inputs and produce. The rural farmers are blessed with bullocks as a source of energy. This power has no other alternative and cannot be dispensed with. The desire that mechanical means of power should replace the conventional means of power has received a set back due to disproportionate increase in fuel prices, its inadequate availability and hardship caused in securing it.

11) The Rearing of Sheep for Mutton and Wool

Sheep serve as a source of subsidiary income to a large number of rural people. The income is derived from wool, meat, manure, and skin of dead animals. There are about 21,028 lakhs sheep in Maharashtra reared by about 65,000 shepherd families. These sheeps are reared mostly in low rainfall area and in hilly tracts. After the end of the monsoon the shepherds alongwith the sheep migrate to the plains in search of grazing lands and water. This also helps them in getting additional income from the

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the manure by way of folding. The sheep are concentrated in 38 talukas of 10 districts of Maharashtra.

The overall estimated annual income from wool, mutton, skin and manure at present received by the shepherds is miserably low. So by adapting improved methods of sheep feeding, breeding and management, it is possible to increase the production of wool and mutton. The object of the scheme is, therefore, to provide the required financial assistance to the above categories of people residing in the rural areas to enable them to make their livelihood or to supplement their income from the business of sheep farming.

12) Bio-Gas Plants

The need for alternative and renewable sources of energy is apparent and need no emphasis. Fossil fuels are becoming more and more expensive. Exhausting oil reserves make the situation still more alarming.

Local resources such as wood straw stalk and cattle dung contribute significantly to our rural energy consumption and effects of utilisation of these materials on ecological balance is no less severe. Forests are shrinking at a terrible speed. Energy supply for agricultural in most area is becoming loss sure. Therefore, careful and planned utilisation and disposel of animal and farm waste or residues acquires even greater importance. Acrbic digestion of these materials yields energy in the form of mathane gas which is clean fuel and can be put to any use such as cooking, lighting and fueling internal combustion engines.

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India has an immense cattle population and if all the dung obtained from them is passed through bio-gas plants, the generated gas will be equivalent to around 14 billion liters of kerosene oil. Bio-gas plants convert cattle dung into gas with 40% more heat than that obtained from burning of cow-dung cakes and yield manure with 50% more nitrogen as compared to that in the ordinary compost.

13) Marine Fisheries measuring

With vast coastal area more than 10.35 lakh square meters, conditions are extremely favourable for development of fisheries in Maharashtra State.

Fish and fish products are the cheapest sources of protein food. Fish-trade provides employment to fishermen, traders, mechanics, transport operators and others. Valuable foreign exchange is earned from export of high value fish like prawns, lobsters, pomfrets, tuna etc. Present exploitation of marine fish is much below the potential resources.

Development of pisiculture in rural areas is an important sources of supplymentary income. Tanks, Ponds, beels, oxbow, lakes, rivers constitute a very large part of available water resources suitable for fishery development - marine fisheries sohemes can be further classified as -(1) Inshore fisheries - small fishery boats, non-mechanised boats, (ii) off shore fisheries - wooden boats in various sizes ranging from 25 feet to 50 feet in over all length, equipped with 30 to 170 BHP engines. (iii) Deep sea fisheries - These boats are larger in size and constructed of steel and are equipped with engines of 200 BHP and above.

14) For Development of Agricultural Produce Market Committees

The Agricultural sector has, as a result of implementation of various plan programmes and schemes of financial assistance, witnessed in recent years a significant rise in production levels in many commodities. The rapid development of infrastructural facilities in a form of irrigation land shaping, farm mechanisation and introduction of modern technological innovations has also contributed to the growth of agricultural sector. In India, agricultural marketing has to fulfill three important economic functions -(1) to increase surplus of form production both food grains and industrial raw-material (ii) a system of price determination, (iii) The marketing arrnagement must foster true competition amongst traders and help to eliminate the exploitation of the farmers.

The main object of development of market yards is aimed at equipping the market commodities with facilities for grading, storage and marketing of agricultural produces. This includes provision of other infrastructural facilities like bank and post-offices, setting of veterniary units etc.

15) For Land Improvement and Other Purposes

Land improvement shall mean construction of bunds, levelling of land, reclamation, excavation of supply

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channels, removel of bushes, shaubs, boulders and waste water channels.

Land improvement work certainly contributes to increased productivity of land.

Loans for fencing shall normally be granted as a part of loan for horticulture, Single purpose loan for fencing may also be considered.

Loans for the permanent farm houses and construction of cattle sheeds shall be granted after verifying the actual need of such structure on the farm of the applicant. Such structures are constructed for storage of gains and fodder for the use of cattle etc.

Loans for redemption of old debt shall be sanctioned provided such debt was incurred for productive purposes.

Loans for purchase of land can be given to α tenent-purchasers on the strength of the order of the +enamincompetent authority under the tenent act.

Loans for bodi – In a certain pockets of Bhandara and Chandrapur districts due to perticular agro-climatic conditions for maintaining flow irrigation for paddy crops and subsequently rabi crops the constructions of bodis $\cdot 5$ are economical and preferred to dig wells.

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