AGRICULTURAL ECONOMICS

Unit – I

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Agricultural economics is an applied social science that deals with how producers, consumers, and societies use scarce and natural resources in the production, processing, marketing, and consumption of food and fiber products.

Nature & Scope of Agricultural Economics

The nature of agricultural economics is such that it obtains most of the principles from general economics, thus there is no basic difference between general and agricultural economics. Thus the need to separate these two is that agricultural economics does not imply direct application of the principles but before application they are modified so that their postulates totally tally with the situations. These modifications are so large and varied that there is a complete justification for studying it as a separate branch of knowledge.

Agriculturist economics such as Frosten and Leoger have classified it as an applied science as it is concerned with the identification, description and classification of economic problems of agriculture. Thus, agricultural economics is concerned with the evolving of appropriate principles that govern the amount of land, labour, and capital that the farmer should use to maximize his profit and using the factors efficiently.

Scope of agricultural economics:

The foregoing definitions indicate the scope of agricultural economics. A common theme of scarcity of resources and choice of uses runs almost through all of these definitions. That way, agricultural economics is not different from the general economics.

All the tools of analysis used in general economics are employed in agricultural economics as well. We have the same branches of agricultural economics i.e.

economics of production, consumption, distribution, marketing, financing and planning and policy making as in case of general economics. A study at the micro and macro level for the agricultural sector is also generally made. Static and dynamic analyses are also relevant for the agricultural sector of the economy.

To be more specific, these definitions point out that agricultural economics examines how a farmer chooses various enterprises e.g., production of crops or rising of cattle and how he chooses various activities in the same enterprise. E.g., which crop to grow and which crop to drop; how the costs are to be minimized; what combination of inputs for an activity are to be selected; but amount of each crop is to be produced but type of commercial relation the farmer have to have with people from whom they purchase their input or to whom they sail their product.

Agricultural economics does not study only the behavior of a farmer at the farm level. That is, in a way, the micro analysis. Agricultural problems have a macro aspect as well. Instability of agriculture and agricultural unemployment are the problems which have to be dealt with, mainly at the macro level.

And then, there are the general problems of agricultural growth and the problems like those concerning tenurial systems and tenurial arrangements, research and extension services which are again predominantly macro in character. Such problems their origin, their impact and their solutions are all the subject matter of agricultural economics.

The scope of agricultural economics is larger than ‘mere economizing of resources’. Agriculture is, as we know an important sector, of the overall economy. The mutual dependence of the various sectors of the economy on each other is well established. Growth of one sector is necessary for the growth of the other sector.

As such, in agricultural economics, we also study how development of agriculture helps the development of the other sectors of the economy; how can labour and capital flow into the non-agricultural sectors; how agricultural development initiates and sustains the development of other sectors of the economy.

What this implies is that agricultural economics not only develops concerning the use of scarce resources in agriculture proper but also examines the principles (a) regarding the out flow of scare resources to other sectors of the economy and (b) about the flow of these resources from other sectors into the agricultural sector itself.

Agriculture sector is considered to be the most important in Indian scenario. The scope of agricultural production economics includes production, distribution, consumption and government activities in relation to agriculture and farm enterprises. To be more specific, the scope of agricultural economics can also be analysed on the political aspect. Self sufficiency in food produce can reduce foreign dependence fro food supply and raw materials , specially in times of crisis. There is a large scope of agri. economics in various factors of production also viz. land, labour, capital, organization etc.

The scope of agricultural production economics as quoted by Taylor " Agricultural economics deals with the principles which underline the farmers' problems of what to produce and how to produce what to sell and how to sell in order to secure the largest net profit for himself consistent with the best interest of the society as a whole. "

Meaning of Agricultural Economics:

Agricultural Economics, as its title implies is that branch of economics which deals with all aspects of problems related to agriculture. According to Snodgrass and Wallace, "Agricultural economics is an applied phase of the social science of economics in which attention is given to all aspects of problems related to agriculture."

Thus according to Prof. Gray, agricultural economics only a phase of an immense field called economics in which primary attention is paid to the analysis of the economic problems associated with agriculture, Prof. Gray defines agricultural economics, "as the science in which the principles and methods of economics are applied to the special conditions of agricultural industry." No doubt both these definitions are wider in scope, but these are not explanatory and are characterised by vagueness unsettled.

Prof. Hubbard has defined agricultural economics as, "the study of relationship arising from the wealth-getting and wealth-using activity of man in agriculture." This definition is

based o Prof. Ely's definition of economics and is mere akin to Marshall's conception of economic activities and therefore it is also limited in scope.

According to Lionel Robbins, economics deals with the problems of allocative efficiency i.e. choice between various alternative uses-particularly when resources are scarce— to maximize some given ends. Thus it provides analytical techniques for evaluating different allocations of resources among alternative uses Prof. Taylor defines agricultural economics in Robbinsian tone.

To use his words, "Agricultural economics treats of the selection of land, labour, and equipment for a farm, the choice of crops to be grown, the selection of livestock enterprises to be carried on and the whole question of the proportions in which all these agencies should be combined. These questions are treated primarily from the point of view of costs and prices."

Relationship between Agriculture and Industry

Industry is not the substitute of agriculture, rather they are complementary to one another. Both these sectors are so attached with each other that it is not possible to increase the growth of one sector sector without the improvement of the other sector. If agriculture is considered as the 'heart' of the country, then obviously industry must be consider as the 'brain'.

(A) Impact of Agriculture on Industry:

Agriculture has huge positive impacts on the industrial development, such as:

(a) It regularly supplies raw materials like sugarcane , jute cotton, oilseeds, tea, spices, wheat; paddy etc. to the consumer goods industries.

(b) It supplies cereals, vegetables and other food items to the industrial labourer and fodders for the domestic animals in the dairy industries on a regular basis.

(c) Farmer-households used to save their money in the bank and other financial institutions which ultimately is used by the industry owners in the form of investment.

(d) Both for consumer and capital goods Industries agriculture sector gives a ready market for the finished products.

(e) It regularly supplies manpower to the industries

(B) Impact of Industry on Agriculture:

This is needless to mention the impact of industry on agriculture.

The impact of industry on agriculture as follows:

(a) It regularly supplies scientific tools and equipment's like tractors, harvesters, pump-sets chemical fertilizers etc. to agriculture increase the per hectare production.

(b)To increase the market for finished agricultural goods some infrastructural development like roads, railway, storage etc. are very essential. In this connection industry plays a vital role.

(c) Industries provide huge employment opportunities and therefore help to absorb all the surplus labour in our agriculture. This lea to more industrial development.

(d) Agricultural sector itself is a huge market for the different finished products of Industries. Farmers buy several industrial products like bi-cycle, torch, radio etc. All these flourishment of industries.

Thus in nutshell, we can say that bath agricultural and industry are complementary to each other. The operate hand to hand. The development of one sector depends on the growth and performance of the other sector.

Role of Agriculture in the Economic Development of a Country

Some of the major role of agriculture in economic development of a country are as follows:

Agricultural sector plays a strategic role in the process of economic development of a country.

It has already made a significant contribution to the economic prosperity of advanced countries and its role in the economic development of less developed countries is of vital importance.

It is seen that increased agricultural output and productivity tend to contribute substantially to an overall economic development of the country, it will be rational and appropriate to place greater emphasis on further development of the agricultural sector.

(1) By providing food and raw material to non-agricultural sectors of the economy.

(2) By creating demand for goods produced in non-agricultural sectors, by the rural people on the strength of the purchasing power, earned by them on selling the marketable surplus,

(3) By providing investable surplus in the form of savings and taxes to be invested in non-agricultural sector.

(4) By earning valuable foreign exchange through the export of agricultural products,

(5) Providing employment to a vast army of uneducated, backward and unskilled labour. As a matter of fact, if the process of economic development is to be initiated and made self-sustaining, it must begin for agricultural sector.

The agriculture sector is the backbone of an economy which provides the basic ingredients to mankind and now raw material for industrialisation.

Therefore, the role of agriculture for the development of an economy may be stated as below:

1. Contribution to National Income:

The lessons drawn from the economic history of many advanced countries tell us that agricultural prosperity contributed considerably in fostering economic advancement. It is correctly observed that, “The leading industrialized countries of today were once predominantly agricultural while the developing economies still have the dominance of

agriculture and it largely contributes to the national income. In India, still 28% of national income comes from this sector

2. Source of Food Supply:

Agriculture is the basic source of food supply of all the countries of the world—whether underdeveloped, developing or even developed. Due to heavy pressure of population in underdeveloped and developing countries and its rapid increase, the demand for food is increasing at a fast rate. If agriculture fails to meet the rising demand of food products, it is found to affect adversely the growth rate of the economy. Raising supply of food by agricultural sector has, therefore, great importance for economic growth of a country.

3. Pre-Requisite for Raw Material:

Agricultural advancement is necessary for improving the supply of raw materials for the agro-based industries especially in developing countries. The shortage of agricultural goods has its impact upon on industrial production and a consequent increase in the general price level. It will impede the growth of the country's economy. The flour mills, rice shellers, oil & dal mills, bread, meat, milk products sugar factories, wineries, jute mills, textile mills and numerous other industries are based on agricultural products.

4. Provision of Surplus:

The progress in agricultural sector provides surplus for increasing the exports of agricultural products. In the earlier stages of development, an increase in the exports earning is more desirable because of the greater strains on the foreign exchange situation needed for the financing of imports of basic and essential capital goods.

Johnson and Mellor are of the opinion, "In view of the urgent need for enlarged foreign exchange earnings and the lack of alternative opportunities, substantial expansion of agricultural export production is frequently a rational policy even though the world supply—demand situation for a commodity is unfavorable."

5. Shift of Manpower:

Initially, agriculture absorbs a large quantity of labour force. In India still about 62% labour is absorbed in this sector. Agricultural progress permits the shift of manpower from agricultural to non-agricultural sector. In the initial stages, the diversion of labour from agricultural to non-agricultural sector is more important from the point of view of economic development as it eases the burden of surplus labour force over the limited land. Thus, the release of surplus manpower from the agricultural sector is necessary for the progress of agricultural sector and for expanding the non-agricultural sector.

6. Creation of Infrastructure:

The development of agriculture requires roads, market yards, storage, transportation railways, postal services and many others for an infrastructure creating demand for industrial products and the development of commercial sector.

7. Relief from Shortage of Capital:

The development of agricultural sector has minimized the burden of several developed countries who were facing the shortage of foreign capital. If foreign capital is available with the ‘strings’ attached to it, it will create another significant problem. Agriculture sector requires less capital for its development thus it minimizes growth problem of freign capital.

8. Helpful to Reduce Inequality:

In a country which is predominantly agricultural and overpopulated, there is greater inequality of income between the rural and urban areas of the country. To reduce this inequality of income, it is necessary to accord higher priority to agriculture. The prosperity of agriculture would raise the income of the majority of the rural population and thus the disparity in income may be reduced to a certain extent.

9. Based on Democratic Notions:

If the agricultural sector does not grow at a faster rate, it may result in the growing discontentment amongst the masses which is never healthy for the smooth running of democratic governments. For economic development, it is necessary to minimize

political as well as social tensions. In case the majority of the people have to be kindled with the hopes of prosperity, this can be attained with the help of agricultural progress. Thus development of agriculture sector is also relevant on political and social grounds.

10. Create Effective Demand:

The development of agricultural sector would tend to increase the purchasing power of agriculturists which will help the growth of the non-agricultural sector of the country. It will provide a market for increased production. In underdeveloped countries, it is well known that the majority of people depend upon agriculture and it is they who must be able to afford to consume the goods produced.

Therefore, it will be helpful in stimulating the growth of the non- agricultural sector. Similarly improvement in the productivity of cash crops may pave the way for the promotion of exchange economy which may help the growth of non-agricultural sector. Purchase of industrial products such as pesticides, farm machinery etc. also provide boost to industrial dead out.

11. Helpful in Phasing out Economic Depression:

During depression, industrial production can be stopped or reduced but agricultural production continues as it produces basic necessities of life. Thus it continues to create effective demand even during adverse conditions of the economy.

12. Source of Foreign Exchange for the Country:

Most of the developing countries of the world are exporters of primary products. These products contribute 60 to 70 per cent of their total export earning. Thus, the capacity to import capital goods and machinery for industrial development depends crucially on the export earning of the agriculture sector. If exports of agricultural goods fail to increase at a sufficiently high rate, these countries are forced to incur heavy deficit in the balance of payments resulting in a serious foreign exchange problem.

However, primary goods face declining prices in international market and the prospects of increasing export earnings through them are limited. Due to this, large developing countries like India (having potentialities of industrial development) are trying to diversify

their production structure and promote the exports of manufactured goods even though this requires the adoption of protective measures in the initial period of planning.

13. Contribution to Capital Formation:

Underdeveloped and developing countries need huge amount of capital for its economic development. In the initial stages of economic development, it is agriculture that constitutes a significant source of capital formation.

Agricultural Productivity:

The basic malady of Indian agriculture is its amazingly low productivity Agricultural Productivity can be viewed from two angles; land productivity or productivity per acre of land, and labour productivity or what a labourer can produce and land by his labour. In India, both land productivity and labour productivity are low.

Not only is the productivity low and poor in India when compared to foreign countries, but also productivity had been declining from olden days. A survey carried out by the F.A.O points out that the rice yield per acre were 50 per cent higher during the Mughal period than at present. For some time past, stationary state had been reached in India where from no improvement was noticed. In Tamil Nadu, at the close of the 18th century and in the early years of the 19th century, the paddy yield were 30 to 50 per cent higher than they are now according to reports of British Collectors of those days, Mr.Place of Chengalpattu district and Mr. Harris of Thanjavur district. They recorded that yields ranged from 2,400 to 2,800 lbs. per acre, and in Coimbatore according to Mr.Hogdson, 5,000 lbs per acre for the crop and 3,600 lbs per acre for the second crop.

The process of decline in productivity in agriculture continued in the post-war period also. The first Five year plan estimated that, as compared to the pre-1939 period, the average yield of cereal per acre during the period 1946-47 to 1949-50 had declined fro m 619 lbs.to 565 lbs. Studies conducted by I.C.A.R. and the conclusions of the Grow More Food Enquiry Committee revealed a similar position.

The productivity trends during the planning period indicate that the rise in productivity is neither continuous nor very large. Over the 15 year period from 1961-62 onwards, the

productivity increase was around 29 percentage points and this too had taken place mainly after 1966-67 due to the introduction of new technologly in agriculture with high-yielding varieties. From 1970 onwards, there was no significant improvement in productivity trends. The progress made during the plan period in productivity cannot be considered very satisfactory when compared to heavy investments made to increase agricultural productivity. Apart from this, labour productivity per engaged worker in agriculture is also very low in India. It is roughly one-third of the average productivity per engaged worker in commercial establishments. Further, agricultural labour productivity is ridiculously low in India when compared to foreign countries. It is estimated in terms of output per male worker in India is only 2.2 tonnes of wheat; while in Japa n it is 13.1 tonnes; Taiwan 8.1 tonnes; Canada 115.2 tone; U.S. 123.5 tonnes and Australia 125.8 tonnes.

The productivity of all food grains has increased from 5.5 quintals in 1949-50 to 17.3 quintals in 2002-2003, showing an annual growth rate of 1.4 per cent up to 1965 and then 2.4 per cent up to 2003. In the case of Rice, the productivity cannot be considered as meagre as it had gone up from 7.1 quintals per hectare before the commencement of planning and it has reached the level of 20.8 quintals per hectare in 2002-03, an appreciable increase in productivity of nearly three times. In the case of coarse cereals, it had increased from 4.3 quintals to 10.4. In the case of wheat, the increase in productivity has been very phenomenal from 6.6 quintals per hectare to 27.7 quintal per hectare in 2002-2003. This is the effect of green revolution. In potato, the productivity has gone up from 66 quintals per hectare to 180 quintals.

In the case no n-food grains, though there has been some improvement, the rise cannot be considered as very significant or phenomenal. The green revolution and the application of new bio-chemical technology in agriculture did not have the desired effect, except in the case wheat. Hence, from the productivity aspect, we can say that green revolution is mainly wheat revolution.

As mentioned earlier, compared with the productivity of cereals in foreign countries, we are far behind in spite of adopting new tyhpe3s of technologies, making huge investments.

Inter-State Differences in Productivity

Apart from low, productivity in agriculture in India compared to foreign countries, there are lot of differences in productivity for the same crop between different states of India, due to agro-climatic differences. This agricultural productivity has undergone an abrupt change in the post-green revolution period. It should be noted in this context that the fruits of green revolution were made available only to certain. States like Punjab, Haryana and Western Uttar Pradesh. As a result, while the productivity in these States which have introduced the new strategy has increased very phenomenally, in other States, the productivity in agriculture has remained more or less static or increased very nominally. All these had led to a high degree of interstate difference in agricultural productivity in India.

The enormous differences in productivity among the different states of the Indian Union. In the case of rice, Punjab and Tamilnadu stand foremost with 35.3 and 31.0 quintals per hectare respectively in the year 1990-91, states like Andhra Prades, Haryana, Karnataka, West Bengal and Kerala stand above national average in the productivity of rice, whereas other states lag behind. In the case of Wheat, Haryana, Punjab, Gujarat and U.P. stand in the forefront, while other states lag behind. Kin the case of pulses, U.P., Bihar, Haryana, Punjab and Kerala stand foremost while others are touching near the average productivity of the country. Tamilnadu stands foremost in productivity of sugarcane due to pioneering efforts in their research work in the farm at Appakudal. Productivity in sugarcane in Tamilnadu has exceeded thousand quintals per hectare Gujarat, Karnataka, Maharastra, UP., Andhra Pradesh and Bihar also have come3 out well in the productivity of Sugarcane, whereas other sates lag behind. In the case of Potato, Tamilnadu, West Bengal, Punjab and Gujarat exhibit excellent productivity compared to the national average, while other states lag behind.

Thus, we can conclude that wide-spread inter-state difference in agricultural productivity has been prevailing among the various states of India. The most important factor responsible for such differences in productivity is the concentr5ation of green revolution among certain states only, neglecting other states. Though there are traditional differences between the state in natural endowments such as soil, climate, rainfall,

irrigational facilities etc., these differences have been accentuated due to the adoption of new agricultural technology and strategy in a very selective and also in a very restrictive manner among certain few richer states. A cursory glance, certain states like Punjab, Haryana acquit themselves very well in almost all the crops, while some of the States stand far behind, while a few toe the average line of the nation in productivity.

In this context of productivity, we should remember that India cannot increase the productivity of crops by 5 times or 6 times to reach the level of foreign countries. Generally, in foreign coun tries, they grow the crop for the full year. In cold countries theyt grow the crop having 10 months duration to obtain higher results and yields. In our country, most of the crops are of 150 to 180 days duration. In the span of a year, the Indian farmers grow another rice crop or potato or legume or a short duration vegetable. In fact, in the old Thanjavur district of Tamilnadu, particularly in the Cauvery delta region, for almost 10 months in a year. The farmer in India, by shifting from a mono-cropping to a multi-cropping system, is more concerned with the productivity per hectare of individual crops. Hence, comparing the productivity of a single crop in India with that of the same crop in foreign countries is rather unscientific.

AGRICULTURAL PRODUCTION

We studied about productivity in agriculture. We shall study about agricultural production. Production and productivity are different concepts, though there is close relationship between the two Agricultural production denotes the quantum of agricultural crops produced in the economy during the course of the period, viz., a year. This is the total available agricultural product produced with the available resources in the economy. On the other hand, ‘productivity’ is the ‘capacity to produce’ with unit resources. In other words, it tells how much of agricultural production takes place in the economy with one unit of land, capital or labour; or what is the cost of producing one unit of agricultural output. As we have studied already, productivity depends on land productivity, labour productivity, technology productivity etc., Economy with little resources has to contrive ‘efficienchy in production’ (i.e., greater productivity) in order to produce more.

Trends in agricultural crop production in India

Production of agricultural crops shows an up trend since the commencement of planning. The production of foodgrains has increased from 55 million tones in 1950-51 to 192 million tones in 1994-95, showing a three-fold increase in production during the course of 45 years. But the production trend is not uniform in all types of agricultural crops. While cereals show an increasing trend, pulses have remained almost stagnant. In commercial crops, sugarcane, and cotton exhibit rising trends, whereas oilseeds and jute are comparatively unresponsive.

State-wise break-up agricultural production

India is a varied land of climate and fertility, hence there is lot of regional imbalance in the contribution of agricultural products. In foodgrains production, U.P., Punjab, M.P., Maharashtra, Andhra Pradesh, West Bengal and Bihar stand foremost, contributing nearly 65f per cent of the total production of foodgrains for the entire country. Tamilnadu stands in the tenth rank of the states' contribujtion to foodgrains production which is around 4.26 per cent of the national production.

State-wise break-up agricultural production after 1999-2000

Coming to the analysis of state-wise break-up of agricultural production in very resent years, the development of agricultural sector is not evenly balanced, and they indicate market differences in production. As indicated earlier, the modernization of Indian agriculture is very much concertrated into some particular states like Punjab, Haryana, Wester Uttar Pradesh, etc., Naturally, the contribution of these States towards agricultural production has been much higher.

In the production of total foodgrains, Uttar Pradesh stands first contributing more than 21.5 per cent of the total foodgrain production in India, followed by Punjab contributing more thtn 11 per cent of the total foodgrain production in the country. Tamilnadu, which was formerly contributing 4.26 per cent of the total production of foodgrain in the country, has fallen down to the level of 3.9 per cent only. Madhya Pradesh contributes nearly 10 per cent of the total foodgrains. Andhra Pradesh, Bihar, Maharashtra,

Rajasthan and West Bengal contribute around 1 percent each, while Karnataka contributes 5 per cent. The other states have their share less than 5 per cent.

In the production of pulses, in recent years, Madhya Pradesh stands first contributing 38 lakh tones, Uttar Pradesh stands second contributing 27 lakh tones and Maharastra third, contributing 21 lakh tones. Tamilnadu contributes 4.5 lakh tones out of the total production of 145 lakh tones in India. Karnataka's contribution of pulses is around 7 lakh tones and Andhra Pradesh 8 lakh tones.

The variations in the production of foodgrains and pulses are not uniform over years, as production depends on so many factors like rainfall, irrigation facilities, drought conditions and other factors.

Another disquieting feature is the diverse differences in per capita foodgrains production in various states. For example, the per capita foodgrain production in some of the agriculturally developed States are 913 Kgs. In Punjab, 538 kgs, in Haryana and 252 kgs in U.P., whereas in Assam and Tamilnadu the per capita foodgrains production stands at 135 and 136 kgs respectively and in Gujarat it is barely 120 kgs.

Causes for Low Productivity in Agriculture

The problem of agricultural productivity in India is the outcome of cumulative and complex problems affecting various activities in agriculture and as such poor productivity cannot be attributed to one cause alone. The factors that retard the growth of agricultural production can be analysed under five broad heads, viz., natural technological, institutional, economic, and social factors.

1. Natural Factors: Agriculture in India is said to be a gamble on the monsoon. It is dominated mainly by nature, especially by rainfall. Nature plays havoc on agricultural production either by insufficient rain, causing drought conditions, or by unwanted rain, floods, cyclones, etc., causing widespread damage and destruction. Farm operations and production cannot be quickly expanded or altered with the vagaries of the monsoon, and hence output cannot be as expected. In farming business, Nature is the master who proposes or dispose, while the peasant is only a 'manager'. In the absence

of a well developed irrigation system for supply of water or control of floods, the peasant will be seriously handicapped in his effort to step up farm production.

2. Technological Factors: The soil in India is exhausted as cultivation is being carried on in our country for thousands of years right from vedic times. The land has lost all its fertility of productive capacity and to revitalize fertility adequate doses of fertilizers and manures have to be applied. The Indian farmer is tradition bound and does not adopt advanced techniques of production. Improved implements like steel plough, seed drills, water-lifts, small pump sets, etc., are used only on a limited scale. The Indian farmer selects his seeds indiscriminately, and consequently, the yield also becomes poor. Lack of irrigational facilities, out-dated implements, inferior seeds, inadequate fertilizers, lack of plant protection measures and poor unscientific method of cultivation contribute to low yield in agriculture.

3. Insitutional Factors: The average size of holding in India is not only very small but fragmented in many places. Due to the law of inheritance, the availability of cultivable land is decreasing in the face of rising population. The leads to uneconomic holdings in agriculture, inability to adopt scientific methods of cultivation, loss of time and labour, difficulty in the utilization of irrigational facilities, quarrels, litigations, etc., which will not help in augmenting agricultural production. The tenurial system is India has many defects and it does not offer incentives to the cultivating farmer. Though Zamindari has been abolished and many tenancy legislations enacted, the evils of absentee-landlordism, insecurity of tenure, rackrenting, etc., are found in many cases. Under the conditions, the tiller of the soil cannot increase agricultural productivity.

4. Economic Factors: The Indian farmer is a hopelessly poor man who is always in debt. Lack of financial facilities stand in the way of improving his agricultural technique. An average cultivator is at the mercy of the money-lender for finance, not only for cultivation, but also for transporting, and marketing his crops. Absence of productive incentives, lack of marketing and godown facilities and the indebtedness of the farmer have led to the fall in productivity.

5. Social Factors: There is excessive pressure of population on land leading to uneconomic activities and poor production in agriculture. Besides, the farmers are illiterate and ignorant people with conservative and superstitious outlook. The rural atmosphere is surcharged with backwardness, fatalism and stagnation, and agriculture is carried more as a mode of living than a business. The Indian village present a dismal picture of discontent, bitterness, social tensions, group conflicts, rivalry, etc., which are important social factors impoding agricultural production.

In recent years, more so during plan periods, there has been some improvement in agriculture. But the conditions have not changed much. The twin problems, viz., ***instability*** and ***low productivity*** continue to be the main drawbacks in agriculture. The causes for poor productivity suggest the remedies by themselves.

SUGGESTIONS FOR RAISING AGRICULTURAL PRODUCTIVITY AND INCREASING FARM INCOMES: All of us know that India has become a signatory of the World Trade Organisation without strengthening its economy, particularly its agricultural sector, which is the back-bone of India's economic development. As a result, cheap products from the developed nations will have free access to the Indian market. Though this is a welcome development from the point of view of the consumer, the problems of our poor farmers will get accentuated, as their purchasing power of the farmers will prove disastrous to the economy, as agriculture is the sustaining ground for the Indian economy, and the government should ensure level playing field for the rural population, particularly farmers, engaged in agriculture with poor productivity and dwindling farm incomes.

Increasing productivity of foodgrains: At the outset, we should realize that in developed countries, the farmers enjoy subsidies of over 360 billion dollars annually. With this, and with the improved production technology and scientific package of cultivation practices, many countries have improved their yields well over 6000 kg. per hectare, as we had already studied, and the productivity of cereals in India has stagnated around 2300 kg. per hectare. There is an urgent need to ***modernize agriculture*** and improve productivity.

(1) Farmers have to be empowered with education, on-farm training and guidance to employ modern cultivation practices. (2) The agricultural Universities, research stations, the scientific community and the self help groups (SHGs) have a larger role to play in helping farmers with an innovative approach. (3) Farmers have to be provided with quality seeds and innovative package of cultivation practices. (4) Trial farming has to be conducted in farmers' fields to enable them to see for themselves, the benefits of appropriate technologies. (5) Sugar industry in India is adopting to some extent this type of trial and demonstration plots to educate the farmers in increasing the productivity of sugarcane. This type of help to farmers should be adopted for other crops as well, with adequate administrative and marketing support.

Modernisation, diversification, education and processing will certainly prove helpful in increasing the productivity of the land and also the income of the farmer.

Indians are intelligent and hard working. When they can rule the software world, should they lag behind in high-tech agriculture? When Indian farmer are empowered with hands on training and guidance, agriculture in India can perform splendidly well and add value to the economy. With guidance on the right direction, India can serve as a production base for a number of farm based products for MNCs with technological expertise and established brands.

The only drawback in our economy is that the lobby of rich landed gentry is very powerful in almost all the States. Hence, the fruits of development efforts are cornered by them and the poor and hungry continue to languish in poverty and misery. If there is a political will, effective changes can be ensured towards raising the productivity of land and also rural development.

Unit –II

Major Causes of Rural Indebtedness

The following points highlight the five major causes of rural indebtedness. They are: 1. Past Indebtedness 2. Poverty 3. Land Improvement 4. Social and Other Obligations 5. Moneylenders.

1. Past Indebtedness: The root cause is past indebtedness. Rural debt is not only universal but hereditary. Ancestral debt is honoured in India and every villager considers it to be his sacred duty to repay the debt of his father.

This is why the Gov-ernment had provided a huge debt relief to the farmers on several occasions in the past.

2. Poverty: Another cause of rural indebt-edness is widespread poverty. With low income, fanners cannot save much. Thus, in case of an even-tuality such as crop failure due to natural calami-ties like floods, or failure of monsoons, the farmer has to borrow—and often at a very high rate of interest.

Moreover, the farmer has to borrow in or-der to make certain improvements on his land such as contour bounding for flood control, construc-tion and deepening of wells for irrigation or for purchasing costly implements and inputs. The farmer has to borrow because he is poor. Similarly, his persistent poverty makes it difficult for him to save and repay the loan. It is a vicious circle.

3. Land Improvement: Since land is the most important income-earning asset the farmers have a strong desire to make necessary improve-ments on land. This is no doubt desirable for im-proving the economic conditions of the farmers. But with little or no saving farmers have to borrow to finance the cost of such improvements. Conse-quently, they fall into a ‘debt trap’.

4. Social and Other Obligations: Farmers also fall in debt because they have to discharge certain social obligations irrespective of their means and resources. They have to observe reli-gious and social functions like pujas, marriages, births and deaths

and so on. Moreover, they bor-row to cover the cost of litigation which is often on the high side. They also borrow to meet con-sumption needs. And they cannot repay loan in most cases.

5. Moneylenders: The moneylenders are also largely responsible for the huge burden of rural debt. They not only charge excessive inter-est but maintain false accounts. When the amount of debt gets accumulated over a number of years the farmer finds it difficult to repay it and is forced to surrender his land to the moneylender. This is the plight of the rural masses in India even today.

Role and Importance of Money-lenders in Agricultural Finance

In spite of many competing institutional agencies to supply of credit needs of the farmer, The Village money-lenders' share is also considerable, though, it is dwindiling in recent year. The importance of money-lenders arise and due to ignorance of the farmers about the availability of other credit institutions or due to some other reasons by which the village money-lenders have a tighthold on the farmers. Though our farmers are fully aware of various credit institutions, their preference is to get the money from the professional money-lenders, rather than other organizations for the following two simple reasons : (a) Credit an be obtained from the money-lenders in no time; it is a question of few hours. No elaborate and technical formalities will be observed, as the money-lenders have full knowledge of the people in the village who approach them for credit. (b) Credit can be had for any purpose and unlike institutional agencies, the money-lenders will not insist on the credit being made productive; they are least bothered about the use of the credit.

In this context one may note four important points:

1. The demand for credit far exceeds the sup-ply. So the rates of interest charged are very high and often go up to 30-35%. This is a rate of inter-est which no economic activity in the world can afford to bear. What is worse is that agriculture in India is not that productive as to enable the farmer to achieve economic self-sufficiency after paying such high interest.

2. Moreover, agriculture all along was and continues to be a gamble in monsoons. Thus, in case of crop failure, the farmer is forced to borrow and thus to run into debt and fall into a debt trap.

3. Of course, some measures have been taken in recent years to provide institutional credit sup-port to agriculture. But the agencies that supply rural credit suffer from one defect or another.

4. Institutional finance is subject to compli-cated formalities and rigid repayment conditions. The moneylender's methods are such as to confis-cate all the resources of the debtor. The co-opera-tive societies do a lot of favouritism and give loans mostly for short-term production purposes. Me-dium and long-term institutional finance is grossly inadequate compared to need.

Debt Relief Program for Small and Marginal Farmers

The setting for my investigation into debt relief and household behavior is a natural experiment generated by India's 2008 Debt Waiver and Debt Relief Scheme for Small and Marginal Farmers, oneof the largest debt relief programs in history. Enacted by the Government of India in June 2008, the program affected between 36 and 40 million farmers across India and covered outstanding loans worth approximately Rs 715 billion. The program was partly motivated by a highly visible increase in farmer suicides, most notably in the Vidarbha region of of Maharashtra, where highindebtedness among low-income farm households was a frequently cited factor.

As a sizable transfer to India's important agricultural sector ahead of national elections, the program may have also served more direct political purposes.9 Evidence of stagnating agricultural yields and economic theories of debt overhang (Myers, 1977; Ghosh, Mookherjee and Ray, 2000) and investment-driven poverty traps (Banerjee and Newman, 1993; Banerjee, 2000) provided an additional motivation, with the expectation being that a reduction in household debt would improve the efficiency of agricultural investment. Because commercial banks and cooperatives were refinanced through the central bank, the program was also popular with lenders, and may have helped to revive some financially troubled institutions. An important concern, however, even as the

bailout program was being drafted, was its potentially adverse impact on borrower behavior and incentives for timely repayment.

The program, as announced in the Indian Finance Minister's budget speech on 29 February 2008,10 applied to all agricultural debt issued by commercial and cooperative banks between 1997 and 2007.

This included all crop loans, investment loans for direct agricultural purposes or purposes allied to agriculture, and loans rescheduled under previous programs. Debt from lenders other than banks or credit cooperatives, and loans for non-agricultural purposes were not covered by the program. To qualify for debt relief, a loan had to be issued before December 31, 2007 (well prior to the program announcement) and remain overdue as of February 28, 2008.

In contrast to previous debt relief initiatives, eligibility for the program depended on the amount of land a borrower had pledged as collateral at the time the loan was taken out, typically several years 9 In 2009, Indian agriculture accounted for 17.12% of GDP and 66% of total employment (World Bank, 2012).

Borrowers who had pledged two or fewer hectares of total land qualified for unconditional 100% debt relief, while borrowers who had pledged more than two hectares of land qualified for 25% conditional debt relief granted upon the repayment of their remaining balance. An exception to this cutoff rule applied in districts that had been classified as "drought affected", where farmers above two hectares qualified for either 25% conditional debt relief or a direct disbursement of Rs 20,000, whichever amount was greater. For agricultural loans that were not tied to the amount of land pledged, farmers with loans of Rs 50,000 and under qualified for full debt relief, while farmers with larger loans were eligible for conditional debt relief. The sample in this paper includes only crop and investment loans, for which debt relief was based on land holding.

All surveyed households resided in non-drought affected districts, so that the analysis is unaffected by these exceptions to the two hectare cutoff rule. Table 1 summarizes the program eligibility rules by district type and landholding category. Implementation of the

program began on June 30, 2008, with full waivers being granted immediately, and 25% conditional relief being granted upon repayment of a borrower's remaining balance, with an initial deadline of June 30, 2009. This deadline was eventually extended by one year in order to accommodate those who had trouble repaying their remaining balance.

The program had several features designed to maximize transparency and avert manipulation. Each bank branch in the country was required to post a public list of all debt relief beneficiaries among its clients, along with loan and landholding details as a transparency measure. In addition to the public posting of borrower lists, accounts qualifying for debt relief underwent several rounds of audit and verification to reduce the risk of fraud. First, beneficiary lists at each bank branch had to be confirmed in several rounds of banks' annual internal audits.

A number of branches were then audited by controllers from the Reserve Bank of India. Finally, borrower lists underwent an independent audit by the Comptroller and Auditor General of India. The program was widely publicized in national and regional media to ensure that borrowers were aware of their entitlements under the program. Borrowers qualifying for debt relief were notified by their bank, received a written confirmation of debt relief, and had their collateral cleared on official land documents

Rural finance:

The nature of agricultural production imposes significant discontinuities between the time resources are committed (immobilized) in production at planting and the generation of revenues after the harvest. Farmers who do not have sufficient resources to invest in such immobilization for the required part of the year, including both for purchased inputs and for living expenditures in the waiting period, depend more than the people in other sectors on the availability of credit. Facilitation of access to credit for the rural poor has therefore a role in the panoply of policy instruments for alleviating rural poverty.

The environment for rural financial intermediation has changed significantly in recent years. The concept of privatization has been embraced by an ever increasing number of countries, and the role of markets in the determination of prices for traded agricultural products has been enhanced. Food and agricultural input subsidies, including those for

agricultural credit, have been reduced or eliminated. A larger share of rural credit comes from private sources, and a declining share from the state. As subsidies on credit are reduced the cost of credit increases, and as subsidies on other inputs are reduced the credit requirements rise.

Until the early 1980s most attention was focused on formal finance, i.e. that sector of the financial system regulated by a central monetary authority; only occasionally was mention made of financial activities that were not regulated, i.e. informal finance. During the 1980s, however, research increasingly showed that informal finance plays an important role in rural development, especially for poor people: small farmers, landless people, micro entrepreneurs, and particularly women within these groups. It also became apparent in a number of countries that the informal system operated more efficiently and equitably than did the formal financial structure.

Far too often talk about financial services is limited to credit alone. Surprisingly large amounts of savings deposits can be mobilized even in low-income countries and among people who would fall in the category of the poor, when a reliable and effective system for doing so exists. There are a number of studies which confirm that a large percentage or, in some cases, the entire seasonal lending for agricultural production could be financed with locally mobilized funds (local in this context meaning rural). Again, this requires improvements and further developments in the financial system, which at village and district levels makes possible the mobilization of savings. At the national level, the financial system must also be capable of transferring such savings from surplus to deficit areas, at the same time maintaining the confidence of savers in the safety of their deposits. As an agrarian economy develops, the flow of savings generally has been from rural areas to urban centres, a flow often stimulated by the adverse terms of trade for agriculture stemming from government policies that explicitly or implicitly tax the sector (see Chapter 7).

ROLE OF CO-OPERATIVES IN EXTENDING RURAL CREDIT

The Co-operative movement in India started only as Credit Co-operation with the primary objective of extending credit facilities to the farmerws in adequate measure and

at cheap rate of interest. The Primary Societies in villages extend loans to the peasants for short period, generally for one agricultural season, and the rate of interest is only 6 per cent. Co-operative credit is the cheapest and the best, and it was expected that eventually private credit and money-lenders would ve supplanted by co-operative societies. But the co-operative movement was spreading very slowly and that too after the second world war. Credit Societies could not record any significant success and the expectations have not been fulfilled. Till recently, they had been playing very insignificant role in agricultural finance. In 1951-52, Co-operative Societies supplied only 3.1 per cent of the financial needs of the cultivators, with 1,15,462 credit societies working in our land of 5,64,718 village which made the Rural Cfredit Survey say. “Co-operation has failed in spite of its recognition”.

Specialized credit institutions and commercial banks

When governments and donors alike started focusing attention on credit as a means of fostering rural development, a variety of specialized, mostly government-owned, credit institutions were created. The overall experience with these types of institutions has been quite unsatisfactory. They were directed to extend below-cost loans to target groups or activities identified either by the government or by external funding entities. Because the selection of those groups or activities was often made on criteria other than commercial ones linked to their financial performance, the loan repayment rate was poor. In most cases the lending agencies were supervised and controlled by ministries which were not equipped to deal with financial institutions. All these negative features, together with excessively high transaction costs, have led many of these institutions into great difficulties, and made them increasingly dependent on state subsidies for survival (see Besley, 1994, for a review of arguments for interventions in rural credit markets).

Simultaneously with government efforts described above, commercial banks were urged to increase their activities in rural areas, particularly by lending to the agricultural sector. Again, results were generally below expectations and the intended target group, often small farmers, benefited little from these measures. Small farmers were ignored because lending to them was expensive and they were considered to constitute a

higher risk than large farmers, though there is no adequate empirical evidence to support the latter argument.

Partly on their own initiative and partly as a means of complying with the government directives, commercial banks in some countries have experimented with group lending schemes for small farmers. For example, in Ghana, such schemes were initially fairly successful, but when the numbers of groups increased the staff involved could not manage them properly. This shortcoming was reflected in loan default and consequently considerable sums were lost in these schemes. However, during the last three to four years some Nigerian commercial banks have made special efforts to build up lender customer relationships with selected cooperatives, so that the latter can satisfy the demand for credit by their members. Initial results have been encouraging.

Except for a few recent successes, both specialized credit institutions and commercial banks often lack adequate institutional and operational arrangements at the grassroots level. In particular, they are too far removed from their clientele to make optimum lending decisions and to implement sound loan collecting procedures.

Co-operatives and other rural organizations in rural finance

To overcome these crucial problems, increasing efforts are being made to involve in the provision of financial services various rural organizations, such as cooperatives, informal groups of small farmers and other rural people, and traders dealing with agricultural inputs and produce. Cooperatives permit economies of scale for their members in access to financial services. They are particularly well suited to providing financial services to rural people as they operate at grassroots level among people who know each other well, a basic condition for trust. Often a cooperative is the only financial institution (or formal organization) in a rural area, and is therefore an obvious structure for the operation of new financial services to supplement the traditional, informal sources of credit.

Cooperatives and other less formal group arrangements have the potential of reducing the transaction costs of lending to small farmers and other segments of the rural population subject to disadvantages as well as of improving the management of risk.

Successful lending programmes have shown the importance of factors such as homogeneous borrowing groups, which are jointly liable and themselves assume some managerial and supervisory responsibilities, and are bound in loyalty by a common bond other than credit. Important factors for the success of cooperatives include bottom-up institutional development, extensive training at all levels, reliance on savings mobilization and equity contribution rather than external funds, gradual expansion of activities, and strict monitoring and auditing.

Informal rural finance

For the rural people, and particularly for the rural poor, the main sources of credit have been and continue to be various types of informal arrangements. Although more common among poor people, informal loans and savings activities are known among and between all economic classes. Traditionally, informal rural finance has been viewed by outsiders as a plague for poor people, whereas in fact large numbers of the poor benefit from it. Furthermore, contrary to widely held opinions, there is surprisingly little evidence in recent studies of exploitation. Women, in particular, often have to resort to informal finance because of institutional and legal barriers to formal credit such as lack of collateral or requiring a husband's signature on loan agreements.

A great number of financial intermediaries operate in the informal financial markets. Probably friends and relatives are the most common source of credit, particularly in rural areas, in some countries accounting for more than half of all informal loans. In most cases, no interest or collateral is involved and repayment conditions are very flexible. These attributes have great merit for those without collateral, such as the landless or those without land titles, and in situations where production risks are high. Furthermore, loans are often received in kind, such as seeds and fertilizers, and may be repaid also in kind.

Rural communities of some countries may save jointly for a variety of purposes, generally not for lending but for the bulk purchase of farming inputs (e.g. in Zimbabwe) and for various social functions. Informal rotating savings groups among women have also become popular as a means of maintaining their financial independence. More

sophisticated groups are the ROSCAs (rotating savings and credit associations), which are found in many low income countries and which have been extensively studied in recent years. In many areas, more individuals participate in ROSCAs than deal with formal financial institutions; recent research in the Cameroon suggests that the volume of deposits moving through ROSCAs may sometimes be larger than amounts held in banks (Schrieder, 1989).

The predominance of informal credit arrangements in rural credit markets necessitates the analysis of the complex transactions that occur in such markets. Recent developments in the analysis of informal credit institutions emphasize the role of informational deficiencies in shaping such transactions. In developing countries, incomes of rural borrowers are uncertain, collateral is often lacking and repayment, if not willingly made, is extremely difficult and costly to enforce. Thus, when a loan transaction takes place, it is very costly for the lender to determine the default risk of a borrower and monitor that her/his behaviour makes repayment likely.

Borrowers and lenders in their effort to reduce transaction costs of screening and monitoring loan performance may link the terms of the loan contract to transactions taking place between them in other markets. Such transactions may be between traders and farmers (traders making loans to farmers for purchases of inputs), landlords and labourers (landlords making advance payments to workers to secure their labour when needed in the future), etc. Such interlinkages lower the transaction costs of screening the borrower's creditworthiness, provide a source of control by the lender on the borrower's earnings and income, and give the opportunity to the lender to affect the probability of loan repayment by manipulating the terms of trade in other markets. For instance, a trader who is also a lender may provide better prices for modern inputs to his borrower, since the use of such inputs reduces the probability of default on the loan (Hoff and Stiglitz, 1990). High information and transaction costs often restrict loans to members within geographical or social boundaries (a village or kinship group) where transactions are sanctioned by the community. This type of behaviour may explain the high segmentation of rural credit markets.

The analysis of informal markets shows that the scope of financial market liberalization will be limited if the basic reasons for the distortions in rural credit markets (i.e. informational asymmetries) are not sufficiently dealt with. Given the significant role of interlinked transactions in rural credit markets, actions by governments in other markets as well as risk reduction policies may have beneficial secondary effects on rural credit markets. For instance land titling, increasing market integration, improvements of rural infrastructure and other risk-reducing policies, will increase the credit receiving capacity of rural borrowers and reduce the importance of information constraints. High segmentation in rural credit markets may introduce monopolistic elements. Existing evidence points to the existence of such elements in the behaviour of lenders. In cases where highly priced rural credit is the result of monopolistic or collusive behaviour by local lenders, entry should be encouraged.

The conclusion of the preceding discussion is that highly specialized credit institutions are no longer considered the most suitable type of rural finance, particularly not for the rural poor. Intermediaries which accept savings deposits, such as local banks, cooperatives and other rural organizations, have gained popularity among the rural people themselves and have demonstrated promising results. It is commonly accepted that there should be a choice of institutions offering financial services and that they should compete with each other and thus improve services to their customers. Acceptability of institutions by prospective customers should be the main criterion in promoting different types of financial intermediaries in rural areas. For the poor people in rural areas it is extremely important to have informal financial intermediaries included and to have appropriate operational linkages between them and formal financial institutions established.

INSTITUTIONAL DEVELOPMENT

Institutional Development Department of NABARD has been taking several initiatives in association with Government of India (GoI) and Reserve Bank of India (RBI) to improve the health of RFIs viz:

1) Regional Rural Banks (RRBs) 2) State Cooperative Banks (StCBs) 3) District Central Cooperative Banks (DCCBs) 4) Primary Agricultural Credit Societies (PACS) 5) State Cooperative Agriculture and Rural Development Banks (SCARDBs) 6) Primary Cooperative Agriculture and Rural Development Banks (PCARDBs).

Institutional Development Initiatives of NABARD

Development Action Plan (DAP) for Rural Cooperative Banks

Review of performance of Cooperative Banks

Cooperative Development Fund (CDF)

Centre for Professional Excellence in Cooperatives – CPEC

Turn Around Plan for StCBs/DCCBs

Organisational Development Initiative(ODI)

PACS Development Cells (PDCs)

Human Resource Policy for Short Term Cooperative Credit Structure

Regional Rural Banks (RRBs)

1 State Cooperative Banks (StCBs)

2 District Central Cooperative Banks (DCCBs)

3 Primary Agriculture Cooperative Societies (PACS)

4 State Cooperative Agriculture and Rural Development Banks (SCARDBs)

5 Primary Cooperative Agriculture and Rural Development Banks (PCARDBs)

6 Regional Rural Banks (RRBs)

Department of Refinance

1. Genesis

Reserve Bank of India (RBI) set up the Agricultural Refinance Corporation (ARC) in 1963 to work as a refinancing agency in providing medium term and long term agricultural credit to support investment credit needs for agricultural development. In 1975, ARC was renamed as Agriculture Refinance and Development Corporation (ARDC) to give focussed attention to credit offtake, development and promotion of the agricultural sector.

Upon its formation in 1982, NABARD took over the functions of the erstwhile Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of RBI and ARDC.

The Department of Refinance (DOR) deals with the short term and long term refinance functions of NABARD.

2. Core Functions of the Department

DOR mainly deals with Short-term refinance for production credit activities contributing to food security Medium–term and long-term refinance for investment credit activities for giving a boost to private capital formation in agriculture DOR also acts as a subsidy channelizing agency for various Government of India schemes.

A. Short-term Refinance

NABARD provides by way of refinance, loans and advances repayable on demand or on the expiry of fixed periods not exceeding 12 months, to Cooperative Banks and Regional Rural Banks for production, marketing and procurement activities. The basic objective of short-term refinance provision is to supplement the resources of banks and to improve credit flow at the ground level. These activities include:

Short-term refinance to State Cooperative Banks and Regional Rural Banks for seasonal agricultural operations

Short-term refinance to State Co-operative Banks and Regional Rural Banks for purposes other than seasonal agricultural operations such as rural marketing, fisheries

sector, working capital for MSME, social infrastructure projects, etc. Refinance is also extended StCBs in respect of advances made to State and Apex Level Agencies engaged in wholesale procurement, stocking and distribution of fertilizers/ agricultural inputs, financing Bonafide Commercial or Trade transactions.

Short-term refinance to Scheduled Commercial Banks, State Co-operative Banks and Regional Rural Banks for lending to weavers

B. Long-term/Medium-Term Refinance

NABARD provides long-term and medium-term refinance to the following institutions to supplement their resources for providing adequate credit for supporting investment activities of farmers and rural artisans, etc.

- Scheduled Commercial Banks
- Regional Rural Banks
- State Cooperative Banks
- District Central Cooperative Banks
- State Cooperative Agriculture and Rural Development Banks
- Primary Urban Cooperative Banks
- NABARD Subsidiaries
- North Eastern Development Finance Corporation Ltd. (NEDFI)
- Non-Banking Financial Companies (NBFCs)
- Non-Banking Financial Company- micro finance institutions (NBFC- mFIs)
- Small Finance Banks (SFBs)

The activities cover both farm sector as well as off-farm sector activities. The tenure of refinance is in the range of 18 months to 5 years.

C. Medium-term Conversion

NABARD provides medium term credit limits for conversion of short-term crop loans advanced for financing seasonal agricultural operations (SAO) to State Co-operative Banks and Regional Rural Banks for providing relief to the farmers whose crops have been damaged due to natural calamities.

D. Long-term loans to State Government

NABARD provides long-term (LT) loans to State Governments to contribute to the share capital of cooperative credit institutions. This reimbursement-based support is intended to encourage larger lending programmes by these cooperatives to meet the agricultural credit requirements.

E. Kisan Credit Card

GoI introduced Kisan Credit Card Scheme during 1998-99 to meet the production credit requirement of farmers in a timely and hassle-free manner. The scheme was further extended for the investment credit requirements of farmers viz. allied and non-farm activities in the year 2004.

The Kisan Credit Card scheme, as revised in 2013, aims at providing adequate and timely credit support from the banking system under a single window with flexible and simplified procedure to the farmers for their cultivation and other needs as indicated below:

a. To meet the short term credit requirements for cultivation of crops

b. Post-harvest expenses c. Produce marketing loan

d. Consumption requirements of farmer household

e. Working capital for maintenance of farm assets and activities allied to agriculture

f. Investment credit requirement for agriculture and allied activities

The aggregate of components ‘a’ to ‘e’ above will form the short term credit limit portion and the aggregate of components under ‘f’ will form the long term credit limit portion.

From the year 2018-19, GoI has introduced KCC scheme for Animal Husbandry and Fisheries in order to provide short term working capital loans to Animal Husbandry and Fisheries farmers.

The scheme is under implementation in the entire country through the institutional credit framework involving Commercial Banks, Regional Rural Banks and Cooperatives. RBI monitors the scheme for Commercial Banks and NABARD for Regional Rural Banks and Cooperatives.

GoI is implementing a KCC saturation campaign from February 2019 in order to provide KCC to all eligible farmers in the country. Further, Department of Agriculture, Cooperation and Farmers’ Welfare, Ministry of Agriculture and Farmers’ Welfare, Govt. of India, has launched a campaign from 08.02.2020 to cover PM Kisan Samman Scheme beneficiaries who do not possess Kisan Credit Cards under KCC fold.

As a part of the Prime Minister’s package for farmers, Hon’ble Finance Minister has announced a goal to cover 2.5 crore farmers under the second phase of KCC saturation scheme to facilitate credit to the farm sector. The Department of Animal Husbandry and Dairying, Govt. of India is also simultaneously implementing a special drive to provide KCC to 1.5 crore dairy farmers belonging to milk unions and milk producing companies and 1 crore fishers and fishermen.

As on 10 September 2020, 38.05 lakh KCC have been issued with credit limit of Rs. 26844.56 crore by Cooperative and RRBs. This includes 1.76 lakh KCC to AH and fisheries with a credit limit of Rs. 1327.44 crore.

F. Interfacing for GoI Schemes

As the nodal agency for a number of schemes sponsored by the GoI, NABARD has acted/acts as an interface between various stakeholders.

Capital Investment Subsidy Schemes

1. Agri-Clinics and Agri-Business Centers, MoA 2. Schemes under Animal Husbandry Sector 3. National Project on Organic Farming 4. Solar Schemes, Ministry of New and Renewable Energy (MNRE) (schemes closed) 5. Agricultural Marketing Infrastructure (AMI) sub-scheme of ISAM, Ministry of Agriculture (MoA) (scheme closed) 6. New AMI Sub Scheme of ISAM (w.e.f. 22.10.2018)

Rural Credit Cooperatives in India

One Sunday morning in July 2006, Mohan R. Narayan was keeping his eye on the weather. Lately the seasons were unpredictable. During the usual monsoon season the clouds had refused to rain, and now during peak harvesting time, temperatures were flaring. Like a child throwing a temper tantrum, sometimes the weather just refused to do what it was supposed to. Narayan knew that erratic weather was an ominous sign.

Narayan was a leading economist at a prestigious Indian university outside New Delhi. Recognized for his work on banking-sector development, he had developed a reputation for being strong-willed through his staunch advocacy of financial discipline and free market competition. Recently, the Indian Congress had asked him to be a member of a distinguished committee whose goal was to analyze and make policy recommendations about India's Cooperative Financial Institutions (CFIs), which included organizations such as credit unions and cooperative banks. On one hand, Narayan was enthusiastic about the job; it was an opportunity to help millions of rural poor and to have a positive effect on the country. On the other hand, he knew the system had a long history of overregulation, financial laxity, and corruption. Creating an actionable and clear strategy would be no easy task.

Cooperative credit structures in India, the structure has largely been focused on credit. The primary level cooperatives, therefore, have traditionally been agencies for credit dispensation. Because of this characteristic at the base level, the upper tiers were created to ensure that the lower tiers get refinance. The structure is, therefore, driven by borrowers at all levels, which creates a serious conflict of interest. A solution is to aggressively advocate conversion of pure credit to thrift cum credit cooperatives. Such

societies would not only increase the financial stakes of the members in the system, but also factor in natural incentives for better governance.

The impairment in governance is deep and is represented by the composition of the boards of directors of the cooperatives and the reporting systems. Because of the structural ordering, the lower tiers are managed by the higher tiers in varying degrees of detail in different States. In almost all States, the function of conducting elections for the cooperative structure is vested with the State Government. Similarly, the function of auditing is also vested with a State-run audit system. By implication, the cooperatives lose their right to self-governance and have to look up to the State constantly for several of the functions that naturally fall in the domain of the general body and the Board of Directors. Some pointers on the governance systems are highlighted below:

• No elections have been held in the CCS units across all tiers for long (10 years or more) in three States

• Boards of nine out of 30 SCBs and 134 out of 368 DCCBs have been superseded

• Most State Governments combine the roles of Dominant Shareholder, Manager, Regulator and concurrent Supervisor and Auditor

• The Department headed by the Registrar of Societies (RCS) can and does, influence administrative matters. The interference is 27 in the form of supersession of Boards (please see Annexure VI for details on grounds for supersession of Boards), appointment of administrators and assuming powers to approve staffing patterns, recruitment, emoluments, asset purchase pattern etc.

• The Department also interferes in financial matters in various forms, like direction on interest rates, interference in loan decisions, announcement of waivers, and direct or indirect pressure on non- recovery of loans (State wise details of such interference is given in Annexure VII)

• The impairment of the governance structure is also because of politicisation of these institutions, reflected in the fact that directors on Boards of Cooperative Banks are involved in active politics either at the State, District, and Taluka level.

Cooperatives and Rural Financial Development:

Hence, a successful establishment and/or development of cooperatives in developing countries and transition economies depend on sound cooperative business principles. These principles will logically be applied by members who establish or join a cooperative in order to strengthen their economic position within the market economy. Such principles are not bound to time and place and can easily be understood and applied by any cooperative, in transitional and emerging markets as well as in mature market economies. As opposed to the ICA (2006), we think that only the following three cooperative business principles really matter and must be applied by members to ensure the continuity of their cooperative :

1. Service at Cost Principle: the cooperative will process and market the products of its members and supply their needed inputs and services at cost prices. Other business relations (non-members, clients, customers, suppliers, etc.) are considered by the cooperative to be commercial relations subject to profit maximisation for the cooperative. This cost price principle includes a zero-loss policy, however does not mean a zero surplus policy.

2. Proportionality Principle: the cooperative will allocate the revenues and costs of its transactions (according to objective qualityto-price keys) as well as the members' rights and duties (including capitalisation, liabilities and voting rights) to its members according to the economic principle of proportionality. The 'one-man-one-vote' principle would undermine the viability of producer and marketing F&A cooperatives;

3. Principle of Self-Financing: members should provide the cooperative with risk-bearing capital via member fees or retained profits, and make the cooperative eligible for loans from banks or other institutional lenders for its core business.

The cooperative must make a profit to build sufficient reserves for solvency, continuity and growth of the cooperative enterprise. This business surplus is an appropriation profit, which is principally different from the independent profit of the profit oriented firm that is earmarked to be distributed to the investors (shareholders) as their return on investment. The cooperative should avoid attracting risk bearing capital from external

investors, because this could eventually create a fundamental conflict with the members' interests.

All forms of cooperatives that do not apply these three cooperative business principles consistently, will not be viable as a cooperative enterprise, or will eventually lose their cooperative nature. They will enter into a mostly irreversible process of cooperative deformation, hybridisation and finally liquidation.

NATIONAL BANK FOR AGRICULTURE AND RURAL DEVELOPMENT (NABARD)

There are many agencies providing credit to farmers. Besides, the private money-lenders, the institutional agencies are: Primary Cfredit societies, Land Development Banks, Government's Taccavi loans, Agricultural Refinance Development Corporation, Commercial Banks, Rural Banks, State Bank of India and the Reserve Bank of India with two Funds created for the purpose, viz., (a) National Agricultural Credit (Stabilisation) Fund; (b) National Agricultural Credit (long term operation) Fund. At the village level, Primary Credit Societies; the Commercial Banks and Land Development Banks will be competing in the fields of agricultural finance. Critics have questioned the rationale behind having too may agencies in providing agricultural finance and contended that this system of financing would result in wasting of resources, besides leading to conflicts between competing agencies.

With the purpose of examining the whole ambit of credit structure in rural areas nad also to coordinate rural credit, the Reserve Bank of India set up the Committee to Review Arrangements for Institutional Credit for Agricultural and Rural Development (CRAFICARD) in March 1979. This Committee submitted its final report in March 1981 making far reaching recommendations. The main recommendation being the setting up of a new apex bank called the National Bank for Agriculture and Rural Development (NABARD) as an 'organisational device for providing undivided attention, forceful direction and pointed focus' to the credit problems arising out of integrated approach to rural development. The Committee has recommended that this new apex bank should take over from the Reserve Bank of the overseeing of the entire rural credit system.

COMMERCIAL BANKS AND RURAL CREDIT

The role of commercial banks in rural credit was very insignificant as evidenced from the All India Rural Credit Survey Report. The purpose wise distribution of Scheduled banks' advances based on the surveys conducted by the Reserve Bank of India shows that while the total bank advances shot up from Rs.535 crores Mrch 1951-52to Rs.2,346.8 crores in March 1966, advances for agriculture had not increased in the same proportion as those of other sectors.

The reasons for the poor performance of Schedule Banks in agricultural credit were: (a) difficulties of assessing the borrowers' solvency in agriculture; (b) Scheduled banks having other more profitable channels of investment, namely, industry and trade; (c) inadequate guarantee and security in agricultural advances; (d) uncertainty about the return of the principal and interest; (e) The period of loan usually being a short-term one whereas the farmers require long-term loans; (f) it being very difficult for scheduled banks to maintain closer touch with the numerous farmers of the country and as such these banks are being considered as unsuitable agencies for the supply of rural credit.

Ademand for the nationalization of big commercial banks was made and one of he important reasons for such deman was their gross neglect of agriculture Accordingly, 14 major commercial banks were nationalized in July 1969, followed by six more banks in 1980.

The Government of India expects that the nationalised banks should play an important role in rural finance by vigorously expanding their branches in rural areas and directly financing the farmers. For this pupose, the Reserve Bank of India in December 1970, circulated the "Guidelines for Financing of Agriculture by Commercial Banks" in which the banks have been asked to extend "Credit not only to already viable cultivators for further increasing their supplies but more importantly to marginal and potentially viable cultivators".

Now, direct loans are giv en to the farmers by the nationalized banks for purchasing pump-sets, tgractors, agricultural machinery, construction of wells, leveling and development of land, purchase of cattle and cattle feed, poultry farming and also for

raising high-yielding varieties of food-grains. In order to bring even small farmers under the fold of agricultural credit extended by the banks, Small Farmer's Development Agencies have been registered in some districts as per the direction given by the Planning Commission. The State Bank of India and its branches, the co-operative and the nationalized banks are trying to co-ordinate their activities in an effective manner to cater to the agricultural needs of the farmers in a bigger way.

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