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## **AGRICULTURAL FINANCE: NATURE AND SCOPE**

### **Introduction**

Farm finance has become an important input due to the advent of capital intensive agricultural technologies. Farmers require capital in order to enhance the productivities of various farm resources. Indian agriculture, in general, is characterized by low and uncertain returns. In order to break the vicious cycle of low returns → low savings → low investment → low returns, provision of external finance to farmers becomes inevitable.

Organized and unorganized credit agencies in rural area provide credit for both development and consumption purposes. Provision of credit by these agencies involved many obstacles to both bankers and borrowers due to differences in banking system followed by bankers, socio-economic conditions of borrowers and infra - structural facilities and institutional support offered to the borrowers. Besides, the government also frequently changes its agricultural credit policies regarding institutional credit set-up, credit rationing, rates of interest, subsidy and the functioning of markets and other developmental agencies which would influence the extent of credit available to farmer-borrower. All these factors, therefore, ultimately have a bearing on farm returns. Hence, problems regarding capital could be well understood, if one could realise the theoretical basis of agricultural credit system in India, bottlenecks faced by bankers and borrowers, and the governments' efforts in solving the problems involved in the agricultural credit system in India.

### **Importance of Agricultural Finance**

Credit is essential for agricultural development and also for the development of the economy as a whole. The agricultural finance is required for the following reasons:

- i) The scope for extensive agriculture in India is limited. Therefore, increase in agricultural production is possible only by intensification and diversification of farming. Intensive agriculture needs huge capital.
- ii) Extreme inequalities exist in the distribution of operational holdings and operational area. 74.5 per cent of the total number of farm households which own less than 2 hectares operate only 26.2 per cent of the total operated area whereas only 2.4 per cent of total number of farm households which own more than 10 hectares each operate 23 percent of the total operated area in 1980-81 (In India, there were 88.883 million farm households which operated 163.797

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million hectares in 1980-81). The purchasing power of these small and marginal farmers is limited to their subsistence farming. Hence, they have to depend on the external financial assistance to use the costlier (modern) inputs.

iii) Farmers economic condition is subject to frequent onslaught of flood, drought, famine etc. Therefore, either the continuance of cultivation of crops or making improvements on the farms depends on the nature and availability of finance.

iv) In recent years, more area is brought under irrigation which in turn would increase the use of inputs like fertilizer and plant protection chemicals. In order to accomplish this, external finance is needed.

v) In order to sustain the development of agro-based industries, there should be a substantial increase in the supply of raw materials needed for such industries. Therefore, for the development of farm sector, a constant flow of credit is essential and it would enhance over all growth of the economy.

vi) In agriculture, fixed capital is locked up in permanent investments like land, well, buildings, etc. Moreover, it takes a long time to get returns from farm. Hence, farmers need finance to continue their farm operations.

vii) The weaker sections of the farming community should be motivated to participate in development programmes by giving financial assistance to acquire productive assets.

viii) Small and marginal farmer's are trapped in the vicious cycle of poverty i.e., low returns → low saving → low investment → low return. To break this cycle, credit has to be injected in agricultural sector.

**Differences between Financing of Agricultural and Other Sectors**

Financing agriculture requires a thorough understanding of farming conditions as it is different from lending to other sectors. The important factors which differentiate farm finance from other lending are as follows:

<p style="text-align: center;"><b>Ms. Asha Puran, Assistant Prof. YBN University</b></p> <p style="text-align: center;"><b>Financing Agriculture</b></p>	<p style="text-align: center;"><b>Financing other sectors</b></p>
<p>(i) Farmers are not aware of credit policies and procedures</p>	<p>They are aware of banking procedures.</p>
<p>(ii) Difficult to estimate the efficiency of farming in the absence of farm records.</p>	<p>Efficiency can be assessed as all returns are recorded.</p>
<p>(iii) Farming is exposed to natural calamities and uncertainties.</p>	<p>Risk and uncertainties involved in an enterprise can be foreseen and managed.</p>
<p>(iv) Frequent supervision and follow-up after loan disbursement are difficult as farms are scattered.</p>	<p>Monitoring is easy and less time consuming.</p>
<p>(v) Land as major security being immovable is not highly liquid.</p>	<p>Apart from immovable assets, movable assets are also taken as security which can be easily liquidated.</p>
<p>(vi) Ownership of land is difficult to verify as land records are not updated.</p>	<p>Identification of ownership can be easily done by verifying records.</p>

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<p>(vii) As farm products are perishable, they are subjected to distress sales.</p>	<p>As industrial products are non-perishable, producers can fix prices.</p>
<p>(viii) Long gestation period between investment and returns.</p>	<p>Very short gestation period.</p>
<p>(ix) Since income is seasonal, repayment schedule is drawn in accordance with income generation from investment.</p>	<p>As income generation is a continuous process, repayments will be made continuously.</p>
<p>(x) Adequate infrastructural facilities are not available to implement new technologies.</p>	<p>Sufficient infrastructure is available to implement their schemes.</p>
<p>(xi) Farmers are susceptible to external influence and hence some vested interests exploit them and guide them in wrong direction.</p>	<p>Entrepreneurs are not usually misled by external influence as they are well organized.</p>

**TIME VALUE OF MONEY**

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A farm manager has to take decisions over varying horizons of time. Two aspects of such decisions are important, i.e., i) differences in profitability growing out of time alone and ii) differences in the desirability of investments due to risk and uncertainty factors. Time has a very significant influence on costs and returns. There are many decisions where this time comparison principle finds application, such as: soil conservation programmes which bear fruits over a long time; putting land under an orchard which may not give returns for 5-10 years; and so on. Two aspects of the problem are considered under such situations: a) growth of a cash outlay over time and b) discounting of future income.

**Growth of a Cash Outlay or Compounding Present Costs**

The cash outlay grows over time due to the compounding of interest charges or opportunity costs involved in using the capital; if Rs.100 are put in a saving account with an annual interest at 12 per cent compounded, it will increase to Rs.125.44 by the end of second year. In symbolic terms, you now have the amount earned at the end of the first year.  $P + Pi$ , plus the interest that amount earned during the second year  $(P + Pi) i$  which could be expressed as:  $(P + Pi) + (P + Pi) i$  (or)  $P (1 + i) + Pi (1 + i)$  which after factorising  $(1 + i)$ , results in

**Compounding the Present Value**

(Amount in Rs.)

Year	Beginnin g Amount	Interest Earned by the End of Year	Beginning Amount + Interest
1	100.00	$100.00(0.12)=12.00$	112.00
2	112.00	$112.00(0.12)=13.44$	125.44
3	125.44	$125.44(0.12)=15.05$	140.49
4	140.49	$140.49(0.12)=16.86$	157.35
5	157.35	$157.35(0.12)=18.88$	176.23

$(P + Pi) (1 + i)$ . Factorizing P from the left term gives:  $P (1 + i) (1 + i) = P (1 + i)^2$ . In general, the compounded value, F (future value), of a present sum (P) invested at an annual interest rate (i) for 'n' years is given by  $F = P (1 + i)^n$ . This procedure is called compounding.

**Discounting Future Revenues**

Costs incurred at one point of time cannot be compared with validity to revenues forthcoming at a later date. The future value of the present sum is estimated through:  $F = P(1 + i)^n$ . Dividing both sides of this equation by  $(1 + i)^n$ , the following equation is obtained:

$$P = \frac{F}{(1 + i)^n}$$

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Thus, if a pay-off, F, is due in 'n' years in future, its present value, P, can be determined using the above expression where 'i' is the interest rate. This procedure is known as discounting future returns. The present value of Rs.176.23 that could be at the end of 5 years if the appropriate discount rate is 12 per cent, is:

Discounting can be used to determine the present value of the future income stream earned by a durable input (asset).  $P = \frac{176.23}{(1.12)^5} = Rs.100.00$ .

**Discounting the Future Values (1.12)<sup>5</sup>**

(Amount in Rs.)

<b>Year</b>	<b>Value at the End of the Year (Rs)</b>	<b>Present Value, if Discount Rate is 12 Per Cent per Annum (Rs)</b>
1	100	89.29
2	100	79.72
3	100	71.18
4	100	63.55
5	100	56.74
<b>Total</b>	<b>500</b>	<b>360.48</b>

The interest rate used to discount or compound sums of money should be at least as large as the current or market rate of interest. How much higher it might be depends upon the manager's opportunity costs. The important variables determining present and future values of a single payment or series of payments are: i) the number of years and ii) size of interest rate. Both factors interact to determine the total effects of discounting or compounding on present or future values.

**AGRICULTURAL CREDIT-MEANING, DEFINITION, NEED AND CLASSIFICATION**

**Definition**

Credit is obtaining control over the use of money at the present time in exchange for a promise to repay it at some future time.

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Credit is also defined as a device for facilitating the temporary transfer of purchasing power from those who have surpluses of it to those who are in need of it. Thus, credit involves a temporary transfer of wealth.

Agricultural Credit is the amount of investment funds made available for agricultural production from resources outside the farm sector.

Agricultural Finance is considered as separate field of study dealing with lending and borrowing by organizations and farmers.

Hopkin et al referred agricultural finance as the means of acquiring and control of assets, ownership by cash purchase or borrowing or leasing or custom-hiring.

Warren F.Lee et al defined Agricultural Finance as the economic study of the acquisition and use of capital in agriculture. It deals with the supply of and demand for funds in the agricultural sector of an economy.

According to William G. Murray, agricultural finance is the economic study of borrowing of funds by farmers; of the organization and operation of farm lending agencies; and of society's interest in credit for agriculture.

Farm Finance is a branch of agricultural economics which deals with the provision and management of services of financial resources related to the individual farm units.

Farm finance can also be defined as the amount of funds obtained from off-farm sources for use on the farm, repayable in future with an interest agreed to either explicitly or implicitly.

### **Farm Finance**

- i. is not meant merely for more production but also to raise the productivity of farm resources;
- ii. not a mere loan or advance, but it is an instrument to promote the well being of the farming community;
- iii. is not just a science to manage the money, but is an applied science of allocating scarce resources to derive optimum output; and
- iv. not a mere social obligation on the society; but it is a lever with backward and forward linkages to the economic development both at the micro and macro level.

At macro level, farm finance may be defined as the study of impact of finance (extended to the farmers by the intermediaries) on agricultural sector and also on the economy as a whole. At



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micro level, farm finance may be defined as the study of these intermediaries who extend finance to the farming sector and obtain their loanable funds from financial markets.

Thus, farm finance should have the following features:

- i. finance should be extended to farmers for farm activities;
- ii. finance should stimulate the productivities of farm resources resulting in higher economic returns for the investment;
- iii. finance should promote economic development of farm households; and
- iv. finance should be provided by an external agency for strengthening the backward and forward linkages with country's economic development.

Further, farmers and bankers view farm finance in different ways as detailed below:

<b>Farmers</b>	<b>Lending Agencies</b>
i) acquire finance for farm needs at proper time.	extend finance which can be easily collected.
ii) try to get finance at a reasonable cost	try to get a reasonable rate of return for capital.
iii) ensure that their own assets are not exposed to high risks.	ensure proper degree of liquidity of securities for safety.

**Classification of Agricultural credit**

Agricultural credit can be classified based on purpose, time (repayment period), security, generation of surplus funds, creditor and number of activities for which credit is provided.

**i) Purpose:** Based on the purpose for which loan is granted, agricultural credit is categorized into:

**a) Development credit or Investment Credit:** This is provided for acquiring durable assets or for improving the existing assets. Under this, credit is extended for:

- purchase of land and land reclamation.
- purchase of farm machineries and implements
- development of irrigation facilities
- construction of farm structures
- development of plantation and orchards
- development of dairy, poultry, sheep/goat, fisheries, sericulture, etc.

**b) Production credit: is given for crop, production:** Here, the loan amount is used for purchasing inputs and for paying wages.

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**c) Marketing credit:** It is essential to carry out the marketing functions and to get higher prices for the produce.

**d) Consumption credit:** It is the credit required by the farmer to meet his family expenses.

**ii) Repayment Period:** Based on the period for which the borrower require credit, it is divided into:

**a) Short-Term Credit:** It is given to farmers for periods ranging from 6 to 18 months and is primarily meant to meet cultivation expenses viz., purchase of seed, fertilizer, pesticides and payment of wages to labourers. It serves as the working capital to operate the farm efficiently and is expected to be repaid at the time of harvesting / marketing of crops. It should be repaid in one instalment.

**b) Medium-Term Credit:** Repayment is for the period of 2 to 5 years, It is for the purchase of pump-sets, farm machineries and implements, bullocks, dairy animals and to carry out minor improvement in the farm. It can be repaid either in half yearly or annual installments.

**c) Long-Term Credit:** It is advanced for periods more than 5 years and extends even unto twenty five years against mortgagage of immovable property for undertaking development works viz., sinking wells, purchase of tractor, and making permanent improvements in the farm. It has to be repaid in half-yearly or annual instalments. **iii) Security:** Credit is provided to farmers based on the security offered by them. **a) Farm Mortgage Credit:** It is secured against mortgagage of land.

**b) Collateral Credit or Chattel Credit:** It is given against the security of livestock, crop or warehouse receipt.

**c) Personal Credit:** It is given based on the character and repaying capacity of the person and not on any tangible assets. In general, LT credit is usually advanced against security of land while MT and ST loans are sanctioned against personal and collateral security.

**iv) Generation of Surplus Funds:** Based on generation of surplus funds, credit can be classified as self-liquidating and non-self-liquidating credit.

**a) Self Liquidating Credit:** In this case, loan amount gets absorbed in the production process in one year or production period and the additional income generated is sufficient to repay the entire loan amount.

**b) Non-Self Liquidating Credit:** Here the resources acquired with the borrowed funds are not consumed in the production process during the project period. The investment is spread

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over a period of several years. The additional income generated in one year is not sufficient to repay the entire loan amount and hence the repayment is spread over to number of years.

**v) Creditor or Lender wise Credit:** Credit can be classified from the point of view of creditor.

a) **Non - Institutional Agencies:** They include money lenders, traders, commission agents, friends and relatives. This kind of loan is generally exploitative.

b) **Institutional Agencies:** They include co-operative's, commercial bank and regional rural bank.

**vi) Number of Activities Served:** Based on the number of activities for which amount the loan can be used, credit can be categorized into a) single purpose loan and b) composite loan.