Objectives of the lecture

- To explain the economic feasibility tests i.e. 3R's
- To elucidate 5C's and 7P's of farm finance

The technological break-thorough achieved by Indian Agriculture made the agriculture capital intensive. In India most of the farmers are capital starved/ lack of capital base through credit. The farmers need credit at right time, through right agency and in adequate quantity to realize maximum productivity. This is from farmer's point of view. In contrast from farmer's point of view, when a farmer approaches an Institutional Financial Agency (IFA) with a loan proposal, the banker should be convinced about the economic viability of the proposed investment/ loan proposal.

<u>Economic Feasibility Tests of Credit</u>

When the economic feasibility of the credit is being observed, three basic financial aspects are to be assessed by the banker.

If the loan is advanced,

1. Will it generate returns more than costs?

2. Will the returns have surplus, to repay the loan when it falls due?

3. Will the farmer stand up to the risk and uncertainty in farming?

These three financial aspects are known as 3 R's of credit, which are as follows

1. Returns from the proposed investment

2. Repayment capacity the investment generates

3. Risk- bearing ability of the farmer-borrower

The 3R's of credit are sound indicators of credit worthiness of the farmers.

1. <u>Returns from the Investment</u>

This is an important measure in credit analysis. The banker/ lender needs to have an idea about the extent of returns likely to be obtained from the proposed investment. The farmer's request for credit can be accepted only if he can able to generate returns that make him to meet the costs. Returns obtained by the farmer depends upon the decisions like.,

- What to grow?
- How to grow?
- How much to grow?
- When to sell?
- Where to sell?

Therefore the main concern here is that the farmers should be able to generate incremental returns that should cover the additional costs incurred with borrowed funds.

To estimate the additional /incremental returns from using the borrowed funds, the Partial Budgeting Technique can be used as given in the table 1.

Table 1: Partial Budgeting Technique

Season/Crop	Existing plan				Season/Crop	Alternate Plan			
	Area(Ha)	Gross Returns (In Rs.)	Costs Incurred (In Rs.)	Net Returns (In Rs.)		Area(Ha)	Gross Returns (In Rs.)	Costs Incurred (In Rs.)	
Kharif Paddy (Improved Variety)	1.0	7000	3500	3500	Kharif Paddy (HYV)	1.0	11500	5200	6300
Rabi Paddy (Improved Variety)	1.0	7400	3900	3500	Rabi Paddy (HYV)	1.0	12000	5600	6400

Partial Budgeting Technique:

Added Costs+ Reduced Returns are equated with Added Returns +Reduced Returns

a)

i) Added costs =5200+5600=Rs. 10,800/-

ii) Reduced Returns= 7000+7400 = Rs.14400/-

Total = ------------

Rs. 25200/-

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b) Added Returns =11500+12000=Rs. 23500/-

ii) Reduced costs = 3500+3900 = Rs.7400/-

Total = ------------

Rs.30900/-

By getting a loan amount of Rs. 4500 and Rs. 4600 in Kharif and Rabi respectively the farmer can switch over from cultivation of improved varieties of paddy to High Yielding Varieties of paddy in both the seasons. He credit so obtained is quite productive in generating an incremental income of Rs. 5700/- per hectare of land. Based on this a farmer can present his claim for credit to the banker/ Institutional Financial Agency.

2. <u>Repayment Capacity:</u>

Repayment capacity is nothing but the ability of the farmer to repay the loan/ clear off the loan obtained for the productive purpose within a stipulated time period as fixed by the lending agency.

At times the loan may be productive enough to generate additional income but may not be productive enough to repay the loan amount. Hence the necessary condition here is that the loan amount should not profitable but also have potential for repayment of the loan amount. Under such conditions only the farmer will get the loan amount.

The repayment capacity not only depends on returns, but also on several other quantitative and qualitative factors as given below.

$Y = f(\underline{X1, X_2, X_3, X4} \quad \underline{X_5, X_6, X_7}...)$

Where Y, the dependant variable is the Repayment Capacity

Independent variables X_1 to X_4 are considered as quantitative factors i.e. their affect can be quantified/measurable and while the X_5 to X_7 are considered as qualitative factors and their effect can be felt but not quantifiable.

$X_1(+)$ = gross returns from the enterprise for which the loan was taken during a season /year (in Rs.)

$X_2(-)$ = working expenses in Rs.

$X_3(-)$ = family consumption expenditure in Rs.

$X_4(-)$ = other loans due in Rs.

$X_5(+)$ = Literacy

$X_6(+)$ = Managerial skill

$X_7(+)$ = Moral Character like honesty, integrity etc.,

Hence, even though the returns are high, the repayment capacity is less because of other factors.

The estimation of repayment capacity varies from crop loans (i.e. Self liquidating loans) to term loans (Partially liquidating loans and non-liquidating loans)

i) Repayment capacity for Crop loans/self -liquidating loans

Gross Income- (working expenses + family living expenses + other loans due+ miscellaneous expenditure + crop loan)

ii) Repayment capacity for term loans/partially -liquidating and non-liquidating loans)

Gross Income- (working expenses + family living expenses + other loans due+ miscellaneous expenditure + annual installment due for term loan).

Causes for the poor repayment capacity of Indian farmer

1. Small size of the farm holdings due to fragmentation of the land.
2. Low production and productivity of the crops.
3. High family consumption expenditure.
4. Low prices and rapid fluctuations in prices of agricultural commodities.
5. Using obtained credit for unproductive purposes
6. Low farmers equity/networth.
7. Lack of adoption of improved technology.
8. Poor management of limited farm resources.

Measures for increasing/strengthening the repayment capacity

1. Increasing the net income by proper organization and operation of the farm business.
2. Adopting the potential technology for increasing the production and reducing the expenses on the farm.
3. Removing the imbalances in the resource availability.
4. Making the schedule of loan repayment plan as per the flow of income.
5. Improving the networth of the farm households.
6. Diversification of the farm enterprises.
7. Adoption of risk management strategies like insurance of crops, animals and machinery and hedging to control price variations etc.,

3. Risk Bearing Ability

It is the ability of the farmer to withstand the risk that arises due to financial loss. Risk can be quantified by statistical techniques like Coefficient of Variation (CV), Standard deviation (SD) and programming models. The words risk and uncertainty are synonymously used.

Some sources / types of risk

1. Production/ physical risk: loss in quantity and quality of the farm products during production and storage.
2. Technological risk: New technology is also sometimes fraught with risk
3. Personal Risk

   Risk due to illiteracy and ignorance of the farmer and inefficiency of the farmer due to sickness are considered as personal risk.
4. Institutional risk; Risk arising due to change in government policies.
5. Weather uncertainty: Due to aberrations in weather parameters
6. Price Risk: Risk arising due to extreme fluctuations in prices of agricultural commodities

Repayment capacity under risk:

Deflated Gross Income- (working expenses + family living expenses + other loans due+ miscellaneous expenditure + crop loan)

(or)

Deflated Gross Income- (working expenses + family living expenses + other loans due+ miscellaneous expenditure + annual installment due for term loan)

Here to incorporate the component of risk the gross returns are deflated.

Deflated Gross Income= Gross income-(Gross income X Coefficient of variation)

If gross income = Rs. 48,000/- Coefficient of Variation= 15%

Deflated Gross Income= 48000-(48000X0.15) = Rs.40800/-

Measures to strengthen Risk bearing ability:

1. Increasing the owner's equity/networth
2. Reducing the farm and family expenditure.

3. Developing the moral character i.e. the honesty, integrity, dependability and feeling the responsibility etc. All these qualities put together are also called as credit rating.
4. Undertaking the reliable and stable enterprises (enterprises giving the guaranteed and study income)
5. Improving the ability to borrow funds at good and bad times of crop production.
6. Improving the ability to earn and save money. A part of the farm earnings should be saved by the farmer so as to meet the uncertainty in future.
7. Taking up of crop, livestock and machinery insurance.

5 C's of farm credit:

Next to 3 R's of credit, the other important tests applied to study the economic feasibility of the proposed investment activity are 5 C's of credit viz., Character, capacity, capital, condition and commonsense.

1. Character:

The basis for any credit transaction is trust. Even though the bank insists upon security while lending a loan, an element of trust by the banker will also play a major role. The confidence of an institutional financial agency on its borrowers is influenced by the moral characters of the borrower like honesty, integrity, commitment, hard work, promptness etc. Therefore both mental and moral character of a borrower will be examined while advancing a loan. Generally people with good mental and moral character will have good credit character.

2. Capacity:

It means capacity of an individual borrower to repay the loans when hey falls due. It largely depends upon the income obtained from the farm.

C= f(Y), where C= capacity Y = income

3. Capital:

Capital indicates the availability of money with the farmer borrower. When his capacity and character are proved to be in adequate the capital will be considered. It represents the networth of the farmer. It is related to the repayment capacity and risk bearing ability of the farmer borrower.

4. Condition:

It refers to the conditions needed for obtaining loan from financial institutions i.e. procedure to be followed while advancing a loan.

5. Commonsense:

This relates to the perfect understanding between the lender and the borrower in credit transactions. This is in fact Prima-facie (Main) requirement in obtaining credit by the borrower.

Principles of farm finance / agricultural finance/7 P's of farm credit:

The increased role of financial institutions due to technological changes on agricultural front necessitated the evolving of principles of farm finance, which are expected to bring not only the commercial gains to the bankers but also social benefits. The principles so evolved by the institutional financial agencies are expected to have universal validity. These principles are popularly called as 7 P's of farm credit and they are

1. Principle of productive purpose.
2. Principle of personality.
3. Principle of Productivity.
4. Principle of phased disbursement.
5. Principle of proper utilization.
6. Principle of payment.
7. Principle of Protection.

1. Principle of productive purpose:

This principle refers that the loan amount given to a farmer borrower should be capable of generating additional/incremental income.

Based on the level of the owned capital available with the farmer, the credit needs of them vary. The requirement of capital is visible in all farms but more pronounced in marginal and small farms. The farmers of these small and tiny holdings do need another type of credit i.e. consumption credit, so as to use the crop loans productively (without diverting them to unproductive purposes). In spite of knowing this, the consumption credit is relegated/brought back to the backseat by the institutional financial agencies.

If one wants this principle of productive purpose holds good, crop loans/short term loans of the small and marginal farmers are to be supported with income generating assets acquired through term loans. The additional incomes generated from these productive assets add to the income obtained from the farming and there by increases the productivity of crop loans taken by small and marginal farmers.

The examples of some assets, for purchase of which the term loans are needed are loans for dairy animals, sheep &goat, poultry birds, installation of pump sets on group action etc.

2. Principle of personality:

The 3R's of credit are sound indicators of credit worthiness of the farmers. Over the years of experiences in lending the bankers have identified an important factor in credit transactions i.e. trust worthiness of the borrower. It has relevance with the personality of the individual.

When a farmer borrower fails to repay the due crop failure caused by natural calamities, he will not be considered as willful defaulter. Whereas a big farmer who is using the loan amount profitably but fails to repay the loan, then he is considered as willful defaulter. This character of the big farmer is considered as dishonesty.

Therefore the safety element of the loan is not totally depends up on the security offered but also on the personality (Credit Character) of the borrower. Moreover the growth and progress of the lending institutions have s dependence on this major influencing factor i.e. personality. Hence the personality of the borrower and the growth of the financial institutions are interlinked.

3. Principle of Productivity:

This principle underlines that the credit which is not just meant for increasing production from that enterprise alone but also it should be able to increase the productivity of other factors employed in that enterprise. For example the use of high yielding varieties (HYV's) in crops and superior breeds of animals not only increase the productivity by themselves, but also should increase the productivity of other complementary factors employed in the respective production activities. Hence this principle emphasizes on making the resources as productive as possible by the selection of most appropriate enterprises.

4. Principle of phased disbursement:

As no enterprise or an investment activity needs all the funs at a time but spread over a period of time. This principle underlines that the loan amount needs to be distribute in phases/ spells, so as to make it productive and at the same time banker can also be sure about the proper end use of the borrowed funds.

The phased disbursement of loan amount fits for taking up of cultivation of perennial crops and investment activities to overcome the diversion of funds for unproductive purposes. But one disadvantage of here is that it will make the cost of credit higher. That's why the interest rates are higher for term loans when compared to the crop loans.

5. Principle of proper utilization:

Proper utilization implies that the borrowed funds are to be utilized for which purpose they are given. It depends upon the situation prevailing in the rural areas viz., the resources like seeds, fertilizers, pesticides etc., free from adulteration, whether infrastructural facilities like storage, transportation, marketing etc., are available. Therefore proper utilization of funds is possible, if there exists suitable conditions for investment. If the price stability is there it helps the farmer in planning the cropping pattern for effective use of funds.

6. Principle of payment:

This principle deals with the fixing of repayment schedule for the loans advanced by the institutional financial agencies.

For investment credit like irrigation structures, tractors, the annual repayments are fixed over a number of years based on the incremental returns that are supposed to be obtained after deducting the consumption needs of the farmers.

With reference to crop loans, the loan is to be repaid in lumpsum because the farmer will realize the output only once. A grace period of 2-3 months will be allowed after the harvest of crop to enable the farmer to realize a remunerative price for his produce. Otherwise the farmer will resort to distress sales. When the crops fail due to unfavourable weather conditions, the repayment is not insisted upon immediately. Under such conditions the repayment period is extended (or) differed besides assisting the farmer with another fresh loan to enable him to carry on the farm business.

7. Principle of Protection:

Because of unforeseen natural calamities striking farming more often, institutional financial agencies cannot abstain themselves from extending loans to the farmers. Instead of that they resort to safety measures while advancing loans like

- Insurance coverage
- Linking credit with marketing (or) tie-up arrangement
- Providing finance on production of warehouse receipt
- Taking sureties: Banks advance loans either by hypothecation (or) mortgage of assets
- Credit guarantee: When banks fail to recover loans advanced to the weaker sections, Deposit Insurance Credit Guarantee Corporation of India (DICGC) reimburses/ repays the loans to the lending agencies on behalf of the borrowers.

Books referred

1. Agricultural Finance and Management by S. Subba Reddy and P. Raghuram . Oxford & IBP publishing company Ltd. New Delhi.
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