ECONOMIC APPRAISAL OF APPLICATIONS FOR PRODUCTION LOANS

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APPRAISAL OF LOAN APPLICATIONS

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ABSTRACT

At present, in Pakistan loans are advanced to farmers by lending agencies against physical assets or tangible security such as land, buildings, gold ornaments, crop and chattel mortgage, and other tangible assets. The amount loaned depends directly upon the value of what the farmer has to offer as collateral. His managerial ability, the productivity of his fields and livestock, his past credit standing, his reputation in the community, and the purpose for which the loan is required are not considered to be sound bases for extending him a loan.

A shift in the policies of lending institutions, away from appraising applications for production loans on the basis of tangible assets alone, which does not fully meet the demand for production loans, is essential in order to meet the needs for credit by small farmers. The main aim of this thesis is to work out a method of appraising applications for production loans by which, out of the limited funds, loans may be extended to farmers for productive purposes on the basis of intangible security and good prospects for repayment.

In appraising applications for production loans, the first important step is the determination of the amount of loan needed by the farmer for specific productive purposes. The farmer needs sufficient funds to carry out his production

programs successfully. Lending him more than this may lead to non-productive spending and jeopardise repayment. The agencies can be on the safe side, after evaluating the needs and determining the amount required, by loaning the exact amount to meet the cash expenditures for specific operations and capital items included in the farm plan for the year.

The next important step in appraising applications is the determination of the safe limit for each individual loan. This is the amount needed to carry out the essential operations of farming with a definite prospect for repayment. Accordingly, it becomes necessary to analyse further if the required amount is loaned to the farmer, will he be able to repay it from his sales of farm products and his other financial resources and is it probable that he will repay if he can? Analysis of this nature includes such factors as the sufficiency of the appraised amount to meet the normal costs of farming, tangible and intangible security offered by the farmer including the production plan, the risks involved in the planned production, ability of the applicant as farmer and manager, evaluation of his character and reputation and his credit rating.

Loans granted to farmers should be in "budgeted" form. The lending agency should prepare a program for advancing the money according to the needs and times of its use so that farmers will utilise it only for the specified purposes.

Repayment of loans should be scheduled at the times when income is available to the farmer from the sale of farm produce. The farmer, of course, will be asked to execute a bond to repay the loan.

The most dynamic approach to credit is to advance production loans to farmers on intangible security. This basis for lending has been used successfully in the United States, the Philippines and India. Intangible security refers to repayment capacity of the farm from crop and livestock production, managerial ability of the farmer, his reputation for honesty in the community, and his previous record of repayment of loans.

Technical guidance and supervision should be provided to the farmer-borrower in the preparation of a farm plan showing the production program for the period for which the loan would be used. He needs technical advice to carry out operations according to the standard or recommended practices. When loans are advanced on intangible merits, supervision is essential to see that the money is used for the stated purposes.

Borrowers should be required to execute a marketing agreement in which the marketing agency is authorised to deduct the amount of loan and remit to the lending agency. Where this is not possible, the lending agency should make arrangements with marketing agencies to deduct the amount of loan before making payments to the farmer for his products.

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INTRODUCTION

The word 'credit' is derived from the Latin word 'credo', meaning 'I believe'. Credit implies trust and confidence of the lender in the borrower. It is ability to obtain the use of another person's property in exchange for a promise to return it and pay for its use at the end of an agreed period of time.

There are two main kinds of credit. Book credit and banking credit, or loans of money. Book credit refers to the transactions when goods are bought and used by the buyers with payment postponed until a later date. The items are not returned as such and payment is made in money or other things of value at the stipulated time. A loan of money is an advance to the borrower in the form of cash, or a credit to his account in a bank. This thesis is concerned with banking credit and loans advanced to farmers by lending agencies in cash or in kind.

In modern farming, as in other kinds of business, the key to satisfactory money income is a proper combination of production assets. A farmer combines land, livestock and machinery together with adequate labour and managerial ability. Capital for acquiring production assets or their use, is an essential for success. The amount of capital a farmer's family controls for use in the farm business determines, to a large extent, his level of income. Therefore, capital acquired through borrowing is an important tool in farming for producing a large output. For each production branch, under given conditions, there is an "Optimum" participation of each of the factors in the work of production. Those who cannot put this optimum amount of capital into their farm production operations from their own accumulated assets, find it profitable to borrow from lending institutions in order to increase their output.

Borrowed capital can be very useful or it can be a terrible burden. Advanced according to sound economic principles and used intelligently, credit can be a powerful factor to expand and increase the farmer's returns and improve his economic and social conditions. On the other hand, if credit is advanced to the farmer without taking his needs into consideration, based on economic appraisal, and used unwisely, it may lead to overloading the farmer with heavy financial responsibilities that result in making his situation worse instead of better.

Increased productivity of land and livestock can be achieved through the use of more capital added in the form of (1) improved seeds, feeds, productive livestock and poultry, and breeding stock; (2) more and better fertilizers, insecticides and herbicides, and; (3) modern equipment and implements. These factors generally will yield the highest net returns when used according to the recommendations of the agriculture Extension Service. In the underdeveloped countries of the world the major problem is the poverty of the people. Farmers do not have enough capital to meet the requirements for increasing their output. Therefore, the importance of credit arrangements in the field of agriculture can hardly be over emphasized.

Pakistan is an underdeveloped country. The majority of farmers need credit not only for purchase of seeds, feeds, fertilizers and equipment but also to meet their daily consumption requirements between sowing and harvesting of crops. The majority are so close to the margin of subsistence that any emergency expense forces them to borrow from the money lenders. The charges by these lenders are so high that it is extremely difficult to get free from debt. Most of an indebted farmer's harvest has to be delivered to his creditor. Consequently he has to borrow again to feed his family until the next harvest.

Objective and Method of Study

At present, in Pakistan loans are advanced to the farmers by lending agencies against physical or tangible security such as land, buildings, gold ornaments, crop and cattle mortgage and other tangible assets. Also the amount of credit depends directly upon how much the farmer has to offer as collateral. His managerial ability, his past credit standing, his reputation in the community, productivity of his farm and livestock and the purpose for which the credit is required are not considered to be sound bases for extending him a loan. Hardly any cost versus benefit analysis is carried out.

The number of small proprietors increased after the Land Reform of 1959 when thousands of tenants received land. These farmers could no longer obtain advances from the landlords. They could not secure production loans because they could not yet pledge their land as security. Subsistence level producers generally lack sufficient tangible assets to offer as security for the size of production loan needed to expand their output in order to improve their level of living. Thus a shift in the policies of lending institutions away from appraising applications for loans on the basis of tangible assets alone, which does not fully meet the demand for production loans, is essential. To work out a method of appraising applications for production loans by which, out of the limited funds, loans may be extended to farmers for productive purposes on the basis of intangible security and prospect for repayment will be the main focus of study of this thesis. Three important aspects will be covered:

1. On the basis of evaluation of cost versus benefit, suggestions will be offered for determining "how much" loan is needed by the farmer to carry out the production operations of his farm throughout the year or till the time of the next harvest.
2. From study of experience in different parts of the

world, ideas will be set forth for deciding on the basis of both tangible and intangible security, how much is safe to loan, keeping in view such factors as the risk involved and the repayment capacity of the farmer.

3. After evaluating the methods of appraising applications for production loans in various countries, recommendations will be made regarding the appraisal of applications for production loans in Pakistan.

Where there is sound economic appraisal of applications, delinquencies of loans can be avoided by evaluating the actual needs of farmers and expected returns from the sale of farm products and loaning each farmer the amount which he can repay.

Although this study is primarily library research, in order to get first hand information from various specialists working in the field of agricultural credit in different countries of the world and distinguished authors in the field of farm finance, a questionnaire was prepared containing a few questions regarding the methods of economic appraisal of applications for loans. The questionnaire was also sent to the agricultural credit specialists or advisors of US/AID in various countries in different parts of the world.

Not every country in the world has a developed farm credit system and the facilities to supply their mature experiences in agricultural credit to students in other countries.

The following countries were selected to make enquiry about the arrangements in the field of credit and their approaches to the problem of extending credit to farmers. These countries were selected for study simply due to the fact that they have been active in building a farm credit system in their home lands to meet the pressing needs of credit to agriculture on modern lines. Some of them have been successful in developing a system which is satisfactorily serving their farmers:

Canada, Cyprus, Ceylon, Egypt, India, Iran, Japan, Jordan, Korea, Malaya, Pakistan, Philippines, Thailand, United States of America and Vietnam.

Encouraging replies were received from Professor William G. Murray, Iowa State University, United States of America; Dr. Edwin C. Johnson, United States (who acted as credit Advisor to the Food and Agriculture Commission of Pakistan); Dr. R.C. Engberg, chief, Research and Information Division, Farm Credit Administration, United States; Dr. Ralph U. Battles, Credit Specialist, Agency for International Development, Washington D.C.; Dr. John A. Baker, Director of Credit, United States Department of Agriculture; Dr. L.A. Jones, Economic Research Service, United States Department of Agriculture; Dr. A.B. Lewis, Agricultural Economist, Council of Economic and Cultural Affairs, New York; Dr. E.C. Fouse, Vice-President, Federal Land Bank and Federal Intermediate Credit Bank, Columbia, South Carolina, and Mr. Raymond J. Doll, Senior Economist, Federal

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In making evaluation and recommending a method of economic appraisal of applications for production loans, the main ideas will be derived from the practices used in the United States of America, the Philippines and India.

Chapter I

AGRARIAN STRUCTURE IN PAKISTAN AND NEED FOR CREDIT

Pakistan is a nation of small-scale farmers. There are about 80 million farmers cultivating 61 million acres of land. Even though each farm is small, farming provides the great majority of the people with their means of living.

"Agriculture along with its branches of animal husbandry, forestry, fisheries and horticulture, is the largest segment of the economy of Pakistan. Out of the total of a little over 233 million acres, about 61 million acres are under cultivation. About 60 per cent of the total national income is derived from agriculture. Nearly 75 per cent of the civilian labour force is engaged in agriculture and 90 per cent of the people living in villages are dependent directly or indirectly on agriculture. Around 95 per cent of the total foreign exchange earnings are derived from agriculture. It constitutes the basis of Pakistan's national economy".[1]

"According to provisional 1958 national income estimates at constant prices, agriculture contributed Rs 11,600 million out of a total of Rs 20,840 million and the contribution of

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[1] Pakistan National Planning Board, The First Five Year Plan, 1955-60 (Karachi: Government of Pakistan Press), 1958, p. 123.

related activities such as cottage industry in the rural areas would increase the figure to over Rs 12,000 million."[2]

The productivity of agriculture in terms of total output in relation to the total number of workers engaged in it is at present exceedingly low. This is reflected in the low level of income of farmers and agriculture labourers and in the inadequate diets of the families of subsistence farmers.

Size of Farm Output

Whether in terms of area or of output, farms in Pakistan are very small. Many of the conditions, such as low economic returns to capital resulting from low income of farmers and general poverty of the people, stem in greater or less degree from the condition of low productivity. On such small holdings there is very little scope for mechanization of farming and each unit of labour has a small area to work with. Hence, agricultural production is labour intensive. The value of output per man is very small. Though statistical figures for the whole of Pakistan are not available at present, Table 1. shows the distribution of land in the former province of the Punjab, West Pakistan. The distribution of size of land holdings in other divisions is generally similar.

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[2] Pakistan Credit Enquiry Commission, Credit Enquiry Commission Report, (Karachi: Government of Pakistan Press, 1960). p. 7.

Table 1. Area Owned, Including Uncultivated Area, by Size of Holding in the Former Punjab, West Pakistan.[3]

Size of Holding	Acres		Number of Owners	
	Thousands	Percent of Total	Thousands	Percent of Total
Less than 10 acres	7,092	31.8	1,809	78.7
10 to 99 acres	10,428	46.7	476	20.7
100 to 499 acres	5,502	11.2	12	0.5
500 acres and above	2,295	10.3	1	0.1
Total	22,317	100.0	2,298	100.0

Labour intensively cultivated small holdings do not always result in a higher yield per acre. Peasants who do not have access to the latest scientific knowledge of farming and low interest rate loans generally are unable to expand their output. Where population pressure is great and existing methods of cultivation are centuries old, lack of capital is likely to act as the catalyst for operation of the 'Law of Diminishing Returns', to diminish the output of other factors of production.

"Two main reasons can be ascribed for poor agricultural production. First, the cultivated area per head of population is very small - 1.1 acres in West Pakistan and 0.51 acres in East Pakistan. Secondly, the yields per acre of crop are very low because of low fertility of soil .... primitive production methods and lack of credit."[4]

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[3] Report of the Tenancy Law Inquiry Committee, Punjab, Appendix IV, quoted in The First Five Year Plan, (Karachi: Government of Pakistan Press, 1958), p. 308.

[4] Pakistan National Planning Board, op. cit., p. 217.

Composite Nature of Farming

A characteristic of Pakistan agriculture, which affects the credit requirements of individual farmers, is that the farming enterprise is more of a social and economic unit and less of a business than in many advanced countries of the world. A considerable part of a farmer's production goes for subsistence. It is a family enterprise with little hired labour. A peasant farm is a homestead as well as a means of earning a livelihood, a source of subsistence as well as of cash income, a focus of nearly all the interest and activities of the family and not merely an economic activity, the means by which the security and perpetuation of the family and means of living are satisfied.

ORIGIN OF THE NEED FOR CREDIT

Population Growth and Large Families

The vast majority of farmers in Pakistan carry on subsistence agriculture. Their poverty grows as population adds to the pressure on the land while productivity of the land is itself either stationary or diminishing. There is continuous shrinkage of the size of the unit of cultivation as each succeeding generation operates with smaller and more frangmented holdings of land under the system of inheritance. Apart from other problems arising from population growth, its effect on the size of holding, and consequently on credit worthiness, tends to be most harmful. As holdings become smaller, the average cultivator finds it increasingly difficult to maintain a family out of the produce raised on his land, i.e., his holding becomes increasingly more uneconomic. The provision of credit to such a cultivator becomes a highly risky proposition because he usually is unable to achieve a surplus from the land itself above the consumption requirements of his large family. Often the means of repayment of loans is the uncertain livelihood derived from casual employment off the farm. At the same time, the farmer's need for credit increases because the only means of improving his condition is through adoption of more intensive methods of cultivation requiring the application of relatively large amounts of capital. Not having the ability to save substantial sums due to the high propensity of his family to consume, he lacks the financial resources to cope with the frequent occurrences of natural hazards and vagaries of weather.

Subsistence and Working Expenses

Production for subsistence and a high proportion of family labour imply that a large proportion of working expenses are for consumption. If all of these expenses were to pay for wages, there would be no difficulty in regarding the finance required as a "production loan". But it is not so when the expenses are for feeding unpaid family labour. Generally the largest proportion of production loans granted to these farmers is for production expenses and a part for family consumption. As a matter of fact, most capital formation is in the form of permanent farm improvements made by family labour.

Effect of Seasonal Income Variation

The necessity to borrow arises from the small surplus above the subsistence needs out of which savings can be made, or its complete absence, and the seasonal nature of farm income. If income were adequate for consumption and regular throughout the year, there would still be demand for long and medium term loans. The importance of seasonal variation on income in its bearing on the demand for credit was well brought out at the Lahore Conference on Agricultural Credit by Professor E. de Vries in 1956. He related that "A survey in Indonesia was designed to discover why farmers in a particular area did not demand credit while in other areas they did. Those surveyed did not need credit because they were able to grow a good secondary crop which tided them over till proceeds from the main crop came in".[5]

As stated by Dr. Edwin C. Johnson,[6] in his report to the Food and Agriculture Commission of Pakistan, farmers from the standpoint of the use of credit in farming can be divided into three main groups:

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[5] H. Belshaw, Agricultural Credit in Economically Underdeveloped Countries, (Rome: FAO, 1959), p. 25.

[6] Edwin C. Johnson, Suggestions for Improving Agricultural Credit in Pakistan, (Karachi: USOM/Pakistan, March 1960), pp. 2-3. (Mimeographed)

1. In the first group are the big farmers who own their farms and operate on a relatively large scale, with the average usually up to about 500 acres. With their resources, they may be able to operate and improve their farms without credit.
2. The second group is a large group consisting of farmers who have small and medium size farming operations with the operator owning the land. These farms ordinarily range in size from about 3 to 25 acres.
3. The third group of farmers are those small farmers who own no farm land and operate farms as tenants under a lease or as share croppers. These farmers have very meagre resources, low incomes and do not have enough tangible security to offer.

Increased production is the only solution to ameliorate the economic position of the small farmers, tenants and share-croppers. This can be achieved by (1) increasing the size of producing unit, and, (2) increasing yield per acre. Increasing size of the producing unit, at present, seems to be rather impossible due to social and institutional factors. Therefore, a more intensive agriculture with improved methods of cultivation, liberal use of artificial manures, better irrigation practices and adequate plant protection measures are the only means to increase productivity.

But the crucial problem is the financing of small-scale cultivators, who are in the majority and number into millions, with insufficient tangible assets to offer as collateral. If they are to expand the output of their farms, some way has to be found to extend those who are worthy of credit the necessary production loans on bases that will assure repayment.

Chapter II

PRODUCTION LOANS AND SOURCES OF SUPPLY IN PAKISTAN

When a farmer borrows money for production purposes for a short period of time ranging from three months to one year, the loan is termed a production loan.

Short term production loans help in the adoption of improved methods of cultivation. They pave the way for a farmer to obtain needed medium and long-term loans by increasing income and repayment capacity. The most urgent needs for production loans are those for a farming season from the preparation of the fields to harvesting. The "working capital" to a much greater degree is required by the farmers with "deficit economies", for family subsistence during the growing season, as well as for production expenses. If static credit is to be converted into dynamic credit, the requirements of individual farmers for production loans must be met, that is the amount of production credit should vary directly with the size of farm and general structure of the farming economy. Because the small size of farms and high labour intensity for subsistence farms in Pakistan, the need for medium term and fixed capital investments is also less than for working capital. Hence, on the average over the year, production loans are likely to be proportionately more important than medium and long-term loans. This is especially true if labour is not fully utilized in current production and, therefore, can be used directly for making fixed improvements.

The provision of short-term production loans is more important for small than for substantial farmers who are well established in farming and have accumulated enough capital to meet part or all of the seasonal expenditures. Moreover, they have a better inventory of assets to offer as security. Whereas, small subsistence farmers are exposed to every risk in agriculture, have little or no savings from their farm income and no tangible assets to offer as collateral for loans. They consume whatever they produce and in time of need undergo heavy debts at exorbitant interest charges. In the words of Professor Karve, "the small farmer has no access to institutional credit because he has no security and he cannot enhance his security because he has no credit".[7]

Farmers need production loans for the purpose of meeting the expenditure for the following short term operations pending the sale of products to recover the costs:

1. Cost of raising seasonal and annual crops.
2. Purchase of fodder and feeds for livestock and chickens.
3. Purchase of chicks and of livestock for fattening.

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[7] D.G. Karve, "Short Term Credit", Report of the Center on Agricultural Financing and Credit for Asia and the Far East, Lahore, Pakistan, October 1956, FAO Report No. 631 (Rome: 1957), p. 70.

4. Storage and marketing of crops.
5. Repair of an irrigation system.
6. Repair of farm buildings.
7. Minor soil improvements on the farm.
8. Plant protection and inexpensive flood control measures.
9. Paying hired workers and family living expenses before the harvest.

SOURCES OF SUPPLY OF PRODUCTION CREDIT

Farmers in Pakistan obtain loans from the following sources for meeting their various needs for credit for carrying on the production of crops and livestock:

1. Friends, Relatives and Well-to-do Persons

   Friends, relatives and well-to-do persons are found to be an important source of credit in many countries. The loans are interest free in Pakistan. While such loans are extended in the fellow feeling and mutual help, there is a growing tendency to require the mortgage of land as security for such loans.

2. Landlords

   Landlords provide loans to their tenants in cash and in kind. No interest rate is fixed and in many cases interest, as such, is not charged at all but the amount required to settle the account is large enough to cover interest and losses from uncollectable loans. It is the practice in many regions to recover the loans in the shape of produce priced at a low harvest time level, whereas the credit was given at the highest quotation. In effect, the larger quantity of produce extracted from the borrower is nothing but interest in disguised form. Since many land lords have taken up trading, the credit is sometimes conditional on the tenant selling his marketable surplus above family needs through his landlord at prices which have no relationship to the current market prices of the produce determined by the forces of demand and supply. This lowers substantially the monetary returns of the tenants.

3. Marketing Agencies

These agencies are another major source of non-institutional credit. The credit is extended to the cultivators either by grain dealers and traders or processors of cash crops like cotton, raw sugar, jute, tobacco and fruits and vegetables. Interest is not generally charged as such but the terms on which the crops are purchased are such as to represent a high interest rate. The borrower is bound to sell the produce only to the lender who purchases it at a price well below the market rate. In turn, the margin of profit obtained on the transactions gives to the lender more than the prevailing rate of interest and the usual trading margin.

4. State Credit or Taccavi Loans

Loans of this nature are distributed in cash on the documents confirming the applicant's title of ownership of land and assessing the value of the land for tax purposes. No mortgage is required. Other collateral is demanded only when the value of the applicant's equity is not sufficient to cover the loan. Loans are granted generally on a liberal basis of security and are in the form of production loans. Interest rates vary from 4.5 to 6.5 per cent per year. The amount of such a loan is so small that it cannot be used economically for productive purposes.

a. Advances of Taccavi Loans

Table 2. Taccavi Loans Advanced and Recoveries in West Pakistan[8]

Year	Land Improvement Loan Act 1883		Agricultural Loan Act 1889	
	Advances, Rs	Recoveries, Rs	Advances, Rs	Recoveries, Rs
1948-58	27,329,396	9,142,833	58,766,906	36,159,438

Table 3. Agricultural Loans Issued and Recovered in East Pakistan, under State Credit Act.[9]

Year	Agricultural Loan Act 1884		Cattle Purchase Loan Act	
	Advances, Rs	Recoveries, Rs	Advances, Rs	Recoveries, Rs
1948-58	26,000,000	7,000,000	5,000,000	2,000,000

[8] Pakistan Credit Enquiry Commission, op.cit., p. 15.

[9] Ibid., p. 16.

b. Recovery Experience

According to the Board of Revenue of the government of East Pakistan, the recovery percentage rose sharply to 26 per cent in 1958-59, as against only 7 per cent for the previous years. In West Pakistan the recovery rate rose from 44 per cent in 1957 to 47 per cent in 1958. During recent years the recovery of loans is satisfactory.[10]

5. Cooperative Societies

"Out of total number of 28,409 cooperative societies in 1958-59, 16,310 were Agricultural Credit Societies, 2,492 non-agricultural and the rest non-credit societies. The loans advanced by the agricultural cooperatives (both-credit and non-credit) amounted to Rs 103 million. The average loan per member farmer amounted to Rs 79 only."[11] Taking the cost of production and variable expenditures into account, a loan of Rs 79 is too small to help the average farmer in paying his production expenses. Moreover, the loans serve only about 5 per cent of the population living on agriculture.

6. Agricultural Development Bank

The government of Pakistan established the Agricultural

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[10] Ibid., p. 17.

[11] S.A. Hussain, "Agricultural Credit in Pakistan", Improving Agricultural Credit in the Near East and South Asia, Proceedings of the First Near East-South Asia Agricultural Credit Seminar, University of Ceylon, April 17-28, 1961 (Washington, D.C.: International Cooperation Administration, 1961), p. 29.

Development Finance Corporation and the Agricultural Bank of Pakistan in 1952 and 1957 respectively, with the main object of providing credit to agriculturists for the development and modernization of agriculture in the country. The two institutions were merged into one in 1961 and it was named the "Agricultural Development Bank of Pakistan". Table 4 gives the summary of applications received and loans granted by the Agricultural Bank from the beginning of operation through January 1960.

Table 4. Applications Received and Loans Granted by the Agricultural Development Bank in 1961.[12]

Region	Applications Received		Loans Sanctioned		Amount of Loan
	Number	Amount Rs.	Number	Amount Rs.	Distributed, Rs.
West Pakistan	4,177	13,968,452	1,643	3,254,750	2,263,092
East Pakistan	38,232	17,465,786	21,403	7,627,629	6,794,041
Total	42,489	31,434,238	23,046	10,882,379	9,057,133

In West Pakistan loans averaged to Rs 2,500 and the most important purposes were production expenses, land development and sinking tube wells. Production loans were also the most numerous kind in East Pakistan and the amount averaged about Rs 250. Loans were secured by a mortgage on tangible assets of the farmer.

12 Johnson, op.cit., p. 6.

"The Agricultural Development Bank of Pakistan ordinance authorized the Bank to accept money on deposits; to borrow money for the purpose of the Bank's business against security of its assets, or otherwise; to issue and sell bonds and debentures; to buy stocks and supply on credit seed, agricultural machinery, implements, equipment, fertilizers, chemicals and materials used in agriculture; to act as agent of any organization for the sale of such goods; to advance loans on the custody of ornaments, gold, jewels, policies and title deeds, etc; and to open accounts (saving and fixed deposits etc.). Loans up to Rs 1,000 are being made by the Bank on the basis of a solvent surety and loans above Rs 1,000 are made on the basis of mortgage of immovable property."[13]

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[13] S.A. Hussain, op.cit., p. 35.

Chapter III

DETERMINATION OF THE AMOUNT OF A PRODUCTION LOAN

Farming is a risky business. Apart from all the economic uncertainties, farmers have to bear the additional risks of unfavourable weather and other natural hazards such as floods, droughts, insects and plant diseases. Agricultural credit has hardly been adapted adequately to the particular needs of farmers. Loans are made to farmers according to their position of wealth and their ownership of tangible security and not according to the possible contribution of a loan to the farmer's earning powers and welfare. In many cases, loans are sanctioned to those who need it least and no credit is given to those who need it most.

In the presence of the existing great demand for production loans, the limited supply of funds should be used only to finance farm production plans which have the definite prospect of yielding increased economic returns to the farmer. Therefore, in appraising applications for production loans, the first important item is the determination of the amount of loan needed by the individual farmer for specific productive purposes. The farmer needs sufficient funds to carry out his production program successfully. Lending him more than this may lead to non-productive spending and jeopardize repayment. It also means that some other farmer cannot get the amount he needs for financing his operations.

Farmers may not have a clear idea of whether the loan applied for will meet the expenditure requirements of their production plan nor whether the use of the loan would be profitable. But the lending agencies can be on the safeside, after evaluating the need and determining the amount, by loaning the exact amount to meet the current production expenditure for specific operations and items included in the farm plan for the year. Moreover, profits vary with the size of the enterprise and the amounts of inputs applied. A loan application for a certain amount for the purchase of one bag of fertilizer per unit of area may be profitable according to the standard methods and dosage but a second bag may not increase income enough to cover its cost. Lending agencies can avoid delinquencies and unscientific use of loans if they determine the amount of financing required for specific operations and adjust the loans according to the needs of farmers, keeping in view the net returns to be earned with the loans.

In certain cases, it is possible that an individual farmer is going intoan enterprise for which he needs more funds than the amount for which he has applied or for which he has the required basic capital. In such cases, it would be better if the farmer were advised to wait and accumulate enough capital of his own to provide the safe amount of equity financing to assure the success of the venture. In other instances, the lending agency might loan an extra amount so as to meet the minimum capital required for increased returns when it appears the earnings will assure repayment.

As a part of the appraisal of applications for loans to cover various production expenses, the determination of the amount actually required will have the following advantages:

1. It will help the lending agencies to adopt a method of estimating the real needs of farmers for production loans.
2. It will help to achieve a method of distributing a limited supply of funds as loans among farmers commensurate with their genuine needs for financing production.
3. It will avoid the misuse of loans and will render them more constructive economically.
4. It will provide an effective control for channelling the loans to foster desired enterprises on the farms, those yielding better economic returns to farmers, by examining the production plans.
5. When the loans will be issued of a definite amount for productive purposes, according to farm plans, it will help in determining the repayment capacity of the

farmer and the date of recovery of loans can be adjusted accordingly.

6. It will help avoid delinquencies in loan repayments by avoiding uneconomic advances of funds and thus will perform one of the functions of a supervised credit program.

Estimation of the Amount of Production Expenses

The aim of estimating the amount of a loan needed by a farmer is to provide him necessary expenses and avoid unnecessary advances in order to have the loan well secured during its life and the liquidation of all disbursements from normal sources of income generated by the use of the loan. As the Federal Intermediate Credit Banks in United States have pointed out, "In determining the amount to lend, consideration should be given to economy of operation and extent of the applicant's contribution to operating costs. The relationship between operating cost and probable income should be determined. It is always necessary to consider whether the total costs including living and overhead are more than the farm or ranch enterprise will carry under present or normal circumstances.

"If the minimum amount necessary for the applicant to operate properly does not allow a safe margin of probable income, in most instances a loan should not be made . . . . Using a set figure per acre or unit, or a certain per cent of probable income or value of collateral will usually result in the extension of too much credit to many applicants and too little to others, particularly those who normally produce high yields of good quality products. The establishment of any maximum figure is dangerous, since the maximum tends to become the minimum and this figure is then applied as a standard for all loans."[14]

When determining the amount of funds needed to carry out production operations, production costs may be grouped according to the nature of operation. The amount of a loan to be advanced will depend on the inclusion of the cost items involved to carry out a production operation with this loan. Hence, it becomes essential to find out what type of costs should be considered for production loans and whether they should be included or omitted, according to the needs of the farmer. It may be pointed out that farmers have both fixed and variable costs of production but they need to borrow only to cover variable costs.

Total fixed costs represent farming expenses of an overhead nature and do not change with output. They have to be borne even if nothing is produced and do not vary with the value of the produce. These include interest on fixed investments in such things as land, buildings, machinery, depreciation,

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[14] U.S., Federal Intermediate Credit Bank, Credit - A Manual for Production Credit Associations, (Washington: Farm Credit Administration), pp. 11-12.

taxes on land, contract rent and other permanent investments on the farm. However, such costs are not accounted in the amount of a production loan because when they are once invested they produce returns over the long run. Production loans, on the other hand, are loans to meet seasonal out-of-pocket expenses of the farmer and are not to meet those expenses which yield returns during more than one season. Production loans are not to cover the fixed costs of ownership of the farm productive assets but variable costs which have to be paid prior to the harvest.

Variable costs refer to farming expenses which change with output. They are not incurred if the farmer does not undertake to produce a crop or a livestock product with the resources of his farm. Their amount depends on the scale of production on the farm. If more fertilizer is to be used to increase output, the fertilizer cost goes up with the amount of product produced.

For the purpose of evaluating the amount of production loan required to carry on the enterprise only variable costs need be taken into account to meet the expenses of current seasonal production. Variable costs for crops include charges for plowing and land preparation, costs of seed and fertilizer and their transport to the farm, cultivation and weeding, irrigation, costs of insect and disease control, harvesting, hauling and threshing, drying, cleaning, storage and marketing by the farmer. In the same manner, variable costs for animal production includes barn feeding, grazing, milking, egg collection, shearing of wool and marketing.

As the majority of the farmers are either owner-operators or tenants whose families remain busy on the farm carrying out farming operations by themselves, much of the credit need for payment of labourers does not arise during a season. The farmer's requirements for credit are limited to the expenses he needs for the following items which he will buy from the market and pay for in cash:

1. Seed, fertilizer, implements and insect and disease control.
2. Livestock feeds for draught and milch purposes.
3. Hired labour, if any.
4. Marketing and storage charges.
5. Minimum subsistence expenses for his family up to the time when he receives returns from sale of products.

When a farmer applies for a loan to pay the above expenses, it becomes of prime importance for the lending agency to estimate the total expenses to be loaned to the farmer, based on the following:

1. How much of each item is needed ?
2. What will be the total amount of money needed to buy the commodities required or the services to be hired ?

No doubt such estimates would differ from region to region and for various methods of producing a crop or maintaining livestock. But usually much information is available from various research stations where the costs of producing crops and feeding of livestock for draught and milch purposes are worked out or such costs are known through the experience of farmers in the area. In many cases, the experience of the appraiser himself, who is well acquainted with the methods and costs of producing crops, is very useful in estimating the operating capital actually needed by the farmer.

The appraiser should take into account the amount of seed sown per unit of area, the usual dose of fertilizer applied, the amount of feed given to livestock per unit of time for various purposes and the costs involved in controlling a disease or insect attack.

After determining the quantities and their costs per unit of item needed by the farmer, in order to get the total amount of production loans to be advanced, the per unit cost of each item needed should be multiplied by the total number of units for which the farmer needs credit. Adding together the cost of the various production items required will give the amount of the production loan to meet the variable costs.

To take an example, if a farmer has applied for a loan with the purpose to feed 5 milch cows for 9 months and to buy seed and fertilizer to grow wheat on an area of 5 acres, what will be the amount of loan needed by the farmer ?

In this case, the appraiser first should work out how much feed of various types is needed to feed one milch cow per day. On the basis of the per day feed requirement, the amount needed to feed one cow for 9 months can be worked out by multiplying the feed requirement of one day by 270 days. This sum should again be multiplied by 5 in order to get the total feed for 5 cows. After enquiring the per unit price of feed, the above obtained total amount when multiplied by unit price will give the amount of loan needed to feed 5 cows for 9 months. In the same way the rate of seed and fertilizer dose per acre according to standard practices should be multiplied by 5 to get total requirements. When these requirements are multiplied by the per unit price prevailing in the market, the total amount needed for seed and fertilizer for 5 acres is determined.

The total amount of loan needed to feed 5 cows for 9 months and wheat seed and fertilizer for 5 acres will be the addition of the total amounts. The farmer may also need some money to meet the wage payment of labour at the time of sowing, weeding, irrigation, harvesting, transporting to market, marketing of commodity produced or the processing of certain products before selling. Such expenses should be worked out according to the hours of work needed for each operation multiplied by the charges of labour per hour or per day. For example, the appraiser should know how many hours or days it takes to harvest a unit area of various crops by machine or by hand. These work-hours should be then multiplied by the prevailing rates for machine or labour for such operations to get the total amount to be loaned to the farmer. In case of transportation and marketing charges, the standard rates prevailing in the market should be used and the amount needed by the farmer will depend on the volume of business or the quantities he is transporting.

In cases where the seasonal expenditure data are available through farm management investigations showing total cash expenses required for seasonal farm operations to produce crops and raise livestock for various purposes, such studies will be of great help in determining the amount of production loan needed by the farmer. For example, in the Utter Perdesh (U.P.) province of India, to grow cotton, wheat, paddy and maize both in Kharif and Rabi seasons and to maintain adequate livestock on a 9.96 acres farm, the seasonal expenses were as follows:

Table 5. Rabi Cash Expenses Required During Kharif and Rabi Seasons for a 9.96-acre Farm in U.P., India.[15]

Item	Cash Expenses in Rupees
Seed and insecticide	50
Fertilizer and lime	494
Feed and grinding	89
Contract and other labour	100
Machinery hire and repair	20
Irrigation charges	88
Land Revenue tax	15
Overhead cessess tax	9
Taxes, repair, rent etc.	358
Other	31
Total	1,249

As the production loans are to meet the production requirements of the farmers, such items as indicated in the above table, to meet irrigation charges, land revenue, overhead cessess, taxes and rent, which collectively amount to nearly Rs 470 should be excluded from the amount of loan to be advanced because they are payable after the harvest when the farmer will obtain cash by marketing his surplus. The amount of loan should include expenses to meet the current production needs such as seed, insecticide, fertilizer and lime, feed and grinding, contract and other labour, machinery

[15] E.F. Daniel, Farm Planning and Management, (New Delhi: Directorate of Economics and Statistics, Ministry of Food and Agriculture, 1960), p. 76.

hire and repairs, which amount to more than Rs 695 out of a total expenditure of Rs 1,249.

For small farmers who are at the subsistence level, the importance of obtaining in their production loans an amount to meet the basic necessities of life until harvest is very essential. It directly determines whether the production loan will be economic because if the farmer has to obtain money to buy food from money lenders, or obtain food from shop-keepers at exorbitant charges with a condition to sell the produce to them at low prices, he may not net enough to repay the loan for growing his crops. A minimum amount according to the prevailing standard of living of the farmer's family, if asked for, needs to be included in the amount of the production loan for the season until the next harvest is ready for the market.

The Farm Credit Administration in the United States has long recognized that family subsistence is often of necessity to be financed by a production loan. As stated in the manual for production credit associations, "living costs, regardless of agreement which may be reached, usually become in effect a first lien against the income of the business. This fact together with any evidence of extravagance in living standards must be recognized. Unless provision can be made for the minimum necessary living expenses either from unpledged income or, when that is not available in sufficient amount, from a portion of the loan proceeds, a loan should not be made. Many expenditures other than farm or ranch business may be classed as living expenses. These may include items other than the food, clothing and shelter of the household. These all must be considered from the stand point of their effect on the loan".[16]

Analysis of Costs in Relation to Benefit

The purpose of cost versus benefit analysis is to examine in the light of economic gains whether it is justified to advance a loan to the farmer for the purpose indicated in his application. It is to be analysed whether the farmer has selected the least cost combination to use the amount of loan, the combination which is best from the point of view of economic returns. Not only should the amount of loan invested on the farm increase the income of the farmer but also the returns should be effective in avoiding delinquencies.

After working out the cost of items required for raising crops and livestock and other seasonal expenditures, the analysis of costs in relation to benefit should be considered. Because the increased production expectations with the application of fertilizer, improved seed, feeds and service costs, the total cost for the commodity produced will also increase. A question comes up, normally, is it profitable

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[16] U.S. Federal Intermediate Credit Bank, A Manual for Production Credit Associations, op.cit., p. 12.

for the farmer to adopt the innovation and the investment to the level which the farmer plans with the borrowed capital ? If the cost and returns analysis show a poor margin of earnings, it would be in the interest of both borrower and lender not to close the loan.

Chapter IV

DETERMINATION OF THE SAFE LIMIT FOR INDIVIDUAL LOANS

The safe limit of an individual loan is the amount needed to carry out the essential operations of farming with a definite prospect of repayment. After determining the amount of the loan needed by the farmer for various operations and their profitability in terms of economic returns, the next important step in appraising an application for a production loan is the answering of such questions as the following: Is it safe to loan the needed amount to the farmer ? How much can the farmer repay in due course of time ? Will he repay if he can ?

Normally it would appear that if a loan is profitable for the borrower, it could be repaid without difficulty. In the conditions where total net income is at the maximum and marginal income is just sufficient to cover the marginal costs, the increase in income from use of additional borrowed money will be nil. In such cases it would be very difficult for the farmer to repay a larger loan. The prospect of repayment of the appraised amount would depend upon the use of the funds for various productive purposes, thus converting the loan into a self-liquidating one. According to Murray and Nelson, "A self-liquidating loan is one made for an investment which promises enough output to repay the entire loan plus interest. Assuming normal production and profitable farm operation, funds used for short term purposes such as operating expenses, usually are recouped as part of gross cash income when farm produce is sold. Therefore loans for operating expenses are considered to be self-liquidating".[17]

The ability of a farmer to bear the risk losses from his farming operations and still repay a loan is also a major factor in determining the safe amount to loan him. Risk-bearing ability generally means the ability of the farmer to stand sudden drops in the prices of his products, unforeseen losses and unexpected expenses. It directly affects the amount of loan to be extended to farmers located in various areas exposed to risky conditions. Risk bearing ability is composed of the following factors:[18]

1. Ability to make and save money: A farmer who can make money can soon recover from a bad year or an unexpected loss. If, with average conditions, his income is at a level where he is able to save and reinvest part of income in the business, he will be

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[17] William G. Murray and Aaron G. Nelson, Agricultural Finance, (Ames, Iowa: Iowa University Press, 1960), p. 99.

[18] Ibid., p. 112.

able to withstand a moderate drop in income without becoming insolvent. Saving ability is important because a good income does little to increase risk-bearing ability if it is all spent on family living or personal pleasures.

2. Stability and reliability of income: If income were the same every year and continued the same there would be no need for risk-bearing ability except to meet unusual family expenses such as illness and ceremonies. Since farm income is required to cover the unusual family expenses, to enable the farm business to withstand a drop in income, the amount of risk-bearing ability needed will vary with the size of fluctuations in income and characteristics of the family. Farms located in high risk areas of farming have greater risks than those in normal stable areas.
3. Ability to borrow in both good and poor times: This is determined by the credit rating of the operator and the ability and willingness of the lender to 'stay with' the borrower. A farmer who has a good record of paying all his debts can usually get an extension of time for repaying when current income is insufficient.
4. Ability to reduce operating and living expenses during periods of low income: Ability to make loan payments will be reduced at such times. The farmer who can

contract the cash expenses of the farm and his family living will be better able to pay the interest on his borrowings and possibly make partial repayments.

5. Owner equity: This is the back bone of risk-bearing ability. Since risk-bearing means ability to meet unusual expenses or loss of income, inventory of tangible assets is the primary factor.

Since agriculture is a risky business and the future is not known with certainty, it becomes essential to safeguard as far as possible against the uncertainty regarding returns and repayment capacity from farm income. It can be estimated how much loan is needed by the farmer but it cannot be assured that this amount will be repaid from the income derived by the use of this loan. It would be unwise to load a farm family with loans to the point where they will not be able to repay. Many conditions arise which may not favour the justification of the loan amount asked by the farmer or appraised for him.

Safe limits of the loan should take into consideration the uncertainties involved in farming which are the following:

Production Uncertainty

Agricultural production is exposed to natural hazards. Crops and livestock cannot be produced under controlled conditions as are industrial goods. This leads to production uncertainty in agriculture, which should be taken into consideration when determining the amount of a loan to be advanced to a farmer with otherwise good prospect of repayment. Climatic conditions play an important role in causing fluctuations in the returns to farmers from their farming enterprises. When there are no rains, farmers suffer heavy losses to failure of crops and their income from farming is reduced to nil. Even in irrigated farming areas, such weather conditions as wind storms, hail storms, drought, excessive rainfall, frost, prolonged winter and summer seasons, directly affect the output of the farms. Some areas in a country are always relatively more exposed to unstable climatic conditions, crop diseases, insect attacks, flood and droughts, than others. The location of the farmer-borrower's farm can give an idea as to how much uncertainty there is in the area. Is his farm more exposed to diseases and insects ? This can be found out by the previous record of such occurrences in this area. If a farm is situated in an area near a river, certainly it is more exposed to flood hazards than others situated away from the river. Production uncertainty on such farms is greater than for others.

If available, the yields of various crops and past production performance of livestock should be consulted to get an idea about the expected returns of the farms situated in areas of natural hazards. To show, for example, that the fluctuation in acreage and production of the cotton crops in

West Pakistan during various years was mainly due to the uncertainty of climatic conditions and natural hazards, the average yield per acre has been calculated from official production data. In bad years, production on individual farms went down, affecting the expected incomes of farmers from the cotton crop. Table 6 gives yearly acreage and production of cotton in West Palistan from 1947-48 through 1957-58.

Table 6. Area Planted, Yield and Production of Cotton in West Pakistan.[19]

Years	Area in Acres	Yield per Acre in Maunds	Production in Bales
1947-48	3,048	1.7	1.106
1948-49	2,598	1,8	966
1949-50	2.744	2.2	1,239
1950-51	3,017	2.2	1,396
1951-52	3,318	2.0	1,397
1952-53	3,421	2.5	1,784
1953-54	2,870	2.4	1,425
1954-55	3,136	2.3	1,584
1955-56	3,483	2.3	1,680
1956-57	3,538	2.0	1,723
1957-58	3,359	2.3	1,566

[19] Ali Asghar Khan and Latif Abbas, "Acreage and Production Trends of Principal Crops of West Pakistan", <u>The Agricultural Economist</u>, Vol.11:1959, (Karachi: The Agricultural Economics Society of Pakistan, 1960), p. 116.

There was a general decrease in 1948-49 in the acreage in all parts with the exception of Khairpur. It was mainly due to unfavourable weather conditions at the time of sowing, heavy rain and subsequent floods. The production also consequently fell. The production was regained in 1950-51 onward for very favourable season and high prices till 1953-54 when acreage and production fell. The production was also affected by incidence of Tirak (a cotton disease) and dry, hot weather in September to October. (This is the flowering and boll formation time and any unfavourable condition creates maximum damage to the plant). During 1957-58 till the third forecast, acreage was reported as reduced, mainly from Bahawalpur Division for lack of rains at the sowing time and reduction in acreage affected the over-all production.[20]

At the time of advancing loans all the production uncertainties should be taken into consideration, as these directly affect the repayment capacity of farmers. A conservative estimate regarding the returns from the farm is essential to give enough margin to the farmer to repay the loan even if his income from the farm is reduced. More so, in the cases of farmers who are operating their farms under risky conditions in the areas of natural hazards.

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[20] Ibid., pp. 116-117.

Price Uncertainty

Price fluctuations are daily, weekly, seasonal, annual and long-term or cyclical. Many economic forces cause these fluctuations for agricultural products. Loans advanced to farmers need to keep in view the price fluctuations during the year, specially at the harvest time when the prices are low and loans become due for repayment. Price uncertainly directly reflects on the amount of money which can be loaned the farmer safely.

Prices of different products show various degrees of price fluctuations. The highly fluctuating price products are more hazardous for loans. The seasonally low prices at the time of repayments should be given full consideration in evaluating the amount of loan which could be recovered from farm income leaving sufficient money for the farmer's family. The safe_limit of the loan should be such that the loan could be repaid in the period of lowest prices that experience has shown are likely to occur. For seasonal production loans, seasonal fluctuations should be taken into consideration and the loans should vary in proportion with the rate of return affected by these fluctuations at the time of recovery.

FACTORS DETERMINING THE SAFE LIMIT FOR A PRODUCTION LOAN

The safe limit of a loan can be determined by analysing the situation given in the farmer's application as to the following:

1. Appraisal of amount applied for related to the costs of normal requirements for farm production purposes and family subsistence.
2. Amount applicant can repay under normal circumstances.
3. Appraisal of prospects for repayment.
   a. Risks involved in the planned production:
      (1) Are the prices of the product stable or widely fluctuating ?
      (2) Is the product or crop subject to unusual natural hazards ?
   b. Tangible security offered.
   c. Intangible security:
      (1) Production plan.
      (2) Appraisal of applicant as farmer and manager.
      (3) Character appraisal.
      (4) Credit rating of applicant.

Normal Costs of Production and Family Subsistence

The purpose for which a loan is made is a very important factor in determining whether a loan will be a success. When a loan is made for production purposes and for the proper amount of money, it can serve the borrower's needs better and is more likely to be repaid when due. On the other hand, when the loan is made for an improper purpose and for an amount of money in excess of the required costs, it may not serve the anticipated functions of credit and may be difficult for the farmer to repay.

Farmers should be advanced the amount adequate to meet the production costs which are essential to grow certain crops or to raise livestock for specific purposes. As the main aim is to advance the farmer the finances needed to carry on his farming profitability, he should not be over loaded with a large amount which his farm and livestock cannot repay. The amount should be just enough to meet the production expenses taking into consideration the most profitable combination for specific operation to be carried out by the farmer.

If a farmer needs subsistence expenses, these expenses should be evaluated taking into amount the standard of living of the family, number of family members, prices of various major items of consumption, dietic pattern in the area and the overall time duration for which subsistence is necessary. These expenses should in no case exceed the period until harvest time, when the farmer usually gets returns from his crops. In case of dairy and livestock enterprises, where the returns to farmers are available at short intervals, say by the sale of milk and milk products, the repayment instalments should be fixed after leaving enough money to the farmer to meet his continuing expenses plus his subsistence needs. But in such cases where the income is available from time to time from other sources until next harvest, no subsistence expenses should be taken into consideration and the farmer should be asked to meet his consumption needs from other sources of his diversified enterprises. Only 'normal costs', which are required to carry out farming operations and to meet the subsistence of the family, should be advanced to the farmer.

Amount Applicant Can Repay Under Normal Circumstances

It is of utmost importance for the lender to understand the type of farming, product enterprise and what constitutes good farming practices in the area served by the lending institution. All the facts should be obtained to determine whether a loan is requested for a proper purpose and the amount needed to operate a farm effectively and profitably for the period of the loan. If the prospective net income of the farm is not sufficient to repay the normal costs and bare subsistence expenses, it is not sound to make a loan of the amount applied for.

The amount of loan advanced to the farmer for production purposes should be adequate for the need, provided it is not more than what the farmer can repay under normal circumstances from his expected income. As shown in Tables 8 and 9 the cash income to the farmer from a 5-acre farm was Rs 976.60 from the sale of crops (Rs 918.10) and livestock products (Rs 58.5) after meeting the consumption needs of his family.

This is the amount which a 5-acre farmer can repay under normal circumstances from his farm income. Hence, the amount of production loan to this farmer should in no case exceed the normal repayment capacity of Rs 976.60. But a margin for risks involved due to natural hazards which reduce the income of the farmer, should also be kept in mind, as pointed out by the Farm Credit Administration in the U.S.A., "weather and other natural hazards make farm production uncertain and prices of farm products some times change unexpectedly. Either or both of these developments may result in reduced farm income. Therefore, it is necessary to allow some margin between the amount of the loan and the expected farm income. In general, where the farm enterprise is being financed is more risky, a larger margin between the amount of loan and the expected income should be provided".[21]

Appraisal of Prospects for Repayment

After determining the amount required by the farmer according to the normal production costs and subsistence which he can repay under normal circumstances, the appraisal of the prospects for repayment is an essential step to ascertain the recovery of the amount of loan. The following factors will help the lending agencies in determining the prospect for repayment of loans:

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[21] U.S., Farm Credit Administration, Lending to Increase Farmer's Income, (Washington, D.C.: F.C.A., June 1958), p. 13.

1. Risks Involved in the Planned Production

Generally, there are two types of risks involved in planned production which a farmer may face in obtaining normal returns from his farm. They are (1) price fluctuations and (2) natural hazards. It should be determined by the past experience and the type of crops and livestock produced on the farm to see whether the prices of such products remain stable or fluctuate widely and in case of natural hazards what would be the probable damage to the farmer to affect his farm income. If the purpose of the loan is risky, extra care should be taken in determining the safe limits. There are situations where comparatively more risk is involved in producing some farm crops than others and in a loan to a farmer for producing a single crop than in financing several crops. Farms situated in natural hazard areas are exposed to risks and subject to loss of income which may make it impossible for the farmer to repay loans on schedule. When such a loss occurs, another loan is needed to grow another crop to repay the first loan. In analysing the application of such a farmer for a production loan careful consideration should be given to all the factors that are not within the control of the borrower or the lender. If the lending agency wants to be of financial service to farmers in areas of natural hazards and fluctuating incomes, it will work out a program to advance and recover loans under these difficult conditions. In such circumstances, special reserves accumulated out of extra deductions may be necessary.

2. Tangible Security Offered

In general, a borrower who will pay his loan if he can, who is a good farm manager, who uses his loan for production purposes and also operates a productive farm, is the best kind of security for a loan. If a loan to such a man is made for an amount that is within his ability to pay back and on terms that fit his sources of income, it will hardly be necessary to rely on security for repayment of the loan.

But to be on the safe side it is necessary to require some security pledge for guaranteeing repayment of the loan. The amount of the loan can be adjusted according to the nature of his security and its value, provided the amount advanced is sufficient to carry on the enterprise profitably. In cases where farmers have tangible security the value of which far exceeds the amount of loan desired, it is safe to loan the applicant the amount he has applied for to carry out the expansion of the operations he has planned together with improved methods of production. Farmers whose equity capital exceeds the amount of the loan desired are entitled to similar treatment. The Farm Credit Administration in the United States recommends that production credit associations use tangible security to supplement the intangibles.

"There are three main advantages of requiring security for loans. First, such security may give the lender greater assurance that the loan can be collected in case of death and disability of the borrower. Second, if the farmer pledges something as security for the loan, he has a greater incentive to do a good job of farming in order to be able to pay his loan when it is due. Third, if property or growing crops are pledged as security for a loan, the farmer cannot give the same property as security toanother lender who may actually desire to take the property away from the farmer instead of helping him by serving his farm credit needs".[22]

3. Intangible Security

There are two main types of security which farmers in general can offer to the lending institutions, namely, tangible security, or physical assets, and intangible security. Physical property as security includes such items as land, machinery, property rights such as chattel mortgage and crop liens, stocks, bonds, notes, ornaments and other valuables to be forfeited if the loan is not paid.

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[22] U.S., Farm Credit Administration, Lending to Increase Farmer's Income, op.cit., p. 7.

Intangible security includes abstract things such as farm plans, budgeted loan programs, ability as a farmer, good management, age and health, reputation of the borrower in the community, loan and credit payment record and repayment capacity of the farm.

Intangible security should be given primary consideration in appraising applications for production loans because favourable prospect for repayment is important even when a loan is amply covered by tangible security. Also, there are hundreds of tenant farmers who need credit, who are good farmers and managers, who have better prospects for repayment of a loan than other farmers but have no tangible security to offer. In such cases, the amount of the loan should be determined by taking the intangible security into consideration. Moreover, if loans are advanced against only tangible security, they may have two specific drawbacks:

a. Loans may be too small to meet the production requirements because they are evaluated directly in proportion to the value of assets. Small loans may not permit carrying on the planned production profitably.

b. In cases of delinquencies, recovering the loan by means of litigation increases the costs of the lending agency and the farmer suffers a permanent setback by losing his property.

From the point of view of sound profitable loaning operations, even if a loan is advanced on the basis of tangible assets and not on intangible merits of the farmer such as his repayment capacity and ability as a farmer, lending institutions depend on repayment of loans by borrowers rather than on the sale of the assets pledged as the security for the loan. The whole purpose of the loan is obscured when reliance is placed on tangible security because usually little attention is given to financing the production enterprise from the economic view point. Moreover, if a farmer has already pledged his property for long-term farm improvement loan or wants to do so, production loans based on tangible security deprive him of this source of financing the development of his production resources. It would be better if for production loans tangible security should be given 'secondary' preference and intangible security as the 'primary' determinant of the amount of loan.

The following items of intangible security should be given due consideration in determining the safe limit of production loan:

a. Production Plan

To encourage production, safeguard the use of money and promote the living condition of farmers, production loans must be given on such terms that meet the definite requirements of the farmers. If a farm plan showing production pattern, disposal of crops, and returns derived from various farm enterprises is presented by the farmer along with his application for a loan, it will help the lending agency to work out the safe limit of the loan. This is because the farmer clearly provides an estimate of the areas under various crops, quantities of crops and live-stock products to be produced, home consumption of farm products and the returns to be obtained from the quantities marketed. Farm plan will also indicate clearly the repayment capacity of the farm for the amount to be loaned to him. How a simple farm plan affords the basis for determining the safe amount to loan a farmer is shown by an example from an Asian country.

The tables given below show the land under various crops, total receipts of crops and livestock products and various returns derived by selling the marketable surplus of a 5-acre owner-operated farm. Such type of business analysis clearly shows how much land the farmer owns and what is his pattern of cultivation. It indicates how much he is producing and out of this production how much he consumes on the farm and what surplus remains to pay the loan. For example from 4-82 acres of land, by double cropping part of the farm, the farmer was able to produce crops and livestock products worth Rs 1,403.06 in one year. Out of this amount he consumed on the farm, crops and livestock products to the sume of Rs 426.46. His sales of crops for Rs 918.10 plus milk and eggs sale amounting to Rs 58.5 gave him cash farm income of Rs 976.60 to repay the loan or to meet other expenses. This amount **becomes** the top safe limit of a loan to the farmer.

Table 7. Land Use and Enterprise Combination for a 5-Acre Farm on Relatively Light-Soil, in an Asian Country. 1954.[23]

Land Use	Actual Area 1954	
	Acres	Per cent
Aus - Autumn paddy	1.33	26.6
Aman - Winter paddy	2.66	53.2
Sugar cane	0.75	15.0
Jute	0.08	1.6
Gram	1.33	26.6
Mustard	0.08	1.6
Total area in crops	4.82	96.4
Farmstead, road, etc.	0.18	4.6
Total acreage of crops	6.23	124.6

23 W.Y. Yang, Methods of Farm Management Investigation for Improving Farm Productivity, FAO Agricultural Development Paper No. 64, (Rome: FAO, 1958), p. 141.

Table 8. Crop Production and Disposal of the Above 5 Acre Farm, Actual 1954.[24]

Crop	Area	Yield Per acre	Total Production	Used as seed	Used in home: Amount	Used in home: Value	Market Sales: Amount	Market Sales: Price Per Maund	Market Sales: Value
	Acres	Maunds				Rupees	Maunds		Rupees
Aus	1.33	15.0	20.0	1.33	18.67	112.02	0	6.00	0
Aus (mixed)	2.66	12.0	32.0	3.20	28.80	172.80	0	6.00	0
Aman		7.0	18.66	0.80	6.58	46.00	11.28	7.00	79.01
Sugar cane	0.75	700.0	525.0	33.0	0	0	492.00	1.62	799.50
Jute	0.08	15.0	1.2	-	1.00	18.00	0.20	18.00	3.60
Gram	1.33	6.6	8.75	0.50	2.25	13.50	6.00	6.00	36.00
Mustard	0.08	6.0	0.48	-	0.48	8.64	0	18.00	-
Total						370.96			918.10

[24] Ibid.

Table 9. Livestock Production and Disposal of the Above 5 Acre Farm, Actual 1954.[25]

Livestock	Number	Production			Home Use			Cash Sale		
		Cow Dung	Milk	Eggs	Milk	Eggs	Value	Milk	Eggs	Value
			Mds.	No.	Mds.	No.	Rs.	Mds.	No.	Rupees
Bullock	2	60	-	-	-	-	-	-	-	-
Cow	1	30	7	-	3.5	-	52.5	3.5	-	52.5
Calf	1	10	-	-	-	-	-	-	-	-
Poultry	5	-	-	150	-	50	3.5	-	100	6.0
Total		100	7	150	3.5	50	55.5	3.5	100	58.5

Appraisal of the farmer's production plan is quite essential in determining the safe limit of a loan. If a farmer has a plan or program of production well suited to his farm with expected net returns, it will give a clear idea as to when and how the farmer will repay the loan. A better plan uielding a higher net income to the farmer should be given due consideration in raising the amount of the loan to meet the full production expenses of the farm because of the definite prospect for repayment. Otherwise, under normal circumstances the farmer should be advanced an amount not exceeding the available income from the marketing of surplus produce over and above family and livestock consumption

25 IbidD, p. 142.

The production plan, if submitted by the farmer, will help in evaluating the following points regarding appraisal of applications:

(1) It will give a clear idea that the loan is going to be used for a productive agricultural operation.

(2) It will estimate the returns from the year's operations of the farm before hand to check the profitability of the loan.

(3) It will give an idea about the method and time of repayment to decide the repayment schedule of the loan because usual harvest dates are well known.

(4) It will indicate the safe limit of a loan to be advanced to the farmer.

b. Appraisal of Applicant as Farmer and Manager

The production plan is important but it would be of no use if the borrower is not a good farmer and manager. It is of direct importance to judge the farmer with his production plan to determine the repayment capacity. If the farmer is a good manager and a hard working man he can be allowed the full amount for the purpose for which he needs the loan. A good farmer and manager should have, not necessarily all, but a majority of the following traits, as determined by a survey made by Gardner and Henry[26] in 1950.

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[26] Fortune, XLII,1,July, 1950. Quoted in Lawrence A.Bradford and Glenn L. Johnson, Farm Management Analysis, (New York: John Wiley and Sons, Inc., 1953), p. 9.

(1) He is primarily motivated by the sheer accomplishment of work.

(2) He accepts authority without resentment.

(3) He has strong drives towards achievements first, then toward material rewards and prestige.

(4) He can organize events or facts and see relationships that tie them together.

(5) He is decisive, either on the spot or after detailed consideration.

(6) He has firm conviction, knows what he is, what he wants.

(7) He has a constant drive to be moving and doing things.

(8) He has a pervasive fear of failure.

(9) He is aware of immediate realities and their implications.

(10) He identifies himself with his supervisors, regards his subordinates as doers of work rather than as people.

(11) He has left home i.e., has broken his emotional ties to his mother but retains a positive tie to his father as the admired symbol of authority.

According to Bradford and Johnson,[27] a good manager must be self-disciplined so that he can:

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[27] Lawrence A. Bradford and Glenn L. Johnson, Farm Management Analysis, (New York: John Wiley and Sons, Inc., 1953), p.3.

(1) "Direct thinking toward opportunity for attainment.

(2) Attack problems preventing attainment of his objectives.

(3) Extract the optimum information from his environment.

(4) Carry analysis for each decision to a favourable degree.

(5) Take prompt action on his decisions.

(6) Accept the consequences of his actions."

The borrower's ability as a farmer who uses better seed, fertilizer, plants his crops and harvests them at the right time and adopts innovations in farming with the existing resources on his farm; his interest in the farm and raising the standard of living of his family; his managerial ability to get maximum output at minimum cost, are the factors which increase the prospects for repayment of a loan. The amount of loan granted should be adjusted upward for such a farmer, and particularly so if, his record shows he changed his production plans in response to market and price trends. Flexibility in modifying farming operations according to market prices is an additional qualification which gives support to the prospect for repayment.

c. Character Appraisal

The most important factor influencing the success of a loan is the personal characteristics of the man to whom the loan is made. Other factors, however favourable they may be, cannot counter balance dishonesty in a person or his lackof ability and desire to succeed. One test of man's honesty is whether he tells the truth about the property he owns, the amount of debt he owes. Truthful statements of this kind can be the first step in establishing the lender's confidence in him and it strengthens the credit worthiness of the borrower. His reputation as an honest man in the locality is a further important factor in his worthiness for a loan. Production credit associations in the United States give much attention to an applicant's past record. According to the Credit Manual[28] which guides the loaning operations of PCAs, the application for a loan is never approved when an investigation reveals bad faith in the past. However, a distinction is made between intentional bad faith or dishonesty and unintentional violation of loan requirements. The following points have considerable significance in evaluating the moral responsibility of an applicant.

(1) Accumulation of numerous unpaid bills of long standing.

(2) Misrepresentation of the reasons for low yields.

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[28] Federal Intermediate Credit Bank of Spokane, Credit Manual for Production Credit Associations, (Spokane, Washington, USA: June 1962), p. 3.

(3) Inaccurate or false statements on past production and sales of farm produce.

(4) Claim of "hard luck" in esplanation of a poor record in repaying past loans.

(5) Frequent changes in marketing agencies, merchants, credit agencies etc.

Failure to repay or to repay regularly does not necessarily indicate dishonesty. Careful investigation is required to determine the real causes of such delinquences. It is a known fact that some causes are beyond the control of some farmers. Those who repay as soon as they are able to do so after becoming delinquent should not be penalized to the extent of being denied further loans.

d. Credit Rating of Applicant

In determining the amount to be loaned to an individual farmer, the credit rating, which pertains to his past record of repayment, should also be given consideration. This applies particularly to farmers who expect loans on the merits of their intangible security and a crop lien. In the Philippines, for example, farmers are generally divided into three categories, "A", "B" and "C".[29] "A" category farmers are those who have good

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[29] Herold J. Finegan, Agricultural Credit and Cooperative Advisor, AID, United States Operation Mission to the Philippines, Manila. Letter of December 4, 1961.

record of repayments. In category "B" fall the farmers who are either new applicants with no repayment record or those who have fair records but postponed repayment because of difficulties. "C" category farmers are those who did not repay their loans in the past or do not possess intangible merits at present. Farmers of "A" category should be allowed the full needed amount requested and for "B" category a conservative safe estimation of the amount needed for the stated purpose is essential. Category "C" farmers will be few and should be denied loans on the basis of intangible merits.

The above mentioned procedure applies more to old members than for new members of cooperatives. For a new member or for a new farmer borrower of other lending institutions, it is essential to enquire about his past financial dealings with a bank or merchants or other people in his community to place him in the respective "B" or "C" credit rating categories. This practice has been followed successfully by commercial banks in the United States for many years.

Chapter V

EXTENSION OF PRODUCTION LOANS IN VARIOUS SELECTED COUNTRIES

After reviewing the methods of extending production loans in many countries of the world, it was found that a few are meeting the evergrowing demand for credit originating within agriculture on liberal terms according to the needs of farmers. Countries like the United States, Philippines and India provide a frame work by which the needs of the majority of farmers for credit are met according to their requirements, based on intangible merits rather than on the conventional method of extending loans against physical assets. These countries have been successful, to a great extent, in establishing a new pattern of extending production loans to farmers on the basis of favourable prospects for repayment. For many countries that have not yet adopted this dynamic approach, countries where the majority of the farmers are on a subsistence level and have literally nothing to provide tangible security for a loan, the countries pioneering in the extension of un-secured loans offer the example of a system worth trying for meeting the credit needs of low income farmers lacking financial resources.

In the United States, a farmer who has a long-term loan from the Federal Land Bank association serving the area on the security of a first mortgage on his real estate can also obtain short and intermediate term credit from his production credit association.

If a farmer is on the subsistence level, or does not own a farm, he can get help from the Farmers Home Administration for various purposes by means of its supervised credit program. He can later 'graduate' to other sources of credit when he has accumulated sufficient tangible assets to serve as the required security. He obtains FHA production loans on the basis of intangible merits whereas the long-term loans are secured by a mortgage of his land. His essential credit needs are met in full on suitable terms coupled with supervision and technical guidance in his farming operations to achieve higher returns with the application of the borrowed funds.

In the Philippines and India farmers are given 'tailored' loans based on their genuine needs and supervision to accomplish their objectives of raising crop yields and adopting modern methods of farming to fight against poverty in agriculture. Not only are their production needs met but enough credit is advanced to meet their basic consumption requirements between planting and harvest time. Their crop out-turn is stored, insured against losses and marketed after prices have advanced reasonably to give greater financial support to their families and a chance to save for future needs of both the farm and the family.

Deviating from the conventional method in loaning operations, these countries have been successful in meeting, (1) much of the aggregate credit needs of their farmers, (2) the needs of the individual farmer in regard to the amount of loan for carrying out his farming operations profitably, and, (3) the need of credit institutions for recovery of loans on time so that the loaning operations can continue on a self-sustaining basis.

EXTENSION OF PRODUCTION LOANS IN THE UNITED STATES

The chief sources from which farmers borrow production loans in United States are cooperative production credit associations, Farmers Home Administration and commercial banks.

PRODUCTION CREDIT ASSOCIATIONS

The 492 production credit associations have been making loans to farmers and ranchers through out the United States for 29 years, since 1933. Production credit associations are cooperative organizations run by farmers for farmers. They are designed to serve both the short and intermediate-term requirements of farmers. "Ask a member of a local production credit association, what the production credit system meant to him in the past 25 years and he is most likely to come out quickly with, 'dependable credit'. Today farmers borrow about $ 2 billion a year in credit from their production credit associations."[30]

The bank failures of 1931-33 had left many rural communities with inadequate short term credit to meet farmers' production requirements. Therefore, in 1933 Congress created

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[30] U.S. Farm Credit Administration, Dependable Credit For Modern Agriculture, Production Credit Associations 25th Anniversary Report, 1933-58. (Washington: F.C.A., 1958), p. 1.

twelve production credit corporations and provided for a nation wide system of local production credit associations. The capital to run these associations was also provided by the United States Treasury, with a program of educating the members and guidance to convert these organizations to cooperative ownership but to be operated under government supervision. Success of production credit associations program depends upon the repayment of loans so that associations can continue to supply needed money.

Since the loans made are used to cover farm operating and limited living expenses, the duration of loans, in most cases, is not more than one year. The main purpose of the loans is to supply farmer's needs for credit on a sound banking basis with an emphasis on ability to repay with collateral as a safeguard against loss. "Payment of current operating and living expenses was reported as a purpose of the loan to 81 per cent of all farmer-borrowers and accounted for 59 per cent of the total cash advance during the year. In addition about 9 per cent of all borrowers obtained some credit to purchase feed for livestock and this purpose also accounted for 9 per cent of the cash advanced. Thus more than 68 per cent of all cash advances were for current requirements".[31]

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[31] U.S. Farm Credit Administration, PCA Members and their Loans, A Research Report, (Washington D.C.: Research and Information Division, May 1957), p. 5.

Production credit associations provide around 13 per cent of the total amount of short and intermediate term loans used by the farmer in the United States.

Sources of Funds

Production credit associations derive financial benefits from federal intermediate credit banks situated in each district of its operation. There are 12 federal intermediate credit banks serving all the United States but they do not make loans directly to farmers. They operate as banks for discount and are responsible for supervising and assisting the functioning of the production credit associations.

Farmers through intermediate credit banks have access to funds obtained in the investment market of large money centers. The banks sell short-term bonds, known as debentures, to the investing public usually with terms of less than one year. These debentures are not guaranteed by the United States government but are supported by the joint guarantee of all twelve banks. The banks use the proceeds from the sale of these securities to purchase and discount notes of farmers who borrow from production credit association, national or state banks, trust companies and livestock loan companies. The discount rates of the credit banks fluctuate, depending on the rates the banks have to pay on their debentures. The spread between the interest they pay and receive is usually one per cent. Production credit associations can also get financing from Banks for Cooperatives, established in 12 Farm Credit districts, and a Central Bank for Cooperatives in Washington D.C. under Farm Credit Act of 1933.

Each association has two types of stocks. 'A' class stock which is held or owned by the government and 'B' class is acquired by the members in connection with their loans. Thus the associations, excepting those that have repaid all government capital, are capitalized partially by the intermediate credit banks and partially by farmers and stock men. Each holder of class 'B' stock has one vote regardless of number of shares he owns. A farmer who borrows from an association is required to own class 'B' stock in an amount equal to $ 5 per $ 100 of his loan. After a stockholder's indebtedness to the association is repaid, his stock may be sold to another eligible borrower, or the stock may be retained by the borrower and used for later borrowings.

After the loans are approved by the Loaning Committee, if the association is short of funds, it submits member's note bearing its endorsement and accompanied by mortgages and other related loan papers to the federal intermediate credit bank of the district for rediscount. For those loans accepted, the bank remits or credits the association with the amount of the loan. Loans not accepted by the intermediate credit bank are returned to the association and carried by the association on its own funds. When loans mature and are paid by members, the association repays the amount to the intermediate credit bank and takes back the farmer's note security.

"As of November 1, 1961, a total of 459 out of 492 production credit associations were completely member owned. The others have retired most of their government supplied capital. It is intended that all capital originally provided by the government will ultimately be fully retired and all associations will be wholly owned by their members. Most of the associations have become completely farmer-owned by building up farmer's investment in capital shares of the associations and accumulating resources from earnings. Farmers who borrow from a production credit association are required to own capital stock in the association equivalent to 5% of their loans. Many farmers have purchased more than the required amount of stock."[32] Most members hold their shares as a permanent investment because they need to borrow each year. The amount a farmer borrows from year to year varies according to his circumstances.

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[32] U.S. Farm Credit Administration, The Cooperative Farm Credit System, Circular No. 36, revised January 1961, (Washington: F.C.A., 1961), p. 13.

PCA's "Tailored" Credit to Farmers [33]

Perhaps one of the most significant contributions of the Production Credit System has been its leadership in placing primary emphasis upon the ability to pay rather than upon chattel security in extension of farm production loans. From its inception the system required a plan of repayment for every loan. In most cases chattel security has been taken as an additional safe-guard, but the primary consideration in extending credit has always been the farmer's ability to repay. This is the soundest basis on which farm production loans may be made. The shift in emphasis from security to repayment ability is to-day evident among a large number of banks and other farm lenders. They have found that it is better business to make only those loans that will most probably be repaid than to become involved in the expensive procedure of collecting loans through court approved sale of the property pledged as security.

Although many individual bankers in scattered areas had been making "tailored" farm production loans for years before the advent of the PCA system, it remained for the PCA sponsored system to hasten wide spread adoption of "budgeted" or "tailored" loans. This type of loan is so named because it is "fitted" to the needs of the individual borrower. Arrangements are made for a loan sufficient to

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[33] Earl L. Butz, The Production Credit System for Farmers, (Washington: Brookings Institution, 1944), p. 48.

meet the full credit requirements of the borrower during the course of the farm operation being financed. Advances on the loan are made as the need for additional money arises and repayments are received any time the borrower has enough income from current sales to reduce the loan principal. Interest is charged only on the actual amount of money outstanding for the number of days it was used by the borrower. Contrasted with the old straight loan which was advanced in one sum and was paid off in one sum at maturity, the budgeted loan schedules repayment from the sales of products planned to be produced with the borrowed money, calls for additional book keeping and may be slightly more expensive to the lending institutions, but it offers obvious advantages to the borrower. Its widespread use in recent years has been a significant development in the field of farm credit.

To be a permanent and dependable source of credit, the production credit associations constantly give careful consideration to those factors which contribute to sound lending practices. When processing application for loans, importance is given to actual credit needs, safety and service of the loans. If after analysing the application it is concluded that the farmer cannot repay the amount of loan from his farm income, the loan is refused the farmer. The following table shows an example of PCA's budgeted loan to the farmer to meet seasonal production expenses:

Table 10. An Example of PCA's Budgeted Loan to the Farmer.[34]

Date	Purpose of Advance or Source of Repayment	Amount Advanced	Principal Repayment	Balance Outstanding	Days Out-standing	Interest Accured at 5½ percent
June 10	Purchase of 3 cows	$ 600				
	Labor	50				
	Fertilizer	150				
	Interest on real estate mortgage	175				
		$ 975	-	$ 975	85	$ 12.49
April 5	Seed	125				
	Fuel	125				
		250	-	1,225	71	13.11
June 15	Feed	150				
	Fencing	175				
	Interest on real estate mortgage	175				
		500	-	1,725	5	1.30
June 20	Sale of 14 hogs	-	$ 700	1,025	56	8.65
August 15	Taxes	125	-	1,150	21	3.64
Sept. 5	Labour	150	-	1,300	96	18.81
Dec. 10	Sale of Corn	-	750	550	-	0.83
Dec. 20	Sale of 11 hogs	-	550	-	-	-
	Total	$ 2,000	$ 2.000	-	-	$ 58.83

34 William G. Murray, Agricultural Finance, (Ames, Iowa: The Iowa State College Press, 1959), p. 99.

Five Fundamentals of Extending Loans

The basic policy of production credit associations is to make sound loans which will be repaid on schedule. In fact, the foundation of a sound credit institution is a sound loan policy. Sound loans are in the interest of both lenders to lend and borrowers to borrow. "A sound loan has been defined as a loan to a financially responsible applicant of unquestionable integrity with a creditable operating record in an amount sufficient to accomplish a necessary purpose. It should be made under terms and conditions that will insure repayment without seriously affecting the ability of the member to continue his business. It should be so secured that the occurrence of adverse conditions beyond the control of the member or the association will permit realization by the association in an amount which will hold to a minimum any loss that may be sustained."[35]

While processing the applications for sound production loans, the production credit associations take into consideration the following five basic fundamentals:

1. The man.
2. His family position and progress.
3. Repayment capacity of the farm or ranch business.
4. Purpose of the loan.
5. Collateral offered or available security.

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[35] U.S., Farm Credit Administration, A Manual for Production Credit Associations, op.cit., p. 1.

"Proper consideration of an application is possible only after the facts have been accumulated regarding the man and his business. A sound decision on an application can be reached only by weighing the facts on each of the factors to determine the individual strength of each and the combined influence of all upon the ultimate outcome of the proposed loan. The ideal situation is where all the factors are excellent. Unfortunately, that is not the usual condition. Generally one or more of the factors are weaker than others. Then it is necessary to balance the weaker factors against the stronger to decide whether the stronger factors out weigh the weaker. The conclusion reached through this process will be evidenced in the final decision on the application. Of the five above mentioned factors, the man is the most important. An honest, capable operator is of major importance to any loan. While honesty and ability are not the only "security" needed for loans, the fact remains that no amount of tangible collateral or other protection can offset imcompetency or lack of moral responsibility.

"Financial position reflects the result of previous operations and is an indication of what may be expected; and the real financial strength which exists adds to the safety of the loan. Consideration given to repayment capacity and adequate collateral is of equal importance. Loan purpose and basis of approval should be influenced by the relative strength of the other factors".[36]

"In determining upon the amount to lend, consideration should be given to economy of operation and extent of the applicant's contribution to operating costs. The relationship between operating costs and probable income should be determined. It is always necessary to consider whether the total costs, including living and overhead, are more than the farm or ranch enterprise will carry under present or normal conditions".[37]

Loan Supervision and Collection:

Apart from a sound basis of extension of production loans, these loans are supervised constantly by the production credit associations staff during the period of their use. The supervision is done by making field trips and contacts with the farmer borrower and his family. Analysis of the activity of a particular loan account provides an excellent means for loan supervision. The time and propose of additional advances, changes in the sales programs, and evidences of expansion or contraction all provide an accumulation of facts which, when properly interpreted, assist in keeping the association informed regarding developments affecting the loan.

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[36] *Ibid.*,p. 2.

[37] *Ibid.*,p. 11.

Disbursement is adjusted from time to time in the light of the member's needs, crop or livestock condition and market outlook. Adjustments are made based upon accurate information obtained through field visits. A clean slate with the association is always preferred much better than a worrisome debt even though a reduced budget did pinch the farmer at that time. Loans are liable to be discontinued at any stage or time if not employed by the farmer as agreed upon in the plan for farm operations.

Advantage is always taken of many possible means of strengthening the association's position from a safety standpoint when a serious problem develops in a loan. This includes, taking fast and positive action totie up any available properties to protect the association from loss. It has been observed that other creditors to the farmer borrower, if any, usually rush in fast when he goes bankrupt and the first one to act ordinarily comes out with the most.

Collection problems and difficulties are found at a minimum when loans are made originally on the proper basis. An old maxim, 'Loans are best collected when they are made', generally comes true in case of production credit associations.

As the loans advanced are "budgeted loans", the dates of repayment are planned at the time of harvest when the farmer gets cash returns from his produce. The dates of harvesting and normal marketing are followed closely and maturities and remittances of the loans are checked by the association. In collection it is considered the prime duty to get the money when the sources of liquidation are sold instead of waiting until the loan matures or becomes delinquent. Hence, the recovery rates are high. Members are educated to the fact that payments are due when products are sold.

If the farmer-member was unable to repay due to unavoidable circumstances, each individual case is considered on its own merits. Applications for extension of some types of loans, such as those in which capital expenditures are involved or there was delinquency due to the circumstances which were beyond the control of borrower, are considered favourably.

Extensions are not granted merely to keep the loan current. Loans are renewed for another period after the farmer has justified the extension of time for repayment and he has paid whatever amount he could or the interest and principal due. Unless an extension will serve the best interest of the association, the loans are carried on the books as past due.

LOAN PROGRAM OF FARMERS HOME ADMINISTRATION

The Farmers Home Administration is an agency in the United States Department of Agriculture. It was established by Act of Congress, August 14, 1946, to meet certain credit needs of farmers that cannot be met by other lenders.[38] It replaced the Farm Security Administration which conducted a program of supervised loans to carefully selected farmers who could not obtain loans from other sources.

Distinctive Features

The main objective of Farmers Home Administration is to enable farm families to become soundly established in a successful, well balanced system of farming. Loans are made primarily for developing and strengthening family farms.

Loans are made only when credit is not available from other sources. Farmers Home Administration borrowers agree to obtain their credit from other lenders when they reach or regain a position where they can do so.

Credit is backed by the advice and technical assistance of experienced supervisors at the local level. This assistance is provided to borrowers on the basis of their individual problems and needs. Assistance is given in analysing problems

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[38] U.S. Farmers Home Administration, Loan Program of Farmers Home Administration. (Washington: USDA, May 1957), p. 1.

and progress, planning sound farming operations, establishing efficient farm management practices and making wise use of credit.

Emergency credit is provided to farmers that had losses because of conditions beyond their control, such as drought and floods.

Loans are made with expectation that they will be repaid out of income to be received from sound farming operations, rather than on the basis of how much security is given.

Organization Structure of Farmers Home Administration[39]

The organization consists of five stages in administration. Its function is an integral part of the United States Department of Agriculture. The set up is as follows:

1. The National Office is situated in Washington D.C. and is directed by an administrator, in accordance of the law passed by Congress. He is responsible for matters of procedures, control of budget and technical training to field staff.
2. The National Finance Office is situated in St. Louis. This office handles fiscal and account services and also keeps records and accounts of all funds disbursed and collected by the agency.
3. The third setup consists of 43 state offices serving all states, Puerto Rico and the Virgin Island. Each state office is headed by a director. He and his staff

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[39] Ibid., p. 3.

direct and train county office staffs, analyse loan programs, control state budgets for loans and approve larger loans. An advisory committee of farmers and businessmen interested in farmers' problems assists the state director in applying national policies.

4. Total of 1,450 county offices are the fourth link of the setup. They are located throughout the country, usually in county seat town. Some offices serve more than one county. Applications for loans are made to county offices.
5. In the bottom of this pyramid are County Farmers Home Administration Committees, consisting of three members who are appointed by the state director. Two of these members are farmers. The third member is usually a businessman familiar with local farmers and their credit needs.

Operating Loans of Farmers Home Administration[40]

Loans advanced by FHA are of many types and depend on the need of the farmers for credit. Farm ownership loans, soil and water conservation loans, farm housing loans, rural rehabilitation loans, emergency loans and operating loans for short term production needs of farmers, are of importance to the farmers.

Operating loans are advanced to cover the purchase of essential farm and home equipment and productive livestock,

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[40] *Ibid.*, pp. 4-6.

pay necessary farm operating and family living expenses, purchase of seed, fertilizer, insecticide, equipment, feed, to repay debts and to make minor improvements on the farm. These loans are advanced to full-time family-type farmers unable to borrow elsewhere.

1. Eligibility for the Operating Loans

   In order to be eligible for an operating loan the applicant must:

   a. Be a citizen of the United States.

   b. Possess legal capacity to contract for the loan.

   c. Be unable to obtain sufficient credit to finance his actual needs at rates and terms prevailing in or near his community.

   d. Be an individual who possesses the character, ability and industry necessary to carry out successfully the proposed farming operations and who will endeavor honestly to carry out the undertakings and obligations required of him in connection with the loan.

   e. Have had farm experience or training sufficient to indicate reasonable prospects of conducting successfully family-type farming operations.

2. Certification by Applicant

Before an application for an operating loan is considered, the applicant must certify in writing that he is a citizen of the United States and that sufficient credit to meet his requirements is not available from other sources on reasonable terms and conditions. The applicant should agree in writing that he will abide by the rules and regulations of the Farmers Home Administration in using the loan advanced to him.

3. Certification by County Committee

Before an operating loan is approved, the county committee must certify in writing at a committee m meeting that:

a. The applicant is eligible to receive that loan.

b. The credit to finance his needs is not available to him from other sources.

c. In the opinion of committee, the applicant will honestly carry out the undertakings and obligations required.

d. The committee has assessed his needs for the crop year and the amount of loan is enough to meet his requirements.. This amount will be based on the information collected and analysed in relation to cost of operation by the county supervisor.

e. The county committee will determine the future amount of loan based on the past performance of the farmer and his present credit needs.

4. Terms of Loans and Interest Rate

An interest of 5 per cent is charged on all operating loans. Interest accrues from the date of the loan advances on outstanding principal only and is not compounded. Loans are scheduled for repayment as follows:

a. Payments of principal on operating loans are scheduled in accordance with the borrower's reasonable ability to pay, determined by an analysis of his farm and home operations as reflected in his farm and home plans except that the payments must be in more than token amounts.

b. Advances for annual recurring operating expenses will be scheduled for payment when the principal income from the year's operations normally would be received.

c. Advances for such purpose as seeding permanent type legumes, grasses and for basic soil treatment may be scheduled for repayment over a period consistent with the applicants payment ability but in no case longer than the expected life of the investment.

d. Advances to purchase or produce feed for productive livestock to be fed for the market are scheduled for payment when the principal income from the sale of such livestock or livestock products is expected.

e. The amount of the initial principal installments scheduled for payment are based upon the applicant's anticipated ability to pay, taking into consideration the fact that the interest which has accrued will fall due currently with each principal installment.

5. Security Required

The amount of a loan is secured as follows:

a. Crops

By a first lien on the applicant's crop, or his share of the crop if he is a share tenant, which is growing or to be grown by him.

b. Livestock and Farm Equipment Purchased or Refinanced

By a first lien on all livestock and farm equipment purchased or refinanced with the proceeds of the loan.

c. Other Livestock and Farm Equipment of Security Value

By a lien on the other livestock and farm equipment of security value owned by the applicant at the time the loan is approved.

6. Property Insurance

Applicants obtaining operating loans are encouraged to carry insurance on their livestock, equipment, feed, seed and other property necessary to afford them adequate protection against substantial losses from the common hazards existing in an area such as fire, lightning and wind storm. Such kinds of insurance are obtained from a company authorized to do business in the area.

7. Loan Limitations and Requirements

The following loan requirements and limitations are observed in making operating loans:

a. The amount of each loan is limited to the needs of the applicant and his ability to repay. Normally these needs are met within a total principal indebtedness of $ 10,000. However, when the credit needs of an individual applicant exceed this amount because of the type of farming operations which he proposes to carry out, a loan may be made which would result in an indebtedness in excess of $ 10,000 but in no case more than $ 20,000.

b. No loans are made after a period of 7-years continuous indebtedness, during which the farmer was supposed to have regained enough financial status to switch to other lending institutions for his credit needs. However, in individual cases where the borrower has reached the 7-year continuous indebtedness limitation and applies for additional credit, the County Committee may consider the case for further loans after examining the credit needs and repayment ability.

c. A joint loan may be made to husband and wife, mother and son or father and son, living together as a family and operating jointly the same farm unit. No other joint loans are made. When joint loans are made, both individuals will execute the application, certification and loan authorization, notes, mortgages and other documents required in connection with the making and closing of the loan.

8. **Supervisory Assistance**

The farmers obtaining operation loans are full-time family-type farmers and receive supervisory assistance to the extent necessary to assure that the objectives of the loan are accomplished and the interests of the government are protected.

The guidance is provided in the form of farm and home visits by specialists to assist them in carrying out the farm and home plans. The main attention is given on keeping farm records, farming operations, extension education of the family and advice on other farming problems.

Repayment Record

The record of loans and collections in the Farmers Home Administration operating loans and emergency loan program over a considerable period of years provides some guidance as to reserves that might be made under similar conditions. "During the period November 1, 1946, through June 30, 1960, operating loans totaling $ 1,753,446,843 were made. The ratio of principal payment on these loans to matured principal is 95.4 per cent. In other words, 4.6 per cent of the principal amount which has fallen due remains unpaid and is now past due or delinquent. Of the total amount of $ 1,753,446,843 advanced during the period referred to above, $ 14,905,309 in principal has been written off. This represents a principal loss of approximately nine-tenth of one per cent. During the same period that the $ 14,905,309 was being written off, $ 129,604,274 was being collected in interest payments on the principal amount outstanding".[41]

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[41] John A. Baker, Director Agricultural Credit, U.S. Department of Agriculture, Washington, D.C. Letter of January 3, 1962.

Production Loans Through Commercial Banks in United States

Commercial banks are another important source of production loans to farmers in the United States. Due to the rapid increase in the operating capital required for efficient mechanized production, a change in production techniques, increased prices of production agents, farmers have to borrow heavily. The amounts needed cannot be supplied entirely by other sources and many farmers are not eligible to get loans from the Farmers Home Administration.

Farm loans from commercial banks for the purpose of financing current expenses made up nearly two-fifth's of the dollar volume and one-half the number of all farm loans outstanding in mid-1956. Current expenses loans are used to finance the recurring seasonal expenses of crops and livestock production, such as seed, feed, fertilizer, labor and fuel, family living outlays and to purchase feeder livestock.[42]

Size of Borrowings

As the majority of the loans are to meet the current production expenses, the amount of each loan varies with the size of the individual farm operation, the system of farming

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[42] U.S., Federal Reserve System, Farm Loans at Commercial Banks (Washington: FRS, 1956), p. 28.

and the purpose of the loan. "The Loan Survey Report of 1956 reveals that 47 per cent of loans were less than $ 500 and 66 per cent were less than $ 1,000. Only 7 per cent of the borrowers had current expense debts of $ 5,000 or more".[43] Thus, the typical production loan is of moderate size but of vital importance to the farmer-borrower.

Procedure of Appraisal of Applications

All commercial banks have the same general objectives of attracting deposits, rendering service to their community and investing the bank's funds safely and profitably. The procedures used by individual banks to achieve these objectives are varied. A bank, on receiving an application for a farm production loan, interviews the applicant and reviews his merits that have tobe considered before advancing a loan.

The procedure varies depending on previous experience with each applicant, how well the applicant is known, the amount of funds borrowed, the purpose for which the funds are borrowed and a number of other factors. In general, a banker attempts to obtain enough information so that he can invest the bank's funds most wisely.

All bankers discuss with the farmers the following points before the loans are closed:

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[43] *Ibid.*, p. 30.

1. Purpose for which funds are to be used.
2. Specific kind of program to be followed.
3. Size of enterprise believed to be most efficient.
4. Profitability of the specific program to be followed.
5. Amount of funds required for financing the specific program for which money is being borrowed and any additional funds that would be used for financing the complete farm program.
6. Decision regarding the schedule of repayment of the loan; whether installments suit the farmer or whole payment at the time of marketing the produce.
7. Terms of the loan, interest rate and security offered.

All this information is not obtained from old customers who have established satisfactory credit ratings and whose financial status is well known to the banker.

Many bankers commented that in making farm loans they wanted to lend money on programs that were best from individual's standpoint and workable from the banker's viewpoint. A majority of the bankers after visiting with the customer and obtaining the regular information requested in loan application, including the financial statement, still wanted enough additional information from the following:

1. Contact of the bank with which the customer previously did business.
2. Visit the farm to inspect assets and condition of the farm.

3. Contact other references provided by the applicant.
4. Check the chattel mortgage at the court house.

The bankers made considerable use of financial statements in servicing their farm customers. Nine out of ten banks kept financial statements on either all customers or major customers. However, the condition under which financial statements were used varied widely. In some banks, an intensive effort was made to keep current financial statements on all customers whether they had active loan accounts with the bank. Customers of these banks were encouraged to come to the bank at least once a year to revise their financial statements. Some bankers encouraged these visits by taking time to go through the customer's financial statements for the past five or ten years and point out his accomplishments. These bankers believed that this method would interest farmers in keeping accurate financial statements and aid the banks in doing a better job of extending credit. Some bankers took financial statements from customers who wanted to borrow $ 500 or more, others required statements for unsecured loans, while still others used different methods for determining whether to require a financial statement. In a number of cases financial statements were obtained to comply with state banking regulations or to satisfy the bank examiner. In a very limited number of cases, bankers used methods which enabled them to avoid the use of financial statements. It was common practice in these cases to make only secured loans, since financial statements usually are not required on such loans.[44]

Security

There is no hard and fast rule regarding security for loans with commercial banks, but generally a chattel mortgage is required for production loans. Feeder livestock loans are more commonly secured by a chattel mortgage than are current operating loans; reflecting that livestock purchased could provide readily security of the loans to the banks.

"Unsecured loans composed 37 per cent and endorsed loans were 6 per cent respectively of the total dollar loan volume for operating expenses."[45]

The net worth and also the tenure of the farm borrower has a substancial influence on the type of security used for current operating loans. Loans to owners with small net worth are often secured by farm real estate and tenants who do not have real estate to pledge as security can utilize personal security or endorsements.

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[44] R.J. Doll and E.N. Castle, Financing Agriculture Through Commercial Banks, (Kansas city: Federal Reserve Bank, 1954), pp. 25-27.

[45] Federal Reserve System, op.cit., p. 31.

Maturities and Installment Payment

As the loans are for seasonal operations, they are required to be paid when crops and livestock or livestock products are marketed. Few operating loans are granted for longer than one year. When such loans are payable over a period longer than one year, they are usually much above the average size. Also, when the loans are for a large amount, an extension can be granted at the time scheduled for repayment if the farmer is unable to repay due to natural hazards and circumstances beyond his control. "About one-fourth of the dollar volume of loans of poultry producers and one-eighth of the loans to dairymen were demand loans. The proportions, however, vary greatly among the Federal Reserve districts. Loans to cotton producers were longer in maturity than those for other farm type, slightly more than half of the total loans advanced carried maturities of nine months".[46]

The original maturity of current expense loans is often lengthened by renewals. Installment provision for repayment is found to be common with dairy producers and poultry raisers.

Interest Rates

Interest rates paid by the farmers on loans for current expenses averaged 6.2 per cent. Interest rates on feeder livestock loans are higher by 0.5 per cent. As a general rule, with the commercial banks when the amount of loanincreases, the interest rate declines. This is because with the large

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[46] Ibid., p. 34.

loans the cost of appraisal and other costs of servicing the loan, which are very little greater for a large loan than for a small one, add very little to the interest cost of the bank for the money loaned. In the case of small loans the cost of appraisal and servicing is large relative to the interest cost so that the interest charged the farmer has to be raised to recover the costs of appraisal.

Loan Supervision

"Since agricultural loans accounted for almost two thirds of the loan value of the banks studied, the methods used for supervising such loans are of interest. Approximately 5 per cent of the banks studied hired full-time agricultural men to supervise agricultural loans and to do agricultural production work. These men have various duties pertaining to the agricultural phases of their institution's business. The duties vary from area to area and from bank to bank, but in all cases, an effort is made to do a more effective job of extending credit and supervising its use more caredully".[47]

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[47] R.J. Doll and E.N. Častle, op.cit., p. 35.

EXTENSION OF PRODUCTION LOANS IN THE PHILIPPINES

In the Philippines, a Republic Act No. 821, 1952, as amended by Republic Act No. 1285, June 15, 1955, was enacted to establish an agricultural credit and cooperative finance system to assist small farmers in securing liberal credit and to promote the effective grouping of farmers into cooperative associations to enable them to market effectively their agricultural commodities.

Under section 13 of the law, provision was made to extend credit to small farmers, either with titles or no titles over their lands, whether tenants or part-owners, based upon the anticipated productive capacity of farmers in so far as repayment probabilities are concerned. Such loans may be granted for the purchase of fertilizer, seed, feed, work animals and corresponding tillage equipment, poultry, livestock and other items related to production of crops and livestock during a season.

"The ability of a borrower to provide security in the form of land or other tangible security should not be the primary deciding factor in approving or disapproving a loan. Instead, the size of the loan should be predicated upon his production with other security being considered as supplemental. In instances where credit is extended for items which are not consumed in the family, such items should be pledged as security, but in such cases approval of the loan should be dependent upon the borrower's productive capacity after receiving the item rather than upon the return which can be anticipated in the event of forced sale of the item. Loans made to farmers should be conditioned upon compliance by them with those proven practices which are reasonably within their capacity to carry out and will result in the maximum income and production from such farming unit".[48]

Under its charter, Republic Act No. 821 as amended, the Agricultural Credit and Cooperative Financing Administration (ACCFA) is responsible for promoting, organizing and supervising Farmers Cooperative Marketing Association (FaCoMas) and financing these associations and their members through four types of loans.

Types of Loans Advanced

Through FaCoMas, Philippine farmers obtain the following types of loans:

1. Production Loans

   These loans are for such purposes as to buy seed, feed, fertilizers, insecticides; rent equipment and hire labor. These loans are to be repaid in the same year as the money is borrowed.

2. Subsistence and Essential Supplies

   These supplies include those for both family living and crop production. They are to be repaid within one year.

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48 Philippine Congress, Republic Act No. 821, 1952 As Amended by Republic Act No. 1285, June 15, 1955. (Manila: Philippines, 1955), p. 9.

3. Livestock and Equipment

   Generally these items last longer than one year and the loans can be paid over a period not to exceed the life of the item to be purchased. Such loans are for a maximum period of seven years.

4. Harvesting and Marketing Credit

   Loans for expenditures such as labour, rent of equipment, transportation, marketing, processing and storage are to be repaid within a period of one year.

Policies Governing the Extension of Credit

"The factors to be appraised in determining the amount of production credit which a lending agency should extend to a farmer to enable him to secure increased returns from farming and thereby help assure repayment on time are:

1. The honesty and ability of the applicant.
2. Purpose of the loan.
3. Security.

The adequacy of the amount of loan desired by a farmer is determined by actual verification and investigation of the following:

1. Size of farm.
2. Tenure.
3. Crops planted.
4. Amount of labor available from within his farm household.

5. Previous year's operations.

6. Proposed program of operations.

"The safe limits of the loan, that is, how much it is safe to loan the applicant, can be determined by making realistic estimates of the applicants operating expenses and probable income and appraisal of security offered as collateral of the loan."[49]

Loan applications made to a FaCoMa are analysed for the soundness of the proposed operation before the loan is granted to farmer-members. The following points are also considered at the time of closing loans and the member-farmer-borrower is advised to cooperate with the agency and act accordingly:

"1. It is determined by the loan approving officer that the applicant has or will have the required resources including land, water, capital, labor and equipment necessary to carry on a successful farm operation. It is also important that the borrower should have good distribution of labor to permit the growing of crops for harvest through out the year. If possible, livestock should also be included to permit better distribution of labor and income through out the year. The borrower's success will result in better living for him and his family, plus available income to meet the current living and operating expenses

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[49] Ernesto R. Parial, Agricultural Credit and Cooperative Finaning Administration, (ACCFA), Manila, Philippines, Letter of December 8, 1961.

including loans for such purposes and repay the capital and real estate loans. The payments should be made when the loan installments on the promissory note come due.

2. That the applicant understands the responsibilities and benefits of borrowing money and that he is willing to make every effort to repay his debts in an orderly manner.
3. It will be determined that the applicant is willing to cooperate with his neighbors in safeguarding public health, fighting common diseases and pests of crops and animals, purchasing good seed, livestock improvement, maintenance of properties, irrigation system used and in the making of quality graded products.
4. That the applicant is willing to cooperate with the agricultural representative employed by the Philippine government to assist him in solving his individual and community problems.
5. Loans will not be made to applicants who have debts in excess of their repayment ability.
6. Applicant will be of legal age prior to obtaining a loan."[50]

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[50] Harold J. Finegan, op.cit.

Classification of Borrowers

"For the purpose of giving loans, members are classified into, new members, privileged members and non-privileged members.

1. New Members

   Farmers who have recently joined either a new or old FaCoMa and have not yet marketed their crops through the cooperative, are new members. To qualify for loans, every new member must have been verified personally by the cooperative agent assigned to the FaCoMa as having accurately prepared the membership and loan applications.

2. Privileged Members

   Members who fall under any of the following categories:

   a. Those who have paid all their previous loans due, complied with their marketing agreements and deposited all their marketable crops with their FaCoMa, acceptable to the latter.

   b. Those who have paid all their previous loans due in cash or in commodities or partly in cash and partly in commodities, but did not deposit, the full quantity of the produce as pledged in their marketing agreement due to factors beyond their control such as drought, pests, etc.

c. Those who joined the FaCoMa before harvest-time did not secure any loan but complied with their marketing agreements.

3. Non-Privileged Members

Are those members of FaCoMa who failed to meet their obligations."[51]

Privileged members, who have already established a good payment record, secure new loans without going through the usual processing requirements. They get their loans with the least paper work, whereas other members undergo complete formalities and investigation by the FaCoMa.

Budgeted Loans

The farmer and his family, in cooperation with a trained agriculturist, prepare an estimated annual income and expense budget. The resources and needs of the family are determined on the basis of factors such as field observations, farm and home plans, including preparation of an inventory as to what the farmer owns and owes to others. This plan also includes estimates regarding subsistence and production costs in addition to cost of obtaining further capital goods needed or additional resources. The plan also shows the applicant's ability to repay any money to be borrowed plus any obligations

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51 Agricultural Credit and Cooperative Financing Administration, Production Loan Policies and Procedures, Circular No. 3-A, (Manila: ACCFA, 1957), p. 1.

he has to meet. The total expenditure is compared with the estimated gross income for the year to determine with the family their ability to borrow and repay any loan requested.

The production loan is given to the farmer in four releases: first, for seeds and land preparation expenses; second, for subsistence, fertilizer and pesticide expenses, third, for transplanting expenses; and fourth, for harvesting expenses. The releases are made according to the farm budget prepared by the farmer borrower.

The dates of repayment of loans are fixed according to the time of harvest of crops or the probable receipt of income from other farm produce. The estimated income, expenses, costs and time of repayment, serve as a guide to the family and loan approving officials as to whether money may be safely borrowed and repayment by the family can be reasonably anticipated.

Repayment Record and Delinquencies of Loans

Repayment of loans are scheduled as the money from the sale of farm produce will be available. The amount of each payment is on the basis of the budget prepared, with all annual recurring production and subsistence payments repaid from the sale of crops and livestock products marketed during the year. The record of repayment has been as follows:

"Our records show that as of June 30, 1961, of the total production and farm improvement loans granted to individual farmers amount to P 82,489,786.77 only, P 45,625,951.93 or 55 per cent has been repaid. However, if collections from farmers and undistributed loans that should have been remitted to ACCFA instead of being misappropriated and misapplied by officials of FaCoMa are considered in the computation of repayment percentage of individual farmers, it is safe to assume that the repayment would be more than 85 per cent."[52]

If a farmer becomes delinquent because of natural hazards, repayment of a production loan is extended and another loan is granted provided that the farmer is justified in claiming such an extension and another loan. The farmer is required to notify the FaCoMa office immediately in case of such mishap with the information regarding the nature of the loss and its extent. The farm will be visited by a FaCoMa specialist and the loss will be certified by the ACCA office or agricultural representative of the Bureau of Agricultural Extension. The farmer is also required to repay both old and the new loans at the next harvest.

In order to meet the losses due to delinquencies and emergency expenses, a sum equal to five per cent of the loan is deducted from the farmer and is deposited with his FaCoMa.

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[52] Ernesto, R. Parial, <u>op.cit</u>.

This amount has proved to be insufficient to meet such losses, which are quite frequent.

"In our country (Philippines), 5 per cent special reserve deducted from the loan in advance to take care of losses on loans of farmers has been found to be very inadequate".[53]

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[53] *Ibid*.

EXTENSION OF PRODUCTION LOANS IN INDIA, NEAR DELHI

In India, in the year 1948, The Indian Cooperative Union was established with the help of Joint India Fund of the Cooperative League of the United States of America and the American International Association, under the Intensive Agricultural District Program. The Indian Cooperative Union is a voluntary non-profit organization devoted to economic and social development through cooperation. The ICU saw the need for an experimental program and research on positive tools to assist the cooperative organizations to increase agricultural production and improve the level of income of the small farmers of the country.

Such an experimental program in rural development and credit was begun by the Union with the idea that if technical assistance for increased production was available to individual farmers along with credit, no other security than trust and his willingness to work would be required Over a period of 12 years, the Union has recorded its experience growing out of this effort and allied extension and development activities as satisfactory.

In October 1956, the Indian Cooperative Union introduced a program of planned production credit in four villages in the Mehrauli Block, about 9 miles South-West of New Delhi.

The program was specifically intended to serve the small farmers on an individual basis. The major objective of the program was to develop methods and techniques under Indian conditions of combining agricultural production credit with technical assistance so as to increase yields of crops.

Emphasis was placed on informal farm planning and necessary supervision in granting short-term and medium-term loans for crop production facilities such as improved seed, fertilizers, buffaloes, bullocks, other livestock, and farm implements and machinery. Demonstrations of improved agricultural practices, especially improved seed and fertilizer use, and campaigns for killing field rats were conducted and continued guidance was given to cultivators. The program was expanded each crop season and by the summer of 1957 credit and technical assistance were being given to 630 individual cultivators and their families.

"Despite the difficulties and certain limitations of the program, the evaluation showed that the Indian farmer with relatively small land holding is a good credit risk when assisted with proper agricultural extension services and the credit required to adopt improved agricultural practices. It also indicated that with such assistance the small farmer can make a substantial increase in food production."[54]

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[54] Indian Cooperative Union, Rural Development and Credit Project in Delhi, An Evaluation Report Concerning Rabi 1957-58 to Kharif 1959. (Delhi: ICU, 1960), pp. 1-2.

Methodology and Working Principles

Selection of Borrowers

The primary considerations for eligibility of a participant were that he was a small farmer and self-cultivator (owner or tenant), owning 15 acres of land or less. He was found to be able and willing to repay the loan after appraisal of his intended farming operations. Each farmer was required to make application for associate membership in the ICU and to indicate willingness to make improvements suggested in the informal farm plan which the credit supervisor assisted him in formulating.

Under exceptional circumstances, applicants were considered from cultivators owning more than 15 acres of land. Landless labourers who required medium-term loans for purchase of milch buffaloes and other allied farm production facilities were also considered eligible.

Technique of Farm Planning and Processing of Loans:

"The experience from the first evaluation period indicates that detailed farm plans and establishment of credit limits for each cultivator prior to advancement of a loan were not absolutely necessary to ensure recovery of short-term loans, provided that:

1. The technician had a general knowledge of production data and practices of the area.

2. It was determined that the loanee was a self-cultivator, and

3. The field staff had a knowledge of the total area cultivated by the loanee."[55]

Nevertheless, the general principles governing the amount of loan to be advanced were still based on the needs of the farmer and his repayment capacity. During the period covered in the "Evaluation Report"[56], the amount of loan provided to each farmer-borrower was arrived at by the technical analysis of each loanee's farm operations summerized in a simple farm plan. In arriving at the credit worthiness of intending loanees the technical analysis, wherever possible, included the following considerations:[57]

1. The general efficiency of the cultivator's operations based on the history of the previous year's operation, with special reference to deviation from the average yieldin the area and utilization of human and other resources.

2. Technical analysis to determine the factors contributing to the degree of efficiency, such as the reasons for deviation from the average yields, whether the

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[55] Ibid., p. 6.

[56] Ibid.,

[57] Ibid., p. 7.

deviations were avoidable or not and the actual improvement which could have been made under the existing circumstances.

3. The production potential of the cultivator and his resources. This included the possibility of improvements, estimated increase in production as a result of these improvements and ability of the cultivator to implement the improvements with the guidance and assistance of the supervisor.
4. Cash costs of improvements, if adopted, that is, the estimate of each outlay required for each improvement recommended by the agricultural technician and a comparison of the loan requirements with the estimated marketable surplus or increase in income from all crops.
5. The general attitude of the cultivator towards the acceptance of the recommended practice and the loans intended to be advanced and whether demonstration plots are needed or not
6. The general credit worthiness based on financial status of the cultivator or his demonstrated attitudes regarding past obligations and his ability or willingness, or both, to repay future obligations.

Periods of Loans and Rate of Interest

Until Kharif (summer crops season) 1957, the maximum period for short-term loan was six months and for medium-term loans was three years. Medium-term loans were repayable either in monthly or six-monthly installments. The repayment schedules for both short and medium-term loans were revised after 1957. A period of six months from the time of granting of short-term loans till recovery was considered insufficient for cultivators to harvest their crops, thresh and make sales and repay. Therefore, the period of recovery for short-term loans was extended to 10 months from the date of granting the loan. The maximum period for short-term loans, including extension, was 15 months and four-years for medium-term loans. The rate of interest charged for both the loans was 6¼ per cent per annum.

Security for Loans

No collateral security, such as mortgage on property or a pledge on tangible assets, was required. The productive capacity of the proposed farming operation and the potentialities of the farm family were considered adequate security. Each loanee was required to sign an application for a loan and to execute a bond.

For medium-term loans, each applicant, in addition to signing a loan application, had to execute a bond (stamp tax paper) with one consigner.

Supervision and Recovery of Loans

Once a loan was approved an effort was made to issue the loan in cash or in kind, as was possible, and each farmer was provided guidance needed for implementing the farming operations planned. The following principles and methods of supervision and recovery of loans were observed throughout the project operations:[58]

1. Village organizers and agricultural technicians were responsible for supervising proper utilization of loans and rendering on-the-farm technical advice in the villages assigned to them.
2. The intensity of follow-up on the farm supervision and technical advice was dependent upon the knowledge and character of the cultivator and the characteristics of the farming operation for which the loan was given.
3. If a loan was not properly utilized, it was to be recovered immediately.
4. Dealings with loanees, specially in loan recoveries, were strictly business-like. The field staff was, however, encouraged to be considerate of all problems presented by the cultivators.
5. Repayment of loans was allowed in cash or in kind. If repayment was in kind, the amount was determined

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58 Ibid., p. 8.

from the Mehrauli market price of the agricultural produce at the time.

There was no policy restriction on the amount of short-term loans to be given to any cultivator during a crop season. Neither was there restriction as to the number of crop seasons for which a farmer could borrow. As mentioned earlier, the loan amounts were not determined by a maximum limit but were decided on the basis of the need for the cultivator and his ability to repay from increased production.

"The percentage of cash recovery of short-term loans ranged from 87 per cent to 95 per cent of the amount actually due during the different crop season, on an average of 94 per cent for the three crop seasons. The normal period of recovery of short-term loans was 10 months from the date of granting the loan. Extension of time for repayment was granted in cases where it was discovered that failure to repay was due to circumstances beyond the control of cultivator."[59] Generally speaking, the cultivators who were unable to repay on time during the scheduled period and who were given extension of time to repay short- term loans, were those who experienced failure of germination and bad crops.

The following table indicates the reasons for failure to repay the short-term loans within the normal repayment period:

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[59] _Ibid_., p. 21.

Table 11. Analysis of Reasons For Failure to Repay Short-term Loans Within Normal Period.[60]

Reasons	Number of Loans			Total
	Rabi 1957-58	Kharif 1958	Rabi 1958-59	
1. Failure of crops and/or poor crop	-	10	55	65
2. Wilful	28	8	15	51
3. Faulty assessment	-	-	10	10
4. Others				
a. Cattle died	-	-	7	7
b. Illness	-	-	5	5
c. Marriages	-	-	8	8
Total	28	18	100	146

"In 10 cases where there was faulty assessment, it was discovered that the technician's estimation of the cultivator's ability to repay following the harvest of respective crops was in error. Marriages as reason for non-repayment was not judged as faulty assessments, in that, when asked by the village organizers and technicians, the cultivators concerned did not intimate that they planned to have their daughters married during the crop period.

"Of the 146 cases of failure to repay short-term loans within the ten months period allowed, 51 or about one-third of the numbers were found to be wilful defaulters. That is

60 *Ibid.*, p. 23.

to say, they were judged by the field technician as having earned sufficient income to repay, but refused to do so for various reasons. In the majority of these cases, such cultivators avoided meeting the field supervisors, often absented themselves from the village or when contacted, made vague promises to repay at a later date. The average amount over-due from these wilful defaulters was Rs 29 per cultivators."[61]

Provision to Meet Loan Delinquencies

"Protection against natural hazards, price declines, etc. is obtained by the lender in two ways: first, by maintaining some margin between the amount loaned and the estimated repayment capacity of the business, and second, by building up reserves for bad debt losses in the institution itself. Every credit institution will, at one time or another, suffer losses. This is a cost of doing business and must be considered in determining the rate charged members. Experience will give some indication of the amount of reserves needed."[62]

"The impact on productivity and family income of this combination of technical advice plus credit plus friendly checking has been most encouraging."[63]

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61 Ibid.

62 Harold A. Miles, Consultant on Agricultural Credit, The Ford Foundation intensive Agricultural District Program, New Delhi, India, Letter of December 20, 1961.

63 Indian Cooperative Union, Annual Report, April 1960 to March 1961, (Delhi: ICU, 1961), p. 8.

CONCLUSION REGARDING LENDING ON INTANGIBLE SECURITY

After studying the basic characteristics of production credit programs and lending experience in the United States, the Philippines and India, the writer arrived at the conclusions that, (1) loans made on the basis of intangible security have shown a good record of repayment in the United States, the Philippines and India which compares favourably with the percentage of loans collected in countries where tangible security is required, and, (2) the high percentage of repayment of loans with intangible security has been related to the basis on which these loans were made, that is, (a) use of loaning policies and measures fostering repayment and, (b) careful economic appraisal of loan applications and approval of only those which showed good prospects for repayment.

Review of the experience of such lending operations in the above mentioned countries' leads to the conclusion that the following loaning policies and measures foster the repayment of production loans and help to assure a high percentage of collection:

1. Loaning Only the Amount Required to Carryout the Proposed Farming Enterprise Profitably

   The farmer-borrowers are loaned the amount that they actually need to carry out their farming operations profitably. They are not allowed such a large amount that they cannot repay from their income derived from crops and livestock enterprises. A cost versus benefit analysis is carried out to see the profitability of the loan if it is used for the stated purposes.

2. Limiting Loans to Repayment Capacity

   Loans are limited to the repayment capacity of the individual farmers.

3. Emphasizing Intangible Security

   Loans are secured primarily by intangible merits of the farmer and no tangible security is required but the farmer-borrower executes a promissory note with the promise to use the loan for the purposes mentioned in the application and to repay as the returns from farming will be available to him.

4. Using Measures Fostering Repayment of Loans

   The following measures are used by the lending institutions in order to achieve a high proportion of repayment of loans.

   a. Budgeting the Loans

      Loans to farmers are budgeted according to requirements and released in installments at the proper dates. The budget shows such details as, the purposes of the loan, the dates of advances, total amount advanced, previous dues outstanding, and the various expected dates of repayment coinciding with the inflow of income to the farmer from the sales of the products.

b. Creating Special Reserves

In areas where farm income fluctuates widely on account of weather and market prices of the main products, reserves are created by deducting five per cent of the amount of principal of any loan from the amount advanced to the borrower. The five per cent is placed in a special reserve allocated to meet the losses on uncollectable loans.

c. Providing for Deduction of Loans Under a Marketing Agreement

Whenever feasible, marketing agreements are signed by the farmer-borrowers to market their farm produce through the cooperative society serving the area or through any marketing agency in agreement with the lending institution. When the farmers market their products, the amount of loan is deducted from the sale proceeds and the rest is paid to the farmers.

d. Supplying Technical Guidance and Supervision

Technical guidance to the farmers in the modern methods of farming and the use of the loan is provided by the lending institutions or be arrangement with the extension agent. Personnel of the lending agency supervise the use of the funds advanced to the extent necessary to assure their productive utilization and repayment.

In appraising the individual applications for loans, the lending agencies evaluate the individual credit status of the farmer and the prospects for repayment before making him a loan by using the following method:

1. <u>Evaluation of Credit Status Through Reviewing Information About the Applicant and His Record as a Farmer</u>

   Information from the farmer required for evaluating the amount of loan needed, his repayment capacity, security to be taken into consideration and for scheduling the dates of advances of funds and repayments on the loan is obtained by requiring each farmer to fill out an application form specially designed to provide the pertinent facts. This form shows the details about the farm and family, as to earning and non-earning members, land owned or operated, assets and liabilities, pattern of farming followed, returns from crops and livestock, consumption needs of the family and other sources of income.

2. <u>Determination of Amount Needed to Cover Variable Costs</u>

   As the farmer needs sufficient amount of money to carry out seasonal production operations, the lending agencies determine the amount of loan required to cover these variable costs by taking into consideration the costs for a unit of operation, total units involved and the price per unit of the commodities and services required by the farmer for his planned production.

3. Determination of Repayment Capacity of the Farmer

The repayment capacity of the farmer-applicant is determined by the returns available to the farmer from his marketable surplus above family subsistence, his financial position, location of the farm, the borrower's ability as a farmer and manager, his reputation in the community and his credit rating. The farmer's production plan and the risks involved in his planned production are also considered as important determinants to establish the repayment capacity of the applicant.

Chapter VI

PROPOSAL TO GRANT PRODUCTION LOANS ACCORDING TO THE PROSPECT FOR REPAYMENT

Based on the evaluation of loaning experience in the various countries set forth in the previous chapter, the writer recommends (1) a set of loaning policies and measures for the lending institutions in Pakistan to adopt, and, (2) a method of appraisal of individual applications for production loans in order to achieve a high percentage of recovery. The recommendations here made are based on the hypothesis that favourable prospects for repayment of a production loan are a safe basis for granting such loans irrespective of whether tangible security is offered, provided certain policies and programs are implemented. Experience of the countries following this type of dynamic loaning program further indicates that it helps to meet the needs of farmers for production loans and make the use of funds more productive.

Recommendations Regarding Lending Policies and Measures to Foster Repayment of Loans

1. Use intangible security for the loan.
2. Budget the loan; advance amounts needed at times required to carry out farmer's planned production.
3. Evaluate the repayment capacity of the individual farmer.

4. Establish credit rating for each farmer-borrower.
5. Provide technical guidance and supervision in the use of the loan funds.
6. Arrange for deduction of loans from marketing proceeds.
7. Create special reserves to meet the losses on uncollectable loans.

Recommendations Regarding Economic Appraisal of Applications for Production Loans

1. Use informative application forms to evaluate the credit status of the farmer-borrower.
2. Determine the amount of loan needed by the farmer.
3. Ascertain the safe limit for the loan.
4. Determine the prospects for repayment.

Recommendations Regarding Lending Policies and Measures to Foster Repayment of Loans

1. Use Intangible Security for the Loan

It is not the security which pays the loan but the repayment capacity of the farmer. For production loan, no specific physical security collateral should be required from the farmer because experience in the United States,[64] the Philippines[65] and India[66] has demonstrated that such loans usually are repaid without it. The farmer-borrower should execute a bond to repay the loan from his farm produce. Such intangible security items as his repayment capacity, ability as farmer and manager, his character and reputation in the community, his credit rating etc. must be taken into full consideration at the time of evaluating the safe limit as well as the prospects for repayment.

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[64] U.S., Farm Credit Administration, A Manual for Production Credit Associations, op.cit., p. 1.

[65] Republic Act No. 821, 1952 As Amended June 15, 1955, op.cit., p. 1.

[66] Indian Cooperative Union, op.cit., p. 8.

2. Budget the Loan: Advance Amounts Needed at Times Required to Carry Out Farmer's Planned Production

As practiced in the United States by production credit associations[67] (PCAs) and in the Philippines by Agricultural Credit and Cooperative Financing Administration (ACCFA),[68] loans advanced to the farmers should be in 'budgeted' form in accordance with the production plans of the individual farmer. A program should be prepared by the lending agency to advance funds according to the needs and times for the use of money so that farmers can use it only for the specific purpose. The interest due on principal for the period the money is used and the date of repayment from each enterprise should be mentioned in this budget. The recovery dates should be scheduled according to the times of marketing the produce or the receipt of income from other sources. The whole amount should be granted at the beginning of the production period but should be released in installments according to dates for the use of funds mentioned in the budget. For example, if a farmer needs a loan to grow 5 acres of wheat and to meet bare subsistence of his family, after estimating the amount of loan for each item involved, the budget should be prepared as follows:

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67 Earl L. Butz, op.cit., p. 48.

68 ACCFA, Production Loan Policies and Procedures, op.cit. pp.4-5.

Table 12. A Hypothetical Budgeted Loan for Growing 5 Acres of Wheat and Paying Subsistence Expenses.

Date	Purpose of Loan or Sources of Repayment		Amount Advanced	Amount Paid by Farmer	Balance Out-Standing	Days Out-Standing	Interest Rate at 6%
October 1	Subsistence for family		Rs.153.0	-	Rs.153.0	212	Rs 5.33
October 15	Seed	75.0					
	Fertiliger	40.0					
	Feed and fodder for work animals	75.0	190.0		343.0	196	6.12
February 1	Wages for extra labour hired for weeding and interculturing		25.0		368.0	89	0.37
April 15	Harvesting, threshing and cleaning	50.0					
	Transportation and marketing	25.0	75.0		443.0	15	0.19
	Total		Rs 443.0		Rs 443.0		
May 1	Payment of principal and interest from proceeds of sale of wheat			Rs 443.0			Rs 12.01

In case of a budgeted loan, the farmer pays less interest, as he pays interest on the principal for the number of days he uses each advance of the loan. In the above mentioned hypothetical budgeted loan, the farmer pays only Rs 12.01 interest on Rs 443.0 at the rate of 6 per cent a year. If the farmer borrowed this amount for an entire year, as is the usual practice, his interest would have been Rs 26.58 or more than twice that on the budgeted loan. It will also save the trouble and bother of expensive trips to the town seeking additional loans. It provides for an orderly retirement of the loan as the produce is sold. Most important, isthat the farmer will be sure that funds willbe available when needed and he will just go and receive the amount from the lending agency's office. This procedure will be 'financing' the farmer rather than just making a loan to him. In short, the provision of the budgeted loan to the farmer willhave the following advantages to both the lending agency and the farmer:

a. Farmer will be given the actual amount needed and not more than his enterprise can repay.
b. He will use the loan only for the specified productive purposes.
c. The funds not yet needed will remain with the

agency and if the farmer is not using the loan as indicated in the plan, the loan will be cancelled in the interest of both the borrower and lender.

d. The farmer will pay the interest only for the number of days he actually uses each advance of funds.

e. Dates of payments of the installments of the loan will be fixed at the times when the farmer markets his products and gets money to repay.

3. Evaluate the Repayment Capacity of the Individual Farmer

In order to make sure that the loan will be repaid from the farmer's income, the repayment capacity of the farmer-borrower should be evaluated before making him a loan. To judge the repayment capacity of the farmer, location of his farm, type of farming followed, his production plan, risks involved in planned production, his assets and liabilities, marketable surplus above family subsistence, number of earning and non-earning members in the family and his other financial resources should be ascertained.

4. Establish Credit Rating For Each Farmer-Borrower

As practiced in the Philippines[69] by the cooperative associations, the farmer-borrowers should be classified by the lending agencies according to their past repay-

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[69] ACCFA, Production Loans Policies and Procedures, op.cit.,p.3.

ment records. Those farmers who have always been prompt in repaying their loans should be put in category 'A'. Such farmers should be advanced the full amount of the normal requirements for their farming program up to the safe limit. Farmers who have been repaying previous loans but not on schedule due to circumstances beyond their control, such as natural hazards and price decline, or who paid a portion of the loan, should be placed in category 'B'. The application of a farmer in this category should be analysed carefully and his tangible and intangible merits should be judged carefully before a further loan is made. The amount loaned should be held to the minimum needed for carrying out the declared purpose.

Farmers who did not meet their obligations deliberately, though they were able to repay the loan, should be classified as 'C' class borrowers. No loans should be made to them until and unless they provide physical assets as security and ample proof of ability and intention to repay as well as proper utilization of loan.

For new farmers or new applicants, who have not yet been granted a loan, the lending agency should gatherfactual information from other lending agencies and institutions and individuals from whom the applicant received loans or made purchases on credit regarding their payment of their debts. It is necessary to collect information regarding their repayment records so that the new loanees can be placed in their respective categories. For those who are entering the farming business for the first time, assembling information regarding their characters and reputation is essential before advancing loan funds to them.

5. <u>Provide Technical Guidance and Supervision in the Use of the Loan Funds</u>.

It is observed that loans advanced to subsistence farmers are generally utilized for unproductive purposes which reduce the repayment capacity and result in delinquencies. As practiced in the United States,[70] the Philippines[71] and India,[72] technical guidance should be provided to the farmer-borrower in the preparation of a plan for the production program of the farm, keeping simple accounts and in carrying out his farming operations according to the practices

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[70] Earl L. Butz, <u>op.cit</u>., p. 50.

[71] Nathanial B. Tablante, <u>op.cit</u>., p. 16.

[72] Indian Cooperative Union, <u>op.cit</u>., pp. 8-9.

recommended by the Department of Agriculture and Extension Service. Especially when loans are advanced on the basis of intangible merits, guidance and supervision become essential to see that the money is used for the stated purposes and the operations are carried out profitably to repay the loan.

If the lending agency can afford the cost of supervision and guidance through its own staff it will be better, but in case of shortage of funds and technical personnel, the agency should work in coordination with the Agricultural Extension Service. It should arrange for local extension agents to supervise the use of loan funds and to give technical guidance to the farmers in the matters of farm planning and using improved production practices. This will help farmers to improve the management of their farms and their incomes to increase the capital resources for greater farm productivity.

6. Arrange for Deduction of Loans from Marketing Proceeds

Whenever, possible, farmer-borrowers should be asked to sign a marketing agreement to market their farm produce through the cooperative society serving the area or through any marketing agency in agreement with the lending institution. Where this is not possible, the lending agency should make arrangements with marketing agencies to deduct the amount of the loan before making payments to the farmer for his products.

7. <u>Create Special Reserve to Meet the Losses on Uncollectable Loans</u>

In the case of cooperatives, a reserve should be created by adding 5 per cent of the amount of the principal of any loan to the amount of the note signed by the borrower. When he pays the note in full, the 5 per cent is placed in a special allocated reserve to meet the losses on uncollectable loans. This reserve should be used in financing the business of the cooperative so that farmers can get the benefit of their money. In case of resignation, a member can get back the total amount standing to his credit in this reserve, less the percentage representing the total net losses on uncollectable loans charged against this reserve during the period of his membership. It might be advisable to provide in the by-laws of the society that a member who has repaid all his borrowings in full will be paid the entire sum credited to his name in the reserve for uncollectable loans.

Recommendations Regarding Economic Appraisal of Applications for Production Loans

1. Use Informative Loan Application Form to Evaluate the Credit Status of the Farmer-Borrower

   Much depends on the application form, how it shows the information required by the lending institutions in order to determine the amount of the loan required and to fix the repayment of the loan out of the income of the farmer. To have information regarding the farmer-borrower, his family, sources of income, what he owns and what he owes to others and the purpose for which the loan is needed, an application form was designed (see appendix I) to indicate clearly the above mentioned credit status of the applicant. Such an application form will serve a dual purpose. First, it will help the farmer-applicant to know his farming enterprise and stimulate him to keep account of his assets and liabilities, to plan future production, and finally to ask for an amount of loan for a definite productive purpose which he can repay from the income generated by the loan. Secondly, it will help the lending agency to know what the applicant owns and his debts, his repayment capacity, availability of productive labour supplied by the farmer's family, family consumption needs, needs for livestock and crop production, his previous marketable surplus above subsistence and the overall resources of the farmer to repay the amount borrowed. Accordingly, an amount of loan which the applicant will be able to repay can be worked out, avoiding delinquency. This form will be translated into vernacular languages so that farmers who want to apply for a loan can understand what is to be supplied. It is based on the application forms used by the Indian Cooperative Union in the Rural Development and Credit Project in Delhi, India.[73]

2. Determine the Amount of Loan Needed by the Farmer
After receiving the application, duly filled, the lending agency must work out the actual amount needed by the farmer according to the purpose indicated in the application form. This will help to budget the loan in accordance with the times advances are needed for various purposes, amounts required, and schedule the repayment of the loan from farm income. The amount of loan required should be calculated for individual items separately, taking into consideration the total period of the loan, per unit requirements, total units of the commodity or services needed and the price per unit.

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[73] *Ibid.*, p. 16.

The formula to calculate the amount required to meet the expenses of individual operations, or items, can be expressed in terms of Amount Needed = Per Unit Requirement x Total Units Involved x Price Per Unit or AM = PUR x TUI x PPU. It should be used to get the exact amount of the loan. Where AM = the Amount Needed, PUR = Per Unit Requirement; where time is involved, the Per Unit Requirement (PUR) of the total period of the loan should be calculated. TUI = the Total Units Involved and PPU is the Price Per Unit of the item or services involved.

The calculation of the amount needed by a farmer to grow 5 acres of wheat and feed his two milk cows until harvest to pay for feed, fertilizer, labour hired and family subsistence, will illustrate the procedures involved.

To calculate the amount needed to feed 2 cows for 3 months with concentrates, the amount would be:

AM = PUR x TUI x PPU

PUR = 180 lbs (2 lbs per day for 90 days)

TUI = 2 cows

PPU = Rs 0.5

$\therefore$ Amount of loan needed = 180 x 2 x 0.5 = Rs 180.0

To calculate the amount needed for fertilizer to be applied to 5 acres of wheat crop, the amount would be:

AM = PUR x TUI x PPU

PUR = One bag of fertilizer (ammonium sulphate) per acre.

TUI = 5 acres of wheat sown

PPU = Rs 8.0 per bag

∴ AM = 1 x 5 x 8 = Rs 40.0 for fertilizer.

To calculate the amount of loan to pay for extra labour to be hired for harvesting, threshing and cleaning for 5 acres of wheat, the amount will be:

AM = PUR x TUI x PPU

PUR = 1 man for 15 days for one acre

TUI = 5 acres.

PPU = Rs 30.0

∴ AM = 1 x 5 x 30 = Rs 150

To find out the subsistence expenses, to pay for wheat flour for a period of 3 months, with 6 members in the farmer's family, the amount would be:

AM = PUR x TUI x PPU

PUR = 212 lbs (average of 1 lb. per day for 212 days)

TUI = 6 members

PPU = Rs 0.12

∴ AM = 212 x 6 x 0.12 = Rs 152.64

In the like manner the amount needed to meet each individual item for which the loan is needed should be worked out. The amounts calculated for individual items should be added to give the total amount of the loan to be advanced to the farmer, neither less nor more. The aim of calculating the definite amount for various purposes is to give the farmer what he needs to carry on the production to produce the income which will repay the money advanced.

A cost versus benefit analysis should be carried out to see the profitability of the loan when it will be used for the given purpose and the appraised amount. In such cases one has to find out whether the money advanced for specific purposes will bring enough returns to the farmer to enable him to repay the loan and the purpose for which loan is needed carrys economic importance to the farmer. For example, the amount estimated to apply fertilizer to 5 acres of wheat crop costs Rs 40. It is to be ascertained whether the use of fertilizer will increase per acre yield so much as to repay Rs 40.0 plus interest on this amount for the period of 6 months.

This method of loaning the required amount to carry out the proposed farming enterprise profitably has been used successfully in extending production loans with good to excellent records of repayment by the PCAs[74] in the United States, ACCFA[75] in the Philippines and the Indian Cooperative Union,[76] near Delhi.

3. Ascertain the Safe Limit for the Loan

When the amount of loan has been estimated according to the needs of the farmer, the lending agency must try to establish facts and ascertain whether this amount can be repaid by the farmer as well as provide subsistence for his family. Will he be able to repay this amount from the income from his farming operations ? These questions the lending agency must get answered by analysing the facts described in the application form and other information to be gathered from enquiries regarding the farmer and the profitability of the type of farming he carries on. To make sure, the lending agency should take into consideration such factors as:

a. Is the amount requested enough to meet the normal costs of the operation, considering the financial resources of the farmer ? If the loan is enough to meet the normal requirements for his farm operations and family subsistence, other things remaining the same, the loan can be repaid.

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[74] Farm Credit Administration, A Manual For Production Credit Associations, op.cit., pp. 11-12.

[75] Nathaniel B. Tablante, "How to Finance Farm Activities" The Cooperative Farmer, Vol. IX: 6 (June, 1961), pp. 14-16.

[76] Indian Cooperative Union, Annual Report, op.cit., pp. 13-17.

b. Are the normal profits of the farm sufficient to repay the loan ?

c. Does the farmer have to make repayment on other debts so that his repayment capacity for the new loan will be reduced ?

d. His intangible merits should be given primary importance in respect to the safety of the loan rather than his capital equity. If a farmer has a promising production plan and pattern of farming; if he is a good farmer and manager; uses improved seed, fertilizer, insecticides; plants and harvests his crops on time; is hard working and has a good reputation in his community for meeting his financial and other obligations; the loan estimated for his farming operations will be profitable and will be repaid under normal circumstances.

e. If a farm is located in a hazardous area, though the farmer has every prospect for repayment, he may not be able to repay the loan due to circumstances beyond his control. In such cases, a conservative estimate of the amount of loan should be made leaving enough margin to take care of his reduced returns, should he suffer the loss. When the loan would be advanced according to the expected reduced income, it will be easy for the farmers to to repay and loss to the agency can be avoided. The experience of the PCAs in the United States for more than 25 years show that when loans are limited to what farmers can repay from their farm income the percentage of repayment is very high.

4. Determine the Prospects for Repayment

After determining the amount needed and the safe limit of the loan, the lending agency should examine the prospects for repayment of the amount to be loaned to the farmer. The prospect for the return of the money directly depends upon the farmer having income and financial resources greater than the amount of the loan. Other items which reflect on the prospects for repayment of the loan are the ability of the applicant as a farmer and manager, his hard working nature, reputation in the community for honesty and his credit rating.

In order to implement the above recommendations regarding the granting of production loans, the lending institutions in Pakistan need to train their staffs to carry out the recommended policies and procedures in extending loans to farmers on a safe basis. The success of the program will depend greatly on well trained personnel in the field of agricultural credit, farm management, agricultural extension and cooperatives.

APPENDIX

Loan Application

To

____

____

____

Dear Sir

Kindly advance me a loan of Rs ________ for __________ months in cash or kind for the following purpose under your rules and regulations. I promise to utilize the said amount for the purpose mentioned below according to the standard practices recommended by the Department of Agriculture, or prevailing in the vicinity of my farm. This loan will be repaid by me in installments, from the sale of my farm produce as fixed by your institution.

1. Name ____________________ 3. Address __________

2. Father's name ____________ ____________________

4. Number of family members: ____________________

a. Earning ____________

b. Non-earning __________

5. Land Owned, Area _________ Area Cultivated _____

a. Irrigated ____________ owned ______________rented

b. Non-irrigated ________ owned ______________rented

Purpose and the amount of loan required

Purposes or detail of operations	Amount Rs

Date ______________

____
Signature of Applicant

Date ________

Farmer's name ______________________ s/o ______________________

Village ______________________ District ______________________

Previous Cultivation Record for the Year __________.

Season	Name of Crop	Crop Area	Cash Expenses for the Last 12 Months					Average Yield Per Acre	Total Yield	Home Use		Marketed	
			Seed	Manure & Fertilizer	Feed & Fodder	Labour	Other			Quantity	Value	Quantity	Value
Total Crop Income												Rs.	

Last year's net income from:

1. Livestock and products sold ______________________ Rs ________
2. Other, off farm ______________________ Rs ________

Total income last year Rs ________

Individual Credit Status Form

I. Family Information Date ________________

1. Farmer's name ______________ s/o _________ Village _______

2. Family Head _____________ Age_______ Labourers____________

3. Male household members______ Age ________________________

4. Female household members _______ Age ____________________

II. Inventory

Item	Number	Value Rs	Item	Number	Value
1. Land Owned.[1] (acres)			c. Calves		
a. Irrigated			d. Other animals		
b. Dry			e. Total		
c. Total					
2. Land rented (acres)			7. Farm equipment		
a. Irrigated			a. Bullock carts		
b. Dry			b. Ploughs		
c. Total			c. Hand tools		
			d. Chaff-cutter		
3. Buildings			e. Total		
a. Home					
b. Other			8. Crop produce in storage		
c. Total					
4. Equipment			9. Cash in hand		
5. Furniture etc.			10. Cash due me by others		
6. Livestock			11. Total assets (velue)		
a. Animal power					
Bullocks			12. Debts (list) (value)		
He Buffaloes			a. Covered by land mortgage:		
Camels			b.		
b. Milch cattle			c.		
Buffaloes					
Cows					
Goats			13. Net worth. (value)		

[1] Include total acres owned. If part of land is rented to others, indicate also number of acres actually cultivated by you as owner - applicant.

____
Farmer's Signature

I have examined this application and am satisfied with the apparent accuracy of its contents.

The applicant has Rs ________ as other debts which he has to pay in _________ months, date ______ year _______. I have evaluated the actual amount of loan needed by the farmer to carry out the above mentioned operations and earn the money to repay this loan within the stipulated period.

This amount in, my opinion, is necessary to be incurred by the applicant to increase his agricultural production. According to analysis of his farm production last year, his total net income has been Rs _________ per season/year, as under:

1. Marketable surplus of crops ________________
2. Sale of livestock products ________________
3. Other sources ____________________________

I recommend this application for Rs _________ only.

Date ________________ ________________________
Signature of Appraiser

The loan, as recommended for Rs ______, is sanctioned.

Date ________________ ____________________________
Loaning authority of the credit institution

Bond executed, and the amount of Rs ____ paid to the applicant.

Date ________________ ____________________________
Accountant or disbursing authority.

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