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The Role of Credit in Agricultural Modernization: Credit as an Instrument and Institutional Aspects

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The Process of Agricultural Modernization

Agricultural Modernization as used in this paper involves the whole process of developing production increasing techniques, adapting them to varying local situations and delivering knowledge of them, together with the necessary imputs, to individual farmers. It also includes providing the essential governmental, institutional and economic infrastructure to make adoption of yield increasing technology by individual farmers possible, feasible, and profitable. This is a highly complex, time consuming and laborious process as everyone knows who is now or has been involved in trying to move a largely self-sufficient, low producing traditional agriculture to higher levels of productivity in various developing countries.

Probably the most common error made in the past by planners and administrators in all countries including both the so-called developed and developing countries was to assume that agricultural development is a rather simple process, that farmers can, if they will, produce more, simply by the use of animal, human, or green manures and increased imputs of labor. Experience has shown the fallacy of this assumption and the facts relating to the nature of agricultural development are now receiving more appropriate attention.

It is in the context of this whole modernization process that the role of credit and other financial services are dealt with in this paper. Other financial services are included because the movement of a traditional, self-sufficient agriculture to a modernized one usually involves the shifting from a largely barter economy to a monetized one. When farmers it is a new world to many of them, involving a whole new set of contacts with such persons as suppliers of production inputs and perhaps credit, agents of the market mechanism which often include members of the government bureaucracy, government extension personnel, etc.

In this expanded monetized world the need for financial services in addition to credit soon emerges. New technology will generate savings for some farmers, and both the farmer and the country are helped if their savings are incorporated in the organized financial system through institutional deposits. A better and safer way to transfer funds than personal delivery of cash is soon an apparent need. It is recognized that this situation varies considerably from country to country and between areas within a country. Also we know that there are ways to sidestep the need for broader financial services temporarily by issuing credit and accepting repayments in kind, but this can be only temporary if a country is to move to a modernized integrated economy. Since agriculture is the dominant industry in developing countries, their whole development process will depend largely upon the productivity of agriculture and the savings that can be tapped from that sector.

The important point here is that in any discussion of credit there is need to consider also the attendant financial services that are an integral part of a monetized economy.

In the interest of brevity, the term credit services will be used here, but it should be understood that the term encompasses, where appropriate, the services of deposit, safe keeping, and transfer of funds, as well as the extension of credit.

A Basic Assumption

The discussion that follows is based upon a fundamental assumption that farmers in developing countries, though illiterate in many instances, are generally rational individuals that make rational decisions within the limits of their knowledge and opportunities. This assumption is stated here because too frequently it has been assumed that the reason farmers in these countries do not adopt higher yielding practices recommended by well meaning researchers and extension personnel or use credit offered by cooperatives or government bureaucrats is that they are generally dumb, tradition bound, and satisfied with their marginal subsistence.. Rather than let the matter rest on such an assumption, it is suggested that the researchers and government administrators examine their technology, credit or other programs from the farmer's point of view. Examine the farmer's background of experience, general knowledge, social or family pressures, financial position, etc. It is likely that within the context of his circumstances, he has made a rational decision. The next step then is to fit the technology, educational, and operating procedures to fit the farmer's situation. In the last analysis, agricultural modernization depends upon the actions of individual farmers. Their decisions are crucial.

Place of Credit Services in Agricultural Modernization

To arrive at the proper relationship of credit to the total development process it is helpful to turn to Mosher's classification of the requirements for agricultural development.[1] He lists the following five elements as essential in any locality before agricultural production can increase. They are highly complimentary and all must be present.

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[1] A. T. Mosher, Getting Agriculture Moving, Fredrich Praeger Publication, (New York, N. Y.)

(1) markets for farm products

(2) constantly changing production technology

(3) Local availability of farm supplies and equipment embodying the new technology

(4) production incentives for farmers

(5) transportation connecting farms with markets for farm products and outlets for farm equipment and supplies.

Mosher says that in any locality where these five essentials are present the development process may be stepped up by any one or more of the following five accelerators:

(1) education, including extension education of farmers

(2) production credit

(3) group action by farmers (may include cooperatives)

(4) land improvement and expansion of cultivated area

(5) planning for agricultural development

It is accepted here that credit, especially institutional credit, is not an essential or even a primary element in getting increased productivity started but it is an accelerator and an important element in sustaining the upward thrust. In any country's effort to get increased productivity started as a first step in agricultural modernization, the five interrelated essentials must be given the highest priority.

It is not the purpose of this paper to dwell upon the transferability or non-transferability of various elements of production technology from country to country, the need for adoptive research, etc. These subjects have probably been discussed at other sessions of this conference. Suffice it to say, that production research with attendant production increasing technology, though a fundamental requirement, is sterile unless it is delivered to farmers together with the imputs of seed, fertilizers, pesticides, and equipment necessary to apply it.

Likewise it is wasteful to supply fertilizer and other imputs to farmers unless there is also available to them a technology that will make their use profitable to the farmer. This incentive of profitability can be provided only with an available dependable market. There have been many instances where extension personnel have put demonstrations on farmers' fields involving the use of improved seed, fertilizer, and pesticides when one or more of these essential elements were not physically available to farmers in the locality at the proper time.

In the early development period there can be found individuals who have adequate resources of their own or within the family to acquire the necessary imputs to carry out higher yielding technology, but if improved practices are to spread from the innovators to the larger group, many will have to obtain credit in one form or another to obtain the necessary off farm imputs.

Efforts to isolate the contribution that credit makes to a farmer's productivity have not been very rewarding. In the attempts reviewed to date there have been too many unknowns and too many tenuous assumptions. The fact remains however that as farmers move up the production ladder they use increasing amounts of credit from one source or another.

<u>Sources of Credit Services</u>

To aid in getting a brief **overview of various sources of** credit services, the following outline is presented:

I. **Institutional Sources**

A. Government

1. Direct loans

2. Government owned institutions

a. Nationalized banks

b. Government owned corporations

c. Government sponsered and supervised cooperatives

B. Private

1. Commercial banks

2. Major manufacturers and distributors of production imputs and equipment

3. Farmer initiated cooperatives

C. Mixed ownership institutions (these may involve any one or combinations of the above government or private institutions),

II. Non-institutional suppliers of credit

A. Local retailers of production imputs and equipment

B. Local traders in agricultural products

C. Local money lenders

D. Family members

It is not intended that all possible sources of credit be included in this outline, but it is believed that the most common ones are. Any such outline as this involves some arbitrary decisions. It may, for example, be argued that local merchants and traders are institutional in nature under a common usage of the term. They are classed as non-institutional here because they are generally not organized in any formal manner. They may have their trade association but these do not place legal or formal restrictions on their operations. Unlike major manufacturers and distributors of production imputs and equipment who operate country-wide or over large areas, local merchants and traders operate only in their own communities.

Institutional Credit Services

Of major concern in most countries is the development of an effective source or sources of institutional credit services. It is through a national institutional framework of credit services that the benefits of increased agricultural productivity are reflected in the total development effort. They provide an essential linkage between the agricultural and non-agricultural sectors.

As has been so often stated, agricultural modernization cannot take place in isolation; it must be treated as an integral part of the total country development effort.

The form and procedures of credit service institutions are products of a country's political ideology, economic circumstance, cultural heritage, and social organization. Of special significance in agriculture is the land tenure system. There is no need for a land development bank, for example, where there are no property rights, individually or collectively in land. The amount of precautions needed to safeguard loans are dependent upon the peoples' attitude toward debt. A country dedicated to the, sometimes called, "middle road," is likely to strive for institutions organized on a cooperative basis. There is no form of organization, control or method of operation that is best for all countries. As agricultural technology must be adapted because of soil, climatic and ecological reasons, credit service institutions must be adapted because of socio-economic and political reasons.

Too frequently credit **discussions** and considerations center only on getting credit services to the farmer and the crucial task of financing the supply and marketing functions are by-passed. When developing structures to control water flows, engineers start at the source and control it as it moves down the slope. Likewise with agricultural credit services it is essential that the credit services finance the movement of the essential imputs from factory or port to the farmer, then out to his land and the produce (that portion not required by the family) must then be financed through the marketing mechanism to the retail or government outlets for consumers.

Government Institutions

Capital is generally scarce and available only at high cost in developing countries. Therefore it is necessary for government to play an important role in channeling sufficient amounts to rural areas to support their agricultural modernization programs.

Direct government lending is commonly practiced as a means of helping weaker farmers adopt modern practices and helping those who have suffered natural disaster such as drought or flood to be rehabilitated. Because of high risk and the close supervision required, this is expensive credit to administer. It is provided at subsidized rates with government absorbing a large part of the cost. This type of credit is an important part of any country's credit program and is justified largely on human welfare considerations. It can be done most satisfactorily by direct government lending through an agricultural extension type organization.

Institutions- government owned, privately owned, or cooperative, that are expected to be self-supporting should not be burdened with high-risk, high-cost special credit for the weaker sections. Any institution that tries to extend both "soft" and "sound" credit is headed for trouble because "soft" credit drives out "sound" credit. Nothing is more damaging to a sound, self-supporting credit system than knowledge among the borrowers that some individuals are receiving more services, are getting credit at lesser cost or are being given more time in which to repay than others. All will demand the most favored treatment and since government is involved and thus politics, they are apt to get it. What was intended as a self-supporting institution becomes a subsidized, largely relief institution.

Though important, direct government lending is not enough. The goal of any country is to become self-sufficient. To reach this goal its basic institutions must be self-sufficient. Then too, direct government lending does not provide the other financial services required of a monetized economy. Some governments have, through organization of corporations or banks, provided credit service institutions to rural areas. These are designed to be conducted on business principle and become self-supporting even though they have not all accomplished self-sufficiency in the early years. The most important element in the success of these institutions is well trained, capable personnel. A common mistake is to try to expand services more rapidly than capable personnel can be found and trained.

Government sponsored service cooperatives represent another approach to providing self-supporting institutions. There have been some robust failures on this front, but they need not discredit the cooperative form of organization. The cooperative route is more difficult than government owned corporation and banks because of the enormous job of educating members and boards of directors in addition to training competent management. It has been argued that politics plays too big a part in direct government lending or government owned banks or corporations and the job should be given to local people through cooperatives. Experience shows that cooperatives too can become infested with politics and that local politics is of the most vicious kind. Where the cooperative route is taken, it must be emphasized that they should not spread faster than capable personnel can be developed to manage and supervise them. No institution is any better than the people who run it. There is no mystic in the cooperative or any form of organization that assures its success.

Credit unions deserve special mention at this point because of their considerable success in Latin America. They provide a vehicle for mobilizing the savings of the people, regardless of how small, and extending credit from this pool of savings for various purposes. They are certainly a beneficial and worthwhile activity where properly organized, managed, and supervised. However they are not designed to direct capital flows from one section of the economy to another as are national credit institutions.

Another type of government participation in credit extension is to guarantee loans of certain types for specified purposes. This may be done through government owned or sponsored institutions or through private enterprises. Its chief purpose is to direct capital resources to high priority purposes. An evident advantage of this activity is that it is relatively cheap. It is effective however only when the basic credit institutions are present and operating effectively. It is a later development tool.

Private Institutions

Privately owned commercial banks are, or should be, capable of providing essential credit services to rural areas. With the exception of plantations devoted to the production of commercial crops such as tea, coffee, bananas, etc, agriculture is considered to be a high risk, high cost industry to serve. Therefore banks have tended to avoid involvement in agricultural financing. Industry and trade have been high priorty items in their operations.

Some governments are now pressuring banks to enter rural areas with complete financial services. For example India has nationalized her banks and very important stated purpose is to insure that they extend their services to rural areas.

It is true that credit extension to small farm enterprises is costlier and riskier than to large industrial and trade concerns. It is to be seen whether India's banks can profitably extend their services to rural areas. Experience in the early stages has been mixed; some banks report quite successful operations, while others are not happy with early results.

An important fact to remember in regard to commercial bank services to agriculture, whether private or nationalized banks, is that they are key instruments to effectuate a country's monetary policy. Agriculture is not as flexible as trade or manufacture. It cannot be restricted or expanded so readily. It is a combination family living and business enterprise. Costs are largely fixed. If banks are to serve agriculture dependably they cannot turn the supply of credit on or off at will to stimulate or restrain the economy. This is an important reason why the cooperative farm credit system was created in the United States. It has, over the years, operated largely independently of monetary policy except as that policy increases or decreases the cost of money in the market.

Major manufacturers and distributers of production imputs and equipment are important sources of credit for the movement of production imputs and equipment to farms. In countries where the banking system is relatively well developed (either private or public sector) it can provide financial backing to these firms. Government may give an assist by giving some guarantee of protection against unforseen losses arising from this activity. The element of competition provided by these firms is an important stimulus to producing good timely service to farmers.

Farmer initiated cooperatives, as contrasted with government initiated cooperatives are here classified as private institutions. It is doubtful that many such cooperatives exist in developing countries today, but as development proceeds and farmers become more sophisticated, affluent, and aggressive, such cooperatives will develop if the political climate permits. In developed countries they provide healthy competition to other enterprises and generally set the standards of cost and service that others must meet or surpass to stay in business.

Mixed Ownership Institutions

The mixed ownership institution is a venicle that government may use to initiate credit or other services with the view of gradually withdrawing, leaving ownership to farmer or other investors. The usual pattern is for government to provide most of the initial capital with provision for users or others to invest. As investments and earnings accumulate, government reduces its investment. Mixed ownership institutions may be organized on either a cooperative or corporate basis. It is commonly used to initiate cooperatives.

Non-institutional Suppliers of Credit

Data on the amount of money lender or other non-institutional private credit used in any country is very difficult to obtain. This is one reason why most credit reviews and studies made by consultants to developing countries have to do with institutional credit. Another reason of course is that the host country is more directly involved with institutional credit. Perhaps more attention and study should be given to money lender, merchant, and other types of non-institutional credit because they have been and will probably continue to be important sources of credit in most countries.

The Phillippines, after some rather sad experience with cooperative credit, launched the Rural Bank Program, which has been a vehicle for recruiting private capital into the organized monetary sector. In India, in at least one district, (West Godvari in Andra Pradesh,) dealer credit has been an important contributer to expanded fertilizer use. The volume of credit extended by cooperatives, which are the most important source of institutional credit, actually went down from Rs 32.5 million to 26.6 million during the period 1962-63 to 1967-68, while the amount of nitrogenous and phosphatic fertilizers used per hectare went up from 32.9 kilograms to 52.4. It is not known just how much of this increase was financed by rice millers and other private distributers of imputs but it is general knowledge that they have become much more active in financing the distribution of fertilizer in that district. It is also reported that as more fertilizers have been available to these private enterprisers in recent years, their lending rates or carrying charges have been reduced. This is evidently due to increasing competition among them to sell fertilizers.

Money lenders have been maligned the world around and for good cause in many respects but despite this they continue to be a very important source of credit to rural families. They perform a service, though sometimes at too high a cost, that no institution seems able to fulfill.[1]

Instutional credit must be organized, capitalized and supervised whereas privately held capital is there. The challenge is to involve it in a productive program that will benefit the private lenders, the users of the credit and the country's total development effort.

If these important resources of credit are recognized, programs can be evolved that will utilize them to accelerate development. The experience of the Phillippines and the West Godvari district in India gives some evidence that this can be done.

[1] Perhaps Credit Unions, when properly organized and supervised meet their competition best.

General Considerations

The questions relating to the best methods of extending the three basic types of credit to farmers: short term production credit, medium term credit for capital purposes and long term land purchase or development credit will be discussed only briefly because there is no one best method. It is generally agreed that it is best if farmers can be provided "one-stop" credit service. He should not be required to go to two or three different places to get proper financing. On the other hand there are some important differences between the techniques of extending these different types of credit and also some fundamental differences in the capital requirements.

Long term land purchase and development credit requires the use of capital for long periods, (15 to 20 or more years) and the availability of this kind of capital is different than short term capital. Where money markets are established the costs of short vs long term capital are often quite different. Their relative costs vary with the changing economic conditions in the country and the world. Even a developing country without an organized money market will be affected by the world market if it is obtaining capital from outside sources. Then the formalities required for making a long term land mortgage loan are usually more formidable than for short term loans. However, once made, a long term loan remains outstanding with only prudent supervision required from year to year.

Short term seasonal loans are the leading edge of credit to farmers. If trouble emerges it shows up first in the seasonal financing operation. These loans are made with less formality but usually have to be made at least once a year. Thus capital turnover is quite rapid and the volume used can be adjusted on an annual basis if necessary.

Medium term loans stand between the long and short and are suited for livestock or equipment purchases.

All of these types of loans may be made by a single institution but its activities would have to be organized in a manner that recognizes these differences. If this is done the objective of "one-stop" service is achieved.

Long term mortgage loans are often made by a single institution with short and medium term loans made by another. This procedure simplifies the technical and management aspects of credit extension but requires close cooperation between the two institutions if "one-stop" service is achieved. Joint or adjacent offices would achieve this best. An agency relationship between the two institutions might be used but this would complicate the management factor because employees would have to be trained in at least some aspects of all three types of credit.

Here again, the best answer is dictated by the country's current situation. Neither approach is adequately superior to warrant a major overhaul of an existing system.

Another question facing developing countries is whether to put all of their resources in a single institution to serve agriculture or to use a multi-agency approach (within limits, of course). An important fact to remember in this connection is that monopoly is an opiate which induces unwarranted complacency and lethargy with resultant poor service to farmers.

In mixed economies where both private and public sector institutions co-exist, a dual or multi-agency approach can provide a healthy competitive situation that will produce more aggressive service to farmers and agri-business enterprisers. To avoid wasteful and destructive competitive situations there should be a framework of policy delineating major areas of responsibility and guidelines for rates and terms of loans for the institutions involved.

As an aid in analyzing any country's agricultural credit situation the following questions are set forth:

1. Is the production technology in the country capable of producing significant increases in production?
2. Are the imputs essential to apply this technology readily available to farmers? Is the movement of these imputs from factory to farm adequately financied?
3. Is there effective demand for the surplus produce?
4. Are markets readily accessable to farmers and is the movement of the produce to consumer outlets adequately financed?
5. Is price policy such that farmers have reasonable inducement to adopt more productive practices and repay loans?
6. Does the country's credit service institutions provide adequate, timely and convenient seasonal credit for production imputs and is this credit repaid promptly from production?
7. Does the country's credit service institutions provide adequate medium and long term developmental credit for such purposes as land development, equipment, etc? Is this credit repaid according to plan?
8. Do the credit service institutions provide safe and convenient deposit service for farmers and are these deposits put to work in the development process?
9. Are credits and drawings readily transferable up and down the supply and marketing lines and from supplier and marketer to and from farmers?
10. Does the whole process integrate agricultural development with the country's total development program?
11. If there are two or more institutions involved are their operations complementary and beneficially competitive under policy and guidelines established by government?

If the answers to all of these questions are positive the country can feel secure in this phase of its development effort. It is unlikely that any developing country can answer all of these questions positively today but they present a target which may help give direction to future efforts.