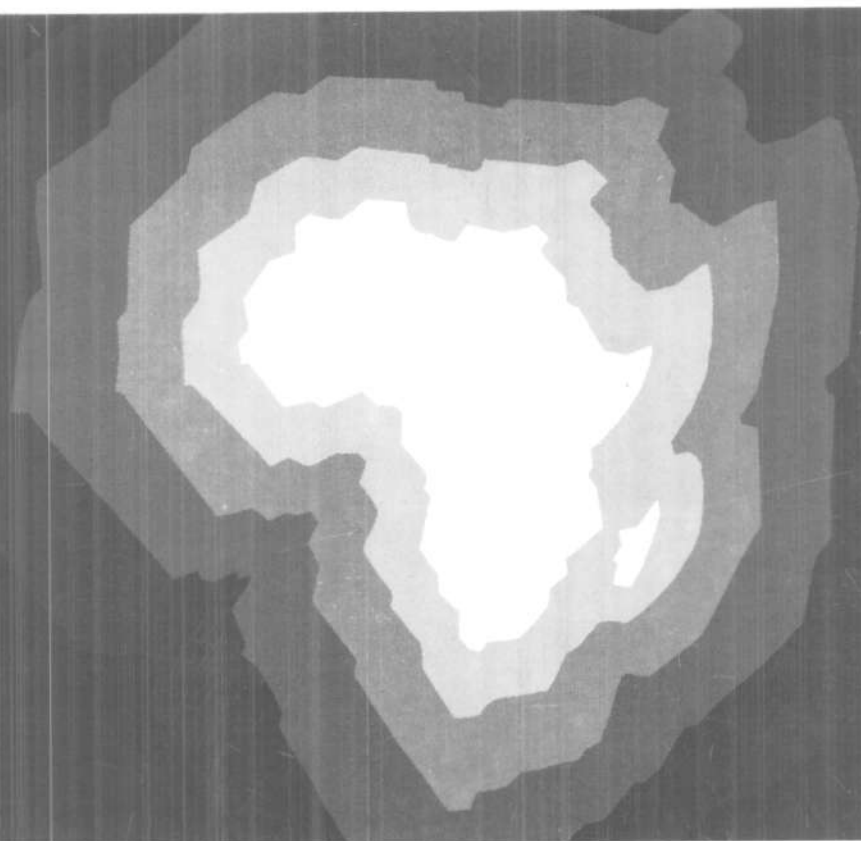


the credit markets of africa series

---

# AGRICULTURAL CREDIT FOR DEVELOPMENT



Finafrica • Cariplo • Milan



# THE CREDIT MARKETS OF AFRICA SERIES

Editor: Arnaldo Mauri

---

13

FINAFRICA

CASSA DI RISPARMIO DELLA PROVINCIE LOMBARDE - MILAN

#### "THE CREDIT MARKETS OF AFRICA" SERIES

1. *Banking Systems in Africa*
2. Sergio Bortolani, *The Banking Systems of Niger*
3. *The Mobilization of Savings in African Countries*
4. Paolo Mottura, *The Banking System of Tunisia*
5. Bruno Rossignoli, *The Banking System of Algeria*
6. Lorenzo Frediani, *The Banking System of Gabon and the Central Bank of Equatorial Africa and Cameroon*
7. Adalberto Alberici and Maurizio Baravelli, eds., *Savings Banks and Savings Facilities in African Countries*
8. Giordano Dell'Amore, *Agricultural Credit in African Countries*
9. Marco Onado and Antonio Porter, *The Banking System and the Formation of Savings in Lesotho*
10. Clara Caselli, *The Banking Systems of Tanzania*
11. Sergio Bortolani, *Central Banking in Africa*
12. Lorenzo Frediani, *The Liquidity Policy of Deposit Banks in Kenya*
13. *Agricultural Credit for Development*
14. Arnaldo Mauri, ed., *Mobilization of Household Savings: A Tool for Development*
15. Alwin B. Taylor, *Money and Banking in Sierra Leone*
16. Andrea Calamanti, *The Securities Market and Underdevelopment: the stock exchange in Ivory Coast, Morocco and Tunisia*
17. Clara Caselli, *The Internationalization of Banking in Egypt*

#### "COOPERATION AND DEVELOPMENT" SERIES

1. *Europe's Role in World Development*
2. Sergio Alessandrini, ed., *The Italian Policy of Cooperation to Development*
3. Carlo Secchi, ed., *The Redeployment of Italian Industries in Developing Countries: the case of Malta, Morocco, Tunisia and Egypt*

the credit markets of africa series

---

# AGRICULTURAL CREDIT FOR DEVELOPMENT

World Conference on Credit for  
Farmers in Developing Countries:  
Rome, 14-21 October 1975

Finafrica • Cariplo • Milan

---

---

ALL RIGHTS RESERVED

1<sup>st</sup> Printing 1975

2<sup>nd</sup> Printing 1983

---

## CONTENTS

LIST OF TABLES AND CHARTS	VII
WORKING GROUP	VIII
ACKNOWLEDGEMENTS	IX
PREFACE	XI
Chapter I. CREDIT TO SMALL FARMERS: POTENTIAL AND LIMITATIONS	
— SIZE OF THE RURAL DEVELOPMENT PROBLEM	3
— THE APPROACH TO CREDIT PROBLEMS	3
— CREDIT ON THE SMALL FARM	6
— CONFLICTING MOTIVATIONS	9
— PROBLEM AREAS - A STRUCTURAL FRAMEWORK	10
Chapter II. AGRICULTURAL DEVELOPMENT AND FARM CREDIT	
— AGRICULTURAL DEVELOPMENT STRATEGY	15
— THE AGRICULTURAL SECTOR AND FLOWS OF RESOURCES	18
— CONTAINING OUTFLOWS OF RESOURCES FROM AGRICULTURE WITHIN DESIRABLE LIMITS	21
— THE DRAINAGE OF RURAL SAVINGS TO URBAN AREAS	23
— AGRICULTURAL TAXATION POLICY	26
— INVESTMENT IN AGRICULTURE	32
— ENSURING AN INCENTIVE PRICE STRUCTURE FOR AGRICULTURE	34
— THE LAND TENURE ISSUE IN AGRICULTURAL BANKING	45
— LEGAL BASIS FOR THE ASSURED PROVISION OF IRRIGATION WATER	48
— MARKETING AND AGRICULTURAL CREDIT	50
— ALLOCATION OF PUBLIC RESOURCES FOR AGRICULTURAL CREDIT	54
— POLICY TOWARDS ENCOURAGEMENT OF FARMER'S GROUPINGS	56
— NEED FOR CONSISTENCY IN PLANNING CREDIT PROGRAMMES	57

### Chapter III. CREDIT OPERATIONS

— PROFIT TO THE BORROWER AS A BASIC CONDITION FOR CREDIT PROGRAMMES	61
— THE LENDING DECISION	65
— LOAN SECURITY	74
— ASSESSING THE BENEFITS TO THE ECONOMY	82
— THE ADMINISTRATION OF AGRICULTURAL CREDIT PROGRAMMES	87
— INTEREST RATES	98
— TIMING OF LOAN DISBURSEMENT AND REPAYMENTS	104
— WAREHOUSING CREDIT SYSTEMS	105
— ASSESSING THE ADEQUACY OF INDIVIDUAL LOANS TO MEET THE FARMER'S NEEDS	109
— COST OF ADMINISTERING AGRICULTURAL CREDIT	110
— INDEX-LINKED LOANS	118
— PERSONNEL FOR AGRICULTURAL CREDIT OPERATIONS	119
— SOME ASPECTS OF THE LEGISLATIVE BASIS FOR THE ESTABLISHMENT AND OPERATIONS OF CREDIT INSTITUTIONS	123

### Chapter IV. FUNDS FOR LENDING: RURAL SAVINGS

— LOCAL PUBLIC FUNDS	126
— CENTRAL BANKS	126
— FOREIGN CAPITAL	126
— LOCAL PRIVATE SAVINGS	127
— FORCED SAVINGS	135
— TYPES OF SAVINGS INSTITUTIONS	135
— TRADITIONAL SAVINGS INSTITUTIONS	139

CONCLUSIONS AND RECOMMENDATIONS	143
---------------------------------	-----

### Appendix: EVOLUTION OF FINANCIAL SERVICES IN THE RURAL AREAS OF DEVELOPING COUNTRIES

— FINANCIAL SERVICES	149
— TRENDS IN RURAL DEVELOPMENT STRATEGIES	154
— IMPLICATIONS OF DEVELOPMENT STRATEGIES ON FINANCIAL SERVICES	159



## LIST OF TABLES AND CHARTS

### TABLES

1. Typical small farm: introduction of yield-increasing technology	8
2. Differing motivations of governments, credit institutions and borrowers	9
3. Some problem areas and decision making in agricultural credit operation	12
4. Weight of crop required to pay for 1 kilo N fertilizer, farm gate prices 1967/68	43

### CHARTS

1. Relationship between a farm unit and the rest of the economy	6
2. An agricultural bank and co-operative societies	97

Edited by

FOOD AND AGRICULTURE ORGANIZATION  
OF THE UNITED NATIONS

CASSA DI RISPARMIO DELLE PROVINCIE LOMBARDE

**WORKING GROUP**

**Chairman**

G. DELL'AMORE  
Professor of Banking  
Former Rector of L. Bocconi University, Milan  
Director of the Business Economics Department, L. Bocconi University  
Chairman of the Italian Association of Savings Banks (ACRI)  
Chairman of the Cassa di Risparmio delle Provincie Lombarde

J.C. ABBOTT  
Chief, Marketing and  
Credit Service, FAO, Rome

S. ANANIA  
Consultant Credit Specialist  
and Economist, FAO, Rome

M. HASSID  
Senior Agricultural Credit Specialist,  
FAO/World Bank Co-operative Programme  
FAO, Rome

H. QUAIX  
Chief, Development Research  
and Training Service, FAO, Rome

A. MAURI  
CARIPLO - FINAFRICA  
University of Milan

P. MOTTURA  
CARIPLO - FINAFRICA  
University of Parma

R. RUOZI  
CARIPLO - FINAFRICA  
L. Bocconi University  
Milan

L. ZUCCARI  
Chief, Servizio Beneficenza  
CARIPLO, Milan

**Executive Secretary**

R.A.J. ROBERTS  
Agricultural Credit Research Officer  
Marketing and Credit Service, FAO, Rome

## ACKNOWLEDGEMENTS

The Working Group wishes to acknowledge the contributions made by the following persons:

- F. ARCUCCI, University of Parma
- C.B. BAKER, College of Agriculture, University of Illinois
- J.E. BESSELL, School of Agriculture, University of Nottingham
- D.A. CAPONERA, Legislation Branch, FAO
- D. CHRISTODOULOU, Human Resources and Institutions Division, FAO
- G. FORESTIERI, University of Parma
- M. BÉJI HAMDA, Formerly of the Banque Nationale de Tunisie, Tunis
- C. HARVEY, University of Sussex
- P. HENRY, SEDES, Paris
- P. HUSSI, Agricultural Services Division, FAO
- I.C.A. (International Co-operative Alliance), London
- D. LAL, Formerly at University College, London
- M. LAURE, Formerly in Agricultural Services Division, FAO
- M.F. LONG, Harvard University
- S.G. MADIMAN, Agricultural Services Division, FAO
- M. MASINI, University of Genoa
- V. MIGLIO, c/o AGRIMISSIO, Rome
- D. MYLONAS, Formerly in the Legislation Branch, FAO
- V. NESCI, L. Bocconi University, Milan
- A. NEVEU, SEDES, Paris
- M. ONADO, University of Modena
- S. PACI, University of Venice
- A. PORTERI, University of Parma
- B. ROSSIGNOLI, University of Padua
- P.A. RYHANEN, Agricultural Services Division, FAO
- G. ST. SIEGENS, Banco Nacional de Fomento, Honduras C.A.



## PREFACE

The study of which this document is the basic report was initiated and carried out as a result of an agreement between the Food and Agricultural Organization (FAO) and the Cassa di Risparmio delle Provincie Lombarde (CARIPLO). Under the terms of this agreement a small team, known as the FAO/CARIPLO Working Group, was entrusted with carrying out a study of agricultural credit in developing countries. The geographical area was basically the African continent, but relevant experience from Asia, Latin America and elsewhere has been included as and when desirable.

This programme was funded by CARIPLO because of a desire on the part of this savings bank, one of the largest in the world, to see the rural areas of developing countries given the opportunity to benefit from the provision of appropriate financial services in an economic environment which encourages the progress of the agricultural sector. Accordingly the study aimed chiefly at identifying those policies which have proved to be effective in fostering the sound development of the provision of savings and credit facilities to small farmers. The small farmer with which the study was basically concerned cannot be defined by area of holding. Rather he is one who is not able, in his own right, to command or attract the various services he needs in order to increase the productivities of his land and his labour. These services include input supply, extension, marketing, and, of course, credit and savings facilities.

The present report begins with a statement of the needs for agricultural development and the role of credit in this. Chapter II continues with an examination of development trends, the place of the agricultural sector in these and the consequent implications for credit

policies. Operational issues are studied in Chapter III, whilst Chapter IV examines resources for credit operations, with particular attention being paid to the issues connected with the formation and mobilization of rural savings. The appendix is concerned with tracing the evolution of financial services and examining their probable future development in the light of trends in rural development strategies.

During the period of the study the FAO Marketing and Credit Service conducted a series of regional seminars on agricultural credit for small farmers in various parts of the world. These were: for Near East and Mediterranean countries, for Africa, for Asia and the Far East, for Latin America and for the South-West Pacific. Some of the background material for these seminars was written by the FAO/CARIPLO Working Group members and some of them also participated in the discussions during these meetings. Thus the series of seminars has provided an opportunity to test some of the ideas in this report against the experience of persons working actively in the field. The present report will form the basic working document for the World Conference on Agricultural Credit for Small Farmers, to be held in Rome in October 1975.

The study was carried out both by members of the FAO/CARIPLO Working Group and by other persons, a full list of whom is given above. Much of the material included in the report was contributed on the basis of existing experience. However the results of two specially commissioned research studies also had a bearing on the contents of this document. These studies were, respectively, on problems in programming credit into national development planning (Tunisia), and on changes in credit demand with changes in farmers' terms of trade (Zambia). Conclusions deriving from these studies will appear in the FINAFRICA Bulletin.

## Chapter I

### **CREDIT TO SMALL FARMERS: POTENTIAL AND LIMITATIONS**

#### SIZE OF THE RURAL DEVELOPMENT PROBLEM

1. The development model adopted either fully or partially by most of the less developed countries (LDC's) during the decade 1960/70, with the full technical support of foreign advisers and aid agencies, was based on the fastest possible growth of Gross Domestic Product, and therefore on capital investment in areas of highest financial potential. This approach has increased the dualistic character of many LDC's by creating new small islands of prosperity and conspicuous consumption in the old ocean of absolute poverty. It is increasingly doubtful whether the effects of the growth in the privileged sectors of the economy will trickle down to reach the lower income groups before it is too late, particularly if one considers that the world population will double in the next thirty years.
2. A critical reappraisal of past development strategies is underway in the United Nations system. The new strategy formulated by the UN Development Planning Commission is based on an attack on massive unemployment and maldistribution of income. An all-out effort has been widely advocated to remedy the "absolute poverty" of the forty per cent of the population of the LDCs which constitutes the poorest sector. The political, economic and moral need for a world-wide effort in this direction cannot be challenged. Serious doubts, however, can be raised about the political will of the Governments concerned to engage in a course which necessarily implies a redistribution of income



and of wealth; their resolve to resist pressures from vested interests at local, national and world level; and their ability to pay the political and other costs involved.

3. The size of the problems connected with the implementation of the new strategy is staggering. The largest masses of "absolute poor" are found in the rural sector. They are small farmers or landless labourers. There are thought to be well over 100 million families involved, say more than 600 million individuals. A policy aimed at improving their lot — even if politically feasible — would be seriously conditioned by the present lack in most developing countries of administrative structures and rural institutions suited to organize the millions who because of their sheer numbers cannot be reached individually. Indeed, rural masses can expect to acquire political influence, and therefore to participate in the decision-making process concerning their own sort, only if they can group themselves into organizations which, while not conflicting with the local culture and value systems, should be able to express the new economic and political needs of the people as producers, as consumers, as salaried workers, as members of local political communities in a fast evolving society within the frame of large national states.

4. Agricultural credit, by enabling production to be increased, can make an important contribution to a solution of the problem of rural poverty. Though the size of average holdings is small and often fragmented, there is no reason why their productivity, especially productivity per unit of land, could not be substantially increased. There is ample evidence that much modern agricultural technology is divisible and that small-scale operations need be no barrier to raising agricultural yields. Some situations may call for improvements of a labour-intensive nature. This is particularly appropriate in land-scarce, labour-surplus economies. The feasibility of a capitalization of idle labour (due to permanent or seasonal underutilization of the human resources) will have to be assessed. In other situations more reliance has to be placed on capital-intensive technologies. But whichever type of solution is



employed and even where a full mobilization of human resources could be achieved, the need for capital would still be enormous, and of course most of this capital has to come from the LDC's themselves.

5. Since capital is the scarce production factor, the most rational use should be made of the limited financial resources available. Agricultural credit can be one of the most effective ways of using finance for development. Presently, the resources being made available in the various countries for agricultural credit are both insufficient and inefficiently used. Even in countries where the bulk of GDP is produced directly or indirectly in the agricultural sectors, less than 10 per cent of institutional credit is available to rural areas, and, what is even more important, only a small fraction of it is available to small farmers. The bulk goes to large, commercial farmers, sometimes for non-agricultural uses.

6. Despite the enormous size of the problem there are indications that the agricultural sectors can make substantial development moves, given a suitable political and economic environment. This report is concerned with identifying this environment. In particular, it is concerned with policy issues relevant to the provision of satisfactory financial services to rural areas and, especially to the small-farmer sector. Thus it is concerned with such matters as: coordination between government and credit institution, the place of farm credit in rural development, the small farmer and his financial and other dealings with the State, provision of services to the small farmer, savings programmes, credit procedures.

#### THE APPROACH TO CREDIT PROBLEMS

7. If credit is regarded mainly as a tool for development, then its use will have to be linked with the adoption of technologies suited to the task. These technologies — most of which were developed as a result of highly sophisticated research carried out in developed countries — are not generally available or applicable to small peasants in LDCs. There is here a basic difference between developed and developing

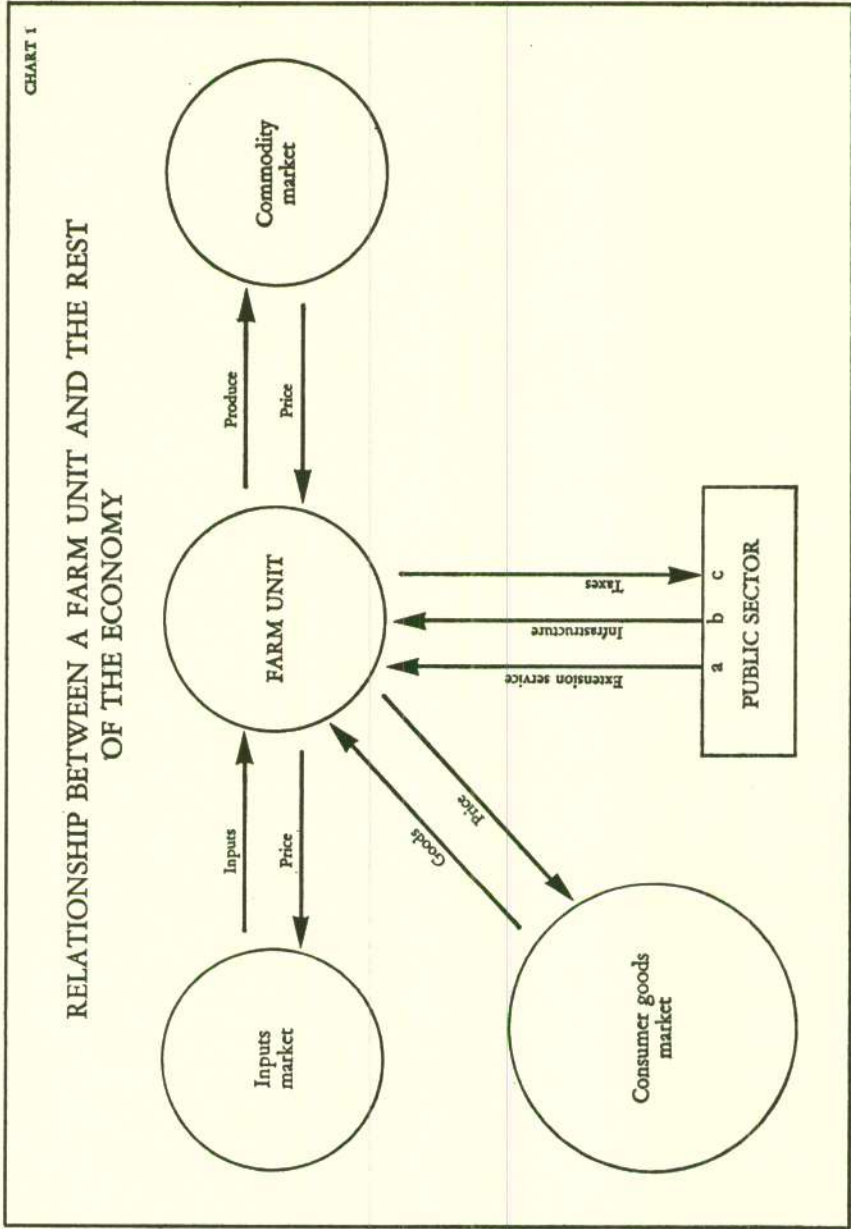
countries; rural borrowers in the former countries (or at least a good number of them) have gone through a technological breakthrough and can be relied upon to make correct technical use of the loan moneys. On the other hand, in many LDC's, suitable techniques still have to be developed, and, once this is done, the potential borrowers (and particularly small peasants) have to be taught these techniques. The basic lack of any formal education makes the latter task both very difficult and time-consuming.

8. Credit appears to be therefore only one of the factors (and it is not the first in order of time) which has to be activated in order to make rural progress possible. It has been a generally accepted view for several years now that agricultural credit programmes can only be successful if they are part of an "integrated approach" to rural development problems. In its simplest form, this approach means that price incentives, marketing, farm input supply, extension services and credit must be handled together. Even if the sectors that have to be coordinated are only the five mentioned above, the difficulties are still enormous. As an illustration, where extension services are concerned, a typical developing country would have one extension agent for each 8000 farm families. Naturally only a small fraction of even these limited services is available to the small farmer sector. Apart from anything else this sector is particularly hit by shortages of suitable transport for extension officers' use, and of budgetary allocations for vehicle operation.

9. The need to apply somehow the "integrated approach" to credit in the field has been translated in practice into the "package" approach. A "package" of physical and technical inputs is defined, normally by government agronomic services, on a crop per unit area basis, and the inputs necessary provided on credit whilst the education is handled by the appropriate extension services. This strategy has sometimes worked, but more often has resulted in failure. When it has worked, it has usually been associated with highly supervised, highly controlled resettlement schemes. It has had far less success when it has been applied to traditional areas where farmers have not moved away from their usual milieu and where the designers of the project have had less

control over the economic environment within which the development has had to take place. Thus the package approach has shown excessive rigidity. Conceived mostly by agronomists and to a much lesser extent by farm economists on the base of results obtained on experimental farms, "package" programmes have shown a surprising lack of consideration of the individual borrower's specific needs. Farmers of many shades of resources availability and managerial talent have been lumped together and straight-jacketed into a type of development approach which was unsuitable for most of them. Quite often, because of defective marketing, increased production has brought about a drop in farm gate prices at harvest time, even when price support at wholesale level has been provided. Such schemes have worked out to the eventual benefit of middlemen and merchants — whilst farmers have been left worse off.

10. In the face of the relative failure of many development approaches there has been a growing tendency by academics and professional development economists to seek more and more sophistication in their explanatory models. Whilst not wishing to decry this effort, it is considered that the mistakes of the last two decades, together with the successes which can be identified as such, provide the necessary experience and information for an immediate start to be made in the direction of designing better practical policies and general procedures in development. With respect to agricultural credit the practical steps could include the formulation of a conceptual framework for the organization of this service to farmers. Such a framework would help in defining problem areas, so that past errors can be avoided and more effective credit services designed. Moreover, there has been a common tendency to omit agricultural credit from early planning in national development. Thus agricultural credit is often not programmed into national development plans when these are drawn up. The needs for developing small-farmer sectors necessitate an early and direct planning effort, including carefully programmed credit allocations. These would include credit needs crop, produce and area-wise, and also the needs for the institutions involved at various levels.



## CREDIT ON THE SMALL FARM

11. The surprisingly large number of misconceptions still prevailing about how credit works in practice, and particularly about the limits of what credit by itself can achieve, explain many failures in credit programmes. A diagrammatic representation of the relationships between the farm unit and the rest of the economy will simplify the exposition of this issue. (Not all of the income/expenditure flows will apply to small, subsistence farmers.)

12. If the system as it stands is viable, then the monetary inflow from sale of produce is more than sufficient to balance the monetary outflows for purchase of inputs and of essential consumer goods and for payment of taxes. Actually a margin will be left which may be used for purchase of non-essential consumer goods (to make possible an improved quality of life for the farm family) and/or for saving. The farmer is therefore able to carry out capital formation. Production credit is not indispensable, as the farmer has his own resources of working capital and, sometimes, part of the capital needed for longer term development, but medium and long term credit may still be useful to accelerate the undertaking of major improvements on the farm <sup>1</sup>.

13. But the diagram does not include a time dimension. There are of course situations where the system is potentially viable but where there are time gaps of financial resources which make the application of credit appropriate. In such cases, the technology level may be sufficiently effective. But there are many cases in which the farm income is severely limited because of deficient technology, and desirable innovations — which would make the farm unit fully viable, cannot be introduced substantially, because of lack of working capital. One good illustration is provided by a field survey carried out in Zambia.

14. In this survey comparison was made between the situation of small farms before and after the introduction of yield increasing technology.

<sup>1</sup> The problems connected with the difference between improvements which are financially sound for the unit (e.g., labour-saving, mechanization) and improvements which are economically consistent with the overall economic strategy (i.e., labour-intensive land amelioration and irrigation schemes) are not discussed here.



TABLE 1

## TYPICAL SMALL FARM: INTRODUCTION OF YIELD-INCREASING TECHNOLOGY

		Before	After
Total cultivated area	ha.	3.7	3.7
maize area	ha.	2.3	2.3
Yield maize	kg./ha.	1,072	2,727
Production maize	kg.	2,466	6,272
Price received	cents/kg.	4.6	4.6
Gross maize income	\$	113	289
Gross farm income	\$	141	317
Costs: maize	\$	24	93
(before interest) Total	\$	61	130
Interest (7% for 11 months on a loan of \$ 69)	\$	—	4
Net farm income	\$	80	187
Increase	\$		107
	%		133

*Note.* In this example a seasonal loan of \$ 69 for 11 months was sufficient to enable the farmer to apply the better maize technology (fertilizer and hybrid seed). But, of course, the loan was only one among many factors enabling this improvement to be made. The important point to note from this typical example is the extremely small scale of the lending operation, i.e., a loan of \$ 69 yielding and interest income to the lender of \$ 4. Even if the rate of interest is doubled then the cost to the borrower is still relatively small, i.e., \$ 8, compared with the increase in net income of \$ 107. This indicates that the interest rate charged on small seasonal loans is not likely to affect greatly the borrower's attitude to the loan.

The comparison is summarized in the following table. The example farm is fictitious, but the data have been compiled from records of some 240 similar farms over a three-year period. Thus the data are a reflection of a real situation. The loan of \$ 69 for 11 months had two roles. First it filled the time gap between investment and receipt of income resulting from the investment. Second, and perhaps more important in the example used, the availability of a loan was a significant incentive for the investment to be made. In other words, the farmer may well have had \$ 69 in cash himself, but did not want to invest his own savings in what for him constituted a farming innovation.

15. Sub-marginal farmers are those whose circumstances are such that they cannot hope to significantly increase their productivity under present circumstances. This may be due to their exceedingly small land area, or to the fact that younger members of the family have left the rural

area, leaving the old, or poor in health, on the land. Credit cannot help here. Government assistance to people in such areas might be best channelled by providing non-farm sources of income, like public works programmes. During and following such a programme some farm development might take place, encouraged by better local markets and the increased availability of funds for farm investment purposes. At this stage credit might be made available to those farmers who have become marginal. The rest of the group, those still sub-marginal with respect to agricultural development, need assistance but this should continue to be other than farm credit.

16. The concept of a "viable" farm is largely relative. In other words, if a farm is able to produce a surplus which can be sold, then the price received for the farm produce will largely determine whether or not the farm enterprise is viable as it stands. Thus in the Katete area of Zambia in the late 1960's, the farm gate price of maize, at \$ 34 per ton, was so low that widespread reversion to zero-sales farming occurred, i.e., the farms became non-viable as income-earning enterprises and rural development in the area was virtually frozen. Later the price was increased to \$ 65 per ton. Production, especially marketed production, increased markedly as more and more farms became viable. A further important point here is that farmers individually have little influence on price levels, these are the result of direct or indirect fixing by forces outside their control. The price issue is expanded in Chapter 2 below.

#### CONFLICTING MOTIVATIONS

17. An integrated approach to credit problems, by definition, requires the coordination of different centres of decision-making. These centres are at least three: the individual borrower, the credit institution and the government (which actually is an aggregate of different institutions and organizations). Our first major point is that the motivations of these centres in credit operations can be very different and sometimes contradictory. But unless the related decisions of farmer, government and credit institution are made mutually consistent, difficulties and inefficiencies will arise. The first step to a realistic solution of credit

TABLE 2

DIFFERING MOTIVATIONS OF GOVERNMENTS, CREDIT INSTITUTIONS AND BORROWERS

Borrower	Government	Credit Institutions
(a) increase net income	(a) consolidate support for existing power structure at various levels	(a) maximize profits
(b) increase quality of life		(b) promote economic interest of certain sectors (c) acquire political influence

problems is, therefore, to clearly identify possible inconsistencies and the true reason behind them. This is the necessary precondition to a possible harmonization of different and/or conflicting interests. The table below lists some of the motivations involved.

18. These motivations can readily conflict. For example, the farmers' desire to increase net farm incomes may be frustrated by a government's decision to keep food prices low in order to appease politically powerful urban classes. Again, the profit motivation of the credit institution can readily lead it to concentrate its portfolio in the large-farmer sector, thus starving the small-farmer group of credit. But the motivations listed in the table are obviously gross oversimplifications, and are given for purpose of example only. Whenever the scheme is applied to concrete situations, the motivations peculiar to these situations should be identified and entered in a similar table. There might of course be more than one credit institution, and the item "Government" could be disaggregated to specify the several departments concerned, for government departments may represent different power groups which may well have differing motivations.

19. Again, it may be considered that the aim to "maximize profits to capital" is no longer the main consideration in the management of credit institutions in which public resources constitute the largest part of the capital. "Promote economic development" — consistently with a rational use and conservation of lending resources — is the generally accepted



objective of agricultural development banks. But reality can be widely different and institutions can be made to serve interests other than those provided for in the Statutes. Thus individual promotion usually depends on performance measured using financial criteria. So even in the case of state of parastatal banks, the profit motive still may be very real.

20. Our second major point is that no matter what the final objectives of the government or the credit institutions may be (increased production, improved trade balance, returns to loan resources, etc.), it is basically the generation of concrete benefits to the borrower which makes for the success or failure of credit programmes. It is therefore essential that a full recognition of the overwhelming importance of the borrowers' viewpoints and interests should be the very foundation of the decisions of the other participants in credit operations.

21. The existence and continuing potency of the differing motivations of government, credit institution and farmer necessitate the establishment of the necessary on-going machinery to handle the problems which inevitably arise. Initially such committees could be set up at the district level (as has been done in Pakistan). These could then activate national authorities when appropriate.

#### PROBLEM AREAS - A STRUCTURAL FRAMEWORK

22. The problem areas involved in agricultural credit are summarized below in Table 3, where rows 1 to 9 of the column "A. Borrower" outline the various decisions that the borrower is requested to make during the course of credit procedures. The notes and the time sequence are arbitrary, but sufficiently representative of many agricultural credit situations. The corresponding rows 1 to 9 of column "B. Government" and column "C. Credit Institution" indicate problem areas reserved to these institutions for decision. The points made in this outline are taken up in the text. The inter-dependence of the problem areas and decision making by the three decision centres is, we hope, self-evident. The following paragraphs are intended to stress only some of the most important horizontal inter-relationships.

23. Row 1. The borrower must in the first place recognize that production can effectively be increased by innovation. This means in turn that applied research has been successful in adapting new technologies to local conditions, and that extension services have been able to reach and indoctrinate farmers, or even better, to demonstrate in practice the advantages of the new techniques. But the government decision to allocate sufficient public funds for research and extension services intended to serve small farmers, rather than large farmers and export-oriented plantations, is very much influenced by its political and economic philosophies.

24. Row 2. The borrower must be enabled to recognize that increased production will not mean, paradoxically, reduced income (because of a more than proportional drop in price at harvest time). The setting of price incentives and the stabilization of farm-gate prices (stabilization of prices at wholesale level may not be so effective) is an important government responsibility towards a suitable environment for successful credit programmes.

25. Row 3. The borrower must recognize the need for new inputs, and must be sure that input prices are fair in proportion to expected returns. Government policies concerning inputs (e.g., domestically produced inputs versus cheaper imported products) are crucial here. But decisions may not be easy when there is a desire to build up domestic industrial production. Even so, the latter objective should not mask or negate the need for giving farmers favourable terms of trade.

26. Rows 4, 5 and 6. Farmers are frequently reluctant to get into debt, and not without reason. They find procedures for loan application to institutional credit sources difficult, and sometimes quite costly. Credit institutions have a clear responsibility to develop streamlined procedures, procedures which do not alienate this service from small farmers. Moreover governments have the responsibility for ensuring that credit institutions have the necessary resources to operate a satisfactory branch network.

TABLE 3

## SOME PROBLEM AREAS AND DECISION MAKING IN AGRICULTURAL CREDIT OPERATIONS

A. Borrower	B. Government	C. Credit institution
1) Recognize that production can be increased by innovation.	1) Allocation of funds for: a) agricultural research b) extension services & rural education.	1) Not applicable.
2) Recognize that increased production can increase income through increased sales.	2) Setting price incentives (price stabilization, in real terms).	2) Not applicable.
3) Recognize availability of new inputs.	3) a) Input price policy b) Support widespread input distribution network.	3) Not applicable.
4) Recognize need for and possibility of obtaining institutional credit.	4) Government allocation of funds for agricultural credit.	4) Ensure use of sufficient resources & favourable terms for credit to small farmers; fix interest rates.
5) Submit application for loan, meet costs thereof, and provide securities.	5) Government may: a) subsidize spread of credit network b) provide guarantee for non-recovery of loans.	5) Credit institution to establish: a) widespread branch networks b) guarantee, rules & procedures suited to small farmers.
6) Make correct technical use of loan.	6) Supervision of loan by extension services.	6) Credit in kind, direct supervision of loan.
7) Sell produce, repay loan instalments.	7) Ensure efficient marketing, including storage space & infrastructure.	7) Liaison with marketing organizations - preparedness to postpone loan repayment if prices fall (against warehouse receipt, etc.).
8) Repartition of proceeds of sales between landowner & tenant/sharecropper.	8) Government policy on land tenure.	8) Not applicable.
9) Allocation of increased net income: a) increased basic consumption b) savings, self-investment c) improving quality of life (consumption).	9) a) Control of local prices/inflation b) Compulsory savings - taxation c) Orientation of individual consumption.	9) Attractive rate of interest to depositors.

27. Row 7. An efficient marketing arrangement is of benefit to all three groups and in turn, all three have responsibilities to ensure smooth handling of produce and associated payments. An efficient arrangement with marketing bodies can assist credit institutions in reducing loan defaults by farmer-borrowers.

28. Row 8. Land tenure arrangements can cause a lot of distress in situations where agriculture is developing. Thus a tenant, by dint of enterprise, hard work and, perhaps a loan, might substantially increase his marketed output and his farm income. But this can cause him difficulties with a jealous landlord. Conversely, if rent is paid on a share-crop basis, with the landlord taking a fixed proportion of the crop, then this may well act as a powerful disincentive for the farmer to attempt to increase his production.

29. Row 9. The allocation of the increased net income of small farmers between investment (including saving) and the additional consumption implied in development is a matter of crucial economic and political importance. This should not lead eventually to a development model for the Third World based on fast increasing consumption of superfluous consumer goods the obsolescence of which is planned in advance, as in Western countries. Again, government has a responsibility to create a suitable investment/savings climate, whilst credit institutions can provide facilities and incentives for institutional saving.