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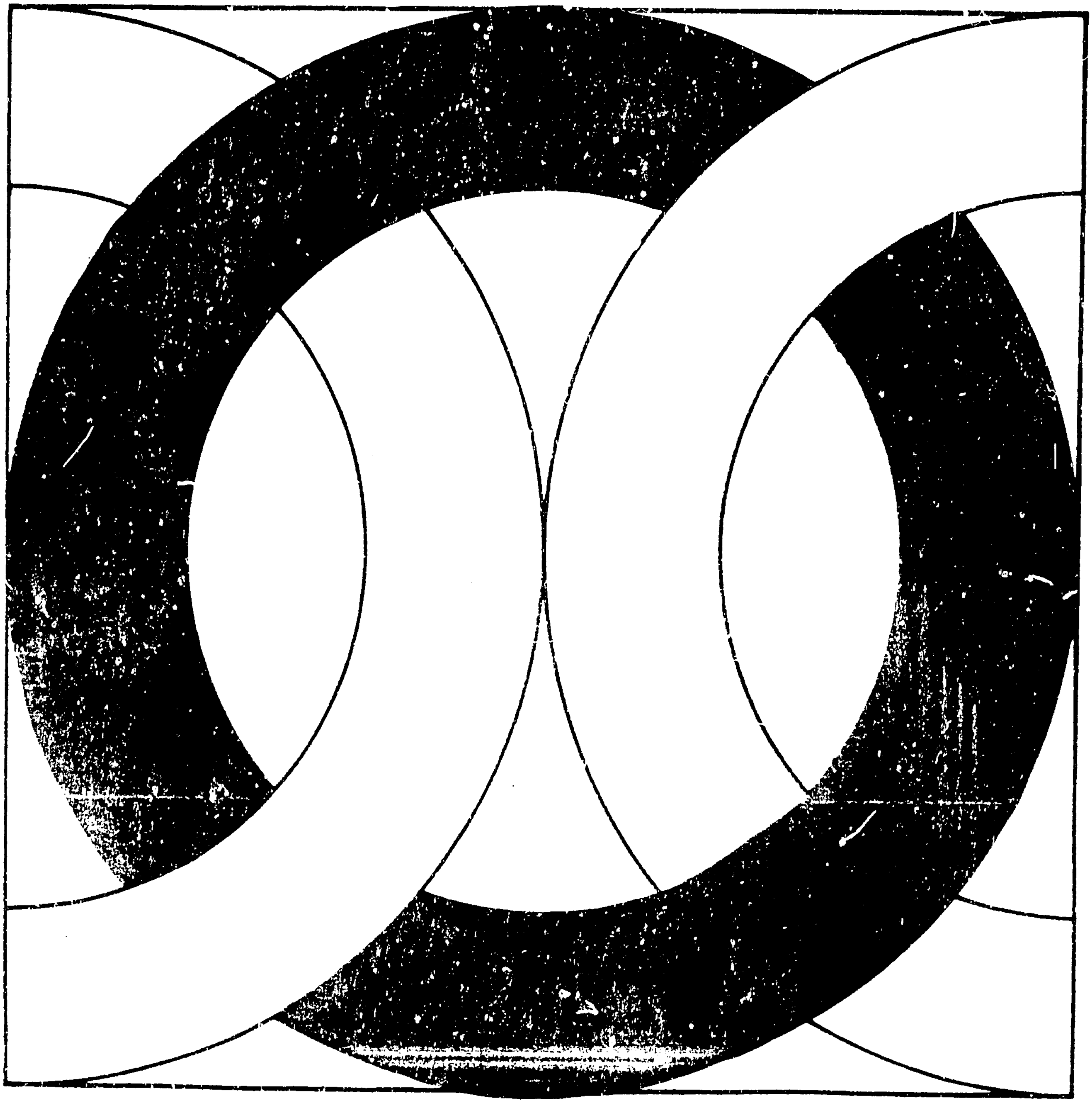
DEPARTMENT OF AGRICULTURAL ECONOMICS
AND RURAL SOCIOLOGY
THE OHIO STATE UNIVERSITY

OCTOBER, 1985

ANNOTATED BIBLIOGRAPHY ON AGRICULTURAL CREDIT AND RURAL SAVINGS: XI
(A SPECIAL ISSUE ON NIGER AND SURROUNDING AREAS)



PREFACE

This bibliography is an outgrowth of activities sponsored by the Office of Rural and Institutional Development, Science and Technology Bureau, Agency for International Development under a cooperative agreement with the Department of Agricultural Economics and Rural Sociology, The Ohio State University. The individuals responsible for the preparation of this bibliography are:

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With the efforts to improve financial services in rural areas, increasing amounts of funds have also been devoted to rural finance research in low income countries (LICs). This is shown by the increase in the number of rural financial market (RFM) studies conducted in these countries during the last three decades and the wide variety of topics covered in the research. During the 1950s and the 1960s, the major focus of RFM research on developing countries concentrated on supplying formal credit to rural households, rural indebtedness problems, demand for credit in rural areas, and the impact of loans on rural borrowers. A few studies were also conducted on the business practices of private moneylenders. In the 1970s, while research on these same issues continued, a number of studies investigated the utilization of rural savings and the broader role of RFMs in rural development in LICs. In more recent years, the research scope was further widened to include savings capacity and savings mobilization, loan default and delinquency problems, the costs of lending and borrowing in rural areas, the costs of mobilizing funds, and the impact of various RFM policies and policy instruments on the demand and supply of financial services in the rural sector and their role in affecting the distribution of wealth and income. In the past few years there has been a dramatic improvement made in the theoretical models and analytical techniques used in rural finance studies.

This bibliography contains the abstracts prepared from 122 studies conducted on rural finance in Niger and the surrounding area. Many of these studies were conducted during the past few years. The studies cover both agricultural credit and rural savings studies, and are arranged in alphabetical order by the last name of the author, or the senior author in cases where there are more than one author of a study. At the same time abstracts have been included on a selected number of recent articles on agricultural marketing, pricing and technology as they pertain to Niger and surrounding areas. The abstracts prepared for this bibliography come from a wide variety of sources such as papers published in journals, conference proceedings, books, book chapters and theses and dissertations. Some of the abstracts are longer than others because the OSU team viewed these studies as more important to the Nigerian situation than other more general studies.

Like the previous annotated bibliographies on agricultural credit and rural savings prepared at the Department of Agricultural Economics and Rural Sociology, The Ohio State University, this bibliography is intended to serve as a reference source for researchers interested in RFMs in developing countries.

Additional Information

Persons desiring information regarding publications listed in this bibliography or some other aspects of rural credit or savings should address their inquiries to:

The Agricultural Finance Program
The Ohio State University
2120 Fyffe Road
Columbus, Ohio 43210 USA

1. Abbott, J.C., "Credit Institutions and Their Impact on Agricultural Development in Africa," in (FAO) Monthly Bulletin of Agricultural Economics and Statistics, Vol. 23, No. 10/11, Oct.-Nov. 1974, p. 7-15.

ARC Catalog No. AFR 332.71 A132

This article serves as a review of the makeup of institutions providing agricultural credit in Africa. A table demonstrating the proportion of farmers receiving institutional credit and the relation between credit supply and value of agricultural output is included. The author concludes that more institutions are needed to lend to agriculture, that interest rates should be raised, and that more rural savings should be mobilized [1190].

2. Abe, S.I., "Nigerian Farmers and Their Finance Problems," paper presented at the Seminar on Agricultural Credit and Finance, held at the University of Ibadan, Ibadan, Nigeria, April 17-May 2, 1981. 28 p.

Identifies main sources of finance for Nigerian farmers. Farmers' financing problems are discussed from the perspective of the farmers themselves and of the credit institutions. The position of interest rates as a phenomenon in exchange transactions and its role in stimulating productivity especially in the area of agriculture is highlighted by establishing the favorably comparative ranges of interest rates which apply to the productive sectors in general and to agriculture in particular. Creation of a data base on economic activities of rural households, development of procedures for estimating income of farmers, encouraging the financial institutions to supply more farm credit, creation of banking habits among farmers, and a number of other measures have been suggested for alleviating the financial problems of farmers in Nigeria [2512].

3. Adams, Dale W and Robert C. Vogel, "Rural Financial Markets in Low Income Countries: Recent Controversies and Lessons," ESO 1107, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio, October 1984, 38 p.

This paper examines seven major controversies that stand out in recent attention given to rural financial markets (RFMs). These are: (1) What institutional form is best? (2) How does the economic vitality of agriculture affect rural financial markets? (3) Which policies are most effective in influencing lender behavior? (4) What is the appropriate interest rate policy in RFMs? (5) How important are borrowers' and lenders' transaction costs in RFMs? (6) What is the best way to improve loan repayment performance? and (7) Do rural financial savings matter? Each of these topics is discussed in the following sections, and lessons that have been learned are drawn where appropriate.

Not all the main lessons learned can be reported here; however, the main lesson learned from a review of recent research and evaluation of RFMs in low income countries is that these markets could play a more efficient and equitable role in development if appropriate policies were adopted. These policies include much more emphasis on mobilization of voluntary private savings in rural areas, interest rate policies that sustain positive real rates of interest most of the time, less attention to eliminating the informal lender, and more stress on improving the overall quality of financial services provided by these markets.

4. Adams, Dale W, "Physical Examinations for Rural Financial Markets in Low Income Countries," Savings and Development. Vol. VII, No. 4, 1983, pp. 303-317.

This paper looks at rural credit programs in low income countries in the past dozen years. It argues that in too few cases are these rural financial markets (RFMs) doing an adequate job of meeting equity and efficiency objectives, and far too many agricultural credit agencies are "black holes" into which large amounts of money, managerial time, and talent disappear.

These results are especially disappointing given the emphasis by governments and donor agencies on expanding the quantity and quality of farm credit facilities the last three decades; donor agencies have granted or lent in excess of 15 billion U.S. dollars over this period for agricultural credit. It is even more disappointing that most policymakers are resigned to mediocre results from rural credit programs.

The paper concludes that most of the needed knowledge is at hand to allow "finance doctors" to improve substantially the performance of rural financial markets in many of the low income countries and that it is possible to make quantum jumps in the performance of these markets similar to those made in production of rice and wheat through adoption of the miracle varieties of the mid-1960s. But to do this it will be necessary to improve substantially the physical examinations that are given to rural financial markets and to do a much more systematic job of using these analyses to influence policy makers to adopt more appropriate treatments. Because of the very diffused nature of financial markets, especially in rural areas, it is easy to be overwhelmed by data requirements and complexities in doing a diagnosis of these markets. It is very important that the right kind of questions be asked, that only judicious amounts of data are collected to answer these questions, and that systematic and comprehensive procedures be used in the physical examination.

In the past three decades a large part of the analysis done on problems of agricultural credit and rural savings has focused on the demand for credit, rural savings capacities, and farmer behavior. The diagnostic steps suggested in this essay place much more emphasis on the supply of financial services, on the behavior of financial intermediaries, and on helping policy makers to identify better treatments than subsidized credit for the ills that bedevil rural financial markets in so many of the low income countries. Improved physical examinations of rural financial markets will reveal that policy makers, not some unseen gremlins, are inadvertently the ones who are turning up the forces of gravity under many agricultural credit programs in low income countries [2688].

5. Adams, Dale W, Douglas H. Graham and J.D. Von Pischke (eds), Undermining Rural Development with Cheap Credit, Westview Press, Inc.: Boulder, Colorado, 1984, 318 p.

In the past several decades large amounts of money have gone into agricultural credit programs in low-income countries. The results of these efforts have often been disappointing: Serious loan-recovery problems persist, the rich get most of the cheap loans, low interest rates discourage local savings deposits, political intrusions are common, and many financial institutions in low-income countries are floundering.

The 23 chapters in this book draw heavily on the research and consulting work done by the authors in about four dozen countries. The book is divided into four parts. The first part contains four chapters discussing the problems in rural finance. In part two, there are eight chapters discussing interest rate policies in rural financial markets. Part three has five chapters analyzing the relationship between politics and finance. The six chapters in Part four discuss the new directions for rural financial markets.

The contributors to this book cite ubiquitous low interest rate policies and improper use of financial markets as principal reasons for these problems, recommending that higher and more flexible interest rate policies be allowed and that little or no attention be given to specifically targeted loans. They also argue that informal lenders provide more valuable services than is generally thought and that voluntary savings capacities in rural areas may be substantial. Less emphasis on discouraging the informal lender, more emphasis on voluntary savings mobilization, and more access to formal loans by nonfarm rural firms are other policy changes recommended in this comprehensive survey. The authors conclude that many traditional agricultural credit programs, in fact, undermine efficient, equitable rural development, whereas attractive product and input prices, along with higher yields, would be much more powerful ways of stimulating rural development.

6. Adegboye, R.O., Procuring Loans Through Pledging of Cocoa Trees. LTC Reprint No. 94. n.d., 14 p. Land Tenure Center, University of Wisconsin, Madison, WI 53706. Also appears in the Journal of the Geographical Association of Nigeria, Vol. 12, Nos. 1 and 2, Dec. 1969, p. 63-76.

ARC Catalog No. NI 332.743 A228

Examines the practice of pledging cocoa trees for securing loans in Western Nigeria. Uses data collected from 600 interviews with pledgees. Reports that the main reason for obtaining loans was to defray educational expenses. Suggests how the system could be improved [693].

7. Adegboye, R.O., "Redemption of Pledged Property Through Rural Credit," Proceedings of the 1972 Annual Conference of the Nigerian Economic Society, University of Ibadan, Ibadan, Nigeria, April 1973, pp. 181 - 188.

   Author examines the problems of rural development in Nigeria. Analyzes some of the financial problems facing the rural people, in particular a constraint to rural development participation. Suggests a debt-repayment credit scheme to further increase participation of the rural populace in development [1964].

8. Adeyemo, Remy, "Loan Delinquency in a Multi-Purpose Cooperative Union in Kwara State, Nigeria," Savings and Development, Vol. VIII, No. 3, 1984, pp. 207-216.

   One of the problems of agriculture in developing countries is that of meeting the loan requirements of disadvantaged cultivators -- those whose holdings are small, those who farm under difficult conditions with frequent crop failures and those whose tenurial status is unsatisfactory or uncertain. This paper studies the problems of cooperative financing of agriculture in Nigeria.

   One of the striking features of the farmers of the Owolowo Multi-purpose Cooperative Union is that a large percentage of the borrowers are either illiterate or half educated. The average number of households was found to be nine and the average length of traditional farming methods (that is, the use of hoes and cutlasses) was 30 years.

   In this study, it is found that the Union loan recovery rate was very poor. The lowest and highest rates were 5% and 52%, respectively. This might reduce the ability of this Cooperative Union in generating enough funds. It was also found that the factors associated with loan delinquency were natural calamities and certain economic and sociological variables. To enhance the viability and vitality of the Multi-purpose Cooperative Union it is recommended that there must be a thorough investigation of the borrowers by the officials of Union during the processing of loan applications.

9. Adeyemo, Remy, "Strategies for Improving Agricultural Credit in Nigeria," Savings and Development, Vol. VI, No. 1, 1982, pp. 85-96.

   The objectives of this paper are to analyze the performance of Agricultural Credit Bank and Credit Guarantee Scheme operations and then formulate possible strategies for improving agricultural credit in Nigeria.

   This paper formulates possible strategies for improving agricultural credit in Nigeria. Section 2 deals with an examination of past financial institutions and causes of their failure. Also, background information on credit institutions in different parts of the country is given. Problems stemming from non-repayment of loans, cumbersome and time-consuming procedures to bribery and corruption caused their failure. Section 3 is devoted to the analysis of Agricultural Credit Bank and Credit Guarantee Scheme Operation. Analysis of the data showed that credit operation by these financial institutions is by far better than those previous institutions examined in the first section of this paper. It was discovered that board members maintained personal contacts with officers of the bank, officials from ministries and farmers. These contacts helped the institutions in knowing the problems confronting farmers and bankers.

Strategies for improving credit operation in Nigeria are the focus in Section 4. These strategies include decentralization and channelling of loans through cooperative societies. Other strategies include the need to promote savings by small holders, involvement of the farming community in the operation of the bank and establishment of research and experimental station units for banks and various institutions.

In conclusion, the adoption of these strategies would aid the improvement of financial institutions, because these institutions do have a challenging future in the expanding demand of credit for agricultural development. The strategies recommended will not come easily, it won't be cheap. Financial institutions can't do it overnight. But it must be done if financial institutions are to serve tomorrows producers and consumers efficiently.

10. African Studies Center, Michigan State University, Rural Africana, Numbers 19-20, Spring-Fall, 1984, 183 pp.

This special double issue of Rural Africana is devoted to exploring the causes behind, and possible programmatic remedies for, Africa's current severe economic crisis. It especially focuses on the issues raised in the World Bank's Report Accelerated Development in Sub-Sahara Africa: An Agenda for Action. It reports on a two-day Colloquium held at Michigan State in 1983 to discuss issues raised by the Report. Participants included World Bank officials, African policymakers, private consultants, academics and others interested in African economic development. Eleven papers are included in this volumne grouped into three sets. The first set presents an overview of issues raised by the Report, the second examines the Bank's proposals for the rehabilitation of African agriculture, and the third focuses on the role of African states and the dilemmas policymakers face in developing effective strategies and policies to respond to the economic crisis.

A number of positive impacts were associated with the Report: it clearly and forcefully stated several issues that needed reform and promoted debate on how this might best be done; it assigned primary responsibility with the African governments; it broke the pattern of past reports which focused on external constraints and downplayed the culpability of African governments; and it helped African technicians by making it legitimate to openly voice need for change. Critics suggest that the Report is too optimistic about the possibility of export-led growth, that it understates the effect of external factors, that it overgeneralizes, that the recommendations are too narrowly cast, and that too little attention is paid to political issues and constraints and serious problems in implementing reforms. There is disagreement with the emphasis of policy reform over research, education and extension, and some participants felt there is little prospect of adoption of the recommendations unless they are accompanied by the palliative of assistance for the politically attractive basic needs type of project. It is also expected that efforts are needed to improve economic performance, especially of public organizations, but the Report provides little guidance other than economic rationality. Innovative management technologies are needed which are appropriate to the conditions of work in Africa.

11. Agu, Cletus Chike, "The Role of Commercial Banks in Mobilization and Allocation of Resources for Development in Nigeria," Savings and Development. Vol. VIII, No. 2. 1984, pp. 135-158.

Commercial banks, the most important component of the Nigerian financial system, are the most important saving mobilization and financial resource allocation institutions in Nigeria. These roles make commercial banks essentially a phenomenon of development.

The analysis raises an important question: whether the assumed repressive measures are indeed repressive. Proponents of the financial repression hypothesis fail to appreciate the peculiar financial structure of developing countries such as Nigeria. Environments differ not only in variety and volume of financial instruments and institutions but also in the inter-relations of different subsectors and sophistication of activities and operations. If it is realized that the Nigerian commercial banking system was until recently dominated by foreign banks which maintained strong oligopolistic bank market structure, it will be fully appreciated that a competitive market structure does not exist in Nigeria. Consequently, interest rate management may not be regarded as a substitute for the determination of interest rates by competitive market forces, but as a necessary alternative when conditions for the existence of competitive market conditions are not present and cannot be readily established. In the absence of competitive market structure, positive interest rate policy could potentially destabilize financial markets, increase the power of oligopolistic financial firms to exploit market imperfections by increasing the interest spreads between loan and deposit rates, and simply perpetuate the existence of a financial environment with rather low deposit rates of interest. To establish an adequate level and structure of interest rates in this peculiar situation, there is need for government intervention to aid the market.

Thus, while financial repression through interest rates ceiling may discourage savings in Nigeria it is not as serious as has been postulated by the apostles of the financial repression hypothesis. The commercial banks should nevertheless offer simple, intelligible and convenient financial instruments yielding a positive real return. A positive real interest rate on deposits should encourage savings mobilization by the commercial banks.

It is, however, recognized that while the increase in the number of bank offices and variety of financial instruments are important for savings mobilization and resource allocation, the adoption of appropriate policies by the monetary authorities is essential.

12. Akuazaoku, B.A., "Small Farmer's Finance: Prospects in the 1980s," paper presented at the Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Ibadan, Nigeria, 27 April - 2 May, 1981, 10 p.

Author discusses the food situation in Nigeria, and the role of small farmers in meeting food deficits. The world food problem is also examined in brief. The study examines the thesis that the problem of Nigerian small farmers is more social and psychological than financial.

Various policies and programs have been instituted to develop agriculture in Nigeria. To ensure adequate credit facilities in rural areas, the Nigerian Agricultural and Cooperative Bank and Agricultural Credit Guarantee Scheme were established, and various programs to induce commercial banks in agricultural financing were launched. Despite all these measures, both agricultural and livestock production in the country declined over time (during 1966-75) reflecting the poor policies [2509].

13. Aladenola, J.O., "Federal Agricultural Credit Facilities and the Implementation Problems with Particular Reference to Orndo State," paper presented at the Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Ibadan, Nigeria, 27 April - 2 May, 1981, 10 p.

Inadequate farm credit has been identified as one of the constraints facing the agricultural sector in Nigeria. To alleviate this constraint, the government set up the Nigerian Agricultural Bank, and Agricultural Credit Guarantee Scheme. This study examines these two financial institutions, and the Ondo State Agricultural Credit Corporation with the view of establishing the extent to which they have assisted farmers. Some suggestions are also made to improve the performance of these institutions.

The Nigerian Agricultural and Cooperative Bank was found to favor large scale farms with collateral as compared to small farmers when supplying loans. The benefits of the Credit Guarantee Scheme were regionally concentrated in few states. The Agricultural Credit Corporation in Ondo State provided loans to various farmers. However, the funds advanced by this institution are not adequate to fulfill the needs of farmers [2484].

14. Aluko, S.A., "Industry in the Rural Setting," Proceedings of the 1972 Annual Conference of the Nigerian Economics Society, University of Ibadan, Ibadan, Nigeria, April 1973, pp. 213-235.

This study discusses the problem of mass migration from rural to urban areas in Nigeria. The author suggests that development policies should be oriented toward rural industrialization to reverse the present migration trend. He also emphasizes that economic policy should closely examine the structure and functioning of rural industries [2176].

15. Anderson, Peggy, "New System in Niger," in Africa Report, Vol. 13, No. 8, Nov. 1968, p. 12-17.

This article reports on changes in a cooperative credit and marketing program in Niger which reduced credit defaults. This was achieved by allowing more peasant participation in the credit allocation process; tying credit and marketing closely together; and relating dividends paid back to participants to village credit repayment [1150].

16. Barrett, Vincent, Gregory Lassiter, David Wilcock, Doyle Baker and Eric Crawford, "Animal Traction in Eastern Upper Volta: A Technical, Economic and Institutional Analysis," MSU International Development Paper No. 4, Michigan State University, East Lansing, Michigan, 1982.

This paper reports on the EORD ANTRAC (animal traction) program which is associated with a ten-fold increase in animal traction from 1974 to 1979 when there were approximately 1,800 donkey and oxen units. The report also summarizes six previous programs to introduce ANTRAC technology dating back to the 1940s.

Several weaknesses were identified. Young extension agents are not providing farmers with the support and training they need. Evaluation of debt-carrying capacity of farmers must be strengthened because the collection ratio averaged only 47 percent over the 1976-79 period. Substantial problems exist in the provision of equipment and spare parts. Veterinary services are inadequate to help protect the farmers' investment in draft animals.

Draft animal use is associated with an expansion in acreage in crops but there seems to have been little impact on cropping mix, yields and farmer net income. Labor use and allocation changed, production costs rose and cash flow problems increased.

Recommendations included the development of a range of improved technical packages through farming systems research, restructuring and strengthening extension, tightening the granting and administration of loans, adjusting loan repayment to the life cycle of expected returns, promotion of marketing activities to improve farm returns, train blacksmiths for equipment repair, and improvement of livestock extension and veterinary services.

17. Belloncle, Guy, Estude Sur de Credit Agricole daus Trois Villages de la Region de Maradi (Niger) (An Analysis of Agricultural Credit of Three Villages of the Maradi Region (Niger), Archives de Sciences Sociales de la Cooperation et du Development. Trimentrielle, Numero 36 (juillet-decembre) 1974, pp. 47-74.

This is a monograph on agricultural credit in three villages of the Maradi region of Niger, completed for the Food and Agriculture Organization of the United Nations. The three villages are located in the Aguie arrondissement in the south central part of the department. The three villages are members of the Dankeri cooperative. Of the 28 farmers selected, 23 interviews were completed in 1972. The hypothesis to be investigated is that the farmers with the highest incomes played the role of money lenders in the villages; however, this was found not to be valid in most cases.

The paper also investigated the role of the mutual as a source of credit in the area. The most important findings are the great similarity of credit needs in all three villages as defined by the farmers. All of them face essentially the same problems; peanut seed scarcity, insufficient millet, restrictive social obligations and soil exhaustion. The farmers also showed strong "egalitarian" preferences at the village level. Each farmer seemed interested in equal sharing of obligations and benefits. This explains their seed quota, distribution according to family size, and time limits on renting materials.

All these conditions favor the development of a mutualist credit system which will mitigate rather than exacerbate economic differences. The author is convinced that credit mutuals can play a fundamental role in the construction of development cooperatives in this region [1947].

18. Belloncle, Guy, "Formation des Hommes et Developpement: Les Lecons de Quelgues Experiences Africaines (Education and Development: Lessons from African Experience), Niger, January, 1976.

This paper begins with a study of extension education methods in Niger since 1962. Lack of local participation was a problem in the early days. New policies and programs to increase local participation were then developed. Today village officials are enjoying a greater participation in the extension program. The next section of the report contains a lengthy discussion of the new concepts and teaching methods developed at a training session in Niamey in 1971 that were never put into practice throughout Niger. The author argues that this approach based on self programming with the villagers still has a lot of merit and recommends that it be used in future training sessions.

The next section looks at education of the rural population, especially in the areas of health, water supply and cooperative education. A functional literacy program is also discussed. The last part of the paper discusses the problems and training of women, children and the training of agricultural agents. The last section contains reflections on the organization of rural development in Niger and Upper Volta that was used as an introduction to an FAO organized seminar on Youth and Rural Development at Ouagadougou in February of 1973.

19. Belloncle, Guy, "Le Credit Agricole dans les Pays D'Afrique D'Expression Francaise Au Sud du Sahara (Agricultural Credit in French Speaking African Countries South of the Sahara)," Food and Agriculture Organization, United Nations, Rome, Italy, June 1968.

This paper contains two major parts. Part I discusses the general problems of agricultural credit in French speaking African countries and Part II contains case studies of agricultural credit institutions in eighteen African countries, fifteen of which are former French colonies. The case studies vary considerably in content because of data limitations among countries and differences in credit institutions. Data was collected from an FAO survey in 1964 and 1966.

Chapter I examines the lessons from the past forty years in an effort to develop an effective model of agricultural credit in French speaking Africa. The basic concept is that of credit mutuals with group responsibility and security. Activity is limited to a restricted geographic territory and small groups composed of 7 to 30 members with similar ethnic backgrounds, lifestyles and economic levels. The next chapter discusses the Senegalese cooperatives. Chapter III discusses means toward an integrated system of agricultural credit. This can be accomplished by the formation and promotion of agricultural cooperatives and an agricultural credit bank. Chapter IV examines Africa's most pressing agricultural credit needs. These needs are for consumer credit and production credit. In Chapter V the issue of specialization or diversification of a financial institution is discussed. The paper argues for specialized agricultural credit institutions while recognizing the problems of high default rates and low interest rates in these institutions. The Part II case studies will not be discussed in this abstract.

20. Berg, Elliot and Associates and Government of Niger, "Joint Program Assessment of Grain Marketing in Niger," U.S.A.I.D./Niger, Volumes I and II, Niamey, Niger, December 1983, 250 pages.

The purpose of this study was to bring together existing information on problems of food grain marketing and price policy and to develop some recommendations appropriate to the new policy orientation of the government of Niger. In addition, the study also describes the major components of the grain marketing system. The study was completed by Elliot Berg Associates and the government of Niger with support from the United States Agency for International Development. The study consists of Volume 1, the main report, and Volume 2, the background papers. The study contains a substantial amount of secondary data on the marketing system for cereals and also primary data collected from a survey of 13 villages throughout Niger in July and August, 1983. Thirteen University of Niamey students of Economics participated in this primary data collection and returned to their home villages during the summer to interview 20 farmers as well as traditional leaders in each village. A stratified random sample of small, medium and large farmers was developed in each village in conjunction with the village chief. The principal criteria for the stratified sample were the size of the millet and sorghum harvest and the level of average rainfall in the village. In addition to the data collected from the questionnaires, each student also wrote a report on the information gained through some of their informal interviews. These reports are contained in an Annex of Volume 1 and are referred to in the main text.

The report begins with a section of Summary and Conclusions; Section 2 contains the principal characteristics of the grain marketing system; Section 3 discusses the deficiencies of he grain marketing system; and Section 4 presents the recommendations for improvement of that grain marketing system. The main results for the sections will be presented in the rest of this abstract.

The population of Niger, about 6,000,000 in 1983, is growing at a rate of 2.77 percent annually while the growth rate of millet and sorghum production, basic staples in the diet, is 1.75 percent annually. This leads to a growing food deficit for Niger. Important food crops in the country are millet, sorghum, rice and cow peas. Niger has had domestic deficits in millet and sorghum in 8 of the last 11 years. Niger's production of these crops can vary by as much as one-fourth of total production from one year to another because of highly variable rainfall. Demand trends for grain suggest that rice and wheat consumption are increasing rapidly, particularly in urban areas. Both of these crops are imported in rapidly increasing amounts.

Niger has a dual system for the marketing of millet and sorghum. The state grain marketing agency (OPVN in Niger) coexists with a network of private traders. OPVN is the largest single buyer and seller in Niger's grain markets. However, private traders continue to buy the major share of domestically produced and marketed cereals. OPVN was created in August 1970 in response to the worsening effects of the drought and the widespread belief among policymakers that the merchant class was inefficient and exploitative of producers and consumers. OPVN's mandate is to organize the marketing of staple food crops, help improve production of these crops, establish annual estimates of both food production and needs, build regulatory stocks to stabilize prices, guide the direction of enterprises in processing staple foods, and assume the execution of food aid programs.

OPVN has numerous problems implementing this mandate. It has serious financial problems and depends heavily on large government subsidies. OPVN has delayed payment problems to farmers where it buys and has had to greatly reduce the number of purchasing centers for millet and sorghum. It has also had to reduce the number of consumer sales centers. The agency's pressing need to cut losses has reinforced its tendency to buy from major producing areas and sell to areas of high population density. In periods of shortages the agency also has problems of favoring selected groups when rationing food. OPVN is also supposed to have a reserve stock of 65,000 tons plus a stabilization stock of 50,000 tons. The reserve stock had reached a level of 47,000 tons at the end of 1983 and the stabilization stock had reached a level of 122,000 tons. OPVN has had difficulty liquidating its stabilization stock and has found that it is very costly to hold these stocks in inventory.

A large developing network of private traders, transporters and producers exists parallel to the official marketing system of food grains in Niger. Although the estimates vary widely, it is generally agreed that no less than 50 percent of total market volume is handled by the private sector. In the private marketing channels, the number of full time merchants is quite small compared to the thousands of informal traders who work part-time. There are few large specialized grain merchants.

A dual marketing system for rice is also found in Niger. However, the private market is not as large as it is for millet and sorghum. The main reasons for this are that the market for rice is small, there is a heavy government subsidy which makes private trading unprofitable and rice production is very localized on a small number of farms where the government supplies all of the inputs.

Farm level decisions about production and sale of food stocks constitute the first link in the food marketing system. The concept of grain sales as only "surplus disposal" has been challenged in several studies and this study also challenges that concept. Results indicate that most farmers buy and sell grain in both good and bad years and that farmers have increasingly integrated their activities into the money economy. Grain is no longer simply a subsistance crop but has become a cash crop. The majority of the 258 farmers surveyed for this study were overall net buyers of grain. Farmers sold on average just under 9 percent of their millet and sorghum harvest but they purchased an equivalent of nearly 11 percent. Rural households rely on revenues derived from both agricultural and non-agricultural sources. Sales of millet and sorghum account for less than one-fifth of total income. Peanut and cow pea sales are also quite important as are animal sales. Non-farm revenue ranges from about 14 percent to 30 percent of total income in all zones and for all farm sizes.

Farmer perceptions of storage and consumption requirements are a major determinant of marketed volume. Because of the wide variations in rainfall, farmers feel a fundamental need to carry large stocks of grain from years of abundance for consumption in years of scarcity. Other producers seem to have a preference for farm stocks of at least 2 to 4 months use. The desire for large inter-annual stocks of grain may be diminishing as farmers grow more closely integrated with the national and international economy. Farmers have abundant and low cost storage facilities for these stocks.

Gift giving in rural Niger also affects a farmer's allocation of his harvest. Gift giving forms an essential part of just about every social relationship. Overall, nearly 13 percent of the millet and sorghum grown was redistributed as gifts. Gifts comprise a larger percentage of the harvest than do sales.

Cash needs of farmers appear to be largely handled through grain sales and off-farm income. The level of indebtedness in village surveyed is quite low. Borrowed money comprises only seven and one-half percent of total income for the sampled farmers and grain borrowings are also very low.

Niger has a 1,600 kilometer border with Nigeria which is largely unpatroled and is a substantial source of cross-border trade between the two countries. Niger exports cattle, cow peas, onions and vegetables and also labor to Nigeria. Niger imports petroleum products, manufactured goods and grain from Nigeria and some inputs such as fertilizer. Niger remains an open economy with respect to Nigeria despite government efforts to control cross-border trade through numerous regulations.

The structural characteristics of Niger's grain markets suggests a highly competitive system. There are many buyers and sellers in most markets and barriers to entry are few. A study of spatial market integration indicated that prices are quite highly correlated among markets suggesting that the market system is highly integrated.

Relating seasonal price fluctuations to cost of storage is another measure of market efficiency. An analysis of the returns to storage of millet in the Niamey market suggests that the average annual return to inter-seasonal speculation would be about 8 percent in the last 13 years. This suggests that returns to storage are quite low compared to the perceived super profits described by many. Trader margins are also found to be quite low.

The major deficiencies in the current marketing system have to do with inadequate information about cereals availability and operation of grain markets. This hampers effective formulation of food policy in Niger. Production estimates based on acreage and yields are usually incorrect. Official calculations tend to overestimate yields and under estimate the area cultivated. Estimates of consumption, particularly in rural areas, are also problematic so that it is very difficult to obtain firm estimates of production and consumption needs and policy regarding imports or exports.

Public policies which restrict activity among private merchants increase costs and reduce efficiency of the marketing system. OPVN has a number of regulations affecting private grain merchants. Present regulations, for example, make it illegal for merchants to purchase grain during the OPVN buying campaign. All traders must obtain licenses to move grain from one department to another. These and other restrictions adversely affect performance of the marketing system.

Farmers in Niger have been confronted with an everchanging and bewildering array of legislation affecting primary marketing of cereals. Changes in government regulations have contributed to much of this confusion. Farmers are frequently critical of the unpredictable buying practices of OPVN. They complain of low official prices, early termination of buying campaigns, transportation problems and financing problems which make it impossible for OPVN to maintain a continuous presence in the market. OPVN has not succeeded in stabilizing grain prices. Prices since OPVN has been established show as much fluctuation of prices as before OPVN.

OPVN has tended to favor urban consumers at the expense of rural producers in its price policy.

OPVN has experienced large and increasing losses on its grain marketing operations. Accumulated debt as of September 1982 was about 9 355 billion CPA francs and losses in the 1982-83 season alone were estimated to be 1.5 billion CPA francs. This large debt is due to a number of factors such as the high level of grain stocks maintained by OPVN, its official pricing policy, cost structure and internal management operations.

Recommendations:

1. Allow more competitive primary marketing. The government should open up the marketing system so that competition can occur between private traders, cooperatives and OPVN. The government regulations and fiscal constraints must be changed in order to allow a competitive market to develop.

2. Reassess OPVN's role. OPVN's role needs to be reduced. It should concentrate on food aid, emergency food reserves, act as a food agency for the public sector, and supply isolated food importing regions.

3. OPVN is recommended for two new functions: (1) acquire a market information base to improve market information for policymakers in the country, and (2) become the extension and research agent for market and storage technology.

4. OPVN should reduce involvement in some other functions. The number of retail outlets should be further reduced, the price stabilization efforts should be reduced, and the floor price program efforts should be terminated. OPVN should follow market prices rather than establishing theoretical floor and ceiling prices.

5. OPVN should terminate its policy of subsidizing the consumer price of food grains because of the high cost of this operation and the fact that the benefits are realized by only a very few people and generally these are not the poorest people.

6. OPVN should strengthen the base of information which includes production statistics and price collection, cross-border trade information, and consumption estimates. In addition, the rural road system needs to be strengthened.

7. The last recommendation is that Niger should maximize the advantages of an open economy.

21. Berg, Elliot et al., Accelerated Development in Sub-Saharan Africa: An Agenda for Action, World Bank, Washington, D.C., 1981, 198 p.

This Report was prepared in response to a request by the African Governors of the World Bank in 1979 because of their concern about the dim economic prospects for Sub-Saharan Africa. The Report discusses the factors that explain slow economic growth in the recent past, analyzes policy changes and program orientations needed to promote faster growth, and concludes with recommendations to donors, including that aid to Africa should double in real terms.

The Report briefly analyzes the postcolonial situation of the region and the disappointing economic performance of the past two decades caused by structural factors of historical circumstances or by the physical environment, and by adverse trends in the international economy. These structural and external factors have been exacerbated by three critical domestic policy inadequacies: 1) trade and exchange-rate policies have overprotected industry, held back agriculture, and absorbed much administrative capacity; 2) too little attention has been paid to administrative constraints in mobilizing and managing resources for development; 3) there has been a consistent bias against agriculture in price, tax and exchange rate policies.

The authors recommend that production be given higher priority. Three major policy actions are central to a growth-oriented program: more suitable trade and exchange rate policies, increased efficiency of resource use in the public sector, and improved agricultural policies. The Report puts heavy emphasis on agriculture and exports. The chapter on agriculture stresses concentration of resources on smallholders; reform of incentive structures to ensure better prices, more open and competitive marketing system, and greater availability of consumer goods; making existing programs work better

23. Binswanger, Hans P. and Prabhu L. Pingali, "Agricultural Intensification and Technical Change in Sub-Saharan Africa," paper prepared for the XIX International Conference of Agricultural Economists, Malaga, Spain, August 26-September 4, 1985, 12 p.

This paper provides the main conclusions of a research project on the evolution of farming systems and agricultural technology in Sub-Saharan Africa. These conclusions are based on a detailed literature review complemented by field visits to 50 villages in 10 countries of Sub-Saharan Africa. Far from being immobile and technologically stagnant, "traditional" African societies have responded to changes in population densities and external markets with changes in farming systems, land-use patterns, technology and institutions along systematic and predictable patterns. Population growth and market access are the main determinants of agricultural intensification, i.e., the movement from shifting cultivation to permanent plots of agricultural land. Intensification leads to a reversal in preference of different types of land with the deeper, heavier soils being preferred over the lighter, more easy to work soils. Intensification leads to an increase in yields and in the absence of labor-saving technology could also increase agricultural employment. The switch from the handhoe to animal drawn plows and later to tractors is closely associated with the evolution of farming systems. The use of organic manure is likewise related to the intensification of the farming system. Finally, they conclude that institutional arrangements for the acquisition of land are not rigid but do change as increasing population density or improved market access makes land scarce.

24. Binswanger, Hans P. and John McIntire, "Behavioral and Material Determinants of Production Relations in Land Abundant Tropical Agriculture," Discussion paper, ARU 17, Agricultural and Rural Development Department, Operational Policy Staff, World Bank, January 1984, 43 p.

This paper forms part of the background material for research on agricultural investment to be conducted in India and Upper Volta. ICRISAT in Niger may also participate. The objective is to estimate the interrelationships between the agroclimatic environment and the level and composition of public and private capital accumulation in agriculture. The proposed production relations framework suggests, first, that the success of credit institutions will be related to agroclimatic conditions and, second, that the effects of agroclimatic conditions on private investment behavior will be altered by such credit institutions. The proposed study will simultaneously take into account (1) fundamental agroclimatic conditions, (2) the endogeneity of public and private institutions, and (3) the interactions between such institutions and the agroclimatic environment in altering the constraints and the returns to different types of private agricultural investment.

The first section specifies assumed production relations in a land-abundant semi-arid economy using simple technology. The consequences of this situation are discussed for insurance and credit markets and on the relations in the markets for labor, land and animals. Included is a discussion of storage behavior, livestock as an insurance device, livestock entrustment systems, extended households and alliance networks, the existence of both common and individual fields, and the impact of external trade.

A major argument is that credit markets are limited from both the supply and demand side. Credit supplies are limited because of the lack of collateral and collateral substitutes. Demand is limited because of the simple technology used and the limitations of hired labor and the limited hiring or exchange of labor among farmers during the peak labor seasons. Therefore, credit amounts are small and the primary purpose of loans is for consumption. Moneylending is also not an important means for acquiring land or other factors of production. No discussion is included about household savings and the role of financial institutions in deposit mobilization.

25. Bortolani, Sergio, The Banking System of Niger, Cassa di Risparmio delle Provincie Lombarde, Milan, Italy, September 1971.

This monograph contains two major parts. Part I on the economy of Niger covers the land and its people, political history and form of government, general economic background and foreign economic relations. Part II discusses the banking system of Niger. This includes the West African Monetary Union, the Central Bank, legislation governing banking and credit, the structure of the banking system, banks and financial establishments and the promotion of saving.

Niger is one of the seven African states that belong to the West African Monetary Union and have a joint Central Bank. The other six members are Dahomey, Ivory Coast, Mauritania, Senegal, Togo, and Upper Volta. The West African Monetary Union was set up by the treaty of 12 May 1962. The participating states undertake to comply with the provisions governing the money issue, the pooling of reserves and the free circulation of money tokens within the union. The seven participant states have one single Central Bank, the Banque Centrale des Etats de l'Afrique de l'Quest.

The West African Monetary Union has as its main purpose to harmonize the law governing banking and credit in the seven member states. The law provides for two types of credit institutions, banks and financial institutes. Banks have full scope for all types of short, medium, and long-term operations, while financial institutes are barred accepting deposits. No bank or financial institute may operate in Niger without prior registration.

Niger has four banks and two financial institutes. The largest and oldest is the commercial bank, Banque Internationale pour l'Afrique Occidentale. Second is the development bank, Banque de Developpement de la Republique du Niger whose main purpose is to help finance the country's development plans. Third is the agricultural credit fund, Caisse Nationale de Credit Agricole, whose main purpose is agricultural lending. The last bank is the Credit du Niger that provides funds for housing and purchase of consumer durables. One of the financial institutes, Caisse de Prets aux Collectivites Locales, extends credit to local authorities for infrastructure improvement. The other financial institute, Societe Nigerienne de Credit Automobile is a private company that finances dealers of automobiles. The last section discusses savings in Niger and argues for increasing the efforts to mobilize more domestic savings.

26. Braverman, Avishay, Jeffrey S. Hammer and James A. Levinsohn, "Agricultural Pricing Policies in Senegal: Their Implications for Government Budget, Foreign Exchange and Regional Income Distribution," World Bank, Washington, D.C., September 1983, 55 p.

This paper has three purposes: (a) to assess the implications of alternative agricultural pricing policies in Senegal on Government budget, foreign exchange, real incomes disaggregated by region and production and consumption of important crops; (b) to apply the basic methodology developed for Korea to analyze agricultural pricing policies in a multi-market framework to a date scarce country such as Senegal; and (c) to begin the extension of the deterministic framework to include uncertainty.

The following policy scenarios are analyzed:

(a) Single Price Changes

1. Reductions in the price of groundnuts paid to farmers of 15% and 35%.

2. Increases in the price of rice of 10% and 50%.

3. Increases in the price of cotton of 50% and 118% (world price in 1981).

4. Increases in the price of fertilizer of 100%, 200% and 300% (factory prices).

(b) Multiple Price Changes

1. Reducing the price of fertilizer to 5 CFA/kg from 25 CFA/kg and lowering the price of groundnuts by 5 CFA to the farmers. Such a scheme has been proposed to pay for virtually free fertilizer by an added tax on groundnuts.

2. Reducing groundnut prices while increasing cotton or rice prices. These scenarios are intended to highlight the relative effects of these crops on export earning ability while keeping the government deficit approximately constant.

3. Simulating a devaluation by raising the price of traded commodities by 10% and 20%.

Chapter II presents a verbal description of the model. Chapter III provides the basic results. In chapter IV the authors conduct a sensitivity analysis of the model and Chapter V extends the basic model to incorporate random fluctuations in rainfall and international prices of the principal traded commodities. The conclusions are presented in Chapter VI.

On the demand side, four consumer goods - rice, groundnut oil, millet and maize - are modelled. On the supply side, the production of five commodities - groundnuts, rice, cotton, millet and maize - are studied. The country is divided into four regions as follows: (1) Sine Saloum, Diorbel, Louga and Thies, (2) Casamanca and Senegal Oriental, (3) Fleuve, and (4) Dakar. Each region is endowed with a fixed supply of land and labor. Outputs of products are deterministic functions of inputs and known prices.

The results for one scenario - the effect of a 15% decline in groundnut prices - are presented here. With a 15% decline in groundnut prices, the groundnut supply decreases 5.9% while the supply of substitute products, rice, cotton, millet, and maize all increase. Demand for rice and groundnut oil decreases and demand for maize and millet increases. Real incomes to farmers decrease in the groundnut basin and the South but increase in the Flueve and Dakar. Agricultural export earnings, the government deficit in agriculture and rice imports all decline. A detailed explanation of these results and for all the other scenarios is presented in the paper.

27. Carvin, Joe, "Senegal's Cooperative Movement: Seventy Years of Movement Without the Cooperatives," Dakar, Senegal, March 1981, 64 p.

This paper focuses on the cooperative movement in Senegal which has been the principal means for distributing rural credit in Senegal for over seventy years. The paper outlines the events leading up to the current high debt and default problem among farmers and analyzes the current government plan to solve the problem. The paper also points out the implications for USAID projects.

The paper outlines the cooperative movement before independence, the transition to independence, the independence years, 1960-1966, the ONCAD years from 1967-1980, and the restructuring period beginning in 1980.

The paper concludes that every cooperative movement since 1910 has been trying to address four basic needs of Senegalese farmers: (1) that for agricultural inputs, tools and fertilizers; (2) that for seed management; (3) that for food at the hungry time of year; and (4) to market the groundnut crop. What is most striking about the Senegalese case is that these needs have always been addressed by someone other than the farmer. Someone who is purportedly there to help him. This is the key to the successive failures. The administrative bureaucracies which have been superimposed on the cooperatives have always placed their own interests before those of the cooperatives, to the point where the cooperatives have become a simple appendix to the cooperative movement rather than vice versa. The government has recently taken some steps to restore farmer confidence in the cooperative movement but this will not be sufficient. The Senegalese government is going to have to rethink its whole rural development strategy.

28. Chike, Agu Cletus, "Rural Banking: A Strategy for Rural Development in Nigeria - An Appraisal," Savings and Development, Vol. VII, No. 1, 1983, pp. 45-61.

Policymakers, economists and politicians in most developing countries of Agrica are becoming increasingly aware of the fact that no country can boast of any real meaningful development without the development of the rural economy; and that in fact one of the obstacles to development in these countries is the problem of underdeveloped rural economy.

An identified obstacle to rural development is the problem of mobilization of resources. Mobilization of resources is crucial in achieving rapid economic "take-off" of the rural economy. A first step to resource mobilization for development purposes is the mobilization of financial resources. Rural banks are, therefore, relevant important financial institutions which are designed and expected to encourage and mobilize savings and also channel such savings into productive investments in the rural areas. This paper thus attempts to examine the programme of rural banking as a strategy for rural development through the mobilization of rural savings as a source of capital formation badly needed for the development of the rural economy in Nigeria.

The paper concludes that it is not enough to merely establish banks; concerted efforts must be made to see that they are actually involved in the provision of the needed credit and in the overall development of the rural economy. This can be achieved by a change of attitude on the part of the commercial banks and their willingness to operate effectively in the rural areas as rural banks, and also by the constant monitoring and necessary review of their activities by the Central Bank. Rural banking schemes have been implemented effectively in some developing countries such as Brazil where the "Brazilian Rural Credit Outpost" is in operation and India where a similar scheme goes by the name Regional Rural Banks. Nigeria can learn much from these countries.

29. Christensen, Cheryl and Larry Witucki, "Food Problems and Emerging Policy Responses in Sub-Saharan Africa," preliminary paper, International Economics Division, ERS, USDA, Washington, D.C., July 1982, 20 p.

This paper characterizes contemporary African food problems and their longer term implications, provides information on emerging policy responses, and identifies issues raised by these policies. The authors argue that the food problems tends to be more a situation of supply shortfall than excessive increases in demand. Although population growth has been high and demand also increased by rapid urbanization, aggregate food production has grown at rates well below those for Asia or Latin America. Several factors constrain supply including structure of production, natural environment, poor physical infrastructure, policies which penalize agriculture for the benefit of urban consumers, and government intervention in marketing.

Governmental response to these problems has been to raise producer prices, liberalize marketing practices, devalue exchange rates, and raise some consumer prices. Crucial remaining policy issues are limitations of price policy on affecting aggregate output, problems of marketing channels, balancing consumer and producer welfare, constraints on producing products to substitute for imports, research and technology needs, and implications for equity.

30. Christensen, Cheryl et al., Food Problems and Prospects in Sub-Saharan Africa: The Decade of the 1980s, Foreign Agricultural Research Report No. 166, USDA, Washington, D.C., August 1981, 293 pp.

The objective of this study was to conduct a comprehensive analysis of the current and future food situation in Africa. The study is concerned with declining per capita food production in Sub-Saharan Africa, its causes and consequences, and the prospects for increasing the availability of food over the next decade. Per capita calorie intake is below minimal nutritional standards. Demand for food imports is increasing at a time when grain prices are rising and many governments face acute balance of payments and foreign exchange problems. Projections based on alternative per capital income levels, producer price patterns, minimum calorie consumption targets and population growth show an import gap ranging from 11 to over 20 million metric tons of cereal equivalent.

The study suggests that much of the food balance problem lies on the supply side. Productivity has been low and growth has been primarily dependent on acreage increases. Most food production occurs in the subsistence sector, there is little use of commercial inputs and most labor is provided by people working with relatively simple hand tools which constrains area expansion. The natural environment also presents problems. Yields are variable reflecting adverse weather, pests and crop diseases. Many soils are fragile, losing organic matter and nutrients quickly if exposed or cultivated intensively. Knowledge of food production systems is judged to be spotty and has not led to development of new viable technological production packages. Environmental obstacles and labor scarcity make the search for viable technology difficult.

Part of the problem also lies with the structure of demand. Demand is high for wheat and rice, especially in urban areas, but both are either more difficult or more costly to produce than less preferred crops such as millet, sorghum, maize, pulses, roots and tubers. This implies that dietary preferences need to be shifted and local foods must be processed so they are more convenient for urban consumers. Furthermore, agriculture and its support system have historically been geared toward export crops with internal urban markets supplied through imports.

The authors conclude that the right mix of trade, marketing, price and storage policies could create improved incentives for farmers to produce more food in the short term. Structural changes in food production are needed, however, so the greater production of one commodity does not come solely at the expense of another. It is recognized that governments are constantly pressured in favor of cash crops which account for a large share of foreign exchange earnings. Incentive policies for farmers are needed along with government investments in agricultural research, extension services and input delivery systems.

31. Cleaver, Kevin M., "The Impact of Price and Exchange Rate Policies on Agriculture in Sub-Saharan Africa," World Bank Staff Working Paper Number 728, The World Bank, Washington, D.C., April 1985, 30 p.

The purposes of this paper are to review the available literature on the impact of price and exchange rate policies on agriculture in Sub-Saharan Africa. Secondly, an empirical analysis is undertaken using data for 31 Sub-Saharan African countries to test several of the common hypotheses concerning this policy impact. The countries analyzed are: Chad, Ethiopia, Mali, Malawi, Zaire, Uganda, Burundi, Upper Volta, Rwanda, Somalia, Tanzania, Guinea, Benin, Central African Republic, Sierra Leone, Madagascar, Niger, Sudan, Togo, Ghana, Kenya, Senegal, Lesotho, Liberia, Zambia, Nigeria, Zimbabwea, Cameroon, Botswana, Congo, and Ivory Coast.

The author specifies a regression equation with agricultural growth rates as a function of the nominal protection coefficient in the 31 countries. The results were statistically significant but the R^2 was quite low. Other independent variables were also investigated. These include average fertilizer use per hectare, changes in the barter terms of trade, population growth rate, degree of concentration of export earnings, adult literacy, share of public consumption in GDP and the degree of Government intervention in farm input supply.

The results of agricultural growth rates as a function of fertilizer use, adult literacy, terms of trade, and export concentration were not statistically significant. However, reductions in farm level price discrimination (nominal protection), share of government consumption in GDP, and population growth rates were positively related to agricultural growth rates and the degree of government involvement in the farm input supply industry was negatively related to the agricultural growth rate.

The findings tend to confirm the predominate view that in Sub-Saharan Africa, inappropriate price and exchange rate policy has a negative impact on agricultural production. However, the analysis suggests that these policies are not the most important factors affecting agricultural growth. Other factors such as Government involvement in farm input supply, population growth, and Government's ability to operate and maintain its agricultural investments are also important. Much of the variation in agricultural growth rates among African countries still cannot be explained. "Appropriate" price and exchange rate policies would have a relatively small impact on agricultural growth. There is no general thrust of policy reform appropriate to all African countries. The reason is that the depth of the policy problem differs considerably among countries, as do policy objectives and other constraints (land, water, markets, social, political, etc.) The policy package to remedy problems caused by poor price and exchange rate policy must therefore be adapted to each country. It must emphasize policies in addition to price and exchange rate reform.

32. Crawford, Eric W., "A Simulation Study of Constraints on Traditional Farming Systems in Northern Nigeria," MSU International Development Paper No. 2, Michigan State University, East Lansing, Michigan, 1982.

This study attempted to determine the economic constraints which affect the survival and income-earning ability of small farmer households living in ecological zones where climate and crop yields are highly variable. A stochastic simulation model of the farm household system is used to integrate production, consumption and investment activities. Emphasis is placed on examining the impact of stochastic variation in crop yields, investment returns and major consumption expenditures on the level, variability, and rate of growth of family income and consumption.

It was found that households with relatively unfavorable land/person ratios experienced several disadvantages compared to better endowed households. They experienced greater variability of year-end accumulated capital because of differences in cropping pattern which is a function of family size and resources. The poorly endowed households have a more abundant family labor supply relative to farm size and have more consumers and thus a higher subsistence grain consumption requirement. They select crop mixtures more productive of grain although labor intensive. Variance of grain yields is greater than for groundnuts so the variance in yield of this cropping pattern is greater than for better endowed households.

Poorly endowed households accumulate net capital at a slower rate than better endowed ones, and they are also more prone to financial stress. Grain purchases are greater, emergency borrowing is more frequent, and incomes are lower, are more variable and grow more slowly for poorly endowed households.

With improved technology, hard work and good management, poorly endowed households have the opportunity to earn sat.sfactory incomes and accumulate capital, although no more so than better endowed households. Cash-intensive improved technology places poor households at a disadvantage. Shortage of working capital, therefore, may constrain income growth by limiting ability to engage in higher-return enterprises.

A final section compares and contrasts the results of this research with results using other methodologies, and identifies additional research to be conducted.

33. Cuevas, Carlos E. and Douglas H. Graham, "Rationing Agricultural Credit in LDCs: The Role and Determinants of Transaction Costs for Borrowers," ESO 1178, Department of Agricultural Economics and Rural Sociology, The Ohio State University, paper prepared for the XIX International Conference of Agricultural Economists, Malaga, Spain, August 26-September 4, 1985, 6 p.

Agricultural credit programs in lesser developed countries (LDCs) frequently incorporate low interest rates to benefit small farmers. This paper investigates the role of transaction costs (in addition to interest rate charges) as a logical rationing mechanism in agricultural credit markets in LDCs that in effect creates unanticipated and undesired results among borrowers. Recent research in five LDCs suggest that the intended effect of credit policies to promote uniformly low interest rates to all borrowers is not attained in practice. Instead, a skewed, regressive incidence of total costs (interest rates plus transaction costs) on borrowers emerges. A more detailed study in one of these countries indicates that transaction costs as a percent of loan amount decrease with loan size, decline with increases in the interest rate (reflecting a "trade-off" relationship), are more significant for small than for a large loans, and are higher for private than for development bank loans at given loan sizes and interest rates. This trade-off (i.e., the negative elasticity between the interest rate and transaction costs) is larger for private banks than for the development bank, suggesting that private banks are more responsive and flexible in adjusting their loan procedures to a changing regulatory environment. Finally, contrary to conventional wisdom, an increase in the explicit interest rate on loans would have a progressive impact, since it would reduce transaction costs more for small than for large loans.

34. Cuevas, Carlos E. and Douglas H. Graham, "Credit-Allocation Programs and Intermediation Costs in an Agricultural Development Bank," ESO 1179, Department of Agricultural Economics and Rural Sociology, The Ohio State University, paper prepared for the XIX International Conference of Agricultural Economists, Malaga, Spain, August 26-September 4, 1985, 6 p.

International donors have strongly encouraged the creation of specialized credit institutions in the last decade to service the needs of agricultural development. These institutions have a portfolio highly concentrated in agriculture and further in medium to long-term loans, little if any deposit or savings services and an expensive infrastructure to service loan targeting requirements of donors. Analysis of the data from the National Agricultural Development Bank in Honduras show that, contrary to donor expectations, an increasing share of donor targeted funds for agriculture in the bank's liabilities has not led to an increased participation of agricultural loans in the total portfolio of the bank nor to an increase in the share of small sized loans in the agricultural portfolio. This must reflect the fungibility of finance.

At the same time, regression analysis performed on the development bank's cost function indicates that there is a significant lagged ratchet type effect of donor and central bank targeted funds on the intermediation costs of the bank. These derive from increased resources devoted to accounting, monitoring, record-keeping and reporting requirements of targeted credit programs. International donors and local government should seriously consider reducing their loan targeting policies in light of the limited portfolio impact and the significant cost increasing effects these policies have on financial intermediaries.

35. Delgado, Christopher L. and John W. Mellor, "A Structural View of Policy Issues in African Agricultural Development," American Journal of Agricultural Economics, Vol. 66, No. 5, December 1984, pp. 665-670.

This article argues that the impact of price and other policy changes will have less effect than assumed by the World Bank Report because of other problems. Included are the special problems of dual rural-urban economies of Africa, the unusually difficult physical environment, and the large role of governments if the necessary structural changes are to occur. The authors agree that prices need to be adjusted to international levels or above, but expect that aggregate supply will be highly inelastic unless accompanying structural changes occur.

The authors argue that rural-urban dualism exists because of the low productivity of the agricultural base, large capital inflows and political forces. The principal agricultural problem is how to deal with a difficult resource base in an environment where agricultural production costs are constantly pushed upward by factors outside the agricultural sector. The agricultural growth rate needs to be substantially increased through increasing the input intensity of African agriculture and the creation of rural infrastructure, improving agricultural research, and building institutional and human capacity for growth.

36. Eicher, Carl K., "Agricultural Research for African Development: Problems and Priorities for 1985-2000," Paper presented at a World Bank Conference on Research Priorities for Sub-Saharan Africa, Bellagio, February 25-March 1, 1985, 58 p.

This paper reviews previous conferences and reports on agricultural research priorities, the nature of the agrarian crisis in Africa and donor response, the evolution of agriculture following independence, and implications for a research agenda. The suggestions for research are divided into six major problem areas: applied research on sectoral/project design issues; agricultural research policy; agricultural production constraints; human capital; rural savings, agricultural credit and capital formation in agriculture; and the political economy of food security and agricultural policy.

Eicher concludes that the stock of on-shelf, farmer-tested, food crop technology is meager; that donors have stressed applied research at the expense of the basic sciences; that technical problems of African agriculture have been underestimated; that few systematic, long-term studies of production constraints have been conducted; that there has been a serious underinvestment in human capital to work in agriculture; that research on rural savings, credit and rural financial institutions is one of the most underdeveloped research areas in African agriculture; and that much more needs to be known about food security. He recommends that a key financial issue to be studied is the expansion of the rural tax base to help overcome the recurrent cost problem and provide financing for local investments.

37. Eicher, Carl K., "Facing Up to Africa's Food Crisis," Foreign Affairs, Vol. 61, No. 1, Fall 1982, pp. 157-174.

This popular article was written by Eicher to explain why Africa's food crisis is long-term in nature and has been building up for two decades. The paper presents a descriptive profile of African agriculture, discusses the problem of an underdeveloped data base, and analyzes recent food and population trends. The historical roots of poverty and neglect of agriculture are discussed along with some of the recent debates such as the role of agrarian capitalism versus socialism.

Eicher proposes policy directions for the 1980s and 1990s which include the process of formulating longer term approaches to the region's agriculture, phasing out or restructuring some of the crash food production projects, and scaling down the state bureaucracy and state control over private farmers and traders. He recommends careful food policy analysis on a case-by-case basis, linking food aid to policy reform, expanded research and training programs, and rural investments to address the hunger/malnutrition/poverty. He argues that the donors should support development of food security policies, financing of long-term investments, development of agricultural research capacity in Africa, and reevaluation of the cofinancing of projects and the role of foreign private investments. He concludes that a commitment should be made to a ten-to-twenty year effort to raise agricultural productivity or the African countries may become permanent food aid clients.

38. Eicher, Carl K., "International Technology Transfer and the African Farmer: Theory and Practice," Working Paper 3/84, Department of Land Management, University of Zimbabwe, May 1984, 34 p.

In this paper, Eicher examines international technology transfer as it relates to the need to reverse the downward trend in per capita food production in Africa. He believes that by the year 2000 there will be few areas in most African states where agricultural production can be increased by expanding area under cultivation. Therefore, agriculture will have to shift from land extensive farming systems to a science-based intensification of agricultural production.

This paper utilizes the three stages of technology transfer proposed by Hayami and Ruttan to analyze African agricultural experience. The discussion includes the colonial experience with oil palm, cotton, maize and the recent experience of the international research centers. The conclusions are that many experts were too optimistic about the impact of international technology transfer, that many centers have not been able to produce the optimistic breakthroughs envisioned, that too much emphasis has been placed on direct technology transfer versus developing local research capacity, and that the issue of regional mandate for the international research centers should be reexamined. Eicher advises that national research centers should not assume that the international centers will supply the technology appropriate to local needs.

39. Eicher, Carl K., "West Africa's Agrarian Crisis," Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, December 1983. 71, p.

This paper examines West Africa's agricultural performance within the African context, the cumulative forces leading to the agrarian crisis and the steps to meet it over the next 10-15 years. Special attention is devoted to the role of technical change because technology transfer in West Africa is misguided and unproductive and because sustained technology innovation is the sin qua non for conquering the food deficit problem. Section II compares West Africa's agricultural performance with other sub-regions since independence in 1960. Section III analyzes how the African states have responded to the economic crisis with crash food production programs, requests for special studies and urgent appeals for more aid. Section IV reviews the cumulative forces leading to West Africa's present agrarian crisis with emphasis on the post-independence period since 1960. Section V examines technical innovation within West Africa and imported technology from other countries. Section VI looks at the steps needed to meet the West African food crisis.

The author concludes that there has been little support among political leaders, intellectuals and donors for an agriculture-led development strategy which, by necessity, requires a consistent and sustained investment in agriculture in order to generate and to maintain a reliable food surplus, a precondition for economic development.

West Africa is at a crossroads. It has lost its ability to food its people; it is not performing the role that it inevitably must at this stage of West Africa's economic history; and it has to cope with the problem of feeding an "extra 100 million people" by the year 2000. West Africa has muddled through the 1960s and 1970s with a favorable agricultural base at independence and large amounts of foreign aid. A fundamental rethinking of the role of agriculture in national development is the starting point in the debate on food, agriculture and state policy toward agriculture in the coming decades. The reexamination of the fundamental agricultural strategies and policies must come from within West Africa.

40. Eicher, Carl K. and Doyle C. Baker, "Research on Agricultural Development in Sub-Saharan Africa: A Critical Survey," MSU International Development Paper No. 1, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, 1982, 335 p.

This comprehensive survey of literature on the rural economies of sub-Saharan Africa was prepared at the request of the American Association of Agricultural Economics to be published as part of its Survey of Agricultural Economics Literature. There were two goals in preparing the survey. The first was to present a critical review of the major theoretical and policy debates and empirical findings on the development of Africa's rural economies. The second was to identify the major research gaps and directions for the 1980s and 1990s.

The survey lists about 1,500 studies published since 1970. The analysis is grouped into the following sections: historical and theoretical perspectives; food and agricultural policy; smallholder farming; technical change; livestock; trade, marketing, credit, and consumption; migration, employment, and equity issues; and a final synthesis and research implications chapter.

The authors note that there has been relatively little study of rural financial markets in the region. Informal lenders appear to provide most of the loans, but are generally condemned for charging exorbitant interest rates. Most loans are used for consumption. Government credit institutions have been established to increase the supply of credit to farmers and to combat the high rates of moneylenders. The results have been disappointing because of high costs, poor loan recovery, poorly trained personnel and a concentration of loans among large farmers. Although it is recognized that low interest rates are counterproductive, few African countries have abandoned their policy of subsidizing interest rates. The lack of a profitable technical package for food crops and not the absence of credit is the overriding problem in many African countries.

The authors conclude that there has been a shift from macro to micro level studies once it was learned that the data base is shaky. Much research has emphasized competing development models based on neoclassical and political economy (radical) schools of thought. A challenge is to develop African models of development based on empirical research. It is further argued that social scientists should shift their emphasis from ex post studies of economic and social effects of technical change to working with technical scientists on constraints on food, cash crop, and livestock production and research on soil fertility, soil conservation, land use planning, reforestation and alternative sources of of energy for cooking. A long-term commitment is needed for work on Africa's problems of poverty, malnutrition and lagging food production.

41. Eicher, Carl K. and John M. Staatz, "Food Security Policy in Sub-Saharan Africa," paper presented at the XIX Conference of the International Association of Agricultural Economists, Malaga, Spain, August 25-September 5, 1985, 14 p.

This paper begins with a definition of food security, distinguishes between transitory and chronic food insecurity, and identifies short-run and long-run measures to improve a country's food security. The authors argue that neglect of the rural economy in many countries has been a major contributor to food insecurity. The cases of Senegal (food-deficit) and Zimbabwe (food exporter) are analyzed for their food security strategies.

Research on food security in Africa is hindered by lack of reliable data and the small numbers of African economists engaged in policy research. Four research priority areas are identified. They include the need for and impact of grain reserves, imports and food aid; the interaction of changes in institutions, technologies and policy on a county's food security; food consumption studies to determine the incidence and causes of chronic malnutrition and on the socioeconomic characteristics of the malnourished; and an examination of food strategy goals and the development of strategies and effective implementation plans. It is argued that increased project related aid is unlikely to solve African food security problems because of lack of absorptive capacity. Donors need to reconsider the nature of food insecurity and the types of programs and policies required to deal with it.

42. Gellar, Sheldon, "Circulaire 32 Revisited: Prospects for Revitalizing the Senegalese Cooperative Movement in the 1980s," Princeton University, Princeton, New Jersey, October 1983, 68 p.

This paper examines different aspects of cooperative policy during the 1980s, the role of the Cooperative Service, Regional Development Agencies and other state agencies in implementing cooperative policy and the main issues and problems confronting the cooperative movement since the abolition of ONCAD.

Cooperative policy during the 1980s marked a partial return to the cooperative philosophy and principles elaborated in the famous Circulaire 32 of May 21, 1962 which had been the doctrinal centerpiece of he Senegalese cooperative movement during the early 1960s. Three main themes formulated in Circulaire 32 were particularly important in influencing cooperative philosophy and policy during the 1980s: (1) the withering away of the state's tutelage over the cooperative movement as cooperatives became capable of managing their own affairs without state assistance; (2) the evolution of the cooperatives into multifunctional, multisectoral, development cooperatives; and (3) the vertical integration of the cooperative movement through local, regional, and national cooperative unions.

The paper concludes that since 1980, there have been several signs of he Senegalese government's serious commitment to rural reform and revitalizing the cooperative movement along the lines recommended in Circulaire 32. Despite these positive signs, efforts to implement a coherent cooperative policy have been hindered by several factors: (1) delays in passing legislation and application decrees needed to clarify the legal status of the cooperative movement and its constituent elements; (2) inter-service rivalries between the CS, SODEVA, and other state agencies concerning their respective spheres of responsibility in providing technical assistance, functional literacy programs, and cooperative management training to the rural populations; and (3) insufficient financial and logistical resources to implement programs properly.

Further progress towards revitalization of the cooperative movement will depend largely on these key factors: (1) restoration of the peasantry's confidence in the cooperative system; (2) an effective state rural credit and marketing system and pricing policies providing incentives for peasants to produce more; (3) resolution of current inter-service rivalries concerning their responsibilities towards the cooperative movement; (4) adequate financial and logistical support to carry out the functional literacy and coop management training programs needed to give peasants and local coop officials the skills to manage their own affairs; and (5) development of the capacity of the cooperative movement to generate its own capital for financing cooperative activities and reducing its current dependency on the state.

43. Gellar, Sheldon, "Rural Development Policy and Peasant Survival Strategies," Princeton University, Princeton, New Jersey, February 1984, 48 p.

This paper looks at Senegalese rural development policy from the perspective of Senegal's rural population. The paper argues that the statist policies of the past and the more market oriented policies now being advocated as corrective measures have tended to neglect the following factors: (1) the extent to which national policies and objectives are compatible with those desired by the Rural populations; (2) the nature of peasant survival strategies; (3) the complexity, diversity, and non-economic components of peasant decision-making units; (4) the impact of seasonality, drought cycles, and individual and collective social and religious obligations on peasant economic behavior; and (5) the importance of non-agricultural activities in peasant survival strategies.

The paper concludes that Senegalese planners, development officials, and intellectuals have debated the relative merits and weaknesses of "productionist" versus more holistic approaches to rural development. The peasants themselves have adapted more holistic approaches to development as reflected in sophisticated diversification strategies which have helped them to survive very difficult climatic conditions and declining terms of trade in agriculture. The lack of financial gain and high risk packages geared to one or two crops proposed by the Regional Development Agencies led the peasants to reject the productionist approach.

There has been a shift away from the productionist approach since the late 1970s with more attention given to peasant welfare concerns and diversification strategies. National planners are paying more attention to demands for labor-saving devices for women to liberate their time for more productive activities, well constructed programs to provide water for vegetable gardens in the dry season, income generating programs for youth, and improved health and education services to make rural life more palatable.

The traditional instruments of rural development policy--pricing policies, input subsidies, extension services, and state rural credit systems--have not worked very well in the past. Raising producer prices, eliminating input subsidies, streamlining extension services, and decentralizing state rural credit systems, while steps in the right direction, will not necessarily accomplish the objective of increasing crop production if these measures clash with other peasant priorities.

National rural development policies are more likely to succeed in winning peasant support if they are compatible with and complement peasant economic strategies. Since peasant strategies vary markedly because of regional, ethnic, and ecological differences and different priorities within the peasant household, national rural development policies should be flexible and attempt to serve different needs.

44. Gellar, Sheldon, "The Cooperative Movement and Senegalese Rural Development Policy, 1960-1980," Princeton University, Princeton, New Jersey, September 1983, 72 p.

This paper traces the evolution of the cooperative movement during the first two decades of independence. It examines the place of cooperatives within the broader framework of national rural development policy during three distinct periods: (1) The Big Push: 1960-62, (2) Consolidation and Reorientation: 1963-1966, and (3) The ONCAD Era: 1966-1980. The paper also attempts to identify the main causes behind the decline of the cooperative movement after a promising start. The paper presents a fairly extensive discussion of the cooperative movement in each of these periods.

This paper argues that Senegal never really had an authentic cooperative movement. That is to say that Senegalese peasants did not spontaneously decide to organize themselves into entities called cooperatives. The cooperative movement was initiated from above and superimposed on a wide range of peasant social structures wherever peanuts were produced.

The cooperatives were in reality a vehicle through which different groups and institutions accomplished different goals. The state used cooperatives to regulate the peanut economy, promote agricultural modernization programs, and extract surpluses from the rural economy. Politicians used the cooperatives to build political support by rewarding their followers and allies with easy access to credit. Rural notables and religious leaders used the cooperatives to reinforce their authority and enhance their prestige.

The peasantry for whom the cooperatives had been created tended to view the cooperatives primarily as a vehicle used by the state to collect peanuts rather than a peasant-controlled organization to promote their economic welfare. As long as the cooperatives provided useful services, the peasants supported it and when the cooperatives became a burden they tended to withdraw their support.

The cooperative movement in Senegal was never as all-encompassing an institution in the countryside as it appeared to be on paper. By 1980 there were more than 1800 peanut cooperatives but most were really little more than peanut collecting centers and distribution centers for seeds, fertilizers, and other farm inputs., Of the 400,000 members, it is not clear how many of them were actively involved in the management of the cooperatives. Only a tiny percentage of the nearly 500 non-peanut cooperatives in the country was active.

In 1980, the cooperative movement was in trouble for many of the same reasons which plagued cooperatives during the colonial and post-war era --widespread corruption, poor management, high levels of indebtedness, lack of peasant participation in cooperative governance, heavy-handed state intervention and control over the rural economy, and regulations not adopted to local realities. The dissolution of ONCAD (Office National de Cooperation et d'Assistance au Developpement) marked the end of an era and the beginning of a new phase in Senegalese rural development policy which gave high priority to the revitalization of the cooperative movement and a more active role for the cooperative service which had remained in the shadow of ONCAD and its predecessor since the early 1960s.

45. Gersovitz, Mark, "Agro-Industrial Processing and Agricultural Pricing Under Uncertainty: Senegalese Groundnuts," Princeton University, Princeton, New Jersey, April 1983, 50 p.

This paper investigates certain aspects of the choice of capacity for processing a crop, the determination of appropriate prices to be paid to producers of the crop and the interaction between these two decisions in an environment of uncertainty. A theoretical model is developed and is applied to the case of Senegalese groundnuts. The results indicate how the evaluation of this type of agro-industrial project can be operationalized and provide some benchmarks for Senegalese decisionmakers.

A model to maximize expected income from agricultural production of groundnuts and millet inclusive of returns to processing is developed to determine optimal decisions on processing capacity and agricultural pricing of groundnuts and millet. The above objective function is constrained by equations on the production of groundnuts and millet and the supplies of land and labor in production of each crop are fixed. The model incorporates the effect of weather variability on production of each crop and investment in processing capacity. Risk neutral producers are assumed for the model. Both crops trade on world markets at known prices. The model is then applied to Senegal.

The national yield of groundnuts as a function of rainfall for the period 1951 to 1980 is estimated. The mean yield is 0.821 tons per hectare with a standard deviation of 0.168 tons. Total crop is a product of yield and area planted in groundnuts. Area planted is estimated at 1150 thousand hectares. A small portion of this crop is not marketed and is subtracted from production.

The groundnut processing plant had a total fixed cost of 4,166 million FCFA for 200,000 tons of capacity in 1981. Fixed costs per ton are 20,830 FCFA and variable costs are 2,583 FCFA per ton, exclusive of taxes and costs of groundnuts.

One ton of groundnuts yields 0.34 tons of unrefined oil and 0.42 tons of cake. Using world prices CIF European ports and deducting transportation and processing costs a producer price of 7500 FCFA for groundnuts is derived. Using expected prices of oil, cake, groundnuts and millet the optimal processing capacity calculation shows an excess in processing capacity. However, a change in agricultural prices alters the optimal choice of processing capacity. Prices in Senegal are not consistent with an optimum, given capacity and the pessimistic assumptions about expected world prices. While millet prices appear approximately correct, groundnut prices seem low.

46. Gersovitz, Mark, "Aggregate Uncertainty in the Senegalese Economy," unpublished paper, Princeton University, September 1983, 17 p.

This paper provides evidence on various aspects of uncertainty facing the Senegalese economy. It documents the sources of uncertainty, their relative importance, their interrelationships, their indirect effects and some of the ways individuals and the government have responded to uncertainty. The author concluded that there is little scope for risk reduction through crop diversification since groundnuts and millet respond to rainfall in similar ways. There may be some scope for risk sharing within agriculture because crop yields outside the Groundnut Basin do not seem to be related to weather at Diourbel. The international economy does not seem to provide an automatic mechanism for risk sharing since rainfall and the terms of trade are independent rather than negatively correlated. Therefore, the terms of trade are an additional source of uncertainty that Senegal faces.

47. Glantz, Michael, (ed.). The Politics of Natural Disaster: The Case of the Sahel Drought, New York: Praeger Publishers, 1976.

The first part of this collection of research papers contains works by social scientists, while the second is made up of essays from the natural science disciplines. In the first essay, the editor presents an overview of disaster and human responses to disaster, listing nine fallacies in the conventional understanding of natural disasters. Hal Sheets and Roger Morris criticize the international relief effort in response to the Sahel drought, pointing to bureaucratic inertia, organizational failure and information inadequacies. This chapter is a summary of a long work by the same authors (Disaster in the Desert. Washington, D.C.: Carnegie Endowment for International Peace, 1974). Mohammed El-Khawas calls for a reassessment of international relief programs but is less critical of the principal donors, noting the inherent difficulties of disaster relief in the Sahel. In the fourth article, Laurie Wiseberg argues for increased attention to the social and political realities when designing relief and development assistance programs for the Sahel. Based on their experience with the relief effort in the Sahel, David Shear and Roy Stacy propose a long-term strategy for the development of the region. They call for programs aimed at bettering the life situation in the rural sector, use of resources for food production rather than export crops, stopping the deterioration of the physical and human resource base, and the improvement of administrative and management capability in the region. P. E. Lovejoy and S. Baier trace the history of human activity in the region where the Sahara desert and the savannah meet, noting great resilience of these areas in their recoveries from previous droughts. The seventh essay, by Randall Baker, deals with new technologies in range management and calls for rangeland planning based on ecological principles and a recognition of social factors.

Part II of this volume deals primarily with climatology, agriculture, rangeland and health. Derek Winstanley examines the historical climate patterns in the Sahel and predicts that there will be future droughts as a result of the high population growth rate. Norman MacLeod assumes that there has been a global climatic change, emphasizing the effects of atmospheric dust on rainfall in the Sahel. His models indicate that drought in the Sahel is self perpetuating and he calls for ecological management to reverse these trends. Matlock and Cockrum, on the other hand, do not believe that there has been a climatic change. They find that the existing agricultural production system is part of a vicious circle which would have led to food shortages eventually even in the absence of drought. They propose a planning framework based on systems analysis to escape from this vicious circle. Brian Norton notes the need for better information on vegetation and the forage production capacity of the Sahel in order to improve the management of desert grazing systems. H.N. Houerou reports on the main findings of ten different workshops, seminars and conferences on arid lands and rangeland problems. Health care systems in the Sahel and the impact of the drought on health are examined by Dr. Imperato, who notes that very little curative health care was available to nomads before the drought. By bringing large numbers of nomads together in refugee camps, he feels that the drought may have increased their exposure to and acceptance of modern health care. In the final essay, Glantz and Parton assess the potential and weather modification as a solution to drought. They conclude that weather modification as a solution will only be possible in the long run and improved land management is needed in the interim.

48. Gonzales-Vega, Claudio, "Arguments for Interest Rate Reform," Savings and Development, Vol. VI, No. 3, 1982, pp. 221-230.

Interest rates held below market levels are common in low-income countries (LICs) and have a variety of undesirable results: reduction in savings, capital formation, and the efficiency of investment; in farm credit programs they reduce small-producer access to productive growth and subsidize a few large producers. Special emphasis has recently been placed by researchers on the role of low interest rates. This paper attempts to re-examine the most important arguments on the level of interest rates in light of the experience of the past three decades and of new theoretical contributions.

There are several reasons why interest rates have received much attention: (a) interest rates are the most important relative price in a market economy; (b) interest rates have been the most frequently controlled price; and (c) interest rate controls have introd ced the most widespread distortions in all markets of the economy. Like other prices in a market system, interest rates are signals which influence decisions; interest rates affect more numerous, diverse, and important decisions than any other price.

The author concludes that except in a few unusual circumstances, the arguments that justify the low-interest-rate policies of the LICs are not valid. What is important is access to credit. The policies that have attempted to keep the price of credit low have modified access in undesirable ways, and have aggravated distortions that work against efficiency and welfare. These policies, therefore, have reduced the allocative efficiency of affected economies and their rates of growth of savings and investment; they have endangered the financial viability of institutional lenders and contributed to the concentration of income in the rural areas of LICs. The revision of these policies is a necessary, although not a sufficient condition for the progress of the rural poor in many low-income countries [2674].

49. Graham, Douglas H. and Carlos E. Cuevas, "Lending Costs and Rural Development in an LDC Setting: Is Cheap Credit Really Cheap?", Savings and Development, Vol. VIII, No. 2, 1984, pp. 105-113.

This study has emphasized the sharp contrasts in the structure of lending costs and overall organization between a public sector and a private sector bank servicing agriculture in a less developed country (Honduras). It is clear that the source of funds to these institutions plays a crucial role in determining the composition of their loan portfolio and the lending costs incurred by the banks. The private bank, relying more on locally mobilized deposits, is more cautious and efficient in evaluating and screening loans at the branch level and ,in general, delegates more decision-making to the branch level in managing their portfolio. The public sector bank is far more centralized and registers a heavy overlay of administrative costs associated with loan targeting criteria imposed by external sources of finance. Important here is the fact that external donor agencies impose far higher lending costs on the on-lending institutions than they probably realize. They impose unrealistically low administrative margins to service these costs which contributes to the financial unviability of these institutions. In the end, "cheap" credit programs are not cheap to the institutions required to on-lend these resources with serious consequences for their future as viable financial institutions or programs. International donors and local governments should either reconsider their low administrative cost margins policy or alter the costly features of their loan targeting criteria. Otherwise, they should accept the negative consequences of subsidizing permanently the financial institutions receiving the funds.

50. Haggblade, Steve, "Africanization From Below: The Evolution of Cameroon Savings Societies into Western-Style Banks," Rural Africana, Vol. 1, No.2, Fall 1979, New Series pp. 35-56.

This paper discusses the evolution of urban savings societies in Cameroon based on personal interviews with members of 21 different urban credit associations as well as with several scholars and official personnel involved in studying savings societies. The societies studied are rotating credit associations.

The paper concludes that Cameroonian savings associations provide an excellent base for the mobilization of local sources of financial capital. These societies have been flourishing in the urban areas often providing young Cameroonian businessmen with their sole source of start-up capital. Starting with what was originally a family institution, the entrepreneurs have been transforming these njangis into large and large integrated sophisticated credit institutions. At levels of up to 5 million francs ($20,000) these njangis have been substituting where the banks have not had the confidence to grant credits. Past this financial plateau, however, the njangis reach their level of incompetence, and the Cameroonian seeking really large-scale funding must address himself to the institutional banking system.

The transformation of the njangis has continued, nonetheless, past the 5 million franc-level as a group of Cameroonian businessmen formed just last year the newest and ultimate generation of urban njangis, an official chartered bank. This is the logical conclusion of the evolution and represents the beginning of the integration of the two credit systems, the njangis and the banks.

This integration is vital for Cameroon's attempt to build a "self-propelled" economy because this greater financial self-sufficiency will require that all available sources of local capital be channeled through some sort of institutional banking system with money creation and quality control mechanism. The government may be able to stimulate the integration process through the early association of the njangis with the chartered banks. Through the process of Africanization from below, they could form a hybrid, custom-fitted financial system with maximum potential for safe, efficient credit distribution [1962].

51. Ibru, M.C.O., "Problems of Agricultural Financing in Nigeria," paper presented at Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Ibadan, Nigeria, 27 April - 2 May, 1981, 8 p.

Agricultural policies in Nigeria have a dual objective, to increase agricultural production and to generate employment for rural areas. To achieve these objectives, it is necessary to support small farmers and, in the long run, also to assist medium and large-scale farming. Many efforts have been made in the past by the government to make credit easily and more abundantly available to farmers. However, a number of problems still persist. The author suggests that efforts should be directed to understand and solve these problems. The small farmers have limited access to banking facilities. The problems such as title to land, low creditworthiness, and high costs of lending to small farmers discourage the bankers from supplying farm loans. Special credit programs should be developed for small farmers. The farmers should also be provided with crop insurance facilities by the federal government [2489].

52. Igben, M.S., "The Moneylender and the Provision of Short-Term Agricultural Credit in the Peasant Economy of Western State of Nigeria," in Savings and Development, Vol. 1, No. 2, 1977, pp 89-96.

The paper presents a case for the moneylender operating in the peasant economy of Western Nigeria. The author discusses the type of socio-economic environment in which the moneylender and all other lenders operate. The author concludes that the present socio-economic setting in the rural area of Nigeria does not present a favorable market situation for the successful implementation of an agricultural credit scheme [1542].

53. Igben, M.S., "Determining Credit Worthiness of Peasant Farmers: Research Results in Nigeria," Savings and Development, Vol. 2, No. 1, 1978, pp. 3-19.

Author uses data from 850 farm interviews carried out in the middlebelt of Nigeria in 1975 to test ways of determining credit worthiness. Discriminant analysis is used to identify farm-household characteristics associated with farm productivity. The analysis showed that operational efficiency, investment, motivation of farm operator, and industry of operator explained most farm productivity. Author argues that credit worthiness ought to be based on farm productivity rather than the traditional four "C's" of character, capacity, capital and collateral [1729].

54. Ijere, M.O., "The Lessons of State Credit Institutions in Developing Countries - The Nigerian Experience," Agricultural Administration, Vol. 2, 1975, pp. 129-145.

This study is divided into three parts. The first part deals with the state of agriculture, and Fund for Agricultural and Industrial Development (FAID) in Nigeria. The second part is devoted to the study of organization and activities of FAID. The last part of the paper discusses the future of FAID and similar credit institutions in Nigeria [2170].

55. Ijere, M.O. and E.C. Igwe, "Farm Accounting Guide for Rural Farmers," University of Nigeria, Nsukka, May 1975, 43 p.

This study is divided into two parts. Part I deals with farm bookkeeping and helps the farmer to show the inputs over the year, the profit made during the year, and the value of farm business. Part II deals with farm budgeting as a tool in management and future planning [2169].

56. Ijere, M.O., "Credit Infusion as Small Farmer Development Strategy: The NTC-NSUKKA Project," The Developing Economies, XIV-1, March 1976, pp. 72-84.

This paper deals with a pilot project by the Nigerian Tobacco Company. An attempt is made to: a) identify the location of operation as well as cultivation and credit practices in the area; b) assess the ability of the project to meet the declared objectives; and c) put the spotlight on certain policy implications and lessons from the experience [2072].

57. Ilori, C.O., "Agricultural Credit Problems in Nigeria: A Case Study," FAO Agricultural Credit Case Studies, Working Paper No. 3, Food and Agriculture Organization, ca. 1974, 21 p.

This study presents a brief history of agricultural credit programs in Nigeria. Information on credit use among 95 randomly selected farmers is also presented. About 30 pecent of these farmers received loans from banks or cooperatives, about 28 percent got credit from merchants, 13 percent from moneylenders, and the remainder from friends and relatives. Author concludes that the supply of formal credit is too small in the area studied [1536].

58. International Fund for Agricultural Development, "Magbosi Integrated Agricultural Development Project, Mid-Term Evaluation Report," Rome, June 1984, 80 pages.

This project in Sierra Leone is the first rural development project funded by IFAD. It started in 1980. The objective is to improve the standard of living of 6,000 farm families through improved cultivation techniques on all farms and the development of swamplands through irrigation, drainage and land leveling. The project includes an extension system, seed multiplication, credit for seasonal and medium-term farm inputs, construction of rice mills and stores, drinking water, access roads, forestry trails and a pilot fish cultivation program.

The evaluation suggests that an efficient extension and input delivery system had been established, delays were encountered in the infrastructure improvements, swampland development was behind schedule, rice yield increases may be less than envisaged, and the large profits for Farmers' Associations may not materialize.

Data are presented on distribution of loans and estimated credit requirements for different size farms. No information is presented on the repayment of loans nor the costs of lending relative to the interest rate charged. Therefore, there is no way of judging if the credit component is a viable self-sustaining activity.

59. Ithaca International Limited, An Evaluation of the Agricultural Technical Packages for the Republic of Niger, Main Report, Ithaca, New York, December 1983, 198 pages.

This report summarizes the analysis of a joint American and Nigerian team that conducted an assessment of agricultural technical packages. The assessment was based on a review of documents and field interviews with farmers in the Niamey Department. The interviews included about 15 percent of the farmers who graduated from the Niamey Department Development Project (NDD) training centers. This report contains Chapter I with summary, conclusions and recommendations, Chapter II with an agronomic appraisal of technical packages, Chapter III with a financial and economic appraisal of the packages, and Chapter IV with an analysis of constraints to the adoption of viable packages. Seven annexes are included, and one annex containing detailed farm enterprise budgets is bound separately.

Technical packages were analyzed for six crops - millet, sorghum, cowpeas, groundnuts, maize and cotton - which accounted for more than 98 percent of the total area cropped in 1980. It was estimated that millet covers over 85 percent of the total physical area cropped. The procedure used in the study was to analyze the agronomic features of the package, to test the attractiveness of the package using a partial budgeting approach with financial and economic prices, and to analyze the packages within a whole farm approach. Conclusions were presented about agronomic aspects of the packages and specific components of them, about the financial and economic aspects of the packages, and about farmer constraints in adoption. Recommendations were made for the government and its research institutions, for the Niamey Department Development Project and for USAID.

The general conclusion of the report appears to be that there is additional scope for increasing farmer income through increased adoption of technical packages, but there are several uncertainties which suggest caution for policymakers and which may explain why farmers have not responded more quickly. One uncertainty concerns the information base on which the identification and evaluation of the technical packages is based. The limitations include: 1) most trials have been conducted on an experiment station basis rather than actual farm conditions, 2) most analysis is based on pure stands rather than intercropping as practiced by farmers, 3) emphasis has been placed on technical rather than economical/financial efficiency, 4) analysis of adoption has frequently assumed full rather than partial adoption, 5) partial budgeting of packages has been conducted rather than full farming systems analysis, which would account for interaction among packages and the off-farm activities of farm household, and 6) only limited adjustments have been made in the general packages to conform to the heterogeneity of regional resources, especially rainfall.

The uncertainties and risks that farmers face may also explain their behavior. Adoption of packages may increase farmer risks in at least four ways. Market risk goes up with adoption because farmers must market a larger share of their output. Production risk increases if they reduce their diverification of production to specialize in one or more crops, or reduce off-farm work. Financial risks increase because increased financial expenses for inputs must be met even if production fails. This is especially serious because a secure financial market does not exist. Finally, policy risk may increase because the financial attractiveness of some packages is due to government policies and subsidies. The economic analysis of packages frequently showed that traditional production methods were superior if economic rather than financial prices were assumed.

This report implies that much needs to be accomplished in both the agronomic and economic areas before rapid adoption of technical packages will likely occur or should be promoted. Serious environmental problems complicate the speed with which improved packages will likely emerge. Animal traction would appear to be a logical way to relax labor constraints but the analysis suggests that several factors may limit adoption of this technology. The negative experience of the animal traction project in Upper Volta suggests that caution must be used in promoting this and other types of technology before the full implications are understood.

60. Kessler, Denis and Pierre-Ontoine Ullmo, (eds.) Savings and Development, Proceedings of a Colloquium held in Paris, May 28-30, 1984, Ed. Economica, 1985, 376 p.

This book contains the papers presented at a colloquium to prepare for the United Nations Symposium on the Mobilization of Personal Savings in Developing Countries scheduled to be held in the Cameroon in December, 1984. Part I contains five papers which deal with the crucial necessity of mobilizing savings in developing countries. It reviews also the constraints on the implementation of such a policy. Alternative interest rate policies are envisaged in order to stimulate the collection of savings and their oreintation towards productive uses.

Part II is mainly devoted to the analysis of both peasant financial behavior and institutions in developing countries. Special emphasis is out on the role of the noninstitutional financial sector. Improvements of the financial and monetary structures of developing countries are considered in particular to the financing of the rural sector. A paper by Taffara Deguefe of Swazibank discusses financial institutions and rural development in Africa. In another paper, Hans Mittendorf discusses savings mobilization for agricultural and rural development in Africa with a description of the successful cases of the Savings Development Movement (SDM) in Zimbabwe, the Credit Union Movement in Lesotho, and rural cooperatives in Kenya.

The third part explores the possible consequences of the current international financial crisis on the growth rate of developing countries. It assesses the potential role of domestic savings and especially personal savings for overcoming the adverse effects of this crisis. A paper by Benoit of the U.N. argues that greater efforts are needed by governments to mobilize personal savings. Data are reported that show low levels of individual income tax receipts relative to aggregate tax revenues in most African countries with Niger reported at a low 6.1 percent.

The last chapter in the book presents the final report of the colloquium. This chapter summarizes why increased domestic savings are necessary for healthy growth of developing countries, and how it is possible to increase the volume of savings by vigorous action regarding the collection and allocation of savings and the rate of return to savers.

61. King, Roger, "Farmers Cooperatives in Northern Nigeria: A Case Study Used to Illustrate the Relationship Between Economic Development and Institutional Change," Department of Agricultural Economics, University of Reading, United Kingdom, September 1976, 305 p.

Chapter 5 of this study describes savings and credit activities in six villages in Nigeria. Most of the formal credit in these villages were provided by cooperaives. Author also discusses the economic implications of taboos on interest payments [1403].

62. King, Roger, "Experiences in the Administration of Cooperative Credit and Marketing Societies in Northern Nigeria," Agricultural Administration, (2), 1975, pp. 195-207.

Author examines how government policy can implement a cooperative credit scheme. He compares expected performance of cooperatives under the government plan and actual performance of existing cooperatives. The author concludes that credit cooperatives can achieve goals, but that present divergence of expectations is due to poor adaptation to local conditions. The author also feels that improved staff training and increasing user knowledge can help lessen this divergence [1825].

63. King, Roger, "Farmers' Cooperatives in Northern Nigeria: A Case Study Used to Illustrate the Relationship between Economic Development and Institutional Change," unpublished report, Department of Agricultural Economics, University of Reading, Reading, United Kingdom, September 1976, 305 p.

The study presents case studies of cooperatives in six villages in Northern Nigeria. The study showed that each village had radically different economic opportunities. Credit distribution was the main function of each of the six cooperatives. Author found very mixed results from credit use in the six villages [1825].

64. King, Roger, "Variations in Village Response to a Government Rural Development Programme in Northern Nigeria," unpublished paper, University of Reading, 1977, 18 p.

Author studies the village level impact of government cooperative credit. Six villages in Northern Nigeria were studied in detail between 1973 and 1975. The results of the study showed that the existing possessors of political and economic power within the villages were in no case displaced by new village cooperative institutions. Rather, the government relied on existing village leadership to insure existence of cooperatives. The distribution of the benefits arising from cooperative credit and its utilization was largely limited by membership of the cooperative which was chosen by village leaders [1769].

65. Kwarteng, Kwasi, "Banking and Finance in Africa: A Review Article," Savings and Development, Vol. VI, No. 3, 1982, pp. 247-263.

This paper reviews two recent publications, respectively, by Ali Issa Abdi, a Somali economist working with the International Monetary Fund, and Professor G. O. Nwankwo of the University of Lagos, Nigeria, now with the Central Bank of Nigeria. The two books deal with banking and financial structure in the initial stages of economic development. Abdi's book has as its purpose the evaluation of the commercial banking system in promoting saving and allocating investible funds efficiently in Kenya, Tanzania and Somalia in the first decade of independence from colonial rule in the early 1960s. Nwankwo's book offers a highly descriptive, though sometimes analytical account of the evolution and present status of the financial system of Nigeria.

This paper also builds on these two books to compare the extent of financial deepening and financial repression in Ghana, Nigeria, Kenya, Tanazania and Somalia.

The author concludes that these African countries have financially repressed banking and monetary systems. A reform of interest rate policies is clearly called for, but since such a reform should be accompanied by other structural and institutional reforms of the system, it may well not be appropriate to do the one without the other. The authors raise important questions about the role of the banking system in the development process, and give interesting recommendations for the improvement of the performance of the banking system. The solutions to the problems which they canvass are not beyond the competence of these African countries to bring about. Reading these books will certainly enhance one's knowledge of the financial system in East Africa and Nigeria.

66. Larson, Donald W. and Robert C. Vogel, "The Impact of Foreign Capital Transfers on Developing Country Agriculture, ESO 1143, Department of Agricultural Economics and Rural Sociology, The Ohio State University, paper prepared for the XIX International Conference of Agricultural Economists, Malaga, Spain, August 26-September 4, 1985, 6 p.

The impact of foreign capital transfers on developing country agriculture is examined for 13 major borrowers during the period 1973-82. Large foreign capital transfers permit over-valued exchange rates to develop or continue, and these penalize agriculture by reducing the incentives to export and by increasing the incentives to import. Results indicate that an increasing ratio of foreign debt to GNP is associated with an increasing ratio of agricultural imports to GNP. It is concluded that further borrowing by debt-burdened countries is unlikely to solve their basic problems unless accompanied by the appropriate economic policy changes necessary for long-term economic growth.

67. Larson, Donald W. and Robert C. Vogel, "Indirect Effects of Foreign Assistance on Rural Financial Markets in Less Developed Countries," ESO 1068, Department of Agricultural Economics and Rural Sociology, The Ohio State University, paper prepared for the North American Economics and Finance Association's (NAEFA) Annual Meeting, in collaboration with The Allied Social Science Association, San Francisco, California, December 28-30, 1983, 22 p.

Foreign assistance to transfer resources from developed countries to LDCs in the form of food aid or foreign exchange assistance to promote agricultural production and growth has very harmful, indirect effects on rural financial markets in recipient countries. These indirect effects reduce in a substantial way the creditworthiness and savings capacity of farmers and the ability of rural financial institutions to mobilize resources and recover loans. Transaction costs will be high because lending is risky and the size of deposits and loans is small.

68. Leite, Sergio Pereira, "Interest Rate Policies in West Africa," International Monetary Fund Staff Papers, Vol. 29, No. 1, March 1982, pp 48-76.

This paper considers basic criteria for the determination of appropriate interest rate levels in the context of selected West African countries. The countries have been chosen to provide varying institutional and policy frameworks, so that the discussion on interest rate policies should assume a sufficiently general tone. The countries are Ivory Coast and Senegal from the CFA franc area; three former British colonies that were part of the now defunct West African Currency Board - The Gambia, Ghana, and Sierra Leone; two former French colonies that have withdrawn from the DFA franc area Guinea and Mali; two former Portuguese colonies - Cape Verde and Guinea-Bissau; and Liberia, which is sui generis, since it uses a foreign currency, the U.S. dollar, as legal tender. All these countries are basically agricultural and, with the exception of Ivory Coast, have a per capita income of between SDR 107 and SDR 383.

In Section I of the paper the characteristics of the financial systems in West Africa are described; Section II discusses the interest rate policies pursued in those countries over the 1970s; and Section III contairs some general considerations relevant to devising appropriate interest rate policies, which are then applied to the interest rate structures in West Africa. The last section contains the conclusions of the paper.

Although definitive conclusions in any single West African country should await a specific study of that country, there are strong indications from the foregoing general overview of a sample of ten countries that the prevailing policies of low and stable interest rates have resulted in an inappropriate structure of interest rates. Both in market economies and in centrally planned economies, it is extremely important to avoid distortions of relative prices, if only to ensure the optimum allocation of resources. For this, the interest rate reform will have to constitute an important component of any package of policy measures aimed at improving the performance of these economies. First, it should be well understood that lower interest rates do not provide any incentive for investment unless domestic savings are forthcoming. Second, real interest rates can hardly remain at negative levels if unproductive hoarding of goods is to be avoided. Third, interest rates, after allowing for exchange rate expectations, should not be set without due consideration of interest rate differentials vis-a-vis world financial markets. Fourth, whenever public sector dependence on the financial market is due largely to fiscal imbalance, the servicing requirements of the government debt become a major stumbling block in the path of interest rate reform. Thus, interest rate liberalization will have to go hand in hand with an improvement in the financial position of the government. Only after its borrowing requirements are reduced to manageable levels will the government be able to engage in a meaningful interest rate policy. Fifth, in centrally planned economies, as well as in countries where the public sector is a majòr borrower, it is important that government projects funded by recourse to financial markets be made to pay interest rates commensurate with the social rates of return.

Interest rates will have to be managed so as to reduce the spread between borrowing and lending rates to "normal" levels while at the same time producing positive real interest rates.

Finally, external shocks as well as internal developments affect the conditions in which the economy is operating. This is particularly true in agricultural countries such as the West African countries, where climatic factors might be the main determinant of economic activity. Under those circumstances, and given that foreign interest rages also fluctuate considerably, it is desirable that interest rate management techniques be kept flexible.

69. Lele, Uma, "The Role of Risk in an Agriculturally Led Strategy in Sub-Saharan Africa," <u>American Journal of Agricultural Economics</u>, Vol. 66, No. 5, December 1984, pp 677-683.

The author argues that the debate in Africa over export versus food crop is not helpful in addressing national concerns about risk. The intervention of some governments and the uncertainties associated with some of them reinforce producer deviations from efficient resource allocation. The paper analyzes risk reducing policies pursued by governments including economic diversification, investment in irrigation, diversification in trade and food imports and food aid. The pursuit of import-substituting industrialization has resulted in under-investment in agriculture and agricultural foreign exchange requirements have not been met. Irrigation has emphasized a few expensive large-scale projects in support of crops to meet urban needs. Food imports and food aid are not yet reliable mechanisms to reduce the risk in food supplies.

Price related risks for producers and consumers result from variability in international terms of trade, domestic weather cycles, inadequate information and physical infrastructure and government pricing policies. A policy issue is how to get governments to reduce producer costs and consumer risks by improving the working of informal markets while helping them to share the weather-related and other international price risks which are beyond the control of producers. Attention is also needed to show how outside assistance can help bring about policy reform, given thé large role donors play in Africa.

70. Lewis, Barbara, "Political Variables and Food and Food Price Policy in West Africa," Department of Political Science, Livingston College, Rutgers University, New Brunswick, New Jersey, June, 1980.

This study examines a limited cross section of economists' writings pertaining to food and food price policy, evaluating their treatment of political variables influencing policy choice and implementation. This literature is all revelant to the production and distribution of food staples in West Africa, and particularly the role of the public sector. However, the subjects range broadly from debates concerning international food security systems and particular institutions in developed and less developed countries (e.g., marketing boards) to highly specific feasibility studies (e.g., rice production in a particular African state). The literature review is organized to proceed from the general to the specific, starting with the international system, moving to LDCs (Less Developed Countries), and then to the West African context. The literature discussed is thus grouped as follows:

I. International Food Crisis and LDCs

  A. "Basic Human Needs Approach"

  B. "National and International Grain Reserves"

  C. "Food for Development"

II. Food Marketing and Marketing Boards

  A. "Improving Food Marketing in Latin America"

  B. "Marketing Boards in Developed and Underdeveloped Countries"

III. Food Policy Studies of West Africa

  A. "Rice Production in West Africa"

  B. "Marketing, Price Policy and Storage of Food Grains in the Sahel"

IV. Free Market Solutions to West African Food Policy Problems

A. "Liberalization of marketing Structures"

Chapter One assesses the economists' arguments to determine the extent and adequacy of their political analysis. It finds that these policy critiques and recommendations generally fail to include any political considerations, although in some instances an "enlightened long term political rationality" is implied. Typically, these analyses overlook political forces highly likely to impinge upon and distort, or even block the implementation of the policies proposed.

Chapter Two discusses whether and how political science can inform a political feasibility analysis which would ensure more realizable project and policy design. Thus, Chapter Two necessarily includes a commentary and critique concerning the relevance of political scientists' work to the problem of policy design at hand. Five theses are extracted from the literature review in Chapter One.

These five theses fall into two groups: the first three concern specific aspects of the economic literature reviewed in Chapter One considered to be politically unsound, while the fourth and fifth focus on what an adequate political feasibility analysis would entail.

I. Designating a government's policy goals and prioritizi[illegible] those goals is empirically unsound.

II. Radical or extreme reformist redistributive development strategies too often ignore political survival requirements of LDC leaders.

III. Proposals for extreme liberalization of economic policy lack political feasibility in some contexts.

These first three theses all emphasize the need for policy and project design reflecting a far greater awareness and knowledge of policy-making processes in the specified political context. Sections IV and V put forth and elaborate the guidelines of such an analysis.

IV. Interest group analysis is the framework proposed for anticipating how the policy selection and implementation process will effect a given project or policy.

V. Institutional capacity regarding parastatals and public corporations as well as public administrative structures, must be incorporated into policy and project design.

This study concludes that political variables so significantly alter the selection and implementation of policy that policy and project design can neither ignore them nor relegate them to subsidiary status.

71. Litwiller, William F., "Participation in a Small Farmer Production Credit Program: A Case Study of the Cameroon Cooperative Credit Union League," paper presented at the AID/IFAD Experts Meeting on Small Farmer Credit, Rome, June 26-28, 1985, 9 pages.

The Cameroon Cooperative Credit Union League Ltd. (CamCCUL) was inaugurated in 1968 as an umbrella organization to provide services to and coordinate activities of the then struggling credit unions. In the following 17 years, the number of credit unions grew from 34 to 225, membership grew from 4,000 to over 50,000, member savings rose from 16 million FCFA to over 5 billion FCFA, and loans to members grew from 10 million FCFA in 1967 to 3 1/2 billion in 1984.

Phase I of the Small Farmer Production Credit Program (SFPC) started in 1975 with the goals of strengthening CamCCUL, increasing the capital of farmer member, improving technical assistance to farmers and development of member-owned rural credit unions with the ability to provide credit, assist with marketing, obtain supplies and disseminate information on agricultural innovations. Phase II of the project began in 1980 with major emphasis placed on productive lending. Marketing and input support were either dropped or curtailed, and efforts to improve cooperation with Cameroonian governmental agencies were increased. After three years, the SFPC program was established in 28 credit unions with nearly 11,000 members enrolled. Loans had been made to 710 farmers with an average size of about $230. Several credit union officials had been trained.

Two features of the program are particularly interesting. First, no government or donor funds were used. In fact, the level of projected CamCCUL loans to credit unions was not met because the deposits were higher than projected and were sufficient to cover lending. Second, interest rates were set at 12 percent per annum which falls between the 18 percent charged by commercial banks and 10.25 percent charged by a government sponsored scheme (FONADER).

72. Macedo, Jorge Braga de, "Small Countries in Monetary Unions: The Case of Senegal," Princeton University, Princeton, New Jersey, October 1983, 107 p.

In the present international monetary system, there is a large number of small countries who peg their exchange rates in some way, but few are members of exchange-rate unions whereby exchange rates are fixed union-wide. Even fewer establish a full monetary union, with a union-wide central bank. One of the closest examples is that provided by the African members of the "Franc Zone." This paper investigated the case of a small country (Senegal) in a monetary union. The nations of the Franc zone have two major monetary unions, each one administered by a separate central bank. The West African Monetary Union (WAMU) includes Benin, Ivory Coast, Niger, Senegal, Togo and Upper Volta, and is administered by the Central Bank of the West African States (BCEAO). The Central African Monetary Union (CAMU) includes Cameroon, Chad, Congo, and Gabon and is administered by the Bank of Central African States.

The model in Part A consists of standard aggregate demand and aggregate supply relationships, with trade and capital movements linking the national economies in a two country model. There are two identical large economies whose bilateral exchange rate floats freely and two identical small economies who decide on whether they will float or fix their exchange rate with one of the large countries, but not with the other and, when they fix their exchange rate with one of the large countries, they also transfer the monetary allocations to the union. A log-linear model of the interaction between "the two pairs of countries" is presented in Part A.

Part B describes the effective or "trade weighted" nominal and real exchange rates in the model, that is to say, neglecting the changes in the Franc-Ecu rate. Nominal and real effective exchange rates - using consumer prices -of Senegal and France are discussed in Part C. The exchange rate experience of Senegal is contrasted with that of five other African countries in Part D. These include a major partner of WAMU, Ivory Coast, and a major partner of CAMU, Cameroon. Two former members of the Franc zone, Madagascar and Mauritania are also included. The fifth country, Sudan, is included for comparison with an African country outside the French speaking world.

The conclusions show that the interaction between the exchange rate and relative price changes in Senegal and France confirmed the expected failure of purchasing power parity to stabilize the real exchange rate. Consumer price inflation in Senegal was insulated from French consumer price inflation. The relative prices in the two countries showed a negative correlation of about 1/2 over the sample period of 1958-1982. Senegal's stable nominal effective exchange rate was accompanied by an unstable real effective exchange rate.

The pattern of monetary allocation in WAMU shows that, against an increased money stock as a share of the French money stock, the share of Senegal declined substantially over the sample period, while the share of Ivory Coast increased. For a given monetary transfer from France to WAMU, money was allocated to Ivory Coast basically at the expense of Senegal and vice versa. Since Senegal typically ran a deficit, it lost money to Ivory Coast.

73. Masini, Mario, "Rural Finance Profiles: Mali," FAO-FINAFRICA, Working Group, April 1985, 48 p.

This paper summarizes the structure and evolution of the financial sector in Mali with emphasis on rural finance. A key development in the monetary sector was the abandonment by Mali of the franc zone in 1962 after independence and rejoining five years later. A new French-Malian agreement was established in 1977 resulting in reentry into the Union Monetaire Quest Africaine (UMOA) in June 1984. The new monetary control framework implies an overall ceiling on the growth of bank credit for non-seasonal needs and a global ceiling on credit extended by the Banque Centrale des Etats de l'Afrique de l'Quest (BCEAO). The ratio of financial variables to GNP show a decreasing trend since the mid-seventies. Th, decline in financial deepening would have been greater if access to foreign sources of credit would not have been semi-automatic as in the case of France's Operations Account for Mali.

Nominal interest rates in Mali have been stable in nominal terms, but loan rates have been mildly positive or negative in real terms and deposit rates have been negative in real terms. State companies and other parastatals have enjoyed credit on longer terms and lower than average interest rates than other borrowers.

The largest financial institution is the Banque de Developpement du Mali (BDM) which relies heavily on rediscounts for loanable funds. It provides a full range of bank services but is the exclusive banker of state companies and other parastatals which represented 80% of its loan portfolio in 1981 and 1982.

Overall, the banking system was characterized by an inability to steadily grow at a sustained rate in real terms. It is argued that this is due to institutions such as BDM utilizing captive funds such as rediscount facilities, special lines of credit from abroad and other special project funds that weaken incentives to adop effective savings mobilization policies. The shifting of Government deficits to unprofitable state companies negatively affected both borrowers and depositors.

Most agricultural credit reaches farmers through specialized development agencies (Operations de Developpement Rural-ODR's) for which there is no systematic data collection and information. The Compagnie Malienne de Developpement des Textiles (CMDT) has been a success. The main crop has been cotton. Credit has been given in kind and reimbursed at marketing time. The Office du Niger has been less successful in support of rice and sugar production.

The Banque Nationale de Developpement Agricole (BNDA) is a specialized agricultural lender that started operations in January 1982. By the end of 1983, it had reached a 5 percent share of the country's loan market. Rediscounting at the Central Bank has been eliminated but most funds are drawn from sources other than the private sector such as the Cotton Guarantee Funds. Households represent over 80 percent of the savings deposits. Loan recovery to date has been good. The management capability is not yet well developed in order to fulfill the large rural finance role planned for it.

The author concludes that most rural finance is still provided by ODR's; the BNDA is still too new for comprehensive evaluation; there is some duplication of functions and inefficient layering of financial institutions; the interest rate structure fails to provide adequate signals as to scarcities, opportunities for return, conditions of risk, and maturity preferences; and captive sources of funds valued at disequilibrium rates of interest force specialized lenders into excessively fast growth and distracts them from savings mobilization [3200].

74. Matlon, Peter J. and Dunstan S. Spencer, "Increasing Food Production in Sub-Saharan Africa: Environmental Problems and Inadequate Technological Solutions," American Journal of Agricultural Economics, Vol. 66, No. 5, December 1984, pp. 671-676.

This paper briefly surveys the evolving technical and social conditions of African agriculture and evaluates the current stock of technological innovations. The conclusion is that the new set of technologies is most often inappropriate, poorly responding to farmers' changing needs, and cannot bring about a sustainable response in aggregate supply.

The authors first discuss the environmental constraints of agriculture emphasizing the poor quality of many soils, short growing season and risk of drought. These conditions influenced the development of extensive farming systems. Rapid demographic growth is putting pressure on these systems. Because of the difficult physical conditions it has been more difficult in Africa than in other regions to utilize technologies developed elsewhere.

The technological interventions in the form of irrigation, land/water management, mechanization, soil fertility improvement and crop improvement are analyzed. Most of these interventions are currently being used by only a small proportion of the region's farmers, gains in productivity and farmer incomes have been limited, and considerable additional research is required to improve technology and adapt it to the heterogeneous conditions of the region. The authors recommend that research must be based on a greater understanding of farmers' objectives and resources, that more on-farm testing of new technology is required, and that research programs need to reflect a greater balance between long-term land base conservation and short-term production objectives.

75. Mauri, Arnaldo, "The Potential for Savings and Financial Innovation in Africa," Savings and Development, Vol. VII, No. 4, 1983, pp. 319-336.

This paper examines the successes of savings mobilization in Africa during the 1960s and the reforms made in the 1970s. Opportunities for financial innovation and institutional reform in the 1980s are also discussed.

The paper concludes that legitimate satisfaction at what has been done in the space of little more than a decade should not lead to efforts being slackened, but should act as a spur to greater achievements in the future. In the closing years of this century, Africa's fate lies in the balance; most of its population, now consisting of almost half a billion people, still lives in a state of severe deprivation, especially in rural areas.

More self-confidence on the part of the Africans themselves, and more efficient mobilization of the continent's vast untapped potential of natural resources, manpower and savings will be key factors in fostering its economic and social development. In this scenario, savings and credit banks can play a crucial role in mobilizing personal savings. A prime objective of Governments at the national level, and on a wider place at the international level, should be to encourage these financial institutions to multiply and strengthen. The cooperation that can be provided by European savings banks can be of great importance in this respect particularly as regard research,a technical assistance and, above all, personnel training.

76. Meyer, Richard L., "Deposit Mobilization for Rural Lending," paper prepared for FAO Third Technical Consultation on the Scheme for Agricultural Credit Development (SACRED), Rome, September 17-20, 1985, AGS:ACD/85/1, May 1985, 26 p.

This paper summarizes the principal arguments found in the literature for increasing rural deposit mobilization in developing countries as a source of funds for investment. National savings rates must be raised in many developing countries. Household savings are the most important single component of national savings and are largely channeled to investment through financial institutions, but they must be strengthened in order to more effectively mobilize rural savings. To accomplish this task, policy-makers must change priorities from pushing cheap credit for farmers to building viable rural financial institutions. A reorientation in priorities will facilitate making important policy changes such as the structure of administered interest rates.

It is argued that more deposit mobilization should improve rural savings and the performance of financial institutions. Several technical issues must be faced when institutions broaden the range of financial services they offer. Strong central banks and international assistance can facilitate the resolution of the challenges that will arise.

77. Miller, Leonard F., "Present and Potential Use of Credit by Small Maize and Rice Farmers in Western and Kwara States, Nigeria," Technical Report AETR/75.3, Department of Agricultural Economics and Extension, University of Ibadan, Ibadan, Nigeria, Mar. 1975, 54 p.

Describes various aspects of credit use among 399 farm households in Western Nigeria in 1973. Approximately three-quarters of the households used credit, but the amounts borrowed were quite small. Almost all of the credit came from informal sources. Author describes uses made of credit, terms of the loans, farmers' interests in obtaining more credit, and several policy implications of the research.

78. Miller, Leonard F. and Francis A. Okorie, "Esusu Clubs and Their Performance in Mobilizing Rural Savings and Extending Credit: Ohaozara Sub-Division, East Central State, Nigeria," Technical Report AETR76.1, Department of Agricultural Economics, University of Ibadan, Nigeria, January 1976, 39 p.

This report focuses on the organization, operation, and economic performance of Esusu clubs in one area of Each Central Nigeria. The role of such clubs with respect to promotion of rural savings and provision of credit is analyzed. Study is based on interviews with 125 individuals in 1975 [1449].

79. Miracle, Marvin P., Diane S. Miracle and Laurie Cohen, "Informal Savings Mobilization in Africa," <u>Economic Development and Cultural Change</u>, Vol. 28, No. 4, July 1980, pp. 701-724.

This paper reports on a study of mobilization of resources in the informal sector of African Economies. It focuses mainly on the savings accumulated through clubs or associations but also surveys the evidence on mobile (often ambulatory) bankers operating in African marketplaces. There is mounting evidence that such institutions are found far more widely in Africa then has heretofore been thought and that they commonly serve a broad spectrum of the African population, not just the poorer segments as seems to be the case for similar institutions in some areas outside of Africa. In Ethiopia they have been estimated to handle savings and loans equal to 8% or more of that country's national income.

This paper investigates fixed fund associations (similar to savings and loan associations), rotating savings and credit associations and mobile bankers as informal financial institutions in African countries.

In tropical Africa, at least, it is increasingly clear that savings in the informal sector typically are not zero as most versions of the dual economy model with its "subsistence" sector has long led planners and policy makers to assume. It is also clear that not only is there typically a capital market in the informal sector but that a great diversity of institutions operate within it, with eaormous intracountry and intraprovince variations being manifest in some instances. There may also be substantial variation in the evolutionary tendencies of such institutions, a question only beginning to receive attention.

For example, some observers suggest that mobile banks are a relatively new institution in Abidjan, one that is tending to replace rotating savings and credit associations in marketplaces, at least. In Nigeria, however, the earliest literature on mobile bankers goes back as far as that on savings and loan associations - to the work of Ajisafe published in 1924. Some local observers there suggest mobile bankers are an innovation of the last 50 years and have, to some extent, replaced savings and loan associations over that period. But at present we have far too little reliable data on either institution - or the nature of relevant aspects of socioeconomic change - to make a convincing a priori case for Nigeria or western tropical Africa generally.

There are, as we have seen, segments of the informal capital market, other than associations with rotating funds, which might similarly assimilate into the formal sector. The fixed-fund associations - sometimes called "banks" by the participants, in Cameroon, at least - and perhaps other groups or individuals, such as mobile bankers and moneylenders, potentially have some of the experience needed to operate in the formal secto:. As we have seen, these groups and individuals already know much better than formal sector banks the creditworthiness and financial needs of a segment of the population not now served, or very little served, by the formal sector. Given adequate incentives, many of them can be expected to enter the formal sector, just as the rotating-fund association that founded the Banque Unie de Credit in Cameroon did, and they should be able to provide credit to the segment of the market they already know, and perhaps others, at lower costs than the established formal sector banks [2223].

80. Mittendorf, H.J., "Mobilization of Personal Savings for Agricultural and Rural Development in Africa." Revised paper presented to the Third UN <u>International Symposium on the Mobilization of Personal Savings in Developing Countries, Yaounde, Cameroon</u>, 10-15 December 1984. The author is Chief, Marketing and Credit Service Agricultural Services Division, FAO, Rome, April, 1985.

The paper reviews aspects of personal savings mobilization in rural Africa, discusses critical issues and outlines elements for a constructive strategy. The paper also argues that savings mobilization as an integral part of rural development strategies has so far been neglected in the majority of African countries. It should be given much high priority in government policies and rural development projects in the future. The promotion of savings mobilization would not only facilitate financing of development but would contribute to the development of viable financial institutions, reduction of credit delivery and recovery costs, reduction of political patronage and more equitable income distribution.

One recommendation is that the role of central banks in savings mobilization as an integral part of agricultural credit and banking systems should be strengthened by the establishment of a rural finance department. Its functions would include:

- establishment of a monitoring and evaluation service, which regularly reviews the performance of the financial system, covering the institutional as well as the non-institutional sector.

- formulating a medium-term (3-5 year) Savings Mobilization Action Plan.

- promoting the appropriate training at different levels of policy making and implementation.

Apart from the extension of the branch network and the need to increase efficiency, more attention has to be given to the scope for linkages with the informal sector, in particular the informal farm groupings and savings clubs, the marketing systems for agricultural produce and the input delivery channels. There are many situations in Africa where a formal banking system which would provide convenient access to farmers is not yet viable at present levels of productivity. Therefore, other existing informal forms of organization, such as rural self-help groups, with a strong savings component as well as indigenous entrepreneurs requires more attention, analysis, testing and dissemination in Africa.

With the overall objective of increasing agricultural productivity and income, savings mobilization schemes in rural areas have to be closely linked with an effective agricultural credit and delivery system of farm inputs (fertilizers, seeds, tools), extension services and produce marketing systems. The regular supply of basic consumer goods to rural areas provides an indirect incentive to savings mobilization [3158].

81. Nto, O.A., "Problems of Agricultural Finance in Nigeria," paper presented at a Seminar on Agricultural Credit and Finance in Nigeria, held at the Conference Centre, University of Ibadan, Nigeria, 27 April - 1 May6, 1981, 16 p.

Author discusses three types of problems associated with financing of agriculture in Nigeria. These are: (1) problems associated with agriculture itself; (2) problems created by the farmers; and (3) other problems such as government policies, shortage of labor, and insufficient appraisal of agricultural projects. Some solutions to these problems are also suggested. The problems related to agriculture discussed in this study are the natural calamities, seasonality in farming, limited supply of land resources, and poor and inadequate infrastructure. The problems created by farmers are misconceptions about government credit programs, diversion in the use of agricultural loans, and mismanagement of loan use [2491].

82. Nwoko, Somayina G., "Recent Developments in Agricultural Loans to Farmers and New Frontiers for the 80s, "Paper presented at the Seminar on Agricultural Credit and Finance in Nigeria, held at the Conference Center, University of Ibadan, Ibadan, Nigeria, 27-30 April, 1981, 12 p.

Author critically analyzes the small-scale traditional farmer oriented loan practices of some Agricultural Development Projects in Nigeria with a view to determining their coverage and effectiveness. Specifically, lending practices of the Combe Agricultural Development Project; the Small Holder Oil Palm Project in Rivers State, and the defunct World Bank Rice Project in the Cross River State are discussed. The defects of these loan programs are pointed out and suggestions are forwarded on how modified Agricultural Development Project loan programs can be extended to small scale farmers [2504].

83. Ojo, M.O. and E. Palmer, "An Appraisal of the Role of the Public Sector in Agricultural Finance in Nigeria," paper presented at the National Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Ibadan, Nigeria, April 27-May 1, 1981, 22 p.

The public sector in Nigeria has intervened in four ways to increase the supply of agricultural credit. These interventions are regulation of institutional credit agencies, directing spending through annual budgets, encouraging foreign investments and mobilization of savings. A critical examination of the main results of public sector agricultural finance policies during the last decade reveals that some progress has been made, but very often achievements of policies have not exactly tallied with expectations. The credit policies have not served effectively to fulfill needs of small farmers. The author suggests the use of a package approach in credit schemes, expansion of branch network of financial institutions in rural areas, and modification of interest rate policies [2490].

84. Okonjo-Iweala, Ngozi, "Developing Financial Institutions in Nigeria's Rural Areas: Some Farm-Household Perspectives," Savings and Development, Vol. VI, No. 2, 1982, pp. 169-194.

This paper asks the questions: What are the opinions of rural Nigerian dwellers about the formal and informal financial institutions with which they come in contact? How can these opinions be usefully incorporated into efforts to develop modern financial institutions capable of attracting the patronage of the majority of people in the rural areas?

In order to answer these questions, the author presents survey data from five Nigerian villages. The data concern rural household heads (all farmers) opinions on the advantages and disadvantages of rural financial institutions with which they are familiar. Based on these opinions the author formulates guidelines for the development of financial institutions capable of attracting the patronage of large numbers of rural clients.

The paper consists of six sections. Section 2 places the discussion in context by summarizing the major ideas on the role of rural financial markets in the development process. Section 3 briefly describes the data collection process and gives some indication of the characteristics of the farm household heads interviewed particularly with regards to their participation in financial markets. The section also briefly outlines the important features and practices of the major formal and informal institutions with which the respondents in the sample were familiar. Section 4 presents respondents' opinions on the financial institutions and their practices. Based on section 4, section 5 develops guidelines for more attractive rural financial institutions and discusses problems with and suggestions for implementing these guidelines.

The author concludes that current rural financial institutions in Nigeria possess certain operational characteristics which serve to reduce their attractiveness to the rural population. As such, these institutions are bound to suffer drawbacks in their attempts to achieve the rural development goals set for them by policymakers. Based upon this, it would seem necessary that cognizance be taken of the opinions and desires of rural households in the development of financial institutions. Unless this approach of incorporating rural opinions and practices is carefully wedded to the strategy of building formal financial institutions in the rural areas, rural financial markets in general and rural financial institutions in particular promise to have little developmental impact in Nigeria's rural areas.

85. Okonjo, Ngozi Nkemdilim, "Indigenous Rural Savings and Credit Systems: A Case Study from Bendel State, Nigeria," unpublished M.S. thesis, Massachusetts Institute of Technology, May 7, 1978, 208 p.

The author analyzes the various sources and magnitude of saving and credit in rural financial markets in Ogwashi-Uku in Nigeria. She finds a significant saving capacity in rural areas. She also sstudied the effectiveness of alternative ways of combining the indigenous system wityh some formal mechanisms to improve saving mobilization in rural areas [1987].

86. Okonjo, Ngozi, "Mobilization of Savings in Nigeria's Rural Areas," Preliminary draft of unpublished paper, Massachusetts Institute of Technology, March 1979, 15 p.

This paper discusses the findings regarding savings mobilization efforts by rural people in Nigeria. The study finds a widespread interest in savings and in savings institutions among the majority of Nigeria's rural population. Suggestions have been made for the cooperation of indigenous institutions and the use of interest rate policies for mobilizing savings [2018].

87. Oludimu, Olufemi, "An Evaluation of the Financial Position of Cooperative Ventures in Ogun State, Nigeria," paper presented at the Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Nigeria, 27 April - 1 May, 1981, 16 p.

This paper evaluates and apprasies the financial position of cooperatives in Ogun State. The organizational structure of cooperatives in the state is discussed in Section II. In Section III, analysis of the operations of cooperative societies and an assessment of their achievements is made. Some suggestions for improvement are given in the concluding section. Low membership growth rate, lack of adequate capital, poor loan repayment, and inadequate volume of trade were the weaknesses of cooperative societies as recognized in this study. The author suggests increasing membership and provision of government assistance to the cooperatives [2511].

88. Oludimu, O.L. and Y.L. Fabiyi, "Providing and Utilizing Credit for Agricultural Development in Nigeria: A Case Study of the Cross River State," Savings and Development, Vol. VIII, No. 2, 1984, pp. 175-188.

This study identifies the various sources of credit available to farmers in the Cross River State of Nigeria, appraises the credit needs of the farmers and the uses to which credit is put, and assesses the role played by formal loan agencies in Cross River State with respect to credit delivery.

It concludes that:

(i) before farmers apply for loans, they need to be well acquainted with the technical know-how of projects they undertake and should be further enlightened on the modus operandi of credit institutions.

(ii) government should review, as a matter of urgency, the requirement that farmer borrower should procure a certificate of occupancy on land especially when the farmer requires "soft" loans.

(iii) since agricultural extension field offices appear to be an effective loan outlet for small farmers, government should consider the necessity for substantially increasing allocations to these stations for on-lending to farmers.

(iv) cooperative societies should be strengthened especially with regard to patronage, and their loan-awarding capacity greatly increased.

(v) banks should relax their rigid, security-oriented lending policy and decentralize some of their operations so as to be able to cope with greatly increased and rapidly increasing demands for agricultural credit.

89. Oludimu, Olufemi, "Cooperative Financing in Southwest Nigeria," Canadian Journal of Agricultural Economics, Vol. 31, No. 1, March 1983, pp. 111-118.

This paper evaluates the financial performance of cooperatives in southwestern Nigeria. Specific studies of the financial status and future viability of cooperatives in developing countries can help in diagnosing some of their weaknesses so that corrective measures can be taken.

The main types of cooperatives included in this study are engaged in produce marketing, thrift and credit, production and group farming, transport and saw-milling, fishing, butchering, and consumer retailing. The organizational set-up is a four-tier system with the mother union at the apex and primary societies at the base. Primary societies are affiliated to secondary societies, which are in turn affiliated to central societies. These three tiers are individually and collectively affiliated to the mother cooperative.

The paper concludes that cooperatives in the survey area are largely underfinanced, a condition based on the low degree of capital accumulation by some of the societies. For example, capital per member in produce marketing societies is only N7.82.

The study also reveals that the cooperatives suffer from a poor degree of loan repayment and an inadequate volume of trade. Except for consumer societies, most of the cooperatives recorded poor growth in sales and trade. In fact, over the period 19076-80, produce marketing societies actually suffered a general decline in sales.

Thus, it is recommended that the cooperatives should expand trading activities. They should handle the distribution of a greater proportion of members' produce, not only to provide orderly marketing as a social objective, but also to secure additional margins and generate more capital.

As business organizations, cooperatives must pursue activities which are economically motivated. In doing this, they have to adopt methods of operation which are as modern and efficient as can be provided by other business organizations. Basically, they have to adopt methods of cost control, conservative credit policy (both in terms of lending and borrowing), adequate planning, effective diversification, and good member and customer relations. Judicious management of their financial and human resources would make such activities easier to administer.

90. Oludimu, Olufemi, "The Training of Agricultural Credit Staff in Nigeria: An Insight," Savings and Development, Vol. VIII, No. 3, 1984, pp., 257-266.

The paper investigates the implications of training opportunities available to agricultural credit staff in Southern Nigeria. Primary data for the study were collected from a sample of one hundred agricultural credit staff drawn equally from banks and specialized agricultural credit corporations.

After a review of existing relevant literature, the paper discusses some of the socio-economic characteristics of the respondents. Most of the respondents were male, had some qualifications in agriculture and some work experience in agricultural credit administration. The modal income group for the respondents was found to be 4,000-5,000 naira per annum.

From the survey, ninety-five percent of the respondents were found to have undergone some form of training or another. Such training programmes seem to have enhanced the income-generating potentials of the trainees. Income receivable was found to be significantly correlated to training opportunities, among other factors.

In conclusion, it could be perceived that some of the benefits derivable from in-service training for agricultural credit staff include higher income for staff, introduction of modern management techniques to credit operations and, generally, better staff performance at work.

91. Oludimu, O.L. and Y.L. Fabiyi, "The Mobilisation of Credit for Agricultural Development in Anambra State, Nigeria," Savings and Development, Vol. VII, No. 4, 1983, pp. 379-392.

The main objectives of this paper are to assess the performance of farmers obtaining credit and to identify some of the constraints on the mobilisation of funds, especially "group loans", in the area of study. The study was conducted in the Anambra State of Nigeria. Data was collected from primary and secondary sources. Through the use of structured questionnaires, primary data was collected from farmers in five local government areas selected at random from the twenty-three local government areas in the state. Sampling two or three villages in each local government area selected, a total of seventy farmers were eventually interviewed. Secondary data was also collected from government officials connected with the administration of agriculture in Anambra State.

Results show that loans have not produced the expected favorable impact on farmer's income or on their products. Indeed, loans have been inadequate and untimely. This study recommends that adequate and timely credit be given to farmers to expand their scale of farm operation and to introduce supplementary enterprises which can increase labour utilization and promote a steady flow of income. A well-managed agricultural credit scheme can relieve the farmer of the "vicious cycle of poverty" by increasing farm productivity through the adoption of improved farm technology and by increasing income, savings and the degree of capital accumulation.

92. Oluwasanmi, H.A. and J.A. Alao, "The Role of Credit in the Transformation of Traditional Agriculture: The Western Nigerian Experience," in The Nigerian Journal of Economic and Social Studies, Vol. 7, No. 1, March 1965, p. 31-50.

Article presents a general discussion of credit and capital needs in traditional agriculture. A brief desc iption of agricultural credit institutions in Nigeria and an analysis of data from 22 local loan boards in Western Nigeria are also presented. The authors stress the problems of loan repayment and the large number of loans going to non-farmers. They suggest farm planning as a way of overcoming some of these problems [65].

93. Oni, S.A., "Credit in Rural Development: An Appraisal of the Supervised Credit Scheme for the Farm Settlers in Western Nigeria, Proceeding of the 1972 Annual Conference of the Nigerian Economic Society, University of Ibadan, Ibadan, Nigeria, April 1973, pp. 191-205.

Reviews history of the supervised credit scheme. Evaluates paper scheme in order to understand farm settlement finances and to see the framework for improvement of such programs. Author states that incorrect government policy has caused poor economic performance, high dropout rates and underutilization of resources for farmers involved in this credit scheme. Policy recommendations to correct these faults are put forth [1965].

94. Osuagwu, Harold G.O., "Agricultural Financing and Productivity," Department of Agricultural Economics, Univesity of Benin, Benin City, Benin, April 1981, 4 p.

This paper emphasizes the argument that financial investment alone does not ensure increased productivity without adequate consideration of the absorptive capacity of the agricultural sector. The absorptive capacity of the farm sector is represented by level of technology, labor force, land and seeds/breeds. The first part of the study explains the theoretical concept of absorptive capacity and productivity. The second part applies the theory to agricultural finance in Nigeria. Some policy measures for farm financing in order to achieve higher productivity are suggested in the last part [2488].

95. Osuntogun, Adeniyi, "A Statistical Study of Some Determinants of Membership Participation in the Western Nigeria Rural Credit Cooperatives," in Journal of Rural Economics and Development, Vol. 9, No. 1, Mar. 1974/75, p. 15-22.

This study focuses on the main determinants of member participation in rural credit cooperatives, based on 57 rural cooperative thrift and credit societies in Western Nigeria. Fieldwork was done in late 1972. Farmer attendance at cooperative meetings is used to measure membership participation. Participation is explained through regression analysis. The independent variables used were total loans made to members, total deposits in the society, and level of education of members. Author argues for more emphasis on savings mobilization to strengthen cooperatives [1218].

96. Osuntogun, C.A., "Credit as an Input in Agricultural Production: A Study of the Nature and Use of Credit by a Sample of Cocoa Producers in Some Villages of Western Nigeria," Proceedings of the Fifth International Cocoa Research Conference (held September 1975), Cocoa Research Institute of Nigeria, 1977, pp. 607-613

Reports on credit use among 120 cocoa farmers in two Western Nigerian villages in 1973-74. Cooperatives were found to be the most important source of credit for these farmes. Most of the loans were received in cash. Purchase of various farm inputs including labor and paying school fees were the main uses of credit. Author concludes that cooperatives can be an effective way of providing credit to small farmers [1731].

97. Osuntogun, Adeniyi," Some Aspects of Farm Level Credit Use of a Sample of Cooperative Farmers in Oyo, Ogun, and Ondo States of Nigeria." Paper presented at the Workshop on Rural Financial Markets and Institutions, Wye College, Wye, England, June 12-14, 1979, 17 p. Co-sponsored by Overseas Development Institute, 10-11 Percy Street, London W1P OJB and the Department of Agricultural Economics and Rural Sociology, The Ohio State University.

The author attempts to analyze farm level credit use of some cooperative farmers in Oyo, Ondo and Ogun States in Nigeria. He finds out that less than 40 percent of the total funds borrowed were used for farming. Land clearing was found to be a main use of borrowed funds spent on farming. The bulk of the loans used by farmers were provided by the cooperatives. The author has also suggested some ways of encouraging farmers to invest more in agriculture and how to make cooperative societies work more efficiently [1976].

98. Osuntogun, Ademi, Banwo Olufo-Kunbi and Yakubu L. Fabiyi, "The Nigerian Agricultural Credit Guarantee Scheme," Department of Agricultural Economics, Faculty of Agriculture, University of Ife, Ile-Ife, Nigeria, 1981, 9 p.

Paper analyzes the performance of the Nigerian Agricultural Credit Guarantee Scheme. The study is organized in six sections. In sections II and III, the historical backgrtound of modern banking in Nigeria and the role of the Central Bank are discussed, respectively. Sections IV and V present the analysis of the Agricultural Credit Guarantee Scheme and its performance, while section VI is devoted to the problems and prospects of the Agricultural Credit Guarantee Scheme [2352].

99. Osuntogun, Adeniyi, "Linking Credit with Marketing: A Quantitative Assessment of the Effect of Credit on the Marketing Operations of the Western Nigeria Cooperative Produce Marketing Unions," Eastern Africa Journal of Rural Development, Vol. 12, Nos. 1 and 2, 1979, pp. 107-118.

Study examines the relationship between the volume of produce handled and the loans made by the cooperative produce marketing unions in the western State of Nigeria. The data from 17 unions for 1970-71 marketing season were analyzed in the study. Simple regression was used as an analytical technique. The results of the study show the usefulness of linking credit with marketing. The author concludes that the marketing cooperatives can serve as an effective channel to supply production loans to small scale farmers [2486].

100. Osuntogun, Adeniyi, "Some Strategies and Guidelines in Establishing Credit Guarantee Schemes in African Countries," AFRACA Publication No. 1, African Regional Agricultural Credit Association, AFRACA Secretariat, Nairobi, Kenya, 1981, 33 p.

In this study, possible strategies for the establishment and development of sound credit guarantee schemes in developing countries are discussed against the background of the experience and performance of some existing schemes in West Africa. These schemes are the credit guarantee schemes of Ghana, Sierra Leone and Nigeria.

The author suggests that the credit guarantee schemes in low income countries should be designed with an objective to channel more institutional credit to the priority sectors. These schemes should be sponsored by governments or central banks. The types of loans covered under the guarantee scheme should be clearly specified. Similarly, the extent of guarantee coverage should be determined in accordance with priorities and objcetives or the scheme [2605].

101. Osuntogun, Adeniyi and Olufemi Oludimu, "Extending Agricultural Credit Through Public Institutions in Nigeria: A Comparative Study of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation," paper presented at the Seminar on Agricultural Credit and Finance in Nigeria, held at the University of Ibadan, Ibadan, Nigeria, 27 April - 2 May, 1981, 23 p.

Paper presents a comparative analysis of the operations of the Ondo State Agricultural Credit Corporation and the Ogun State Agricultural Development Corporation. Both primary and secondary data are utilized to assess the performance of the two institutions. After the review of literature, credit and administration by the institutions is discussed. Major constraints of credit institutions are also identified in this study. The results of the analysis reveal that though the Ondo State Agricultural Credit Corporation has shown relatively better performance than the Ogun State Agricultural Development Corporation, the overall performance of both institutions has not been encouraged [2505].

102. Ottenberg, Simon, "The Development of Credit Associations in the Changing Economy of the Afikpo Igbo," in Africa (Journal of the International African Institute), Vol. 38, No. 3, July 1968, p. 237-252.

The author, a social anthropologist, describes the structure and evolution of various credit groups in Eastern Nigeria. The main questions asked are why these groupings arose, and why they have taken their particular organizational forms. The author concludes that informal credit associations are formed because individuals have a growing need for money to take advantage of economic opportunities [977].

103. Owualah, S. I., "Competition for Bank Deposits in Nigeria," Savings and Development, Vol. VIII, No. 2, 1984, pp. 105-114.

In this paper, an attempt has been made to review the competition between banks for the available bankable deposits in the Nigerian economy during the past decade. From the available statistics, it is clear that over the years the volume of bank deposits has steadily grown. In each category of banking institutions, an upward growth in deposits is evident and the impression thus created is that of an active and desirable competition for deposits by banks. This is far from the reality as a number of imperfections impinging on the forces of competition were still evident in the decade under review.

One of such impediments is the extreme rigidity in interest rates paid to savers in return for parting with their hard-earned money. Although it must be admitted that the interest rate is exogeneously determined, the question that should be addressed is whether the continued maintenance of the present inflexible rate structure augurs well for the encouragement of the growth of bank deposits. The banks themselves have tended to take shelter in the safety of the "tunnel-like" structure of interest rates prescribed by the monetary authorities in Nigeria. A higher rate combined with the natural advantages of convenience and "one stop" banking should permit them to maintain if not improve their position in the competition for savings deposits.

Another issue that deserves mention here is the attitude of banks to the small savers. Banks have gradually abandoned their concern for the small depositors in the preceding decade and shifted emphasis to the large corporate account holders. For instance, from a minimum deposit of fifty kobo for a new savings account in the 1960s, the average minimum deposit required by most banks went up to 25 Naira. There are few banks willing to open a new account without either a thumping first deposit or a reference for the would-be depositor's probability and regularity of employment. The bank's lack of interest in small depositors has also been reflected in their banking hours which are inconvenient for most wage earners and in their service charges which are considered high for small depositors.

The conclusion that emerges from their apparent aloofness to the needs of small depositors is that the era of intense competition for the patronage of the small saver disappeared with the advent of the increased monetization of the petro-naira in the economy in the middle of the 1970s. It is therefore not saying the obvious that the increasing sophistication in the banking habits of most Nigerians rather than the concerted efforts of the banks to mobilize savings has accounted for the enlarged volume of bank deposits in the economy.

104. Pince, Gerad, "Interministerial Working Group on Agricultural Credit Reform in Senegal," unpublished AID report, March 1982, 39 pages.

This report summarizes the conclusions of a Working Group set up by a 1981 decree of the Prime Minister to study agricultural credit reform. Many years of drought and problems of the credit system resulted in heavy farmer indebtedness in 1981. In response, the government suspended the sale of implements on credit, wrote off seed and fertilizer debts, substantially increased producer prices and attempted to assess borrower debts. The causes of these problems were categorized as 1) those linked with the credit environment (technical packages, development agencies, cooperative network and supplies), and 2) those directly associated with credit programs.

Three principal recommendations came out of studies of the environment. They included the adaptation of extension to the diverification of rural production, giving producers more responsibilities in choosing their professional organization and structuring them in accordance with the services expected, and simplifying supply networks by setting up direct links between suppliers, producers and traders.

A wide variety of recommendations were made about the credit system. A credit fund was proposed to serve livestock, fisheries and rural trade, not limited just to agriculture. Savings mobilization was stress along with decentralization. Recommendations were also made about institutional framework, rules and procedures for providing credit and staffing needs. An estimate of financial resources for the program is reported.

105. Prod'homme, J., "Guinee. Rapport De Mission Sur Le Credit Agricole" (Guinea: Mission Report on Agricultural Credit," Agricultural Credit Consultant, Credit and Marketing Services, Agricultural Services Division, FAO, Rome, November 18-December 7, 1984, 35 p.

The objectives of this mission were: to analyze the existing banking system, to identify its problems, to propose solutions, and to recommend a scope of work for a task force that would suggest a reorientation of the institutional agricultural credit system. The analysis focused on the "National Bank for Agricultural Development" (BNDA), one of the eight existing banking institutions. Of these, only one (The Islamic Bank) has a private bank status.

The author identifies three types of problems in the BNDA:

(1) Structural problems, that consist of:

- total dependency from the Central Bank and thus from the government,
- weak financial structure, lack of own capital, and inadequate resources,
- Inadequate infrastructure (the bank does not have a single rural branch!)

- excessive number of employees, and inadequate administrative structure,
- balance sheet disequilibrium, and artificially "inflated" level of activity due to increasing amount of delinquent and non recoverable loan balances in the portfolio.

(2) Functional problems, primarily lack of accountability in decision-making, and diminished real credit activity concentrated on short-term loans. The bank operates essentially as a window of the central bank, that swallows and channels back to the government the few deposits that the bank is able to mobilize from the public.

(3) Problems related to the current economic situation. Demonetization of the economy, and currency overvaluation, that induce barter trade both domestically and internationally. Reduced savings due to increased poverty levels. Inappropriate land-tenure regime that reduces individual motivation to produce and grow.

Recommendations for immediate action are:

- improvement of the monetary system, pursuing a stable monetary policy, and a realistic-exchange rage policy.
- reform of the banking system, starting by clarifying the functions of the central bank (money creation and control vs. credit distribution). Give autonomy to the banks in the system, and revitalize the functioning of the banking system.
- Clean-up the delinquent portfolio of BNDA, and increase this bank's own capital.

Recommendations for long-term actions are:

Create a task force that would elaborate a set of propositions on:

- general credit policy and monetary control,
- development of a system of credit cooperatives,
- development of a network of bank branches,
- means of improving savings mobilization and allocation, looked upon as a key element in development,
- a guarantee system, based on a reform of the land-tenancy regime, and
- a program of human capital formation for the banking system [3179].

106. Raynaut, Claude, "Circulation Monetaire et Evolution des Structures Socio-Economiques Chez les Haoussas du Niger (Monetary Circulation and the Evolution of Socio-Economic Structures Among the Hausa People of Niger," University of Bordeauz II, Center of Studies and Ethnological Research, Paris, France, October 1975.

This paper identifies the general mechanisms of monetary circulation and its socio-economic effects on the rural community of the Hausa. The paper attempts to show that money is a privileged instrument which transmits the determining influences of a much larger economic sphere into the center of the African rural community. An observer of the modern Hausa will note the increasing monetization of the economy. The paper argues that the traditional family structure cannot survive the current economic situation. This growing monetization is manifested first in the fragmentation of the family unit. Increasing competition and individualism at the social and economic level is urbanizing the traditional Hausa culture. Collective organization is breaking down in favor of individual organization and ownership. Monetary transactions have become particularly important after the introduction of commercial crops (peanuts). Furthermore, money is playing a growing role in symbolic exchanges (gift giving, celebrations). However, money is passing through these rural societies but is not enriching it. The high velocity of money circulation emphasizes its role as a medium of exchange, rather than its function as a store of value.

107. Reno, Barbara Morrison, Jane Devall, Jonea Gurwitt, Virgina De Lancy and Chet Aeschliman, "Report of the Bilingual Regional Seminar, Dakar, Senegal, March 2-6, 1981: Increasing Women's Access to Credit Through Credit Unions in West Africa," Africa Cooperative Savings and Credit Association, Nairobi, Kenya, September 1981, 19 p.

This is a report of a seminar on increasing women's access to credit through credit unions in West Africa. The seminar was organized to achieve the following objectives: to compare experiences and to generate new ideas for strengthening the role of women in credit unions; form a coalition of leaders who will begin to work to integrate women into credit unions; make credit unions more responsive to women's needs; and provide training to participants to draw up country specific plans for follow-up action. The report presents details on participants and design and methodology of the seminar. The seminar results are also given [2496].

108. Stickley, Thomas and Edouard Tapsoba, "Loan Repayment Delinquency in the Eastern O.R.D. (Organisme Regional de Developpement) of Upper Volta." Paper presented at the Workshop on Rural Financial Markets and Institutions, Wye College, Wye, England, June 12-14, 1979, 14 p. Co-sponsored by Overseas Development Institute, 10-11 Percy Street, London W1P OJB and the Department of Agricultural Economics and Rural Sociology, The Ohio State University.

Based upon an empirical survey, the authors attempt to locate some of the main causes of loan delinquency among the farmers. They found that 37 percent of the cases of delinquency studied were fault of borrowers, 37 percent were due to fault of lending institutions, and 26 percent due to natural hazards. They argue that improvement in lending services could eliminate loan delinquency significantly [1974].

109. Stiglitz, J.E., "Agriculture and Risk: An Overview of Some Issues Facing the Senegalese Economy," unpublished paper, 30 pages.

The purpose of this paper is to develop a general framework for the analysis of several Senegalese policies and programs, to identify the kinds of information useful for a full assessment of programs, and to suggest tentative conclusions on the basis of the limited information presently available. Four methods of use by farmers to reduce risk are discussed: crop diversification, storage, saving and transferring risks. Senegalese policies which affect these four methods are discussed. The general conclusion is that it is not clear that farmer income has been significantly raised or risks reduced by these efforts. Private markets normally provide a variety of mechanisms to reduce and transfer risk. Government activities, such as restrictions on middlemen, may actually reduce the effectiveness of such mechanisms without providing effective governmental alternatives.

110. Tapsoba, Edouard K., "An Economic and Institutional Analysis of Formal and Informal Credit in Eastern Upper Volta: Empirical Evidence and Policy Implications," unpublished Ph.D. dissertation, Michigan State University, East Lansing, Michigan, 1981, 286 p.

This study analyzed a government formal credit program designed to encourage small farmers in the Eastern Region of Upper Volta to shift from hand hoe cultivation to animal traction (donkeys and oxen) cultivation in order to increase their food production and welfare. About 90 percent of the credit funds were provided by donors of which USAID was most important. The provision of credit and loan collection involves complex procedures of paperwork, orders and delivery of credit items and funds. The study was part of a broader micro-economic survey of 480 small farmers carried out by a multidisciplinary team over a 12-month period (April 30, 1978-May 1, 1979). Repeated interviews were used to collect input-output data on a weekly and monthly basis over 52 weeks. In addition, five sets of monthly and one-time credit questionnaires were administered. Both traditional farmers (TRAD) and farmers receiving loans for animal traction equipment (ANTAC farmers) were included in the survey.

The survey revealed that organizational and operational deficiencies of the credit program resulted in untimely delivery of credit in kind to ANTRAC farmers. While the nominal interest rate on loans was 5.5 percent, the real cost of borrowing for short-term borrowers was estimated to be over 12 percent. Only 2.3 percent of farmers perceived the low nominal interest to be an important advantage of the credit program. The average annual real cost of lending was estimated to be 25 percent of the total loan portfolio outstanding over the 1977-1980 period.

The impact of medium-term credit, as measured by the technical and economic effects of animal traction at the farm level, was modest. The survey revealed that acreage effects were higher only for donkey farmers, while yield effects were insignificant between ANTRAC and TRAD farmers except for minor crops. Animal traction farmers experienced severe cash flow problems because of the slow learning curve and high cash expenses associated with using animal traction equipment. But the results were affected by a drought suffered by donkey farmers during the survey year.

The repayment of loans in this credit program has been poor. The overall collection ratio declined from 42.7 percent in 1976-77 to 25 percent in 1979-80. Poor loan repayment was attributed to late delivery of credit items, unwillingness and indifference of some farmers toward loan repayment, death or sickness of farmers and draft animals, and poor yields.

The survey revealed that the major function of the informal credit system was to provide short-term (average of four months) cash and in-kind loans to farmers for social obligations, for household expenses, including the purchase of food, and for trading. Commercially oriented informal loans involved interest charges, while non-commercial loans played a role of mutual assistance among farmers and did not bear interest. The average interest rate for the commercial informal loans was 21 percent per month but village moneylenders also provided some non-commercial loans with no interest or with negative interest rates. The repayment rate for all cash borrowings in the informal system was 72.2 percent. The survey revealed that there was no widespread hoarding of cash and that farmers saved or invested their excess cash mostly in cattle.

The author recommended lowering the cost of ANTRAC to farmers by cost sharing among several users and by extending the period of repayment from five to seven years for oxen traction, and from four to five years for donkey traction with two year and one year grace periods, respectively. To improve loan repayment, repayment in kind should be considered and cash crops, such as cotton, should be promoted. Better coordination of credit operations and improvements in procedures and bookkeeping are required to improve the credit delivery system. A more effective training program for farmers should be established including functional literacy to help farmers understand credit policy. Finally, loan interest rates should be adjusted upwards to 12-13 percent to keep pace with inflation.

In summary, it appears that the project was failing to meet its objective in the early states of implementation. Animal traction did not seem to be making a significant contribution to the economic well-being of farmers. Animal traction had been adopted by relatively well-off farmers who could generate non-farm income to meet cash flow requirements and cope with the risks of animal traction. Institutional costs were high and the project was essentially unviable because of high costs and low loan recovery. The informal credit system supplied the needs of farmers but apparently provided few funds for improvement of agricultural technology. The project provides an important lesson in the difficulty of introducing new technology which requires major investment and new farming skills [2454].

A French language paper summarizing this study is available as "Credit Agricole et Credit Informel dans la Region Orientale de Haute-Volta: Analyse Economique, Performance Institutionnelle et Implications e Matiere de Politiqure de Developpement Agricole," MSU International Development Papers, Working Paper No. 2, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, 1982.

111. Teriba, O., "Rural Credit and Rural Development in Nigeria," Proceedings of the 1972 Annual Conference of the Nigerian Economic Society, University of Ibadan, Nigeria, April 1973, pp. 145-180.

This paper is discussed in five parts. Part one deals with the role of the rural secor in development of the Nigerian economy. The concept of rural credit and rural development is discussed in Part II. Rural credit sources, credit problems and remedies to rural credit problems are dealt with in part three and four. Part five presents the summary and conclusions of the discussion [2177].

112. Tuck, Laura, "Formal and Informal Financial Markets in Rural Senegal," unpublished paper, Princeton University, Princeton, New Jersey, October 1983, 130 pages.

Various types of financial services have always been available to Senegalese farmers from informal sources. However, policymakers have commonly charged that these services are not consistent with those needed for farmers to undertake intensive agricultural development. Policymakers further accuse informal creditors of being deleterious to farmers' well-being through their "exploitative manipulation and usurious charges." As a consequence of these perceptions about informal financial markets, formal credit programs have been implemented in an attempt to provide more appropriate services. These formal programs, however, have not been without their own set of deficiencies and problems.

This paper suggests that neither the formal nor the informal financial services have been entirely adequate to meet farmers' real needs. This is due to several factors. Both formal and informal markets have been constrained in the development of more useful services by the agro-economic, social and institutional environment in Senegal.

Chapter 2 and 3 of this paper provide a description of the financial services that have been available to farmers from the formal and informal sectors. In Chapter 4 an attempt is made to determine what kinds of financial services farmers need. Chapter 5 and 6 assess the extent to which these needs have been met by both informal and formal sources. a Chapter 7 presents conclusions and policy recommendations.

The author concludes that farmers' needs for financial services include access to credit for large-scale, medium and long-term investments for emergency purposes. They also include access to low-risk, liquid assets in order to save for annual recurrent expenditures. Offering these kinds o. services would undoubtedly be beneficial to farmers, but the costs of doing so must be fully considered.

Any program will entail real resource costs such as those for administration, infrastructure, capital, etc. Agricultural credit savings services are extremely expensive because their users are widely dispersed. Before a program is developed, it should be determined that the benefits rendered to the farmers are greater than these costs.

From a social point of view default is not a resource cost. It is merely a transfer of resources from the lender to the defaulter. It is possible that the government of Senegal tolerated high levels of default to achieve certain non-articulated policy objectives. These may have included (a) provision of cost-free insurance services to farmers (the poorer the harvest, the more debts were annulled), or (b) a simple transfer of resources to the farm sector. Both of these may be acceptable, even desirable, objectives. However, credit systems may not be the best way to achieve them for the following reasons:

1. A credit system is unfair because it benefits those who default at the expense of those who repay.

2. The system benefits only those who borrow. These tend to be the most well-to-do among the rural population, so it is regressive in an equity sense.

3. Resultant psychological effects can impair the ability of the lending program to recoup its loans in the future.

Furthermore, from the point of view of the lending institution, default constitutes a loss. If it assumes important propositions, it will prevent the institution from being self-sustaining. This will require continual budgetary support from the government to fill the deficits which can, in turn, have negative macroeconomic consequences.

A major effort should be made to develop savings programs. They are much less costly than credit programs and they avoid the problem of default altogether. Farmers already save resources in a variety of forms: currency, livestock, small durables, cereals and seeds, etc. These can be risky and inefficient ways to store wealth yet few superior alternatives exist.

It may be possible to develop local savings associations. They can be established at any organizational level (i.e., village groups such as the sections villageoises, cooperatives, Cooperative Unions, Producer Groups, Youth Groups, etc.). The most important criterion to decide which of these should be used, is that the farmer feels his deposits are safe with the organization.

Savings associations do not need to be implemented at the same organizational level across the country. Senegalese farmers are not homogenous in their financial needs. Savings associations need to be flexible enough to meet the needs of its members.

The group also must be large enough that it can amass sufficient funds to place them in a bank account where they can earn interest. However, each depositor should have his own, individual account with the organization. It is imperative that he get back exactly what he put in (plus interest) or he will have no interest in joining.

113. Vogel, Robert C. and Paul Burkett, "Deposit Opportunities for Small Savers," Industry Department, Financial Development Unit, The World Bank, Washington, D.C., 1985, 38 pages.

Recently there has been an upsurge of interest in programs to increase financial savings mobilization in developing countries, especially in the form of deposits held by non-wealthy and rural households. Subsidies and controls intended to promote savings mobilization by financial intermediaries (FIs), especially through the expansion of branch office networks, are being enacted in a growing number of developing countries and are on the financial policy agenda in many others. However, there has been little systematic analysis of the benefits and costs of such programs due to the prior focus of governments, international donors, and the financial development literature on credit rather than savings. The widespread failure of subsidized and heavily regulated rural credit programs to achieve the goals of increased investment and more equitable income distribution indicates the need for analysis of the benefits and costs of similar programs for savings mobilization.

Non-wealthy households benefit from improved deposit opportunities provided by safe, liquid, interest-bearing deposits that allow households to earn a positive income on their savings balances and avoid the erosion of these balances by inflation. This facilitates the accumulation and withdrawal of funds, both for lump sum investments in physical capital and for the funding of cash flows associated with consumption and the operating costs of capital goods. In addition, greater use of the financial system generates social efficiencies through the pooling of risks and information economies in the allocation of investment.

The cost effectiveness of deposit mobilization programs for small savers depends on the ability of FIs to innovate profitably, that is, to decrease the resource cost of providing deposits of a given yield and liquidity (accounting for risk). Savings innovations must be distinguished from the changes which FIs make to offset government regulations such as interest rate ceilings. Branch office expansions, or other changes in deposit services, may be innovative or non-innovative, depending on whether they entail: (1) inefficient regulatory avoidance in response to interest rate ceilings or other controls; or (2) actual decreases in the resource cost of providing deposits of reasonable yield, liquidity and risk to small savers.

One particular innovation which has been the object of very little analysis is reciprocity, that is, the practice of FIs lending to their depositors. The experience of postal savings banks, credit unions, and informal savings and credit associations suggests that the success of small saver programs may depend in part on whether FIs can profitably lend to the same clientele from which deposits are mobilized. The potential benefits of reciprocity include economies of scope, lower loan default rates, and increased savings mobilization. These benefits must be balanced against possible losses of specialization economies.

Although temporary subsidies and technical assistance to accelerate innovations in deposit mobilization may be justified in some cases, where specific imperfections or externalities can be identified, the most efficient means of improving deposit opportunities are the removal of regulatory constraints and the promotion of competition among FIs. This hypothesis is supported by the recent development of savings mobilization activities in India, Nigeria and Peru. These case studies also indicate the crucial role of financial innovation and reciprocity in determining the viability of branch office expansion as a tool for improving deposit opportunities in the rural and non-wealthy areas of developing countries.

114. Von Pischke, Dale W Adams and Gordon Donald (eds.), Rural Financial Markets in Developing Countries: Their Use and Abuse, The Johns Hopkins University Press, Baltimore, Maryland, June 1983, 441 p.

This collection of readings highlights facets of rural financial markets that have often been neglected in discussions of agricultural credit in developing countries. It moves beyond a narrow concern with the simple provision of credit to a broad consideration of the performance of rural financial markets and of ways to improve the quality and range of financial services for low-income farmers. It reflects new thinking on the design, administration, evaluation, and policy framework of rural finance and credit programs in developing countries.

This book brings together 50 essays on rural finance written by critics of the conventional views. It also includes important articles by writers who have not been deeply involved in the clash between the critical and traditional views, but whose observations have fueled the debate. Most of the readings are drawn from the literature in English that has appeared over the past 25 years. Problem identification and issue clarification are the major emphases of this collection. The thread that runs throughout is that traditional views of rural credit and finance are not very helpful in identifying measures to improve rural finance. Conventional attempts by governments and developers to use rural financial markets often result in abuse when the premises of intervention are false.

The articles are organized into five groups, subdivided by subject or problem. The first group of papers treats the role of finance in development with special attention to rural financial markets (RFMs). The second group deals with farms and rural nonfarm firms, treating the rural family as both a consuming household and production unit. Of special interest is household saving and borrowing behavior and the ways it relates to farm credit programs and financial market performance. The third and fourth groups of papers discuss the institutions that operate as lenders and savings mobilizers in rural areas. There are two major types: urban-based institutions operating in rural areas and local formal and informal rural financial institutions. Of special interest are the strengths and weaknesses of various institutions providing credit and other financial services to rural people. The fifth group of papers deals with national policies related to rural financial markets, with considerable attention to interest rate regulation and savings mobilization.

An attempt is made throughout to explore general considerations for analysis and policymaking: case studies are provided to complement essays in theory. Massive doses of prescription have been avoided, although alternatives are suggested.

115. Von Pischke, J. D. and John Rouse, "Selected Successful Experiences in Agricultural Credit and Rural Finance in Africa," Savings and Development. Vol. VII, No. 1, 1983, pp. 21-44.

Two of the most striking features of institutional credit in rural Africa since the 1960s are increases in government activity intended to provide more credit to farmers, and the size of the resource transfer provided by bilateral and multilateral development assistance agencies to support these national priorities. Many new credit schemes and institutions have been established, supported in various degrees by external donors seeking to increase the availability of credit to the rural poor.

Against these achievements, serious problems have also been created by the expansion of the institutional credit network delivering official funds to farmers. The most serious is the prevalence of low nominal interest rates which are negative in real terms because they are below rates of inflation. Loans at negative real rates transfer a subsidy to borrowers. This subsidy is usually received by farmers who are already better off -- the truly poor seldom qualify for institutional credit. Is equity seen in loan allocation data which suggests that the distribution of formal agricultural credit may be even more skewed than the distribution of farm incomes, farm assets, and land ownership?

A second serious problem is the widespread fact of default by borrowers, reflected in delinquency in loan repayment and in bad debt losses. In certain cases default has been so serious that affected credit agencies have had to go through financial reorganizations in order to survive. The default problem has been made more serious by the continued inability of some lenders to master the basics of financial reorganization in order to survive.

Six examples of partial success are examined. These are: (a) Caisse Nationale de Credit Agricole (Morocco), (b) Kenya's Cooperative Savings Scheme, (c) Credit Unions and Agricultural Lending in Cameroon, (d) Rural Savings Clubs in Zimbabwe, (e) Group Credit in Malawi, and (f) Rotating Savings and Credit Associations.

The lessons learned from these experiences of partial success are insufficient to yield firm conclusions, unless accompanied by review of the numerous failures in Africa (and elsewhere) of government and donor initiatives to establish self-sustaining farm credit institutions and systems. No full scale review is currently or ever likely to be available. On a preliminary basis, however, it seems that lessons from the numerous failures would be consistent with tentative conclusions based on these cases of partial success. These are that:

(a) Illiterate and semi-literate farmers having some contact with the cash economy are capable of devising informal means of financial intermediation which are socially useful as demonstrated by their popularity and ability to survive and prosper with changing economic and social conditions.

(b) Traditional rural institutions, such as the extended family and village, provide a basis for organizing financial services to participants in these institutions. Participation tends to ensure responsible performance.

(c) Systems of rural financial services which are relatively simple to operate can succeed in reaching large numbers of people without intensive outside assistance if they serve a real demand.

(d) Saving facilities have much greater potential than credit programs for reaching large numbers of rural people and for achieving rapid institutional growth.

(e) State-owned large scale specialized farm credit institutions can be successful in financial terms and in serving a broad clientele only under unusual conditions. These conditions include use of meaningful sanctions which can be easily and decisively exercised against borrowers in default, whether they be members of the rural elite or the rural poor; and interest rates sufficient to cover costs.

(f) Scale is important to the design of successful financial services for rural people. While loans which are too large easily jeopardize the integrity of rural credit institutions, loans and savings services aimed at the scale of typical or routine rural transaction sizes can attract many customers.

(g) Generally favorable economic circumstances in rural areas promote the establishment and survival of rural financial institutions.

(h) Voluntary mechanisms at both the borrower and the lender level are sufficient for the provision for the provision of useful financial services to rural people [2537].

116. Waterbury, John, "The Senegalese Peasant: How Good is Our Conventional Wisdom?", Princeton University, Princeton, New Jersey, November 1983, 60 p.

This paper discusses the public policies directed toward the Senegalese peasant in an effort to improve his lot. It questions the assumptions about peasant behavior on which these policies are based. The paper has a section on Senegalese peasants and markets, one on production and consumption units, a third on off-farm revenues, a fourth on the millet-rice-groundnut triangle and a fifth on whether or not the peasant is underworked or overexploited.

The paper concludes that the Senegalese peasant is fully if not happily integrated into the market system. He will only abandon it under the duress of severe price disincentives, and then only partially. Conversely, the peasant will sacrifice basic grain production only if groundnut prices are very high relative to rice, millet, edible oils, etc.

The carre (extended household) comprises diverse production interests that have seldom been targeted by policy makers and extension agents. Perhaps they should not be, for penetrating the carre to hand tailor programs to women, or sourgas (unmarried males) may be beyond the capacity of the regional development agency and socially disruptive.

Senegalese cultivators are increasingly part-time peasants whose most important revenue streams may come from non-farm sources. On the one hand, this means less responsiveness to agricultural price signals, on the other hand, it means that the extent of diversification and the standard of living of rural dwellers are greater than conventional accounting methods would indicate. The state would have many opportunities for promoting productive use of off-farm income for rural modernization.

Although food self-sufficiency is a policy objective, it is unlikely that with large increases in millet production plus high retail rice prices that millet would substitute completely for rice in rural diets or urban diets.

The Senegalese peasant is not overworked, but if the state seeks to capture his labor power it will have to be during the dry season at a time when the opportunity cost of farm labor is very high. Relieving certain kinds of labor demand on women such as hauling water, pounding millet, gathering firewood, etc. may allow them to reallocate labor to agriculture, collective vegetable plots, off-season diversification; in short, upgrading agricultural assets at a time when most able-bodied men are away from the carre.

The Senegalese groundnut peasant cannot consistently make ends meet. Failure to do so in one bad agricultural season may lock him into debt obligations that subvert his recovery in average or good agricultural season. Off-farm revenue mitigates this spiral but the present system does not provide him any sure means of escape from debt, distress sales, and usurious loans.

117. Wheeler, David O., "Sources of Stagnation in Sub-Saharan Africa: Summary of Findings," World Bank Office of Western Africa Region, World Bank, Washington D.C., July 1983, 45 p.

This paper investigates the sources of economic stagnation in Sub-Saharan Africa using a time series analysis for the 1960s and 1970s and a cross section analysis of 25 countries for the 1970s. Several policy variables, as well as a set of "environmental" variables which include climate, civil violence, export prices, and other exogenous factors are examined. The paper uses econometric analysis in an attempt to identify the relative importance of these policy and environmental variables.

In the time series analysis the dependent variable, annual median rate of growth in gross domestic product for the 1960s and 1970s, is a function of an index of world export prices available to African states and an index of world trade activity. The indexes used are the UNCTAD index of barter terms of trade and the IMF quantity index of imports for all the OECD countries. The IMF quantity index is also lagged for one period and two periods in the model. The OLS and GLS econometric results are presented. The major finding of the time series analysis is that movements in the terms of trade and international conditions of demand seem to have had a very powerful impact on the general economic growth performance of African states through the impact on foreign exchange earnings. The economic fortunes of most African states, including those deemed "best managed" by the international financial community, are heavily dependent on world trade cycles.

In the cross section analysis growth rates in gross domestic product for the 1970s are specified as a function of selected environmental and policy variables. The environmental variables are rainfall, civil violence, terms of trade, foreign aid, remittances from migrant workers, stability in export earnings, export diversification and mineral exporters. The policy variables are the real effective exchange rate, import allocation policy and balance in the trade accounts. The econommic logic for including each variable, the expected relationship with the dependent variable and the measure used for each variable are explained in the paper.

118. White, Cynthia, "Herd Reconstitution: The Role of Credit Among WoDaaBe Herders in Central Niger," Department of Social Anthropoligy, Free School Lane, University of Cambridge, Cambridge, United Kingdom.

This paper describes the need for a pastoral credit system among WoDaaBe herders in Central Niger. The research was carried out between 1980 and 1982 as part of a Niger Range and Livestock Project. The research included detailed budget and labor use studies on a sample of 15 WoDaaBe household production units.

The research points to three major potential areas for credit: (1) credit in the form of female cattle for herd reconstitution, in order to bring household herds up to the level where they can produce optimally; (2) credit in the form of young male cattle for growing out, so the Wodaabe can profit by the rapid increase in value of these animals at low cost up to 4 or 5 years; and (3) credit to offset major seasonal changes in cereal prices, by enabling the WoDaaBe to buy cereals after the harvest when cereal prices are low and stock them for the dry season.

119. World Bank, Sub-Saharan Africa: Progress Report on Development Prospects and Programs, Washington, D.C., 1983, 32 pages.

This report was prepared to review the situation in Africa two years after the World Bank report on Accelerated Development in Sub-Saharan Africa: An Agenda for Action. The nature of the immediate and continuing economic crisis in Africa is described as overwhelmingly a production crisis. It is a crisis which has arisen from a structure of prices and incomes which have provided inappropriate production incentives. In particular, they have provided inadequate incentives to agricultural producers and this has been aggravated by the development of costly and inefficient marketing systems for both inputs and outputs. Even within the basic constraints to development -- population growth, technological options, skill and health levels of the people, etc. -- very significant increases in production are considered possible.

There is now evidence that many African governments are more clearly aware of the need to improve the efficiency of resource use in general, but especially in the productive sectors of their economies. In the agricultural sector measures are being taken to improve the incentive framework and the working of markets. However, neither the number of countries in which changes are taking place nor the extent and speed with which they are being implemented are adequate to meet the crisis situation. On the contrary, if the deterioration in economic performance is to be halted and then reversed, the new directions of policy represent an important but modest beginning towards what is required.

Increased external assistance is now considered critical to this process. The early stages of policy reform which are being implemented in many countries need to be nurtured. This need for increased external support is reinforced by the dramatic fall in primary commodity prices since 1980. Attempts by African governments to implement policy reforms which will improve their balance of payments are being frustrated by deteriorated terms of trade. Policy reform by African governments will have to be phased over many years and its beneficial impact on the structures of the economies, on output, on the budget, and on the balance of payments, will only be forthcoming in subsequent years. Therefore, it is argued that external assistance must not only be markedly increased but also sustained over many years.

120. Zalla, Tom, "A Proposed Structure for the Medium Term Credit Program in the Eastern ORD of Upper Volta," Working Paper No. 10, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan, February 1976, 39 p.

The study reveiws existing medium term credit programs in the eastern ORD of Upper Volta. The arrears on loans have been rising. The author argues that specific and decisive action is required to correct the situation. While proposing new credit programs, he suggests improving the repaying capacity of borrowers. Credit through groups, in order to save the loan processing time cost and as a partial guarantee, has also been discussed in the article [1818].

121. Zalla, Tom, et al., "Institutional and Policy Constraints on Agricultural Production in Niger," unpublished paper, April 1984, 86 pages.

This paper contains an analysis of four areas of possible institutional and policy constraints on agricultural production not thoroughly covered in other projects or studies. They include input supply, subsidies and input pricing; agricultural credit; agricultural price and marketing policies; and cross border trade in grain and livestock. For each one of these topics, an assessment is presented of the current situation and problems along with suggestions for improvement.

This paper suggests that Niger has a wide variety of projects and programs which have the effect of a heavy hand of government in the pricing, supply and allocation of inputs and the price, transportation and trade of many commodities. The complexity and inefficiency of this overall system appears to produce several distortions and unintended impacts on the country's agriculture and consumers. Technical, economic and political factors undoubtedly affect the pattern and speed of reform.

The chapter on agricultural credit provides insights into the organizational and policy issues which contribute to the serious problems of the Caissee Nationale de Credit Agricala (CNCA). The authors describe CNCA as being essentially bankrupt because of disorganization and having little control over its lending decisions. Loan recovery is low but apparently due more to disorganization and lack of systematic collection procedures than to the unwillingness of farmers to repay. One important problem is that CNCA has had to rely on UNCC and ONAHA agents to help process loans and make collections. These agents tend to see their first responsibility as distributing inputs to farmers via the cooperatives and are more apt to tolerate financial losses and mismanagement if they feel farmers are being helped. Several recommendations are presented regarding the improvement of the agricultural credit delivery.

A surprising recommendation is the argument for credit subsidies for agricultural inputs as a way to stimulate agricultural technology. It appears that the primary issue is to raise productivity and reduce the risk of technology. Without such changes, subsidized credit will either leak to unintended uses because of fungibility, or will cause financial problems for farmers who actually use it to acquire unproductive technology. Furthermore, there appears to be little recognition of the impact on financial institution viability (the supply side) of such subsidies and the impact on the willingness of farmers to repay loans when they are led to believe they deserve subsidies.

122. Zulu, Justin B. and Saleh M. Nsouli, "Adjustment Programs in Africa: The Recent Experience," Occasional Paper No. 34, International Monetary Fund, April 1985, 37 p.

This study examined the design and implementation of adjustment programs supported by use of IMF resources in Africa during 1980-81. These programs emphasized both supply and demand-oriented policies. The pursuit of an independent credit policy was constrained by budgetary policy that dictated credit expansion to the government sector. A number of programs aimed specifically at reducing the crowding-out effect and thus provided for greater growth in credit to the private sector.

The implementation of programs showed mixed results. Only about one fifth of the countries reached the targeted level of economic growth. Nearly half reached their inflation targets. About a third attained targets related to the current account of the balance of payments. Slippages in implementation involved primarily the emergence of unforeseen developments, an inability to mobilize sufficient political support to implement the requisite adjustment measures, limitations in the administrative infrastructure, overly optimistic targets, and delays or shortfalls in net inflows of development assistance.

Case studies were presented of Somalia and Mali to show that differences in design of the programs and the adoption of policies to changing and unforeseen circumstances were critical to the progress made during the period of adjustment.

It was concluded that while IMF programs can contribute to putting a country on a sustained growth path, the real purpose of such financial assistance is to provide the necessary balance of payments support while the country takes steps to achieve a viable external sector position. Developmental assistance from other sources should aim at augmenting the resources of the country directly for capital formation.

AUTHOR AND ORGANIZATION INDEX

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