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Towards an Appropriate Financial System for Rural Transformation in Uganda

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Abstract: Rural transformation that embraces an agrarian revolution requires self-sustained capital accumulation plus people's participation in the development process. A system of people's rural development banks constitutes an appropriate financial system for rural transformation since it involves the above two conditions. A pilot project in one district of Uganda shows that a nationwide system of people's banks would almost double deposits, multiply the volume of credit several-fold, and deliver the necessary technical assistance to rural producers. Its considerable quantitative and qualitative impacts on the rural economy justify immediate attention to this vital rural development programme.

Introduction

Most African economies are dominated by the peasant mode of production in terms of income and employment creation, foreign exchange earnings, government revenues, and overall domestic resource mobilization. While those rural factors are overwhelmingly dependent on agricultural production, most countries are recording declines in per capita agricultural output and often in the volume of agricultural exports. Moreover, the expected diversification of the rural sector in general and the agricultural sector in particular has not taken place to any significant extent. That failure to transform the peasant society now stands as the key obstacle to social and economic progress.

Therefore, public policy intervention efforts by national governments and international agencies are being directed at that structural constraint, although without much success. While one recognizes that an integrated, dynamic approach is essential to this task, very few landmarks have been created in that respect, largely because the public policy delivery system as a whole is essentially a neocolonial, capitalist approach geared to the extraction of agricultural surplus without promoting autonomous forces of self-sustained social progress.

In Uganda, the excessive emphasis on traditional cash crops (coffee, cotton, tea, and tobacco) has left the agricultural sector undiversified and has reduced the rate of growth of food production. Furthermore, the pricing policies have been (for too long) biased against the peasant producers in order to ensure a surplus to the public sector with a tightening budgetary constraint. For example, the coffee farmer received 39 percent of coffee earnings in 1972/73, which fell to 15 percent at the height of the coffee boom in 1976/77, then rose to 52 percent in 1979/80, only to slide to 22 percent in 1983/84. Moreover, very little credit (if any at all) has been systematically directed to the peasants, leaving them to rely on traditional methods of production and exchange. Hence, the exploitation of the peasant sector continues without the foundations for rural transformation being laid.

This paper is based on the findings of past and current research in Uganda's rural sector and embraces methods of production and social differentiation, agricultural credit and multipurpose development programmes, and the role of the financial sector in motivating rural development. Its central message is that, if capital accumulation is the key to a self-sustained rural transformation, then an appropriate financial technology is a necessary though not sufficient condition for accelerated progress. Given the increasing recognition that people's participation in development is another necessary condition, a system of people's rural development banks within a framework of popular participation would constitute a sufficient condition for generating and propelling an endogenous self-reliant social progress in the rural sector.

Rural Transformation Process—A Policy Approach

The concept of rural transformation embraces the transformation of both the peasant mode of production and the rural way of life (or life-style). The peasant mode of production consists of several modes of employment (or "forms of labour") whose dynamics are bound to be contradictory in one way or another. Hence, one needs to start with the "contours" or "branches" of this contradiction tree in designing rural transformation policies. Table 1 gives an idea of the current class configuration in Uganda, showing significant differences between peri-urban areas in the fertile crescent around the capital (village A) and the poorer northern region (village B). Poor peasants, who combine peasant production with wage labour, are proportionately greater in the poorer northern areas than in the cash crop agro-zone. On the other hand, the proletarianization of

peasants is much greater in the latter areas, as is the proportion of better-off peasants. Rural development has, therefore, been associated with increasing differentiation and income inequalities.

Transformation of life-styles constitutes the second component of rural development. Life-styles, broadly conceived, embrace the various ways of using labour time and leisure time as well as consumption patterns of individuals. Life-styles are, therefore, determined by modes of employment, cultural activities (including education and religious observances), and the divergence between basic needs requirements and actual consumption patterns for food, shelter, energy, health care, mode of transport, and durable consumables. The mode of employment, however, is a general indicator of the people's life-styles, so that mobility between different modes implies a change in life-styles.

Dimensions of the Rural Transformation Process

The rural transformation process has four integrated dimensions, each representing a key force for change in modes of employment and life-styles: technological, cultural, organizational, and political.

Technological transformation embraces innovations in physical combinations of inputs in both production and consumption activities. Land and labour productivity are improved through new factor combinations to yield higher incomes and eventually greater wealth accumulation. While spontaneous development favours the few "haves," appropriate technological policy can improve access to methods by all social classes, including the "have-nots," thereby ensuring accelerated economic growth for all groups. Socially balanced growth and development is thereby possible when the Green Revolution and household technological innovations are directed at all modes of employment, taking into account the social conflicts among them.

Cultural transformation is necessary and sufficient for the perception and acceptance of most technological and nontechnological innovations. It embraces changes in the social learning processes at individual, family, and community levels. In the context of an atomistic peasant society, it involves an expanding share of the collective (as opposed to individual) learning processes, not only because peasants tend to evaluate new things through a process of collective consultation, but also because "security motive" or "risk aversion" is very strong among them. That tendency implies a need to transform a social consciousness through collective organizations that focus on the public interest or the attainment of private interest through collective participation and self-reliance, in line with the traditional modes of mutually advantageous social exchanges.

Table 1-Social Differentiation in Uganda, 1983/84

	Village A	Village B
	Percent	
Capitalists/landlords	*	0.4
Rich peasants	9.8	2.7
Middle peasants	37.0	12.0
Poor peasants	26.1	83.1
Land labourers	26.1	1.7
Total	100	100
	Number	
Sample households	140	706
Total households	902	706

[*Twelve households that would have fallen in this category in Village A were excluded as "urban" rather than "rural." Source: Mandani (1984a and 1984b).]

Organizational transformation is required to link families in a community together in a bond of collective self-reliance in facing the "unknown" world of new technologies, ideologies, and markets. Reorganization of economic institutions (e.g., extension service bureaucracies, marketing channels, and financial systems) constitutes springboards and cushions for a self-sustained, self-reliant process of rural development, which has been demonstrated by rapidly growing economies in both socialist and neocapitalist worlds like China and the Democratic People's Republic of Korea on the one hand and Japan and the Republic of Korea on the other (Khan, 1983; and Wignaraja, 1984).

Political transformation involves reorganization of the political processes in order to remove the exploitative relationships between the privileged and underprivileged and to harness the creative energies of the latter in the interests of development. Historical conditions will undoubtedly influence the choices among alternative approaches to democracy as well as their probability of success. As Wignaraja (1984) shows, vested interests often constitute effective constraints to all dimensions of rural transformation. The only way to ease those constraints is to increase the element of people's power through participation in the political process; hence the critical role of political reorganization.

The four dimensions of rural transformation are inevitably interdependent and should therefore be rationalized as components of an integrated whole. In pursuing technological transformation, the cultural, organizational, and political elements must be tailored to promoting new methods of production. On the other hand, cultural, organizational, and political transformations must be geared to specific programmes and projects embodying new techniques for accelerating economic growth. Growth is harmonized with equity through those reorganizations.

Integrated Rural Development Programmes

Given the interdependence of the dimensions of rural transformation, integrated rural development programmes should be the rule rather than the exception. Using broad-based rural development programmes centrally focused on agricultural development is the most appropriate approach in Uganda, given the prevailing socioeconomic structure. Furthermore, multipurpose programmes based on people's participation in a self-reliant learning process like the Food and Peace Project (Rutiba, 1984) promise positive benefits in terms of promoting cultural, organizational, and political transformations.

Rural development programmes may be integrated in two respects; either by sector or activity. Too much emphasis has been placed on the former at the expense of the latter in the African context. The sectoral integration approach focuses on the backward and forward linkages between agriculture and industry as the primary engine of technical change. Social and economic infrastructure embracing education, health, communication, and extension services is then regarded as a supportive superstructure. Integrated rural development programmes in that sense have (more often than not) met with failure simply because they neglect the other side of the coin.

The integration approach seeks by activity to promote efficient institutional coordination of the "bottom up" and "top down" approaches to planning, seeks to emphasize people as consumers rather than producers (life-style aspect), and seeks to promote efficient and effective coordination between specific objectives and policy instruments. Hence, the emphasis is on differentiation and modes of employment in order to design institutional and organizational reforms that aim at minimizing the impact of social conflicts on the transformation process.

Engines of Social Progress

Given the logic of the multidimensional transformation process and the need for integration of development efforts, development programmes should be geared towards two engines of social progress: the processes of capital accumulation and people's participation. Both, however, are deeply rooted in the structure of class formation and the eternal contradiction tree.

The choice of an appropriate financial system as a key to capital accumulation is, therefore, a principal aspect of transformation policy. However, while it tackles the problem of technical change, participation deals with nontechnical changes. Both are necessary ingredients, which (if possible) should be integrated to achieve the ultimate development objectives. Our conclusion from current research in the context of the cash crop peasant economy of Uganda is that a financial system of

people's rural development banks is the most appropriate institutional framework to integrate these dual forces of progress (Banugire, 1984).

The Choice of an Appropriate Financial System

The choice of an appropriate financial system should be guided by set systematic principles derived from the development objective function, the inherent characteristics of model financial institutions, and the optimal system of incentives to agricultural production. Given the goals of economic growth and equity, the target objectives of development are represented by the requirements of the rural transformation process. The financial system must, therefore, be geared towards promoting new methods of production aimed at increased land and labour productivity as well as at cultural, organizational, and political transformations. It should place more emphasis on integration by activity than by sector.

The principal characteristics of the financial system are represented by the comprehensive set of functions of the financial intermediation process as a coordinating system between surplus and deficit generating socioeconomic units. The functions include: deposit mobilization, credit mobilization, credit delivery, technical assistance, investment promotion or entrepreneurship, self-help promotion, and policy promotion. While the financial system consists of a set of intermediates, each of which specializes in a few of those roles, the rural sector in Uganda has been inadequately served in terms of the extent, efficiency, and effectiveness of all those roles. Hence, an innovative financial development policy is needed if the rural transformation process is to be generated and sustained.

Two alternative approaches to innovations may be considered (Bhatt, 1979). The conventional wisdom follows the price mechanism approach, which recommends interest rate reforms to eliminate market fragmentation due to the prevailing heavily subsidized interest rates for rural credit. That approach is often associated with a general liberalization of price and exchange rate policies. Such a conservative expansionist strategy has been followed in Uganda without substantial impact on rural production activities (Banugire, 1984). What is required is an innovative, progressive strategy based on true institutional and programme innovations.

The second alternative approach to financial innovation is based on the proposition that innovations are induced by high transaction costs, not the need to represent the true scarcity of capital. The core rural financial system must therefore be designed to reduce those costs below those implied by a liberalization programme. The crucial question is whether the existing financial institutions stretch their services to achieve that objective. While commercial banks are heavily constrained by commercial criteria, the subsidized development banks and public agricultural credit programmes are limited by high default rates, poor administration, and inability to link deposit mobilization with credit delivery. Hence, innovative institutional and programme reforms are needed.

The Inadequacies of the Existing Financial System

Deposit mobilization is effectively limited by reliance on commercial banks and the inability of the cooperative movement to play that role effectively. Even if commercial banks extended far enough into rural areas, their failure to link credit delivery to deposit mobilization constrains them in both respects. The cooperatives were conceived for the traditional peasants, not for modernizing production units, and have been constrained by size, poor and archaic management methods, and lack of a sense of direction.

Credit programmes have been administered by commercial banks (crop finance and agro-credit), cooperatives (cooperative credit), special projects (crop-specific credit for tea and tobacco), and development banks. The share of crop finance in total credit has been dominant, rising from 32 percent in 1980 to 65 percent in 1984. Production credit declined from 14 percent in 1980 to 3 percent in 1982 and less in 1984. True development credit has been negligible. While a new cooperative credit programme is being planned, the commercial banks cannot be expected to change their roles substantially.

The self-help promotion rule has been restricted to credit unions, which have been biased to provident purposes and unable to serve the transformation needs. Furthermore, their small scale nature and poor management does not suit them to play the policy promotion role without making drastic innovative reforms. The marketing cooperatives are being required to promote the deposit mobilization role and link it to cooperative credit programmes but are doing so within a bureaucratic "top down" approach without reorganizing their functions or changing their management practices.

The technical assistance role has been neglected by most institutions except crop-specific credit programmes, although linking credit to new methods of production is crucial. Where entrepreneurship is scarce, a need exists for the financial system to promote investment directly through equity capital.

The Strategy of a People's Rural Development Bank

The concept of a people's rural bank embraces a modern financial intermediary owned and managed by the rural people for the purpose of developing share capital, deposit mobilization by saving and time deposits, credit delivery by easy access to credit, technical assistance and investment promotion by the development division, the self-help role by people's participation in decision making, and the policy role by adherence to central bank regulations and supervision. The concept of management endows the bank with its people's character. It aims at integrating the multiple roles of the financial system, since the rural area is a microcosm of society at large. In that respect, it ensures integration both by sector and activity.

The operational principles of the people's banks seek to integrate and harmonize the deposit mobilization functions of commercial banks, the credit mobilization role of development banks and farm credit transfers, and the technical assistance role of government bureaucracies (which are typically inefficient) and commercial banks (which are typically unmotivated), thereby rationalizing the system of institutional incentives.

The organizational framework is based on a "bottom up" approach emphasizing popular participation while encouraging policy promotion of the "top down" approach. The basic village unit is the cell of 50-100 members whose cell committee plays promotional and educational roles. Several cells in a locality organize a branch banking office at the nearest trading centre, where banking services are provided at least once a week, preferably on a market day. The branch committee supervises a two or three person staff and shares responsibility for accounts and management. Only minimum cash balances are retained at the branch with the treasurer (preferably a priest of the nearest church); the remainder being ferried to the nearest commercial bank. The bank located at the district headquarters operates a number of such branches through its management committee, which is closely supervised by a board of directors. The board is elected by the governing council composed of the representatives of the cells, which is the supreme policy-making organ. Politicians are excluded from membership on the board but are allowed on the governing council whose standing committee of officials acts as internal auditors of the bank. The elections to all organs of the bank are strictly by secret ballot supervised by higher level representatives. These institutions, therefore, are designed to promote maximum participation in the decision-making process without interfering with efficient management.

Financial policy is designed to integrate the deposit mobilization role with the credit and investment roles. Lending policy is designed to minimize both lenders' and borrowers' transaction costs through effective technical assistance services and collective surveillance of the entire membership. While security is absolutely necessary, its form is variable, including personal and group guarantees, movable property accessible to the bank, and land and buildings without leasehold titles. The link between product marketing and loan recovery is also developed where feasible.

The Case of the People's Development Trust (Rukungiri Credit Union, Ltd)

Rescon Associates (1982) initiated the idea of establishing a people's bank in the Rukungiri District, which has a population of about 300,000. The pilot project covers about 150,000 persons in 25,000 households and is expected initially to generate 50 cells of 100 persons each (5,000 members), thereby reaching at least one-fifth of the households. While the enthusiasm of the population has been beyond expectations, the response of politicians has been mixed. Those who do not deliver the services to the people and exploit them are afraid of an organized force of the people, and some have attempted to sabotage the rise of the bank. Otherwise, the business people (traders, artisans, and small scale industrialists) have welcomed the idea and have convinced the local government chiefs.

The deposit mobilization potential is substantial, as indicated by preliminary results of the participatory action research programme. Given an average shareholding of 5,000 sh each (5 shares),

the share capital would reach 25 million sh. Assuming a 5:1 deposit-equity ratio, deposits of 125 million sh would be substantial, as compared to an estimated 500 million sh for the rural credit unions in the whole of Uganda. Once the district is covered, the deposits could easily reach 250 million sh, which is not much less than the deposits of the one commercial bank branch in the area. To the extent that those funds would be extra deposits, at least a 50 percent rise in deposits would be feasible, other things remaining the same.

Extending the experiment to the national level shows substantial deposit mobilization potential. Assuming Rukungiri to be an average district in terms of prosperity, the rural population can mobilize share capital of about 750 million sh (50 percent more than the Uganda Commercial Bank paid-up capital) and deposits in excess of 5,250 million sh, which are adequate to handle the crop finance requirements. The need for searching for an appropriate financial system is thereby amply justified.

Note

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References

- Banugire, F.R., "Reforming the Financial System: The Strategy of People's Rural Development Banks," *Innovations and Rural Development—The Case of Uganda*, Society for International Development, Uganda Chapter, Kampala, October 1984.
- Bhatt, V.V., "Interest Rates, Transaction Costs, and Financial Innovations," Savings and Development, Vol. III, No. 2, 1979.
- Khan, A.R., "Institutional and Organizational Framework for Egalitarian Agricultural Growth," in Maunder, A. and Ohkawa, K. (Eds.), *Growth and Equity in Agricultural Development*, Gower Publishing Co. Ltd, Aldershot, 1983, pp. 229-237.
- Mandani, M., "Analyzing the Agrarian Question: The Case of Buganda Village," Mawazo, Vol. 5, No. 3, June 1984a.
- Mandani, M., "Forms of Labour and Accumulation of Capital: Analysis of a Village in Lango, Northern Uganda," 3rd Mawazo Workshop, Kampala, 12-14 October 1984b.
- Rescon Associates, "A Pre-Feasibility Study for a Project to Establish a People's Rural Bank in Uganda," Kampala, 1982.
- Rutiba, E.G., "The Role of the Uganda Food and Peace Project in Rural Development," *Innovations and Rural Development—The Case of Uganda*, Society for International Development, Uganda Chapter, Kampala, October 1984.
- Wignaraja, P., "Some Further Reflections on 'Towards a Theory of Rural Development'," Society for International Development, Rome, 1984.

Discussion Opening-Ray D. Bollman

The stated objective of Chong, Osburn, and Price's paper is to consider the issues of "institutionalized fixed working hours and non-negligible labour market entry costs." They concluded that "... a strong negative interrelationship was found between off-farm employment and land use intensity." In the verbal presentation, however, Osburn stated that, in fact, the objective of the study was to study the trade-off between industrialization and food production in Korea. Industrialization will increase off-farm work. Will this decrease food production and (given a fixed land area) cause a reduction in land use intensity?

The model postulates that off-farm work is a function of land use intensity and land use intensity is a function of off-farm work. Why have the authors chosen this theoretical specification? In my view, off-farm work is a function of the demand for on-farm labour, demand for off-farm labour, and supply of labour. The demand for on-farm labour comes from maximizing a farm-level production function, which, when specified in terms of output per acre of land, is the authors' land use intensity function. What then is the utility of a separate land use intensity function? If the government has an independent objective of food self-sufficiency, perhaps an "efficient" solution from maximizing a production function is not required in any case. The authors seem to be thinking of efficiency, however, because they sometimes interchange "land use efficiency" (incorrectly, in my view) for "land use intensity."

What do prices mean in a cross-section analysis? The only price for which the authors have data is the daily farm wage rate, which is significant in the land use intensity equation. What causes the wage rate to vary across farms? If distance from an urban centre, then perhaps distance should be entered directly.

Given the difficulty of finding the curvilinearity of the age variable, I would suggest using "freeform" dummy variables (i.e., a separate dummy variable for each age group), especially since the authors do have sufficient degrees of freedom.

The paper suggests that a power tiller may be labour saving. In his verbal presentation, Osburn added that it may alternatively represent an income effect from increased farm earnings. If farmers do not own a tiller, can they obtain power tiller services via rental or custom work? If yes, then the ownership of a power tiller may represent a wealth effect.

Specialization should have a differing impact depending on whether one is specialized in seasonal crop production, dairy production, or extensive livestock production on rangeland.

Finally, I wonder why distance is not entered in the land use intensity equation given the underdevelopment of the rural transport system. Land use intensity should fall as the per unit cost of transport rises. In fact, off-farm work in the land use intensity equation may be largely a proxy for distance.

Discussion Opening-John Belknap

The three papers in this session show the wide diversity that exists in the study of rural development. They represent three different continents, three motivators of change—financial institutions, integrated development schemes, and off-farm employment—and they use three different methods of analysis. This lack of unity may indicate the lack of common objective, but an unidentified common ground exists: a concern for an improvement in the quality of life of farm families whether achieved through economic democratization, greater employment and income equity, or individual family utility maximization.

Chong et al.'s study relates the propensity to take off-farm employment to changes in land use intensity. The modelling of the equations creates difficulties. The probability function is referred to as probit, logistic, and logit. Although they are in the same family of regression techniques, the assumptions on distributions and the estimation methods differ. The final simultaneous model—equations (5) and (6)—is also variously referred to as structural and reduced. The 2SLS method adopted can avoid the need for lengthy reduced form equations, but the variables used for DOFF differ in the two equations; one is ln[DOFF/(1-DOFF)], but I suspect that what is desired is really $DOFF^*$. Does their 2SLS use MLE predicted values at stage 2 or OLS? Numerous variables appear correlated. The definition of DOFF (a minimum of 50 days of off-farm work by all adults during the year) appears arbitrary and gives equal weight to all adults, including the operator. The

model is developed in terms of the operator's decision making, but the dependent variable is all adults. A table of mean values for variables, especially if cross tabulated by the dependent variable *DOFF*, would ease the analysis.

The hypothesis (off-farm labour decreases land use intensity) assumes that off-farm labour comes from farm labour, not leisure, consumption, or underutilized farm labour. Do local labour market variables also affect the labour choice? In policy conclusions, if the families are maximizing their utility by the off-farm decisions, must one view a lesser land use intensity as being bad?

Sampaio's study has the form of a project evaluation, in that it examines the net change in production, employment, and income due to three IRDPs. Modelling this change is uneven because no consistent equation form is used. The difference equation for employment alternates between considering the vector x as land or product of that land area. Income change are disaggregated into three tenure classes so that income shares can be followed in the difference equation. The vector v (other goods and services) does not appear for large landowners. Whether a family could move between tenure classes is unclear, and I am not sure whether "sharecroppers" or "settlers" would include landless day labourers. Net production does not require an equation; the results are reported in Table 1. While many of the net changes are small or negative, to have other data presented as well would be informative (e.g., means and *t*-test values of significance for changes).

Whether the IRDPs had the same three objectives or were not weighted differently is not clear. As mentioned in the paper, the three project areas also "suffered" the effects of two national programmes: PROCAFÉ and PROÁLCOOL. Without controlling or at least estimating for these profound disturbances, we do not know the real project effects.

In the area of policy conclusions, whether the failure of the IRDPs was due to traditional class structure, modernizing capitalist intrusions, or other factors perhaps outside the scope of the projects is still unclear.

Banugire's paper is probably the most difficult because it is based on extensive personal experience, which is nonquantifiable. Banugire establishes a need for a change in modes of peasant production and in life style. His goal of "growth with equity" will be assisted by capital accumulation and people's participation in the recommended "people's rural development banks." Much of the prescription seems to involve the same role for credit unions and farm cooperatives. If these have failed in Uganda due to mismanagement and high transaction costs, how will the new banks succeed? If the cited pilot project (Rukungiri) encountered opposition from vested interests and politicians, how will the new banks fare? Granting that the new banks could be established, will the low level of peasant income generate enough deposits for the credit needs? And where innovative change in the mode of production is required to increase land and labour productivity, how will bank financing be directed towards that type of crop production? Financial institutions fail in rural Uganda from either lack of interest or lack of organizational ability. That people's banks could overcome those same obstacles is asking too much.

In summary, these three papers illustrate the divergence of questions, methods, and solutions offered in the search for an improved living standard within the scope of rural development.

General Discussion - D.A.G. Green, Rapporteur

In Chong *et al.*'s paper, was the fact that labour patterns in off-farm employment are affected by the stage of family development considered? Similar studies suggest that off-farm employment is taken by farmers who have land that only merits being worked extensively. Thus, the causal relationship appears to be in reverse of that observed in Chong *et al.*'s study. As this seems to be misleading, perhaps the causality should be re-examined.

In reply, Osburn stated that perhaps consideration of family development was partially covered by the inclusion of both children and adults as separate variables. The causal relationships need to be carefully reappraised, particularly in the light of a distinction between food self-sufficiency and food security; indeed, the model will be critically re-examined.

In Sampaio's paper, should the failed IRDP be abandoned? Does an alternative exist for eradicating rural poverty in Brazil's Northeast? Sampaio's conclusions should not be surprising since failure appears to be the common experience of IRDPs. Moreover, they create interregional disparities because of the concentration of input supplies in particular areas. The IRDP approach is useful, however, for helping a particularly backward region. In evaluating their effects, the avoidance of double counting is methodologically important since many benefits (i.e., the impacts of extension and fertilizer use) may not be solely attributable to the programme.

In reply, Sampaio stated that the study was undertaken in anticipation of the World Bank's intention to spend \$5 million in the area. Avoidance of double counting was incorporated into the methodology by excluding all the effects of PROÁLCOOL, which also substantially increased employment in the same region. Improving the quality of rural life is of great concern in Brazil, and no single solution exists. Rural development has to be considered in relation to the other sectors. Special attention has been given to rural development, which has generally been neglected (particularly in the Northeast) as rural development programmes have been implemented in many other areas over the past 6 years.

Regarding Banugire's paper, who borrows from whom is not explicit in the credit system of the people's development bank. In the event of a crop failure, member farmers could lose both income and assets. Also, as this credit system is a new institution, perhaps an appraisal of the regulations governing the currently established financial institutions in order to improve their effectiveness could have avoided the need for creating a new institution. And knowing how much initial capital was available would be helpful.

In reply, Banugire stated that some resistance to the people's bank partially accounts for its not yet having reached its objectives. The system is supported by the government, and that political commitment is important. Whether or not it is successful is difficult to say as it is still an experiment. Farmer credit has been mobilized, which could not have occurred commercially. The people's bank acts as a middleman in this respect, performing a function in remote rural areas that the commercial banks cannot undertake because of the high operating and fixed costs. The operating costs of the people's bank are less.

Participants in the discussion included K.M. Azam, R.L. Meyer, L Moore, C V. Nair, S.J. Scherr, G. Schmitt, I. Tinker, and E. Tollens.