

## Role of Agricultural Credit Institutions in the Development and Extension of Knowledge

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### ABSTRACT

Agricultural credit institutions, especially banks, in developing countries have usually considered this important aspect of development and extension of knowledge to their clients, as being outside the domain of their responsibilities. This paper argues that it need not be so. It is shown, with a couple of selected examples, that the active and conscious participation of these institutions in the diffusion of knowledge can significantly help various stakeholders – the borrowers, lenders, the policy makers, and others – in reaching higher agricultural productivity and credit recovery levels. Though the premise is based upon a number of experiences in various countries, here the author has used data from India and results of own studies for two cases to illustrate the points. This is also one of the limitations of this paper.

### 1. Introduction: - Increasing Importance of Agricultural Credit in Agricultural Development

The world population is increasing at an exponential rate. It was one billion in 1804, took 123 years to reach 2 billion, and another 33 years to become 3 billion (in 1960). However, the next 3 billion have been added in less than 4 decades. This week, on 12.10.1999, the world population is reported to have crossed the 6 billion mark. Consequently, the pressure of population on land is increasing at a tremendous pace. In order for the agricultural production to keep pace with the population, with limited potential of increasing area under cultivation, the new technologies focus on producing more from the same piece of land. India, home to nearly 1/6<sup>th</sup> of the world's population, has increased its foodgrains production from 108.4 million tonnes in 1970-71 to around 200 million tonnes in 1997-98 from roughly the same area of nearly 124 million hectares. It has thus almost doubled its production, within a span of 27 years, with the help of improved technologies, subsumed under the popular term of the "Green Revolution". These technologies, based on high-yielding varieties primarily grown on irrigated land with high inputs of fertiliser and plant protection measures, are capital intensive, entailing substantially more expenses and investments. Increasing demands for the same are met largely through borrowing. A study, conducted by the author and his colleagues in the Indian state of Uttar Pradesh, found that in case of the adoption of "new technology" on irrigated lands, the credit needs of farmers increased 2 to 5 fold over those of traditional technology; in case of unirrigated agriculture, the range of increase was between 2 and 3. According to the estimates of the Indian Agricultural Credit Review Committee, the demand for short-term credit for agricultural production and input distribution in India is likely to almost quadruple within a decade, increasing from about Rupees 110,000 million in 1989-90 to more than Rupees 400,000 million in 1999-2000. (Dantwalla, 1996). Credit has thus become an important accelerator of agricultural development.

## **2. Changing Landscape of Agricultural Credit Supply:**

The sources of agricultural credit are broadly classified into non-formal and formal. Though traditionally, non-formal sources have been dominant in supply of farm credit, the formal (institutional) sources, especially the public sector banks, are being made to play an increasingly important role in many developing countries. For example, in India, the number of accounts of direct finances to agricultural sector increased from nearly a mere 160 thousand in 1969 to 18305 thousand in 1997 – thus recording a 1150 fold expansion in the last 28 years. During the same period, amount outstanding ( a proxy for the credit supply) increased nearly 644 times, from Rupees 403.1 million to Rupees 259620 million. The total share of direct finance for agriculture in public sector banks’ portfolio grew from a meagre 1.3% in 1979 to 13.2% in 1997. The amount of agricultural credit disbursed by three major institutions (Public Sector Banks, Co-operatives and Regional Rural Banks) in India has nearly doubled within the span of the last 5 years itself(Government of India, 1999). Yet it is not enough to meet the demand for agricultural credit. According to a study, financed by the German Research Association (DFG) and conducted by Huy (1999) under the supervision of the author, in a predominantly agricultural region of Eastern Uttar Pradesh (India), the share of formal and non-formal sources of credit in the number of loans extended to the farmers was 43% and 57% respectively (Table 1). Both in terms of the number of loans and average amount per unit of loan, the banks occupied the first place, followed by the money-lenders. In fact, in terms of the total amount of credit, banks alone provided more (49.5% of the total credit) than the whole non-formal sector (42.2%) in the study area. Thus the policy for the banks to bear a lion’s share has materialised in this region. However, it is still not enough to meet the demand for agricultural credit. What is worse, these public sector institutions are suffering from bad debts and large overdues. Without going into the details of various reasons, it is submitted that a part of the problem lies in the self-understood division of functions among various agencies serving the farmer.

Table 1. Share of various credit agencies in agricultural credit in Eastern Uttar Pradesh, India

<b>Sources</b>	<b>Share according to number of loans (%)</b>	<b>Share according to amount of credit (%)</b>
<b>1. Informal</b>	<b>43.0</b>	<b>42.2</b>
1.1 Money-lender	32.9	35.6
1.2 Neighbours	3.8	0.6
1.3 Relatives	6.3	6.0
<b>2. Formal</b>	<b>57.0</b>	<b>57.8</b>
2.1 Banks	36.7	49.5
2.2 Co-operatives	19.0	6.2
2.3 Extension Agency	1.3	2.1

Source: Huy, B.

## **3. Self-understood Division of Labour for Supply of Credit and Extension**

The performance of formal sources of credit, specially banks, is judged by several classical yardsticks such as the number and amount of loans extended, rate of recovery, return on equity, non-performing assets, procedure of advancing loans. etc. The domain of their

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mandate as state-supported lenders, as different from those of the other government agencies, is normally supposed to include timely supply of adequate credit to the small farmers/farmhouseholds and the rural poor, almost exclusively for productive purposes, on favourable terms and to ensure through various procedures that the loan is repaid on time. In some cases, their credit is also linked to monetary activities like savings, marketing, and processing. Activities of generation and extension of knowledge per se are supposed to be outside their purview (Table 2).

Table 2. Some problem areas and decision making in agricultural credit operations

<b>Borrower</b>	<b>Government</b>	<b>Credit Institutions</b>
1) Recognize that production can be increased by innovation	1) Allocation of funds for: a) agricultural research b) extension services & rural education	1) Not applicable
2) Recognize that increased production can increase income through increased sales	1) Setting price incentives (price stabilization, in real terms)	2) Not applicable
1) Recognize availability of new inputs	3) a) Input price policy b) Support widespread input distribution network	3) Not applicable

Source: FAO (1975) Agricultural Credit for Development, table 3, page 13

In India, e.g. these activities are primarily the responsibility of the state research and extension agencies and agricultural universities. The credit institutions (e.g. banks), working under the guidelines set by the Reserve Bank of India, are supposed to concentrate on credit and leave the task of generation and extension of knowledge to the other agencies. Consequently, their role in the extension of knowledge is negligible at best. The findings of the above-mentioned study in Eastern Uttar Pradesh are extremely revealing in this regard. When asked about the source of information on introduced technologies like high-yielding varieties, fertiliser, pesticides and herbicides, nearly 62% of the respondents mentioned neighbours and relatives, 21% development block and its extension workers and less than 3% co-operatives. **Not even a single respondent mentioned banks, the most important providers of credit.** (Table 3)

Table 3. Sources of first information for technologies adopted by farmers in Eastern Uttar Pradesh, India

(Total No. of Adopter Respondents)

Source of information	Fertiliser	High-Yielding Varieties	Others (e.g. plant protection)
1. Neighbours	70 (66.1%)	50 (55.6%)	117 (65.3%)
2. Other non-formal sources	10 (9.4%)	13 (14.4%)	22 (12.3%)
3. Co-operatives.	2 (1.9%)	6 (6.7%)	2 (1.1%)
4. Extension Agencies + others	24 (22.6%)	21 (23.3%)	38 (21.3%)
<b>5. Banks</b>	-	-	-
Total	106 (100%)	90 (100%)	179 (100%)

Source: Huy, B.

#### **4. Should Agricultural Credit Institutions play a Role in Generation and Extension of Knowledge?**

The question then arises whether the financial agencies, especially banks, should share in the generation and extension of knowledge? The answer is “YES”, but qualified with, “on a selective basis”. It is submitted that the division of labour in Table 2 might appear logical, but should by no means be treated as sacrosanct. On the face of it, unnecessary intrusion of one agency in the domain of the other can create confusion, heart-burning and havoc. However, this is not to suggest that the credit institutions should completely ignore the aspects of generation and extension of knowledge to their clients. In fact, in many cases, given their financial resources (e.g. of public sector banks) and local knowledge (in case of e.g. co-operatives, non-governmental organisations, and Regional Rural Banks), they are often in a better position to actively participate in these activities, in close co-operation with other agencies of extension and research. Experience has shown that combining credit with some generation and extension of appropriate knowledge by the credit agencies on a selective basis would have many-sided positive effects for banks, the small borrowers, and the economy as a whole. In support of this view, two examples of innovative approaches used by (i) Syndicate Bank in India, and (ii) Agricultural Development Bank in Ghana are given below.

#### **5. Innovative Approach of Syndicate Bank, India - Establishment of a Foundation**

##### *5.1 General*

Syndicate Bank is one of the Public Sector Banks in India, which the author had the opportunity to study at different points of time. The Bank has its roots in rural surrounding. In its very early stages of operations, it had already realised the significance of combining the delivery of credit to the borrower with that of extension and inputs. It felt that credit was only a facilitator of agricultural development and much more depended on other inputs including availability of necessary infrastructure and extension support. However, the Bank was prohibited to conduct its operations outside the purview of the guidelines laid down by the Reserve Bank of India for banks and hence could not directly engage itself in the activities of extension. To obviate the problem, it struck upon a very innovative idea of establishing ‘Syndicate Agricultural Foundation’, a kind of non-governmental organisation. The

Foundation's office was located within the premises of the central office of the Syndicate Bank itself.

### *5.2 Objectives of the Foundation*

The objectives of the Foundation included (i) introducing modern methods of agriculture and horticulture, (ii) propagating scientific approach to solutions of agricultural problems, (iii) assisting persons or associations for raising agricultural output, (iv) conducting competitions in agriculture, horticultural methods of production and awarding prizes, and (v) providing inputs to farmers at reasonable rates. In other words, the Bank, through the Foundation, sought to combine the supply of credit with that of inputs and other activities, including propagation and extension of knowledge.

### *5.3 Steps undertaken by the Foundation to meet its Objectives*

1. Establishment of 'farm clinics' at the grassroots level in close liaison and with full support of the local farming community, to provide farmers easy access to the entire range of inputs, advisory services, and credit facilities;
2. Selection of a representative village, most of its farmers being marginal and small;
3. Selection, by the village community, of a representative farmhousehold for the purposes of identification of important problems and demonstration of efficient farm management practices;
4. Diagnosis of the "ailments", through participatory approach of survey of the representative farmhousehold with respect to its current situation, objectives, resource supply, and constraints;
5. Introduction, on this farm, of "efficient farm management technique" developed in consultation with the farmer. This approach included (i) various crop mixes to produce commodities, mainly for home consumption and some for market, (ii) crop combinations that would avoid total failure of crops, (iii) techniques of cultivation in line with farmer's current skills, (iv) planting a few trees of selected horticultural crops suited for farmer's hitherto unused dry lands to provide nutrition and additional income in the long-term, (v) advice and support about supplementary sources of income (e.g. bee keeping), in line with the circumstances and available skills of farmer, (vi) provision of consumption loans during critical periods, and (vii) continuous guidance.

### *5.4 Results:*

1. The farmhousehold was able to increase its income and improve the quality of its life through, e.g. (i) additional income from unused land, cash crops and supplementary activities (ii) additional gainful employment for the farmhousehold, (iii) meeting most of the consumption needs from own production of grains, fruits, and vegetables, and (iv) making long-term investment, thus acquiring confidence in its own future. Most importantly, the selected farmhousehold was able to repay its loan with interest within the stipulated time of two years. However, this would not have been possible if the Bank had insisted on the repayment of loan within one year. The Bank was flexible

because it realised that (i) some of the investments in, e.g., horticultural crops and a few supplementary activities required a gestations period, and that (ii) consumption loans were also important.

2. The Bank was able to recover its loan. The expenditure of the farm clinic was somewhat more than its income but negligible within the context of the overall local business of the Bank and in relation to the benefits to the farmers of meagre means. **In this case, the Bank subsidised extension of knowledge rather than the rate of interest, and with better results.**

After a couple of years, the bank extended the "clinic" programme to cover a whole region.

## **6. Agricultural Development Bank in Ghana – Commodity Credit Approach**

The Bank of Ghana established a Rural Credit Department to cater to the credit needs of small cultivators. In 1965, this Department was incorporated as Agricultural Credit and Co-operative Bank, later renamed as Agricultural Development Bank (ADB) in 1967. Its objectives included **"initiation of or participation in the conduct of research and training designed to promote agriculture"** (Agrawal, 1978). An innovative concept of Commodity Credit Scheme (CCS) was introduced to advance credit to small farmers, on a group basis, for a particular commodity. It included, wherever possible, combination of extension of credit with the extension of knowledge, and supply of inputs and marketing. The members of the group were jointly and severally responsible for the repayment of loan. Default by any individual member rendered the whole group uncreditworthy. In case of several commodities like cotton, paddy, and groundnut, the ADB collaborated with appropriate institutions. These institutions provided the farmer with extension advice, inputs, and marketing outlet. For example, for the supply of credit to the cotton seed growers, ADB collaborated with the Cotton Development Board of Ghana for the multiplication of improved cotton seed. The Board provided timely inputs and technical advice to the borrowing farmers, because it was interested in ensuring the purchase of high quality seeds from participating farmers. The Board directly purchased their produce, from the proceeds of which the loan of the ADB was repaid and the rest of the amount of sales remained with the farmer. Every stake-holder was better off. The farmer had an assured market, ADB was assured of the recovery of its loan, and the Cotton Development Board was assured of getting the seed of desired quality. Similar arrangements were made by ADB with some agro-industries such as oil- and rice mills. Thus combining of credit with the extension of knowledge not only helped in the spread of appropriate improved technology but also went a long way to ensure appropriate use, supervision, and recovery of bank credit.

## **7. Concluding Remarks:**

These two cases illustrate that, given the will and drive, agricultural credit institutions can devise innovative ways of combining credit with generation and extension of appropriate knowledge, on a selective basis. This approach has many-sided positive effects. It (i) instils confidence of the borrowers in the bank and, very importantly, in themselves, (ii) helps in improving the recovery rate of the credit given by the financial institution and, most of all, (iii) significantly improves the lot of the borrowers, most of them rural poor. The extra costs for the financial institution, if any, are extremely small and can be more than offset by, e.g., the savings brought about by a reduction, if not complete abolition (due to political rather than social considerations) of the subsidies in rates of interest. Thus the banks would be able to eat

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their proverbial cake and have it too. In fact, given the right intentions and spirit, the enlarged cake can be shared by all.

**References**

- Agrawal, R.C., (1978). Commodity Credit Scheme in Ghana – An Unconventional Approach to Small farmer Credit. *Quarterly Journal of International Agriculture*, 17 (1), pp. 21 – 37
- Dantwala, M.L., (1996). *Dilemmas of Growth – The Indian Experience*. New Delhi, Sage.
- FAO, (1975). *Agricultural Credit for Development*. Rome.
- Government of India, (1999). *Economic Survey 1998-99*. New Delhi.
- Huy, B., (1999) . *An Analysis of the Reasons of Low Productivity on Small Farms in Eastern India and Implications for Farm- and Agricultural development Planning (Draft)*.