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GROWTH AND RECENT TRENDS IN THE INSTITUTIONAL CREDIT IN INDIA

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SUMMARY

The structure of providing credit to the farm sector owes its origin in the present form after the existence of the Reserve Bank of India. The significant change in its evolution has been brought about and accepted in principle for implementation in the years after the publication of the Report of the All-India Rural Credit Survey and Report of the All- India Credit Review Committee for the purpose of framing our agricultural credit structure and policy.

In our country, farm credit is mostly met by the private and institutional agencies. There is a quantitative decline in the proportion of meeting the credit needs of farmers by the private lending agencies from 1951-52 to 1961-62 and 1970-71, as the percentage share of institutionalised credit has increased from 7·3 to 18·7 per cent and about 40 per cent respectively.

Of all the institutional agencies, farm credit co-operatives, having the pyramid-type three-tier structure, started their operations and functions about 70 years ago to relieve the peasantry from the deadweight of indebtedness, and having been given all kinds of support, facilities, encouragement and initiative as a deliberate State policy by the Government after Independence to perform the virtual monopoly role of dispensing credit to the farmers within the countryside till the multi-agency approach is accepted in principle to fulfil the enlarged credit requirements of farmers in the changed Indian agricultural context , these co-operatives are still recognized as a principal and major institutional source of credit in the field of farm financing business.

The progress and growth of the co-operative credit system in terms of coverage of villages and households, borrowing membership and lending operations is very much impressive. No doubt, the quantitative performance of co-operative credit in agriculture is less than what was visualised to be achieved in the circumstances dominating in the rural areas. The quantitative performance of this agency to serve the farm sector is inadequate in relation to problems of overdues, shortage of resources, lack of effort to mobilize deposits, indifferent management, dominance of co-operatives by vested interests, untrained staff, certain policies and procedures followed which are not suitable to local environment and the weak arrangement for linking credit with marketing. The analysis of the composition of the working capital for farm credit co-operatives reveals that they could not achieve the objectives of development through self-help and promotion of habits of thrift in the rural areas. The important development at the level of farm credit co-operatives is the amalgamation/liquidation of non-viable units into viable ones and extension of their area of operation. Before socialisation and nationalisation of the banking sector in our country, the commercial banks had done very little to finance agriculture. Their contribution to rural credit was negligible. The Government policy and expert opinion were also in favour of recognizing co-operatives as an appropriate credit agency for financing of agriculture. Moreover, these banks were also essentially urban in origin and concept, lacks organization and expertise to meet the needs of lakhs of villages scattered over the whole country.

The other conventional institutional agencies of course, are also supplying credit to the cultivators but their shares had never been as large as the other two most important agencies discussed above.

There are obvious reasons for the adoption of multi-agency approach in the field of farm credit. It is partly on account of the official recognition that "the progress of agriculture cannot be tied to the progress of co-operative credit" and largely the profound changes which have taken place in the Indian agricultural situation, rendered many of the past credit policy premises outdated particularly after the emergence of significant developments in the area of credit related to the new technology, *viz.*, phenomenal increase in the demand for credit, shift towards long-term credit and the need for providing credit for the small and less privileged cultivators. In the changed context, there is now greater need for co-ordination of the activities of institutional agencies according to the farm credit norms and guidelines than to discuss the supremacy and relevancy of one agency over the other in the farm sector.

Now, rural credit is no more the exclusive preserve of the co-operative movement. The commercial banking sector has already started acting as catalytic agent in the country's farm development after the social control scheme in December, 1967. The farm credit policy is being reoriented with a view to changing the basis of extension of credit from "creditworthiness of person" to "creditworthiness of purpose." In spite of many ifs and buts, the farm credit co-operatives have still a major role

among the multifarious institutional credit agencies. The demand for credit in the farm sector is so large and diverse that all the institutional credit agencies together are still far away to meet the total requirements. They have a complementary role and their success depends on the follow-up measures pertaining to mobilization of resources from rural areas and effective solution for the minimization of overdues problem, depending upon the changes in the national economy in the direction of making it efficient and capable to generate maximum surplus.

ESTIMATION OF FARM CREDIT REQUIREMENTS BASED ON ECONOMIC FEASIBILITY TESTS

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SUMMARY

With the break-through in farm technology, the capital requirements for the agricultural sector have considerably enhanced and correspondingly the credit requirements of farmers have increased. To assist the farmers financially, commercial banks have started taking interest. Being new to the field of agricultural financing, commercial banks are facing difficulties in rational estimation of credit requirements of the farms. This problem is important because both under-as well as over-financing is harmful to the farmer-borrower and the banker. So far little work is available which throws light on this problem. To fill this knowledge gap, this study was designed with the specific objective of estimating the credit needs (safe amounts) in terms of short and medium-term credit of representative medium size farm situation.

The study was confined to Ludhiana block of IADP district, Ludhiana. A sample of five villages was randomly selected with probability proportional to the cultivated area. With the help of Cumulative Frequency Square Root Rule, the operational holdings were grouped into small, medium and large size-groups. But the medium size-group of holding formed the core of the analysis because it represented the majority of the farm situations in Ludhiana. The data on the existing farm resource restrictions and input-output coefficients from 15 per cent of the farms randomly selected with probability proportional to the operational holding, were pooled and averaged to form a synthetic medium size farm situation. This synthetic situation of 14·81 acres of operational holding, having tube-well irrigation was bullock operated. The intensity of cropping was about 184 per cent and about 15 per cent of operational area was kept as fallow in *kharif*. Existing cropping pattern also consisted of low income crop enterprises.

The farm organization was reorganized by increasing the area under income prospective crops and introducing improved package of practices along with the tractor cultivation. To implement the alternative plan, a credit proposal is introduced for advancing Rs. 7,650·97 and Rs. 12,500 as short and medium-term credit respectively. To judge the soundness of the credit proposal '3 R's Test, was applied. In the alternative plan, the additional returns to the fixed factors amounted to Rs. 14,358·74 and the net marginal returns were Rs. 16,249·71, which was sufficient to repay the total loan instalment of Rs. 11,772·66. The repaying capacity was estimated seasonwise but on the whole it increased from Rs. 6,591·61 to Rs. 20,654·58 when the credit was provided. To account for probable risks at 99 per cent level of confidence, gross income was deflated with returns variability coeffi-

cient (21·50 per cent). The deflated repaying capacity in both the seasons was sufficient to pay off the respective loan instalment.

It was concluded that the credit proposal was a sound proposition both for the banker as well as for the farmer-borrower. It was further suggested that the short-term loan should be recovered along with interest after the respective season. In the case of medium-term loan, it should be splitted in instalments payable half-yearly but interest should not be recovered along with *kharif* instalment. Interest for the whole year should be recovered after *rabi* season because in *rabi* the repaying capacity was comparatively higher.

CREDIT REQUIREMENT FOR CHANGING AGRICULTURE

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SUMMARY

In the history of Indian agriculture, the capital requirement for cash inputs has never been as high as it is today. Since the adoption of modern technology is capital intensive, the capital requirement of the farmers are growing manifold. The present paper is an attempt to find out the seasonal or short-term credit requirement of the traditional farms for crop production to fall in line with the adopters of modern technology. The study is based on 100 farms—50 using high-yielding varieties of crops (at least 25 per cent area under high-yielding varieties to the total cropped area), termed as progressive farms and 50 following conventional practices of farming, termed as traditional farms—selected from 10 villages in Kalyanpur block, Kanpur. The block, villages and cultivators were selected randomly. The cultivators were grouped in four sizes, *viz.*, 0—1, 1—2, 2—3 and 3—4 hectares. The enquiry was conducted by the survey method during the year 1970-71. The irrigation facilities hired or owned were available with all the farms whether progressive or traditional in the study. In the present study, the cost incurred on cash inputs, such as hired labour, seed, fertilizers and irrigation, on the traditional farms is compared with the cost of cash inputs on the progressive farms with a view to assessing the credit need of the traditional farms to fall in line with the adopters of modern technology. The short-term credit needs of the traditional farms have been calculated on the basis of the difference of cost of cash inputs between the progressive and traditional farms.

The findings of the study reveal that the average area under the high-yielding varieties was 41·95 per cent to the total cropped area on the progressive farms. The value of total input per hectare for the progressive farms was Rs. 1,348·91 as against Rs. 1,013·01 for the traditional farms. Similarly, the values of output and net income per hectare on the progressive farms came to Rs. 3,210·58 and Rs. 1,861·67 as compared to Rs. 2,147·78 and Rs. 1,407·17 respectively on the traditional farms. The average cost of cash input per hectare for the progressive farms was Rs. 578·70 as against Rs. 331·33 for the traditional farms. It shows that the traditional farms could not follow modern technology due to lack of additional cash input required for adopting high-yielding crop strains on their farms. This additional cash input of of Rs. 247·37 per hectare worked out to be the credit need of the traditional farms to fall in line with the adopters of modern technology. The credit need per hectare of the traditional farms showed an increasing tendency with the increase in the size of farms. The credit need per traditional farms came to Rs. 540·64. It varied from Rs. 210·47 in the size-group of 0—1 hectare to Rs. 839·21 in the size-group of 3—4 hectares. The coefficient of correlation between size-group and credit need and coefficient of correlation between the percentage area under the high-yielding varieties and credit need per farm was worked out to 0·9773 and 0·9765 respectively and both were found significant at 5 per cent levels. It shows that the credit need and the percentage area under the high-yielding varieties per farm increased with the increase in the size of farms. The regression analysis between credit need and output per hectare reveals that the increase in cash input in the form of credit by one rupee resulted in an additional output of Rs. 2·12. Hence, if agriculture is to develop, its need for capital should be satisfied by providing credit for cash inputs to the traditional farms. It will not only help in increasing farm production and income of the traditional farms but also help in increasing the growth of the national economy.

CREDIT NEEDS AND AVAILABILITY TO FARMERS

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SUMMARY

In an economically backward country like ours, finance is the first pre-requisite for development of any industry, and agriculture is no exception to it. So far agricultural development in this country was confined by and large to the large farmers. If development of agriculture is to make any difference to the lot of innumerable small farmers, a new strategy of lending will have to be adopted by the bankers. With the objective of knowing the requirement, supply and shortfall of farm credit and to know the share of different agencies in the supply of credit to farmers, the present study was made in 90 randomly selected farms, in Kallanthiri and Othakkadai firkas of Madurai district in Tamil Nadu. The farmers were classified into three groups based on the size of farms, *viz.*, small (less than 5 acres), medium (5 to 12 acres) ond large (more than 12 acres) for the purpose of detailed analysis of data.

The study revealed that credit is a must for farming and 78·89 per cent of the sample farmers required credit. Among the three groups the middle group had lesser number of borrowers than the other groups. On an average, 40 per cent of farm expenses is met by borrowed funds. The total requirement of credit increases with an increase in the size of farms. ($r=0\cdot75306$—significant at 0·01 level). But the percentage of credit to total spending is largest in the small group. Compared on per acre basis, it is observed that the requirement and supply are the largest in the small group of farms leaving also the widest credit gap. On medium and large farms the credit gap is small.

The agricultural credit system has an organized sector comprising of co-operatives, commercial banks and government institutions and an unorganized sector covering professional moneylenders, petty traders, relatives and other private agencies. The study revealed that credit from government institutions was conspicuous by its absence, co-operatives helped only large farmers (82·04 per cent), but accounted for 61·73 per cent of the total credit supply. Commercial banks, which have taken up farm financing only very recently have a share of about 13 per cent in the total supply of credit. The moneylenders and other private agencies supplied the balance.

What is most striking is that the small farmers who require large credit in relation to farm expenses (55 per cent of expenses as against 40 and 38 per cent in other groups), are able to get only least benefit (38 per cent only as against 50 per cent and 90 per cent of their requirements in other groups) from the organized sector. Excessive dependence of this (small) group on credit and lack of adequate security with them still leave them in the grip of moneylenders and the consequent result needs no elaboration. Therefore a rational credit policy must solve the problems in providing adequate and timely institutional credit to the small farmers and this will be the pre-requisite to free them from the clutches of private moneylenders and pave the way for their economic betterment.

INSTITUTIONAL CREDIT AND AN IADP DISTRICT OF WEST BENGAL

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SUMMARY

Issues involving institutional credit in under-developed countries should be looked into in the light of basic character of the social and economic conditions prevailing in the country. Along with the expansion and structural changes in the entire economy a departure from the traditional thinking in the pattern of agricultural activities and formulations of agricultural policies has been inevitable. This situation very logically attracted the attention of national as well as international institutions. In many cases, however, projects were launched without fulfilling the requisite pre-conditions in respect of the economic, social, political and psychological aspects prevailing in the domain of agriculture. The policy of expansion of agricultural credit institutions should not overlook the existing system of land tenancy, price of farm produce, preparedness and urge of the people for the utilization of credit facilities. The requirement of credit is very high in the developing countries like India particularly when most of the farmers belong to the subsistence level or just below it. The small farmers borrow 50 per cent of their borrowings for non-agricultural purposes. While assessing the credit needs this aspect should also be taken into account. As an example, the picture of credit facilities and utilization of credit, etc., of an agriculturally advanced IADP district Burdwan has been examined. It has been observed that the performance of co-operative credit institutions is yet to make any significant impact in the development of agriculture. Private agencies are still financing about 44·7 per cent of the total amount borrowed in Burdwan district. It has been found that 76 per cent of the farmers do not get any credit facilities from any agency. The rate of interest charged by the private moneylenders is very high. It is anything between 25 per cent to 75 per cent . Even then the farmers borrow a major portion of their credit needs from the private agencies. In the case of small farmers it is about Rs. 160 against Rs. 37 from Government agencies including co-operative societies and in the case of moderately big farmers it is about Rs. 400 against Rs. 168 respectively.

The role of nationalized commercial banks does not seem to be very satisfactory during the past three years. The extension of credit facilities and realization of the funds issued did not reach the expected level of success in Burdwan district. The whole problem of institutional credit should be closely studied and efficiently organized. Adequate measures have to be taken for creating a healthier social and economic background that might be congenial for extension of credit facilities.

THE HYV PROGRAMME AND PROBLEMS OF FINANCE FOR SMALL FARMS IN ASSAM (A CASE STUDY OF GOALPARA DISTRICT)

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SUMMARY

The Green Revolution has opened up new possibilities for the speedy development of agriculture in India. But it has not achieved equal success all over the country. The States like Assam are lagging much behind in the implementation of the HYV Programme. Though many factors are

responsible for such tardy progress, the farm structure, prevalence of tenancy and dearth of credit are the most important. According to the NSS (16th and 17th Rounds), about 80 per cent of the operational holdings in Assam are below five acres. Data collected from eight villages under four community development blocks in Goalpara district indicate that about 20 per cent of the households are either landless or operate holdings below one acre. The 'small farmers' operating land between 2·50 to 5 acres and the 'marginal farmers' operating land between 1 to 2·49 acres together constitute another 60 per cent of the rural households. In this paper, an attempt has been made to study the resource endowments, production and income and credit needs of these two groups of farmers from the data collected from a sample of 72 households—24 households of 'small farmers' and 48 households of 'marginal farmers' from eight villages under four community development blocks in Goalpara district of Assam.

The survey showed that the average income per household and per capita of the two groups together came to about Rs. 1,800 and Rs. 300 respectively. In respect of per capita income, there is not much difference between the two groups. It is because of the fact that the intensity of cropping is slightly higher among the 'marginal farmers' over the 'small farmers' and the non-farm income contributed about 20 per cent of the income of the 'marginal farmers' against only about 4 per cent among the 'small farmers.' If a sum of Rs. 300 is taken as the minimum per capita income for a subsistence living, 58·33 per cent of the 'small farmers' and 53·46 per cent of the 'marginal farmers' are below the poverty line. If a minimum per capita income of Rs. 400 is to be assured for a tolerable living, about 70 per cent of the households will require immediate help to sustain them.

An attempt has been made to estimate the credit needs of the farmers. The costs of cultivation of paddy per hectare are estimated at Rs. 150 in the traditional method and Rs. 655 in the new technology. This indicates that for switching over to new technology, an additional finance of Rs. 500 will be required by a farm operating a hectare as short-term loan. Moreover, for the provision of irrigation, land improvement like fencing, an amount of Rs. 9,000 may be necessary as medium and long-term loan.

The traditional sources of credit are so exploitative in nature that it is not possible for the small farmers to come out of the vicious circle of low production, low investment and income by adopting better and improved technology. The part which institutional finance can play in such circumstances is immensely important for a break-through in the Green Revolution. The commercial banks may play a great role in such circumstances by providing long-term credit. The commercial banks will be at a disadvantage in reaching the farmers compared to the co-operatives operating in the *Gaon Panchayat* levels. An integrated approach in which the commercial banks and the co-operatives can work hand in hand will be most effective.

CREDIT NEEDS OF FARMERS IN RELATION TO MULTIPLE CROPPING WITH SPECIAL REFERENCE TO COMMERCIALIZATION

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SUMMARY

The aim of this study was to examine the credit requirement of farmers, who have adopted commercialization in agriculture to a significant extent, in Farrukhabad district, Uttar Pradesh. The selection of the district has a special purpose, since it can be seen that in village 'Saraidha' and also in Farrukhabad district, the extent of commercialization in agriculture is more than that of the average for Uttar Pradesh or that for the country as a whole. Comparatively speaking, agriculture in Farrukhabad is found to be more commercialized when the cropping pattern and production pattern are taken into consideration. An analysis of changes in the cropping pattern of Uttar Pradesh

and in Farrukhabad district within a period of last two decades shows that there is a regular change in the cropping pattern occurring in the district. The average yield of crops per hectare (except few crops, *viz.*, small millets, gram, other pulses, sugarcane and sunhemp, etc.) shows that the agriculture in the district is far better than the average situation in the State and the average situation in India. An analysis of cropping pattern of the selected 25 holdings shows that 56 per cent of the cropped area is devoted to food crops, 10 per cent to pulses and the rest to special crops. It is interesting to note that special crops such as groundnut and potato occupy important position in the cropping pattern of the holdings. Another interesting feature is that the farmers appear to have a preference for non-mixed crops against mixed crops. In the economy of the farmers, timings of the cash receipts play an important role. The study shows a considerable degree of irregularity in cash receipts and this creates, in view of the relatively more regular needs, an ocassion for credit without which farmers cannot tide over the lean time. They have to borrow. In this area when the agricultural season begins, for about three months there is practically no income and credit requirement in percentage terms decreases upto December regularly due to the requirement of the seed, irrigation, fertilizer, machinery for the crop in these months. This shows a considerable degree of credit requirement by the farmers when they have very less or no income. It is, however, very interesting to see that in spite of such a high degree of commercialization in this district the credit requirement (in terms of time) and the pattern of receipts (in terms of time) remains unbalanced. The total credit requirement per farm increases as the size of holding increases. It may be noted that the degree of commercialization and increase in the size of holdings do not solve the problem of credit. It is mainly due to the introduction of green revolution in agriculture. Among the various credit supplying agencies, the percentage contribution made by the Government agencies is only 12·4 while that of non-institutional agencies is 87·6. The rate of interest in the case of non-institutional agencies varied from 20 to 66 per cent. The highest rate of interest, *i.e.*, 66 per cent was charged by the money-lenders working in the locality.

FARM CREDIT REQUIREMENTS IN THE CONTEXT OF NEW AGRICULTURAL TECHNOLOGY

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SUMMARY

This paper is an attempt to estimate the actual requirements of credit as has been generated due to the adoption of high-yielding varieties of crops. The estimate is based on an intensive enquiry of 50 farmers from five villages selected randomly from the Kalyanpur block of district Kanpur for the year 1971-72. The farm budgeting technique was applied and the actual requirements of credit for production and investment were estimated by subtracting the saving which was available from the previous year for production expenses where it is normally utilized.

The estimate found that the per hectare requirements of production expenses for modern inputs came to Rs. 422·24 excluding the requirements of wages for hired labour on the farms which accounted for Rs. 112·20. It was also observed that the requirements of amount for wages showed a great disparity among different size-groups of holdings. Unlike the farmers in the smaller size-groups, farmers in the higher size-groups of holdings have relatively less family labour available for work on their farms on the one hand, and they handle comparatively a greater volume of business on the other. The average per hectare requirement of money for investment purposes was placed at Rs. 580·89 which includes irrigational assets, farm machineries and implements, land improvements and investments in livestock. The study also revealed that the farmers in the higher size-groups require more money for the purchase of farm machineries and implements and irrigational assets whereas the farmers in the small size-groups demand more for investment in the traditional manner like purchase of livestock. The per hectare aggregated requirements for production and investment came to Rs. 1,318·31.

The pattern of family consumption expenditure for 1970-71 showed that 52·02 per cent of the consumption expenses was incurred for food followed by education and social functions which accounted for 16·90 per cent of the total family consumption expenses. On an average, the per hectare saving was Rs. 274·14, which was available for the next year, *i.e.*, 1971-72. The pattern of allocation of the total saving among the different strata of the farmers showed that the farmers of the lowest category (*i.e.*, 0—1·5 hectare) were not in a position to meet even their family consumption expenditure from their farming business. The highest saving was worked out at Rs. 639·90 per hectare which was observed in the highest size category (*i.e.*, 4·5 hectares and above). The actual requirement of credit for production purposes was placed at Rs. 349·13 excluding the requirement of investments which has already been placed at Rs. 580·89 per hectare. The study suggests that efforts should be made to meet the required credit if the food production is to be stepped up. The requirements of smaller size categories should get preference, be it for production or investment.

AN ASSESSMENT OF SHORT-TERM PRODUCTION CREDIT NEEDS OF SMALL FARMERS (A STUDY IN DISTRICT AMRITSAR, PUNJAB)

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SUMMARY

Adoption of high-yielding varieties resulting in capital intensive technology on different farm sizes has generated an additional demand for short, medium and large-term credit. Even the small farmers who constitute an overwhelming majority find their owned funds short of requirements. The present study attempts to assess the short-term credit demands of small farmers in three general farming areas of district Amritsar and to suggest guidelines to the institutional lending agencies in the matter of providing loans to these farm situations. One development block from each of the area was selected at random. From each block four villages were considered with probability proportional to the cultivated area of the villages in the blocks. After this, the size of the farm was identified. Only owner operated farms were included in the sample. A sample of 20 farmers from each village was selected randomly. Thus the multi-stage sampling technique was applied. To interpret the results analytically, multiple linear regression equations and Fisher's paired t-test were used separately for different areas of the study. The study revealed that the capital/credit requirements differed markedly from area to area. Capital requirements per acre were Rs. 219·50, Rs. 128·68 and Rs. 89·95 respectively while credit requirements per acre were to the tune of Rs. 107·94, Rs. 50·40 and Rs. 43·83 for the three different areas. Thus it can be established that the uniform scales of finance for different crops as envisaged under the crop loan system designed specifically to meet short-term credit needs cannot be justified. Capital and credit requirements per acre on the basis of the agro-climatic conditions may be the criterion for determining different scales of funds as the present study shows. Second, the provision of short-term credit may be linked with the available cash. This will check misuse of funds and encourage efficiency and industry on the farms.

NEW TECHNOLOGY IN RICE, INSTITUTIONAL CREDIT AND SMALL FARMER—AN ANALYSIS OF EMPIRICAL STUDIES

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SUMMARY

This paper is based on the data of Reports on the HYV paddy conducted by Agro-Economic Research Centres. The specific questions posed are : (1) What are the changes in credit requirements per acre in relation to the changes in cash farm expenditure and gross value of product, as a consequence of the switch over to the new technology? Does institutional credit respond to the changes in increased credit requirements? (2) How does the adoption of new technology change the level and pattern of inputs and how does this affect the pattern of use of credit for various inputs? Does institutional credit respond to the changing level and pattern of credit? (3) What part of the small farmer's credit is met from institutional finance when he switches over to the new technology and how does it compare with others?

It is found that the ratio of credit used for the HYV to the credit used for the local is higher as compared to the ratio with respect to cash farm expenditure, indicating the importance of credit in relation to the adoption of new technology. The ratio of the HYV to the local varieties in respect of income as compared to that of expenditure is lower in *kharif* and higher in *rabi*; and also the expenditure on the HYV as a ratio of the local varieties is higher in *kharif* than in *rabi*, indicating a favourable atmosphere in *rabi* for the adoption of new technology.

The study revealed that the participants do not spend more than what the non-participants do, or growing the local varieties and do not borrow much to meet this cost. Moreover, their cash expenses and credit needs are much larger only when they adopt the new technology on their farms. Also it is found that the participants have closer association with the institutional credit agencies than the non-participants and thereby, their credit needs are being met at lower cost.

In absolute terms, credit for every item is more for the HYV and the two items which are met mainly through credit are fertilizer and hired human labour charges. There is a positive shift from credit for hired human labour charges towards credit for fertilizer with the adoption of new technology. It is noticed that the share of institutional credit in total credit is large in respect of fertilizer.

Our empirical analysis does not substantiate the view that the cash farm expenditure per acre gets reduced with size. On the other hand, in the districts which have attained a high intensity of land use, the small farmer spends as much, or even more than the big farmers do, when he switches over to the new technology, and he loses his ground as compared to the latter in relation to the cash farm expenditure when he grows HYV. So the factor relating to the share of home-produced inputs in the total is not of much relevance at least in respect of paddy. The factor that influences the relationship between credit needs per acre and size is the capacity to finance from owned funds and an inverse relationship is observed between size and credit per acre. And it is found that institutional credit as a proportion of total credit is generally less for the small farmers for the HYV as well as local varieties.

QUANTUM AND FORM OF CREDIT NEED OF THE FARMERS IN DISTRICT BASTI (U.P.) (A CASE STUDY)

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SUMMARY

The quantum and form of credit need of the farmers were studied on 30 cultivators' holdings selected randomly from three villages under four size-groups, *viz.*, below one hectare, 1—2, 2—3 and 3 hectares and above. Credit estimates were made under three situations : A—capital used and credit borrowed under existing conditions, B—credit requirement for existing cropping pattern at recommended level of inputs and situation C—when the farmers were expected to use modern technology of the high-yielding varieties. Budgeting technique was used to estimate the credit requirement under situations B and C. The study showed that under existing situation A, the quantum of credit taken per hectare has negative correlation with the size of holdings. The percentage of borrowed capital to the total inputs used per hectare was higher under small size of holdings, being 23·2 per cent in holdings below one hectare size-groups as against 13·5 per cent in size-groups of holdings of 3 hectares and above. The average borrowed input used per hectare was Rs. 122·78 which accounted for 14·91 per cent of the total input used per hectare. Out of the total borrowed inputs, 54·81 per cent accounted for fertilizer and 26·63 per cent for seed. The small farmers relatively borrowed a higher proportion of the total credit for seed as against the large holdings. Under situation B when the farmers were expected to use recommended levels of input, the credit requirement per hectare was significantly higher than the credit borrowed under the existing situation A. The average short-term credit requirement per hectare under situation B was estimated as Rs. 282·64 against Rs. 122·78 borrowed under the existing situation A. Analysis of situation C showed that the farmers required both short-term as well as medium-term loans for the adoption of modern technology. The medium-term credit requirement per hectare of holdings above 2 hectare size-groups was higher particularly for the development of irrigation and purchase of implements and machineries against the small holdings of below 2 hectares. The average medium credit requirement under this situation was estimated as Rs. 2,472·06 per hectare, whereas the short-term credit requirement was estimated as Rs. 601·67 per hectare. The increase in short-term credit under situation C adopting modern technology was due to greater demand of fertilizer and high cost of seeds of hybrids and high-yielding varieties used under this method of farming. The study further showed that the supply of the quantum of credit estimated will help in increasing the farm income by 20·06 per cent in situation B and 97·09 per cent in situation C over the existing situation A. The study, therefore, suggested to strengthen the institutional agencies to supply the credit as per the requirement of the farmers.

INSTITUTIONAL CREDIT FOR AGRICULTURE IN MALWA

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SUMMARY

The main objective of the paper is to examine how far the pledge of financing agriculture is being redeemed and thereby the traditional concept of banking metamorphosed in the Malwa region of Madhya Pradesh. The study is based on random sample survey of 152 farm families of ten villages of five districts, relating to the year 1970-71. Families have further been stratified into seven groups according to size of holding. The cropping pattern of villages indicates that mostly jowar (29 per cent), wheat (20 per cent), cotton (18 per cent), oilseeds (11 per cent), pulses (14 per cent), maize (4 per cent), sugarcane (1 per cent) and others (3 per cent) are grown.

For the purpose of ascertaining the creditworthiness of the farmer, one-third of repaying capacity based on the realised value of produce and total income, has been presumed to be the maximum credit limit of the borrower. It shows that every class of farmer is entitled for some amount of credit on the size of holding basis. Locational facility of a bank or a co-operative society reveals that about two-thirds of the farmers have got local facility. About 53 per cent of the farmers are members of a society while 44 per cent have opened account in a bank. The pattern of agricultural expenditure indicates scrupulous attitude of the farmer toward boosting capital expenditure, and about 58 per cent of this stems from their owned savings, and 42 per cent from borrowings. Institutional credit forms about 62 per cent and 38 per cent from moneylenders. The agency of commercial banks has established its radical image by financing all classes of farmers to the extent of 47 per cent, while the agencies of *taccavi*, land development bank and co-operatives appear to have recorded lacklustre performance. As regards the utilization of credit, it is found that 87 per cent is utilized for productive purposes and 13 per cent for unproductive expenditure, which provides disincentive to the institutional agencies to function with good zeal toward cultivators. Another disquieting feature arises from the unsatisfactory repayment of the loan as scheduled.

Thus the study shows phenomenal growth of institutional credit facility, of which the commercial banks are contributing a major portion whereas other institutional agencies do not provide dependable clues. On account of misuse and non-repayment of credit, it may be recommended that credit should be advanced to only those farmers who have adopted the new technology.

AGRICULTURAL FINANCING OF SMALL FARMERS IN COIMBATORE DISTRICT OF TAMIL NADU

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SUMMARY

The object of the enquiry was to find out how far small farmers are able to get institutional help in regard to financing agriculture; and whether they are in a position to repay the loans borrowed. Village Chinnatadakam in Coimbatore district of Tamil Nadu was selected for investigation. A small farmer is defined as one cultivating less than ten acres and 18 such farmers were selected for intensive enquiry. The village consisted of 207 cultivators of whom 86 per cent may be categorized as small farmers. Only 22 per cent of the area is irrigated by wells. The rest is rain-fed. These wells have electric pump-sets to lift water. The average area cultivated by these 18 farmers is 4·39 acres. The average size of farm is 5·8 acres. The average assets per holding were valued at Rs. 28,453. In the size-group of less than 2·50 acres, the average assets per holding formed 14 per cent of the average assets per holding for all the farmers. Land formed a major proportion of these assets.

The average indebtedness per holding for the 18 farmers was Rs. 4,372. The average indebtedness per holding was Rs. 400 in the smallest size-group and rose to Rs. 6,500 in the size-group of 7·50 to less than 10·50 acres. The smallest size-group depended entirely on moneylenders; those in the higher size-groups depended mostly upon land developemnt bank, co-operative society and State Bank. Borrowings from the State Bank was insignificant because its rigid rules make the farmer fight shy of it.

The total cash expenditure on cultivation revealed that the small farmer in the smallest size-group did not apply fertilizer or pesticides unlike those in the higher size-groups. The cash expenditure included rent, land tax and interest on loans borrowed.

Juxtaposing agricultural income and agricultural expenditure, it was found that all these 18 farmers had a surplus even after paying their taxes and interest on the loans borrowed. Hence under normal circumstances these farmers ought to be able to repay their debts as quickly as possible.

The data reveal that the farmers operating lands less than 2·50 acres are indigent and too poor to invest in wells and pump-sets. Hence the approach towards them ought to be one of a social welfare approach rather than an economic approach.

AN ESTIMATION OF SHORT-TERM CREDIT REQUIREMENTS FOR AN AREA (AGGREGATION OF FARM ANALYSIS)

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SUMMARY

Credit in modern agriculture has become an important input. However, the assessment of credit requirements of the individuals as well as for the area poses a difficult problem to the credit institutions. In view of this, an attempt is made here (*i*) to examine the existing pattern of credit use on the representative farm situations, (*ii*) to estimate the short-term credit requirements for these specific farm situations, and (*iii*) to estimate the short-term credit requirements for the area on the basis of farm analysis. The study was confined to Barauli Ahir block in Agra district, Uttar Pradesh. Three villages were purposely selected to give fair representation to the block. Sixty farmers, 20 from each village were randomly selected and information regarding the operational holding, farm resources, sources of irrigation, cropping pattern, variable inputs and credit use, etc., was collected for the year 1969-70 through personal interviews. The selected holdings were classified into small, medium and large size-groups and further sub-grouped on the basis of irrigation source. In all nine categories of farms were identified and information on different aspects for each category was pooled and averaged out to arrive at nine synthetic farm situations. Existing cropping pattern, and capital and credit use for these farm categories were examined.

The existing cropping pattern showed wide variations in the allocation of area to different crops, area irrigated, and intensity of cropping. This with varying levels of inputs used accounted for the variations in capital inputs on different farms. The per acre short-term credit use, the study showed, decreased with the increase in the size for the same irrigation source. Within the size-group the per acre credit use was in descending order for Persian wheel, tube-well, canal and tube-well-cum-canal irrigated farms, except in one farm situation. These variations justified our classification.

The credit requirements (Y_i) for different farm situations were estimated with optimum level of inputs and with existing cropping pattern as $\hat{Y}_i = R_i \sum_{j=1}^{m} P_{ij} X_{ij}$, where P_{ij} and X_{ij} are capital inputs per acre and area under jth crop on ith farm situation respectively and R_i is the proportion of credit to the capital inputs on ith farm situation (R_i is 0·50, 0·45 and 0·40 for small, medium and large farm situations, respectively). The estimates showed more than 100 per cent increase in the credit requirements on all, except small size Persian wheel irrigated and medium size tube-well irrigated farms. The per acre credit requirements decreased with the increase in the size of farm.

On the basis of the above estimates, the credit requirements for the block (C) were estimated as $\hat{C} = \frac{A_T}{A_S} \sum_{i=1}^{k} n_i \hat{Y}_i$, where A_T and A_S are total cultivated area of the block and the sampled holdings, respectively, n_i is the number of holdings in ith farm situation in the sample.

The value of $\hat{C}$ worked out to be Rs. 64·33 lakhs (44·91 per cent of the total capital needs). The per acre credit requirements were Rs. 115·40. However, the figure is expected to go up with shifts in the cropping pattern. Nevertheless, the capital and credit requirements could be worked out under the changed situation by applying the above methodology.

THE ROLE OF INSTITUTIONAL FINANCE IN AGRICULTURAL INVESTMENTS OF THE DISTRICT OF BURDWAN IN WEST BENGAL—A CASE STUDY

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SUMMARY

In recent years our attention has been drawn to the subject of agricultural finance, an important item of the infra-structure in agriculture, influencing its level of enterprise. The cultivators's finance for meeting agricultural expenses is supplied from three sources, *viz.*, (*i*) self-finance, (*ii*) private loan, and (*iii*) institutional loan. In India, all States generally have a preponderance of small farms, whose scope of self-finance is obviously limited. The role of institutional finance becomes crucial particularly in the context of the so-called private loans which float at exorbitant rates of interest. This paper is an attempt to observe the part played by institutional finance along with other types of finance in meeting the expenses of cultivation in the rice growing district of Burdwan in West Bengal, known for its progressive agriculture. We shall examine how farmers of different size groups of operational holdings and tenurial status are provided finances for agricultural investments from different sources, especially bearing in mind on the role of institutional finance.

The data were collected by the Agro-Economic Research Centre, Santiniketan during a survey in 1969 based on a certain sample design. In all, there were 280 cultivating households drawn from an entire range of size distribution, covering the whole district which presents more or less the typical characteristics of the district. For our analysis two types of agricultural investments have been taken into account, (*i*) short-term and (*ii*) long-term, investments. Cash expenditure on current inputs represents short-term investment whereas long-term investments are on (*i*) land development, (*ii*) irrigation, and (*iii*) improved agricultural tools and implements.

Some important observations have emerged out of the data. In current inputs the utilization of institutional loan is higher among the lower size-groups. But the share-croppers are getting very little help out of institutional credit. Village co-operatives are proved to be the most successful source of institutional credit for current investments in agriculture.

It is observed that the levels of all the three types of long-term investments for different size-groups of holdings are very low. In each type of investment the per acre total expenditure is highest in the biggest size-group (above 10 acres). In long-term investments, the use of institutional finance is highest in the medium size-group (5·01 to 10 acres) in the case of land development and irrigation. But the use of self-finance is always maximum among the biggest size-group. As small and medium farms lack their own funds they are bound to depend on institutional loans for any long-term development effort in agriculture. Special consideration should be made for medium size farms who have the ability to spend something out of their pocket which of course is not sufficient. If they get necessary credit from the institutional sources they can readily raise their level of long-term investments to that of the big farms. Among share-croppers long-term investment either from their own funds or by private or institutional loan is found almost nil.

The study points out that in long-term investment, government and other institutional sources of credit are more used than co-operative finance. These credits should reach the hands of all types of farmers in much easier way.

It is found that the big farmers are using their own funds on a larger scale. This capital reinvestment on their part proves that agriculture is becoming more profitable. Smaller farmers can also reap the benefit of the situation if they get proper financial help.

Among the three types of long-term investment, expenditure on improved tools and implements is a sign of the ultimate adoption of modern technology in agriculture. But as the total per acre expenditure is lowest for improved implements it may be assumed that the district Burdwan still

remains broadly under traditional agriculture. It is indicated that the use of modern technology in agriculture in Burdwan, however insignificant it may be, is confined only among the big farmers, who almost entirely depend on their self-finance (Rs. 24·7 per acre—94 per cent of the total expenditure).

INSTITUTIONAL CREDIT FOR AGRICULTURE IN INDORE DISTRICT

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SUMMARY

In recent years, co-operatives have played a significant role in farm financing for agricultural development. The present study is mainly confined to the role played by the co-operatives in farm financing in the Indore district of Madhya Pradesh. Between 1963-64 and 1969-70, short-term loans advanced to members went up from Rs. 54·90 lakhs to Rs. 119·02 lakhs and medium-term loans from Rs. 11·07 lakhs to Rs. 26·19 lakhs. The proportional allocation of short-term loans advanced to the cultivators showed that seasonal agricultural operations have always received top priority. Next in order of importance are loans advanced for fertilizers and seeds. Among medium-term loans, sinking of wells and their repairs and purchase of pumps appear to be the most important items in recent years. Nearly 47 per cent of the total loan is utilized by the members for the purpose for which it is actually obtained and the remaining 53 per cent is utilized for other purposes mostly for unproductive purposes.

Self-finance uniformally accounted for a large proportion (except fertilizers) of the total current farm expenditure, the proportion being in no case lower than 65 per cent. The dependence on institutional borrowings is greater in the case of fertilizers and pesticides. In the case of capital expenditure also, 'own' funds constituted a more important source of finance than others. The institutional agencies appear to have played an important role in financing capital expenditure mostly for the development of irrigation resources and equipment. The role played by the sale of assets appears very negligible and is resorted mainly for the purchase of livestock. The average rate of saving of the cultivators on the progressive farms is more than double that of the cultivators on the less progressive farms. The rate of saving increases with the increases in the size of the farms. Per capita saving of the progressive farmers is eight times greater than the less progressive farmers. The marginal propensity to save of the progressive and the less progressive farmers worked out to be 133·8 per cent and 78·1 per cent respectively.

ESTIMATION OF MAGNITUDE OF CREDIT NEEDS OF THE FARMERS IN BLOCK KALYANPUR, KANPUR (U.P.)

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SUMMARY

The study on estimation of magnitude of credit needs of the farmers in block Kalyanpur, Kanpur is based on data collected from 100 cultivators with the following objectives: (1) to examine the area under the high-yielding varieties and savings of the cultivators on different size-groups; (2) to determine the exising magnitude of credit needs of the cultivators of different size-groups, and (3) to project the magnitude of credit needs under different size-groups. The study relates to the year 1970-71 in which 100 cultivators were selected from five villages of Kalyanpur block, Kanpur. From each village, 20 cultivators were selected randomly after classifying them under four size-groups, *viz.*,

0—2, 2—4, 4—6 and 6 hectares and above. The data were collected on various aspects of the farm economy of the individual selected cultivators. The credit needs of the cultivators of different size-groups were determined by subtracting the additional capital requirements for succeeding year from savings of the preceding year. For projecting the credit needs of the cultivators, budgeted plan was developed for the year 1971-72.

The main findings of the study are as follows: The percentage area under the high-yielding varieties increased with the increase in the size of holding, being 20·51, 28·20, 38·15 and 43·27 in the size-groups of 0—2, 2—4, 4—6 and 6 hectares and above respectively. An analysis of input-output data showed that the net income per hectare was Rs. 1,024·18 Rs. 1264·74, Rs. 1,518·33 and Rs. 1,614·06 in the corresponding size-groups of holdings. Thus, it progressively increased with the increase in the size of holding as the larger farmers had better control over resources. The analysis of income distribution for 1969-70 showed that the savings per farm were of the order Rs. —242·98, Rs.—40·11, Rs. 936·88 and Rs. 4,129·63, being —7·36 per cent,—0·48, per cent, 6·36 per cent and 16·04 per cent on 0—2, 2—4, 4—6 and 6 hectares and above size-groups. The higher savings under large size-group were due to the larger per farm incomes whereas there was no appreciable difference in the size of their families.

In order to find out the additional requirement for fixed capital, the fixed capital investment per farm was worked out for 1970-71 which came to Rs. 13,629·27, Rs. 29,119·27, Rs, 48,538·78 and Rs. 79,933·11 on 0—2, 2—4, 4—6 and 6 hectares and above size-groups. The greater capital investment in fixed capital under larger farms was due to the large capital assets and better financial status of the large cultivators.

The input-output position was determined for 1970-71 to ascertain the existing credit requirements. The per farm inputs were of the order of Rs. 1,859·39, Rs. 4,292·46, Rs. 7,686·91 and Rs. 13,250·93 and the corresponding outputs were Rs. 3,811·75, Rs. 9,524·02, Rs. 17,064·94 and Rs. 29,814·59 on 0—2, 2—4, 4—6 and 6 hectares and above size-groups respectively. The input-output ratio in the four size-groups came to 1 : 2·05, 1:2·12, 1: 2·22 and 1 : 2·25 respectively.

On the basis of the data, the existing credit needs were worked out for 1970-71. They were estimated at Rs. 461·33, Rs. 593·24, and Rs. 78·89 on 0—2, 2—4 and 4—6 hectares size-groups. On the largest size-group, 6 hectares and above, the savings were of such a magnitude as to preclude the necessity of borrowings. To calculate the quantum of savings, the income distribution chart was constructed for 1970-71. It was observed that the savings of the cultivators were Rs.—159·62, Rs. 484·74, Rs. 2,516·05 and Rs. 6,857·11 under 0—2, 2—4, 4—6 and 6 hectares and above size-groups respectively. The percentage of savings to the total crop output came to —4·18, 5·09, 14·25 and 23 respectively. It was thus clear that savings, were more in 1970-71 as compared to 1969-70 due to the increased application of modern farm inputs.

An attempt was made to project the credit needs for 1970-71 through the construction of budgeted plan. The projected plan would be of the following order : The percentage area under the HYV crop would be 30·25, 40·50, 50·15 and 55·40 under 0—2, 2—4, 4—6 and 6 hectares and above size-groups respectively. The corresponding capital requirement would be Rs. 13,976·86 Rs. 29,998·65, Rs. 49,918·39 and Rs. 81,524·87 in fixed capital and Rs. 2,273·25, Rs. 5,305·69 Rs. 8,832·58 and Rs. 14,946·36 per farm in working capital. The expected gross returns would be Rs. 5,046·61, Rs. 11,937·80, Rs. 21,551·50 and Rs. 36,768·06 per farm and the input-output ratio would be 1: 2·22, 1: 2·25, 1: 2·44 and 1: 2·46 for the respective size-groups. The additional capital requirement for increased investment would be Rs. 761·51, Rs. 1,692·61, Rs. 2,525·28 and Rs. 3,287·19 in the four size-groups, respectively. Summing up the yearly credit instalment balance of 1970-71, the total capital requirement would be of the order of Rs.1, 042.12, Rs. 1,748·05, Rs. 2,795.12 and Rs. 3,492·51 while savings of 1970-71 were Rs. —159·62, Rs. 484·74, Rs. 2,516·05 and Rs. 6,857·11 under 0—2, 2—4, 4—6 and 6 hectares and above size-groups. Thus, the projected magnitude of credit needs for the year 1971-72 worked out to Rs. 1,082·12, Rs. 1,363·27, and Rs. 279·07 for 0—2 2—4 and 4—6 hectares size-groups. There would be no need of financing the big cultivators as they have large savings but this may be another thing that they are still borrowing from credit institutions to earn money by lending the borrowed funds.

The income distribution data for 1971-72 were worked out to estimate the increase in savings of the cultivators as a result of the greater adoption of modern technology. Thus, savings of the cultivators are estimated at 4·84 per cent, 10·92 per cent, 24·15 per cent, and 34·07 per cent in 0—2, 2—4, 4—6 and 6 hectares and above size-groups respectively. A comparison of the income distribution data for the years 1969-70, 1970-71 and 1971-72 shows that the loans of the farmers would be self-liquidated year after year.

The sum and substance drawn from the study is that (*i*) small cultivators need more credit to make their holdings economic and the magnitude of credit needs increased with the increase in the size of holding upto 2—4 hectares size-group after which it declined in 4—6 hectares size-group and there

were no need of financing the largest size-group. (*ii*) The magnitude of projected requirement and consequently credit needs increased in the first stage while bringing the cultivators towards optimum farming business and it happened only due to additional control over capital assets.

Thus, the magnitude of credit will increase in the early stages of development and later on it will decrease as the farmers will be having increased control over the resources and thereby enhanced earnings. The cycle will go on and a stage may come when all the farmers would be in a position to bear additional investment in their farming business.

REPAYING CAPACITY OF SMALL FARMERS IN CHANGING AGRICULTURE IN DHENKANAL DISTRICT

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SUMMARY

Small farmers are generally accepted as non-creditworthy by all lending agencies. This is true at least for subsistence farmers of Orissa. Improved technology, evolution of high-yielding varieties have altered the situation considerably. Three types of villages, *viz.*, partially irrigated, unirrigated and village with relatively greater emphasis on mixed farming of Dhenkanal district where small farmers development agency has started functioning were selected. Thirty farmers owning 2 to 8 acres of land with due stratification were randomly selected out of them for the purpose of the study. With the present level of consumption and development expenditure, no balance is left out of their present total income in all the sample holdings of the three categories of villages. The situation is completely changed when higher farm business income is generated by the adoption of new technology, greater diversification and inclusion of commercial crops and animal husbandry programme in the production plans. These estimates of potential farm business income were obtained for all the sample farms of the three village types. It may be assumed that consumption expenditure is not likely to change with the increase in total disposable income at least in the short run. If this assumption is true the repaying capacity of the small farmers estimated from the potential income is considerably increased. The partially irrigated and mixed farm villages have potentiality of generating higher farm business income and consequently have large repaying capacity relative to the unirrigated village.

INSTITUTIONAL CREDIT AND FARM PRODUCTIVITY (A CASE STUDY)

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The present study is based on 50 cultivators' (25 borrowers and 25 non-borrowers) farms of three villages, namely, Bidhanu, Khersa and Katharuva in block Kalyanpur, district Kanpur, Uttar Pradesh. All the cultivators were divided into four size-groups of holdings; *viz.*, 0—1, 1—2, 2—3 and above 3 hectares. The main objectives of the study were to analyse the farm business of both the categories

of farms and to examine the quantum of credit used for different purposes of farm production. The main source of borrowing was land mortgage bank, co-operative societies and agricultural societies. The cultivators have taken loan from different institutions mainly for irrigational structure, repayment of old debt, manures and fertilizers and seeds. The main findings of the study were as follows: The per hectare average investment on fixed capital was Rs. 13,297 and Rs. 12,806·25 on the borrower's and non-borrower's farms respectively, showing a difference of Rs. 490·75. This was due to the investment on irrigational constructions, livestock, implements, etc. The total amount borrowed from different institutions was Rs. 45,450 from the land mortgage bank, Rs. 3,220 from primary co-operative societies and Rs. 2,500 from agricultural societies. The investment of borrowed capital was highest, being 95 per cent of the total amounting to Rs. 23,950 on irrigational structure in the size-group of holdings of 3 hectares and above, 31·18 per cent and 35·7 per cent being highest on seed, manure and fertilizers and repayment of old debt in the medium size of 2—3 hectares and small size 0—1 hectare respectively. The average input, output, net income, family labour income and farm business income were Rs. 1,260·27 and Rs. 848·64, Rs. 2,565·89 and Rs. 1,741·76, Rs. 1,308·14 and Rs. 895·62, Rs. 1,517·69 and Rs. 1,065·91 and Rs. 1,584·22 and Rs. 1,079·74 on borrower's and non-borrower's farms respectively. On the whole, the importance of institutional credit for promoting agricultural development and farm productivity is great.

INSTITUTIONAL CREDIT—A SUPPLY DISCRIMINATION

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SUMMARY

The study is an attempt to review the comparative performance of different institutional agencies in relation to the distribution of available credit among different sections of farmers. It is based on an observation of 50 farmers of five villages who were selected randomly from the Kalyanpur block of district Kanpur. The period of study was 1970-71 when the total outstanding loans on the farms under study were taken into consideration for the purpose. The findings of the study reveal that the institutional agencies are meeting to the tune of 50 per cent of the total loans supplied to the agricultural sector. The Government loans (*taccavi*) accounted for about one-fourth of the total borrowings from all sources, followed by the co-operatives which accounted for about 15 per cent of the total borrowings. The role of the moneylenders, which was observed as only one major source for supplying credit to the poor and needy sector needs special emphasis. As regards bank loans (which include the loans from the State Bank of India and land mortgage bank under the Agricultural Refinance Corporation), they accounted for about 11 per cent of the total advances. It is regrettable to note that its approach is limited to the uppermost strata (*i.e.*, 4·5 hectares and above) of the farmers and the rest of the section remained untouched. The per hectare analysis of the loans (including short-term credit) showed that on an average a sum of Rs. 319·97 is supplied by the institutional agencies. In the case of short-term loans alone, it was observed that the advances of institutional credit agencies varied from Rs. 90 from the lowest group (*i.e.*, 0—1·5 hectares) to Rs. 172·42 which was found in the highest size-group (*i.e.*, 4·5 hectares and above). The total outstanding loans of moneylenders have been comparatively much higher in the smaller groups than that in the higher ones. An inverse relationship was seemed to be prevailing with the size of holdings when the total per hectare loans from moneylenders were taken into account.

It is concluded that there is great difference in the pattern of allocation of credit through the institutional agencies. In spite of the several agencies entering into the fray, the farmers of the lower sector borrow mostly from the moneylenders. However, the co-operatives have been relatively

more in favour of these smaller groups. It is also to be added that the total short-term loans from all institutional agencies are not even enough to meet the bare necessity of fertilizer needs. The findings justify that there should be differential rates of interest for different sections of the farmers. It is also suggested that there should be a separate institution of credit for the smaller groups of the farmers.

RATES OF INTEREST ON AGRICULTURAL LOAN

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SUMMARY

The paper attempts a comparison between rates of interest on agricultural loans supplied by the institutional agencies and non-institutional agencies, specially, the moneylenders in different countries in the world. Gross interest charged by the latter is composed of such elements as pure rate of interest or opportunity cost of the loan, costs of loan administration, premium for risk and monopoly profit. In many cases non-interest costs of private loans are much higher than their interest costs. These, along with absence of adequate substitute sources, low creditworthiness of borrowers, want of good securities, absence of well-regulated money markets, etc., explain why moneylenders and other private creditors still enjoy a dominating position despite relatively much higher rates of interest charged by them. Overall economic growth and sufficient arrangement for institutional farm loan can only be the right antidote to excessive exactions and high interest costs.

EXTENT OF ACQUISITION AND PATTERN OF FINANCING FARM ASSETS: FARM LEVEL STUDY IN PUNJAB

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SUMMARY

In this paper, an attempt is made to examine some of the aspects relating to firstly, the extent of acquisition of farm asset and secondly, the pattern of financing this expenditure based on data collected by the Programme Evaluation Organisation of the Planning Commission from a sample of 124 farms randomly selected from four districts in the Punjab for evaluation study of the high-yielding varieties programme (wheat) for *rabi* 1968-69. For the year April, 1968—March, 1969, 71·8 per cent of the sample farms reported expenditure on specified farm assets. The expenditure on farm assets on an average per reporting farm amounted to Rs. 3,205·10 while the average per acre of holding worked out to Rs. 211·40. The expenditure on farm assets per farm and per acre of holding for all the sample farms came to Rs. 2,300·40 and Rs. 146·20 respectively. According to the farm size, the small farms reported per acre relatively more expenditure on farm assets and the proportion of farms reporting such acquisition was also higher while these two figures were the lowest for medium farms. The value of per acre assets was observed to be increasing with increased proportion of relevant crop area under the high-yielding varieties in the case of medium farms. For big farms it was relatively more at the lower level of adoption and for the small farms, at the middle level of adoption. The assets acquired consisted of those relating to livestock and irrigation for the small farms while for the big farms farm machinery and irrigation were the first two items followed by that of livestock. In the case of medium farms, ivestock, irrigation and farm machinery were the important items, in that order.

The pattern of financing this expenditure revealed that 84·5 per cent of it came from own sources only while 11·3 per cent was financed by private non institutional sources and the remaining accounted by departmental/co-operative agencies. The quantum of finance was the highest for that obtained from private sources followed by that from own sources and departmental/co-operative agencies. By the type of assets it was larger for farm machinery, followed by that for irrigation, livestock, farm buildings and land improvement, in that order.

The regression analysis revealed only some statistically significant relationship between the value of assets acquired per acre and the size of farm. However, in the case of medium farms statistically significant relationship was found only with the proportion of high-yielding coverage of the relevant crop area.

CROP LOAN SYSTEM—A NEW HORIZON

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SUMMARY

The paper seeks to examine the reasons of success of the crop loan system as an agency supplying agricultural finance. It is an attempt to examine the problem at the micro level which would highlight the problems the system confronts in varying agricultural conditions, types of farms and farmers and diverse circumstances. The reference of the study is Surat district in Gujarat, a pioneer IADP district, having progressive agriculture but with a large chunk of backward areas. In all, ten villages of different crop zones of the district and 250 cultivators were selected for field study. The working of the crop loan system through credit and marketing co-operatives has the backdrop of variegated pattern of villages of the district. One conspicuous feature of the region is the functioning simultaneously of a number of village credit and marketing co-operatives resulting in a certain amount of overlapping of functions and membership. Even the marketing co-operatives have undertaken to supply production finance. Out of nine primary credit societies only three have taken to marketing on agency basis. Primary credit societies have suffered not because of marketing co-operatives but because of basic agricultural conditions. The marketing co-operatives have embarked on supply of production finance spontaneously and this has stood the test of about four to five decades. The system holds out important lessons of linking marketing and credit through the marketing end based on marketable surplus. The pattern of crop loan through the marketing co-operatives provides a singular example of effective linking of marketing and credit. The question posed is whether we should not accept it as a valid and legitimate pattern on its own right. Finally we conclude that both the credit and marketing institutions depend for their success as much on leadership as on the degree to which agriculture was market-oriented and perennial.

NEED FOR SOUND BASIS FOR CREDIT WITH SPECIAL REFERENCE TO CROP LOANS

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In order to highlight the need for sound basis for crop loans in relation to the cost of cultivation of crops for efficient implementation of credit programmes a case study was taken up in the "Khed" region of Maharashtra State. In all 102 potato growers spread over ten villages formed the total sample. Potato is very remunerative short duration cash crop but at the same time it involves high

production cost. It is grown both in *kharif* and *rabi* seasons. *Numbri* and newly introduced *kufr chandramukhi* and *sinduri* were the varieties grown by the cultivators. The latter two varieties arei very high-yielding and are replacing the existing *numbri* variety very fast. This situation prompted the authors to investigate the actual credit requirements in respect of different varieties of potato vis-a-vis scale of credit supplied by the various agencies.

The study revealed that the total cost of cultivation per hectare for *kharif* potato was Rs. 4,288 for *numbri* and Rs. 4,489 for *chandramukhi*. In the case of *rabi* crop, the per hectare cost of cultivation was Rs. 4,398 and Rs. 5,256 and Rs. 5,160 for the *numbri*, *chandramukhi* and *sinduri* varieties respectively. Out of pocket expenditure which was most felt cost by the cultivators alone formed the major proportion of the total cost. It worked out to 84 per cent and 86 per cent for *kharif numbri* and *chandramukhi* varieties respectively, while the out of pocket expenditure for *rabi* season came to 83 per cent, 82 per cent, and 85 per cent for the *numbri*, *chandramukhi* and *sinduri* varieties respectively.

As regards *kharif* crop, the *chandramukhi* variety gave 16 per cent higher yield over the *numbri* while in the case of *rabi* crop *chandramukhi* and *sinduri* varieties gave 66 per cent and 134 per cent higher yield respectively over the *numbri*. Thus the newly introduced *chandramukhi* and *sinduri* varieties were found to be highly profitable as compared to the *numbri* though they required higher cost due to the use of improved technology.

As against this cost background, the scale of credit adopted for this crop by the different agencies was found to vary considerably and had no varietal distinction at all. Except the State Bank of India, all other agencies provided more credit for the *rabi* season. However, the supply of credit in relation to the cost of cultivation was found to be inadequate especially for the high-yielding varieties. In the case of *kharif* potato the proportion of credit to the total cost ranged from 42·68 per cent to 57·71 per cent. While the proportion of credit to cost A was as low as 49·39 per cent for *chandramukhi*, it covered 68·34 per cent of the cost A in respect of *numbri* variety. In the case of *rabi* potato, the proportion of credit to out of pocket expenditure (cost A) ranged from 47·96 per cent for the *sinduri* variety to 84·12 per cent for the the *numbri*.

Thus the scales adopted by various agencies had neither uniformity nor had definite relationship with the cost of production of crop or the varieties grown. It was found that the potato growers meet the shortfall in credit from the moneylenders and the traders who charge very exorbitant rates of interest. It was also observed that of the 102 sample cultivators as many as 96 had obtained loans for this crop and the co-operative credit societies were the predominant source of credit. All the 96 cultivators expressed that the credit supplied was inadequate.

The present investigation depicted the problematic situation of actual credit requirements of high-yielding varieties of a crop vis-a-vis supply of credit which was very inadequate and had no scientific basis. In fact the cost required to produce the varieties involving modern technology and profits associated with them justify fully the ground for special scale of credit with scientific cost-oriented approach. It is necessary that the scale of finance should be such that it will cover at least the average out of pocket expenditure and should facilitate the changing technology.

THE ROLE OF LAND MORTGAGE BANKS IN AGRICULTURAL DEVELOPMENT IN ASSAM

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SUMMARY

Sources of institutional credit in Assam are limited and inadequate. The land mortgage banks are the only institutions which are supplying long-term credit to the farmers since 1955. The Central Land Mortgage Bank is located at Gauhati with 16 primary land mortgage banks at Sub-Divisional headquarters of the plains districts. The total amount of loans issued through the primary land mortgage banks since the inception of the Central Land Mortgage Bank upto the end of 1967-68, was nearly Rs. 34 lakhs only. This gives an average yearly operation of Rs. 2·6 lakhs. In relation to the need of the farmers the amount of loans advanced is very inadequate. Some of the primary

land mortgage banks managed to earn normal profits, but the Central Land Mortgage Bank incurred loss due to the increasing cost of staff and establishment. Long-term loans are issued for a maximum period of 15 years, repayable in equal or equated yearly instalments. The minimum and maximum limits of loan issued to individuals are Rs. 1,000 and Rs. 15,000 respectively. Only 50 per cent of the value of the land mortgaged is allowed as loan.

A sample of 120 borrowers of two districts were interviewed. The borrowers found it very difficult to get the 'Non-encumbrance Certificates' of the mortgaged land. The time-lag between the date of application and the date of actual receipt of the loans is very great. In most cases it took two to three years in obtaining loans. In some cases only a part of the loan applied is granted and such loans could not be used gainfully. Most of the borrowers have utilized the loans fruitfully and such loans helped them a lot in their economic regeneration. A few cases of opening orchards, fisheries and improvement of land by investing borrowed money are remarkable. However, 41 per cent of the borrowers had diverted 21 per cent of the loans for other purposes.

LOANS ADVANCED BY LAND DEVELOPMENT BANKS—UTILIZATION, DIVERSION AND MEASURES TO PREVENT DIVERSION

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SUMMARY

The objective of this paper is to assess the volume, utilization and diversion of land development bank loans in Bilaspur and Ratlam districts of Madhya Pradesh. The average amount advanced by Bilaspur bank during the period 1965-66 to 1967-68, was Rs. 11,04,526. The average amount for Ratlam was Rs. 13,81,545. In Bilaspur, the most important purpose of loan was improvement of land and formed 53 per cent of the total amount. Other purposes were sinking of wells and redemption of debt. In Ratlam, sinking of wells was the most important purpose and accounted for 62·62 per cent of the amount sanctioned. Redemption of debt and improvement of land were other purposes. During the reference period, the proportion of loan sanctioned for sinking of wells increased in the case of both the banks.

As regards utilization by the selected borrowers, it was found that in Bilaspur, 59·18 per cent of the amount was utilized for recognized purposes. In the case of Ratlam the percentage was 67·86. In Bilaspur the purposes to which the amount was diverted were purchase of draught animals, redemption of moneylender's debt and purchase of shares, etc. In Ratlam, diversion was mainly for purchase of shares and draught animals. In both the districts, the amount sanctioned for sinking of wells fell short of requirement. To check the proper utilization of loans, additional supervisors need to be appointed. The loans should be sanctioned within the shortest period and at appropriate time, to avoid the misutilization.

VALUATION OF FARM LAND

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SUMMARY

In view of the fact that land continues to be the most important security for investment credit in agriculture, there is a growing need for following a rational methodology in appraising land value. The paper pin-points the differences in the land valuation procedures currently followed by the various institutional credit agencies such as the co-operative land development banks and the *taccavi* departments of the State Governments and shows that the values arrived at by each of these agencies are unrealistic and are far lower than the market value of land. A low valuation would act as a constraint on investment. The proper procedure for valuation is by capitalization of net farm income as suggested by the All-India Rural Credit Review Committee. In practice, however, such a methodology involves competent and well-informed decisions on various critical issues such as the appropriate concept of farm cost, a bias-free measure of net farm income, the appropriate price level for income valuation and finally, the proper discount rate for capitalization. A slight change in any one of these variables would lead to a substantial difference in the value arrived at. It is, therefore, suggested that a specialised institute for land valuation—an Indian Institute of Land Valuation—may be set up on the lines of the Appraisal Institute of Canada or the American Institute of Real Estate Appraisers. Such an institute could develop the needed expertise on land valuation and offer consultancy services to the different institutional credit agencies.

THE RESERVE BANK OF INDIA AND FINANCING OF AGRICULTURE

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SUMMARY

This paper is concerned with the financing functions of the Reserve Bank of India in the sphere of agriculture, omitting the more important developmental and promotional activities, and also the different provisions of non-agricultural finance. The Bank cannot finance agriculture directly, but does so through the co-operative banks and the scheduled commercial banks. The Bank's credit support to the co-operative banks has increased much in the recent past due to the introduction of certain flexible conditions in the granting of loans. But the banks have failed to utilize fully the credit limits sanctioned by the Reserve Bank of India, because of certain rigid provisions like "non-overdue cover" and "minimum involvement" which involve sufficient owned fund and not a high level of overdues. The Bank also provides refinance facilities to the scheduled banks which have, of late, progressively entered into the farm sector. Is such a stepping-up of rural credit inflationary? To many, the answer is a positive 'yes'; to others, it is a definite 'no.' The inflationary possibility of rural credit, however, depends upon the operation of so many variables that without examining them one should not say anything conclusive. The Reserve Bank of India, however, has taken precautionary measures against such a danger. It has extended its control over the co-operative banks and has also encouraged the latter to resort to non-inflationary financing through large scale deposit mobilization. Thus, rural credit expansion has not been haphazard. Indeed, it appears to be an aspect of the Bank's policy of "controlled expansion."

IMPACT OF DENA BANK'S DIRECT FARM FINANCE IN DISTRICT RAIPUR

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SUMMARY

Indian agriculture today is badly in need of adequate finance. Since non-institutional credit suffers from various drawbacks, the emphasis is to provide the same through various specialized institutions. The institutional credit, if well-organized, can play a dynamic role in the development of agriculture. With this objective in view, an effort in this study was made to examine whether the commercial banks' farm financing operations had been directed towards this goal or not. The hypothesis, *viz.*, the introduction of bank credit has helped raise the farm returns, was therefore tested in this study.

The data chosen for this study pertained to Raipur district of Madhya Pradesh where Dena Bank financed the farmers during 1969-70. Since the performance of the farms receiving bank finance was to be compared with their past performance, the study covered the year of the introduction of the Dena Bank's farm financing operations, *i.e.*, 1969-70 and also the preceding three years, *viz.*, 1966-67, 1967-68 and 1968-69. The farmers, in this area, mostly raised only one crop of paddy during *kharif*. However, few of them raised wheat during *rabi*, but only on a very small portion of their holdings.

Multiple regression analysis was used as the analytical tool for working out the farm production equations. The total farm returns were expressed as a function of various farm inputs with the help of regression equations. The total investment on short-term farm inputs for the year 1969-70 was classified into two parts, *viz.*, (*a*) inputs financed from the credit borrowed from the bank; and (*b*) inputs financed from sources other than the bank finance. Other explanatory variables used were area of the farm, rent of the farm land and time. Three types of functions, *viz.*, linear, Cobb-Douglas and quadratic were tried.

The results revealed that though the technology (as represented by time) had influenced the farm returns, the bank borrowings also showed favourable effect on the total farm returns. The quadratic equation further revealed that the bank borrowings had highly significant positive interaction with (*i*) investment from other sources, (*ii*) land rent, and (*iii*) land area. Thus, bank borrowings also increased the productivity of other inputs used in farming. Therefore, the hypothesis that the introduction of bank credit had helped raise the farm returns was accepted.

ROLE OF SCHEDULED COMMERCIAL BANKS IN SUPPLY OF CREDIT TO AGRICULTURE IN INDIA

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SUMMARY

A study on the extent of contributions rendered by the scheduled commercial banks in supply of credit to agriculture during the various Plan periods reveals that the quantum of money advanced to agriculture, largely for plantations, recorded a very significant rise from Rs. 12·4 crores by March, 1951 to Rs. 67·1 crores by March, 1968. Subsequently, with the growing awareness of the banking institutions of the need for financing agriculture, the total money advanced to agriculture other than to plantations, rose further to a level of Rs. 160·35 crores by June, 1969.

In order to launch a more concerted drive for institutionalisation of savings, especially in rural areas and to provide liberal credit facilities to such priority sectors as agriculture, the nationalisation of the 14 major Indian scheduled banks on July 19, 1969 was a historic step by the Government. The shift in the criterion of advancing money from creditworthiness to the viability of projects has undoubtedly changed the very structure of Indian banking policy.

The success in launching an ambitious branch expansion drive in the country after the nationalisation of banks can be assessed from the fact that during the period of July, 1969 to April, 1971, on an average, five new offices per day were opened, against one new office a day prior to the nationalisation of banks. The total number of accounts with the public banks also increased tremendously from 2·82 lakhs in June, 1969 to 11·7 lakhs in March, 1971. The average size of direct finance to farmers also increased from Rs. 2,210 in June, 1969 to Rs. 2,497 in March, 1971.

Because of a sharp departure from the conservative outlook of the commercial banks in financing agriculture and other neglected sectors, the total advances to these sectors almost doubled from Rs. 439 crores in June, 1969 to Rs. 897 crores in March, 1971. Of the neglected sectors, agriculture has taken a major share of around 37 to 38 per cent during this period. Even with a relatively wider activity of the public sector banks in the field of advancing loans to agriculture and other weaker sections of society, the constancy in the pattern of distribution of credit-deposit ratio (0·8) has throughout been maintained during this period. This confirms a healthy growth in sound banking operations by the public sector banks.

Lastly, the decrease in the total money advanced for distribution of fertilizers and other inputs by the scheduled commercial banks from Rs. 78·49 crores in March, 1970 to Rs. 64·42 crores in March, 1971, and the significant increase in the quantum of loans advanced to the State Electricity Boards for energization of wells and to farmers for durable capital investment in agriculture, prove beyond doubt that the big and medium farmers are now inclined more towards durable capital investment projects with a view to adopting improved agricultural technology than towards merely raising the crop.

FINANCING OF AGRICULTURE BY COMMERCIAL BANKS IN UDAIPUR DISTRICT (JULY 1969 TO JUNE 1971)

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SUMMARY

Agriculture through its new technology holds the key to rapid economic development. Finance is the first pre-requisite for the agricultural transformation which will enable us to reach the take-off stage in this sector. In spite of a long Government support for several years, the co-operative sector is still unable to meet the increasing credit requirements of the rural masses. It was with a view to fill this gap that the 14 major commercial banks were nationalised on July 19, 1969. Two years have passed since then and it is appropriate now to review their progress in their new assignment. In the present paper, we have attempted to analyse the role of commercial banks in financing the agriculture of Udaipur district. Data were collected from the offices of various banks and a scrutiny of all sanctioned loan applications was made personally. The findings of the study are given below.

A progressive trend in the total amount sanctioned and the cases covered by the commercial banks has been observed. It shows that the total amount sanctioned has increased from Rs. 3·28 lakhs to Rs. 53·53 lakhs and the cases have increased from 36 to 1,555 during the period under review. Punjab National Bank has played a leading part among various commercial banks in this direction, having handled 93·7 per cent of the cases and 60·43 per cent of the amount sanctioned. With a far less proportionate share, Bank of Baroda and United Commercial Bank rank second and third respectively. The share of commercial bank finance in the total institutional finance has also increased from 33 per cent in 1954 to 56 per cent in June, 1971.

A detailed analysis of the socio-economic characteristics of the loanees reveals that 94·21 per cent of the cases are from the rural areas and there is a preponderance of the cases of joint families, young and middle aged farmers and of ancestoral farmers.

The distribution of loanees according to their size of holding showed that 91·6 per cent of the beneficiaries of bank finance were small farmers holding land in the size-group 0—4 hectares. It was also found that 90 per cent of the cases were having annual incomes upto Rs. 5,000 only. Ninety-five per cent of the cases were for medium-term loans (2 to 5 years) for the purposes like land development, repairs and digging of wells, purchase of agricultural machinery such as pumping sets and tractors and for the purchase of livestock, etc. The short-term loans with a time limit of one year are given for the purchase of seeds, fertilizers and pesticides, etc. But these formed only 0·5 per cent of the cases, during the last two years which is not a happy feature in a technologically backward district like Udaipur. 95·4 per cent of the cases were lying in the loan-class of Rs. 1,000—3,000 and the majority of them was accounted for by loans for the purpose of digging of wells. 0·83 per cent of the cases were in the loan class of Rs. 3,000—5,000 being usually for purchase of pumping sets and 2·5 per cent of the cases were in the class above Rs. 5,000, which were generally for the purchase of tractors, poultry development and some being of multi-purpose type.

Some of the problems in financing of agriculture by commercial banks are as follows.: (1) The application forms are not uniform, precise and short. (2) The procedure for filling up the forms and completing the documents is cumbersome. (3) Bank staff is insufficient and unable to take up the cases for short-term loans upto the amount of Rs. 500. (4) The business of financing agriculture so far is confined more or less to the city offices only. (5) Cases of illegal gratification and bureaucratization are also not unknown.

In order to expand and strengthen the bank credit to agriculture, the following suggestions are made. All commercial banks should adopt a uniform loaning policy and precise and short loan application forms should be prepared. The procedural difficulties can be solved by issuing pass books to all farmers showing the details of their land holdings, which will obviate the need for verification at the time of taking loan. All loans issued by various institutional agencies may also be marked on the above pass books so that the need for getting no-dues certificates for those who have

not taken a loan from any other agency is avoided. Along with the city offices, the mofussil offices should also take a keen interest in this business. Technical and administrative staff with the banks should be strengthened and their operational efficiency should be improved.

ROLE OF COMMERCIAL BANKS IN FARM FINANCE

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SUMMARY

The study was undertaken to study (1) the performance of commercial banks in farm finance, (2) purposewise break-up of credit advanced by nationalized banks, (3) difficulties experienced by the farmers in obtaining credit from the banks, and (4) suggestions for improving the methods of advancing credit. Data on the performance of commercial banks in agricultural finance were collected from the various reports of credit committees and *Reserve Bank of India Bulletins*. Data on the purposewise break-up of agricultural advances in Punjab were collected from the regional offices of the four major nationalised banks. Difficulties experienced by the farmers in obtaining credit from these banks were studied by collecting primary data from the cultivators.

The negligible attention of the commercial banks towards agriculture, before nationalisation, was due to the deliberate policy both of the Government and the bankers. After nationalisation, banks were directed to give more stress in financing the priority sectors. The All-India Rural Credit Review Committee envisaged a crucial role for commercial banks in farm finance. The relative share of agricultural advances in total credit, therefore, increased from 8·43 per cent in June, 1969 to 11·85 per cent in December, 1970 for State Bank of India Group and from 3·30 to 7·80 per cent for nationalised banks during the corresponding period. Direct finance to farmers (excluding plantations) increased from Rs. 11·06 crores in June, 1969 to Rs. 74·67 crores in December, 1970 in the case of State Bank of India Group and from Rs. 26·96 crores to Rs. 127·16 crores in the case of nationalised banks.

The purposewise break-up of direct finance to farmers showed that much stress was given in providing both production and equipment credit to farmers. Analysis of advances made by nationalised banks highlighted the delay in advancing loans, the large gap between amount demanded and amount received, high costs involved in getting through the procedures and registration charges and inadequate visits by the field staff for ensuring the proper utilization of the loan advanced and providing proper guidance to the farmers.

Out of the procedural difficulties, delay in obtaining *Jama Bandi* from *Patwari* and non-encumbrance certificate from the tehsil was reported by a majority of cultivators. The expensiveness of the procedures involved was also felt by a large number of farmers. Delay in disbursement and inadequacy of credit was highly reported in the case of loans for tube-wells. The number of instalments was found inadequate in the case of loans for tractors. Difficulties were also experienced due to lack of practical training, unsympathetic and biased attitude of bank officials.

Government should issue passbooks to the cultivators recording all the landed property. The gap between amount demanded and amount received should be reduced to the minimum. The number of instalments should be increased in the case of loan for tractors. The high costs involved in securing credit by farmers, may be reduced by remitting registration fee on agricultural advances. The complaint regarding supply of poor quality and high price of fertilizers and seeds may be removed by opening service depots by the banks. Moreover, dedicated persons having sufficient experience and training in field work with willingness and ability to serve in rural areas may only be recruited.

COMMERCIAL BANKS FINANCING AGRICULTURE AND SMALL FARMERS

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SUMMARY

The nationalisation of commercial banks has raised hopes about greater flow of farm finance to the backward regions and less privileged groups in agriculture and industry. The paper mainly seeks to examine (*i*) the extent to which small farmers benefited from the banks' programmes to agriculture, (*ii*) the factors influencing borrowing and non-borrowing by the small farmers, and (*iii*) the channels of communication available to small farmers about bank finance. These aspects are examined through a study of the banks' direct advances to farmers in two different agricultural regions in two districts of Andhra Pradesh during the period November, 1968 to March, 1970 in Region 'A' and from December, 1969 to December, 1970 in region 'B'. The study has two limitations. First, it is too early to judge and draw valid inferences since the banks' entry into farm finance is a very recent one. Second, the limited number of loans advanced by the bank does not permit adequate selection of the sample.

The study shows that the small farmers' share in bank finance has no relation either to their number or land held by them and the bulk of it went to rich farmers. The most significant variables that influenced borrowing from the banks are education and contacts with the banks, while lack of awareness is largely responsible for non-borrowing by the small farmers. This is largely due to lack of necessary propaganda about the banks' programmes in the rural areas and limited accessibility of the existing formal channels of communication to the small farmers. These are in addition to the widely held belief that banks are still conservative in undertaking direct finance to the small farmers. In view of this, necessary extension services about bank credit and fixing some minimum share of bank finance to the small farmers may be needed to fulfil the hopes aroused about bank nationalisation in relation to the small farmers.

CO-OPERATIVE AGRICULTURAL CREDIT—SOME DISQUIETING TRENDS

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SUMMARY

Agricultural credit co-operatives have been assigned an important role for supporting the Green Revolution. Making available adequate credit and that too in proper time is by far the most important service expected from the co-operatives. The past decade has witnessed an impressive increase in the operations of the primary agricultural credit societies. During the decade 1960-70 the working capital increased by about 200 per cent while the loans advanced by them increased by about 150 per cent. Howsoever impressive the overall progress of the co-operatives may be, one has to look a little deeper into the operations of these credit co-operatives for a better understanding of their performance. Such an inquiry is likely to reveal some disquieting trends emerging simultaneously with the wide expansion of the operations of the co-operatives.

A closer analysis of the increase in membership and the number of borrowing members reveals that the actual benefit of the credit co-operatives (in terms of cheap credit) is going to a progressively declining chunk of their total membership. The ever increasing membership is bringing more and more population within the fold of co-operative movement and mobilizing more and more resources but the benefit as such is going to a declining chunk of its membership in absolute as well as relative terms. Are the fruits reserved for the hard-core members entrenched in the movement and are being denied to those outside their fraternity? Or is the past membership sinking in heavy overdues, making themselves ineligible to receive fresh loans and the credit is being distributed to only the new members who are yet to follow suit. The answer can only be obtained by a deeper study which is imminent in view of the need to put the co-operatives on sound footing.

A closer look at the overdue credit vis-a-vis the share capital and/or owned funds during the past decade reveals that the overdue loans have progressively swollen in all including the more developed States and have exceeded the share capital and are almost at par with the total owned funds. With the scale with which the overdues are mounting up, coupled with the anxiety to pump in more and more credit, reduction in the overdues during the ensuing years appears totally improbable. The co-operative movement cannot sustain too long a situation in which the entire owned funds are getting engulfed by the overdue loans. Unless corrective measures are introduced immediately a time might soon come, perhaps it has already come in several States, when one will find the co-operative castles standing on soft sand. These distressing trends deserve to be probed in detail for determining the precise reasons thereof and for introducing stringent corrective measures.

MARGINS OF CO-OPERATIVE CREDIT INSTITUTIONS AND FARMER'S BORROWING COSTS

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SUMMARY

The study was undertaken with the objectives to study (*i*) the cost and margin pattern of the various agencies involved in the flow of credit especially from the District Co-operative Bank to the farmer, and (*ii*) the costs of borrowing of short and medium-term loans of different sizes at farmers' level. The conclusions of the study are as follows: (1) Although the Reserve Bank of India charged 4 per cent interest per annum, the cost of credit to the farmer is 12·82 per cent and 12·40 per cent per annum for short and medium-term loans respectively which seems to be very high. Efforts should be made to reduce these costs by increasing the efficiency, especially of service co-operatives and/or by organizing the whole co-operative structure. (2) The costs of borrowing per hundred rupees per annum in medium-term are lower than the short-term loans but on the whole a medium-term borrower paid Rs. 62.49 for Rs. 1,838 whereas a short-term borrower paid the total cost of Rs. 41·09 in borrowing Rs. 1,073 per annum. (3) The cost of borrowing decreases as the size of both medium and short-term loans increases.

INSTITUTIONAL CREDIT FOR AGRICULTURE—A CASE STUDY OF PRIMARY CREDIT CO-OPERATIVES OF AJMER DISTRICT

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SUMMARY

The paper attempts to examine the role of various agencies in meeting the credit needs of farmers with a view to hasten the pace of agricultural development of the region studied. It is based on a sample survey of 21 village primaries selected on the basis of probability proportional to size of membership of co-operative marketing societies in the region of Ajmer district.

Co-operatives, of late, are emerging in India as significant institutional force in meeting the credit needs of farmers providing about 30 per cent of such needs today. The working of 21 primaries in Ajmer district (1965-68) reveals that many of them suffer from various weaknesses such as inactiveness in meeting farm input needs and their inadequacy ; heavy reliance on borrowings and neglect of deposit mobilization; high percentage of overdues and indifferent attitude towards marketing business, etc. However the loans advanced per active society, per borrowing member, as well as percentage of members granted loans do reveal favourable trends. The contribution of various agencies, *viz.*, co-operatives, moneylenders, and relatives towards meeting the total credit needs of 175 families of the region (1967-68) comes to 47, 29, and 24 per cent respectively and as such points out the significant position occupied by the co-operatives. Though the moneylenders and traders are meeting 29 per cent of the total credit needs, this is not adversely influencing the economic position of farmers due to competition. Thus the difference in the prices received by

debt free, institutionally indebted, and non-institutionally indebted farmers in respect of cotton and wheat sold turns out to be statistically insignificant. Further, the farmers in all the size-groups borrow from various sources. But co-operatives to some extent have neglected small farmers (0—5 acres). This is also true of commercial banks.

Potentially the co-operative movement is one of the biggest in the world. Although at present co-operatives in the region studied meet 47 per cent of the total credit needs of farmers, they extend this benefit only to 11 per cent of the population in the region. Unless, therefore, these co-operatives step up their business performance on the suggested lines, they will not be able to revolutionise agriculture on the one hand and dethrone the village *mahajan* on the other. Thus they have to liberalise the loans in relation to repaying capacity of farmers as the value of marketed crops in the case of many farmers turns to be significantly greater than loans granted to them; supply various inputs well in time as the results of linear function fitted for 204 families of the region studied between marketable surplus and output, and marketable surplus and acreage show that intensive cultivation is likely to prove beneficial in the region; merge small sized units into large sized ones; to overcome the effect of drought and famines in the region attempt to balance advances and repayments over an agricultural cycle rather than attempt annual balancing; tie credit to inputs, inputs to output, output to marketing and repayments through advice and supervision of farm operations; and show their right concern to weaker sections of the society. Since credit requirements in the coming years will be appreciable and co-operatives cannot do the job by themselves, there is scope for multi-agency approach to the problem of rural credit for greasing the wheels of agricultural development and thereby help in elevating the levels of living on the farms of Ajmer district.

CO-OPERATIVE FINANCE—AN INTER-STATE COMPARISON AT THE VILLAGE LEVEL

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SUMMARY

Co-operative finance awaits a considerable expansion in the Fourth Plan. The Fourth Plan envisages the membership of primary agricultural credit societies to be increased to 42 million by 1973-74 covering about 60 per cent of the agricultural families. The volume of short and medium-term advances is expected to touch a level of Rs. 750 crores whereas long-term credit is targeted to reach a level of Rs. 900 crores by annual issues upto the end of 1973-74. These targets, however, will fall short of the estimated requirements of Rs. 2,000 crores, Rs. 500 crores and Rs. 1,500 crores respectively for short, medium and long-term credit. The Fourth Plan, therefore, has rightly adopted a multi-agency approach to meet the credit gap. This approach envisages increased role of various institutional agencies such as the credit co-operatives and the land development banks, the commercial banks and the State Bank of India, the Agricultural Refinance Corporation, the Agricultural Credit Corporations, the Agro-Industries Corporations and the Rural Electrification Corporation. There is no denying the fact that co-operatives with their countrywide network of primaries will continue to dominate the rural credit scene. The need to reorganize and revitalise the co-operative credit structure is all the more great.

The uneven growth of the primary credit societies in different States causes concern and has prompted to undertake the present analysis of inter-State comparison. The object of this paper, thus, is to attempt an inter-State comparison of the performance of the primary agricultural credit societies, so as to find out possible explanations for their retarded growth in some of the States. The analysis is presented with the help of the latest comparable data obtained from the Statistical Statements Relating to the Co-operative Movement in India, published by the Reserve Bank and relates to the period covering the Third Plan and three annual plans (1961-69).

A valid comparison of the inter-State performance may not be possible on the basis of the present analysis mainly because of two reasons. Firstly, it is possible that the base year 1960-61 may not be a proper bench mark year for the estimation of growth rates for different activities of co-operatives. Then, the period 1961-69 may also not be an appropriate period for the comparison since the main reason for the selection of these two years was the availability of the latest comparable data for these years. Secondly, it may also be possible that the indicators of performance of co-operatives selected for the comparison may not be fully representative of all the aspects of working of these societies. In spite of these limitations the present analysis can provide food for thought and further discussion. Following broad conclusions drawn with the help of present analysis can be useful for the policy makers.

(1) The co-operatively advanced States of Andhra Pradesh, Gujarat, Maharashtra, Mysore, Punjab and Tamil Nadu have not given a good account of the progress with regard to different indicators of co-operative activity during the period 1961-69, particularly in their efforts to increase the proportion of active societies, villages covered by active societies, membership drive, proportion of borrowing members, self-reliance (proportion of owned funds to working capital), increase in per member advances and in appointing full-time paid secretaries for increasing their operational efficiency and achieving viability.

(2) The position of overdues in the advanced States has deteriorated, the possible reasons for which may be the laxity in the loaning policy and the loan procedures, lack of effective supervision over the use of loans and the failure of linkage of co-operative credit with marketing.

(3) Although the growth rates in deposits per member during the period have been generally higher than the growth rate in advances per member in the advanced States in general, the per member deposits have increased with a higher rate than that in the backward States of Assam, Bihar, Jammu & Kashmir, Orissa, Rajasthan and West Bengal. The societies in the backward States, thus, have given a better account of progress in thrift and mobilization of deposits in relation to advanced States.

(4) The performance of backward States with regard to increase in the percentage of active societies and the coverage of villages, self-reliance and growth rates of overdues in relation to outstanding loans have also been much better than the advanced States. Even the proportion of profit earning societies as well as per member profit earned exhibited higher growth rates than the advanced States.

(5) With the present basis of comparison the performance of backward States seems to be quite promising and given the necessary assistance they should be able to catch up with the advanced States. A right step in this direction is the setting up of the Agricultural Credit Corporations in the backward States of Assam, Bihar, West Bengal, Orissa, Rajasthan, Manipur and Tripura. Much will depend upon the performance of those Corporations and their relations with the co-operatives in these States. Their policies and procedures should be so oriented and implemented as to accelerate the development of co-operatives rather than to retard it. These Corporations should be regarded as a purely transitory institutions ultimately to be replaced by strong viable co-operative credit structure. This would be possible if the backward States are induced to continue with faster growth rates of co-operative development.

REGENT TRENDS IN CO-OPERATIVE FINANCE IN HARYANA AGRICULTURE

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SUMMARY

The new strategy of agriculture which is more capital-intensive will require more capital. Moreover, this will enhance the demand of long-term credit more than the short and medium-term credit. How much capital will be required for a particular crop season, will depend on the general financial position of the farmers, type of soil, nature of cultivation, type of crop to be grown and the cost of different inputs. According to an estimate of the All-India Rural Credit Survey Committee in 1952, Rs. 750 crores will be required by the farmers throughout India as short, medium and long-term loans annually. The estimate was based on the fact that the total area sown under different crops was 352 million acres approximately. Since the total sown area was about 10 million acres in Haryana in 1952 then the credit needs of Haryana would have been Rs. 20 crores approximately if we take this estimate in view. This estimate for Haryana has serious limitations because the estimate relates to 20 years ago and now the conditions are quite different. The prices have considerably gone up and the mode of agricultural operation has also undergone a radical change. Agriculture is now rapidly being commercialized and the strategy of agriculture mentioned earlier has become a reality. The new strategy involves improved seeds, fertilizer of varous types, pesticides and insecticides, tube-wells, tractors, etc., which were either non-existent or insignificant and cheaper in 1952. The cost of cultivation has also gone up.

By another estimate the financial requirements of irrigated crops work out to generally three times of that for the unirrigated one. It has been roughly estimated that for the irrigated crops the financial requirements are Rs. 100 per acre. Based on this assumption the total short-term agricultural credit requirements of Haryana will roughly work out to Rs. 54·5 crores as the irrigated land was nearly 3520 thousand acres and unirrigated land approximately 535 thousand acres in 1969-70. This estimate seems to be more practical than the first estimate. Taking both the estimates into consideration, the credit requirements of the Haryana peasants will have to be worked out taking the following factors into consideration. (1) Estimates will have to be made for the potential demand of inputs and their prices, (2) cost of cultivation, (3) the estimated expenditure on the general improvement in land and reclamation, (4) amount of old debt to be paid off with interest. Apart from these factors there may be some minor items for which some allocation has to be made.

SOCIO-ECONOMIC FACTORS INFLUENCING REPAYMENT OF CO-OPERATIVE DUES IN RAJASTHAN (A CASE STUDY)

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SUMMARY

The purpose of this paper is to examine the various socio-economic factors influencing the repayment of co-operative dues. The analysis is based on a survey of 731 borrowers (of which 412 were defaulters) in Kota, Pali and Jodhpur districts of Rajasthan. The study brings out following facts : (1) There is no association between land owned, amount borrowed/level of literacy of the borrower and his repayment performance, but there is strong association between repayment and irrigation, *i.e.*, (*i*) borrowers belonging to the middle castes default less as compared to the upper and lower castes borrowers; (*ii*) borrowers growing cash crops default less as compared to those who grow crops other than cash; (*iii*) users of chemical fertilizers default less as compared to the non-users; (*iv*) borrowers who mainly depend on cultivation default less than those who do not mainly depend on cultivation; (*v*) borrowers who have irrigation facility default less as compared to those who do not have irrigation facility. (2) The deciding factors in repayment are irrigation and the caste of the borrowers as all the variables (fertilizers, crops, occupation) centre around irrigation and caste. It was observed that borrowers belonging to the middle castes largely depended on cultivation and have irrigated lands, used chemical fertilizers and have grown cash crops, and have defaulted less in the repayment of co-operative dues.

WILFUL DEFAULT OF CO-OPERATIVE CREDIT IN RAJASTHAN—SOME ISSUES

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SUMMARY

The purpose of this paper is to find out the extent of wilful default of co-operative credit in Rajasthan, and its main causes. The analysis is based on the study of 120 defaulters (out of a sample of 180 borrowers) randomly selected from Kota, Pali, and Jodhpur districts of Rajasthan. The study brings out the following facts. (1) In Kota district there are 6, *i.e.*, 30 per cent wilful defaulters out of the 20 defaulters. (2) In Pali district there are 12, *i.e.*, 24 per cent wilful defaulters out of the 50 defaulters. (3) In Jodhpur district there are 10, *i.e.*, 20 per cent wilful defaulters out of 50 defaulters. Thus out of 120 defaulters, we find that 28, *i.e.*, 23·5 per cent are wilful defaulters.

The study reveals the following main causes of wilful default.

1. The re-lending of co-operative borrowings so as to make profit, out of the interest margins, *i.e.*, difference between the rate of interest prevailing in the rural areas and rate of interest charged by the co-operatives.

2. To harass the management. The ex-members and their associates want to harass the present management, and in some cases they are not certain that fresh finance would be available to them once they have repaid the amount.

3. Uncertainty of fresh finance to the society by the Central financing agency.

4. Element of fear about the future financial position of the society, as we find some members wilfully default up to the extent of their share capital and deposits with the society. This is because they do not want to be losers in case the society goes into liquidation.

The study further points out that the wilful defaulters generally fall in the following category: (1) Those who have larger size of holdings, (2) belonging to higher castes group, (3) having better level of education, (4) with large borrowings from co-operative, and (5) who are members or ex-members of management committees or their close associates.

TRENDS IN SUPPLY OF CREDIT BY M. P. STATE CO-OPERATIVE LAND DEVELOPMENT BANK

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SUMMARY

The objective of this paper is to study the total volume of loans advanced, the proportion of loans for different purposes and the relationship between the two. The total amount of loans advanced during the reference period (1961-62 to 1970-71) was Rs. 24,58,49,000 or Rs.2,45,84,900 per year. The increase during this period was 54 times that of the first year. Sinking of wells was the most important purpose followed by installation of pump-sets and construction of bunds, etc. The proportions of different purposes to total amount varied from year to year. In the first year, the important purposes were purchase of land and construction of bunds, etc. In the second year, construction of bunds and redemption of societies' loans were important. During 1963-64 to 1965-66 loans were advanced mainly for construction of bunds, sinking of wells and redemption of societies' debt. In the years 1966-67 and 1967-68 the main purposes of loans were sinking of wells and construction of bunds, etc. In the last three years of the reference period, sinking of wells and installation of pumps were more important purposes.

It was also observed that the percentage of amount advanced for sinking of wells, installation of pump-sets and purchase of tractors showed an increasing trend, whereas those for redemption of societies' debt and purchase of land registered a decreasing trend. The variation in the proportion of different purposes indicates the changes in policy of loan advances. The bank seems to prefer advancement of loans for purposes which are more productive and where the chances of misutilization and diversion are less.