CHAPTER II

OBJECTIVES, METHODOLOGY &

THE REVIEW OF LITERATURE
2.1. Objectives

The main objectives of the present study are

1. To examine the agricultural credit system in India
2. To examine the socio-economic characteristics of the sample respondents.
3. To examine the agricultural production and cost of cultivation in Krishna district through a sample survey.
4. To examine the institutional credit system in Krishna district through a sample survey
5. To examine the non-institutional credit system in Krishna district through a sample survey, and
6. To suggest various measures to improve institutional credit system with specific reference to the study area.

2.2 Sources of data

Research can be conducted by collecting primary data or secondary data or both. The primary data is collected through a sample survey conducted in particular area. In the present study Krishna district is purposively chosen and data was collected from small farmers, marginal farmers and tenants. The survey can be conducted either through interview method, questionnaire method or observation method. In the present study the questionnaire method
is adopted. Information is gathered through a structured questionnaire for the present purpose.

The secondary sources of data include books, journals published by various authors, survey material conducted by scholars and government reports etc. In the present study both primary and secondary data are used, simultaneously but the study is mostly based on primary data.

2.2.1. Primary data:

In the present study a structured questionnaire is used to collect data collected from a sample households from the selected villages of Krishna district, A.P.

2.2.2. Secondary data:

Secondary data needed for the study has been collected from various books, journals, magazines, reports and through web sites.

2.3. Methodology:

The methodology adopted in selecting the sample is systematic. Initially Krishna district has been selected purposively to make the study. There are 50 mandals in the district and out of them 3 mandals are selected giving representation for developed, moderately developed and low developed
mandals. Again from each mandal three villages are selected giving due representation to well-developed, moderately developed and less developed villages. From each village 50 sample households were selected making a total of 450 households as sample for the study. Altogether 436 households/respondents are considered for the study and the other 14 are non-respondents.

Statistical tools such as averages, and regression are used wherever necessary. Graphs and diagrams are used for better presentation of the data wherever necessary.

Research can be conducted both by deductive and inductive method. In the present study deductive method descends from the general to the particular and inductive method mounts from particular to the general. The economists view that both are needed for proper development of scientific theories. In the present analysis inductive method is used, by using experimentation approach.

2.4. Krishna District

Krishna district is one of the agriculturally productive costal district of Andhra Pradesh. The district with its head quarters at Machilipatnam was originally Machilipatnam district and later renamed as Krishna district, after the holy river Krishna in the year 1859.
In the district total geographical is 8727 sq. kms as on 31st March 2004. There are 50 mandals, 1005 inhabited villages, 98 per cent of the villages are electrified and the district is connected by 972 kms of roads.

The total population of the district is 4,187 thousands, and out of them 2,117 thousands are males and 2,070 are females. The density of the district is 479 sq. km. The net sown area is 4,49,000 ha and the cropping density is 155 per cent. 2,47,000 ha area is irrigated more than once.

The net irrigated area as per 2003-04 agricultural censuses is 2,78,014 ha. Out of this 2,03,861 ha is under canal cultivation 16,578 ha under wells. There are 20,271 irrigation tanks, 10,126 lift irrigation schemes and 25,692 tube wells.

Agriculture is the main source of economic activity of the district while fisheries activity, which mainly constitute inland, marine, brackish water contributed to the wealth of the district. Other major agriculture based economic activities include plantation & horticulture, animal husbandry, poultry, sheep and goat development.

Paddy is grown in abundance in the district the other major crops grown are Maize, Jowar, Cotton, Sugar cane, Groundnuts, Pulses, Chilles and to some
extent tobacco. The major horticultural crops grown are Mango, Guava, Oil Palm, Coconut, Cashew, and Lemon etc.

The district is broadly divided into two natural zones namely the delta and uplands. For administrative convenience the district is divided into four revenue divisions and 50 mandals.

There are four types of soils in the district viz. black cotton soils (57.6 per cent), sandy clay loans (22.3 per cent), red loany soils (19.4 per cent) and sandy soils (0.7 per cent). Since a major portion of the land is black cotton soils, the district is agriculturally rich. Also since 19.4 per cent soils are red loany, the horticulture has developed very well in the district.

Krishna is the major river while Muniyeru, Tamileru and Paleru are the chief river-lets Krishna River. Muniyeru is a chief tributary of the river Krishna in the district and flows from North to South. Budameru is another hill stream and flows through several mandals namely Mylavaram, G.Konduru, Vijayawada, Gannavaram, Kikaluru and ends in Kolleru lake. By constructing check dams, the river lets Muniyeru, Paleru, Budameru and Tamileru are providing medium irrigation facilities in the district. The district has good access to irrigation facilities and irrigation facilities are wide spread.
Tropical climatic conditions prevail in the district. It has extreme hot summer and cold winter. April, May and June are the hottest months and the temperature runs very high in the months of May and June. In the uplands it is extremely chill during winter.

The district is one of the well-developed districts in the state of Andhra Pradesh. The major crops grown in the district are paddy, maize, jowar, green gram, black gram, red gram, sunflower, soya been, sugar cane, cotton, chilly, mango, cashew, banana, cucumber and other leaf vegetables. In the recent times agriculture is considered as one commercial venture and commercialized to a large extent.

The added advantage is that Vijayawada city is one of the biggest railway junctions in the country joining North and South, East and West India. The goods traffic for agricultural products as well as non-agricultural products is very heavy. The goods are exported not only by rail transport but also by road transport and waterways. The Buckingham canal starting at Vijayawada from Krishna River ending in the sea at Chennai is well known for its transportation system. The national highway NH-5 (Calcutta to Chennai) passes through Vijayawada city. Recently the National Road Transport Authority invested crores of rupees for developing the national highways and Vijayawada zone is covered while widening the roads. At present the road is...
broadened with four lanes. Thus, railroad and waterways are very much helpful in transporting agricultural commodities from Vijayawada to different parts of the country, and making agriculture a commercial venture.

2.4.1 Mandals of Study Area

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Mandal</th>
<th>No.</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pedaparupudi</td>
<td>150</td>
<td>34.4</td>
<td>34.4</td>
</tr>
<tr>
<td>2</td>
<td>Nuzividu</td>
<td>142</td>
<td>32.6</td>
<td>67.0</td>
</tr>
<tr>
<td>3</td>
<td>Tiruvuru</td>
<td>144</td>
<td>33.0</td>
<td>100.0</td>
</tr>
<tr>
<td>4</td>
<td>Total</td>
<td>436</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Sample Frame

The table 2.1 shows that all the 3 mandals selected for the conduct of the present study has almost equal representation. Thus, the study is based on systematic sample procedure.

2.4.2. Villages of study area and number of respondents

Table 2.2 shows the distribution of the respondents among the villages selected for the study. The various villages selected for the present study, form the sample frame and universe of the study. The table shows that all 9 villages selected have representation in the study on equal basis. Thus, in the study systematic sample procedure is adopted while selecting the mandals as well as villages and all the 3 mandals and 9 villages have equal representation.
### Table 2.2

Distribution of the respondents in the sample villages

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Village</th>
<th>No.</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(6)</td>
</tr>
<tr>
<td>1</td>
<td>Annavaram</td>
<td>50</td>
<td>11.5</td>
<td>11.5</td>
</tr>
<tr>
<td>2</td>
<td>Bhusanagulla</td>
<td>50</td>
<td>11.5</td>
<td>22.9</td>
</tr>
<tr>
<td>3</td>
<td>Gollapalli</td>
<td>47</td>
<td>10.8</td>
<td>33.7</td>
</tr>
<tr>
<td>4</td>
<td>Lakshimpuram</td>
<td>50</td>
<td>11.5</td>
<td>45.2</td>
</tr>
<tr>
<td>5</td>
<td>Pedaparupadi</td>
<td>50</td>
<td>11.5</td>
<td>56.7</td>
</tr>
<tr>
<td>6</td>
<td>Peddavaram</td>
<td>48</td>
<td>11.0</td>
<td>67.5</td>
</tr>
<tr>
<td>7</td>
<td>Ramannapalem</td>
<td>46</td>
<td>10.6</td>
<td>78.1</td>
</tr>
<tr>
<td>8</td>
<td>Sumkollu</td>
<td>45</td>
<td>10.4</td>
<td>88.4</td>
</tr>
<tr>
<td>9</td>
<td>Ventrapragada</td>
<td>50</td>
<td>11.5</td>
<td>100.0</td>
</tr>
<tr>
<td>10</td>
<td>Total</td>
<td>436</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Sample Frame

#### 2.5. Review of Literature

The present chapter presents a review of literature covering various aspects of rural credit and agricultural credit. There is a plethora of literature on rural credit. Quite a large number of studies have been made in to the issues relating to rural credit and capital formation. But the earlier studies available are mostly confined to capital formation in agriculture and there are only a few studies on agricultural credit.

All India Rural Credit Survey (1954) assessed the performance of credit agencies, both private as well as state associates. It revealed that non-institutional agencies were contributing 93 per cent of total credit. The contribution of commercial banks was hardly 1 per cent of total credit requirements of agriculture during 1951-52. The committee felt that
“cooperatives have failed, but they must succeed”. The committee suggested implementation of integrated credit system to generate healthy atmosphere for the success of cooperatives in India.4

For the first time, Ragnar Nurkse systematically dealt with the problems of capital formation in underdeveloped countries. His treatise on capital formation suggested the utilization of the surplus manpower found in rural areas in the form of disguised unemployment in capital formation. He recognized the acute shortage of social overhead costs in the process of modernization of rural areas. Due to little disposable income of the farmers, such social overhead capital has to be accumulated only through governmental activity on the investment side.5

The rural credit follow up survey (1958-59) revealed the various constituents of capital formation. It felt that excess of capital uses over the total sources is a significant indicator of the net position of cultivators on capital account.6

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4 Reserve Bank of India (1954) All India Rural Credit Survey Committee, Bombay.
6 Reserve Bank of India (1961), The Rural Credit Follow Up Survey (1958-59), Bombay.
Tara Sukla (1965) studied capital formation in agricultural sector in detail. According to her the rate of gross investment in the durable physical capital as percentage to gross value of agricultural product (crop only) has varied widely and varied between 10 per cent and 15 per cent during 1935-36 to 1960-61. The rate of net investment in durable physical capital as percentage to net agricultural income varied from less than 1.0 to above 4.0 during the same period. According to Shukla, Indian agriculture seems to have struck a long-term low level of equilibrium position. She suggests that if rapid growth of output is desired, technological changes is the only way out. Liberalization of credit is needed. With a view to increasing the flow of resources technological changes in agriculture is needed. A concerted action to improve market conditions, production relationship and credit supply, better tenancy system coupled with provision of adequate infrastructure for agriculture would improve output/input relationship which subsequently would raise the investment rate and generate dynamic conditions for equilibrium to move continuously upward.\(^7\)

The All India Rural Credit Review Committee (1966) observed that commercial banks do not have the organisation / the expertise to deal with vast number of cultivators spread over innumerable small villages. The average

\(^7\) Sukla Tara (1965), Capital Formation in India Agriculture; Vora & Co., Bombay.
cultivator is unable to offer security acceptable to banks. The All India Rural Credit Review Committee constituted by the Reserve Bank of India in the year 1969 reviewed the progress made by various institutional agencies in respect of short term, medium term and long-term credit. The committee after thorough examination felt that single agency like cooperative bank alone cannot meet the demand for agricultural credit. The committee recommended the entry of commercial banks in to agricultural finance with a view to meet the challenges of agricultural credit.8

The Reserve Bank of India report of the study group of National Credit Council, (1969) examined the credit gaps in various sectors of economy. The group called for setting up of single institutional organization to provide credit requirements of the three major sectors of the economy viz., Agriculture, Industry, and Trade. The All India Debt and Investment Survey constituted by the Reserve Bank of India in the year 1972 made a detailed appraisal of performance of commercial banks in financing agricultural needs through Primary Agricultural Credit Societies. The report pointed out certain shortcomings in the working of the scheme such as incidence of over dues, low volume of medium term loans, etc.,9

8 Reserve Bank of India (1969), All India Rural Credit Review, Bombay.

Panikar (1970) estimated the gross savings per family at Rs.147, which excluded the direct investments and purchase of land and livestock. He argued that the same persons make the saving and investment decisions and savings by the family are going to be equivalent to investments by family. He estimated that the average gross income per Indian rural family from all sources was approximately Rs.1309 out of which savings were Rs.147 i.e., little over 11 per cent.\(^{10}\)

All India Debt and Investment Survey (1971-72) conducted by Reserve Bank of India in collaboration with National Sample Survey was brought out the nature of investment, its magnitude and source of finance for meeting the expenditure and receipts from the sale or finance for meeting the expenditure and receipts from the sale or loss of capital assets and to give a rough idea of the gross capital formation. As per the survey, in 1971-72, all rural households spent on the aggregate Rs.1,210 crores as capital expenditure in farm business, of which, 96 per cent was accounted for by cultivators and 4 per cent by non-cultivators. Expenditure in farm business as proportion to total capital expenditure was as high as 61 per cent. In case of cultivators, more than 88 per cent of the total expenditure was on livestock, agricultural implements, land

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\(^{10}\) Panikar, P.G.K. (1970), Rural Savings in India, Somaiya Publications (p) Ltd, Bombay.
purchase, bonding, wells, orchards and plantations. In the case of non-cultivators three items viz., land purchase, livestock and agricultural implements accounted for slightly more than 89 per cent of the total capital expenditure per household. Capital formation in all activities in the rural sector in India was estimated at Rs.472 crores, of which, cultivators and 6 per cent by non-cultivators accounted for 94 per cent. Capital formation by non-cultivators was negligible i.e., less than Rs.2 as against Rs.52 by cultivators. Nearly 45 per cent of capital formation in agricultural sector was reported in agricultural implements followed by 31 per cent in wells and other irrigation sources.\footnote{Reserve Bank of India (1972), All India Debt and Investment Survey India.}

Chokidar VV and Nair MG in their study on “Devising Strategy for Farm Finance” observed (1973) that the present piece meal approach of financing individual farmer according to the needs felt by him without considering his total needs and resource position is not likely to lead to the desired level of agricultural development and the development of farming community in general and weaker sections in particular. They felt it necessary to make concerted efforts by financing as well as extension agencies for finding out the real needs of different types of farms/farmers and develop thereafter suitable farm production plans and credit plans for the orderly development of them
which will go a long way in increasing agricultural production and development.\textsuperscript{12}

The National Council for Applied Economic Research, in 1974 conducted a sample survey on credit requirements of agriculture. The study revealed that there is a major gap in the sphere of investment credit for agriculture. The average cost of borrowing was less for big farmers where as it is more for small farmers. Role of cooperatives is declining in the provision of long-term development finance. Rate of interest also is declining over time. The survey recommended the more involvement of institutional agencies in providing long term credit needs to agriculture.

The Reserve Bank of India committee (1981) on cooperative over dues observed that political patronage to defaulters, faulty scales of finance, lack of supervision over the end use of credit, laxity on the part of cooperative organizations are primarily responsible for the over dues.\textsuperscript{13}

National Council of Applied Economics (1974) pointed of the existses of of major gap in the sphere of investment credit for agriculture. The average cost

of borrowing was 16 per cent for small farmers. The study pointed out that for not playing significant role with regard to the long terms development finance.\textsuperscript{14}

Garg, J.S. and V.Prasad (1975) in their study on the impact of High Yielding Varieties on capital formation between 1966-67 and 1973-74 in Kalyanpur block in Uttar Pradesh felt that the surplus income generated through High Yielding Varieties Programme is disposed of partly in meeting family needs and only a small part is ploughed back on their farm in the form of capital assets. The largest investment was on irrigation structures, followed by livestock and implements and machinery. The investment on land improvement and farm building was lowest and nominal. They observed that, the peak years of investment on irrigation corresponded with the peak years of capital formation during 1969-70 to 1972-73. In the case of livestock, the investment varied widely. So, far as the investment on implements and machinery is concerned, it abruptly increased from Rs.1.38 per hectare in 1966-67 to Rs.33.24 per hectare in 1960-70. The percentage increase in gross capital formation in gross income during these years was associated with the

\textsuperscript{14} National Council of Applied Economics (1974), Credit Requirements for Agriculture, New Dehli.
increase in the percentage area under irrigation and the area under the High Yielding Varieties.\textsuperscript{15}

Yadava R.P., R.S. Tomar, J.P. Bhatt, and R.N. Tiwari, (1975) in their study on investable and physical surpluses of Kangra, of Himachal Pradesh in the year 1973-74, observed that the savings were made only on the farms with more than 4 hectares that too of a significant magnitude i.e., Rs.3,303. The quantum of savings varied from Rs.462 to mere Rs.15 on farms between 3-4 hectares, which mean substantial capacity to invest lies with the farmers holding more than 4 hectares.\textsuperscript{16}

Ram Ikbal Singh, Daulat Singh and Janardhan Singh (1975) in their study observed that there were no savings or investable surpluses on the lowest size group of farmers. In case of other groups the savings tended to rise with the increase in the farm size. In case of small size groups the investable surplus was meager. However they ploughed back a major part of their investable surplus into agriculture i.e., 71.30 per cent of investable surplus. The two middle size groups had an investable surplus of Rs.627.48 and Rs.894.01,


which was 26.80 and 25.01 per cent of their total family income respectively. In the highest size-group, the investable surplus constituted 38.84 per cent of the total earnings, but the farmers of this size group ploughed back only 20.71 per cent of their investable surpluses into agriculture.  

Mishra, B.L., V.P. Shukla, and D.K. Morathia, (1975) have identified two types of surpluses from Tendukheda farms on the basis of technology used. It ranged from Rs.3,667 to Rs.8,640 in the lower size farms having traditional and advanced technology respectively. Similarly it varied between Rs.9,098 and Rs.26,344 on the upper size group of farms depending upon the level of farm technology. The investable surplus was negative by Rs.448 in case of traditional farms of lower size groups, while it was positive at Rs.3,120 on advanced farms. The upper size group of farms showed an investable surplus ranging from Rs.2,545 to Rs.19,458 on the traditional and advanced farms respectively.  

Sarma, P.V. (1975) studied the type of investments and motives behind investing in fertilizer companies, which showed that 31 per cent of the sample

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farmers' motive behind their investment was to get fertilizer more cheaply as subscribers, 6.2 per cent stated that their motive was to get dividend and the remaining 62.8 per cent farmers have expressed both. The cultivators of Coastal Andhra Pradesh in all income group appear to have realized the need for more fertilizers to increase farm incomes and showed preparedness to invest their surpluses to augment the fertilizer supply.19

Jhingan, M.L. (1975) studied the extent of surpluses accrued to the farmers of the Punjab due to the adoption of the High Yielding Varieties Programme and the extent of mobilization of these surpluses for the purpose of industrialization of the state. The author observed that agriculture did not succeed to become net lender to industry in the Punjab.20

Shukla P.C. and B.K.Mishra (1975) in their study on the impact of High Yielding Varieties and savings potential of farm families of Rai Bareili district, observed that, the new strategy in agriculture seems to have varying impacts on income, production and savings. They have identified the difficulties involved in mobilization of savings and in developing suitable techniques for

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augmenting savings or in preventing unproductive use of savings. They further observed that, the direct method of mobilizing actual savings into effective savings from the majority of farmers by selective indirect taxes or by deficit financing may not be successful because their consumption is limited to house grown produce which generally escapes from such measures.  

Swarupa Sadasivam (1975) taking data from the savings and investment reports of the Agro-Economic Research Centres at Vallabhbh Vidyanagar, Anand and Vishakhapatnam for the year 1969-70 and 1970-71 examined the saving behaviour of small and big cultivators in Kota district of Rajasthan, Surat district of Gujarat and East Godavari district of Andhra Pradesh. Except in the group of large farmers, negative savings appeared to be common, irrespective of the size of the operational area. The bulk of the positive savings came from the large farmers, showing a highly unequal distribution of savings. A positive relationship was found between institutional credit and the investment in physical assets. They concluded that provision of institutional credit leads to more investment in physical assets by the big cultivators. 


Ramkumar, M.L. Sharma and G.S. Sisodia (1975) attempted to assess the savings in three agro-climatic zones of rural Hissar and to locate the social values associated with savings and banking habits and to suggest the ways for mobilizing the savings. They found that, in all the three zones an increase in the size of land holding was associated with an increase in the quantum of savings and number of savers. Multiplicity of occupation and increasing educational level of the chief earners were closely related to savings and banking habits. The strongest incentive for saving was to buy or build a house, expenditure on weddings, dowries and other social ceremonies. Highest quantum of savings was found in the irrigated zone from large farmers.²³

Arup Chakrabarthi (1975) observed that the investable surplus is the difference between income and expenditure at the family level and such surpluses generated in the rural areas need careful mobilization for the promotion of development. It was also found that substantial portion of potential saving of rural household sector is not mobilized at present and is simply used for unproductive or speculative investment in land and real estate, gold etc. They concluded that the present institutional arrangement is thus not sufficient to tap the full potential of rural investable surplus. He feels that

agricultural pricing policy led to substantial rise in farm income, but not to
growth in rural indirect financial savings. It is necessary to stimulate indirect
financial savings through institutional and policy measures.\textsuperscript{24}

Jagannatha Rao, R.Pawar and B.Vijay Patil (1975) attempted to estimate
the quantum of surpluses at the micro level. They concluded that in rural
Maharashtra sugar factory areas in general and member cultivators, with large
farm size, in particular, could be considered as potential sources for
mobilization of rural surpluses.\textsuperscript{25}

Sharma, R.K. and S.C.Tewari (1975) in their study in Ludhiana block of
Ludhiana district revealed that there was a substantial potential for increasing
farm incomes and savings of all the categories of farms through the application
of improved methods of production, better resource use and better adjustments
in the cropping patterns. The study showed that the farmers gave first

\textsuperscript{24} Arup Chakrabarti (1975), “Role of Institution Agencies in Mobilizing Financial
Resources in Rural India”, Indian Journal of Agricultural Economics, Vol.30, No3,p 54.

Surpluses at the Micro Level in the Sugar Factory Areas of the Maharashtra State”,
Indian Journal of Agricultural Economics, Vol.30,No.3.
preference for the purchase of land out of the anticipated additional income followed by the purchase of farm machinery and home appliances.\textsuperscript{26}

Rajagopalan V. and S.R.Subramanian (1975) in their study on the agricultural surplus and investment in the Chengalpet district of Tamil Nadu, estimated the amount of agricultural surplus as Rs.6725.58 per farm in the case of irrigated and Rs. 10,434 in the case of non-irrigated and, dry land farms. Out of this surplus, more than 20 per cent is spent for meeting the consumption expenditure of the dependent members of the family. The analysis revealed that most of the farmers need additional investment to augment their resource base and to improve the techniques of production, to increase the size, of agricultural surplus. Based on the results, authors suggested the need for national investment on research and development in agriculture, investment in human capital to build professional skills and labour productivity, and development of strategies to minimize the impact of risks and uncertainties.\textsuperscript{27}

D.S.Singh, S.R.Yadav and R.I.Singh (1975) in their study showed that the value of investment per hectare was Rs.2.269 and Rs.2.213 in the holding


of below 2 hectares, between 2 to 4 hectares and 4 hectares and above respectively. About 69 per cent, 57 per cent 53 per cent of the disposable income was spent on family consumption in families with land holding below 2 hectares, 2-4 hectares and 4 hectares and above respectively. The investment on non-farm assets was about 8 per cent in each of the three size groups of holdings. The repayment of institutional credit and of old debt was about 7 per cent, 11 per cent and 10 per cent in the holding of 0-2, 2-4, and 4 hectares and above respectively. Investment in saving, life insurance, gold and ornament, etc., was between 6 and 7 per cent in the three size groups of holdings. 28

Subrata Ghatak (1976) studied rural capital marking in India, and distinguished between the money and capital marking. Ghatak felt that in most cases it was capital and not family expenditure which was the most significant variable affecting the demand side of borrowing. He points out that at a higher level of borrowing, capital expenditure rather than family expenditure is more closely correlated with borrowing and/or debt. Perhaps at lower level of borrowing and/or debt, family’s expenditure on consumption is more closely correlated with indebtedness. Regarding the supply side of the share of rural money markets, he felt that agricultural moneylenders remained important

sources of credit to the cultivators in the supply side. The relative significance of the role of the professional moneylenders went down considerably over time.²⁹

The National Commission on Agriculture, Government of India, in the year 1976 suggested a new strategy for agricultural development, for increasing production, better marketing, transport and processing of agricultural commodities. The commission observed that the share of commercial banks should be increased for present level of 8.8 per cent (1974) to 15 per cent in 1998. Commercial banks should give more preference to small farmers. Preference should be given in providing loans to modernize agriculture.

Shetty S.C’s (1976) study revealed a close relationship between credit requirements and output both in industry as well as in agriculture.³⁰

Subratha Ghatak’s (1976) study of the Indian Rural Credit Market examined the factors affecting both demand and supply side of agricultural

²⁹ Subrata Ghatak (1976), Rural Money Markets in India, Macmillan Company of India, Delhi.

credit. On the demand side, agricultural credit was determined by rural interest rate. On the supply side the functioning of primary agricultural credit societies is important. Societies have failed to satisfy the different criteria of financial viability and loan operation, as observed by the author.\textsuperscript{31}

Venkata reddy C (1977) in his article entitled “Commercial banks and agricultural finance” dealt with the bias in the distribution of commercial bank loans among farmers. It is observed that about 60 per cent of the land development loans have gone to small and marginal farmers. However minor irrigation loans benefited more large and medium farmers. 76 per cent of the total loans advanced under minor irrigation had gone to large and medium farmers\textsuperscript{32}.

Ghouse Gulam (1977) in his article on “Role of Agricultural Finance Corporation in the Sphere of Agricultural Credit” observed that after the advent of the green revolution Indian agriculture started getting modernized more and more, resulting in the enormous increase of the demand for credit. There is widespread interest and enthusiasm among commercial banks for financing agricultural development. But there are number of bottlenecks which

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\textsuperscript{31} Subrata Ghatak (1976), Rural Money Markets in India, Macmillan Company of India, Delhi.


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impede rapid flow of agricultural credit. AFC has become virtually a merchant banking division on agricultural and rural development for the entire banking industry and its role is appreciated at the most important level viz., the farmer and the rural worker.\textsuperscript{33}

Lavania G.S. Bhalareo MM, Panduranga Rao A (1977) in their study on impact of bank finance on agricultural incomes and yields in Andhra Pradesh examined the impact of commercial bank finance on adoption of improved technology yields of major crops and net income. The study indicates that the farmers who have obtained the short-term and medium-term loans from the commercial banks have higher level of adoption of improved technology, higher yields of major crops as well as higher net incomes.\textsuperscript{34}

Venkateswarlu U, Eswara Prasad Y, and Sathyanarayana G (1977) in their article “Green Chilly Farms in Coastal Sandy Belt of Andhra Pradesh” revealed that only 7 out of 144 growers are capable of investing fully from their own resources and the rest 141 growers (95.27 per cent) are raising loans at different levels. The private money lending is still dominating on green


chilly farms in view of the underdeveloped institutional finance in this sector.\textsuperscript{35}

Pai KK in their “Innovation: the Watch Word of Syndicate Banks’ Agricultural Credit Programmes” observed (1977) that there appears to be a pressing need to make the farmer cost conscious and to make an earnest effort to take the farmer to a higher technical plan from his traditional unproductive methods to realize the full value of the scarce credit now available in the organized sector. He observed that the high cost of operations is a major impediment in the path of the commercial banks to provide credit to agriculture and other rural sectors in a big way unlike in industry where a breakthrough in agricultural production has to come about the decisions and actions taken by millions of farmers distributed all over the country.\textsuperscript{36}

Sundaram SV (1977) in his article “Financing of Agriculture by Indian Overseas Bank” observed that various types of agricultural advances made by IOB covered the weaker sections a big way. However, there were problems in


financing agriculture such as lack of statutory records, presence of different credit agencies operating in the same area resulting in overlapping and dual financing etc., The bank is trying to extend the lending to trigger off all round rural development. IOB's agricultural lending policy aims at uplifting of those below the poverty line and creating more job opportunities among the rural masses.\textsuperscript{37}

Nambiar PCD (1977) in his article on "Financing of Agriculture by SBI and its Subsidiaries" observed that the problem of extension of rural credit was intricately involved with the complex problem of rural development. The bank was associating itself closely with the various developmental agencies working to the grassroots level in order to ensure maximum benefits to the area through coordinated efforts of all the change agents. The problem of rural development was vast and complicated and did not admit of an easy solution. However, the bank was making its efforts to the resurgence of rural India.\textsuperscript{38}

Shukla BM (1977) in his article “Commercial Banks enter Agricultural Finance” observed that there were some operational problems for banks. There


was hardly any area in the country where a bank could start on a clean slate as it were. He also observed that there were operating difficulties to the banks and hence the progress was extremely slow.⁵⁹

Deasi VR (1977) observed that one serious nag in agricultural credit was the accumulation of over dues. It stands in the way of financial institutions recycling the funds for fresh lending’s under the approved schemes. The most serious problem for commercial banks is to bring sister concern under their umbrella to act in a coordinated fashion.⁴⁰

The Reserve Bank of India’s Report (1978) dealing with multi-agency approach in agricultural finance indicated the need for evolving institutional credit system to fill the growing gaps in agricultural credit. The report felt that there was need to strengthen regional rural banks or commercial banks to strengthen the agricultural credit requirements. The report also suggested the adoption of uniform pattern of interest rates with concessional rate of interest


applicable to both small and marginal farmers. The report also suggested having uniform security norms for all agricultural credit requirements.\textsuperscript{41}

Basu, Subbash. K. (1979) in his study on "Commercial Banks and agricultural credit: a study and regional disparity in India deals with political economy of banking. An attempt is made in this study to distinguish land concentration and rural asset concentration and assess their pattern of influence they exert on bank lending on agriculture. He felt that factors such as growth of commercial banks in general and socio-economic factors in particular influence agricultural productivity.\textsuperscript{42}

K.V.Beliria and Pramod B, (1980) in their study on agricultural sector in the district headed plans studied various approaches to the credit plans, the credit plan scheme and it's formulation, the lacunae in credit plans, the need for diversification, lack of interaction among agencies, inadequate attention to infrastructure, lead bank role in scheme formulation and the implementation of

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{41}] The Reserve Bank of India, (1978) Report on Multi agency Approach in Agricultural Finance, Bombay.
\item[\textsuperscript{42}] Basu, Subbash. K. (1979), Commercial Banks and Agricultural Credit: A Study and Regional Disparity in India, Atuid Publishers, New Delhi.
\end{itemize}
\end{footnotesize}
credit plans at the district level. The study also dealt with various difficulties in implementation of credit plan as observed by the expert group.\textsuperscript{43}

The Reserve Bank of India’s report of the committee to review arrangements for institutional credit for agriculture and rural development in 1981, recommended the establishment of National Bank for Agriculture and Rural Development (NABARD), which came into existence in 1982. It suggested that a beginning might be made at the primary level for integration of credit on an elective basis with the support and guidance of the Reserve Bank of India.\textsuperscript{44}

Mishra S.N. and Sharma K. (1983) in their study on problems and prospects of rural development in India dealt with different aspects on approaches of rural development.\textsuperscript{45}

Bhalla G.S. and Chadha, D.K. (1983), in their study on income and consumption effects of the new farm technology examined data on form


\textsuperscript{44} Reserve Bank of India (1981), Report of the Committee to Review Arrangements for Institutional Credit For Agriculture and Rural Development, Bombay

investments during 1974-75. The study shows that public investments in canal irrigation enhanced farmers own farm investments.\(^{46}\)

NABARD in its seminar on repayment of institutional credit held at New Delhi in 1984 discussed the studies carried out in various states in India with regard to the repayment of institutional credit. It was felt that the faulty lending recovering procedures followed by land development banks led to substantial over dues.\(^{47}\)

Pany Raj Kishore (1985) in his study on institutional credit for agriculture in India revealed that the credit gaps were found to be higher in the least developed regions than in the developed regions. It was found that the credit gap was higher in irrigated areas than in un-irrigated areas. The study showed mounting overdue made the institutional financing institutions weak and made them provide inadequate supply of credit.\(^{48}\)


\(^{47}\) National Bank for Agriculture and Rural Development (1984), Seminar on Repayment of Institutional Credit, New Delhi.

\(^{48}\) Pany Raj Kishore (1985) Institutional Credit for Agriculture in India, Asia Publishing House, New Delhi.
Bhende M.J. (1986) studied various aspects related to rural financial market in South India. The study revealed that the traditional money lending has some inequitable features appears at least as effective in terms of volume of lending as the financial institutional sources. Moneylenders serve a residual group of individuals who cannot obtain credit from institutional sources or from their relatives and friends. He observed that institutional credit is concentrated in the richer household having the characteristics of higher education, older heads of households and large family size and larger farm size.49

Singh R.K.P. et al (1986) in their study on “Financial Performance of Commercial and Regional Rural Banks in Bihar” compared the performance of the commercial banks and regional rural banks’ branches. The study revealed that commercial bank branches are needed to increase their loan business and keep more stringent control over expenses for improving the financial efficiency of the branch.50

Gupta S.K., Avasthi P.K. and Yadav K.S. in their study on “Non-Repayment of Agricultural Loans: Causes and Remedial Measures – A Study


Puran Chand and Singh R.P (1987) in their study on an economic appraisal of farm credit for the farms of Haryana state have evaluated the different purposes for which the farmers are borrowing. They also studied the sources of borrowing, the impact of credit, the earnings of the borrowers. The study revealed that there is ample scope for increasing the production level of non-viable, marginal and small farmers through reallocation and acquisition of resources.\footnote{Puran Chand and Singh R.P (1987), “Economic Appraisal of Farm Credit for the Farms of Haryana State”, Financing Agriculture, Vol. XIX, No.4, October-December. P.13.}

The Reserve Bank of India (1988) carried out a nation wide Debt and Investment Survey of Households for the Period 1981-82. It revealed that during this period hardly \footnote{The Reserve Bank of India (1988) carried out a nation wide Debt and Investment Survey of Households for the Period 1981-82. It revealed that during this period hardly \( \frac{1}{6} \) of the cultivator household’s capital expenditure was geared towards addition to fixed farm assets. Their performance varies greatly across states and highly positively correlated with fixed farm capital for} of the cultivator household’s capital expenditure was geared towards addition to fixed farm assets. Their performance varies greatly across states and highly positively correlated with fixed farm capital for...
household. \((r = 0.98)\), but negatively associated with normal rainfall\(^{53}\). \((r = 0.66)\).

Sunil Kumar (1989) in his study on “Commercial Banks and Rural Development” brought out the various problems faced both by the bankers and farmers. The study has made some suggestions to overcome the problems faced by the farmers and commercial banks.\(^{54}\)

The Agricultural Credit Review Committee under the chairmanship of A.M. Khusro (1989) observed that there was need for setting up of a national cooperative societies bank of India which would function as balancing center for the cooperative societies credit system. The committee had suggested constituting state level tribunals for adjudication and separate department for execution of awards\(^{55}\).

Shetty, S.L. (1990) in his article on “Investment in Agriculture Brief Review of Recent Trends” concluded that a proportion of rural households

\(^{52}\) Reserve Bank of India (1988), Debt and Investment Survey of Households for the period 1981-82, Bombay


\(^{55}\) Reserve Bank of India (1989), Agricultural Credit Review Committee of A.M. Khusro, Bombay.
reporting fixed capital formation in farm business showed a decline from 15-30 per cent over the decade ending 1980-81.\textsuperscript{56}

Narayana, D. (1992) in his article on “Institutional Credit for Rural Development: Proper Risk Management or Group Lending” felt that mounting overdue, poor recovery atmosphere and lead to poor health of the institutional credit structure. The author believes that agriculturists involved in agriculture and related activities has to fend for themselves.\textsuperscript{57}

Barman Kandarpa (1994) in his article “Financial Sector Reforms: Some Implications on Rural Credit” observed that despite quantitative performance achieved during the last two decades financial system in India suffers form various short comings viz., insufficient banking system, low productivity erosion of profitability, out dated work technology, high and growing non performing assets\textsuperscript{58}.”


\textsuperscript{58} Barman Kandarpa (1994) in his article Financial Sector Reforms: Some Implications on Rural Credit, Financing Agriculture. October
Uma Mahesh Patnaik. K. and Sundar Rao M. (1991) in their study "Rural orientation: of the Programme of Commercial Banks Branches Expansion" found that there is substantial increase in the branches of commercial banks especially in the rural areas during 1969 and 1988 during which period the number of rural branches had increased by 50 per cent.  

Agro-economic research center, Waltair (1994) in their article "Recovery Performance of Institutional Farm Credit in Rajasthan and Andhra Pradesh" identified a number of problems with regard to recovering the loans from the farmers. The survey suggested various measures for improving the recovery position.  

Ashok, M.V. (1994) in his article Credit Interventions in development of dry land farming identified credit as the single most critical input that holds the key to the use of improved technologies that can result in the development of dry land areas. He also assessed the credit requirements for the development.  

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60 Agro Economic Research Centres, (1994) “Recovery Program of Institutional Farm Credit in Rajasthan and Andhra Pradesh” (Memo graphed).  

Mishra, S.N., Ramesh Chand (1995) in their article Public and Private capital formation in Indian agriculture explained the behavior of public and private capital formation in agriculture during the post green revolution period.⁶²

Pathak BS (1995) “Financing Hightech Agriculture” felt that the entire thinking on financing agriculture is based on a panorama of theoretical base and the basic Indian philosophy of “Chaltha Hai and Janedo “ has marred the entire Indian culture where quality is compromised to the greatest. Quality is important at global markets. Hence, emphasis should be on quality⁶³.

Singh, O.N. (1995) in his article “Working of Capital Finance in Agriculture” analyzed the need for working capital in agriculture. Agriculturists need investment for various purposes such as making permanent improvements on farm assets such as working capital and consumption credit.⁶⁴


Garg, B.R., Jain, K.K., and Narendra Kumar (1996) "A Temporal and Special Analysis of Investment in Punjab Agriculture" indicated that the highest expenditure in the budget was made on major and minor irrigation projects since 1970-71. Off late, micro level investment behavior indicated that small, marginal and semi-medium farmers had increased their investments to the maximum on milch animals.65

Bhuvaneswari, S. and T. Alagumani (1996) studied determinants of capital formation in agriculture in Dindigal – Anna District in Tamilnadu. The study revealed that only 6 per cent of the respondents used own funds for agriculture and balance depended on borrowed funds. The share of credit to total investment varied from 58.86 per cent in land improvement, 76.9 per cent in livestock and 100.0 per cent in tractors.66


Kakde S.J. and M.R. Alishi (1996) study revealed that there is an overall increase in the capital investment during 1983-84 to 1993-94. Among a selected cultivators in Akola district of Maharashtra.  

Raj, K.N. et.al. (1996) Studied capital formation in Indian agriculture by studying the trends in investment based on secondary data. The study revealed that both public and private investment in agriculture after a modest start in 1960, steadily increased during the 1970's, but declined there after leading to an absolute fall in investment.

Rach H Pal, Singh and Jaswinder Caur (1996) studied the growth in capital accumulation and farm productivity during post green revolution period in Punjab. They concluded that investment on fixed farm assets has continuously grown in almost all farm situations in the state. However the investment on draught animals has decreased considerably because tractors and other machines like threshers have substituted bullock labor.

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Mani, K.P. P. shaheeha, and Chacko Jose, P. (1996) examined level of consumption of gross domestic capital formation in agricultural sector and felt that there is a continuous falls in the savings of public sector.70

Ramachandra Reddy V and Laxmi Narayana D (1997) in their article “Skewness and Inequality in the distribution of Cooperative Societies Credit: a Case Study” observed that there was significant differences in the institutional credit per household between delta and non-delta societies. The distribution of cooperative societies credit among small and marginal framers was lower as compared to medium and large farmers. Hence, extensive rationing of credit was the needed of the hour. So enlargement of membership and extensive rationing of credit were the two major plans on which the cooperative societies credit delivery system had to be shaped a directed for ensuring economic growth and equality in the district.

Kaladhar, K. (1996) studied the requirements of financial services for poor rural households that encompass consumption, production, investment, credit. He observes that the informal sector provides most of the services. The formal rural financial institutions have inappropriate tools and perspective in

delivering the services. So, there is need for linking, lending activity so that they can be successful in delivery of financial services.\textsuperscript{71}

Kishore, C. (1997) in his article "Retooling Rural Financial Institutions" argues for deposit mobilization and loan advances at the doorsteps of small farmers and rural non-farm sector entrepreneurs.\textsuperscript{72}

Ravi varma S, Bhagavan Reddy B (1997) in their paper "An evaluation of Single Window Cooperative Societies Credit Delivery System (Andhra Pradesh)" observed that the performance of Primary Agricultural Cooperative Societies in terms of membership drive, share capital, deposit mobilization, borrowings, working capital and advances out standing in the post single window cooperative credit delivery systems was comparatively better than that of the pre single window cooperative credit delivery systems. After the inception of single window cooperative credit delivery systems, the efficiency of district central cooperative banks in relation to share capital, reserve fund, deposits, borrowings and outstanding advances were noteworthy\textsuperscript{73}.

\textsuperscript{71} Kaladhar, K. (1996) "Designing Financial Services for Rural Poor -- Retooling Rural Financial Institutions", Economic and Political weekly, September 28.


Ramesh D (1998) in his article “Role of District Cooperative Societies Central Bank: A Micro Study” observed that an efficient and dynamic and strong leadership was a must for the development of the cooperative societies movement. Over participation of government in cooperative organisation might be harmful towards autonomy of the society. Government should participate as a custodian and not as a supporter. The cooperative societies departments to develop coordination among the sister concerns would take effective measures concerns of the cooperative societies movement. The economically poor primary agricultural cooperative societies were responsible for weaknesses of the cooperative institutions. The government should take initiative to financially support the cooperative society system from grass root level by inducing cooperative societies spirit among members and by implementing effective planning to utilize natural resources to benefit the rural peasants.

Renu Kohli (1999) argues the transformation and restructuring of banking industry under financial reforms.74

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V.Puhazhendhi, B.Jayaraman (1999) in their study on development of the rural credit delivery system showed the metamorphosis from monopoly of cooperatives to the induction of commercial bank and establishment of regional rural bank for improving the outreach and ensuring access to credit in rural areas. The innovations in rural credit delivery had an impact on agricultural production and acceleration of the pace of capital formation in agriculture, infrastructure development. Focus should be on strategies that were required for tackling issues such as sustainability and viability, operational efficiency, recovery performance, small farmer coverage and balanced sectoral development. It is concluded that, for accelerating the pace of capital formation ensuring remunerative prices for agricultural produce, infrastructure development with focus on transportation, marketing and other post harvest facilities etc., are essential.75

Bhatia, M.S. (1999) in his paper attempts to build a composite index of state-wise rural infrastructure and examines the relationship between infrastructure development and levels of production and growth in agriculture. The estimated functional relationship revealed that index of infrastructure is significantly influencing the per hectare yield of food grains and value of output from agriculture in the States. The author identified Rajasthan, Bihar

Madhya Pradesh and Orissa as having poor infrastructure. The development of infrastructure in these states might have had the constraint of financial resources.\footnote{Bhatia, M.S. (1999), “Rural Infrastructure and Growth in Agriculture”, Economic and Political Weekly, Vol. XXXIV, March 27. PP. A43-A48.}

Tara S. Nair (2000) explains that the rural financial system, as it has evolved in India, operates through two sets of institutions in the formal and informal sectors. The formal sector has adopted a multi-agency approach and regional rural banks. The informal sector, which operates outside the formal system, consists mainly of rotating savings and credit associations, traders, merchants, contractors, commission agents, local moneylenders etc. The existing rural and regulations in the financial sector govern the former, whereas the later largely functions in an autonomous fashion with its own norms, rules and discipline.\footnote{Tara S.Nair (2000), “Rural Financial Intermediation and Commercial Banks”, Economic and Political Weekly, Vol. XXXV, No.5, January 29. PP.299-306.}

Saroj Kaur Hati (2001) published by Mohith Publishers, New Delhi, in her book Institutional Finance and Agricultural Development in India examined...
the growth and working of institutional financing agencies and the impact of institutional finance on generation of output, income and employment\textsuperscript{78}.

Singh RP, Pandey KK and Singh SK (2001) in their article on “Rural Credit and Participation of Credit Agencies” observed that out of 96 selected farmers, 88 farmers were borrowers who had taken loans from formal and informal credit agencies. The study further revealed that commercial banks and government were the main sources for rural credit in the villages and among the informal credit agencies relatives/friends and moneylenders constituted the high percentage. On the whole, the study indicated the predominance of institutional credit agencies on selected farms\textsuperscript{79}.

Mercia Selva Malar (2004) in her article on “SBI’s Agricultural Banking in the Post Liberalized Era” observed that SBI is a pioneer bank of India. The largest network of branches has an excellent understanding of the agricultures. It has deep sense of social commitment, and national economic development. It is offering many farmer friendly schemes to the agriculture\textsuperscript{80}.


\textsuperscript{80} Mercia Selva Malar (2004) in her article on “SBI’s Agricultural Banking in the Post Liberalized Era”, Monthly Opinion Survey.
Agro Economic Research center, Andhra University (2004) in the article "Agricultural policy in AP" observed that close examination of Indian agriculture in the context of globalization, India holds a lot of promise in the liberalized credit regime. It is not the right approach to politicize the trade related issues into positive and negative aspects, as there is no alternative but to adjust to the realities in the contemporary world situation. There is no dearth of resources in the country to take up challenges and opportunities offered by the global trade. WTO is be good for those who want to grow and bad for those who contend to stagnant.

Laxmi Narasiah M. (2004) in his book on Institutional Finance for Agricultural Development revealed that in 1950-51, the role of moneylenders in providing agricultural finance was prominent. They supplied credit more freely both for productive and nonproductive purposes with simple elastic methods, but their activities were full of shortcomings. They charged very high rates of interest. His study is an attempt to know the impact of bank finance on agricultural development. In the recent times, the commercial banks are playing major role in providing agricultural finance.

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81 Agro Economic Research Centre, Andhra University (2004), Agricultural Policy in A.P. Mimeographed