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SOURCE STRUCTURE AND UTILISATION

OF RURAL CREDIT AND ALLIED PROBLEMS
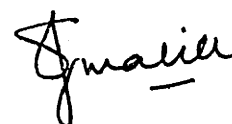
IN PAKISTAN

by

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of the requirements for the degree of Master of

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July, 1981

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# DECLARATION

Except where otherwise indicated, this dissertation is my own work.

Sohail J. Malik

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ABSTRACT

In this study an attempt has been made to look at the
effectiveness of credit in the process of agricultural development, given
the existing source structure and utilisation patterns of rural credit in
Pakistan.    The study focuses on the borrowing behaviour of the small
farm and tenant farm categories, relative to the other farm categories in
Pakistan.

In the light of the economic, socio-cultural, historical and
religious background of the area, the study identifies a set of factors
that could affect the productive utilisation of credit.    The study, using
data from a large benchmark survey - the Rural Credit Survey of Pakistan,
1972-73 - looks specifically at:

1)   the problem of differential 'access' to sources of

     credit

2)   the role of institutional credit

3)   the extent, nature and scope of non institutional

     credit

4)   the utilisation patterns of credit, especially the

     relative importance of credit utilisation for

     purposes of current on farm expenditure and for

     consumption expenditure and expenditure on social

     ceremonies.

The analysis was severely constrained by limitations of data, arising
out of the survey questionnaire design, the range of data available from
the survey for analysis and the form in which it was available.    In the
light of these data constraints the study finds that 'access' to

institutional credit is dominated by the large farm and owner farm

categories and that institutional credit plays a small almost insignificant

role in the borrowing of the small farm and tenant farm categories. As a

corollary to the dominance of non institutional credit, the study finds

the existence of large scale (over 86 per cent of total) borrowing at zero

rate of interest (nominal and explicit). The study also finds that credit

utilisation for purposes of current on farm expenditure is relatively low

in all farm categories, whereas credit utilisation for purposes of family

consumption and for social ceremonies is relatively much higher, especially

in the case of the small farm and tenant farm categories. The findings

of this study seem to support the assertion that non institutional credit

is largely "non productive" and in the existing set up, credit on the whole

is not playing its desired role in agricultural development.

The study highlights the constraints that exist to the effective

utilisation of credit, the removal of which can hopefully lead to a

catalytic role of credit in the overall agricultural development of Pakistan.

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# PAKISTAN

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| BOUNDARY INTERNATIONAL | —··—··—·· |
| " PROVINCE | ———— |
| " DISTRICT | —·—·—· |
| AREAS NOT COVERED IN CENSUS | |
| ADDITIONAL AREAS NOT INCLUDED IN THE RURAL CREDIT SURVEY | ++++ |

SCALE:- 1" = 100 MILES

AFGHANISTAN

CHITRAL

GILGIT AGENCY

BALTISTAN

SWAT

DIR

MALAKAND

MOMAND

MARDAN

HAZARA

PESHAWAR

KURRAM

RAWALPINDI

CAMPBELL PUR

JAMMU & KASHMIR

KOHAT

N.WAZIRISTAN

HANGU

S.WAZIRISTAN

BANNU

JHELUM

D.I. KHAN

MIANWALI

SARGODHA

GUJRAT

GUJRAN-WALA

SIALKOT

SHAKARGARH S.D.

JHANG

LYALLPUR

SHEKH.

LAHORE

ZHOB

D.G. KHAN

MUZAFFARGARH

MULTAN

SAHIWAL

BATIAWALNAGAH

QUETTA

LORALAI

SIBI

RAHIMYAR KHAN

BAHAWALPUR

INDIA

KACHHI

JACOBABAD

SUKKUR

IRAN

KHARAN

KALAT

LAR-KANA

KHAIR-PUR

BALUCHISTAN

DADU

NAWABSHAH

SANGHAR

JUNAGADH & MANAVADAR

MAKRAN

LASBELA

KARACHI

SIND

HYDERABAD

THARPARKAR

22°

THATTA

MITHI

ARABIAN SEA

70°

Source: Government of Pakistan, 1972

CHAPTER 1

INTRODUCTION

## 1.1    The Need for Credit in Agricultural Development

There has been a sharp transition in economic doctrine with respect

to the relative contribution of agriculture[1] and industrial development

to national economic growth during recent decades.  There has been a

shift away from an earlier 'industrial fundamentalism' to an emphasis on

the significance of growth in agricultural production and productivity for

the overall development process (Hayami and Ruttan, 1971).  The focus,

especially in the context of the present-day Less Developed Countries

(LDCs) has sharpened with the rapid growth in demand for food brought

about by rapid growth in population and high income elasticities of

demand for food.  This has led to a greater preoccupation on the part of

governments to adopt policies that encourage agricultural growth.

Growth and development are contingent not only upon a sustained

growth in production and population, but also in labour productivity.[2]

With the growing population pressures on land and the declining land/man

ratios, the emphasis is shifting more and more to land-saving technology[3]

to increase productivity and production.  This technology is embodied in

the so-called 'green revolution package' of high yielding varieties,

irrigation, fertilisers and pesticides, and improved crop husbandry,

---

1    The growth stage theorists (List, Marx, Rostow, etc.) and proponents
     of the dual economy models (Lewis, Fei and Ranis, Higgins, etc.) have
     highlighted the importance of agriculture in the process of economic
     development (Ruttan, 1965; 1969).  The importance of the agricultural
     sector is variously stressed in terms of its contributions to
     i) food and fibre;  ii) labour for non-agriculture;  iii) market for
     non-agricultural production; and  iv) surplus for development.

2    See Kuznets, 1959.

3    See Hayami and Ruttan, 1971.

1

which require an increased investment (monetised). This investment
can either come from a saving process by the farmers or through borrowing.
Given the subsistence nature of agriculture in most LDCs, the propensities
to save are very low. This leaves recourse to credit to meet the required
investment in the agricultural sector. In a perfectly competitive
system, once the profitability of the technology is established, one
would expect that credit would flow freely to the farm sector[1] and
thus ensure the increased production and productivity that agricultural
development demands.

## 1.2  The Importance of Agriculture in Pakistan's Economy

Agriculture is the dominant sector of Pakistan's economy.[2] Although
the agricultural sector's share in the Gross Domestic Product (GDP) has
been declining over time, it still stood at about 34 per cent in 1978.[3]
In 1977, 54 million people or 74 per cent of Pakistan's population was
rural and derived its livelihood either directly or indirectly from
agriculture. Even when measured in the conventional sense, agriculture
directly provided employment to about 54 per cent of the labour force,
with another about 16 per cent of the labour force being employed in
the agro-processing and trade sub-sectors, making a total of nearly
70 per cent of the total labour force.

Agriculture's contribution to Pakistan's foreign trade is also
significant. In 1976-77, agricultural exports accounted for about
72 per cent of the total foreign exchange earnings.

## 1.3  The Performance of Agriculture

Despite the importance of the agricultural sector, the growth
rate of agricultural output has not kept pace with that of the economy.
This can be seen from Figure 1.1. The overall growth of GDP over the

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[1]  To the point where the marginal value product of credit is equal
to the price of credit (interest rate).

[2]  All data presented in this section, unless otherwise stated, are
from the Government of Pakistan, 1977-78 'Pakistan Economic Survey',
Finance Division, Islamabad.

[3]  Declined from 54 per cent in 1950.

FIGURE 1.1

COMPARISON OF AGRICULTURAL
GROWTH WITH GDP
(Constant Rupees)
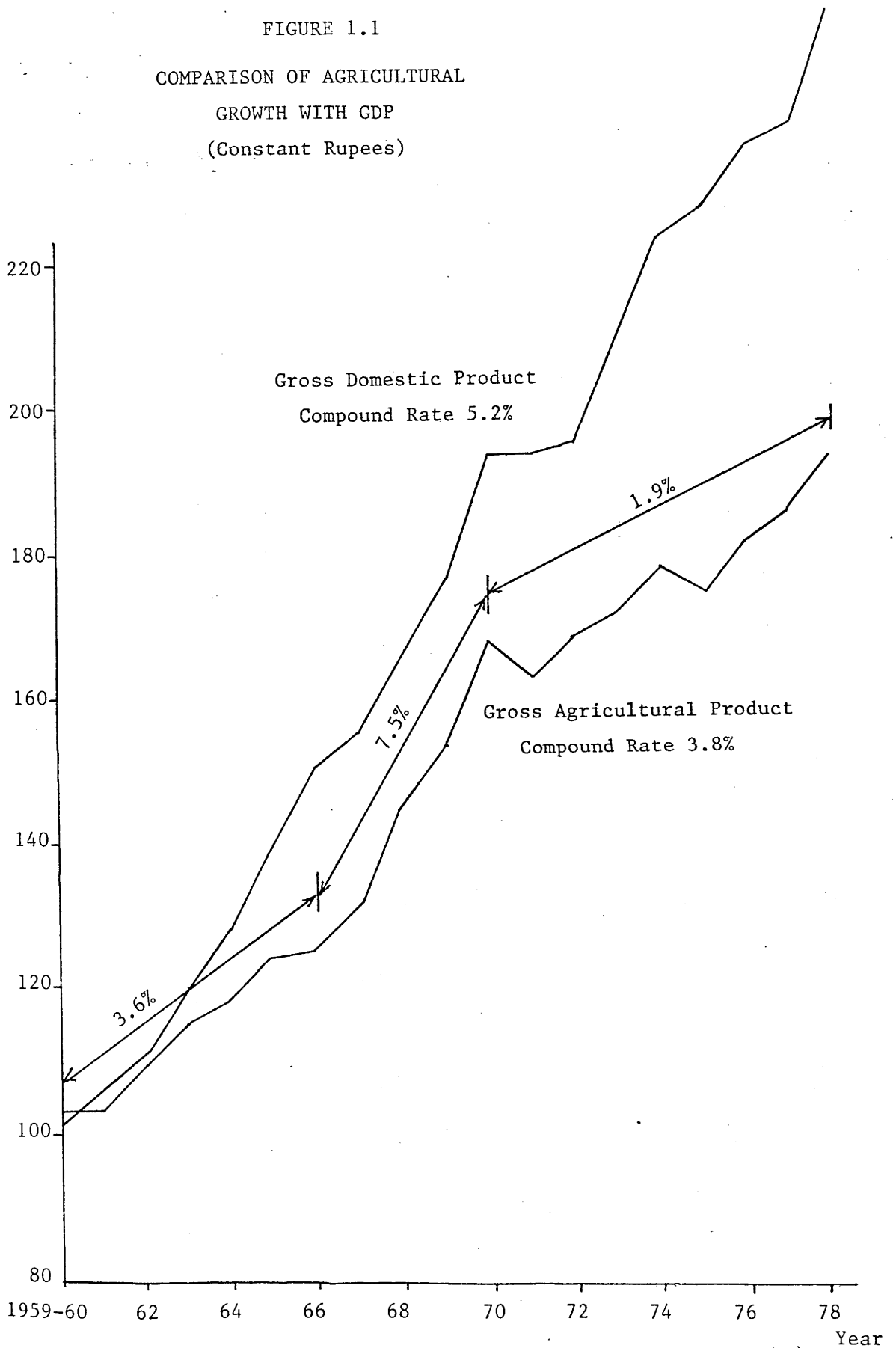


Note:    Statistical best-fit line intercept at 1959-60 equals 100
Source:  WAPDA, 1979.

period 1959-60 to 1977-78 has been 5.2 per cent whereas the growth rate

of gross agricultural product has been only 3.8 per cent. It is also

interesting to note the growth of gross agricultural output by sub-periods

over this time. From 1959-60 to 1966-67 this rate was 3.6 per cent which

increased to an impressive 7.5 per cent in the period 1966-67 to 1970-71,

the era of the green revolution in Pakistan. However the performance of

this sector has been disappointing during the 1970s with a low rate of

1.9 per cent. This is even more alarming when it is considered in the

light of the fact that despite the rural-urban migration, the population

in the rural sector during the 1970s was growing at about 2.5 per cent.

## 1.4     Low Levels of Investment

Investment in the agricultural sector in Pakistan as a proportion

of total investment has been declining. Table 1.1 shows the capital

formation in agriculture during the period 1969-79 to 1976-77.

A number of trends become obvious. Although capital formation

in the economy has increased from about 14 per cent to 18 per cent over

the period, capital formation in agriculture has declined from about

10 per cent to about 5 per cent. Public sector capital formation in

agriculture as a ratio of public sector capital formation in the economy,

which was about 34 per cent in 1969-70, dropped to 4 per cent in 1976-77.

Another aspect is the declining trend in the ratio of capital formation

in agriculture to capital formation in the economy, which declined from

23 per cent to 8 per cent over the period. This is despite the fact that

private capital investment in agriculture actually grew in relative terms.

A number of inferences can be drawn from Table 1.1:

    1)    in relative terms there has been a declining role of

          government in the agricultural sector;

    2)    investment in agriculture has not kept pace with its

          share in GDP;

TABLE 1.1

CAPITAL FORMATION IN AGRICULTURE[1] AND THE ECONOMY

(Fixed Capital Formation)

| | 1969-70 | 1973-74 | million rupees current prices 1976-77 |
|---|---|---|---|
| **Capital Formation in Agriculture** | | | |
| A. Private[2] | 476.1 | 612.1 | 1506.8 |
| B. Public[3] | 1124.0 | 859.0 | 672.1 |
| C. Subtotal | 1600.1 | 1471.1 | 2178.9 |
| D. Agricultural Product | 15964.0 | 21907.0 | 44011.0 |
| **Capital Formation in the Economy** | | | |
| E. Private | 3493.3 | 3726.3 | 7950.0 |
| F. Public | 3340.7 | 3920.2 | 18187.1 |
| G. Subtotal | 6834.0 | 7646.5 | 26137.1 |
| h. Gross Domestic Product | 47749.0 | 66515.0 | 145623.0 |

(Ratio in Per Cent)

| | 1969-70 | 1973-74 | 1976-77 |
|---|---|---|---|
| $\frac{C}{G} \times 100$ | 23 | 19 | 8 |
| $\frac{B}{F} \times 100$ | 34 | 22 | 4 |
| $\frac{D}{H} \times 100$ | 33 | 33 | 30 |
| $\frac{G}{H} \times 100$ | 14.3 | 11.5 | 18 |
| $\frac{C}{D} \times 100$ | 10.02 | 6.72 | 4.95 |

Notes: 1 In the absence of a comprehensive system of data collection in Pakistan, an element of underestimation is to be expected. However since data collection has not improved over time, it is safe to assume that these figures reflect the trends over time.

2 Figures for private sector capital formation especially would generally underestimate true private sector investment.

3 Agriculture plus rural works programmes.

Source: WAPDA, 1979.

3)    the agricultural sector's output has contributed

towards capital formation outside the agricultural sector.

This is despite the fact that 54 per cent of the labour force

in agriculture produces only 34 per cent of GDP indicating

a substantially lower labour productivity in agriculture.[1]

The declining role of government in the agricultural sector is

symptomised by the niggardly development of research, extension and

infrastructure.  The greater capital formation outside the agricultural

sector  should not be taken to mean that the returns to private investment

in agriculture are not attractive.  As will be shown later, there is a

tremendous potential for increasing agricultural output in Pakistan

with the required investment in fertiliser, seed, pesticide and water.

The reason for the lack of investment in agriculture probably lies in

the overall economic environment that existed in Pakistan in the 1970s.

The threat of land reforms (two out of the three carried out in Pakistan

were during the period of the early to mid 1970s) added to the overall

uncertainty in agriculture.  The land holding structure in Pakistan is

such that a majority of the farms, i.e. 68 per cent, are below the

subsistence level of land holding[2] which account for only 30.4 per cent

of the area.  The rest of the area is operated by the remaining 32 per cent

of the farmers.[3]  The distribution of land is skewed.  Hence it is only

the large landlords who are in a position to invest, and the predominant

small farm sector has little or no investible surplus.  However, the

ominous threat of transfer of their land during this period to the tenants

is said to have constrained their investment in agriculture.

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1    According to Kuznets (1965), labour productivity is as dependent upon
     their (the labourers) education and skills as upon the material
     capital equipment with which they are provided.

2    Determined in Pakistan on the basis of produce index units to be
     on an average about 12.5 acres (PIDE,1978).

3    Based on the Government of Pakistan, Agricultural Census Organisation,
     Agricultural Census of Pakistan, 1972.

1.5    The Potential for Growth

There is great potential for increasing farm productivity and hence overall production with the use of high yielding varieties and the green revolution package of fertiliser, water, pesticides and proper cultural practices. A survey of leading farmers conducted by the masterplanning unit of the water and power development authority of Pakistan in 1979 confirmed this.

TABLE 1.2

CROP YIELD INCREASE POTENTIAL

(Per Cent Increase Above Current Levels)

|  | Crop | | | |
| Factor | Wheat | Rice | Cotton | Sugarcane |
| --- | --- | --- | --- | --- |
| Improved Water Management | 20 | 10 | 10 | 10 |
| Drainage & Salinity Control | 10 | 10 | 15 | 10 |
| Certified Seeds HYV | 15 | 25 | 15 | 10 |
| Fertiliser | 45 | 40 | 20 | 30 |
| Plant Protection | 15 | 15 | 30 | 10 |
| Other Cultural Practices | 30 | 40 | 80 | 15 |
| Total | 135 | 140 | 170 | 85 |

Source:  Water and Power Development Authority (1979)

Table 1.2 shows clearly that potential exists to increase yields from 85 per cent to 170 per cent for different crops with the adoption of new technology. But the new technologies, quite apart from the other debates on adoption, require a higher proportion of purchased inputs which require larger working capital constraining the already meagre means of the average farmer who, as we have seen, lives at or below the subsistence level.[*]

It has been observed in Pakistan that the small farm is a relatively more efficient unit. It generates a greater gross income per cultivated

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[*]  See also Table 2.2 which shows that 73.31 per cent of all households lie below the 15 acre size of farm category.

acre and exhibits higher cropping intensity, as can be seen in Table 1.3.

TABLE 1.3

GROSS INCOME PER ACRE AND CROPPING INTENSITY BY SIZE OF FARM

| Size of Holding (acres) | Gross Income[*] Per Acre Cultivated (Rs) | Cropping Intensity |
|---|---|---|
| Up to 12.5 | 467.78 | 136.7 |
| 12.5 to 25.0 | 391.51 | 130.5 |
| 25.0 to 50.0 | 258.99 | 120.0 |
| 50.0 and above | 134.35 | 116.0 |

Note: [*] Gross income = value of gross output. A better measure would have been income net of costs. However, such data are not available.
Source: Farm accounts and family budgets of cultivators in the Punjab, 1973. Board of Economic Enquiry, Punjab, Lahore.

It has also been shown that small farms absorb more labour. This can be seen from Table 1.4

TABLE 1.4

LABOUR ABSORPTION BY SIZE OF FARM

| Size of Farm (acres) | Labour Used (mandays per cultivated acre) | Index |
|---|---|---|
| Less than 6.25 | 84 | 100.00 |
| 6.25 to 12.50 | 55 | 65.51 |
| 12.50 to 25.0 | 49 | 58.79 |
| 25.0 and above | 39 | 46.38 |

Source: Farm accounts and family budgets of cultivators in the Punjab Shadab Project, 1972. Board of Economic Enquiry, Punjab, Lahore.

These features of the small farm sector are not particular to Pakistan. Raj Krishna (1979) has found that such trends are characteristic of most developing countries (including Pakistan) with predominant small farm sectors.

In such a situation, increased investment[1] in "the green revolution package" by these small farmers can help achieve three important overall development objectives:

1) increase agricultural production;

2) provide greater employment; and

3) reduce the existing income inequalities that exist in the agricultural sector.

In the light of the above, it would seem that the provision of agricultural credit is one of the elements of a development strategy for Pakistan. However, the mere provision of credit is not enough. There are a number of problems that restrict its effective utilisation to achieve these objectives. A study of these problems is the focus of this thesis.

1.6    The Scope of the Study

In the light of a set of economic, socio-cultural, historical and religious factors that characterise the agricultural sector of Pakistan,[2] and that may have a bearing upon the effective utilisation of credit, this study attempts to look at:[3]

1) the extent of the farmers' dependence on different sources of credit;

2) the differential access, if any, (of different farm categories) to the existing sources of credit;

3) the extent, nature and scope of informal borrowing (non-institutional credit); and

4) the historical assertion that the farmers of the region borrow mainly for consumption and for social ceremonies.

The focus is on the small farmers[4] and farmers of the tenant

---

1    Aided by the divisible nature of the new tecnology inputs, i.e. fertiliser, seed, pesticides and water which would permit even very small doses of credit to have positive gains.

2    See Chapter 2 for a detailed discussion of these aspects.

3    Unfortunately, because of the data constraint discussed later, it is not possible to set out the objectives in a precise hypothesis testing format.

4    The small farmer category, because the form in which the data are available, are defined as farms up to 5 acres. See Chapter 3.

category relative to the behaviour of the rest of the farm categories.
The overall objective of the exercise is to examine the impediments, if any,
to the utilisation of credit to increase agricultural production and
productivity.

The study is a first attempt for Pakistan in this area at the
macro level.[1] It draws upon as yet unpublished data from the Rural
Credit Survey of Pakistan 1972-73,[2] in which 94,082 households all over
Pakistan were surveyed and the data thus collected were 'raised'[3] to
represent the 6.9 million households that make up the rural sector of
Pakistan.

Because of limitations regarding the form in which the data are
available, the analysis is for the most part tabular.[4] However, because
aggregate data were also available for seventeen districts, certain
basic relationships indicated by the analysis are statistically tested
in Chapter 6 using the Spearman Rank correlation.

1.7    Outline of the Study

The study is divided into seven chapters. Following this
introduction, the second chapter looks at the role of capital in
agricultural development, the importance of credit in subsistence
agriculture and the possible factors that could interfere with the
effective utilisation of credit to increase agricultural productivity
and production in Pakistan. The third chapter deals with the survey
methodology, its background and coverage, and the form in which the data
are available. It also presents the characteristics of the borrowing
households. The fourth chapter presents the background to the sources
of supply of credit, and examines points 1, 2 and part of 3 of the

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1    Although two micro level studies were conducted in the past, they
     were limited in coverage and scope. See Chapter 4.

2    See Chapter 3.

3    See Chapter 3.

4    Given the large sample size, the stratified random sampling procedure
     and the small per cent sampling errors (Chapter 3) it seems reasonable
     to assume that these tables closely approximate 'reality'.

objectives of the study listed on page 9. The fifth chapter deals with the interest rate structure and its implications for the effective use of credit as an instrument for development. The sixth chapter looks at the utilisation patterns of credit, the share of productive on-farm[1] utilisation in the overall credit used and the extent of credit used for different purposes. In the process it seeks to verify the historical assertion that the farmers of the region borrow mainly for consumption and social ceremonies. It also attempts to test statistically certain relationships between the supply of credit, credit use and income levels, in line with the objectives of the study. The last chapter presents a summary of the findings and their implications for an effective credit policy in Pakistan.

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1   This study adopts a restrictive definition of 'productive' utilization.[*] Without getting into an involved debate on whether, say, credit utilization for consumption or for other purposes is productive or not, we define for the purposes of this study credit utilized for expenditure on current on farm purposes (inputs) as productive and all other expenditure as non productive. The exclusion of capital expenditure on farm from this definition is serious.[**] However, given the labour abundance that characterizes Pakistan's agriculture, the stress should be on land saving technology that is embodied in 'the green revolution package' of improved inputs. See Hayami and Ruttan, 1971 and Page 12, f.n.2.

   *  The data presented later on in this study deals with actual reported utilization of credit for different purposes irrespective of the purpose for which it was obtained.

   ** However, see page 82, footnote 2.

CHAPTER 2

CAPITAL, CREDIT AND AGRICULTURAL DEVELOPMENT

## 2.1 The Role of Capital in the Process of Agricultural Development

In the last chapter we looked at the importance of increasing

agricultural production and productivity[1] in the overall development

process. Given the fund of technical knowledge[2] present in the world

today, which could be advantageously applied in the productive process,

one of the crucial constraints in most LDCs is the availability of

capital (material) to make use of it.

The reasons for the low levels of capital formation in these LDCs

are described by Nurkse (1953) through the existence of two vicious

circles - one on the demand side and one on the supply side. On the

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1 Productivity per capita in the context of agriculture can be
  represented as follows:

$$Y/L = A/L.Y/A$$

where
    $Y/L$ is productivity per capita
    $A/L$ is land area per worker
    $Y/A$ is land productivity

  Given the increasing population pressures on land, the $A/L$ component
  in LDCs is decreasing over time. Hence for an increase in $Y/L$ greater
  emphasis has to be placed on increasing $Y/A$. Following Hicks (1932),
  technology (normally biological and chemical) that increases the $Y/A$
  component is variously referred to in the literature as land saving
  (or landesque). Technology (normally mechanical) that directly increases
  labour productivity is variously referred to as labour saving (or
  labouresque). See Hayami and Ruttan (1971), Sen (1959) and 2) below.

2 Technology exists that can facilitate the substitution of the relatively
  abundant (hence cheap) factors for relatively scarce (hence expensive)
  factors in the economy. For example, land saving technology is one
  that facilitates the substitution of industrial inputs (such as
  fertilizers, pesticides, etc.) and labour (through, for example, labour
  intensive a) cultural practices, b) management systems and c) increased
  recycling of soil fertility through conservation systems) for land.
  Hayami and Ruttan (1971) find that in the process of agricultural
  development, land saving technology comes first and is followed by
  labour saving technology, which stands to reason in view of the abundant
  labour which characterises the LDCs.

supply side he states that there is little capacity to save resulting from low levels of real income, which reflect low productivity, which is the result of the small amount of capital used in production. The small amount of capital used is the result of the small capacity to save and so the circle is complete. On the demand side the inducement to invest may be low because of the small buying power of the people, which is due to their small real income, which again is due to low productivity. Productivity is low because of the small amount of capital used, which again is caused by the small inducement to invest. The inducement to invest is limited by the extent of the market which in turn is eventually determined by the level of productivity. The essence of the argument is that levels of capital formation are low because productivity is low, and productivity is low because levels of capital formation are low. The classical school of economic theorists, to which Nurkse belongs, stress the role of capital in economic development.

The Neoclassical school, as represented by Schultz (1964), also recognises the low levels of savings and investment in the LDCs, but states that savings and hence investment levels are low because of the low marginal rates of return to investment in traditional agriculture.[1]

It can be seen from the above that the role of capital in the process of economic development is accepted by economists of both persuasions. The difference lies only in their respective emphasis of it.

Kuznets (1959) also recognises the low levels of capital formation (and the accompanying low levels of productivity) in the LDCs but brings out an important aspect related to this problem. He states that,

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[1] A discussion of the existence or otherwise of inefficiencies of factor use or distortions in the factor markets in the process of development, that form the essential basis of the differences in the two schools of thought, is beyond the scope of this study. At this point we are merely trying to show that increased investment is a necessary condition for increasing productivity and production.

given the possibly wider inequality in the size distribution of income

in the LDCs, the proportions to national income of gross savings

originating amongst the upper income groups may well be higher than

(or at least equal to or not much smaller than) those in the more

developed countries. However, in the LDCs, a greater proportion of

these savings may finance the consumption needs of the lower income

groups or a greater proportion of such savings may go into hoards of

precious metals and ornaments rather than into productive investment.

For the puposes of increasing productivity and production, not only

is an increased level of capital formation crucial, but the utilisation

of this capital for productive investment is equally important.

## 2.2    The Nature of Demand for Credit in Subsistence Agriculture

In traditional and subsistence oriented agricultures like Pakistan,

there is little saving generated, especially in the farm categories

close to the margin of subsistence. In such a situation the importance

of credit is self-evident.

Mellor (1966) states that in a subsistence oriented agriculture:

> ...the problems of finance and credit arise in a large part
> from a seasonal cycle of production which is superimposed
> on a largely nonseasonal or steady pattern of total consumption.
> The production from agriculture normally comes at one or a few
> concentrated periods of harvest, while consumption occurs
> relatively steadily throughout the year. Even production inputs
> tend to be required either steadily throughout the year or at
> concentrated periods at times other than at harvest. Thus
> provision for consumption and production inputs requires either
> a saving process from the past harvest or credit borrowed
> against a future harvest.

Belshaw (1959) has contended that the demand for production credit

arises in two stages:

> First the farmer must perceive the existence of a potential
> for the increase of income from his farming enterprises and
> secondly the activities necessary to realise this potential
> must require capital in excess of the resources available

with him.[1]

## 2.3    The Demand for Production Credit

Conceptually one can view the demand for agricultural credit
as a derived demand – derived from the demand for expenditure[2] on
different aspects of the farming enterprise.  The demand[3] for production
credit can be seen to be influenced by the following factors:[4]

1)    The productive opportunity of the farmer;

2)    The farmer's initial endowment;

3)    The farmer's objective function;

4)    The farmer's attitude towards risk and degree of uncertainty.

One can reason that the higher the farmer's productive opportunity, the greater
will be the quantum of demand for credit.  Simultaneously, the greater the
farmer's initial resource endowments (home produced inputs and cash, savings
or working capital), the lesser will be the quantum of demand for credit.
This would mean that the size of the farmer's operational holding is of
crucial importance in the determination of the demand for credit.  Since
'endowments do not necessarily correspond to opportunities' (Mckinnon, 1973),
and as we have shown in Chapter 1, small farms in Pakistan have a greater
productive potential, this coupled with their smaller initial endowments
would imply a large demand for credit.  This does not mean that the absolute

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1    However, Belshaw (1959) has also contended that the characteristics
     of the society in which the farmer exists affect the conditions that
     prevail in these two stages and hence the eventual determination of the
     nature and quantum of the demand for credit.  These characteristics
     can be socio-cultural and/or economic.

2    This can be expenditure on investment purposes (both capital and
     current) on farm or on family consumption etc. or on other purposes
     connected to the farming enterprise or combinations thereof. However,
     following Lipton (1976), given the composite nature of the farming
     enterprise, it becomes very difficult to separate demand for one from
     the other.  Here we are dealing with production credit only.

3    The demand for investment credit is a function of the cost of credit,
     the marginal efficiency of capital and the awareness of the farmers.

4    See Hirshleifer, 1970 and Ahmed (1980).  However, because we do not
     have the requisite data this model cannot be emperically tested.  The
     Rural Credit Survey did not elicit information on these aspects and it
     is not possible to extrapolate from the available data.

amounts of credit demanded would be greater on a per household basis, but that the demand curve for the small farmer under the influence of the two factors described above can be expected to be relatively more inelastic (with respect to price (rate of interest) than that of the large farmers.

If the farmers objective function is the maximisation of the farm income through an increase in production over time, he can be expected to have a greater demand for credit. However, on the other hand, if he seeks to maximise his social prestige, he may demand minimally for production purposes and largely for non-productive purposes.[1]

The farmers' attitudes towards risk and uncertainty are subjective phenomena that can affect the demand for credit. One can expect large farmers to be less risk-averse because of their greater capacity to absorb the effect of the risk factor. In an economy where subsistence agriculture is dominant, it can be argued that the significance of market risk is greatly reduced as production is largely for home consumption. If subsistence agriculture is also characterised by static technology, the relevance of risk is further diminished, as it can be expected that the farmers' expectations would have been sharpened by historical experience. This does not, however, mean that the risk factor can be totally excluded. It is dependent upon subjective attitudes towards risk, which vary from individual to individual, and on a number of factors that in turn can influence these attitudes. The profitability of a particular technology and the demonstration effect of such gains are two such factors that can affect the degree of risk aversion.

Lowdermilk (1972) found that depite the relatively poor economic condition of the small farmers and their limited access to credit, a large proportion of small farmers adopted high yielding dwarf wheat varieties in Pakistan (in a very short period of time) because of the tremendous gains involved.

---

1  Expenditure on social ceremonies and ostentateous consumption, for example.

In a perfectly competitive market, the price of credit (the interest rate) would be given, (determined by the intersection of the aggregate demand and supply curves) and would be the same for all.[1] Individual equilibrium quantities of credit obtained would be determined by the intersection of this price and the respective demand curves. In this perfect hypothetical situation, this credit would then be employed to realise the productive potential of the farmer and lead to the desired increments in production and productivity.

## 2.4 The Importance of Credit in Agricultural Development: the Experience of the LDCs

A large body of literature on agriculture as a vehicle for development highlights the importance of credit, especially in the context of the under-developed or less developed countries of today. It centres around the premise that the majority of the farmers in these countries are small and poor. They are thus constrained in increasing their farm production by a lack of capital with which to take advantage of the array of techniques available. This awareness has heightened since the agricultural revolution of the mid 1960s and more and more writers are of the view that adoption of the new technologies is restrained in most cases due to the capital constraint. It is felt that:

> Not only can credit remove a financial constraint, but it may accelerate the adoption of new technologies. Credit facilities are also an integral part of the process of commercialisation of the rural economy. (World Bank, 1975)

It would be worthwhile here to look at some evidence from the developing countries to determine the importance of credit in agricultural development.[2] Theoretically, credit is a powerful economic tool as it facilitates a borrower's shift to a higher production possibility curve with a greater command over resources. Rao (1970) found that capital with scientific knowledge was the key combination that accounted for growth in Indian agriculture and not land and labour,

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1 This is a hypothetical case. See Chapter 5, Section 5.2 on the determination of the interest rate, especially Bottomley (1975).

2 It is interesting to note that most of the studies showing that extra credit will increase farm returns and incomes do not make specific assumptions regarding the rates of interest. The opportunity cost of additional credit provided to farmers, is an important aspect often ignored.

since according to him 'the frontiers of land have more or less been reached and labour is an abundant resource whose marginal product in the absence of capital to raise it, is near zero'. A credit policy was therefore an important means towards achieving developmental objectives.

In a study of farmers in Rajasthan in India, Agarawal and Kumarwat (1974) found that there was capital rationing in farms of all sizes in spite of an existing potential for increasing incomes even at the prevailing level of technology. Adoption of new technology without any credit tended to decrease farm incomes rather than increase them. The authors concluded that new technology and credit used in combination increased incomes in all sizes of farms by about 73 per cent. In an econometric analysis conducted in India, Lavania et al.(1969) found that the effect of credit on productivity was positive. The study by Bhadur (1975) provides additional support to this finding.

Subramanyam and Patel (1973) studied the impact of credit on farm incomes and estimated the short term credit needs of different farm sizes in the West Godavari district of Andhra Pradesh in India. They found that credit helped all size categories but small farms were helped most, and that a shortage of capital contributed heavily to the low adoption of new technology. A study by Dwarkinath et al.(1974), attempting to estimate the potentialities of marginal farmers for agricultural development through the use of agricultural credit, showed that farmers made good use of credit and with technical support from extension programmes, credit use could be more fruitful. In a study of production credit needs in developing agricultures, it was found by Sharma and Prasad (1971) that for India, adequate use of credit increased farmers' incomes even without adopting new technologies.

Similar evidence was found in Bangladesh by Raquib (1977) who concluded that 'an adequate supply of formal credit could contribute

substantially to raising crop intensities and a change in the crop mixes

of the farms in favour of adoption of high yield variety crops'.

In the case of Pakistan also, lack of access to credit has been

cited as a reason why small farmers delayed in the adoption of the

new technology of the green revolution (Khan, 1975). In the two

studies by Naseem (1973; 1975) it is shown that the small farmers in

the Punjab on the whole, and all the farmers of the Sahiwal district of

the Punjab, generally considered that the lack of capital for the

purchase of variable inputs such as seeds, fertiliser and pesticides,

and for capital costs such as the installation of tubewells etc., as

their main constraints.

Lowdermilk's (1972) study of the diffusion of dwarf wheat

varieties in Pakistan's Punjab shows that credit availability is

significantly related to the level and use of nitrogenous fertiliser

for the new wheat varieties. Anderson (1976) also found a positive

correlation between credit availability and fertiliser use for wheat

production in Pakistan.

## 2.5 Possible Factors That Can Reduce the Effectiveness of Credit

   ## as a Policy Instrument: the case of Pakistan

It would seem from the foregoing that the mere availability of

credit would ensure the development objectives of greater production and

productivity.[1] However, there are a number of factors that could mar

the effectiveness of credit as a policy instrument in LDCs in general

and Pakistan in particular. These have their roots in the economic,

socio-cultural, historical and religious background of the area.

Foremost amongst these is the fact that:

> '...any sensible person, given a loan sees that his family does
> not starve, second uses the residual for high priority (high

---

[1] 'Mere availability of credit will not persuade farmers to adopt
a particular technology' (FAO, 1975).

return) outlays;[1] and only then considers what profitable
(e.g. on the farm) investment he can make'. (Lipton, 1976)

Penny (1968), in an analysis of farm credit policy in LDCs, questions the

usefulness of credit especially in the early stages of economic growth.

Both he and Tagumpay-Castillo (1968) contend that the attitude of peasant

farmers towards debt makes cheap credit an unlikely growth stimulus.

Bernard (1973) in a study of a Malay village found that peasant farmers

are averse to investing in production.  Savings and credit were mostly

used for consumption because the expansion of economic enterprise was

against the norms of the existing social system.  He points out that

more adaptation was necessary in the social system before effective

utilisation could take place.[2]

There are a number of possible factors specific to Pakistan that

could on a priori expectation reduce the effectiveness of credit policy

to meet the country's development objectives.  The economic and social

and political influence of the large farm sector, born  out of the

skewed distribution of land ownership and the resultant development

over time of the social hierarchy, enables them to monopolise all

profitable enterprise in the economy.  It is expected that the large

farm sector monopolises access to the cheaper sources of credit.[3]  This

would imply that the small farmer, who has the greater productive

potential and whose need is greater(in terms of the initial endowment

mentioned earlier), is starved.  This credit starvation is a circular

phenomenon.  It serves to strengthen an attitude in the mind of the small

---

1   These high returns depend on the society within which the individual
    operates and, as will be shown later, need not be monetary in nature.

2   This runs counter to neoclassical reasoning as embodied in the
    'poor but efficient' doctrine.

3   We are referring here to institutional sources of credit, which
    in the case of Pakistan are subsidised.  See Chapter 5.
    We will attempt to show later that non-institutional credit in
    Pakistan is largely non-productive.

farmer that his access to productive credit is limited and hence to a

reduction in his demand for such credit in the next round. The possible

monopoly of access by the large farm sector of the institutional credit

can also be attributed to the more stringent collateral requirements

of institutional sources, but its net result is a rationing of credit

in terms of existing wealth. From a macro point of view, such a

monopoly of access[1] to institutional credit would be inefficient on

two grounds:

    a)   it does not lead to a realisation of the true productive

        potential of the agricultural sector, and

    b)   it leads to a further widening of inequalities.

Another factor on the supply side can be the relative dominance of

non-institutional credit, or put another way, the small share of

institutional credit, in the overall source structure. It is postulated

that non-institutional credit is largely non-productive in nature. This has

its roots in the historical and socio-cultural background of the area.

    In the area that is now a major part of Pakistan, the problem of

chronic debt[2] was recorded by Darling (1925) who wrote that the 'Punjab

peasant is born in debt, lives in debt and dies in debt'. The same

author writes:

> '...the muhammadan[3] has a natural contempt for accounts and
> rarely checks expenditure until his elbow is unpleasantly
> jogged by the money lender. This incompetence in money matters,
> combined with the prohibition against usury which he has
> inherited from the law of Moses, puts him at the mercy of the
> money lender, who consequently thrives'. (Darling, 1925)

The money lenders were mostly Hindus and dominated the economic scene

with a stifling hold that was at once exploitative and vicious (Darling,

1925). It is variously held that one of the reasons for the partition

---

1   This will be examined in Chapter 4.

2   We will go into the causes of this debt later in this section.

3   Muslim majority areas of former British India now form Pakistan.

of India and the founding of Pakistan was the result of this exploitation of the Punjab farmers by the money lenders.[1]  When the Hindu money lenders left in 1947 after Pakistan came into being, they left behind a general aversion to borrowing[2] and a vacuum in the overall supply of credit. This vacuum was filled largely by friends and relatives[3] and landlords.(See Table 4.1).  On the assumption that the friends and relatives belong to the same caste and hence the same economic strata (in the case of the dominant small farm sector, they would all be at or near subsistence levels) it can be asserted that such lending can only be for consumption puposes or for social ceremonies, to preserve the _izzat_[4] of a member of the caste or clan.[5]

It is difficult to visualise a small farmer dipping into his own meagre resources to lend money to a friend or relative, who would employ it to increase his production, while the lender goes without.  Lending between friends and relatives is lending between equals on the basis of reciprocity.  Lending by landlords (lending between unequals) is based on the perpetuation of the patron-clientele relationship.  In a region ·where social and economic position is jealously guarded, one cannot visualise a large landlord lending to a smaller farmer so that he

---

1    Darling (1925) notes that in 1925 it was únlikely that more than
     17 per cent of the proprietors in the Punjab were free of debt.

2    Which is only undertaken in times of distress, i.e. for consumption
     purposes or to meet the cruel demands of social ceremonies, as we
     shall see later.

3    There is a greater unity amongst different castes in the Punjab, based on
     an  interdependence and being driven together by economic deprivation.
     Miller (1955) notes 'Not only do castes interlock within the village
     to form an adhesive whole, but the spread of castes over several
     villages serves to form an interlocking mesh'.  He goes on to say
     'Although by their religious belief all men tend to be equal.... the
     Sikhs and Muslims did not form two single castes.... in areas largely
     Sikh or Muslim in East and West Punjab there are (still) a number
     of interdependent castes'.

4    _Izzat_ is a concept akin to honour (but much stronger) that dictates
     the every day life of the populace.  Obligations and rights are
     reciprocal.

5    Loans from·friends and relatives are generally on the basis of
     reciprocity.

can better his lot economically.  On the other hand a  landlord lending

to a poor small farmer who is starving or has to marry a daughter or

bury a relative only adds to the prestige of the landlord.

Another feature of the system and a corollary of non-institutional

credit is the presence of borrowing at a zero rate of interest.  Islam,

the religion of the region, strictly forbids the charging of interest

and there are tremendous resultant social pressures against those that

do.[1]  This characteristic further strengthens the argument that

non-institutional credit is non-productive.  In the absence of any

monetary return to lending, it is rational to expect that loans will

only be made for purposes that have some 'social' returns (in terms of

an enhancement of the prestige of the lender).

On the utilisation side also there are a number of possible

factors (which could reduce the effectiveness of credit) that have

their roots in the cultural and social background of the region.

> .... the great majority of agricultural debtors get into debt
> through improvident expenditure upon domestic ceremonies and
> in particular upon marriages.  .... case are common when a
> ryot[2] will admit having spent twenty years rental on marriage;
> they are not uncommon when he will admit having spent fifty
> years rental.  Even when credit is controlled as it is in a
> village bank, extravagant sums are spent.  (Darling, 1925)

In the curious cultural and social set up when a girl and a boy

are married, the girl's family, caste and village become 'lower' than

that of the boy (Srinvas, 1955).  In order to ensure good treatment for

the girl, and as a matter of izzat, the girl's family spare no expense

to give their daughter a 'reasonable' dowry consisting of gold, jewellery,

clothes and household goods, and to arrange a lavish feast on the

occasion.  A man's izzat is measured by what he gives his daughters,

and by the lavishness of the wedding festivities.  The boy's family also,

---

[1]  One of the most caustic abuses in the language is sood khor, which
means one who lives on earnings from interest, and who is therefore,
in orthodox Islam, immoral.

[2]  Ryot means a cultivating tenant.

not to be outdone especially in view of their 'higher' status,[1] spare

no effort to outspend their new relatives, for all to see. The same

pattern of ostentatious expenditure is repeated for births, deaths,

circumcisions and a number of annual religious festivals.[2]

Darling (1925) has in his meticulous account of the Punjab peasant

in prosperity and debt emphasised three basic factors which compel the

peasant proprietors to borrow. These are:

1) the smallness of the ordinary holding and its grotesque

   fragmentation;

2) the profound insecurity of agricultural conditions, combined

   with a general improvidence; and most of all,

3) extravagant expenditure upon marriages and domestic ceremonial.[3]

2.6   The Rural Credit Survey of Pakistan:   a benchmark

In the light of the economic, socio-cultural, historical and

religious aspects outlined above which characterise the rural sector of

Pakistan, it becomes important to study the effectiveness of credit as

a policy instrument in the process of the agricultural development of the

area. Unfortunately, apart from two small surveys[4] of a limited

geographical coverage, previously there were no data available in

Pakistan on the subject. The Rural Credit Survey of Pakistan, 1972-73,

is a benchmark survey in this area. As a benchmark it provides a

starting point, and an interesting, one point in time, picture of the

rural credit situation in Pakistan. It enables one to estimate the

extent of the effect of the factors outlined in the previous section,

---

1   Social 'status' is also determined by the number of acres of land and the
    number of animals owned by the individual irrespective of their productivity.

2   It is interesting to note that the religion (Islam) strictly preaches
    moderation and modesty in all aspects of life, so that these ostentatious
    ceremonies and festivals are a cultural development like the development
    of different castes within the Muslims, as mentioned earlier.

3   'In addition', Darling goes on to state, 'there are two causes which
    facilitate borrowing – facile credit and a vicious system of money lending'.

4   See Chapter 4.

and as such the effectiveness or otherwise of agricultural credit as

a catalyst for increasing agricultural production and productivity

in Pakistan.

2.7 Summary

1) Increased investment is a necessary condition for increased

agricultural productivity.

2) In subsistence agriculture, the role of credit is more

crucial for agricultural development.

3) Small farms and tenant farms have a greater need for credit

in view of their smaller initial endowment.

4) There are a host of economic, socio-cultural, historical and

religious factors that can, on a priori expectations, restrict

the effective utilisation of credit in Pakistan.

5) The relative importance of these factors can be expected to

change over time. It is therefore important to estimate

the extent of their influence on effective credit utilization.

The Rural Credit Survey of Pakistan, 1972-73, is a

bench mark survey that permits such an analysis.

CHAPTER 3

THE SURVEY, METHODOLOGY, DATA AND CHARACTERISTICS

OF THE BORROWING HOUSEHOLDS


3.1   Objectives and Background

     This study is based on  data from the Rural Credit Survey of

Pakistan.[1]  This survey was conducted in early 1973 (January to March)

at the behest of the State Bank of Pakistan by the Agricultural Census

Organisation of Pakistan.   Its main objectives were:

> ...to know the present state of rural indebtedness and to
> assess the future credit needs of the rural population in
> general and of the farmers in particular.  Besides it was
> intended to ascertain through this survey the share of
> different agencies in providing rural credit, the purposes
> for which credit was obtained, and the terms for obtaining
> credit.  (Government of Pakistan, 1974)

Supervised by a team of experts from the State Bank of Pakistan, a

questionnaire spread over four pages was drawn up (Appendix 3.1).

     Ideally all aspects of rural credit such as incomes, wealth

and savings should have been covered, but these three vital areas were

dropped as it was considered that 'reliable information on these items

could not be collected through such a large survey' (Government of

Pakistan, 1974).

3.2   Sampling Plan and Geographic Coverage

     The administrative structure of Pakistan can be seen from

Figure 3.1.  A Mauza is the smallest unit composed of a number of

households.  It can form part of a village, or a village, or a small

group of villages, depending on the size of the village.[2]  The Rural

---

1   As indicated in Chapter 1, the data from this survey have not been
    published as yet.  However, this author's connection with his
    employing organisation, the Pakistan Institute of Development Economics,
    consultants to the State Bank of Pakistan, provided access to a set
    of preliminary tables and background material on the survey.

2   At the time of the survey there were 40,250 Mauzas making up
    1480 Patwar circles in 224 Tehsils/Talukas of the 46 districts in
    the 4 provinces of Pakistan.

Credit Survey covered the entire country.[1]  Map 1 shows the location of

the different provinces and districts of Pakistan.

FIGURE 3.1

THE ADMINISTRATIVE STRUCTURE OF PAKISTAN

**PAKISTAN**
|
PROVINCES
|
DISTRICTS
|
TEHSILS/TALUKAS
|
·PATWARS

MAUZAS
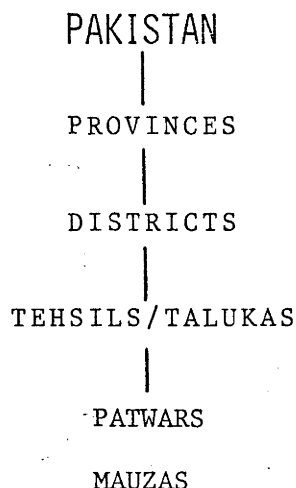
The availability of sampling material  gathered in connection

with the Agricultural Census made it possible to select a sufficiently

'small' though representative sample for the credit survey, in addition

to facilitating the use of the sketch maps of the sample Mauzas, and

the list of households, etc.

The sample design for the rural credit survey was a multi-stage

probability sample.  In the first two stages, the sample for the credit

survey constituted  a sub-sample of the corresponding units of the

agricultural census sample, whereas the sample for the third stage was

clusters of households directly selected from the households listed in

the second stage units of the census sample.

> Stage 1    Half of the Patwar circles were selected randomly from
>
> the agriculture census frames.

> Stage 2    For the agriculture census, two Mauzas were randomly
>
> selected in each Patwar circle.  For the credit survey,

---

1    Except the tribal areas of the North West Frontier province, and
     certain small areas of the District of Sialkot in the province of
     Punjab and District Tharparker in Sind province that had been
     ravaged by the war of 1971, and the Kohlu and Kohan tehsils in
     Baluchistan province  (See Map 1).

one of these was randomly selected.

Stage 3    From the households in the selected <u>Mauza</u>, two strata

were constructed:

Stratum 1    Household with 50 acres or more of land,

or 50 or more animals.

Stratum 2    Households with less than 50 acres of land

(including households with no land) or less

than 50 animals.

From Stratum 1, all households (or the largest 10, whichever was

smaller) and from Stratum 2 sixty households were randomly selected for

the survey.  In this way a total of 99,081 households were selected and

interviewed.  However, due to non-response and errors of inconsistency,

etc. in the completed questionnaire, a final sample of 94,082 was

established.  The  data was then 'blown up', by using a raising factor

equal to the inverse of the overall probability of selection of the

respective households, to represent a total population of 6,939,054

households, which represents the entire rural sector of Pakistan.

The data is in the form of a set of tables covering the

demographic and economic characteristics, source-wise borrowing by

size of farm, borrowing by interest rate for each source of credit,

expenditure and borrowing by purposes of expenditure and repayments.

These have been cross-tabulated against different categories of

households[1] in the rural sector, for Pakistan as a whole.  Aggregate

data are also available for 17 of the 46 districts of Pakistan.[2]

---

1    Except in the case of the interest rate tables which are cross
     tabulations between a range of interest rates and amounts of
     credit obtained at each level, for each of the lending sources.

2    These 17 districts are taken from the 19 districts of the province
     of Punjab and represent a cross section of agricultural
     conditions.  Note we do not have district level data at the
     different households' level.

The different caregories of households are:

1. Cultivators

   a) Owner operators

   b) Owner-cum-tenants

   c) Tenants

2. Owner non-operators

3. Non cultivators

   a) Services

   b) Traders

   c) Cottage industrialists

   d) Labourers

   e) Kammees or Moyens[1]

   f) Others (not specified elsewhere)

Categories 1 and 2 are sub-divided into five farm size categories:

Up to 5 acres

5 to 15 acres

15 to 25 acres

25 to 50 acres

50 acres and above

This kind of tabulation restricts analysis at the micro or household level. Furthermore, since individual parameters are tabulated separately against the household categories, it is difficult to draw direct relationships between different parameters, for example, between credit obtained from a particular source and credit utilized for a particular purpose, or between rates of interest and repayment levels etc.

3.3   Limitations of the Data

In a national survey of the type of the Rural Credit Survey, some errors and inconsistencies are always bound to creep in.   The quality of data from a sample survey depends on both the extent of the sampling and non-sampling errors present in the results.   For this survey the sampling errors have been estimated for the major items of information covered by the survey, and are presented in Appendix 3.2.

---

1   The Kammee/Moyen are the menial classes, a rub-off of the caste system, these include cobblers, blacksmiths, carpenters, etc.

They reveal that the range of sampling error for most of the survey parameters is not very large. Of the various methods available to identify the extent of non-sampling errors, the one most commonly used is a post-enumeration survey. Unfortunately for the rural credit survey, such an exercise was not conducted. Other methods that come to mind can be: a) an examination of the data for internal consistency and reasonableness; b) comparison of the data with data from other sources; c) an overall evaluation of the effectiveness with which the different phases of the survey were implemented. As regards (a) and (c) above, the organisation conducting the survey ran several checks and tried to ensure that errors on this count were kept to a minimum.[1] More specifically in the case of (a) 'a number of interrelationships revealed by credit data and the characteristics of the respondent households were examined'. Their conclusion was that 'the high quality of the survey estimates is reflected in the high degree of consistency of the data' (Government of Pakistan, 1974). The author has also examined the available data and the claim regarding the internal consistency of the data seems reasonable.

As regards the comparison of data with similar data from other sources for an examination of the quality of the data, a number of

---

1    The staff of the Agricultural Census Organisation underwent an intensive two week training programme. They were then sent to the field to interview ten households each. The questionnaires thus filled in were reviewed in joint sessions supervised by the State Bank of Pakistan, so that all doubts about the different concepts involved in the credit survey were cleared. In addition to this, the questionnaire was printed in the Sindhi language for use in the Sindhi speaking areas. On an average each enumerator was expected to complete about 650 questionnaires over the three month survey period. To further facilitate their access to the intended households, the cooperation of the village watchmen was elicited who were paid an honorarium for their cooperation. Although the survey questionnaires were precoded, before the data was transferred to the computers, a manual editing was undertaken to check for cases of non-reponse and obvious inconsistencies, after which the data was transferred to computer. A comprehensive computer editing programme was run to check for internal consistency and any errors were rectified.

problems exist. As has already been stated, this was the first attempt in Pakistan at an exercise of this kind. Data on the various aspects of the rural credit structure in Pakistan, especially on the utilisation side, do not exist. The government does however publish data on the lending by four main institutional sources which is presented as Table 4.2. There are difficulties in the comparison of this data with the data from the rural credit survey. Foremost amongst them is the fact that the goverment data is for the financial year 1972-73 (July to June) whereas the rural credit survey data for borrowing from different sources pertains to the calendar year 1972 (January to December).

The survey report (Government of Pakistan, 1974) listed a number of factors based on the actual observations in the field during the survey that might have resulted in an under or over estimation of the different aspects of the survey results and these are listed below:

1) People in the rural sector are extremely reluctant to disclose information about the debt and credit aspects of their lives. Moreover they do not keep accounts and the memory bias, especially in the items of information pertaining to the preceding twelve months, needs to be discounted for.

2) Some respondents did not consider themselves under debt when they had taken loans from their friends and relatives. This tendency, despite the vigilance of the enumerators, could have resulted in an under estimation of the total debt and the relative role of the non-institutional sources of credit.

3) Credit requirements may have been over estimated. The questionnaire did not indicate the cost of credit, thus misleading the repondents to, in some cases, assume that their credit requirements would be met free of cost. Thus this data will not enable us to estimate the demand for credit.

4)  Some respondents, especially big landowners, could have
intentionally supressed information for fear of land reform
or the recovery of old debts.

5)  The collection of information regarding interest rates
was fraught with a number of complications.  The majority
of the respondents, being uneducated, were not aware of
the exact rate of interest on loans and worked on the value
of the instalment of repayment and the number of repayments.
The enumerators were instructed to calculate from this
information the rate of interest, for listing in the survey
response.  However, the situation was further complicated
when the loan, or part thereof, was in kind and/or the
repayments were in kind or in part cash/part kind.  This
could have led to such loans being shown as loans at zero
rate of interest due to the inability of both respondents
and enumerators to calculate the rate of interest.

However, an awareness of the biases that could have crept into
the data is important.  In the hope that such biases will be consistent
throughout the data, we can proceed to analyse the data, because we are
interested only in a study of relative behaviour and not in absolute
values.

3.4  Profile of the Rural Sector and the Aggregate Credit Picture (as
shown by the rural credit survey).

The data presented in this section form an interesting scenario
in our study.  The village is the basic unit of community life in
rural Pakistan.  A typical village is composed not only of farm lands
and farmers, but a host of other occupational groups engaged in
non-farming activities.  Table 3.1 shows the percentage distribution

TABLE 3.1

DISTRIBUTION OF RURAL HOUSEHOLDS AND POPULATION

BY HOUSEHOLD TYPE

| Type of Household | Households | | Population | |
|---|---|---|---|---|
| | Number (m) | Per cent of rural households | Number (m) | Per cent of rural households |
| **A. Farm** | | | | |
| 1) Cultivators | | | | |
| a) Owner | 1.73 | 24.96 | 11.76 | 27.38 |
| b) Owner-cum-tenant | 0.85 | 12.27 | 6.12 | 14.25 |
| c) Tenant | 1.20 | 17.32 | 7.68 | 17.88 |
| Sub total, cultivators | 3.78 | 54.54 | 25.56 | 59.51 |
| 2) Owner-non-operator | 0.59 | 8.51 | 3.25 | 7.57 |
| Total, all farms | 4.37 | 63.06 | 28.81 | 67.08 |
| **B. Non-farm** | | | | |
| 1) Livestock holder | 0.88 | 12.70 | 5.37 | 12.50 |
| 2) Services | 0.27 | 3.90 | 1.46 | 3.40 |
| 3) Trader | 0.18 | 2.60 | 1.17 | 2.72 |
| 4) Industrialist | 0.03 | 0.43 | 0.17 | 0.40 |
| 5) Casual Labourer | 0.82 | 11.83 | 4.10 | 9.55 |
| 6) Kammees | 0.18 | 2.60 | 0.97 | 2.26 |
| 7) Others not specified | 0.20 | 2.89 | 0.90 | 2.10 |
| Total, non-farm | 2.56 | 39.94 | 14.14 | 32.92 |
| GRAND TOTAL, all rural | 6.93 | 100.00 | 42.95 | 100.00 |

of the rural households[1] and the relative importance of different groups.

The farm population in the survey was defined to include rural households who were cultivating land and/or had ownership rights in land being cultivated by other rural families. Landless labour households working on fields, and livestock holder households, normally included in the farm sector, were defined to be part of the non-farm sector. Even on this restrictive definition, the predominance of the farm sector in rural areas is clearly brought out in the above table. Sixty three per cent of a total of 6.93 million rural households are directly engaged in agricultural activities. Within the farm sector, cultivators[2] are the major group and account for 55 per cent of rural households. the proportion of owner non-operator, i.e. absentee landowners, (who do not operate any land at all) in the rural population is 9 per cent. Within the category of cultivators, owners[3] are the largest category and constitute about a quarter of the rural households. Tenants[4] are 17 per cent of rural households while the owner-cum-tenants[5] category accounts for little more than 12 per cent of rural households.

For the pupeses of this study, we are concerned with cultivating households only. Table 3.2 shows the distribution of cultivating households by type of household and size of farm category. The table clearly shows that the majority of cultivating households (over 73 per

---

1 Household is defined on a 'per hearth' basis, i.e. people eating food cooked at the same fireplace.

2 The cultivating households were strictly defined, as is generally done in Pakistan, on the basis of their operated land. So a household was deemed to be a tenant household, for example, if its operated holding of land was totally hired in, irrespective of the fact that the family may own land elsewhere that it did not operate.

3 Households that own all the land they operate.

4 Households that rent in all the land they operate.

5 Households that rent in a portion of the land they operate.

cent) are in the under 15 acres category (the up to 5 acres category

plus the 5 to 15 acres category). This pattern is consistent in all

types of tenure that make up the cultivating sector of rural Pakistan.


TABLE 3.2

DISTRIBUTION OF RURAL CULTIVATOR HOUSEHOLDS

BY SIZE OF FARM IN EACH TYPE OF HOUSEHOLD
(Per Cent)

| Size of Farm (acres) | Type of Household | | | |
| | Owner | Owner-cum-tenant | Tenant | All |
| --- | --- | --- | --- | --- |
| Up to 5 | 16.76 | 2.71 | 5.71 | 25.16 |
| 5 to 15 | 17.81 | 11.77 | 18.59 | 48.15 |
| 15 to 25 | 4.85 | 4.15 | 4.85 | 13.83 |
| 25 to 50 | 3.79 | 2.67 | 2.16 | 8.60 |
| 50 and above | 2.51 | 1.21 | 0.48 | 4.17 |
| All sizes | 45.70 | 22.49 | 31.77 | 100.00 (3.78)[*] |

Note: [*] The figure in parenthesis show the total number of cultivators in millions. Note that the tenants are not the smallest farmers.


Table 3.3 reveals the larger disparities in the farm sector.

About 6 per cent of households own more than 46 per cent of the cultivated

acreage in farms of over 50 acres each. On the other end of the scale

a little more than one third of households own 5.3 per cent of the

cultivated acreage, in holdings of less than 5 acres. The situation

arising out of this unequal distribution has implications for the delivery

of credit amongst different sub-groups in the farm sector.

The pattern of land distribution and the land tenure system provide

an institutional framework within which land is used. The inequality in

land distribution (see Table 3.3) and the terms and conditions on which

land is used, jointly determine the distribution of income and productivity gains within different classes in the cultivating sector. These two institutional parameters have obvious implications for both the supply of and demand for credit.

TABLE 3.3

DISTRIBUTION OF LAND OWNERSHIP BY SIZE OF HOLDING

| Size of Holdings (acres) | Households | | Area Owned | |
|---|---|---|---|---|
| | Number ('000) | As per cent of Total | Acres ('000) | As per cent of Total |
| Up to 5 | 1057 | 33.4 | 2868 | 5.3 |
| 5 to 15 | 1272 | 40.2 | 10515 | 19.5 |
| 15 to 25 | 374 | 11.8 | 6455 | 12.0 |
| 25 to 50 | 282 | 8.9 | 9018 | 16.8 |
| 50 and above | 178 | 5.6 | 24982 | 46.4 |
| All sizes | 3163 | 100.0 | 53838 | 100.0 |

Table 3.4 below presents some aggregate statistics on the credit structure of Pakistan. As can be seen from column 2 of the table, over one third of the households in each farm size category actually undertook some borrowing.[1]

Although there are reasons to suspect that the credit requirements data generated by this survey could tend to over estimate the true figures, if* these data are taken as rough indicators of the need for (or demand of) credit, it can be seen from Table 3.4 that credit requirements as a multiple of actual borrowing range from over 5 times to as much as about 10 times (column 8). This is strongly indicative of the farmers perception of the importance of credit in their activities and of the capital

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1   Increased indebtedness need not be an economically repugnant
    development if it is accompanied by increased productivity,
    as implied by Crawford (1969).
*   if and only if.

TABLE 3.4

SOME AGGREGATIVE STATISTICS ON CREDIT BY SIZE OF FARM FOR CULTIVATOR HOUSEHOLDS

| Size of farm (acres) | Ratio of borrowing households to total households in category | Borrowing per borrowing household | Borrowing per cultivated acre | Ratio of credit requiring households to total households in category | Credit requirements per credit requiring household | Credit requirements per cultivated acre | Credit requirements as multiples of borrowing |
|---|---|---|---|---|---|---|---|
| (acres) | (%) | (Rs) | (Rs) | (%) | (Rs) | (Rs) | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Up to 5 | 37.17 | 1188 | 504 | 51.89 | 4599 | 1028 | 5.38 |
| 5 to 15 | 41.50 | 1302 | 155 | 54.34 | 6662 | 433 | 6.65 |
| 15 to 25 | 45.93 | 1589 | 97 | 59.20 | 9248 | 355 | 7.45 |
| 25 to 50 | 40.68 | 2321 | 90 | 62.20 | 14977 | 347 | 9.68 |
| 50 and above | 42.19 | 4961 | 73 | 70.70 | 29355 | 281 | 9.56 |
| All sizes | 40.98 | 1571 | 127 | 55.79 | 8556 | 389 | 7.43 |

constraints they face. The increasing trend in this indicator with increase in size of farm is another aspect that needs to be borne in mind. If a comparison of column 2 with column 5 in terms of their difference can be taken as an index of the perceived credit gap, it can be seen that this gap is an increasing function of the size of farm, i.e. larger farms indicated a larger credit gap than smaller farms. This aspect has a number of implications warranting a closer look at the source structure and utilisation of credit. The question that arises is whether this greater demand is due to a perception of the profitability (i.e. increased productivity) that arises from the use of credit or simply a reflection of the attitude born out of a greater access by these households to credit.

3.5   Summary

1) The Rural Credit Survey of Pakistan, 1972-73, is a multi-stage probability sample survey which covered over 94 thousand households all over Pakistan

2) The survey results were 'raised' to represent the entire rural population.

3) The per cent sampling errors of the main survey items are generally acceptable (less than 5 per cent in nearly all cases).

4) The aggregated data reveals a skewed distribution of land ownership and a large perceived credit gap that is an increasing function of the size of farm.

CHAPTER 4

THE SOURCES OF CREDIT

## 4.1    Introduction

The main objective of this chapter is to bring out some of the

complexities of the supply side of the Pakistani rural credit market.    A

well developed money market by allocating saving between different types

of investment in a competitive way plays an important role in the process

of economic development, in addition to promoting liquidity and safety of

financial assets.    It performs this crucial function by tending to bring

about an equilibrium between the demand for and supply of loanable funds,

thus bringing about an efficient allocation of resources; this also encourages

savings and investment in a growing agricultural sector.    Besides promoting

financial mobility by ensuring a flow of funds between sectors, a well

developed money market is crucial for the implementation of monetary policies

of the central bank.

However, it is generally observed that in many developing countries,

the rural money markets are neither homogeneous (Wai, 1957 and McKinnon, 1973)

nor well developed.    The Pakistani rural money market like the Indian one

is also characterized by a duality.[1,2]    A dichotomy exists both in the

nature and working of the organised (institutional) and unorganised (non

institutional) sources of supply in the rural credit market.    The unorganised

---

1  See Cirvante, V.R. (1956).

2  Since there are several markets there is no single rate of interest.
   Further such rates may be subject to regional, seasonal or cyclical
   variation depending upon the forces of demand and supply (Ghatak, 1976).

or non-institutional category can be further sub divided into commercial

and non commercial lenders.[1]   The non commercial lenders like friends

and relatives and in some cases landlords lend at a zero (nominal) rate of

interest (explicit) and in most cases because of the general absence of

data on any implicit charges on their lending should not, strictly speaking,

be included in any analysis of the supply side of the rural credit market.[2]

However, such non commercial lenders[3] generally supply a substantial

proportion of the credit requirements at present, and in a sense restrict

the channeling of this segment of demand to the other sources of credit,

thus inhibiting the growth of the organised sector and as such warrant a

closer scrutiny.

The relative absence of the organised and efficiently working money

market and traditional savings and investment habits tend to divert savings

to the hoarding of bullion and some land transfers rather than used in

capital formation.[4]

All the positive attributes of a well organised and homogeneous money

or capital market are restricted in a dualistic situation by the large

unorganised portion in the credit market such as the one characterizing

Pakistan.   This has led the Government to intervene over time, and a

number of institutional sources of supply of rural credit have been

---

1  See Nisbet (1967).

2  At the face of it, this is contrary to accepted notions of economic
   rationality.   However, the social and temporal (life time reciprocity
   providing for a sense of security) aspects of these transactions make the
   economic analysis complex and difficult which is difficult to study through
   large scale surveys.   Meticulous anthropological studies are needed to
   study this.

3  Such 'non commercial lenders' lend for reasons of kinship, friendship,
   reciprocity, tenure traditions and other reasons (Nisbet, 1967).   In
   addition they may also lend for religious reasons.

4  See Ghatak, 1976.

introduced.    However, only four of the six existing sources of credit

carry out normal banking operations,[1] and this further restricts the size

of the organised money market.

This chapter looks at the background and role of the existing

sources of rural credit, the relative importance of the different credit

sources and the problem of differential 'access', in the rural credit

market of Pakistan.    The aim is to highlight the complexities and problems

on the supply side of rural credit as they exist in Pakistan, and

particularly in as they affect the small farm and tenant farm categories.

## 4.2    Background and Role of the Lending Sources

The Rural Credit Survey of Pakistan, 1972-73, identified twelve

leading agencies that were active in the rural sector of Pakistan.    It

listed six categories amongst the non-institutional sources and six in the

institutional or organised sector.    The non-institutional sources are:

1) Friends and Relatives

2) Professional Money Lenders

3) Land Owners

4) Commission Agents and Merchants

5) Factories, and

6) Others (a catch-all category designed to cover

borrowings from non-institutional sources not

listed above).

The institutional sources include:

1) Cooperative Societies

2) Cooperative Banks

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1 All the rest are simply sources of supply of credit and do not accept
  deposits.    See Section 4.2.

3) Agricultural Development Bank of

Pakistan

4) Commercial Banks

5) <u>Taccavi</u> Loans (government loan for

disasters), and

6) Other Government and Semi Government

Agencies.

## 4.3    Traditional (Non Institutional) Sources

Till 1947, the village money lenders constituted the dominant

source of rural credit in the areas now comprising Pakistan.    A typical

money lender held an entrenched position in the rural credit field.

Apart from possessing the requisite capital, there were a variety of

other reasons for his strong position as a source of rural credit.

He was located in the village itself and as such had complete knowledge

about the actual and potential borrowers, which helped him minimise his

risk.    He was easily accessible to them, and above all his service was

swift and with the minimum of formality.    He normally did not question

the purpose of borrowing; the sole criterion was the ability of the

borrower to repay.    The borrowers thus enjoyed certain advantages in

borrowing from the money lender as against borrowing from other sources.

However, it is alleged that the disadvantages of borrowing from

the village money lender far outweighed the advantages of easy access to

credit (see Chapter 2).    It is said that the terms of the loans were

unusually harsh and in particular the rates of interest were usorious.

More often than not, before a debt could be said to have been finally

redeemed, the borrower had paid to the money lender a multiple of the

amount of capital originally obtained.    Credit obtained in this manner,

though satisfying the immediate needs of the borrower, could not really

promote agriculture or the well-being of the farmers. Generation after

generation of farm families carried the growing debt burden and in the

process, the loss of land through fore-closures was not an uncommon

feature.

After the establishment of Pakistan in August 1947, the money

lenders, who were mostly Hindus, migrated to India. As a result, this

source of credit lost its traditional predominance. Post-independence

studies (e.g. Board of Economic Enquiry Punjab, 1955: p.27; Socio-economic

Research Project, 1964) of the agricultural credit situation in the

country, though limited in geographic coverage, revealed the eclipse

of the money lenders. The survey by the Board of Economic Enquiry Punjab

revealed that  a major portion of the credit needs of the rural population

was being met by 'relatives and friends'.[1]  It was found that 63.2 per cent

of the credit was provided by this source in the Punjab (Table 4.1). Another

important source of credit was 'well-to-do rural people', who accounted

for 16.9 per cent of the credit disbursed in the Punjab.  Marketing

intermediaries (such as shop-keepers and commission agents (beoparies))

provided 2.5 per cent of the total available credit. The money lenders'

share in the supply of credit was a mere 1.3 per cent.  The other survey

conducted by the Socio-economic Research Project of the Punjab University

also found that 'relatives and friends' constituted the most important

source of credit for the borrowing rural population, accounting for

62.8 per cent of the total credit supplied to the cultivators in selected

villages of Lahore district of the Punjab.  The contribution of 'well-to-

do rural  people and landlords' was negligible.  Marketing intermediaries

provided 5.1 per cent of the total available credit.  The money lenders'

share was 1.1 per cent only.  The findings of both the surveys in respect

1 A loosely defined term in that part of the world and used in these
  Surveys.  It can include, in addition to blood relatives and close
  friends, people belonging to the same clan or the village.  Although
  there is no compulsion on respondents to reveal details of their
  borrowing in surveys of this kind, it can be in some cases used as a
  convenient smokescreen for those who do not wish to reveal such details.

of the relative importance of the various sources of credit are shown

in Table 4.1.

TABLE 4.1

THE RELATIVE SHARE OF VARIOUS SOURCES OF RURAL CREDIT

(Per Cent)

| Sources | Board of Economic Enquiry, Punjab 1949 | Socio-economic Research Project Punjab University 1964 |
|---|---|---|
| **A. Institutional** | | |
| 1. Cooperatives | 13.2 | 14.3 |
| 2. Government (Taccavi) | 2.9 | 13.4 |
| Total Institutional | 16.1 | 27.7 |
| **B. Non Institutional** | | |
| 1. Friends and Relatives | 63.2 | 62.8 |
| 2. Well-to-do Rural People and Landlords | 16.9 | 0.2 |
| 3. Shopkeepers | 2.5 | 0.4 |
| 4. Commission Agents (Beopari, Faria, etc.) | - | 4.7 |
| 5. Money Lenders | 1.3 | 1.1 |
| 6. Other Sources | - | 3.1 |
| Total Non Institutional | 83.9 | 72.3 |
| All Sources | 100.0 | 100.0 |

Source:  Board of Economic Enquiry Punjab, 1955 (survey conducted 1949)
Socio-economic Research Project, 1964.

Although the two surveys did not identify borrowing from factories,

this source has had a role, albeit small, to play in the overall source

structure of credit in what is now Pakistan, since the turn of the

century. The reason why they are not mentioned in the non-institutional

sources identified by these surveys could have resulted from the selection

of the sample and the limited geographical coverage of these studies.

Initially cotton ginning factories and oil expelling mills and in later

years sugar mills have been known to advance loans to potential suppliers

against standing crops. These short term loans are usually small and

form part of the advance commitment of produce, a system that is common

in certain areas of the region, especially in the Sind and Punjab.

## 4.4    Institutional Sources

The main sources of institutional credit in Pakistan, as has

already been mentioned, are the coopoeratives, including cooperative

societies and cooperative banks, the Agricultural Development Bank of

Pakistan, commercial banks and the government (taccavi loans).

### Cooperatives

The cooperative movement in the South Asian subcontinent has been

predominantly a credit movement. Its inception was rooted in the desire

to relieve rural indebtedness and the first legislation passed in 1904 was

meant to provide a legal framework for the registration of primary credit

societies on the Raiffeisen model of unlimited liability. In the light

of the working of this Act, an amending law was passed in 1912 which

extended the jurisdiction of the cooperative societies to include

non-credit activities. The entire field was reviewed in 1914-15 by the

Maclagan Committee. The beginning of the cooperative movement may be said

to stem from the recommendations of the Maclagan Committee.[1]

With the introduction of the constitutional reforms in 1919,

cooperatives became a provincial responsibility. Because of the limited

budgetary resources of the provincial governments and the laissez-faire

policies of the time, the pace of development was slow as relatively

meagre funds were provided for cooperation as against other 'nation

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[1]    See Eleanor (1950) and Qureshi (1947)

building' departments. There were also several other adverse factors: cooperation presupposes an environment of mutual trust, a keen desire for the common good as well as self-discipline. Lack of these prerequisites together with widespread illiteracy posed serious drawbacks to the cooperative movement. Moreover, the movement was essentially of an official character, which accounted for two of its weaknesses, viz. (a) much depended on the temperament of the officers concerned and their faith in the cooperative movement, as a result of which the movement was rendered unstable, and its fortunes tended to fluctuate with the arrival and departure of the officers concerned; and (b) popular participation and desire for self-advancement which are a negation of the philosophy of cooperation got an upper hand.

In addition to the aforementioned drawbacks, two external factors gave a further setback to the movement. During the Great Depression of the 1930s, there occurred large-scale defaults on loan repayments as agricultural incomes fell sharply. Thus many societies became defunct as their capital got blocked or was wiped out by the defaults. Others suffered on account of the compulsory scaling down of debts in the wake of agrarian laws designed to reduce the burden of rural debt with a view to averting large dispossession of indebted landholders who were unable to meet their debt liabilities on account of falling prices.

The second factor came to operate, particularly in the Punjab, in the aftermath of Partition. The cooperative movement in the pre-Partition Punjab, particularly in the credit field, had been fairly successful. When Pakistan was established, the bulk of the officials and workers of the cooperative department, who belonged to the Hindu and Sikh communities, migrated to India. A great vacuum was created in the direction and management of the cooperatives. Although this vacuum was soon filled through the training of officers and personnel,

which was arranged on a high priority basis, the lost momentum could hardly be regained.

It is generally known (and has been a recurringly dismal subject of endless enquiries and reports in Pakistan) that village cooperative societies have to a large extent become 'moribund', an epithet that graphically visualises an image of the cooperative structure which is not only not growing, but is becoming progressively weaker and less active.

However, this has not been the case in India since Partition in 1947. Musharraf (1980) found that the relative prominence and extraordinary performance of the cooperative societies in the Indian half of the Punjab was one of the factors that could be cited as an explanation for the greater fertiliser use and the differentials in cropping intensity that account for the much better growth of agriculture in that part.

### Cooperative Banks

Central cooperative banks developed as a part of a federal pattern in which primary societies affiliated themselves with central banks at district and lower levels. The affiliated societies deposited their surplus funds with the central banks, which could direct them to other societies whose requirement exceeded their own funds. However, in 1959 the Credit Enquiry Commission of Pakistan found that 'agriculture finance was not the primary focus of the cooperative banks' (Government of Pakistan, 1959). Out of the total advances of 215 million Rupees (Rs) by the cooperative banks in that year, advances to the agricultural societies amounted to only Rs 28.6 million, while the remaining advances were in the commercial sectors. Thus the banks were effectively siphoning off capital from the agricultural sector and, to the advantage of the few influential rich who ran these banks, were investing them in the non agricultural sector. This situation continued until as late as 1976

when cooperative banks were nationalised and subjected to drastic reform. However, until the year 1972-73 - the period of our study - the role and functions of the cooperative banks were along the lines described above.

### Agricultural Development Bank of Pakistan

Since the objectives and functions of the already existing government Agricultural Finance Corporation and the Agricultural Bank of Pakistan were in many repects identical, the Credit Enquiry Commission recommended in 1959 their merger into a single institution. In pursuance of this recommendation, the Agricultural Development Bank of Pakistan was established in February 1961, by amalgamating the two institutions.

The bank provides credit to individuals as well as to corporate bodies engaged in agriculture which, according to the bank's charter, includes crop cultivation, horticulture, fisheries, forestry, animal husbandry, poultry farming, dairy farming, bee-keeping and sericulture. Credit facilities are also provided to cottage industry in the rural areas.

### Commercial Banks

The commercial banking system in Pakistan developed from an urban base with very minor inroads to the rural sector. By 1972, commercial banks had not taken on the role of financing agricultural production and their lendings in rural areas remained largely confined to the processing and marketing sectors of agriculture. In early December, 1972, the State Bank of Pakistan introduced a scheme for 'Agricultural Loans by Commercial Banks' which took effect from Decmeber 1, 1972. The scheme provided for advances by commercial banks to farmers for meeting their short and medium term agricultural credit requirements. Such advances would cover the financing of agricultural

inputs, payment of wages of hired labour, purchase of cattle, tractors and other implements, dairy farming, installation of tubewells and land improvements. The State Bank of Pakistan Act was amended to allow the State Bank to make short and medium term loans and advances to the commercial banks, as re-finance, against their loans and advances for such agricultural operations, at 2 per cent below the bank rate.

### Government (Taccavi) Loans

Since the end of the nineteenth century, provincial governments have been providing loans to agriculturalists, known as Taccavi loans, which owe their origins to loans made in times of famine and distress. Subsequently. however, governments also started providing these loans to agriculturalists for development and production. Taccavi loans are provided for specific purposes under the Land Improvements Loans Act of 1883 and the West Pakistan Agricultural Loans Act of 1958 (which replaced the Agriculturalists' Loans Act of 1883) and are administered by the provincial revenue departments.

The Land Improvement Loans Act of 1883 provided for long term loans for the following:

1) Construction and repair of wells, tanks and other works of storage, supply or distribution of water.

2) Preparation of land for irrigation.

3) Drainage, reclamation from rivers or other waters or protection from floods, erosion, et.

4) Reclamation, clearance, enclosure, etc. of land for agricultural puposes.

5) Such other works as the local government may from time to time declare to be improvements for the purposes of the Act.

Under the West Pakistan Agricultural Loans Act of 1958, loans were granted, in addition to the purposes stated in items 1), 2) and 3)

above, for the relief of agriculturalists in distress as well as for the

purchase of seeds, cattle, fodder, manure and agricultural implements and

for rebuilding or reclaiming houses destroyed or damaged by floods.

The maximum period of repayment of loans under the Land Improvement

Act is 35 years. The government is empowered by the Act to fix the

actual period of repayment, not exceeding the maximum period fixed in the

Act. Loans under the Agricultural Loans Act are to be repaid usually

at the next main harvest or after two main harvests.

Security of loans under the Act of 1883 is the land of the borrower,

on which an automatic charge is created without the formalities of a

registered mortgage and collateral security. Loans under the Act of 1958

are granted on a personal bond, supported in some cases by a surety.

Taccavi loans have also been used in the past by governments in

power as a political tool to quell agitated small farmers. Loans are

written off and repayments are not strictly enforced in areas that are

considered to be political trouble spots.

### Other Government and Semi Government Agencies

A number of organs of the government and government-run corporations

also give loans, normally in kind or in the form of services, in the

government's overall drive over time to introduce farmers to newer

technology or to improve their land. However, these have played a minor

role in the overall government policy on credit, in the sense that the

government itself does not recognise them as a major source of credit.

The government publishes data on the credit disbursed by four major

institutional sources.[1]

### 4.5    The Erratic Trends in the Supply of Institutional Credit

Table 4.2 shows the disbursement of credit by four main institutional

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1  This source is not included in the four main sources.

TABLE 4.2

DISBURSEMENT OF INSTITUTIONAL CREDIT TO THE AGRICULTURAL SECTOR

(million rupees)

| | | | Credit Source | | | |
|---|---|---|---|---|---|---|
| Year | ADBP* | Taccavi Loans | Cooperative Societies | Commercial Banks | Total Actual | Index |
| 1964 to 1965 | 40.5 | 29.3 | 68.0 | – | 137.8 | 100 |
| 1965 to 1966 | 68.0 | 11.2 | 71.0 | – | 150.2 | 109 |
| 1966 to 1967 | 100.4 | 9.6 | 70.8 | – | 180.8 | 131 |
| 1967 to 1968 | 106.2 | 11.1 | 270.0 | – | 387.3 | 281 |
| 1968 to 1969 | 82.1 | 11.2 | 100.2 | – | 193.5 | 140 |
| 1969 to 1970 | 91.3 | 9.4 | 109.4 | – | 210.1 | 152 |
| 1970 to 1971 | 92.7 | 10.2 | 92.4 | – | 195.3 | 142 |
| 1971 to 1972 | 80.0 | 8.9 | 70.5 | – | 159.5 | 116 |
| 1972 to 1973 | 169.5 | 10.3 | 64.6 | 85.2 | 329.6 | 239 |

Note:    *Agricultural Development Bank of Pakistan.

Source:  Government of Pakistan, 1978.

sources during the period 1964-65 to 1972-73, as released by the

government.

The erratic trends in the lending of all the institutional sources

of credit during this period is symptomatic of the lack of correlation

between disbursement by these sources and actual production trends (see

Chapter 1).   The increase in lending by the Agricultural Development

Bank of Pakistan and the introduction of commercial banks to the source

structure during the terminal years in the table above, reflect the

keeness of a newly elected government to please its rural electorate with

a dose of funds, rather than the result of any observable continuous

pattern of increase compatible with production.   The fact that a majority

of the elected representatives of this government belonged to the rich

landed aristocracy lends further credence to this assertion.   On a base

year to terminal year comparison, _Taccavi_ loans and lending by cooperative

societies actually declined.

An important effect of these fluctuations in the supply of

institutional credit is that they would lead the farmers to view

institutional credit as unreliable, thus leading them to continue to rely

upon the non institutional sources of supply.

To get a rough idea of the adequacy of institutional credit over

time, we estimated the total institutional credit per cultivated acre and

per cropped area for the period 1964-65 to 1972-73 by taking the total

institutional credit figures from Table 4.2 and dividing them by the

figures for total cultivated acreage and total cropped acreage for the

country as a whole, for each year, released by the Government of Pakistan

.and published in the Government of Pakistan Agriculture Statistics of

Pakistan 1975.

Table 4.3 shows the small values of institutional credit on a per

cultivated acre and per cropped acre basis.   Although the measures are

crude since the acreage figures  represent the combined acreage of

borrower and non borrowers, they are indicative.   It should be noted that

these figures represent total institutional credit for all purposes

combined, however, for comparison it should be noted that a standard bag

of urea fertilizer was priced at Rs35/- during the year 1972-73.

4.6    The Small Share of Institutional Credit in Total Credit Supply

The discussion in Section 4.1 showed the various important functions

that a large well organised rural money market can perform in the process

of economic development.   In this section we will attempt to show the

relative importance of each lending source in the total supply of credit

for each type of farm household.   For this purpose we have calculated from

the Rural Credit Survey data the percentage distribution of the total

borrowing by each type of household across the sources as shown in

TABLE 4.3

GROWTH OF INSTITUTIONAL CREDIT:

SOME ROUGH INDICES

| Year | Institutional Credit Per Cultivated Acre (Rs) | Institutional Credit Per Cropped Acre (Rs) |
|------|-----------------------------------------------|--------------------------------------------|
| 1964-65 | 2.97 | 3.43 |
| 1965-66 | 3.16 | 3.91 |
| 1966-67 | 3.76 | 4.46 |
| 1967-68 | 8.07 | 9.25 |
| 1968-69 | 4.06 | 4.82 |
| 1969-70 | 4.42 | 5.07 |
| 1970-71 | 4.11 | 4.76 |
| 1971-72 | 3.38 | 3.88 |
| 1972-73 | 6.92 | 7.84 |

Note: 1. Cultivated Area = Net sown area + current fallow

2. Cropped Area  = Net sown area + area sown more than once.

Table 4.4 and Appendix Tables 4.1, 4.2 and 4.3.

Table 4.4 shows clearly the relatively small role of institutional sources of credit supply in the overall sources (that service the rural sector) for all types of household. Another feature is the declining importance[*] of institutional sources from owner households to tenant households. Borrowing from institutional sources account for only 3.03 per cent of total borrowings of the tenant household category. The Appendix Tables 4.1 to 4.3 also show a drastically declining trend in the importance[*] of institutional credit across size of farm in each type of household on a comparison of the largest size of farm category to the smallest size of farm category in each type of household. It is worth noting that institutional sources account for less than one per cent of the total borrowing of the under 5 acre category of tenant farmers (Appendix 4.3).

Another important feature of Table 4.4 is the predominance of

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* Relative importance.

TABLE 4.4

PERCENTAGE DISTRIBUTION OF TOTAL BORROWING BY SOURCE

BY EACH TYPE OF HOUSEHOLD

| Source | Owners | Owner-cum-tenants | Tenants | All Cultivators |
|---|---|---|---|---|
| 1. Cooperative Societies | 1.25 | 0.87 | 0.61 | 1.00 |
| 2. Cooperative Banks | 0.41 | 0.36 | 0.17 | 0.34 |
| 3. Agricultural Development Bank of Pakistan | 7.67 | 3.29 | 1.04 | 5.01 |
| 4. Commercial Banks | 4.19 | 1.01 | 0.91 | 2.63 |
| 5. Taccavi Loans | 0.88 | 0.37 | 0.13 | 0.57 |
| 6. Other Government and Semi Government | 0.30 | 0.20 | 0.17 | 0.29 |
| All Institutional Sources | 14.71 | 6.10 | 3.03 | 9.79 |
| 1. Friends and Relatives | 61.92 | 68.89 | 50.09 | 60.73 |
| 2. Professional Money Lenders | 2.25 | 2.11 | 1.85 | 2.12 |
| 3. Land Owners | 1.73 | 5.42 | 34.89 | 10.66 |
| 4. Commission Agents and Merchants | 15.46 | 12.78 | 7.34 | 12.85 |
| 5. Factories | 1.14 | 0.41 | 0.12 | 0.72 |
| 6. Others | 2.71 | 9.29 | 2.71 | 3.13 |
| All Non Institutional Sources | 85.29 | 93.90 | 96.97 | 90.21 |
| All Sources | 100.00 | 100.00 | 100.00 | 100.00 |
|  | (1267.01) | (591.13) | (595.20) | (2453.33) |

Note: Figures in parenthesis are actual borrowing (in million rupees) from all sources for each category of household.

friends and relatives as a source of credit supply for all types of

cultivators; this source accounts for nearly 61 per cent of the total

credit supply to the cultivator households taken together. A perusal

of Appendix Tables 4.1 to 4.3 reveals that this source increases in

importance for the small size of farm categories in each type of household

accounting for over 78 per cent of the total credit supply to the under

5 acre category of owner farmers.

The table also shows the small role of the professional money lender

in the overall source structure. However, commission agents and

merchants as a source alone are more important than all the institutional

sources put together for all categories of cultivators.[1]

Another interesting aspect is brought out by a comparison of Table 4.4

with the Appendix tables. It reveals that non institutional credit is far

more equally distributed than land ownership, however, institutional credit

is skewed in favour of the larger size categories.

Another measure to show the relative importance of different

sources of credit can be the volume of loans from these sources related

to the area cultivated by each category of household. Unfortunately we

do not have data on the cultivated acreage of the borrowing households.

However, the tabulations do contain data on the total cultivated acreage

in each category. Table 4.5 presents calculations of the average borrowing

from different sources per total cultivated area in each category. The

table shows the very small amounts of institutional credit per acre in each

size category. Two important aspects of the table are worth noting.

Firstly the largest size of farm categories exhibit a much higher value

of institutional credit per acre in comparison to the smallest size

categories in each type of household. This is significant if one considers

1  In the absence of detailed data, it is not possible to study lending by
   commission agents and merchants in greater detail.

TABLE 4.5

BORROWING FROM DIFFERENT SOURCES PER CULTIVATED

ACRE IN EACH CATEGORY (Rs per acre)

| Size of Farm | Borrowing Per Cultivated Acre | | | | Total Net of Friends and Relatives | Non Institutional Net of Friends and Relatives |
|---|---|---|---|---|---|---|
| | Total | Institutional | Non Institutional | Friends and Relatives | | |
| 1 | 2 | 3 | 4 | 5 | 6 (2-5) | 7 (4-5) |
| **Owner** | | | | | | |
| <5 acres | 218.18 | 3.93 | 214.25 | 170.99 | 47.19 | 43.26 |
| 5-15 acres | 82.58 | 10.33 | 72.25 | 54.18 | 28.40 | 18.07 |
| 15-25 acres | 59.39 | 7.27 | 52.12 | 34.40 | 24.99 | 17.72 |
| 25-50 acres | 48.13 | 9.93 | 38.20 | 27.96 | 20.17 | 10.24 |
| 50 acres above | 33.51 | 10.44 | 23.70 | 14.01 | 19.50 | 9.69 |
| All owners | 64.25 | 9.45 | 54.80 | 39.76 | 24.49 | 15.04 |
| **Owner-cum-tenant** | | | | | | |
| <5 acres | 162.62 | 2.43 | 160.19 | 120.15 | 42.47 | 40.04 |
| 5-15 acres | 64.31 | 1.40 | 62.91 | 47.73 | 16.58 | 15.18 |
| 15-25 acres | 40.59 | 1.18 | 39.41 | 30.04 | 10.55 | 9.37 |
| 25-50 acres | 31.25 | 2.18 | 29.07 | 20.59 | 10.66 | 8.48 |
| 50 acres above | 23.72 | 5.91 | 17.81 | 10.75 | 12.97 | 7.06 |
| All owner-cum-tenants | 44.36 | 2.70 | 41.66 | 30.56 | 13.80 | 11.10 |
| **Tenants** | | | | | | |
| <5 acres | 149.71 | 0.64 | 149.07 | 98.56 | 51.15 | 50.51 |
| 5-15 acres | 51.66 | 1.74 | 49.92 | 25.56 | 26.10 | 24.36 |
| 15-25 acres | 35.87 | 0.45 | 35.42 | 14.56 | 21.31 | 20.86 |
| 25-50 acres | 22.92 | 0.19 | 22.73 | 12.94 | 9.98 | 9.78 |
| 50 acres above | 21.03 | 4.45 | 16.58 | 6.78 | 14.25 | 9.80 |
| All tenants | 44.85 | 1.35 | 43.50 | 22.46 | 22.39 | 21.04 |

the fact that the distribution of cultivated acreage is significantly skewed in favour of the larger size categories. The second aspect is the pronounced negative trends in non institutional borrowing per acre with increase in size of farm.

It is generally maintained that smallest size of farm categories and tenant farmers[1] would have a greater need for credit, vis a vis, the other categories because of their lower average income and resource endowments etc. If average borrowing per cultivated acre is any indication of this need then total borrowing per cultivated acre in Table 4.5 proves that the needs of the smallest size categories are certainly the greatest vis a vis the other categories. However, the table shows that tenants, on an average,[2] borrow less than corresponding categories in other households. Also that this difference is not due to their lower average borrowing from institutional sources, but that their average non institutional borrowings are also lower than corresponding categories. However, if we exclude friends and relatives[3] from the average total borrowing and from average non institutional shown in Table 4.5 we find that the per acre borrowing net of borrowing from friends and relatives especially in the case of non institutional credit is appreciably higher for tenants than for corresponding size categories of other households. If we base our decision on the evidence in Column 6 and 7 then it can be said, subject to the limitations of the measure present in Table 4.5 that the relative credit needs of the small and tenant farmers are greater than those of other categories. However, for both these categories the needs,

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1 It is assumed that since tenants would be paying a land rent their incomes would be reduced by this amount in comparison with the other corresponding farm categories.

2 Average here means per cultivated acre.

3 This is based on the assumption that friends and relatives from within the cultivator category loaning to tenants would be tenants themselves and thus similarly constrained. Friends and relatives (lending to tenants) who own land would more than likely fall under the classification of landowners.

on an average, are being met to a greater extent by non institutional
credit.

## 4.7    Differential 'Access' to Rural Credit

Allied to the problem of the limited share of institutional (organised)
credit supply in the rural sector of Pakistan is the problem of lower
'access' of the tenant and small farm categories to this credit.    This
could have its roots, amongst other things, in the social and political
influence of the large landlords.    Of course central to the question of
who gets how much of the supply is the question of eligibility embodied
in the issues of credit worthiness and repayment capacity in an economic
sense.    However, since the emphasis of government policy and of literature
on credit as an instrument of economic development is shifting more and
more to small farm credit, it is important to study how the credit supply
from different sources is spread across different categories of households,
and whether any differentials exist across different categories, especially
the small categories vis a vis the rest.    Unfortunately we have no data
on the eligibility aspects of this issue.    Also as revealed in Table 3.4
a substantial proportion of the households, i.e. 59 per cent of total did
not borrow at all.    It can be expected that some of these households may
have tried to get loans but we have no information on ratio of applicants
to loans made.    This latter index would be important while studying
'access' to institutional sources of the different categories of households.

In the light of the data constraints outlined above and of the
limitations that these constraints impose upon a fuller analysis of the
problem of 'access' we present in Table 4.6 two indices $A_1$ and $A_2$, the
first showing relative number of loans and the second the relative amounts
or volume of lending, by each source across the different types of
households, as partial evidence of the problem of differential 'access'.

The problem of access to the institutional sources is clearly
highlighted by the figures presented in this table.    In the case of all

TABLE 4.6

SOURCEWISE 'ACCESS' TO LENDING AGENCIES ACROSS TYPE OF HOUSEHOLD (%)

| Source | Owner | | Owner-cum-Tenant | | Tenant | | All Cultivators | | Owner-Non-Operators | | Non Farm | | All Rural | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ |
| 1. Cooperative Societies | 35.18 | 53.12 | 19.86 | 17.21 | 13.09 | 12.15 | 68.14 | 82.48 | 9.13 | 5.83 | 22.73 | 11.69 | 100.00 | 100.00 |
| 2. Cooperative Banks | 32.25 | 49.81 | 20.10 | 20.34 | 13.89 | 9.58 | 66.23 | 79.72 | 15.81 | 16.50 | 17.97 | 3.78 | 100.00 | 100.00 |
| 3. Agricultural Development Bank of Pakistan | 60.55 | 72.85 | 22.15 | 14.56 | 9.19 | 4.66 | 91.89 | 92.07 | 5.10 | 7.58 | 3.02 | 0.36 | 100.00 | 100.00 |
| 4. Commercial Banks | 35.50 | 27.38 | 8.56 | 3.07 | 7.14 | 2.78 | 51.21 | 33.22 | 18.81 | 32.87 | 29.98 | 33.90 | 100.00 | 100.00 |
| 5. Taccavi Loans | 60.41 | 73.89 | 17.91 | 14.57 | 13.36 | 5.12 | 91.69 | 93.59 | 6.19 | 6.07 | 2.12 | 0.34 | 100.00 | 100.00 |
| 6. Other Government and Semi-government | 29.31 | 48.75 | 11.84 | 15.26 | 28.98 | 12.60 | 70.14 | 76.61 | 3.85 | 7.70 | 26.01 | 15.69 | 100.00 | 100.00 |
| All Institutional Sources | 43.78 | 47.70 | 18.04 | 9.22 | 12.76 | 4.61 | 74.58 | 61.52 | 9.08 | 20.19 | 16.33 | 18.28 | 100.00 | 100.00 |
| 1. Friends and Relatives | 26.67 | 37.01 | 17.65 | 19.21 | 18.30 | 14.06 | 62.62 | 70.28 | 7.20 | 9.16 | 30.18 | 20.56 | 100.00 | 100.00 |
| 2. Professional Money Lenders | 26.28 | 32.84 | 18.65 | 14.41 | 25.63 | 12.69 | 70.45 | 59.94 | 13.33 | 28.96 | 16.22 | 11.10 | 100.00 | 100.00 |
| 3. Land Owners | 3.60 | 7.35 | 12.18 | 10.77 | 72.52 | 69.74 | 88.30 | 87.85 | 0.58 | 0.53 | 11.12 | 11.62 | 100.00 | 100.00 |
| 4. Commission Agents and Merchants | 27.64 | 32.96 | 19.29 | 12.71 | 18.74 | 7.35 | 65.67 | 53.01 | 5.51 | 6.95 | 28.82 | 40.04 | 100.00 | 100.00 |
| 5. Factories | 25.48 | 56.32 | 5.02 | 9.46 | 3.21 | 2.83 | 33.71 | 68.61 | 11.76 | 9.15 | 54.53 | 22.24 | 100.00 | 100.00 |
| 6. Others | 23.07 | 23.51 | 20.64 | 16.87 | 13.18 | 10.71 | 56.88 | 51.08 | 12.27 | 19.87 | 30.85 | 29.05 | 100.00 | 100.00 |
| All Non Institutional Sources | 23.85 | 33.00 | 16.28 | 16.95 | 24.33 | 17.63 | 64.46 | 67.57 | 6.58 | 8.99 | 28.96 | 23.44 | 100.00 | 100.00 |
| All Sources | 24.56 | 34.57 | 16.25 | 16.13 | 23.96 | 16.24 | 64.77 | 66.93 | 6.69 | 10.18 | 28.55 | 22.89 | 100.00 | 100.00 |
| | (24.96) | | (12.27) | | (17.32) | | (54.54) | | (8.51) | | (36.94) | | (100.00) | |

Notes: 1. $A_1$ shows proportion of number of loans made to the household category to total loans made by the source.

$A_2$ shows proportion by volume of loans made to the household category to total lending by that source.

2. Figures in parenthesis show the distribution of the total rural households by type of household (Table 3.1).

the institutional sources except 'other government and semi government agencies', the pattern is clear. Owners tend to dominate, followed by owner-cum-tenants and then tenants. The obvious reason for this can be that land is the most acceptable form of collateral for the institutional sources, and because of this, the tenant category have a restricted access to these sources. We have no way of estimating what proportion of this access could be attributed to this factor. However, even in the case of Taccavi loans which are government administered and do not have the strict collateral requirement of land, the pattern is the same. The fact that a significant proportion of the borrowers from each source belonged to the non-farm sector[1] clearly signifies that security other than land is also acceptable to these sources. It is interesting to note that the Index $A_2$ for amounts of lending is even more skewed generally, than the Index $A_1$ (for numbers of loans), in favour of the owner households.

A conclusion that emerges from Table 4.6 is that tenants, whose relative need it can be assumed is the greatest, have a much more restricted access as compared to owners and owner-cum-tenants even after adjusting for their relative proportions in the total rural household (as shown in parenthesis on the table).

Looking at the second part of the table pertaining to non institutional sources, we see a reversal of the trend (for all non institutional sources taken together) in terms of the Index $A_1$ than that observed for institutional sources. Tenants have a relatively greater access to non-institutional sources than to institutional sources. However, in terms of the index of relative amounts of loan $A_2$ owners still tend to dominate followed by tenants and then owner-cum-tenants.

To look at the problem of access for small farmers, we computed the same indices but this time $A_1$ as the proportion of under 5 acre borrowers

1 Although we are interested in cultivator households only, we have included the absentee landlords (owner-non-operators) and the non-farm households in this table to further highlight the problem.

from a source in a particular type of household to the total number of

borrowers of all sizes, in that type of household, from that particular

source and $A_2$ as the proportion of under 5 acre borrowing to total borrowing

from a source by the type of household (see Table 4.7).

These indices brings out the problem of access of the small farmers

to all sources of credit and to the institutional sources in particular.

In terms of the Index $A_1$ it can be seen that although owner farmers in

the under 5 acres category account for 36.37 per cent of all owner

households; in terms of this access index they accounted for only 14.57

of the owner households borrowing from all the institutional sources taken

together.    Similarly the under 5 acres owner-cum-tenant households which

accounted for 12.04 per cent of the total number of owner-cum-tenant

households showed an access index of 8.87 per cent only and the under 5

acre tenants who accounted for 17.97 per cent of the total number of

tenants, showed an access index of 8.62 per cent.    The problem takes on a

graver tone if we consider the second index $A_2$.    Although the under

5 acres owner-cum-tenants showed a greater access followed by tenants and

then owners, the overall inference that can be drawn from the table is

that in small size farms the problem of access to all sources and to

institutional sources in particular seems acute.    It should be borne in

mind that as stated in the beginning of this section, the two measures

presented above are a very partial way of looking at the problem.    The

problem is quite complex and a number of other factors, mentioned before,

need to be considered.    However, in the absence of relevant data, the two

measures presented above can be taken as indicative of the problem.

4.8    Summary

In this chapter an attempt was made to describe some of the problems

connected with the supply side of rural credit.    In the light of the data

constraints described in the chapter the overall conclusions of this

TABLE 4.7

SOURCEWISE 'ACCESS' TO LENDING FOR SMALL FARMERS

IN EACH TYPE OF HOUSEHOLD

(per cent)

| | Owners | | Owner-cum Tenants | | Tenants | | All Cultivators | |
|---|---|---|---|---|---|---|---|---|
| | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ | $A_1$ | $A_2$ |
| 1. Cooperative Societies | 30.93 | 14.38 | 13.84 | 5.69 | 9.93 | 4.19 | 21.91 | 11.05 |
| 2. Cooperative Banks | 14.26 | 3.67 | 13.53 | 1.81 | 0.00 | 0.00 | 11.05 | 2.75 |
| 3. Agricultural Development Bank of Pakistan | 4.02 | 0.76 | 1.98 | 0.06 | 1.30 | 0.00 | 3.26 | 0.62 |
| 4. Commercial Banks | 5.35 | 0.32 | 12.73 | 2.28 | 9.80 | 0.00 | 7.20 | 0.51 |
| 5. Taccavi Loans | 9.03 | 3.93 | 1.45 | 0.68 | 15.37 | 15.82 | 8.49 | 4.08 |
| 6. Other Government and Semi Government | 24.59 | 32.28 | 17.39 | 25.95 | 9.00 | 8.73 | 16.94 | 27.15 |
| All Institutional Sources | 14.57 | 2.72 | 8.87 | 2.27 | 8.62 | 2.17 | 12.16 | 2.60 |
| 1. Friends and Relatives | 36.63 | 28.10 | 12.40 | 9.89 | 23.22 | 19.06 | 25.88 | 21.33 |
| 2. Professional Money Lenders | 31.16 | 21.98 | 16.03 | 14.15 | 20.92 | 29.47 | 23.43 | 21.67 |
| 3. Land Owners | 28.05 | 11.29 | 5.09 | 2.50 | 11.59 | 7.52 | 11.34 | 7.28 |
| 4. Commission Agents and Merchants | 30.14 | 18.57 | 10.63 | 8.57 | 18.40 | 16.87 | 21.09 | 15.94 |
| 5. Factories | 8.32 | 4.89 | 0.00 | 0.00 | 2.18 | 0.35 | 6.49 | 4.02 |
| 6. Others | 34.55 | 28.16 | 14.39 | 17.31 | 23.59 | 18.11 | 24.72 | 22.47 |
| All Non Institutional Sources | 35.89 | 25.58 | 11.98 | 9.68 | 18.29 | 14.92 | 23.20 | 18.81 |
| All Sources | 34.48 (36.67) | 22.21 | 11.94 (12.04) | 9.23 | 18.11 (17.97) | 14.53 | 22.75 (25.16) | 17.22 |

Notes: 1. 0.00 implies an insignificant proportion.

2. Figures in parenthesis show proportions (in per cent) of under 5 acre farmers in each type of household to total number of farmers in that type of household (calculated from Table 3.2).

3. $A_1$ shows the proportion of loans (in terms of number of loans) made to the small farm category to total loans made to that type of household category by the source.

$A_2$ shows the proportion of loans (by volume of lending) made to the small farm category to total loans made to that type of household category by the source.

chapter need to be taken guardedly always bearing the constraints in mind. The main points of the chapter can be summarized as below:

1) Earlier studies reveal the eclipse of the rural money lender and the emergence of friends and relatives category as the dominant source of credit.

2) There has been an erratic trend in the credit disbursed by institutional sources, and this factor could have led farmers to view this credit as unreliable and hence continue to depend upon non institutional credit.

3) Institutional credit plays a relatively small role in the overall borrowing in all categories of households. Its importance is even smaller for households of the tenant category and the small farm households.

4) If actual borrowing per acre can be taken as an indicator of the need for credit, then tenant and small farm size categories exhibit the greatest need. This need is met by recourse to non institutional credit.

5) There is evidence based upon the distribution of the number of loans and volume of loans that owner farmers and large size farmers get a major proportion of the supply of institutional credit. Within the limitations of the two measures of 'access' used, it can be said that there is a problem of differential 'access', to institutional sources of credit. Institutional sources tend to concentrate supply to owner households and large size households whereas non institutional credit is much more proportionately distributed.

CHAPTER 5

THE INTEREST RATE STRUCTURE

5.1    Introduction

This chapter is the result of concern with three aspects
relating to interest rates on rural lending that have important
implications for the use of credit as an instrument for agricultural
development in Pakistan.   These are:

1)    There is a consensus in some quarters that rural interest
      rates in LDCs are 'high' and extortionate in nature.

2)    In view of this, and as a policy designed to boost overall
      agricultural production, most governments in LDCs attempt
      to keep rates of interest on institutional loans 'low'.
      Krishna (1979) has argued that such a policy negates the
      overall development objectives (i.e. increased production
      and employment and a reduction in inequalities) because of
      the  virtual monopoly of access to institutional sources
      by the large farm sector (see Chapter 4).

3)    In view of the fact that Islam, the predominant religion
      of Pakistan, forbids the charging of interest and as we
      have seen in the last chapter a major proportion of credit
      is supplied by friends and relatives, it is logical to
      assume the existence of borrowing at zero rate of interest
      in Pakistan.

In the light of the points  outlined above, it becomes important to study
the structure of interest rates in Pakistan.   This chapter first looks
at the structure of interest rates from a theoretical point of view,
and then presents an analysis of the data on the rural interest rate

structure of Pakistan. This analysis examines:

a) the extent and sources of zero rate of interest borrowings, and

b) the range of rural interest rates in Pakistan.

## 5.2 The Determinants of the Rural Interest Rate

Several attempts have been made in the past to analyse the process of rural interest rate determination in LDCs, both at a theoretical level (Bottomley, 1971; 1975; Long, 1968; Wai,1957) and empirically (Chandavarker, 1971; Ghatak, 1975; 1976; 1977). The process of interest rate determination is theoretically the result of the interaction of the demand for and the supply of credit. Because of the inherent difficulties in estimating demand side, most of these studies have attempted to analyse rural interest rates from the supply or cost side using an aggregative macro approach.

The rate of interest can be seen to be composed of:

a) the opportunity cost of capital

b) the overheads or administrative costs of the lending agency including costs of delivery and collection

c) the risk premium on lending

d) an inflationary premium on the loss in the real value of the money loaned due to inflation, and

e) monopoly profits based on the assumption of the existence of monopolistic imperfections due to the fragmented nature of rural credit markets in LDCs.

The rest of this section examines these components in a little more detail. From the lenders' point of view, only the opportunity cost of capital is the pure rate of interest (Bottomley, 1964). The administrative or overhead costs depend on the nature and structure of the lending agency, the volume of lending, the size of loans and their periodicity. Bhaduri (1977) postulates that a lender's overall expected income from lending

per unit of money loaned will be the interest income per unit of

money loaned minus the proportion of interest income lost due to

default together with the proportion of default itself, or:

$$Y = r(1 - q) - q$$

where

Y = overall interest income per unit of loan

r = rate of interest on the loan

q = expected default proportion[1]

This means that the higher the value of q, the lower will be the

expected income. This is the risk element in lending. Therefore the

risk premium can be described as:

$$S = \frac{q(Q + O)}{1 - q}$$

where

S = risk premium

q = default rate

Q = principal

O = opportunity cost or 'pure interest'

This means that interest rates prevailing in the rural sector are,

ceteris paribus, a function of the repayment rate - assuming the

repayment rate to be equal to (1 - q). It has been postulated that

repayment rates are positively related to farmers' income levels and

since rural interest rates are negatively related to repayment levels

(on account of the above), by transitivity, interest rates are negatively

related to income levels. Using a model based upon the following three

functional relationships and the fourth identity, Ghatak (1975) has

empirically verified this for India. He postulated:

---

1    This formula is illustrative and for simplicity 'q' in this formula
implies indefinite default. See Bottomley (1975). Note that 'S' is
computed from the lender's point of view. The heroic assumption is
that 'O' and 'q' are independent of the rate of interest. In reality
'q' would, ceteris paribus, depend upon the rate of interest also.

$$R = F(Y)$$

$$r = g(y)$$

$$r = \psi(R)$$

and $Y = y$

where

$R$ = repayment by cultivator as a percentage of loan

$Y$ = farmers' income

$y$ = output of farm

$r$ = rate of interest

The model can be presented quite effectively in the form of a diagram (Figure 5.1).

FIGURE 5.1

DIAGRAM ILLUSTRATING THE RELATIONSHIP

OF INTEREST RATES TO INCOME LEVELS
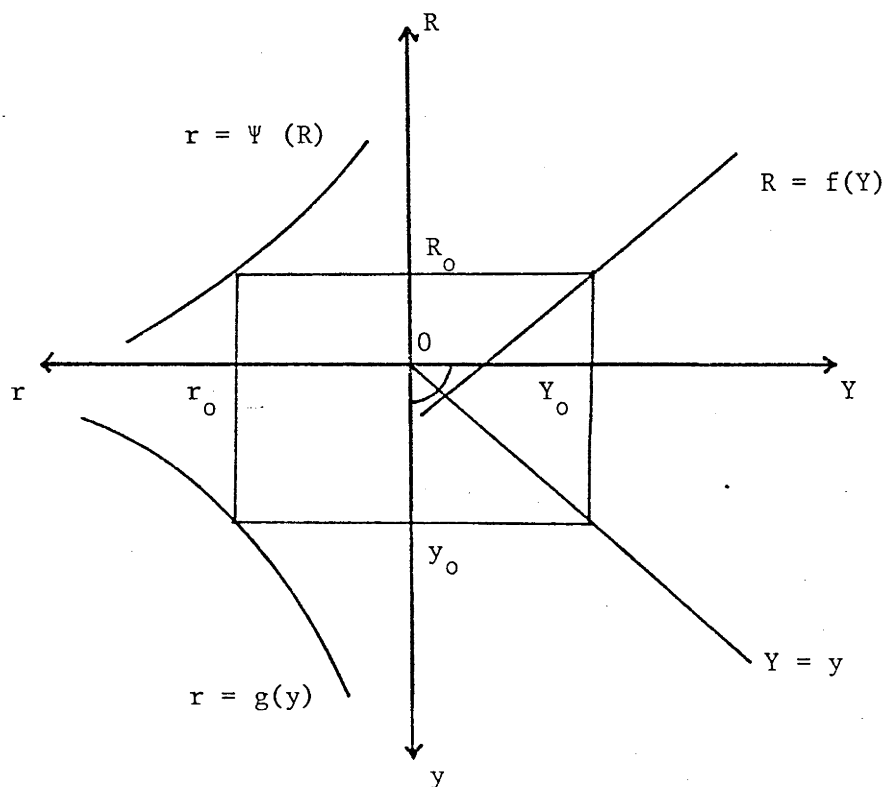
Figure 5.1 shows that if income (output) increases, repayments rise and

interest falls. It is clear that an increase in income and hence

repayment reduces the probability of default and hence a decrease in the

risk premium component in the interest rate, implying a decrease in the

interest rate and vice versa.[*]

The inflationary premium is an adjustment factor or rate of

discount from the lenders' point of view applied to adjust the nominal

rate of interest to the 'real' rate of interest. Then the nominal

rate of interest minus the inflationary premium is the 'real' rate

of interest. The inflationary premium is a factor that protects the

money lenders' funds from losses due to inflation.

Bhaduri (1977) asserted that due to the fragmented nature of the

rural money markets, the resultant monopoly power of the lenders, and

the non-availability of 'acceptable' collateral on the part of the

borrowers,[1] the lenders are able to undervalue the collateral offered

to a point where the entire risk of default is passed on to the

borrower. The reasons for this monopoly power are not only economic,

but can also be institutional in nature.[2] In addition to the under-

valuation of the collateral, the lenders can increase interest rates

to a point where repayments actually exceed the value of the collateral.

This according to Bhaduri (1977) was the method used historically by

rural money lenders in India to accumulate assets, because 'beyond a

point the borrower would consider the burden of repayment irrational

and the undervalued collateral would transfer to the lender.'

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1   Which restricts the alternatives open to them and forces them to
    borrow from the unorganised sector.

2   For a discussion of the institutional aspects, see Ghatak (1975).

*   The model is illustrative and pertains to single periods only. In a
    multi period situation the relationship would be less obvious as output
    fluctuations average out over time. Because of data constraints arising
    out of the tabulation of the data, it is not possible to test this model.
    The data as it is available does not have, for example, cross tabulations
    between interest rates and income levels[**] for corresponding repayment
    rates.
    ** There is no data directly on income levels in the Rural Credit
       Survey.

5.3   Are Rural Interest Rates High?

It is generally held that rural interest rates in LDCs are high

and extortionate in nature (Bhaduri, 1977).   This is based on the

assumption that rural credit markets in LDCs are not developed and

competitive but are fragmented in nature(Mckinnon, 1973).

In the last section we have seen that rural interest rates are

composed of a number of constituent items.   Even if the monopolistic

profit component is ignored and the functioning of a well developed credit

market is assumed, the other constituent items of rural interest rates

are economically valid and significant.   Gordon (1975) has tried to

show that even if the cost of capital is between 2 to 4 per cent (concessional

rate on public capital) the nominal interest rate can range between 17 to

29 per cent.[1]  These figures, according to the author, reflect conservative

estimates based on the experience of small farmer credit programs in

LDCs, and are illustrative of the range (see Table 5.1).

TABLE 5.1

THE RANGE OF INSTITUTIONAL INTEREST RATES
IN SMALL FARMER CREDIT PROGRAMMES

| Costs | Percentage |
|---|---|
| 1.  Administrative | 5 - 10[a] |
| 2.  Cost of Capital | 2 - 4[b] |
| 3.  Allowance for Default | 5 - 10 plus |
| 4.  Annual Rate of Inflation | 5 |
| | 17 - 29 |

Notes:    a   Excludes cost of technical assistance to farmers
          b   Concessional rate on public capital

Source:    Gordon, 1975

[1]   Assuming that the cost (per cent) of credit = the interest rate.

Lipton (1976) has also contended that so-called 'high' rates of interest in rural credit are not in reality high.  If one looks at the returns to investment in agriculture, one finds adequate evidence to justify this proposition.  For example, Singh (1978) found that the net marginal returns to fertiliser alone was 7 to 15 times its marginal cost in Bangladesh and 2 to 4 times in India.

On the assumption that low rates on credit, especially for key modern inputs can accelerate the diffusion of innovations, many Asian countries have deliberately kept their insitutional farm credit rates low.  It was revealed in the Asian Development Bank's (1977: p.97) Asian Agricultural Survey  that except for Korea and China (Taiwan), all other countries had deliberately kept their institutional credit rates low as compared to the rates for non-farm commercial credit.  In addition to the diffusion of innovation argument, the plea is that, in the absence of all else, subsidised credit is in a small way a means of redistribution aimed at the small farmers.  There are several points that can be made against the puruit of such a policy (see  Gonzalez-Vega, 1976).

Given the fact that large farmers in Pakistan have a much greater access especially to institutional sources of credit, they would tend to monopolise any possible benefits of these low interest rates.[1]  This can also cause an overinvestment in equipment, etc. which may remain unutilised and hence cause waste in addition to being labour displacing.  Also, given the fungibility of credit, low interest rate credit can be re-lent at higher rates.  These points suggest a negation of any tendency towards a lessening of the inequalities that exist in the agricultural sectors of LDCs and in fact suggest a possible widening of disparities.

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1    We have already shown that the small farm sector has a greater
     potential for the effective use of credit to increase production
     and employment.  A monopoly of access to institutional credit by
     the large farm sector, in addition to the arguments presented here,
     is also inefficient on overall macro grounds, as already mentioned.

## 5.4 The Rural Interest Rate Structure in Pakistan

In Table 5.2 the percentage distribution of credit by rate of interest has been calculated. The most striking feature of the table is the fact that 86 per cent of rural borrowing in Pakistan was at zero rate of interest.

TABLE 5.2

PERCENTAGE DISTRIBUTION OF BORROWING BY RATE OF INTEREST

| Rate | Amount (Rs m.) | As Percent of Total |
|------|----------------|---------------------|
| Nil | 3154.62 | 86.05 |
| 0 to 1 | 2.39 | 0.07 |
| 1 to 3 | 31.29 | 0.85 |
| 5 to 6 | 41.84 | 1.14 |
| 6 to 7 | 47.94 | 1.31 |
| 7 to 8 | 97.37 | 2.66 |
| 8 to 9 | 16.41 | 0.45 |
| 9 to 10 | 178.58 | 4.87 |
| 10 to 15 | 22.92 | 0.63 |
| 15 to 20 | 7.28 | 0.20 |
| 20 and above | 51.99 | 1.42 |
| Total | 3665.62 | 100.00 |

The other interesting feature is that borrowing at rates of 20 per cent or above accounts for only about one and a half per cent of total borrowing.

## 5.5 Zero Rate of Interest Borrowing

Table 5.3 shows the distribution of the borrowing at zero interest rate of interest by source. Over ninety four per cent of the borrowing at zero rate comes from friends and relatives, land owners and commission agents and merchants, and nearly five per cent from 'other' unspecified

non-institutional sources. Thus nearly ninety-nine per cent of the

borrowing at zero rate of interest is accounted for by these sources.

TABLE 5.3

PERCENTAGE DISTRIBUTION OF ZERO RATE OF INTEREST BORROWING BY SOURCE

| Source | Amount (Rs.m) | As Percent of Total |
|---|---|---|
| 1. Cooperative Societies | 2.82 | 0.09 |
| 2. Cooperative Banks | 0.32 | 0.01 |
| 3. Agricultural Development Bank of Pakistan | 4.17 | 0.13 |
| 4. Commercial Banks | 3.26 | 0.01 |
| 5. Taccavi Loans | 3.26 | 0.01 |
| 6. Other Government and Semi Government | 5.35 | 0.17 |
| All Institutional Sources | 19.18 | 0.61 |
| 1. Friends and Relatives | 2012.28 | 66.67 |
| 2. Professional Money Lenders | 8.10 | 0.28 |
| 3. Land Owners | 289.92 | 9.19 |
| 4. Commission Agents and Merchants | 565.92 | 17.94 |
| 5. Factories | 18.16 | 0.57 |
| 6. Others | 150.16 | 4.76 |
| All Non Institutional Sources | 3134.44 | 99.36 |
| All Sources | 3154.62 | 100.00 |

Explanation for Large Borrowings at Zero Rate of Interest

There can be several reasons for the large borrowings at zero

rate of interest, amongst which the elements of non-reporting of interest

rate[1] due to the unawareness of it is quite important. The rural farmer

is illiterate and the bulk of his borrowing comes from non institutional

_____

1 See Nisbet (1967) for findings along similar lines in the Chilean informal credit market.

sources where the rates may be implicit and built into the repayment rather than being explicit. In most cases, an inability by the farmer respondents as well as the enumerator to calculate the implicit rate given the complex web of repayment plans, could also have been responsible for the large share of zero rate borrowing. Because of the different types of credit relationships prevalent, it becomes very difficult to determine a rate of interest on loans, as borne out by Kurups' (1976) study of a south Indian state which revealed that nearly two thirds of the loans did not explicitly specify a rate of interest.

The reasons for the large proportion of zero rate borrowing can also be explained on two grounds, viz. religious and institutional/ traditional. Islam, the predominant religion of Pakistan, strictly forbids the charging of interest, and in the rural areas of Pakistan it is practised with a fanatical zeal and strictness not seen anywhere else in the world. This would largely account for the zero rate of borrowing from friends and relatives. Further, Islam enjoins upon its believers to help each other in times of need. The concept is built around reciprocity and is very important in the socio-economic environment of the rural sector of Pakistan.[1] It is also important to note that such borrowing can only be obtained in case of genuine distress, e.g.unforeseen expenses for social ceremonies etc. or consumption expenditure. Even in India where Islam is not the predominant religion, a large proportion of the borrowing from friends and relatives is at zero rate of interest (Ghatak, 1977).

In the case of landowners too, one of the explanations that can be given for the zero rate loans is that of religious obligation and the resultant social pressures. However, the relationship between landowner and tenant is also institutionally determined and is akin to the serf system of feudal Britain in Medieval times. The tenant is more or less

1 Even in an inflationary situation, with a zero nominal rate of interest (negative real rate), such lending (on a reciprocal basis) is established phenomenon. Detailed analysis of any implicit costs is not possible given the data constraints.

bound to his master, providing all sorts of services at no cost, or
much below the 'market' rate for such services. Rudra (1975) in a
survey of 77 villages in West Bengal found that two thirds of the loans
given by landlords were at zero rate of interest. This and the findings
set out in Table 5.3 would tend to negate the view put forward by Bhaduri
(1973; 1977) as to the institutionally determined exploitive role of the
landlord in rural lending. However, his arguments do have substance
and although the evidence of large explicit zero rate borrowing from
landowners do seem to suggest the contrary, the implicit costs, which
unfortunately cannot be quantified due to the absence of data, are
generally thought to be very high.

In the case of commission agents lending at zero rate of interest,
it can be said without fear of contradiction that this is only so
for explicit rates. Commission agents normally lend against an advance
commitment of produce, and are able to under price repayments in such a
way that the implicit rates of interest on their loans are high.

5.6    The Rate Structure of Interest in the Rural Credit Market of Pakistan

The weighted mean rate of interest[1] and its standard deviation has
been computed for each source, after excluding borrowings at zero rate
of interest from each source to see how the 'real' rural credit market
in Pakistan functions. The assumption is that the distribution of
borrowing within each interest rate class interval is normal, i.e. the
midpoint is truly representative. Table 5.4 below presents the results
of this exercise.

The figures presented in this table confirm all a priori
expectations. Institutional interest rates are 'low'[2] with a small
deviation around the mean. The low rates reflect conscious government
policy and are a feature also common to other Asian countries (Asian

1    Amount weighted

2    Relative to the non institutional interest rates

TABLE 5.4

DISTRIBUTION OF AVERAGE RATE OF INTEREST

AND STANDARD DEVIATION BY SOURCE OF CREDIT

| Source | Interest Rate (Mean) | Standard Deviation |
|---|---|---|
| 1. Cooperative Societies | 8.60 | 2.47 |
| 2. Cooperative Banks | 8.68 | 2.28 |
| 3. Agricultural Development Bank of Pakistan | 7.15 | 1.32 |
| 4. Commercial Banks | 8.87 | 1.40 |
| 5. Taccavi Loans | 6.63 | 3.23 |
| 6. Other Government and Semi Government | 6.43 | 5.26 |
| All Institutional Sources | 8.16 | 1.82 |
| 1. Friends and Relatives | 9.25 | 9.72 |
| 2. Professional Money Lenders | 18.53 | 12.99 |
| 3. Landowners | 10.25 | 9.35 |
| 4. Commission Agents and Merchants | 13.54 | 11.28 |
| 5. Factories | 8.88 | 5.28 |
| 6. Others | 11.28 | 11.12 |
| All Non Institutional Sources | 15.34 | 11.63 |
| All Sources | 10.34 | 7.06 |

Development Bank, 1976).[1]  The non institutional source charge a higher

rate of interest and are characterised by a larger standard deviation,

possibly because of the nonrigidity of collateral requirements (due to

the closer more informal contact with the borrowers).  Although this table

represents only fourteen per cent of the total borrowings, its implications

for  Pakistan have interesting consequences.  Large farms (as has been

seen earlier) with their greater access to the institutional credit

sources are being, indirectly, subsidised quite inadvertently by this

government policy.  Whereas the smaller farmers, who borrow mainly

from the non institutional sources, have to pay higher rates on their

borrowing.  Even those that borrow from institutional sources do not

benefit from these low rates because it should be borne in mind that

the rate of interest is only one component in the eventual cost of credit.

Bribes, travel to  and from the lending agency, waiting and other

procedural costs are also important and significant components.

There  is evidence (Shahjahan, 1968) to suggest  that the eventual

cost of credit of borrowing from institutional sources is an inverse

function of the size of farm.  The low rates of interest that prevail in the

institutional credit market of Pakistan are subsidising  the large farm

sector, which goes against the equity criteria[2] of low interest rates.[3]

There is strong evidence, undocumented, of large farmers  in Pakistan

generally borrowing at these low interest rates and investing outside

---

1   Under the  Amended State Bank of Pakistan Act 1972, the bank lends
    to institutional sources, to the equivalent of their advances to the
    agricultural sector,    at 2 per cent below the bank rate.  The bank
    rate during the period was raised from 5 to 6 per cent in May 1972
    and remained unchanged during the rest of the period to which this
    data pertains (Government of Pakistan; Economic Survey, 1972-73).

2   See Desai (1978) for a discussion of the equity objective of
    institutional credit for agriculture.

3   In addition to increasing the concentration of wealth in a few hands
    it negates the development requirements of increased employment
    and greater income generation, because as has been found for
    Pakistan, larger farmers have lower labour absorption, lower cropping
    intensities and lower productivities (Salam, 1979).

the rural sector because of the strong urban bias in the develoment

process.  This is a serious drawback in the credit structure of Pakistan

which by all indications can only be expected to develop further if

the problem is not rectified.

5.7     Summary.

1)     The market rate of interest is composed of a number of

constituent items.

2)     Interest rates can be expected to very inversely with

income levels.

3)     Even when the cost of capital is kept between 2 - 4 per

cent (Government concessional rates), the eventual interest

rate can range between 17 - 29 per cent.

4)     Concessional rates on institutional credit can negate

overall development objectives, because these sources tend

to be monopolised by large farmers.

5)     Over 86 per cent of total borrowing in Pakistan is at zero

rate of interest.

6)     Over 99 per cent of the zero rate of interest borrowing is

from the dominant non institutional sources.

7)     This finding reinforces the assertion that non instituticnal

credit is largely non productive.

8)     The (amount weighted) rates of interest (average) after excluding

borrowings at zero rate of interest are generally much

lower from the institutional sources than from the

non institutional sources.

9)     In the light of the monopoly of access of large farmers to

institutional credit in Pakistan, these low rates are simply

subsidising the large farm sector and leading to a further

widening of disparities.

CHAPTER 6

UTILISATION PATTERNS

## 6.1    Introduction

One can view the demand for agricultural credit as a derived

demand - derived from the demand for expenditure on the different

enterprises of the farming business.    This can be expenditure on

investment purposes on farm or on family consumption expenditure or

on other purposes connected to the farming enterprise.    It has been

contended that given the composite nature of the farming enterprise,

it becomes difficult to separate demand for one from the other (Lipton,

1976).    This is a valid contention, and any study of the demand for

credit for the different purposes of expenditure on farm should

necessarily bear this in mind.    However, in a situation like Pakistan

where 68 per cent of the farms are considered to be below the

subsistence level of holding[1], it is easy to visualise that the

primary demand will be for consumption or family expenditure.    In

addition to the small size of holding is the fact that most of

these farms are also fragmented, which leads to the low levels of

income and hence savings that can be ploughed back in terms of

additional and improved inputs leading in turn to the low level

of incomes.[2]

---

1    See Chapter 1 and PIDE (1978).
2    See Chapters 2 and 4.

It is contended that in Pakistan rural indebtedness is usually the result of borrowing for non productive purposes.[1] Dr M.H.Khan (1966) in his book 'The Role of Agriculture in Economic Development: a case study of Pakistan', with a foreword by Professor Colin Clarke, presents the following table to conclude that most of the rural indebtedness has resulted from borrowing for non productive purposes.(M.H.Khan, 1966, Table 35).

TABLE 6.1

AMOUNT OF CREDIT OBTAINED BY PURPOSE

AS A PROPORTION OF TOTAL CREDIT OBTAINED,

AS REPORTED IN TWO PREVIOUS SURVEYS IN THE PUNJAB

| Purpose | Board of Economic Enquiry, Punjab 1949 Amount as per cent of total. | Socio-economic Research Project, Punjab University Amount as per cent of total |
|---|---|---|
| Capital Expenditure On Farm | 29.9 | 19.6 |
| Current Expenditure On Farm | 3.7 | 12.0 |
| Total Expenditure On Farm | 33.6 | 31.6 |
| Non-farm Business Expenditure | 13.5 | 1.2 |
| Family Expenditure | 51.4 | 62.0 |
| Repayment of Debts | 1.3 | 3.2 |
| Miscellaneous Purposes | 0.2 | 2.0 |
| ALL PURPOSES | 100.0 | 100.0 |

Source: Board of Economic Enquiry, Punjab 1951 (survey conducted in 1949).
Socio-economic Research Project, 1964.

---

1 The distinction between productive and non productive is at best a hazy one (see page 11).

It can be said that, given the possibility of fungibility of
credit, money obtained for one purpose (i.e. family expenditure in
this case) can be diverted to another purpose (i.e. expenditure
on farm) and as such cannot be classified as 'non productive',
but such an occurrence would be more probable in a situtation where
the farmer's needs to feed and clothe himself and his family were not
paramount.   Also this seems unlikely, if one accepts the finding
that the bulk of credit is being supplied by friends and relatives
on a zero (explicit) rate of interest (especially in the case of
borrowing by small farms).   The possibility of borrowing for family
expenditure and then diverting this money or the farmer's own resources[1]
thus released towards productive on farm enterprise seems minimal,
given the socio-religious factors which govern such lending, and the
village structure of rural Pakistan, where the villagers are very
well informed about each other's incomes, needs, etc.  However,
while it is impossible to say that such fungibility is completely
absent, it seems logical to assume in the light of the above that
it is only a marginal occurrence.   This problem is more prevalent
in loans from institutional sources, because it is more likely to
expect an impoverished farmer to borrow from institutional sources
for productive on farm purposes (these sources lend only for productive
on farm enterprises, see Chapter 4) if he can, and then utilise his
borrowing for consumption purposes[2] than for the reverse to occur.

For the purposes of this sub thesis we adopted a restrictive
definition of 'non productive' as an expenditure not incurred directly

1   Given the level of poverty, it seems unlikely for this to occur.

2   Cases are normally reported in Pakistan of poisoning when farmers
have eaten the treated seed given to them as in-kind credit.

for the purpose of current on farm expenditure.   While we accepted

the presence of the debate that consumption expenditure by the farmer

can be deemed to be productive, and that the exclusion of capital

expenditure on farm from our definition was serious, our concern in

this sub thesis and in this chapter in particular is only for the

deamnd for such credit as can directly increase productivity.   As will

be seen later a major proportion of borrowing for capital expenditure

is for the purpose of purchasing land, which in the case of Pakistan

is unlikely to add to total productivity.[1]   This is reflected in the

fact that the total cultivated area had only varied marginally

around 47 million acres[2] for the five years preceding the survey, so

that any purchase of land on an average would only be a transfer

and would not add to total productivity.[3]

Also it should be borne in mind that in a land scarce, labour

abundant situation, the emphasis should logically be on land saving

technology as is embodied in the items which constitute current on farm

expenditure  and that labour saving technology as is embodied in

machine technology, in some of the items which make up capital

expenditure on farm, should have secondary emphasis.

When we talk of the demand for any commodity, it is always at

a price.   However, in the context of the rural credit market of Pakistan,

as we have seen in the previous chapter, over 80 per cent of the total

credit was at a zero rate of interest (nominal and explicit).   We have

no data on the implicit costs of such borrowing and in the absence of

this data an analysis of demand is impossible.   Moreover the data

available relates to the _ex post_ utilisation of credit for different

---

1   Under the assumption that the less efficient sell to the more
    efficient one can expect a rise, but in Pakistan's rural areas
    with its imperfect capital market, this is not so.

2   Government of Pakistan, 1975, page 141.

3   For a definition of productivity, see page 12, footnote 1.

purposes, irrespective of the source or price (rate of interest) at which it was obtained.[1]   In the light of the above, this chapter looks only at the utilisation patterns of credit, by studying the relative share of the different purposes of utilisation in the total utilisation of credit for the different categories of households. The excercise is designed to show the relative importance of the different purposes of credit utilisation to the different categories of farm households.   The objective is to see if farm households do in fact utilise credit largely for family consumption and social ceremonies, and if so, whether there are any variations across types of households and size of farm categories.   Such an excercise will also highlight the relative importance of the 'productive' on farm purposes in terms of credit utilised.   In the latter part of this chapter an attempt is made to statistically test some relationships between yield, income level, the spread of institutional credit and credit utilisation for key on farm purposes, using aggregate data from seventeen districts of Pakistan.

## 6.2   The Importance of Different Purposes in Terms of Credit Utilised

Table 6.2 presents the utilisation patterns of credit for each type of cultivation household and for the cultivator   category. The table shows that only about 43 per cent of the total   borrowing in the All Cultivators category is utilised for on farm enterprises (capital expenditure on farm[2]   plus current expenditure on farm), whilst the rest is utilised for other purposes.   Borrowing

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1   See Appendix 3.1, Question 16.

2   The purchase of land and animals, two indicators by which a man's social position is assessed in the region, account for over half of the credit utilised for capital expenditure on farm in nearly all categories of farm households.   See Appendix Tables 6.1 - 6.3.

TABLE 6.2

PERCENTAGE DISTRIBUTION OF BORROWING BY PURPOSE OF UTILISATION

FOR EACH CATEGORY OF HOUSEHOLD

| Purpose/Type of Household | Owners | Owner-cum-Tenant | Tenant | All Cultivators |
|---|---|---|---|---|
| 1. Capital Expenditure On Farm | 35.39 | 38.99 | 27.49 | 34.22 |
| 2. Current Expenditure On Farm | 6.59 | 9.33 | 12.29 | 8.59 |
| 3. Family Expenditure | 30.96 | 33.70 | 43.64 | 34.61 |
| 4. Non Farm Business Expenditure | 11.31 | 4.11 | 3.42 | 7.71 |
| 5. Other Miscellaneous | 15.74 | 13.88 | 13.16 | 14.68 |
| Total: All Purposes | 100.00 (1254.44) | 100.00 (582.24) | 100.00 (564.23) | 100.00 (2400.92) |

Notes: Figures in parenthesis give absolute values of borrowing in millions of Rupees. These figures may be lower than the figures for total borrowing by each category (Chapter 4) on account of the fact that some proportion of the borrowing may have been unutilised.

1 Capital expenditure on farm is made up of expenditure on 1) purchase of land, 2) land levelling and improvement, 3) well sinking and Persian wheels, 4) purchase and installation of tubewells and handpumps, 5) purchase of tractors, 6) purchase of tractor drawn machinery/implements, 7) purchase of non mechanised agricultural implements, 8) purchase of bullocks and 9) purchase of other animals.

2 Current expenditure on farm is made up of expenditure on 1) hire of agricultural machinery, 2) purchase of seeds, 3) purchase of fertiliser, 4) plant protection, 5) payment of water charges/land revenue, 6) payment of wages and 7) product marketing/storage/transportation.

3 Family expenditure is made up of consumption expenditure and expenditure on social ceremonies.

4 Non-farm business expenditure includes expenditure on trade & handicrafts.

5 Miscellaneous expenditure includes payment of old debts and a catch all category of other unspecified expenditure.

utilised for current expenditure on farm accounted for only 8.59 per

cent of the total utilisation on an aggregate basis. An interesting

feature is that for owner households, current expenditure on farm is a

relatively less important item than for owner-cum-tenants and tenants

respectively in terms of the utilisation of credit. Utilisation of

credit for the purpose of family expenditure, which includes expenditure

for social ceremonies, is the most important item, for all cultivators

taken together, (largely because of its major proportion in the

utilisation by tenants). It is still the second most important purpose

of utilisation for both owner and owner-cum-tenants for whom capital

expenditure on farm is the most important. Another interesting feature

is that the proportion utilised for miscellaneous expenditure which

includes payment of old debts, is significantly higher in all categories

of households than the utilisation of borrowing for current expenditure

on farm. Findings that tend to lend support to our a priori expectations

that the existing social set up and the tenurial and economic status

of the farming household determines the eventual utilisation of credit.

Figure 6.1 shows the relative importance of family expenditure, current

on farm expenditure and all other purposes taken together, in terms of

credit utilisation, for the different tenurial categories of cultivator

households.

Table 6.3 shows the same distribution for the small farms (under

5 acres) in each type of household, as was shown in Table 6.2 for each

type of household.

FIGURE 6.1

RELATIVE IMPORTANCE OF CURRENT ON FARM EXPENDITURE, FAMILY EXPENDITURE AND
EXPENDITURE ON ALL OTHER PURPOSES, IN TERMS OF CREDIT
UTILISED BY TYPE OF HOUSEHOLD
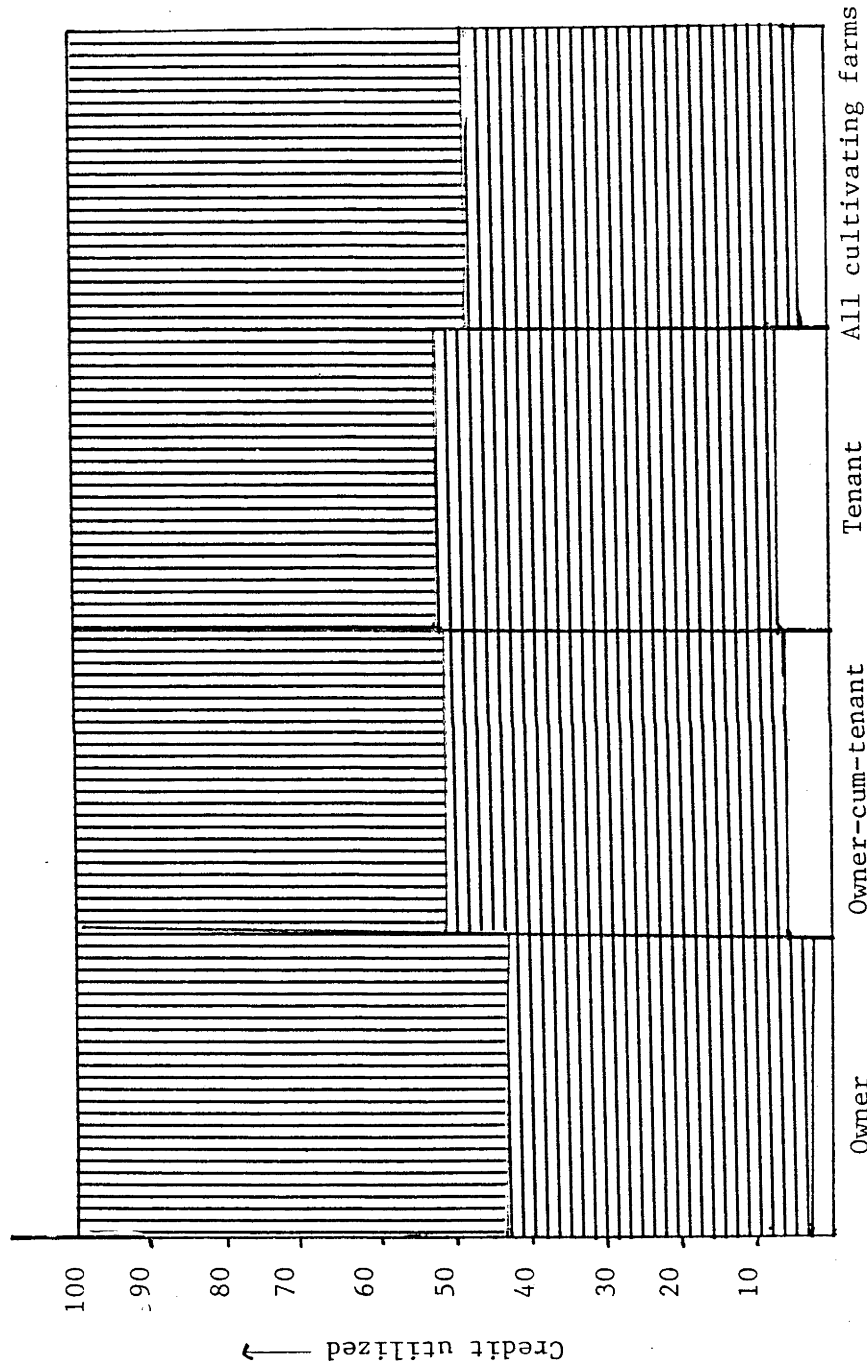


Note:  1)  Unshaded area represents proportion of credit utilised for current on farm expenditure
       2)  Horizontal shaded area represents proportion of credit utilised for family expenditure
       3)  Vertical shaded area represents proportion of credit utilised for all other purposes

Source:    Table 6.1

TABLE 6.3

PERCENTAGE DISTRIBUTION OF BORROWING BY PURPOSE OF UTILISATION

FOR UNDER 5 ACRE FARM HOUSEHOLDS IN EACH CATEGORY OF HOUSEHOLD

| Purpose/Type of Household | Owners | Owner-cum-Tenant | Tenant | All Cultivators |
|---|---|---|---|---|
| 1. Capital Expenditure On Farm | 20.65 | 32.29 | 24.66 | 23.03 |
| 2. Current Expenditure On Farm | 2.71 | 5.77 | 6.50 | 3.90 |
| 3. Family Expenditure | 39.15 | 44.28 | 44.68 | 40.97 |
| 4. Non Farm Business Expenditure | 15.16 | 3.02 | 6.62 | 11.79 |
| 5. Other Miscellaneous | 22.33 | 14.64 | 17.54 | 20.32 |
| Total: All Purpose | 100.00 (273.92) | 100.00 (55.78) | 100.00 (84.36) | 100.00 (414.06) |

Note: Figures in parenthesis are absolute amounts in million Rupees.

Here the trends are much more significant and pronounced. The small farms utilise borrowings largely for the purpose of family expenditure (which includes social ceremonies) and for miscellaneous purposes (which includes the payment of old debts). Current on farm expenditure as a purpose of utilisation of credit is even less important for the small farmers in each category than the previous table showed. Utilisation for purposes directly related to the farming enterprise i.e. capital and current expenditure on farm account for only about 27 per cent of the total utilisation of credit for the small farmers on an aggregate. (Figure 6.2 shows the relative importance of family expenditure, current on farm expenditure and all other purposes taken together, in terms of credit utilized, for the small farm households of the different categories). This has interesting implications for credit

FIGURE 6.2
RELATIVE IMPORTANCE OF CURRENT ON FARM EXPENDITURE, FAMILY EXPENDITURE AND EXPENDITURE ON ALL OTHER PURPOSES IN TERMS OF CREDIT UTILISED BY SMALL FARM HOUSEHOLDS IN EACH TYPE OF HOUSEHOLD

Note:   1)   Unshaded area represents proportion of credit utilised for current on farm expenditure
        2)   Horizontal shaded area represents proportion of credit utilised for family expenditure
        3)   Vertical shaded area represents proportion of credit utilised for all other purposes
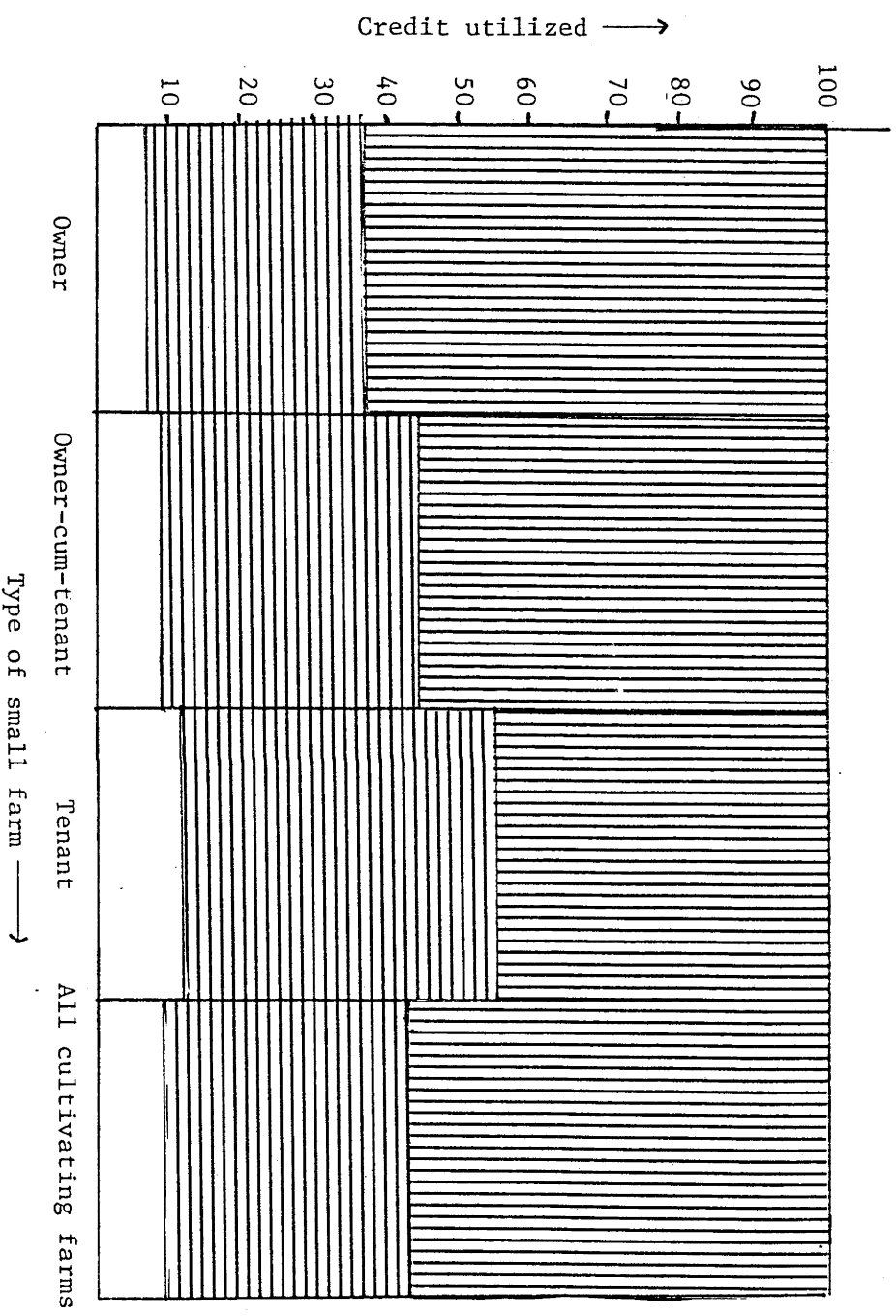
Source:   Table 6.3

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policy in Pakistan. The institutional sources lend mainly for the

puposes specified under capital expenditure on farm and current

expenditure on farm. The government as a conscious policy propogates

the use of credit more for the items covered under current expenditure on

farm. But given the credit use patterns of the farmer (small farmers especially)

as indicated by these tables, any credit disbursed in cash is more likely to

be used first for the purpose of family expenditure. It is logical to

expect an impoverished farmer to feed and clothe himself and his family

or even to fulfil the obligations of society and tradition before he

can start thinking about improving his agricultural productivity.

Detailed tables of the constituent item-wise break up of the different

puposes of utilisation for each size of farm category of the different

cultivator households can be seen in Appendices 6.1, 6.2 and 6.3.

The interesting features of the tables are:

1) An increasing trend in the importance of credit utilisation

   for both capital expenditure on farm and current expenditure

   on farm with an increase in the size of farm; and

2) A decreasing trend in the importance of credit utilisation

   for family expenditure with an increase in farm size.

These trends are most pronounced if one looks at the smallest size of

farm category viz-a-viz the largest, in all three categories of

cultivator-household,

6.3    Extent of Credit Used

To see the extent of credit used for each purpose, we computed

an index of credit used as a proportion of the total expenditure for

each purpose for the different types of cultivator households.

Table 6.4 shows that nearly 16 per cent of the total expenditure

incurred by cultivator households was met through credit use. As much as

TABLE 6.4

CREDIT UTILISATION FOR EACH PURPOSE

AS A PROPORTION OF TOTAL EXPENDITURE ON THE PURPOSE

FOR EACH CATEGORY OF HOUSEHOLD

(Per Cent)

| Purpose/Type of Household | Owners | Owner-cum-Tenant | Tenant | All Cultivators |
|---|---|---|---|---|
| 1. Capital Expenditure On Farm | 32.67 | 30.96 | 44.10 | 33.80 |
| 2. Current Expenditure On Farm | 6.53 | 8.43 | 16.18 | 8.82 |
| 3. Family Expenditure | 9.80 | 10.85 | 12.78 | 10.79 |
| 4. Non Farm Business Expenditure | 21.57 | 32.78 | 40.10 | 23.77 |
| 5. Other Miscellaneous | 18.00 | 15.54 | 18.28 | 15.82 |
| Total: All Purposes | 15.03 | 15.54 | 18.28 | 15.82 |

about 11 per cent of the family expenditure was met through borrowing.

This would indicate a negative propensity to save, at least for those

borrowing households[1] to whom these data pertain. Credit utilisation

for family expenditure as a proportion of total expenditure for the

purpose is highest for tenant farms. Table 6.5 presents the same index

as presented in Table 6.4, this time for the small farms (under 5 acres)

in each category of household.

More or less the same trends emerge from Table 6.5. However, the

value of this index is higher for nearly all purposes for the small farmers

of the different categories - implying the greater use of borrowed

resources in nearly all aspects than the aggregate figures for the

respective household categories that Table 6.4 had shown.

---

1    These borrowing households constitute nearly 41 per cent of the
     total cultivator households in Pakistan (Table 3.4). The fact that
     59 per cent of the cultivators did not borrow, and we have no
     information on either the reasons why they did not or on their
     savings and incomes etc., makes it difficult to generalize.

TABLE 6.5

CREDIT UTILISATION FOR EACH PURPOSE

AS A PROPORTION OF TOTAL EXPENDITURE ON THE PURPOSE

FOR THE UNDER 5 ACRE FARMS FOR EACH CATEGORY OF HOUSEHOLD

(Per cent)

| Purpose/Type of Household | Owners | Owner-cum-Tenant | Tenant | All Cultivators |
|---|---|---|---|---|
| 1. Capital Expenditure On Farm | 35.69 | 45.96 | 49.13 | 39.71 |
| 2. Current Expenditure On Farm | 7.01 | 11.46 | 16.38 | 9.63 |
| 3. Family Expenditure | 10.19 | 14.98 | 11.60 | 11.00 |
| 4. Non Farm Business Expenditure | 50.77 | 35.63 | 54.45 | 5o.42 |
| 5. Other Miscellaneous | 28.79 | 25.98 | 30.39 | 28.76 |
| Total:  All Purposes | 17.01 | 20.78 | 18.35 | 17.71 |

To facilitate the comparison between family expenditure and current on farm expenditure and the credit utilised for each, we have computed averages on a per cultivated acre basis in each type of household on the whole and in the under 5 acre category in each.  The results of this excercise are presented in Tables 6.6 and 6.7.  It can be seen from the tables that the average amounts of expenditure and credit utilised for the purposes of current on farm expenditure are very small as compared to those for family expenditure.  The striking feature of these tables is the much larger values for the small farm households. This could have resulted partly from the fact that they need to borrow larger amounts for family consumption etc. and the fact that these expenditures are spread over the much smaller total cultivated acreage in the small farm categories, and in the case of the current on farm expenditure and credit utilised for this purpose, from the higher cropping intensities of the small farm household.  These tables are indicative of the small amounts, in Rupee terms, of the total investment made, and credit utilised for the purposes of current on farm expenditure, and the correspondingly much higher averages for family expenditure.

TABLE 6.6

AVERAGE EXPENDITURE AND AVERAGE CREDIT UTILIZED,

ON A PER CULTIVATED ACRE BASIS, IN EACH TYPE OF HOUSEHOLD

(Rs. per Acre)

| | Expenditure | | | Credit Utilized | | |
|---|---|---|---|---|---|---|
| | Total | Family | Current On Farm | Total | Family | Current On Farm |
| Owner | 422 | 200 | 64 | 63 | 19 | 4 |
| Owner-cum-tenant | 281 | 135 | 48 | 43 | 14 | 4 |
| Tenant | 232 | 145 | 32 | 42 | 18 | 5 |
| All Farms | 327 | 166 | 50 | 51 | 17 | 4 |

TABLE 6.7

AVERAGE EXPENDITURE AND AVERAGE CREDIT UTILIZED

ON A PER CULTIVATED ACRE BASIS, IN THE UNDER 5 ACRE FARMS

IN EACH TYPE OF HOUSEHOLD

(Rs. per Acre)

| | Expenditure | | | Credit Utilized | | |
|---|---|---|---|---|---|---|
| | Total | Family | Current On Farm | Total | Family | Current On Farm |
| Owner | 1248 | 814 | 81 | 211 | 82 | 5 |
| Owner-cum-tenant | 797 | 488 | 83 | 163 | 71 | 8 |
| Tenant | 795 | 561 | 57 | 145 | 64 | 8 |
| All Farms | 1057 | 697 | 75 | 187 | 76 | 7 |

Note:   At current exchange rates, one Australian dollar =  twelve
        Pakistani Rupees.

## 6.4    Proportions of Credit Needs - Government Estimates

The Government of Pakistan works out the credit requirements each year
in the following manner.  On the basis of the available acreage  estimates
under each crop in each province,it estimates physical input requirements
using the observed input : acreage ratios for different crops.
These physical inputs are then converted into cash requirements by
multiplying with their input prices.  The cash requirements are then
adjusted for farmers 'own savings' which vary according to size of farm
as well as types of input.  Table 6.8 shows the government's  estimated
ratios for credit requirements to the farmers' total expenditure on
these key inputs.

TABLE 6.8

GOVERNMENT ESTIMATED RATIOS FOR CREDIT REQUIREMENTS
TO TOTAL EXPENDITURE ON VARIOUS INPUTS, BY SIZE OF FARM

| Size of Farm/Inputs | Fertilisers | Seeds | Pesticides (%) |
|---|---|---|---|
| 1.  Large Farms | 25 | 5 | 10 |
| 2.  Medium Farms | 50 | 20 | 50 |
| 3.  Small Farms | 75 (13.17) | 75 (11.24) | 75 (0.02) |

Note:    Figures in parenthesis show our calculation of proportions of
         actual credit used to total expenditure by small farms of the
         combined all cultivator category.

Source: Government of Pakistan, 1973.

The government's process of estimation does not take into account the tenurial status (i.e. type of cultivator households) across which, as our analysis has shown, variations do occur (for example the tenant category uses (and thus may be assumed to need) more than other types of households for nearly all purposes of utilisation). However, it shows that the government makes generous allowances for small farmers and allocates credit assuming 75 per cent of total expenditure as credit requirements for each of the key inputs.

We calculated the actual credit use as a proportion of the total expenditure for each of these purposes for the small farms (under 5 acres) category of the aggregated cultivator households. These calculations are also presented in Table 6.8 in parenthesis below the government estimated ratios.

The contrast in these figures highlights the problem. The actual utilisation of credit for the current on farm purposes is much lower than the government estimates of the credit requirements for these purposes, especially in the case of the small farm category. It suggests that the problem of 'access' brought out by this study and the existing utilisation patterns restrict the productive use of credit even when it is available. Two possible inferences can be drawn from the glaring contrast in these figures:

1)  Given the problem of access to institutional sources which is faced by these small farmers, they never get this credit.

2)  If they do, their other needs compel them to use the credit for purposes other than these inputs and hence the small proportions of actual use in the case of these inputs.

## 6.5 An Examination of Basic Relationships

This section presents an attempt to examine some relationships between the utilisation of credit for different purposes and 1) yield per acre, 2) income level, and 3) the spread of institutional credit.[1] We used the Spearman Rank correlation coefficient[2] on data for seventeen districts to test for the existence of positive relationships between these parameters.

In all cases the form of the hypothesis is:

$H_o$ : $X_i$ and $Y_i$ are independent

$H_1$ : there is a tendency for larger values of X and Y

to be paired together.

Although the Spearman Rank Coefficient does not specify the direction of causality in the relationship, it suits our purposes as we are only attempting to establish the existence or otherwise of a correlation between these parameters. Table 6.9 shows the Spearman Rank correlation between yield per acre of wheat[3] and the average (per utilising household) utilisation of credit for different purposes.

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2 $$\gamma_s = 1 - \frac{\Sigma \, d_i^2}{N(N^2-1)}$$ where $d_i$ = difference in corresponding ranks

$N$ = number of observations

The use of a nonparametric statistic is an attempt at finding 'approximate solutions to exact problems as opposed to exact solutions to approximate problems furnished by parametric statistics' (Conover,1971). The Spearman Rank Correlation Coefficient is a powerful test. According to Stuart (1956), in a test for trend applied to random variables known to be normally distributed, the asymptotic relative efficiency of the Spearman $\gamma_s$ was about 0.98.

3 Yield per acre of wheat is taken as a proxy for yield levels, as wheat is the most important single crop in the area.

1 Ideally these relationships should have been examined separately for small and large farms and tenant farms and other farms. However, data are not available at a disaggregate level.

TABLE 6.9

THE SPEARMAN RANK CORRELATION BETWEEN YIELD PER ACRE OF WHEAT

AND THE AVERAGE UTILISATION OF CREDIT

FOR DIFFERENT PURPOSES

| Relationship | $\gamma_s$ |
|---|---|
| Yield and average credit utilised for: | |
| 1) all purposes | + 0.36 |
| 2) capital expenditure | + 0.36 |
| 3) current expenditure | + 0.37 |
| 4) family consumption | + 0.16 |

Although none of the coefficients are significant, it is interesting
to note that there is a positive correlation between yields and credit
utilisation per household for all items of utilisation.  The correlation
between yield and credit utilised for family consumption purposes is
also positive but weaker.

Table 6.10 presents the Spearman Rank Correlation between yield and

TABLE 6.10

THE SPEARMAN RANK CORRELATION BETWEEN YIELD AND THE PROPORTION OF
BORROWING UTILISED FOR A PARTICULAR PURPOSE TO
THE TOTAL UTILISATION OF BORROWING

| Relationship | $\gamma_s$ |
|---|---|
| Yield and proportion of borrowing utilised to total utilisation of borrowing for: | |
| 1) capital expenditure | + 0.21 |
| 2) current expenditure | + 0.42[*] |
| 3) family consumption expenditure | + 0.03 |

Note:  [*] significant at 5% (one-tailed test)

the proportion of borrowing utilised for a particular purpose to the

total utilisation of borrowing. One would expect that yield levels

would be positively correlated to the proportion of utilisation for

current on farm expenditure.

The table shows that yield and the proportion of borrowing utilised

for current expenditure on farm are in fact positively and significantly

correlated. We had found in the previous section that one of the

problems indicated by the utilisation structure was the small proportion

(percentage) of utilisation of total borrowing for the pupose ofcurrent

on farm expenditure, and that this problem was more acute for the small

farmers. We now find a significant and positive correlation, on an

aggregate level, between utilisation of credit for this purpose and yield -

implying that the relative importance of this purpose is greater in

higher yielding districts.

The Spearman Rank Correlation between income level[1] and the absolute

values of credit utilised for the different purposes is shown in Table 6.11

TABLE 6.11

THE SPEARMAN RANK CORRELATION BETWEEN INCOME LEVEL AND THE ABSOLUTE
VALUES OF CREDIT UTILISED FOR THE DIFFERENT PURPOSES

| Relationship | $\gamma_s$ |
|---|---|
| Income level and amount of credit utilised for: | |
| 1) all purposes | $+ 0.45^*$ |
| 2) capital expenditure | $+ 0.58^*$ |
| 3) current expenditure | $+ 0.59^*$ |
| 4) family expenditure | $+ 0.44^*$ |

Note: * significant at 5% (one-tailed test)

---

[1] The gross value of marketed surplus per household for each district
is used as a proxy for income levels.

The choice of the gross value of marketed surplus as an index of

income level was strengthened by the assertion that 'credit facilities

are an integral part of the commercialization of the rural economy'

(World Bank, 1975). Since the income level thus computed is also an

indicator of the degree of monetisation and coomercialisation of each

district, it was hoped that it would also take care of the argument that

the extent of and eventual utilisation of credit is a function of the

user's awareness of its profitability.[1] We see that all the correlations

presented in Table 6.11 are positive and significant.

Perhaps a better indicator of the importance of each purpose of

utilisation at different income levels is the correlation between income

levels and the average utilisation of credit for the different purposes

on a per utilising household basis, as this would tend to normalise

the effect of the variations in size of the credit utilising population

across districts.

TABLE 6.12

THE SPEARMAN RANK CORRELATION BETWEEN INCOME LEVEL AND AVERAGE

UTILISATION OF CREDIT FOR THE DIFFERENT PURPOSES

ON A PER UTILISING HOUSEHOLD BASIS

| Relationship | $\gamma_s$ |
|---|---|
| Income level and average utilisation for: | |
| 1) capital expenditure | + 0.21 |
| 2) current expenditure | + 0.54* |
| 3) purchase of fertiliser | + 0.66** |
| 4) family consumption | + 0.27 |

Note: * significant at 5% (one-tailed test)
** significant at 1% (one tailed test)

----

1 Through greater interaction with the market

Table 6.12 shows that even on a per household basis all the correlations have the same sign (+ve). However only the correlations between income levels and average credit utilisation for current on farm expenditure, and income levels and average credit utilisation for the purchase of fertiliser are significant.

To study the spread of institutional credit and its relationship with utilisation patterns across districts, we calculated two sets of correlation coefficients. In the first instance we calculated the correlation between the absolute values of credit obtained from institutional sources and the absolute values of credit utilised for the various purposes.

TABLE 6.13

THE SPEARMAN RANK CORRELATION BETWEEN THE ABSOLUTE VALUES OF CREDIT OBTAINED FROM INSTITUTIONAL SOURCES AND THE ABSOLUTE VALUES OF CREDIT UTILISED FOR THE VARIOUS PURPOSES

| Relationship | $\gamma_s$ |
|---|---|
| Credit obtained from institutional sources and credit utilised for: | |
| 1) capital expenditure | $+ 0.69^{**}$ |
| 2) current expenditure | $+ 0.43^{*}$ |
| 3) purchase of fertiliser | $+ 0.53^{*}$ |

Note: * significant at 5% (one-tailed test)
      ** significant at 1% (one-tailed test)

Table 6.13 shows that all the correlations are positive and significant. However the importance of institutional sources to credit utilisation for different purposes can perhaps be better brought out by the correlations

between the share of credit obtained from institutional sources and

average utilisation for different purposes.

TABLE 6.14

THE SPEARMAN RANK CORRELATION BETWEEN THE SHARE OF CREDIT OBTAINED
FROM INSTITUTIONAL SOURCES AND AVERAGE UTILISATION
FOR DIFFERENT PURPOSES

| Relationship | $\gamma_s$ |
|---|---|
| Share of institutional credit and average credit utilised for: | |
| 1)  capital expenditure | + 0.44* |
| 2)  current expenditure | + 0.42* |
| 3)  purchase of fertiliser | + 0.43* |

Note:     *  significant at 5% (one-tailed test)

We can see from Table 6.14 that the greater the role of institutional
credit, the greater is the average credit utilisation for all the
purposes mentioned in the table.

6.6      Summary

Bearing in mind the composite nature of the farming enterprise,
and the possibility of fungibility of credit as discussed in Section 6.1,
the main points highlighted by this chapter can be summarised as below:

1)    Over a third of the credit utilised is for the purposes
of family expenditure (which includes expenditure on
social ceremonies).  This proportion is higher for
tenants and small farms.

2)    Current expenditure on farm accounts for a small
proportion of the total credit utilised.

3)  Nearly 16 per cent of all expenditure is met through
    borrowing.  The proportion of credit used to total
    expenditure is however much lower for current on farm
    expenditure.

4)  The actual credit utilised for current on farm
    expenditure by small farms is much lower than government
    estimates of their requirements for these purposes.

5)  Credit used for current on farm expenditure is
    positively and significantly related to yield, income
    level and the spread of institutional credit.

CHAPTER 7

SUMMARY AND CONCLUSIONS

There is a school of thought in agriculture economics that believes, that in many developing countries including Pakistan, the small farm sector has a relatively greater productive potential and labour absorption capacity.  It is generally believed that this sector faces an investment constraint, which if removed through the provision of credit, would lead to the fulfilment of three overall development objectives:

a)  increase production and productivity;

b)  increase employment; and

c)  reduce the existing inequalities.

However, in most developing countries, it is contended that the rural money markets are not well developed, lack homogeneity and are fragmented in nature.  Moreover, it is also maintained that there are problems in the demand side of rural credit.  Generally the result of the low and fluctuating levels of income, and aggravated in cases by traditional and social pressures, a significant component of the demand for credit is for family expenditure (for consumption purposes and social ceremonies etc.).

In the absence of organised and developed money markets, governments tend to intervene by introducing organised (institutional) sources of credit.  But the mere introduction of these sources is not enough and the problems persist.

This study set out to examine these problems by analysing the source structure and utilization patterns of rural credit in Pakistan; focusing in particular on the problems as they affect the small farm and tenant farm categories of rural households.

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The analysis is based largely on a set of preliminary tables from a very large benchmark survey; the Rural Credit Survey of Pakistan 1972-73, in which 94 thousand households all over Pakistan were interviewed. However, the analysis was severely constrained both in terms of its depth and rigour, by the range and form in which the data were available. Apart from the fact that there were serious shortcomings in the survey questionnaire itself which made proper economic analysis difficult, only a small portion of the total range of data collected was available here for analysis. In addition to this shortcoming was an even more serious one imposed by the from in which the data was available. It suffered on two counts in this respect. Since the data are available in a set of tables that show cross tabulations between individual parameters and different categories of households, it seriously inhibited the establishing of direct relationships. Secondly the data tabulations severely restricted the degrees of freedom for any rigourous hypothesis testing, i.e. there is only one value for each parameter for each category of household.[1]

Working within the constraints imposed by the limitations of the data the study found that there are a number of complex sometimes related problems in the rural credit market that could seriously affect the use of credit as a catylst for agricultural development in Pakistan.

On the supply side this study found that the institutional (organised) credit supply has been only a small proportion of the total credit supply. Its inadequacy is reflected in the small averages per cultivated and per cropped acre. Moreover, this supply has tended to fluctuate from year to year on the basis of the time series figures released by the government. These fluctuations can lead farmers to view institutional credit as unreliable, thereby leading to the continued reliance by farmers on non institutional sources.

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1 There are thus only three values - one for each cultivator category - for the small size of farm category, in which we are interested, for each of the available parameters.

Not only is the dominance of the unorganised (non institutional) and the relatively small share of institutional supply of credit brought out by the study of the percentage shares of different sources in total credit supply, but the exercise also highlighted the large proportion of credit from friends and relatives. These 'non commercial' sources of supply are detrimental to the growth of a well organised and developed credit market in the sense that they constrain the channelling of that segment of demand to the other sources. There are reasons to believe that the supply of credit from the friends and relatives category is utilized primarily for 'non productive' purposes. These reasons have their basis in the socio-cultural economic and religious background of the area. Unfortunately given the survey questionnaire design and data constraints we have no way of rigourously establishing a direct link between borrowing from this source and its utilization.

The analysis of the supply side of rural credit in Pakistan also revealed interesting variations in supply by different sources across the different categories of households. We found that although the share of institutional credit in the total borrowing of all categories of households is small, it is much smaller for tenant households and households of the small farm category accounting for as little as less than a percentage of total borrowing in the small farm tenant category. The study also found that 'access' to institutional credit, both in terms of number of loans and volume of loans, is dominated by the large farm categories and the owner farms. Although the measure of 'access' used, in the absence of requisite data, ignores the crucial question of eligibility, in terms the credit worthiness and repayment capacity of the borrowers, the results of this study are significant. Given the government policy of subsidising institutional credit by advancing to the institutional sources to the extent of their total lending at two per cent below the bank rate, it shows that government policy is indirectly subsidizing the large farm and owner farm

categories, thus widening existing disparities.

If the average amounts borrowed per cultivated acre are any index
of the need for credit then the study found that the small farm categories
have a much greater need, and that this is met largely through non
institutional credit.   However, it was found that tenant farms on an
average borrow less per cultivated acre, than corresponding size categories
in the other types of households.   This was not due to their much lower
borrowing from institutional sources, but they borrowed less from non
institutional sources also.   However, if we exclude borrowing from
friends and relatives from the non institutional borrowing we find that
tenants borrow on an average more than corresponding size categories of
other types of household.

The analysis of the interest rate structure showed that theoretically,
for institutional sources, even if the cost of capital is between 2 to 4
per cent the eventual nominal rate of interest can range between 17 to 29
per cent, because of the different components of the rate of interest, if
the problem is approached purely from the supply or cost side.   The data
for Pakistan shows that interest rates are generally low[1] and institutional
interest rates much lower than non institutional rates (if we ignore for
the moment the question of lending at zero rate of interest).   This
finding taken together with the finding that institutional sources supply
mainly to the large and owner farms, reinforces the assertion that
government policy to keep institutional rates of interest on agricultural
loans is subsidizing the large and owner farm sectors. .

The analysis of interest rates in the rural credit market of Pakistan
also found the presence of large scale lending at zero rate of interest
(nominal and explicit).   The study also found that over ninety-nine
per cent of such loans were made by the non institutional sources and the
bulk of these by the friends and relatives category.   The absence of an
explicit interest charge on rural lending can be explained through

1  Based on the Bank rate in 1972-73.

religious and socio cultural factors. However, the possibility of implicit charges on such lending cannot be ruled out completely. In the absence of data on such implicit charges it is very difficult to say categorically that such lending is interest free. This is an area that needs to be researched much more thoroughly especially in orthodox traditional Islamic societies like Pakistan.

However, the absence of an explicit rate of interest on lending especially by friends and relatives imposes a social constraint on the utilization of such borrowing. The economic socio cultural and religious factors operating on such lending seem to suggest strongly that its utilization will be largely for non productive purposes. If one accepts the assumption that borrowing from friends and relatives is utilized for 'non productive' purposes then it can be said that over sixty per cent of the total credit supply is non productive in nature. This proportion is higher in the small farm categories.

The study of the _ex post_ utilization patterns reveals that credit is utilized largely for family expenditure and within our strict definition largely for 'non productive' purposes. The study also reveals that credit utilization for family expenditure purposes is much higher in the small farm categories. Correspondingly the study finds a much lower utilization for the purposes of current on farm expenditure, both in terms of percentage utilization and average per acre utilization of credit (where the amounts utilized are almost insignificant).

The large proportion of credit utilized for family expenditure especially in the small farm categories is born out of the general levels of poverty. A pattern can be seen between the large proportion of credit utilized for family expenditure and the larger proportions of borrowing from non institutional sources especially from friends and relatives especially in the small size of farm categories.

For the purposes of this study a very restrictive definition of 'productive' utilization was adopted. This was done consciously in the light of the literature in agricultural economics that places greater emphasis on land saving technology in the labour abundant situations like Pakistan. This technology is embodied in the purposes of utilization defined as 'current on farm' for the purposes of the survey data tabulations.

The study found that there is a large discrepancy between the large government estimates of the credit requirement for key on farm expenditures and the small actual credit utilized, by the small farm category.

Using aggregate data from seventeen districts of Pakistan the study established a positive and significant correlation between credit utilization for current on farm expenditure and 1) yields; 2) income levels and 3) the spread of institutional credit. These findings fit in with a priori expectations. The positive and significant correlation of credit utilized for current on farm expenditure and income levels is of particular interest. One can infer that at lower levels of income, credit utilized for this purpose is low because consumption purposes take precedence over all other purposes - i.e. lower the income higher the importance of consumption expenditure.

The limitations of this study are generally outlined below. There is a great dearth of data and published material in Pakistan on the economic and social aspects of rural life, especially about borrowing and expenditure behaviour. In addition to this a number of important items of information were left out of the Rural Credit Survey questionnaire, and only a small portion of data collected, were available here for analysis. Further because of the form in which data were available here, it was not possible to formulate and rigorously test hypothesis along the lines of the thesis objectives. The fact that the data show that over 86 per cent of total borrowing was at zero rate of interest (nominal) and

we had no information on the implicit costs on such lending, made a rigorous

analysis of the rural credit market according to the principles of demand

and supply, impossible.    The data also showed that 59 per cent of the

rural cultivator households did not borrow, but we have no information on

their incomes, savings expenditure patterns etc. or whether they did in

fact try to get credit, to be able to study the problem of access in detail.

A survey of literature was undertaken to see the kind of analysis

that could be possible but which unfortunately given the data constraints

could not be undertaken.    In Chapter 2 a model for the demand of production

credit was set out.    However, in the absence of information on the farmers

supply of cash and other liquid assets, their productive opportunities and

risk averseness etc. the model could not be further developed and tested.

Similarly in Chapter 5 a model showing the relationship between interest

rates and income levels was presented.    Here again in the absence of data

on different income levels and corresponding repayment ratios for different

interest rate levels, the model could not be emperically tested.

However, given the survey procedure, the large sample size and the

fact that the available data pertained to "blow up" figures on the different

items of information, so as to represent population parameters, and that

this was a bechmark study it was hoped that a description of the source

structure and utilization patterns of rural credit in Pakistan could be

attempted with a view to highlighting the impediments to the effective

utilization of credit for agriculture development in Pakistan.

In the light of the government policy to encourage the use of credit

especially by the small farm sector, the study started within the premise

that the mere availability of credit is only a necessary condition for its

productive utilization.    In the light of the economic socio cultural,

historical and religious background of the area, the study identified a set

of factors that could affect the productive utilization of credit.    Much

more detailed work is needed to be able to rigorously establish the effect

of these factors both on the supply of and demand for productive on farm credit.

Since this is the first time an exercise of this kind has been conducted for Pakistan, and especially since this is the first time the Rural Credit Survey 1972-73 data has been put to analysis, its limitations as highlighted by this study should prove useful in the direction of future research and particularly in the framing of future questionnaires.

In the meantime the results of this study can be taken as indicative of the general complexity of the problems involved and borne in mind during future credit policy making.

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APPENDIX 3.1

RURAL CREDIT SURVEY - QUESTIONNAIRE

Government of Pakistan
Agricultural Census Organization

Form 2 - R.C.S.
Questionnaire for
Rural Credit Survey.

(Translated from the original)

---

1. District_____ 2. Sub-division_____ 3. Tehsil _____

4. Mouza name _____ 5. Had Bast No._____ 6. Mouza Sl.No._____

---

7. Name of head of household with father's name   _____

8. Serial number of this household as in Column 3 of Form-1 _____

---

9. Number of household members                                    I

| Total members | Ten years or above | | Less than ten years | |
| --- | --- | --- | --- | --- |
| | Male | Female | Male | Female |
| 1 | 2 | 3 | 4 | 5 |
| | | | | |

Note: Information about all the household members should be provided collectively in this form.

---

10. Is-any member of this household
    a member of a Co-operative Society?   No /‾1‾/      Yes /‾2‾/

11. Are you able to obtain adequate
    amount of credit as and when needed?  No /‾1‾/.     Yes /‾2‾/

12. Do you prefer loan in cash or in kind

                Cash /‾1‾/      Kind /‾2‾/      Both /‾3‾/

13. Did your household take a cash
    or kind loan in the last 12 months   No /‾1‾/      Yes /‾2‾/

Note: If answer to question No.13 is "No" skip to question No.16.

14: Record here the monetary value of credit obtained in cash or kind during the last 12 months from various sources.

| Source of Credit | Total amount of loan | Loans payable with in 18 months | | | Loans payable with in 5 years | | | Loans payable after 5 years | | | Cod |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Amount of loan | Type of sur-ety | Inte-rest rate | Amount of loan | Type of sur-ety | Inte-rest rate | Amount of loan | Type of sur-ety | Inte-rest rate | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| a. Co-operative Society | | | | | | | | | | | 01 |
| b. Co-operative Bank | | | | | | | | | | | 02 |
| c. Agri-Develop. Bank | | | | | | | | | | | 03 |
| d. Commercial Banks. | | | | | | | | | | | 04 |
| e. Taccavi loan | | | | | | | | | | | 05 |
| f. Other Govt. or Semi- Govt.Institu- tions | | | | | | | | | | | C6 |
| g. Friend/ relative | | | | | | | | | | | 07 |
| h. Professional Money Lender | | | | | | | | | | | 08 |
| i. Landlord | | | | | | | | | | | 09 |
| j. Commission agent/merchant | | | | | | | | | | | 10 |
| k. Industrial units | | | | | | | | | | | 11 |
| l. Other sources | | | | | | | | | | | 12 |
| n. Total amount of loan | | | | | | | | | | | 13 |

15. How much of the total loan was received in kind
   (give= in Rs.) _____ Nil  /_____/

16. Investment made for various purposes during the previous 12 months and the Credit needs for the next 12 months.   II

| Purpose | Amount invested out of Loans (Rs.) | | | Amount invested from personal sources | Amount of credit needed for the next 12 months | Code |
|---|---|---|---|---|---|---|
| | Loans due in 18 months | Loans due within 5 years | Loans due after 5 years | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| a. Purchase of Land | | | | | | 01 |
| b. Land Clearing, grading and Layout. | | | | | | 02 |
| c. For well/persian wheel | | | | | | 03 |
| d. Installation of pump or tube-well | | | | | | 04 |
| e. Purchase of Tractor | | | | | | 05 |
| f. Purchase of other agri-cultural mach-inery and trac-tor drawn implements | | | | | | 06 |
| g. Purchase of bullock cart and agricul-tural imple-ments other than machines. | | | | | | 07 |
| h. Hiring of machinery | | | | | | 08 |
| i- Purchase of seed and seedlings | | | | | | 09 |
| j. Purchase of Chemical fer-tilizers | | | | | | 10 |
| k. Expenditure on plant production measures | | | | | | 11 |
| l. Payment for land revenue and water rates | | | | | | 12 |
| m. Payment for hired labour | | | | | | 13 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| n. Payments for Transportation of farm produce to Market and storage. | | | | | | 14 |
| o. Purchase of oxen | | | | | | 15 |
| p. Purchase of other animals | | | | | | 16 |
| q. Marriage expenses | | | | | | 17 |
| r. Household expenses | | | | | | 18 |
| s. Business purposes | | | | | | 19 |
| t. Industrial Investment | | | | | | 20 |
| u. Payments for previous outstanding loans | | | | | | 21 |
| v. Other expenses | | | | | | 22 |
| w. Total | | | | | | 23 |

17. Provide below the details of various outstanding loans obtained    III
     from various sources.

| Sources of Credit | Total amount of outstanding loans | Outstanding Loans, with schedule of Payment | | | Code |
|---|---|---|---|---|---|
| | | Loans due within 18 months | Loans due within 5 years | Loans due after 5 years | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| a. Co-operative Society | | | | | 01 |
| b. Co-operative Bank | | | | | 02 |
| c. Agricultural Development Bank. | | | | | 03 |
| d. Commercial Banks | | | | | 04 |
| e. Taccavi Loan | | | | | 05 |
| f. Other Government and Semi-Government Institutions | | | | | 06 |
| g. Friend/relative | | | | | 07 |
| h. Professional money lender | | | | | 08 |
| i. Land lord | | | | | 09 |
| j. Commission agent & merchant | | | | | 10 |
| k. Industrial units | | | | | 11 |
| l. Other sources | | | | | 12 |
| m. Total amount of loan | | | | | 13 |
| n. Loan given to others | | | | | 14 |

18. Out of the total outstanding loans how much was paid back          IV
    from the following sources during the last 12 months.

| Sources | Amount paid back |
|---|---|
| 1 | 2 |
| a. Sale proceeds of farm produce | |
| b. Proceeds of property sold | |
| c. Other income | |
| d. Borrowing | |
| e. Payment in kind | |

19. If the desired amount of credit is made available to you, in how much
    time period can you repay that.

| Amount of credit needed | Repayment period | Amount |
|---|---|---|
| (Enter the amount Total_____ from total of column 6 of the Cash_____ question no 16) Kind_____ | With in 12 months With in 5 years | |
| Note: If credit not required go to question No.21 | After 5 years. | |

20. What type of surety you can provide to obtain credit

| Type of surety | Amount quantity | Value | Amount for which this property is already mortgaged |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| a. Land | Acres_____ Kanals_____ | | |
| b. Machinery | | | |
| c. Ornaments | | | |
| d. Farm Produce | | | |
| e. Other | | | |

Acres | Kanals    V

| | | |
|---|---|---|
| 21. Total area owned by this household | | |
| 22. Owned area self cultivated | | |
| 23. a. Area rented in from others on share cropping, lease or other terms. | | |
| b. Land lord's share in farm produce of the share cropped area  ⟋⟍ | | |
| 24. Total operated area (22 + 23a) | | |
| 25. Cultivated area (a) Total | | |
| (b) Irrigated | | |
| (c) Unirrigated | | |
| 26. Area under or chards | | |

27. Total number of cows and oxen etc. ⟋⟍  28. Total number of buffaloes etc. ⟋⟍

29. Total number of sheep ⟋⟍  30. Total number of goats ⟋⟍

Note: If the answer to question number(25-a) is negative, skip to question number 34.

31. Crops sown, their output, output marketed or Exchange for other produce and the amounts thus received during the last 12 months.

| Crop | Crop area Acres  Kanals | Quantity of farm produce(maunds) | Quantity of produce sold or exchange for some other produce. | Amount received | VI |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | |
| Wheat | | | | | 1 |
| Cotton | | | | | 2 |
| Rice | | | | | 3 |
| Maize | | | | | 4 |
| Tobacco | | | | | 5 |
| Oilseeds | | | | | 6 |
| Sugarcane (i)Cane (ii)Gur/Shakkar (iii)Raw Sugar | | | | | |

32. Do you prefer share cropping or lease system?

    (1) Share cropping /1/ Cash lease /2/ Lease in form kind payment /3/ Cash and kind lease /4/

33. Advance marketing agreements made for various crops during the last 12 months.

| Farm produce | Quantity for which advance agreement made | Terms of Advance-Agreement | | | VII |
| | | Price settled and amount received in advance | Amount received in advance but price fixed at the time of good's delivery | Amount received in advance but price settled at a date fixed by the landlord | Other Terms |
| 1 | 2 | 3 | 4 | 5 | 6 |
| a. Wheat | | /1/ | /2/ | /3/ | /4/ |
| b. Cotton | | /1/ | /2/ | /3/ | /4/ |
| c. Rice | | /1/ | /2/ | /3/ | /4/ |
| d. Maize | | /1/ | /2/ | /3/ | /4/ |
| e. Tobacco | | /1/ | /2/ | /3/ | /4/ |
| f. Oilseeds | | /1/ | /2/ | /3/ | /4/ |
| g. Sugarcane | | /1/ | /2/ | /3/ | /4/ |

34. From the occupations listed here, encircle the occupation of this household service /1/ Business /2/ Industrial /3/ Casual labor /4/ Income /5/ Other /6/

APPENDIX 3.2

COEFFICIENTS OF VARIATION (PER CENT SAMPLING ERRORS)

FOR IMPORTANT RURAL CREDIT SURVEY ITEMS

FOR PAKISTAN

| | |
|---|---|
| Total Loans Taken (in 12 months) | 4.69 |
| Total Outstanding Debts | 4.69 |
| Total Repayment in 12 months | 5.00 |
| Repayment Capacity | |
|     Within next 12 months | 3.87 |
|     During first 5 years | 4.58 |
|     After 5 years | 6.16 |
| Total Institutional Loan Taken in 12 months | 3.98 |
| Total Non Institutional Loan Taken in 12 months | 3.87 |
| Total Investment in 12 months | 4.58 |
| Capital Expenditure | 4.47 |
| Current Farm Expenditure | 6.08 |
| Family Expenditure | 3.46 |
| Total Credit Utilised | 4.90 |
| Capital Expenditure (Credit utilised) | 4.12 |
| Current Farm Expenditure (-do-) | 5.20 |
| Family Expenditure        (-do-) | 4.47 |
| Cultivated Area | 2.83 |

Source:   Government of Pakistan, 1974.

APPENDIX 4.1

PERCENTAGE DISTRIBUTION OF TOTAL BORROWING BY SOURCE FOR OWNER HOUSEHOLDS FOR EACH SIZE OF FARM CATEGORY (%)

| Source | < 5 | 5 - 15 | 15 - 25 | 25 - 50 | > 50 | All Owner Farms |
|---|---|---|---|---|---|---|
| 1. Cooperative Societies | 0.81 | 1.34 | 1.73 | 1.86 | 0.86 | 1.25 |
| 2. Cooperative Banks | 0.07 | 0.21 | 0.27 | 1.16 | 0.74 | 0.41 |
| 3. Agricultural Development Bank of Pakistan | 0.27 | 6.77 | 6.31 | 9.31 | 17.70 | 7.67 |
| 4. Commercial Banks | 0.07 | 3.43 | 3.60 | 6.63 | 9.73 | 4.19 |
| 5. Taccavi Loans | 0.16 | 0.57 | 1.09 | 1.56 | 1.63 | 0.88 |
| 6. Other Government and Semi Government | 0.44 | 0.20 | 0.24 | 0.10 | 0.50 | 0.30 |
| All Institutional Sources | 1.82 | 12.52 | 12.24 | 20.62 | 31.16 | 14.70 |
| 1. Friends and Relatives | 78.37 | 65.54 | 57.91 | 58.08 | 41.81 | 61.92 |
| 2. Professional Money Lenders | 2.22 | 2.24 | 2.59 | 0.94 | 2.98 | 2.25 |
| 3. Land Owners | 0.88 | 2.34 | 1.88 | 0.81 | 2.21 | 1.73 |
| 4. Commission Agents and Merchants | 12.93 | 13.63 | 21.59 | 13.27 | 18.96 | 15.46 |
| 5. Factories | 0.25 | 0.79 | 2.02 | 1.51 | 1.93 | 1.14 |
| 6. Others | 3.54 | 2.93 | 1.76 | 4.78 | 0.96 | 2.79 |
| All Non Institutional Sources | 98.14 | 87.47 | 87.76 | 79.38 | 68.84 | 85.30 |
| All Sources | 100.00 (281.45) | 100.00 (412.51) | 100.00 (163.94) | 100.00 (169.99) | 100.00 (239.14) | 100.00 (1267.04) |

Note:   Figures in parenthesis are absolute amounts in millions of Rupees.

APPENDIX 4.2

PERCENTAGE DISTRIBUTION OF TOTAL BORROWING BY SOURCE FOR OWNER-CUM-TENANT HOUSEHOLDS FOR EACH SIZE OF FARM CATEGORY (%)

| Source | < 5 | 5 - 15 | 15 - 25 | 25 - 50 | > 50 | All Owner-cum-Tenant Farms |
|---|---|---|---|---|---|---|
| 1. Cooperative Societies | 0.53 | 0.54 | 1.19 | 1.49 | 0.98 | 0.87 |
| 2. Cooperative Banks | 0.07 | 0.02 | 0.00 | 0.56 | 1.92 | 0.36 |
| 3. Agricultural Development Bank of Pakistan | 0.03 | 0.89 | 1.07 | 4.10 | 15.18 | 3.29 |
| 4. Commercial Banks | 0.26 | 0.29 | 0.19 | 0.10 | 5.95 | 1.01 |
| 5. Taccavi Loans | 0.03 | 0.21 | 0.40 | 0.75 | 0.66 | 0.37 |
| 6. Other Government and Semi Goverment | 0.57 | 0.24 | 0.07 | 0.00 | 0.24 | 0.20 |
| All Institutional Sources | 1.49 | 2.19 | 2.92 | 7.00 | 24.93 | 6.10 |
| 1. Friends and Relatives | 73.88 | 74.18 | 73.83 | 65.88 | 45.36 | 68.89 |
| 2. Professional Money Lenders | 3.23 | 3.04 | 0.80 | 1.07 | 1.41 | 2.11 |
| 3. Land Owners | 1.49 | 5.23 | 7.50 | 7.93 | 3.00 | 5.42 |
| 4. Commission Agents and Merchants | 11.87 | 9.38 | 13.17 | 14.53 | 21.60 | 12.78 |
| 5. Factories | 0.00 | 0.04 | 0.25 | 0.27 | 2.24 | 0.41 |
| 6. Others | 8.03 | 5.93 | 1.53 | 3.32 | 1.47 | 4.29 |
| All Non Institutional Sources | 98.51 | 97.81 | 97.08 | 93.00 | 75.07 | 93.90 |
| All Sources | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (54.65) | (254.15) | (110.66) | (91.21) | (80.45) | (591.93) |

Note:   Figures in parenthesis are actual amounts in Rupees.

APPENDIX 4.3

PERCENTAGE DISTRIBUTION OF TOTAL BORROWING BY SOURCE IN TENANT FARMS FOR EACH SIZE OF FARM CATEGORY (%)

| Source | < 5 | 5 - 15 | 15 - 25 | 25 - 50 | > 50 | All Tenant Farms |
|---|---|---|---|---|---|---|
| 1. Cooperative Societies | 0.17 | 0.77 | 0.54 | 0.26 | 1.11 | 0.61 |
| 2. Cooperative Banks | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.17 |
| 3. Agricultural Development of Pakistan | 0.01 | 0.95 | 0.45 | 0.39 | 10.47 | 1.04 |
| 4. Commercial Banks | 0.01 | 1.30 | 0.00 | 0.03 | 4.90 | 0.91 |
| 5. Taccavi Loans | 0.14 | 0.09 | 0.20 | 0.07 | 0.39 | 0.13 |
| 6. Other Government and Semi Government | 0.10 | 0.22 | 0.03 | 0.07 | 0.60 | 0.17 |
| All Institutional Sources | 0.43 | 3.39 | 1.22 | 0.82 | 17.47 | 3.03 |
| 1. Friends and Relatives | 65.84 | 49.40 | 40.57 | 56.39 | 32.22 | 50.09 |
| 2. Professional Money Lenders | 3.75 | 1.36 | 1.17 | 2.67 | 2.90 | 1.85 |
| 3. Land Owners | 18.08 | 47.79 | 48.79 | 25.68 | 11.20 | 34.88 |
| 4. Commission Agents and Merchants | 8.51 | 6.34 | 7.09 | 11.96 | 7.75 | 7.34 |
| 5. Factories | 0.00 | 0.04 | 0.12 | 0.22 | 1.52 | 0.12 |
| 6. Others | 3.38 | 1.68 | 1.04 | 2.26 | 23.38 | 2.17 |
| All Non Institutional Sources | 99.57 | 96.61 | 98.78 | 99.18 | 82.53 | 96.17 |
| All Sources | 100.00 (86.38) | 100.00 (323.84) | 100.00 (110.10) | 100.00 (51.57) | 100.00 (23.31) | 100.00 (595.20) |

Note: Figures in parenthesis are actual amounts in millions of Rupees.

APPENDIX 6.1    PERCENTAGE DISTRIBUTION OF BORROWERS BY PURPOSE IN EACH SIZE OF FARM CATEGORY FOR OWNER FARMS

| Purpose | | Size in Acres | | | | | All Sizes |
|---|---|---|---|---|---|---|---|
| | Under 5 | 5-15 | 15-25 | 25-50 | Over 50 | | |
| 1. Purchase of land | 4.76 | 6.98 | 10.63 | 7.93 | 7.83 | | 7.25 |
| 2. Land levelling and improvement | 2.50 | 5.60 | 5.82 | 6.16 | 6.58 | | 5.21 |
| 3. Well sinking/Persian wheels | 0.14 | 0.79 | 0.85 | 0.61 | 0.82 | | 0.63 |
| 4. Purchase/installation of tubewells & handpumps | 1.42 | 6.30 | 8.07 | 3.56 | 8.85 | | 5.50 |
| 5. Purchase of tractors | 1.01 | 3.96 | 1.43 | 6.73 | 14.21 | | 5.25 |
| 6. Purchase of tractor drawn machinery/implements | 0.08 | 0.16 | 0.13 | 0.93 | 2.67 | | 0.70 |
| 7. Purchase of non-mechanised agricultural implements including bullock carts | 0.17 | 0.36 | 0.48 | 0.20 | 0.31 | | 0.30 |
| 8. Purchase of bullocks | 4.05 | 7.27 | 8.07 | 4.17 | 3.33 | | 5.49 |
| 9. Purchase of other animals | 6.52 | 6.76 | 5.88 | 2.49 | 1.81 | | 5.06 |
| Sub Total: Capital Expenditure | 20.65 | 38.18 | 41.36 | 32.78 | 46.41 | | 35.39 |
| 1. Hire of agricultural machinery | 0.40 | 0.52 | 0.79 | 0.62 | 1.03 | | 0.63 |
| 2. Purchase of seeds and plants | 0.73 | 1.18 | 3.30 | 2.00 | 2.13 | | 1.68 |
| 3. Purchase of fertilisers | 0.91 | 2.20 | 4.47 | 3.76 | 6.08 | | 3.14 |
| 4. Plant protection | – | 0.01 | 0.06 | 0.01 | 0.03 | | 0.02 |
| 5. Payment of land revenue and water charges | 0.27 | 0.45 | 1.99 | 0.99 | 0.57 | | 0.71 |
| 6. Payment of wages | 0.39 | 0.24 | 0.77 | 0.40 | 0.35 | | 0.39 |
| 7. Product marketing, storage & transportation | 0.01 | – | – | 0.01 | 0.08 | | 0.02 |
| Sub Total: Current On Farm Expenditure | 2.71 | 4.60 | 11.38 | 7.79 | 10.45 | | 6.59 |
| 1. Marriages, births, deaths | 14.19 | 13.63 | 10.50 | 7.32 | 4.36 | | 10.73 |
| 2. Normal Consumption Expenditure | 24.96 | 18.45 | 16.29 | 29.36 | 12.65 | | 20.23 |
| Sub Total: Family Expenses | 39.15 | 32.08 | 26.79 | 36.68 | 17.01 | | 30.96 |
| 1. Trading | 15.12 | 10.14 | 9.57 | 9.41 | 11.36 | | 11.26 |
| 2. Handicrafts | 0.04 | 0.04 | 0.03 | 0.02 | 0.11 | | 0.05 |
| Sub Total: Non Farm Business Expenditure | 15.16 | 10.18 | 9.60 | 9.43 | 11.47 | | 11.31 |
| 1. Payment of previous loans | 2.96 | 2.56 | 2.12 | 2.96 | 0.71 | | 2.32 |
| 2. Other | 19.37 | 12.39 | 8.73 | 10.35 | 13.94 | | 13.42 |
| Sub Total: Miscellaneous | 22.33 | 14.95 | 10.85 | 13.31 | 14.65 | | 15.74 |
| GRAND TOTAL: All Purposes | 100.00 (273.92) | 100.00 (406.06) | 100.00 (158.35) | 100.00 (192.13) | 100.00 (223.98) | | 100.00 (1254.44) |

APPENDIX 6.2: PERCENTAGE DISTRIBUTION OF BORROWING BY PURPOSE IN EACH SIZE OF FARM CATEGORY FOR OWNER-CUM-TENANT FARMS

| Purpose | | Under 5 | 5-15 | Size in Acres 15-25 | 25-30 | Over 50 | All sizes |
|---|---|---|---|---|---|---|---|
| 1. | Purchase of land | 9.38 | 7.70 | 9.43 | 12.14 | 14.56 | 9.78 |
| 2. | Land levelling and improvement | 1.03 | 1.55 | 3.02 | 2.65 | 4.66 | 2.35 |
| 3. | Well sinking/Persian wheels | 0.94 | 0.65 | 1.19 | 0.02 | 0.21 | 0.63 |
| 4. | Purchase/installation of tubewell & handpumps | 2.35 | 3.58 | 4.48 | 10.55 | 8.19 | 5.32 |
| 5. | Purchase of tractors | - | - | 0.06 | 0.31 | 8.41 | 1.16 |
| 6. | Purchase of tractor drawn machinery/implements | - | 0.07 | 0.28 | 0.63 | 1.32 | 0.35 |
| 7. | Purchase of non-mechanised agricultural implements including bullock carts | 0.40 | 0.20 | 0.01 | 0.11 | 0.19 | 0.17 |
| 8. | Purchase of bullocks | 7.08 | 13.00 | 14.16 | 8.89 | 4.21 | 10.85 |
| 9. | Purchase of other animals | 11.11 | 9.37 | 9.80 | 6.40 | 3.48 | 8.38 |
| | Sub Total: Capital Expenditure | 32.29 | 36.12 | 42.43 | 35.30 | 45.23 | 38.99 |
| 1. | Hire of Agricultural Machinery | 0.18 | 0.37 | 0.18 | 0.63 | 0.85 | 0.42 |
| 2. | Purchase of seeds and plants | 1.99 | 1.88 | 3.87 | 4.66 | 5.69 | 3.20 |
| 3. | Purchase of fertilisers | 2.57 | 3.07 | 4.49 | 5.94 | 8.56 | 4.46 |
| 4. | Plant protection | - | 0.05 | 0.09 | - | 0.03 | 0.04 |
| 5. | Payment of land revenue and water charges | 0.13 | 0.54 | 0.97 | 0.97 | 1.01 | 0.71 |
| 6. | Payment of wages | 0.90 | 0.50 | 0.33 | 0.50 | 0.38 | 0.49 |
| 7. | Product marketing, storage & transportation | - | - | 0.01 | 0.01 | 0.02 | 0.01 |
| | Sub Total: Current On Farm Expenditure | 5.77 | 6.41 | 8.97 | 12.71 | 16.53 | 9.33 |
| 1. | Marriages, births, deaths | 14.02 | 16.50 | 11.91 | 13.01 | 3.08 | 13.10 |
| 2. | Normal consumption expenditure | 30.26 | 22.42 | 23.90 | 14.39 | 10.26 | 20.60 |
| | Sub Total: Family Expenses | 44.28 | 38.92 | 35.81 | 27.40 | 13.34 | 33.70 |
| 1. | Trading | 3.02 | 2.52 | 3.47 | 6.85 | 6.73 | 3.98 |
| 2. | Handicrafts | - | 0.20 | 0.22 | - | 0.01 | 0.13 |
| | Sub Total: Non Farm Business Expenditure | 3.02 | 2.72 | 3.69 | 6.85 | 6.74 | 4.11 |
| 1. | Payment of previous loans | 1.30 | 2.20 | 0.51 | 0.98 | 0.76 | 1.42 |
| 2. | Other | 13.34 | 13.64 | 7.63 | 10.33 | 17.40 | 12.46 |
| | Sub Total: Miscellaneous | 14.64 | 15.84 | 8.14 | 11.31 | 18.16 | 13.88 |
| | GRAND TOTAL: All Purposes | 100.00 (55.78) | 100.00 (250.46) | 100.00 (108.91) | 100.00 (90.69) | 100.00 (76.40) | 100.00 (582.24) |

APPENDIX 6.3:  PERCENTAGE DISTRIBUTION OF BORROWING BY PURPOSE IN EACH SIZE OF FARM CATEGORY FOR TENANT FARMS

| Purpose | Under 5 | 5-15 | 15-25 | 25-30 | Over 50 | All Sizes |
|---|---|---|---|---|---|---|
| | | | Size in Acres | | | |
| 1. Purchase of land | 0.40 | 1.16 | 0.47 | 1.57 | 1.27 | 0.96 |
| 2. Land levelling and improvement | 0.29 | 0.73 | 1.30 | 3.37 | 3.93 | 1.11 |
| 3. Well sinking/Persian wheels | - | 0.13 | 0.07 | 0.03 | 0.39 | 0.10 |
| 4. Purchase/installation of tubewells & handpumps | 0.29 | 0.41 | 0.47 | 1.49 | 1.43 | 0.53 |
| 5. Purchase of tractors | 0.36 | 0.42 | - | 1.63 | 7.26 | 0.67 |
| 6. Purchase of tractor drawn machinery/implements | 0.01 | 0.02 | - | 0.98 | 0.85 | 0.13 |
| 7. Purchase of non-mechanised agricultural implements including bullock carts | 0.41 | 0.24 | 0.39 | 0.36 | 0.37 | 0.31 |
| 8. Purchase of bullocks | 10.07 | 16.91 | 13.85 | 15.24 | 6.80 | 14.84 |
| 9. Purchase of other animals | 12.87 | 8.61 | 6.99 | 2.15 | 3.15 | 8.84 |
| Sub Total: Capital Expenditure | 24.66 | 28.63 | 23.54 | 26.82 | 25.45 | 27.49 |
| 1. Hire of agricultural machinery | 0.20 | 0.30 | 0.43 | 0.90 | 1.38 | 0.40 |
| 2. Purchase of seeds and plants | 1.57 | 4.24 | 5.71 | 5.94 | 5.46 | 4.30 |
| 3. Purchase of fertilisers | 3.67 | 5.87 | 7.57 | 6.80 | 9.66 | 6.07 |
| 4. Plant protection | - | 0.04 | 0.07 | - | 0.02 | 0.04 |
| 5. Payment of land revenue and water charges | 0.21 | 0.41 | 0.88 | 1.52 | 0.20 | 0.56 |
| 6. Payment of wages | 0.84 | 0.85 | 1.42 | 0.33 | 0.62 | 0.90 |
| 7. Product marketing, storage & transportation | 0.01 | 0.02 | - | 0.01 | 0.01 | 0.02 |
| Sub Total: Current On Farm Expenditure | 6.50 | 11.73 | 16.08 | 15.50 | 17.35 | 12.29 |
| 1. Marriages, births, deaths | 10.86 | 14.14 | 15.13 | 12.67 | 6.13 | 13.43 |
| 2. Normal Consumption Expenditure | 33.82 | 30.74 | 31.02 | 23.93 | 17.89 | 30.21 |
| Sub Total: Family Expenses | 44.68 | 44.88 | 46.15 | 36.60 | 30.05 | 43.64 |
| 1. Trading | 6.62 | 2.25 | 0.93 | 2.33 | 20.87 | 3.29 |
| 2. Handicrafts | - | 0.18 | 0.16 | - | - | 0.13 |
| Sub Total: Non Farm Business Expenditure | 6.62 | 2.43 | 1.09 | 2.33 | 20.87 | 3.42 |
| 1. Payment of previous loans | 1.02 | 1.75 | 2.29 | 1.50 | 2.12 | 1.73 |
| 2. Other | 16.52 | 10.55 | 10.87 | 9.47 | 11.20 | 11.43 |
| Sub Total: Miscellaneous | 17.54 | 12.30 | 13.16 | 10.97 | 13.22 | 13.16 |
| GRAND TOTAL; All Purposes | 100.00 (84.36) | 100.00 (306.52) | 100.00 (103.98) | 100.00 (50.52) | 100.00 (18.85) | 100.00 (564.23) |