CHAPTER – V

EFFECTIVENESS OF KCC

5.1 Awareness of KCC

The present chapter addresses the efficacy of KCC as an efficient, timely and hassle free credit delivery mechanism to agriculture. As a part of the study, a total of 469 KCC holders were interviewed to ascertain their viewpoints. These field visits had brought out several important findings, which could have a bearing on the future policy in this regard. These findings also help in speeding up the progress of implementation by highlighting the operational difficulties. The chapter devotes to deliberate on the feedback collected through a semi-structured questionnaire from 469 sample KCC holders.

Table 5.1

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Agencies</th>
<th>Agency – wise</th>
<th>Sample farmers</th>
<th>Yes</th>
<th>percent</th>
<th>No</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CBs</td>
<td></td>
<td>133</td>
<td>116</td>
<td>87.24</td>
<td>17</td>
<td>12.76</td>
</tr>
<tr>
<td>2.</td>
<td>Co-op</td>
<td></td>
<td>194</td>
<td>142</td>
<td>73.45</td>
<td>52</td>
<td>26.55</td>
</tr>
<tr>
<td>3.</td>
<td>Other Banks</td>
<td></td>
<td>142</td>
<td>121</td>
<td>85.19</td>
<td>21</td>
<td>14.81</td>
</tr>
</tbody>
</table>

Total 469 379 80.92 90 19.08

Source: Primary Data
Land Holding Size-wise (in Ha.)

<table>
<thead>
<tr>
<th></th>
<th>&lt; 1.00</th>
<th>1.01-2.50</th>
<th>2.50-5.00</th>
<th>5.01-10.00</th>
<th>&gt;10.01</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>46</td>
<td>99</td>
<td>143</td>
<td>124</td>
<td>58</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>74</td>
<td>122</td>
<td>100</td>
<td>52</td>
</tr>
<tr>
<td>3</td>
<td>69.40</td>
<td>74.82</td>
<td>84.98</td>
<td>80.77</td>
<td>90.55</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>25</td>
<td>21</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>30.60</td>
<td>25.18</td>
<td>15.02</td>
<td>19.23</td>
<td>9.45</td>
</tr>
<tr>
<td></td>
<td>469</td>
<td>379</td>
<td>80.92</td>
<td>90</td>
<td>19.08</td>
</tr>
</tbody>
</table>

Source: Primary Data

About 19 percent of the sample KCC holders were not aware of the modalities, usefulness/benefits of KCC scheme (Table 5.1). Farmers have been issued KCC and sanctioned limits under KCC, but they were not aware of its positive aspects, like, revolving cash credit facility (RCCF) involving any number of drawals and repayments, credit limits for full year including ancillary activities related to crop production and other NFS activities, sub limit for consumption purposes, etc. Agency-wise, 26 percent sample KCC holders of Coop banks were not aware of the utilities of KCC, while it was 12 percent and 14 percent for Commercial banks and other banks respectively. Similarly, land holding size-wise, 30 percent of marginal farmers (<1.00 ha.) and 25 percent of small farmers (1.01-2.50 ha.) were not aware of the utilities of KCC. All these emphasised that there was hardly any effort from the bank branch/PACS side to create awareness at the ground level so as to reap the
benefits of KCC to its maximum extent. Particularly small/marginal farmers who are mostly not well versed with banking practices need to be educated on the usages of KCC.

5.2 Coverage of New farmers

**Figure 4**

**Coverage of New Farmers under KCC Scheme**

Source: Primary Data

Categorising sample KCC holders in terms of extent of period of holding of KCC revealed that majority of KCC holders (31 percent) were availing the facilities of KCC since last nine years (Fig 4). About 20 percent
were availing KCC since last seven years. Similarly, about 17 percent, 13 percent, 11 percent, 8 percent were using KCC since last five, four, three, two years, respectively, which implied that every year certain percentage of new farmers were being brought to the KCC fold particularly more prominent during doubling of credit programme (2008-09 to 2009-10) as per the target prescribed by the controlling/head office of the bank. It can also be deduced that quite a significant number of new borrowers had been demanding KCC every year due to its flexibility in usage and other utilities like, flexible drawals, flexible repayment patterns, coverage under NAIS/PAIS, minimum margin/ security norms, etc. Effective publicity and continuous monitoring at the DLCC/BLCC level as also at the level of Controlling/Regional Offices at the district and state level might also have contributed to the larger coverage of new farmers every passing year by the banks.
5.3 Adequacy of Credit

Table 5.2
Adequacy of Credit

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Agencies</th>
<th>Agency – wise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sample farmers</td>
</tr>
<tr>
<td>1.</td>
<td>CBs</td>
<td>131</td>
</tr>
<tr>
<td>2.</td>
<td>Co-op</td>
<td>191</td>
</tr>
<tr>
<td>3.</td>
<td>Other Banks</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>469</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data

Land Holding Size-wise (in Ha.)

<table>
<thead>
<tr>
<th>No.</th>
<th>Size</th>
<th>Sample farmers</th>
<th>Yes</th>
<th>percent</th>
<th>No</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt; 1.00</td>
<td>44</td>
<td>16</td>
<td>35.4</td>
<td>29</td>
<td>64.6</td>
</tr>
<tr>
<td>2</td>
<td>1.01-2.50</td>
<td>99</td>
<td>39</td>
<td>39.6</td>
<td>60</td>
<td>60.4</td>
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<tr>
<td>3</td>
<td>2.50-5.00</td>
<td>144</td>
<td>82</td>
<td>57.1</td>
<td>61</td>
<td>42.9</td>
</tr>
<tr>
<td>4</td>
<td>5.01-10.00</td>
<td>124</td>
<td>74</td>
<td>59.8</td>
<td>50</td>
<td>40.2</td>
</tr>
<tr>
<td>5</td>
<td>&gt;10.01</td>
<td>56</td>
<td>33</td>
<td>56.5</td>
<td>25</td>
<td>43.5</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>469</strong></td>
<td><strong>244</strong></td>
<td><strong>52.0</strong></td>
<td><strong>225</strong></td>
<td><strong>48.0</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data

The KCC scheme envisaged that all the ST credit needs of the farmers including crop loan and other production credit/
working capital/ short-term requirements for non-farm activities need to be covered under KCC. As per guidelines, the KCC holder need to be ensured that he gets adequate credit to meet all of his short term needs through the single window of KCC. However, the study revealed that, 48 percent of the sample KCC holders, felt that the credit limits sanctioned to them under KCC were not adequate (Table 5.2). Agency-wise, majority KCC holders from Co-op. Banks (60.4 percent) conveyed their apprehensions on inadequacy of credit followed by other banks (44.3 percent) and commercial banks (33.8 percent). Land holding size-wise, while about 60.4 - 64.6 percent of small and marginal farmers opined that credit limit sanctioned under KCC was inadequate; the same was about 40.2 - 43.5 percent in case of medium and large farmers. Some of the farmers felt that the scales of finance for different crops fixed by District Level Technical Committee (DLTC), in which cooperative banks had a major say, were on lower side.
### Table 5.3

**Inadequacy of Credit: Limit Sanctioned vs. Scale of Finance**

<table>
<thead>
<tr>
<th>Crop / Agencies</th>
<th>Limit Sanctd. / Acre (Rs.)</th>
<th>Scales of Finance (Rs.)</th>
<th>Deficit (-)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddy</td>
<td>8500 – 9500</td>
<td>10500 – 13500</td>
<td>2000 – 4000</td>
<td>19 – 29</td>
</tr>
<tr>
<td>Co-op</td>
<td>6300 – 6500</td>
<td>10500 – 13500</td>
<td>4200 – 7000</td>
<td>40 – 52</td>
</tr>
<tr>
<td>CB</td>
<td>10300 – 12500</td>
<td>10500 – 13500</td>
<td>200 – 1000</td>
<td>2 – 7</td>
</tr>
<tr>
<td>Other Banks</td>
<td>9500-10500</td>
<td>10500-13500</td>
<td>100-300</td>
<td>9-22</td>
</tr>
</tbody>
</table>

Source: Primary Data

The DLTC is the body having representatives from all major banks including cooperative banks and government departments at the district level. The study revealed that no agency including Co-op. bank had been strictly following the scales of finance (SoF). While the SoF has been fixed at Rs.10,500 – Rs. 13,500 for paddy, limit sanctioned under KCC across all the agencies was much less (Rs.8,500-9500). Limit sanctioned as compared to SoF was less by 19-29 percent (Table 5.3).

Agency-wise, limit sanctioned for both the crops was much lower in case of Co-op. as compared to commercial bank. Further, as envisaged, KCC was to meet the short-term credit need of the farmers for purposes other than
raising the crops. However, no agency/bank had been providing such limits while sanctioning the credit limit to farmers under KCC. Perhaps this could be, as viewed by co-operatives, due to the fact that NABARD refinance for seasonal agricultural operations covers only the loans for crops and other part of the limit has to be met out of their own resources by the cooperative banks. The weak resource position of cooperative banks did not permit this. This is a policy issue deserving consideration by NABARD. As against this, the study also showed that commercial banks and other banks had also not been sanctioning short-term credit for non-crop purposes regularly, which need to be looked into. Commercial banks viewed that they have been sanctioning 10-20 percent more over and above what has been sanctioned on the KCC crop limit as consumption component. However, as observed from the above Table, no extra limit has been sanctioned on the KCC crop limit.

5.4 Operational Flexibility

One of the objectives of KCC was to provide flexibility in operation of the credit limit sanctioned to the farmer. Flexibility could be in terms of issuing cheque books, ATM cards specifically for KCC limit, permitting KCC holders to draw cash from branches other than the card issuing branch. With allowing such facilities, the farmer could purchase inputs from the taluka, block or district head quarters and take the advantage of competitive prices of
inputs. However, no bank branches/ cooperatives had extended this facility to their cardholders.

Figure 5
Operational Frequency of KCC by Sample KCC Holders

Source: Primary Data

Further, it was expected that KCC would provide adequate credit to meet all of the needs as also provide flexibility to draw and repay as and when needed depending upon his cash flow. Frequent transactions would effectively reduce the outstanding loans thereby lowering the interest paid. The data collected and the interaction held with the bankers/KCC holders during the study indicated that the KCC was being used as one shot operation and not as number of times sanctioning of limit, more numbers of withdrawals/deposits as originally envisaged. It failed to become a cash credit (CC) product and most of the KCC holders are deprived of the benefit of interest rate for them.
Majority of farmers (68 percent) had not gone for frequent operations on the limit sanctioned to them under the card and withdrew the sanctioned KCC limit at one go (Fig 5). Further, 11 percent and 21 percent KCC holders had operated the KCC limit twice and more than twice, respectively.

This has been mostly attributed to lack of awareness at the farmers level. Farmers opined that they got this loan sanctioned with much complicated documentations and do not want to come again to the bank to face the same procedure to withdraw the loan. Secondly, some of the farmers who had surplus amount but did not deposit it in the KCC account were under the impression that they would not get any interest on credit balance. Their fears were mostly due to ignorance about the instructions in this regard as most of the banks had issued instruction to their branches to provide interest on the credit balance in the KCC cash credit account. Thirdly, it was observed that bankers also knowingly did not create the awareness among the farmers as credit balance in the account means frequent withdrawal by the farmer resulting in additional transaction cost to the bankers in terms of devoting time and money. Further, bank would lose interest income in the credit balance in the KCC account.
5.5 Credit Usage

The study revealed that the average loan disbursed was utilized both for consumption and for buying inputs for application in agriculture. As per KCC guidelines, banks had followed a flexible/liberal approach regarding the monitoring the end use like not insisting on documentary proofs of purchase of inputs etc. The observations from the field indicated that all the farmers had used the major portion of their average loan disbursed for financing their expenses on raising the crops. About 17 percent of the credit limit sanctioned under KCC was being used for non-production (consumption) purposes. Agency-wise, sample KCC holders from Cooperative Banks had utilised about 6 percent of their average loan disbursed for consumption purposes, as against 18-20 percent in case of both commercial banks and Other banks (Table 5.4). Land holding size-wise, small/marginal farmers (29-30 percent) used larger portion of average loan disbursed for non-production purposes as against medium/large farmers (16-25 percent).

This finding calls for an immediate policy action that irrespective of agencies, all need to enhance their KCC limit at least by 20-25 percent so that to accommodate partially the consumption expenditure by the KCC holders. As per guidelines, KCC limit had the provision of sanction of certain amount to meet the cash outflows on consumption expenses. While commercial banks claimed that they have been sanctioned 10-20 percent more on KCC limit to
meet the cash outflows on consumption expenses, SGB had issued guidelines to all branches to enhance the same by 10 percent. However, out of four SGB branches studied, one branch had not sanctioned any enhanced limit for consumption purposes. However, the study had not come across any complete misutilisation/diversion of the credit facility given under the KCC.

5.6 Documentation Processes

The farmers expressed some relief in terms of sanctioning credit limit once in 3 years and drawing the limit once in a year. But, they had some concern relating to sanctioning of credit limit particularly by the cooperatives. The documentation required has to be simplified in such a manner that they should make limited number of visits to the revenue officials, Secretary of PACS. The Secretary of PACS after receiving an application along with the certificate from VRO containing the survey number etc. in respect of the land of the farmers awaits for other farmers to prepare a Normal Credit Limit Application (NCLA) to be submitted to the DCCB. The secretary prepares the NCLA for all the eligible farmers in the village/s and then submits to the DCCB. The DCCB sanctions the same in the light of the resource available with them and the eligibility of the PACS. The process takes about a month. However, to meet his requirement the farmers avails loan from moneylender or other private source with high rate of interest. If the loan exceeds
Rs.50,000 or the farmer is sanctioned a special loan then the PACS insists on the title deed, EC and mortgage to be registered at the sub register office.

Table 5.4
Utilisation of KCC Limit for Production and Consumption purposes – Agency-wise/Land Holding Size-wise

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the Agencies</th>
<th>Sample farmers</th>
<th>Avg. Loan Disb. (Rs.)</th>
<th>Use for Crop Prod. (Rs.)</th>
<th>Use for Cosn. (Rs.)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CBs</td>
<td>130.75</td>
<td>25575</td>
<td>20350</td>
<td>5225</td>
<td>20.4</td>
</tr>
<tr>
<td>2.</td>
<td>Others</td>
<td>146.75</td>
<td>25300</td>
<td>20700</td>
<td>4600</td>
<td>18.2</td>
</tr>
<tr>
<td>3.</td>
<td>Co-op</td>
<td>191.5</td>
<td>9650</td>
<td>9050</td>
<td>600</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>469</strong></td>
<td><strong>20175</strong></td>
<td><strong>16700</strong></td>
<td><strong>3475</strong></td>
<td><strong>17.2</strong></td>
</tr>
</tbody>
</table>

Source: Primary Data

Land Holding Size-wise (in Ha.)

<table>
<thead>
<tr>
<th></th>
<th>&lt; 1.00</th>
<th>1.01-2.50</th>
<th>2.50-5.00</th>
<th>5.01-10.00</th>
<th>&gt;10.01</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44.5</td>
<td>99</td>
<td>143.5</td>
<td>124.5</td>
<td>57.5</td>
<td>469</td>
</tr>
<tr>
<td>2</td>
<td>2450</td>
<td>5375</td>
<td>11300</td>
<td>26300</td>
<td>55450</td>
<td>20175</td>
</tr>
<tr>
<td>3</td>
<td>1775</td>
<td>3900</td>
<td>8275</td>
<td>21450</td>
<td>50400</td>
<td>16700</td>
</tr>
<tr>
<td>4</td>
<td>675</td>
<td>1475</td>
<td>3025</td>
<td>4850</td>
<td>5050</td>
<td>3475</td>
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<tr>
<td>5</td>
<td>27.6</td>
<td>27.4</td>
<td>26.8</td>
<td>18.4</td>
<td>9.1</td>
<td>17.2</td>
</tr>
</tbody>
</table>

Source: Primary Data

In case of other banks, crop loan through KCC up to Rs.50,000 was relatively hassle free but the documentation is still elaborate. The study team came across that an application for a loan below Rs.50,000 required the
application form, photograph, asset liability statement of the borrower, Demand Promissory Note (DPN), Agreement for hypothecation, letter of authorization, documents delivery letter, consent letter from borrower for disclosure of information, photo identity card, copy of ration card, VRO certificate on cropping pattern, no due certificate and original or copy of Pattadar Pass Book (PPB). If the limit is beyond Rs.50,000 the registered title deed, Non Encumbrance certificate, legal opinion, valuation report, stamping of hypothecation @ 0.5 percent of the loan if the land exceeds 5.0 acres, stamping for mortgage at 0.5 percent, for registered mortgage stamping at 3.0 percent, etc. were required. Therefore, other banks may release the loan up to Rs50,000 within a day or two once the complete application is received and the documentation is simplified so as to make it hassle free. The loan beyond Rs.50,000 is definitely not hassle free as the security in the form of mortgage and EC are time consuming involving several visits to the revenue officials, banks, etc., resulting in loss of man days and consequent high transaction cost for the borrower.
5.7 Farmers’ Perceptions

**Figure 6**
Perception on KCC as a Hassle Free Card- Overall

![Pie chart showing perception]

Source: Primary Data

**Figure 7**
Perception on KCC as a Hassle Free Card-Agency-wise

![Bar chart showing agency-wise perception]

Source: Primary Data

Sample KCC Holders were asked about their perceptions on KCC as a hassle free card. 78 percent of the total sample respondents responded that KCC was truly a hassle free card (Fig. 7). Agency-wise, majority of KCC holders from commercial banks (81 percent) viewed that KCC was hassle free
followed by Co-operative Banks (68 percent). During the interaction with the farmers it was gathered that KCC holders got some relief in terms of sanctioning credit limit once in three years and drawing the limit once in a year. However, if observed closely, the view was quite paradoxical, if compared to their response regarding awareness on KCC as also on adequacy of KCC limit. Respondents viewed that as compared to the pre KCC situation, two reasons were responsible for making KCC a hassle free credit delivery system. They had experienced flexibility and simplicity in availing credit, utilising the same in their own way they liked and repaying the KCC limit sanctioned under KCC.

5.8 Purchase of Inputs

The perceptions of KCC holders on the utility of the KCC credit limit in inputs purchase was ascertained from the respondents. Majority of respondents (76 percent) were of the opinion that the KCC was extremely useful in regards to reduced cost of accessing credit as compared to the earlier system of crop delivery system.

- Firstly, they had the freedom to utilise the limit sanctioned under KCC as banks did not insist to lift a portion of limit on kind.
- Secondly, they buy the inputs like fertilisers and chemicals as and when they wish.
Thirdly, farmers had the more bargaining power as they were paying the prices in cash. They also had a wider choice in selecting shops /dealers.

Fourthly, they were not required to obtain bills /receipts as a documentary proof against buying inputs which were necessary in the earlier system.

5.9 Tenure of KCC

Presently, the KCC is valid for three years. The credit limit sanctioned in the current year, was renewed next year with a 10 percent increase in the limit sanctioned. There was no requirement of approaching the bank with fresh application along with documentation. Farmers were asked about their opinion on increasing the validity of KCC to five years. The feedback received from the farmers and bankers regarding increasing the tenure of KCC to 5 years from its present tenure of 3 years was quite positive. However, there were a few operational issues involved in this regard. They were like, the application of law of limitation i.e. the documents become time barred after 3 years of date of disbursement of the loan, upward revision of limit in the light of the revision in scale of finance. However, increasing the tenure into 5 years would save the man-days and cost as well. About 118 KCC holders constituting 80 percent of the total responded positively to the proposal of increasing the validity of KCC to five years (Fig 5.4 (a). Rest 20
percent were apprehensive of the proposal of raising the validity to five years. They were hesitant as they were doubtful on the role of a long tenure KCC on annual renewals, costs involved, role of new KCC in increased cost of cultivation/Scales of finance, changes in cropping pattern, etc. Agency-wise, majority of farmers from other banks (26 percent) were not in favour of a long tenure KCC (Fig 8).

**Figure 8**

*Overall Perceptions on increasing the Tenure of KCC to Five Years*

![Pie chart showing overall perceptions on increasing the tenure of KCC to five years.](image)

Source: Primary Data

**Figure 9**

*Agency-wise Perceptions on increasing the Tenure of KCC*

![Pie chart showing agency-wise perceptions on increasing the tenure of KCC.](image)

Source: Primary Data
5.10 Overall Efficacy/Benefits of KCC

Farmers viewed that KCC was beneficial to them in more than one way. The KCC holders got benefits like, (i) meeting credit requirements for crop cultivation for the whole year, (ii) availability of credit whenever the credit is needed, (iii) flexibility in drawing cash/buying inputs from any supplier of choice, (iv) reduction in quantum of interest due to withdrawal flexibility/repayment, (v) reduction in cost of credit for availing the bank loan, (vi) insurance cover (NAIS/PAIS) at a very low premium rate.

The field study revealed that the KCC scheme was meeting the credit requirement of the KCC holder to a great extent but not adequately. However, by fixing the limit for three years the banks were assuring the farmers credit with no extra hassles of documentation other worries. It was giving the farmer the flexibility to draw/deposit as and when necessary. However, in practice the same had not happened in many banks. The KCC holder was not allowed to draw from any other branch and was not encouraged to draw/deposit number of times in the same branch as the same would jack up the workload for the branch and involved loss of interest to the bank. The farmers were, however, mostly covered under NAIS and PAIS.
Table 5.5

Overall Efficacy of KCC as viewed by Sample KCC Holders

<table>
<thead>
<tr>
<th>No.</th>
<th>Beneficial Parameters</th>
<th>No. of Farmers (in Percentage)</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Savings in annual renewal cost</td>
<td>93</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Timely availability of credit</td>
<td>84</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Hassle free Card</td>
<td>78</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Reduced cost of accessing credit</td>
<td>76</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>Operational flexibility</td>
<td>64</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>Savings in interest changed on KCC</td>
<td>45</td>
<td>7</td>
</tr>
<tr>
<td>7.</td>
<td>Adequate credit</td>
<td>52</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>Hassles free repayments procedure</td>
<td>29</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Primary Data

However, notwithstanding these negative aspects, out of the 469 farmers interviewed, 366 accounting for 78 percent of total sample felt that the KCC was very much farmer friendly. Most important efficiency parameters as viewed by KCC holders in order were as mentioned in the Table 5.5.

5.11 Productivity of Crops, Cost of Cultivation and Gross Value of Output

Sample KCC holders across the States had cultivated one major crop (paddy) by availing crop credit from different agencies. Average productivity
per hectare of this crop taken up by KCC holders was compared with the average yield level of ‘control’ farmers. Control farmers were non KCC holders and tenant farmers who had availed loan from informal sources but not under KCC scheme.

Table 5.6
Productivity of Crop, Cost of Cultivation and Gross Value of Output – Paddy

<table>
<thead>
<tr>
<th>Crop</th>
<th>KCC Holders</th>
<th>Control Group</th>
<th>Difference</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yield of Crops (Qntl./ha.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td>18 – 34</td>
<td>14 - 26</td>
<td>4 - 8</td>
<td>13.3</td>
</tr>
<tr>
<td></td>
<td>Cost of Cultivation (CoC) of Crops (Rs./ha.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td>11100-14500</td>
<td>10500-13000</td>
<td>600-1500</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Value of Output (VoP) of Crops (Rs./ha.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy</td>
<td>17500-31500</td>
<td>13500-25500</td>
<td>4000-6000</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Source: Primary Data

The overall productivity of paddy grown by KCC holders was higher by 13.3 percent as against the yield level by control farmers (Table 5.6). The whole of the yield increase was partly attributed to the credit access through KCC. The adequate application of comparatively higher doses of inputs like fertiliser, manure, pesticide, labour, irrigation waters, etc. by KCC farmers are contributing factors for improvement of yield level.
The cost of cultivation and gross value of output for sample KCC holders per hectare are also presented in Table 5.6. It may be observed from the Table that gross value of output per hectare was higher for paddy (13.3 percent) cultivated by KCC holders as compared to the control farmers. For paddy it was Rs.17,500-31,500 for KCC farmers, as against Rs.13,500-25,500 for control farmers. The corresponding cost of cultivation for paddy Rs.11,100-14,500 (KCC farmers) and Rs.10500-13000 (control farmers), respectively. The cost of cultivation per acre was higher by 7.6 percent for paddy. The cost of cultivation was higher for KCC farmers on account of comparatively higher doses of application of various inputs resulting in higher yield by KCC farmers as compared to the control farmers under paddy crop.

5.12 Real Cost of Credit

The real cost of credit were estimated based on the primary data collected during the study. This cost includes charges on various documents required for sanction of loan, payment of fees for issue of card, seeking legal opinion and opportunity cost of the borrower.
Table 5.7
Various Documentation/Service Charges by PACS, Other Banks and CBs for availing Credit Limit under KCC

(Rs.)

<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Coop. / PACS</th>
<th>Other Banks</th>
<th>CBs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cost of the card</td>
<td>10</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2.</td>
<td>Service charges @</td>
<td>---</td>
<td>250</td>
<td>---</td>
</tr>
<tr>
<td>3.</td>
<td>VRO certificate</td>
<td>100</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Encumbrance Certificate*</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>5.</td>
<td>Legal opinion*</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>6.</td>
<td>Valuation report $</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>7.</td>
<td>Hypothecation (Stamp duty) (percent)*</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>8.</td>
<td>Mortgage (percent)*</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>9.</td>
<td>Registered Mortgage (percent)#</td>
<td>3.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: Primary Data

# for loan amount of >Rs3,00,000, @ for loan amount of >Rs25,000, *for loan amount of >Rs50,000, $ actually it is Rs.200. However, farmers are paying minimum of Rs.1,000.

The documents collected for sanction of loan by most of the banks were:

- Copy of land patta (local name) indicating the ownership of the land and the liabilities, land map, land records, cropping pattern, etc. issued by Revenue department (Rs.200).
- ‘Non-Encumbrance Certificate’ for loan >Rs.50,000 (Rs.200).
• Although ‘No Dues Certificate’ (NOC) has been dispensed with, many banks/PACS asked for it from nearby Bank branches (varied from Rs10 to Rs.100 per branch) normally Rs.50-Rs.100 per loan.

• For loan amount above Rs.50,000, which involves legal opinion by the borrower, involving an expenditure of Rs.500 across agencies.

• For loan amount above Rs.50,000, which involves mortgage of land, a declaration in a Form signed by the borrower and with two witnesses (copies sent to Sub registrar and Thasildar) in stamp paper (of Rs.100)

• Mortgage of land for loan above Rs. 25,000 for immovables and Rs. 15,000 for movables (0.5 percent).

• For 10 ha. and above and loan amount of >Rs.5,00,000, registered mortgage (stamp duty @3 percent of loan amount)

• Affidavit declaring about the ownership of land and utilization of loan amount.

• Valuation certificate (actually Rs.200), but farmers are paying a minimum of Rs.1,000).

• Other costs involved included processing charges, inspection charges (mostly by commercial bank), share capital (10 percent of loan in case of PACS), crop insurance (varying depending on crops), Personal Accidental Insurance, etc. Various expenditures on
documentation/service charges for availing credit limit under KCC from PACS, RRB & CBs is as presented in Table 5.7.

5.13 Rate of Interest

Rate of interest charged for loans varied from 7.0 percent to 12.5 percent in case of both commercial banks and RRBs depending upon the loan amounts / slabs. Commercial banks charged 7.0 percent for loan up to Rs.3 lakh and for >3.00 to 5.00 it was BPLR + 0.50 percent and for >5.00, it was BPLR + 1.00 percent. However, it varies from bank to bank. PACS charged interest rate @ (7.0 +) percent as mentioned in the registrar. However, if loan is repaid in time and is not overdue they charged @ 7.0 percent.

Table 5.8

Effective Rate of Interest for Availing Loans

(in percentage)

<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Rs. 25000</th>
<th>Rs.25001-50000</th>
<th>Rs &gt; Rs. 50000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Commercial Banks</td>
<td>7.25 (7.0)</td>
<td>7.50 (7.0)</td>
<td>8.00 (7.0)</td>
</tr>
<tr>
<td>2.</td>
<td>Other Banks</td>
<td>7.50 (7.0)</td>
<td>8.25 (7.0)</td>
<td>8.75 (7.0)</td>
</tr>
<tr>
<td>3.</td>
<td>PACS</td>
<td>8.25 (7.0)</td>
<td>8.75 (7.0)</td>
<td>9.50 (7.0)</td>
</tr>
</tbody>
</table>

Source: Primary Data

Figures in parenthesis refer to nominal interest rates

Loaning operation with PACS was found costly15 as interest and non-interest cost of borrowing worked out to be the highest and ranged from 8.25 to 9.50 across slabs followed by other banks (7.50 – 8.75) and commercial
banks (7.25 – 8.00). Low level of interest rates led to the borrowing from commercial banks as the cheapest among various agencies, covered under the study at 7.25 – 9.50 percent level (Table 5.9). High rate of interest charged by PACS on account of their high cost of fund made their product costly.

As regard charging of interest rate the procedure being followed by the cooperatives leaves lot of scope for improvement. In case of first time member/borrower, a 10 percent share capital was being deducted which means the PACS was charging the rate of interest of 7 percent upfront. Further, the interest subvention benefit was being extended to farmers only if the loan is not due for repayment. If it is overdue, interest was charged at (7 plus) percent from the date of disbursement. If the repayment is not received on the due date, a penal interest of 0.75 percent was being charged.

5.14 Opportunity Cost of the Time Spent

An attempt was made to calculate the opportunity cost for the time spent by the borrowers in the formalities associated with sanctioning of loan for quantification, time spent by the borrowers was valued at par with the wage rate for agricultural labours in the study area.
Table 5.9

Opportunity Cost of time spent for availing loan

<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Com. Banks</th>
<th>Other Banks</th>
<th>CBs</th>
<th>Total weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Delay in sanctioning loan (days)</td>
<td>5.5</td>
<td>7.4</td>
<td>22.5</td>
<td>13.0</td>
</tr>
<tr>
<td>2.</td>
<td>No. of visit to bank for sanction</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td>3.</td>
<td>Time taken per visit (hrs.)</td>
<td>1.8</td>
<td>1.9</td>
<td>0.7</td>
<td>1.5</td>
</tr>
<tr>
<td>4.</td>
<td>Time spent in the process (hrs.)</td>
<td>5.4</td>
<td>6.1</td>
<td>2.5</td>
<td>4.4</td>
</tr>
<tr>
<td>5.</td>
<td>Cost of time spent* (Rs.)</td>
<td>68</td>
<td>76</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>6.</td>
<td>Cost traveling / visit (Rs.)</td>
<td>23</td>
<td>24</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>7.</td>
<td>Total cost for travel (Rs.)</td>
<td>91</td>
<td>100</td>
<td>42</td>
<td>73</td>
</tr>
<tr>
<td>8.</td>
<td>Total cost (Rs.)</td>
<td>182</td>
<td>200</td>
<td>84</td>
<td>146</td>
</tr>
</tbody>
</table>

Source: Primary Data

* valued @ Rs.100 per standard man day (8hrs.)

Time taken in sanctioning of loan after submitting loan application ranged between 20-25 days in Co-operative banks averaged to 22.5 days for the total. (Table 5.9)

Simple formalities involved in sanction and renewal of KCC contributed to most delay in PACS. The results indicated that borrowers in
PACS spent most time but minimum money for completing sanction formalities - Rs.84. when compared to Rs.200 incurred by borrowers who took loan from other banks and Rs.182 for commercial banks loans. For the overall sample, opportunity cost of time spent on formalities was valued at Rs.146. The difference in the cost across agencies was on account of nearness to the bank branches and formalities involved, efficiency and approach of the staff in sanctioning of loans.

5.15 Results and Discussion of Regression Models:

In order to study the determinants of credit requirement under KCC, the study team has applied cross-sectional multiple step-wise regression analysis using data for the 469 sample KCC farmers. Among the explanatory variables, we have taken cost of cultivation, consumption loan, loan for allied sector and Non-farm sector activities. Using dummy variables (KCC holders and Non-KCC holders), the intercept term has been allowed to vary across the cost of cultivation over time, so as to pick up difference in crop productivity. In the regression model, the dependent variables credit requirement is frequently influenced not only by variables that can be readily quantified on some well-defined scale (i.e. cost of cultivation, consumption requirement, loans required for allied sector and Nonfarm sector activities, etc.), but also by variables that are essentially qualitative in nature (i.e. KCC holders and Non-KCC holders). Since such qualitative variables usually indicate the
presence or absence of an attribute (in the present study it is either KCC holders or Non-KCC holders), one method of ‘quantifying’ such attribute is by constructing artificial variables that take on values of 1 or 0, 0 indicating the absence of an attribute and 1 indicating the presence (or possession) of that attribute. Variables that assume such as 0 and 1 value are called dummy variables.

5.16 Analytical Model

The ordinary least square model has been applied to analyse the factors accountable for total credit requirement (aggregate of crop loan, consumption loan and loan required for allied and NFS activities). The functional form of the model in log-linear form is:

$$ CR = f_i(X_{ij}) \text{ or } CR = f_j (COC, CL, LAC) $$

Where i, stands for individual KCC holders; j for exogenous variables; CR = Credit Requirement,

$$ X_j = \text{exogenous variables i.e. cost of cultivation, consumption loan, loan for allied and Non-farm sector} & $$

$$ U_j = \text{random unobserved disturbance with zero mean and a constant variance.} $$

By taking log-linear model the model becomes;
\[ \ln CR = \ln \alpha + \beta_1 \ln COC + \beta_2 \ln CL + \beta_3 \ln LAC + \xi \]

Where, \( \alpha \) = Constant term, \( COC \) = cost of cultivation, \( CL \) = consumption loan, \( LAC \) = loan for allied and Non-farm sector & \( \xi \) = error term

Here the technique of dummy variable has been extended to handle qualitative variable i.e. KCC holders and non-KCC holders.

Now we can write the above function as

\[ CR = \alpha + \beta_1 COC + \beta_2 CL + \beta_3 LAC + \beta_3 D_4 + \xi \]

Where,

\[ D_4 = 1 \text{ if, KCC holders} \]
\[ = 0, \text{ otherwise} \]

In case of ANOVA model, the regression model contains explanatory variable that are exclusively dummy, or qualitative, in nature. For example, we have taken the following model:

\[ Y_i = \alpha_i + \beta_i D_i + \xi_i \]

Where, \( Y = \) Crop yield,

\[ D_i = 1 \text{ if, KCC holders} \]
\[ = 0, \text{ otherwise} \]

The results corresponding to above regression are as follows:

\[ Y_i = 20.30 + 4.69 D_i \]
\[ t = (57.74) \quad (7.439) \quad R^2 = 0.7648 \]
As these results show, the estimated mean yield (Quintals/Hectare) of Non-KCC holders is 20.30 Qtls./Ha. (á) and of KCC holders is 24.99 Qtls./Ha. (á+â). Since âi is statistically significant, the results indicate that the mean yield level of the two categories (KCC holders & Non-KCC holders) is different. If all other variables are held constant, it may be very well concluded that there is a significant difference in the yield level of the two categories. However, the present model is too simple to answer this question definitely, especially in view of the cross-sectional data used in the analysis.

To draw the best-fit regression equation, the study team have adopted the method of stepwise regression. This procedure evaluates each variable in turn on the basis of extent of correlation (Correlation matrix) and accumulates the model by adding variables sequentially. The variable having highest correlation with the dependent variable could be added to the model first, then the second best or so on. Variables are added as long as $R^2$ is increasing. To avoid the problem of multi-collinearity, we dropped many variables from the model and selected only three variables.

Details are given in the Appendix.
Table 5.10
Statistical results of step-wise regression model – sample KCC holders

<table>
<thead>
<tr>
<th>Variables</th>
<th>COC</th>
<th>LAC</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-efficients</td>
<td>0.4329*</td>
<td>0.2142*</td>
<td>0.1339**</td>
</tr>
<tr>
<td>‘t’ value</td>
<td>2.92</td>
<td>2.74</td>
<td>1.98</td>
</tr>
</tbody>
</table>

R² = .9724, R² = .9614, ‘F’ value = 88.19, ‘D’ stat = 2.34 DL = 0.525
DU = 2.016, D.F. = 1872
* Stands for 5percent level of significance. ** Stands for 10percent level of significance

The estimated elasticities17 bi for all the variables with respect to total credit requirement for the sample KCC holders are presented in Table 6.5. It is observed from the table that Cost of Cultivation (0.4329) as a whole influence significantly to the credit requirement compared to other variables, i.e. Consumption Loan (0.1339) and Loan for allied and Non-farm sector (0.2142).
Table 5.11
Statistical results of regression model having dummy variables – KCC holders

<table>
<thead>
<tr>
<th>Variables</th>
<th>Co-efficient</th>
<th>St.dev.</th>
<th>t - ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>37.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Cultivation</td>
<td>0.3461**</td>
<td>0.138</td>
<td>2.499</td>
</tr>
<tr>
<td>Dummy variable</td>
<td>165.57*</td>
<td>3.680</td>
<td>24.47</td>
</tr>
<tr>
<td>D.F - 1874</td>
<td></td>
<td>R² = 0.36</td>
<td>R² = 0.29</td>
</tr>
</tbody>
</table>

Dummy variable = KCC holders

* Stands for 5percent level of significance, ** Stands for 10percent level of significance

In the above model, there are one quantitative explanatory variable, cost of cultivation and one qualitative variable. Coefficients of all these variables are statistically significant at the 5percent level.

Average level of credit requirement of Non KCC holders (i.e. when the dummy variable takes a value of zero) and average level of credit requirement of KCC holders (i.e. when the dummy variable is equal to 1) are

\[ TC_i = 37.07 + .3461COC_i \]  \hspace{1cm} (I)

\[ TC_i = 202.64 + .3461COC_i \]  \hspace{1cm} (II) respectively.

For significance, we have used various statistical tools like “t” value and R2. For cross section analysis, we have taken care of the multicollinearity problem by taking one variable at a time considering the high value in correlation matrix.