"ROLE OF CHHATTISGARH STATE COOPERATIVE MARKETING FEDERATION LIMITED IN AGRICULTURAL SUSTAINABILITY IN CHHATTISGARH"
(With special reference to Raipur division)

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ABSTRACT
Agriculture has always been India’s indispensable economic sector. In a country like India no one can ignore the importance of agriculture. Chhattisgarh is a state in Central India with favorable soil and climate condition for production of different types of food grains CHHATTISGARH STATE COOPERATIVE MARKETING FEDERATION LIMITED plays an important role in sustainable growth of agriculture sector in the state. This study includes its impact on agricultural sustainability. This current study is based on both primary and secondary data.

KEYWORDS: Sustainability, indispensable, performance and impact.

INTRODUCTION
Indian economy is an agricultural based economy with an approximate contribution of 17% towards gross domestic product. Around 53% of total population of the country depends upon agriculture for their livelihood. Agricultural sustainability can be defined as the efficient production of safe, high quality agro products in such a way that protects and improves the natural environment, the social and economic conditions of farmers, their employers and local communities and safeguard the health and welfare of all farmed species. It aims on three main issues namely Socio-economic equity, Environmental health and Economic profitability.

In short we can say that sustainability rests on the principle that we must meet the needs of present without compromising the ability of future generations to meet their own needs. Chhattisgarh state is popularly known as the “rice bowl of India”. With favorable climate and soil it produces rice, maize, jowar, groundnut, gram and wheat majorly. In the year 2004 firstly the state reached a remarkable gross state product of over 12 billion US Dollar. Chhattisgarh state is an agriculturesubjugated economy and has become the backbone for the food production of the country with its immense contribution to central pool. Different central and state government corporations are playing significant role in development of agriculture sector by accomplishing different persuasive functions. The Chhattisgarh State Cooperative marketing federation limited commonly known as CG MARKFED being one of them, came into existence in 2000 with the formation of the newly developed state. The cooperativestructure of CG MARKFED, Government
support, progressive policies, innovative plans and dedicated managerial and field level have become the constituents for the success of the corporation. CG MARKFED being an imperative part of the economy of Chhattisgarh is playing key and ground-breaking role. The use of technology has also helped for ecological base of production for agriculture products. In spite of its commercial goals it has also considered its social responsibilities by providing free services to farmers for the use of chemical fertilizer and other agricultural inputs. CG MARKFED has also contributed to various socio economic programs which recount to development.

OBJECTIVES OF CG MARKFED
- To assist and strengthen its members and other marketing societies in the state
- To carry on welfare activities as per the state governments directives
- To make arrangement of goddowns to increase the storage capacity in the state
- To act as an agent of the state government for procurement of paddy and distribution of chemical fertilizers
- To provide agricultural inputs to the farmers through channelized members of thousands of societies to promote the production of their agricultural produce.

FUNCTIONS OF CG MARKFED
- It conducts marketing of agricultural inputs such as fertilizers, pesticides etc.
- It regulates all the activities related to paddy procurement in the state
- It provides storage facilities to the farmers
- It provides incentives to the farmers and societies declared by the state as well as central government under different incentive schemes.

Achievements of CG MARKFED
In the field of Paddy procurement

<table>
<thead>
<tr>
<th>Source: Head office CG MARKFED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graph 1: Minimum support price in various years</strong></td>
</tr>
<tr>
<td>Common Paddy</td>
</tr>
<tr>
<td>Grade A Paddy</td>
</tr>
<tr>
<td>Bonus</td>
</tr>
</tbody>
</table>
In the field of Fertilizers Distribution

**Graph 2: Year wise Paddy procurement in MT**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>6310424</td>
</tr>
<tr>
<td>2015-2016</td>
<td>5929232</td>
</tr>
<tr>
<td>2016-2017</td>
<td>6959059</td>
</tr>
<tr>
<td>2017-2018</td>
<td>5688357.25</td>
</tr>
</tbody>
</table>

Source: Head office CG MARKFED

**Graph 3: Rabi year wise fertilizer sale**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>92160</td>
</tr>
<tr>
<td>2015-2016</td>
<td>110146</td>
</tr>
<tr>
<td>2016-2017</td>
<td>267671.7</td>
</tr>
<tr>
<td>2017-2018</td>
<td>288473.5</td>
</tr>
</tbody>
</table>

Source: Head office CG MARKFED

**Graph 4: Kharif year wise fertilizer sale**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>329138</td>
</tr>
<tr>
<td>2015</td>
<td>343322</td>
</tr>
<tr>
<td>2016</td>
<td>384161.7</td>
</tr>
<tr>
<td>2017</td>
<td>398090.75</td>
</tr>
</tbody>
</table>

Source: Head office CG MARKFED
REVIEW OF LITERATURE

- “Dhan ki kharidi evam sangrahan me Chhattisgarh rajya sahakari vipnan sangh ki bhumi - ek adhyayan” by Gupta Umesh Kumar, guided by Dr. Agrawal, PS in the year 2009.
- In the year 2005 Mrs. Shreeja Varkey conducted a research titled “A Study of Marketing Process and implementation of Indian Farmers Fertilizer Co-Operative Limited (With special reference to Durg District of C.G.)” Under the guidance of Dr. G.R.Sahu.

OBJECTIVES OF THE STUDY

1. To know the role of CG MARKFED in growth of agriculture in Chhattisgarh state
2. To find out various challenges faced by CG MARKFED
3. To know the various problems faced by the farmers in Chhattisgarh state.
4. To understand the functions and performance of CG MARKFED.

HYPOTHESIS

The below listed hypothesis have been formed to reach the research objectives:

1. There is a significant connection of Chhattisgarh State Co-operative marketing Federation Ltd. and agricultural sustainability in Chhattisgarh State.
2. Chhattisgarh State Co-operative marketing Federation Ltd. is the best cooperative marketing agency in the state.

RESEARCH METHODOLOGY

The topic for this study is of analytical in nature at the same time it has some features of quantitative research also. For this research secondary data are collected from government records, journals, various publications, periodicals and interview schedule has been used for primary data collection. To measure the results mathematical and statistical means have been used. Chi –square test is being used to test the hypothesis formed for this study. For this study 10 Primary Agriculture Marketing Societies have selected from Raipur division and from each Society 10-10 farmers are being selected to make a sample of 100 farmers. This study restricts from 2014-2017 periods only.

SIGNIFICANCE OF THE STUDY

This research will be helpful to solve many problems of C.G.MARKFED and to improve agricultural market and market related infrastructure of Chhattisgarh. Through this research C.G.MARKFED will come to know about expectations of member as well as non-member farmers. Findings of this study may be useful for policy makers, researchers, administrators and other stakeholders of Agricultural sector of Chhattisgarh state.

ANALYSIS AND INTERPRETATION

The primary data have collected through interview schedule from the farmers of Raipur division. Some of the major points have been listed out below as indicator of analysis.
Table 1: Analysis Indicator

<table>
<thead>
<tr>
<th>Type of technique used for farming</th>
<th>58 (Modern)</th>
<th>42 (Traditional)</th>
<th>-</th>
<th>-</th>
<th>-</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of crops / year</td>
<td>27 (1crop)</td>
<td>73 (2 crops)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Assistance in fertilizer purchase</td>
<td>68 (Positive)</td>
<td>32 (Negative)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Govt. schemes related information circulation</td>
<td>87 (Positive)</td>
<td>13 (Negative)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Marketing related services</td>
<td>18 (Very good)</td>
<td>42 (Good)</td>
<td>31 (Satisfactory)</td>
<td>8 (Poor)</td>
<td>3 (Very Poor)</td>
<td>100</td>
</tr>
<tr>
<td>Paddy Procurement</td>
<td>78 (Timely)</td>
<td>20 (Delayed)</td>
<td>2 (Can’t say)</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Procurement at Minimum Support Price</td>
<td>97 (Yes)</td>
<td>2 (No)</td>
<td>1 (Can’t say)</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Payment for the procured Paddy</td>
<td>76 (Timely)</td>
<td>20 (Delayed)</td>
<td>4 (Can’t say)</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Maintains Transparency</td>
<td>79 (Yes)</td>
<td>17 (No)</td>
<td>4 (Can’t Say)</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Rating of MARKFED by farmers</td>
<td>13 (Very good)</td>
<td>32 (Good)</td>
<td>36 (Satisfactory)</td>
<td>17 (Poor)</td>
<td>2 (Very Poor)</td>
<td>100</td>
</tr>
<tr>
<td>MARKFED is needed for growth of agriculture in the state</td>
<td>25 (Strongly agreed)</td>
<td>38 (Agreed)</td>
<td>26 (Disagreed)</td>
<td>11 (Strongly disagreed)</td>
<td>-</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary Data Collected Through interview schedule

Description of the above Table 1:
- Among the respondents interviewed from Raipur division of Chhattisgarh state 58% of farmers are using modern technique while 42% are still with the traditional technique of farming.
- 73% farmers take 2 crops a year while 27% farmers take only 1 crop a year.
- 68% of farmers have a positive approach towards getting assistance from CG MARKFED at the time of purchase of fertilizers while 32% don’t have the same.
- 87% of the total respondents surveyed were strongly agreed that CG MARKFED circulates each and every scheme declared by the government timely while 13% have a negative approach towards this.
- 18% farmers are highly appreciated the marketing related services provided by CG MARKFED, 42% appreciated, 31% satisfied while the rest of the respondents were disappointed.
- From the field survey it is found that 78% respondents believes that CG MARKFED procures the paddy on time, 20% farmers feel that procurement got delayed by CG MARKFED while 2% farmers couldn’t respond.
- During the survey it is found that 97% of the respondents believe that CG MARKFED procures Paddy from them on minimum support price only, 2% farmers do not agree upon this while 1 % farmers not ready to respond.
- 76% farmers are getting payment for their produces on time, 20% farmers said that there is always a delayed payment while 4% said can’t say.
In the survey it is found that 79% of respondents feel that after implementing digital record keeping CG MARKFED got success in maintain transparency, 17% farmers think that there is no such transparency maintained while 4% farmers were not interested in responding on this.

**Application of Statistical tool**

Chi-Square test is applied to test the hypothesis formed for this study. Some of the questions related to the hypothesis from the interview schedule have been taken to apply the test upon.

**Table 2**

<table>
<thead>
<tr>
<th>Rating of CG MARKFED by farmers</th>
<th>Very Good</th>
<th>Good</th>
<th>Satisfactory</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>13%</td>
<td>32%</td>
<td>36%</td>
<td>17%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

From the above table 2 we can form the hypothesis as,

$H_0$ - Farmers are not satisfied with the work of CG MARKFED

$H_1$ - Farmers are satisfied with the work of CG MARKFED

**Application of Chi-square test:**

The calculated value of $x^2 = 39.1$. The degrees of freedom given in the above table 2 is 4. The Chi-square distribution table value of $x^2$ for 4 degrees of freedom at 95% confidence level is 9.49. Here the calculated value is greater than the table value therefore $H_0$ will fall under rejection region. Therefore, we reject $H_0$ and accept $H_1$. Thus we can say that Chhattisgarh State Co-operative marketing Federation Ltd. is the best cooperative marketing agency in the state.

**Table 3:**

<table>
<thead>
<tr>
<th>CG MARKFED is needed for the sustainable growth of agriculture in the state</th>
<th>Strongly Agreed</th>
<th>Agreed</th>
<th>Disagreed</th>
<th>Strongly Disagreed</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>38</td>
<td>26</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

From the above table 3 we can form the hypothesis as,

$H_0$ – There is not a significant connection of Chhattisgarh State Co-operative marketing Federation Ltd. and agricultural sustainability in Chhattisgarh State.

$H_1$ - There is a significant connection of Chhattisgarh State Co-operative marketing Federation Ltd. and agricultural sustainability in Chhattisgarh State.

**Application of Chi-square test:**

The calculated value of $x^2 = 14.64$. The degrees of freedom given in the above table 3 is 3. The Chi-square distribution table value of $x^2$ for 3 degrees of freedom at 95% confidence level is 7.81. Here the calculated value is greater than the table value therefore $H_0$ will fall under rejection region. Therefore, we reject $H_0$ and accept $H_1$. Thus we can conclude that there is a significant connection of Chhattisgarh State Co-operative marketing Federation Ltd. and agricultural sustainability in Chhattisgarh State.

**FINDINGS AND SUGGESTIONS:**

After analyzing various aspects we can see clearly that CG MARKFED is actively engaged in the field of agriculture in the state. We found many evidences some of them are listed below:
Since the inception of CG MARKFED we can see tremendous increase in paddy procurement in the state. In the year 2000-01 CG MARKFED has procured 4, 63,104 MT paddy which increased to 56, 88,357.25 MT in 2017-18.

In the field of fertilizer distribution CG MARKFED has done a great job. As per the records produced by the head office it is evidenced that there is a regular increment in sale of fertilizers in both Kharif and Rabi season.

Farmers are getting increased Minimum support price for their produces.

**PROBLEMS OF CG MARKFED:**
1. CG MARKFED is running with shortage of storage centers. Currently they are working with open storage in some of the districts.
2. CG MARKFED is still struggling working with the unorganized cooperative societies.
3. Farmer’s literacy rate is another major problem the Federation to work smoothly.
4. Healthy transport facility is not there in many of the districts in the state.
5. CG MARKFED is getting very less encouragement from Apex Societies.

**RECOMMENDATIONS:**
1. CG MARKFED should maintain consistency in arranging more storage centers.
2. CG MARKFED should provide training to the staff in keeping digital records to get better output from their end.
3. State government should help CG MARKFED to improve the transportation facilities.
4. Apex societies should increase the level of support to CG MARKFED in improving their working.
5. CG MARKFED should organize training programs to make the working of societies organized.

**CONCLUSION:**
From the study it is evident that the role of CG MARKFED in sustainable growth of agriculture cannot be ignored. Since the inception CG MARKFED is continuously contributing in the field of agricultural sustainability and farmer’s welfare activities. CG MARKFED has put a lot of efforts to improve the standard of member farmers. CG MARKFED is on the way to help the farmers by providing them good quality agricultural inputs on a standard price this will definitely help in agricultural sustainability.

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www.agriquest.info
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