

Original Research Article

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Developing Indicators for Sustainability of Commodity Associations in Karnataka, India

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ABSTRACT

The sustainability of farmer associations is proven index of agricultural development. They are the key link of food chain system. The FAO is encouraging to form the commodity associations for sustainability of agriculture across the world. In line of this, The Krishi Vigyan Kendras of University of Agricultural Sciences, Bangalore, Karnataka have promoted the Commodity Associations. They have been transferring the technologies and supporting the association members for income generating activities. The research study was conducted in Southern Agro-climatic Dry Zone of Karnataka with an objective of finding the indicators of sustainability of commodity associations. The sample size of the study was 120. The research design was experimental type with control group. The indicators of sustainability were identified by following the procedure of expert rating system. The study found nine indicators; regular sources of funding, banking transactions, production technology support and extension programs, leadership qualities, market linked commodity production, regular meetings and implementations, linkage and cooperation with local and external institutions, less political interference and education share & care. The utility of the study being, these indicators are the measuring tool to find out the extent of sustainability. By administering these, one can find out the extent of sustainability of commodity association.

Keywords

Commodity associations, Experts rating, Indicators, Marketing, Farm yield, Sustainability

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Introduction

The Indian farmers often at risk of uncertainties of unpredicted climatic conditions, production constraints and marketing constraints of produce. The efforts are on working towards sustainability of production by the Govt., and other developmental agencies, to address this, the farmers have been asked to come together to

form associations. The sustainability of farmers associations is proven index of agricultural development. They are key link of food chain system.

They produce, process and market the farm produce to earn profits. The FAO is encouraging to form the CAs (Commodity Associations) for sustainability of agriculture across the world.

The CAs play a key role in giving the valuable feedback of stakeholders, involved in supply, marketing and value chains of product movement from producers to consumers and enabling the Governments to frame or change in policies in the interest of stake-holders' welfare and food security to the people of the State.

It will reduce the middlemen interference in supply of inputs for commodity production and its marketing till it reaches the consumers (Andrew W. Shepherd *et al.*, 2009). The French model suggests inter-professional associations contributed in market regulation, contractual relation, information provision, export promotion, research development, food security and environmental management (Langreo 2002).

In India, the Govt., has taken up several initiatives to involve the farmers as stake holders by formulating the CAs. The Indian Council of Agricultural Research (ICAR) New Delhi, has framed formulation and implementation guidelines to undertake them in all the 700 Krishi Vigyan Kendras through its district level Feeder institutes across India.

With this background, a research study was conducted which was funded by the Directorate of Research, to find out the sustainability of CAs undertaken by Krishi Vigyan Kendras (KVK) of University of Agricultural Sciences Bangalore (UASB).

There were more than 12 CAs were functional from the 7 KVKs of UASB as on 2018. The relevancy of the study is, till recent past the farmers were more concerned about production of food grains but of late, the farmers are worried about marketing their produce and getting remunerative price. Since the market prices are fluctuating based on the supply and demand, the famers were unable to predict the price in the market. Thus, many of the farmers have been getting less remunerative price and incurred losses, this

kind of recurring experiences made them to feel farming as a non-profitable occupation.

In order to make the farmers aware about the marketing mechanism, the Government has initiated many pro-farmer market programs to reduce the middlemen interference and encouraged direct marketing.

One among these several initiatives, the formation of CAs is one. The Statement of problem is; the ICAR-UASB has formulated the CAs to support them through technology interventions. After a lapse of few years, some of the CAs were functioning effectively, some of them are slow and less functional.

To ascertain the reasons the UASB wish to know the status of the CAs, their likely level of sustainability promoted by the KVKs, in southern districts of Karnataka as to strengthen them by administering with appropriate technological interventions, for which there is a need to develop indicators for measuring the extent of sustainability. The Objectives of the study was to identify the indicators, for measurement of extent of sustainability of CAs. The research was carried out during 2018-19.

Materials and Methods

Research design

Identification of Judges and opinion seeking judges rating method.

Identification of indicators of sustainability

The procedure of normalized ranking method of Guilford (1954) was adopted. Exhaustive lists of 43 statements related to sustainability of associations were listed after reviewing the literature and seeking the opinion of resources persons in the field of sustainability productions.

These 43 statements on four point continuum were mailed to 150 experts identified from Universities and developmental departments of India. Among them 31 experts responded by providing complete information.

Secondary sources

The pertinent information was collected from the institutes, referred literature and reports. Karnataka State Department of Agriculture and Raitha Samparka Kendras (RSK), Zonal Agricultural Research Station records and Schemes, KVK and Dist. Statistics of Govt. of Karnataka, Directorate of Extension UASB. For analyzing the data the statistical tools such as frequency, percentage, mean, standard deviation to draw inference.

Nominal score 3, 2, 1, was assigned for each indicator on a three point continuum and categorized them as 'High, Moderate and Less' sustainable level respectively (Table 3).

Results and Discussion

The results have been discussed according to the objectives of the study, two step procedures was adopted.

To identify the indicators for measurement of extent of sustainability of CAs

Enlisting items of sustainability

After reviewing exhaustive literature, 35 items reflecting sustainability of CA statements were enlisted. For calculating the Relevancy and its Weightage (RW) a four point continuum of Most Relevant (MR), Relevant (R), Less Relevant (LR) and Not Relevant (NR) with the nominal score of 4, 3, 2 and 1, were assigned respectively.

$RW = MR \times 4 + R \times 3 + LR \times 2 + NR \times 1$. Such list was sent to 145 experts (specialized in

sustainability index development) in the areas of Agricultural extension, Psychology, Sociology Departments of farm and traditional Universities in Karnataka for item relevancy and weightage, 31 experts responded with filled in opinion.

Experts rating and final statements

The procedure of normalized ranking method of (Guilford 1954) was adopted. The relevancy weightage data received from the experts was tabulated and analyzed. The statements which had more than 0.75 relevancy value were selected. Upon calculating so, there were 13 such statements found to have relevancy and weightage (Table 1), out of 35 statements. These statements were ranked.

Later, the statements were subjected to aggregation, based on the similar meaning reflections to avoid duplication and clubbing such similar statements and denoting them as an Indicator. With this procedure, nine indicators were identified (Table 2).

To conclude that, the sustainability indicators for CAs was developed by enlisting of statements of sustainability and seeking the opinion of experts on 4 point continuum of nominal score. Nine indicators reflecting sustainability were identified *viz.*, regular source of funds, banking transactions, production technology support and extension programs, market linked commodity production, leadership qualities, regular meetings and implementations, linkage and cooperation with local and external institutions, less political interference & affiliations and education and share & care. These indicators would reveal the sustainability level when administered to the members of CA. Thus, it is a tool to measure the sustainability level.

Table.1 Experts rating relevancy final statements, weighing more than 0.75 score n=31*

Sl. No	Statements	Mean score	%	Rank
1.	Effective leadership qualities of executive committee members	3.75	93.75	II
2.	High level of risk taking ability of members	3.75	93.75	II
3.	Repayment behavior of loans to the Banks	3.75	93.75	II
4.	External support from Gram Panchayat and Government for the financial and moral support to undertake developmental activities	3.62	90.62	III
5.	Lending loans to its members at low rate of interest to meet their personal, social and economic needs	3.62	90.62	III
6.	Opportunity for the members to express their opinion and decision making in the meetings	3.62	90.62	III
7.	Higher education level and sense of belonging and care among the members of CAs	3.5	87.5	IV
8.	The members should be cosmopolite in nature : connect with outside world	3.5	87.5	IV
9.	Arranging marketing information and facilities to the produce by the CAs	3.5	87.5	IV
10.	Facilitating to get the loans from the banks by the CAs to its members at reasonable rates builds affinity towards CAs	3.5	87.5	IV
11.	Experience in agriculture production and marketing of produce	3.37	84.37	V
12.	Number of self-employment activities undertaken by the members	3.37	84.37	V
13.	Sharing of benefits equitably of CA by all the members	3.37	84.37	V

*Experts

Table.2 Indicators (after aggregation of judges rated 14 items) of sustainability of commodity associations n=31*

Sl. No.	Indicators	Mean Relevancy %	Mean weightage Score
1	Regular source of funds	90.62	3.62
2	Banking transactions	85.93	3.43
3	Production technology support and Extension programs	83.59	3.34
4	Market linked commodity production	90.62	3.62
5	Leadership qualities	87.5	3.50
6	Regular meetings and implementations	84.37	3.37
7	Linkage and Cooperation with local and external institutions	83.9	3.21
8	Less political interference	80.8	3.19
9	Education and Share & care	78.9	3.16

*Experts

Table.3 Categorization of sustainability

Sl. No.	Score range	Extent of Sustainability
1	9 to 14	Less
2	15 to 20	Moderate
3	>21	High

(Maximum average score: 4 and minimum average score 1 of opinion rating continuum)

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