

Analysis of Organic Products Supply Chain in Badulla District

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Introduction

Organic Agriculture in Sri Lanka has been gradually awakened and the role and participation of key organizations such as private sector organizations, non- government and government organizations have been strengthened. By 2010, the organic cultivation covered over 43,664 hectares of land, which was 1.7% of the total agricultural land in the country (FiBL- IFOAM survey, 2012). Although local marketing does not yet go through the formal inspection and certification process, the production and processing for export involves a systematically organized formal inspection and certification which is carried out by internationally accredited certification bodies.

There are number of non- government organizations, farmer organizations, private- owned organic farms and export companies who are involving in the promotion of organic agriculture production and marketing in Badulla district. However, there is no any documented information source about the organic agriculture supply chain in the district. Developing and managing supply chains require an integrated approach in which all the stakeholders should collectively plan and control all the functions to achieve the sustainability. In this backdrop, it is a compulsory exercise to study the present status of the organic supply chain in the Badulla district and the present study aimed at examining the existing chain components, different interactions existed, the quality of the interactions and any problematic interfaces existing within the chain.

Methodology

Badulla district in Uva province of Sri Lanka was purposely selected for the study considering the high level of organic activities taken place and there are significant number of organic fruit and vegetable farmers, supporting organizations and marketing organizations are keenly involving in their business.

According to the data available, there are about 800 organic fruit and vegetable farm families living in the district and their produce are being sold among 300 local organic customers and in the export market. As a preliminary study, some key informant interviews were conducted and base on the findings of those interviews, semi structured questionnaires were developed to interview the farmers and local customers. A sample of 80 organic fruit and vegetable farm families and 40 local organic customers were selected using simple random sampling technique for the survey. Further, some in-depth key informant interviews and focus group discussions were carried out and Snowballing technique was used to find out the key informants.

Three major interfaces were identified in the supply chain and the analysis of the quality of interaction between the actors in major interfaces was done based on five major attributes; information flow, product and financial flow, knowledge and technology flow, capital and other resources flow and quality of relationship and each of these attributes were consisted with several sub attributes. Responses of each actor within major interfaces for each attribute were measured on a 5- point likert scale and mean values were calculated. Score 5 was given if the attribute was at the expected level. Further, the descriptive statistical analysis was done to define the population.

Results and Discussion

There are about 815 organic fruit and vegetable farmers in the district out of which about 82% owned less than 1.5 acres. Four organizations actively involved in the organic activities in the district and the majority of farmers (54%) do have association with those organizations.

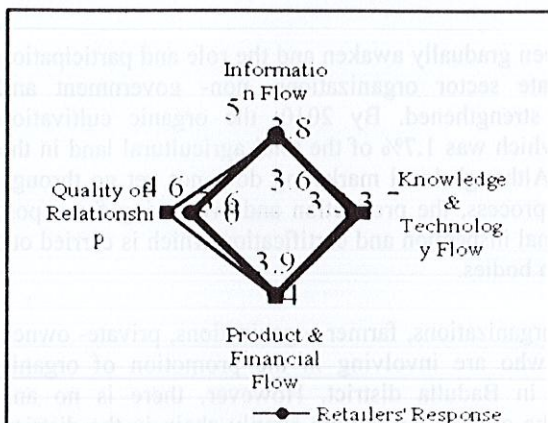


Figure 1: Quality of interaction farmer-buyer interface

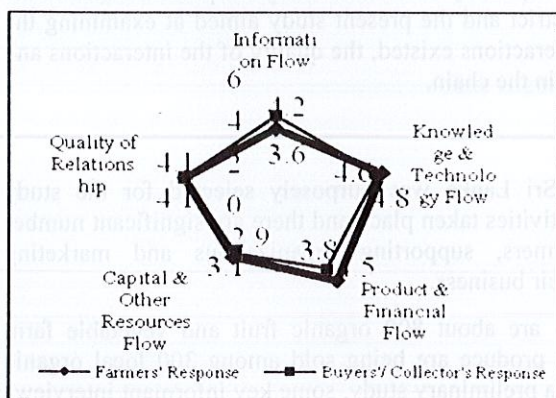


Figure 2: Quality of interaction-retailer and customer interface

According to the survey results, as shown in the Figure 1, capital and other resources flow between farmers and their buyers or collectors is not as the expected. Input materials and any other physical facilities are not exchanged in preferred manner, and farmers are not facilitated with credit arrangements. Although other attributes, in overall, are at preferred state. Further, the study revealed that the exchange of current market prices, expected market trends and non-confidential financial information are problematic. Recordkeeping, on-time payments and paying attention on quality of products are not in a satisfactory level. Products are not collected at farm-gate and farmers are given no room in deciding the market price. Written contracts are not available.

Quality of interaction within retailer-customer interface is given in the Figure 2. In overall the quality of interaction is preferable, but there are few problematic areas as follows. Production information, environmental and ethical values of organic products are not

effectively communicated to customers. Proper transportation and packaging systems are not adopted, variety of produce is very limited and timely delivery is not taking place.

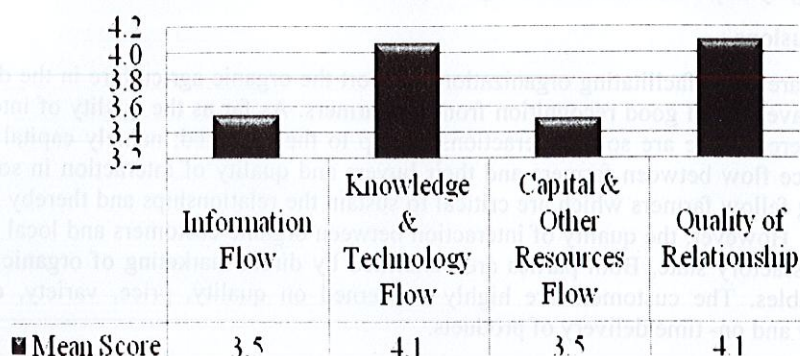


Figure 3: Responses of farmers for the quality of interaction between fellow farmers

According to Figure 3, information and capital and other resource flows among the fellow farmers are not satisfactory. Exchange of non- confidential financial information, input materials and any physical facilities are not happening to a expected level. The resulted supply chain map is given in the figure 4 which basically outlines the major functions, actors/ stakeholders, end markets and enablers/facilitators in the organic supply chain.

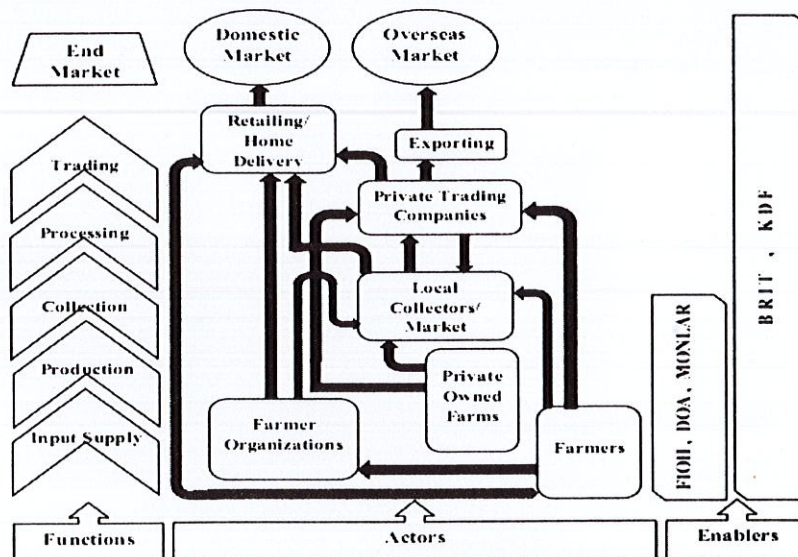


Figure 4: The map of the organic products supply chain in Badulla district

- FIOH - Future in Our Hands Development Foundation
- BRIT - Biodiversity Research Information and Training Center
- KDF - Kandukara Development Foundation
- MONLAR- Movement for Land and Agricultural Reform
- DOA - Department of Agriculture

The customer analysis revealed that 75% of them are willing to pay higher price for organic products than the conventional products and majority of them (60%) are willing to pay only 5%-10% additional price. Bulk of the respondents (57.5%) considered organic certification as a highly important attribute of organic products.

Conclusions

There are some facilitating organizations support the organic agriculture in the district and they have gained good recognition from the farmers. As far as the quality of interaction is considered, there are some interactions not up to the expected; namely capital and other resource flow between farmers and their buyers and quality of interaction in some aspect among fellow farmers which are critical to sustain the relationships and thereby the supply chain. However, the quality of interaction between organic customers and local retailers is at satisfactory state. Both parties are benefitted by direct marketing of organic fruits and vegetables. The customers are highly concerned on quality, price, variety, continuous supply and on- time delivery of products.

References

FiBL and IFOAM, 2012. Key results from the survey on organic agriculture worldwide 2012 Part 3: Organic agriculture in the regions 2010, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, International Federation of Organic Agriculture Movements (IFOAM), Charles-de-Gaulle-Str. 553113 Bonn, Germany.

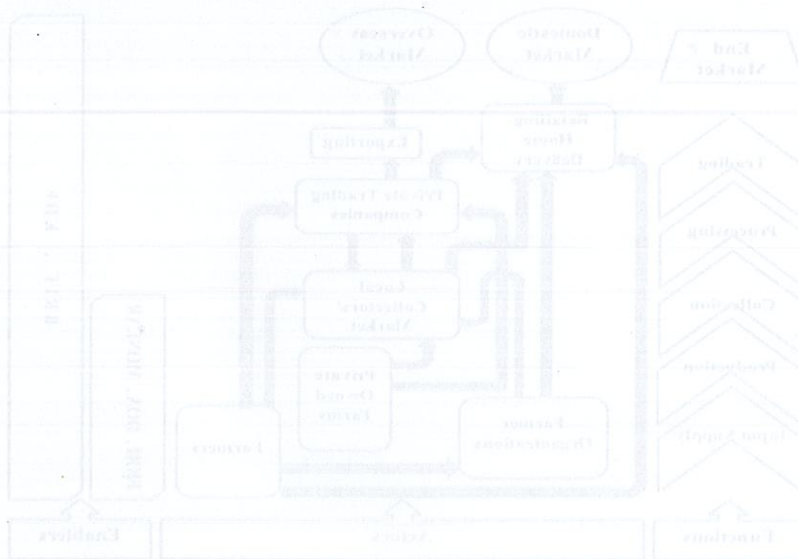


Figure 4: The map of the organic product supply chain in Badulla district

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