



## An Overview of Green Value Chain Issues in Agricultural Commodities

### KEYWORDS

Value Chain, Green Strategy, Agriculture and Environment

### SEETHA M.J

Research scholar Dept. of Studies & Research in Commerce Tumkur University Tumkur

### DR. PRALHAD RATHOD

Associate Professor Dept. of MBA Visvesvaraya Technological University, Jnana Sangama Belgavi-18

**ABSTRACT** *More organizations are operating in more environment friendly way. When companies come up with new innovations like eco friendly products, they can access new markets. Value chains are composed of all the inputs required to produce and bring to market agricultural commodities either fresh or processed. Regional agricultural value chains lack adequate economies of scale which are essential to achieve significant improvement in productivity, competitiveness and bargaining power. The adoption of good practices is important for the development of green value chains in agricultural commodities. Greening should be understood as a strategic and transparent integration of material, information, and capital flows to achieve specific social, environmental and economic objectives. Agriculture is an important development tool as the sector is still the main source of income for a large portion of the population. Countries using green practices in agricultural value chains can improve competitive advantage and to assess the impact of trade on food costs and other factors to enhance overall food security. Green value chains are a promising way to address economic issues such as profitability, cost reduction and revenue generation. More initiatives are needed, along with further assessments of the impact of green value chains and the green economy on economic development in the region to inform policymakers on available alternatives and their impacts. With this background an attempt has been made in this paper to through light on the green value chain issues in general and particularly in agricultural commodities.*

### INTRODUCTION

The present scenario of organizational working and its impact on the environment has carry-forwarded the go green concept from just individual to organizations. More organizations are operating in more environment friendly way. Sustainability is defined as opportunity for businesses to provide long lasting solutions that will help enhance the socio-economic landscape while continuing to create jobs and economic wealth well into the future. When companies come up with new innovations like eco friendly products, they can access new markets, enhance their market shares, and increase profits.

Agricultural markets are subject to market forces, but the presence of many market intermediaries introduces uncertainty over commodity prices and quantities. Value chains are composed of all the inputs required to produce and bring to market agricultural commodities either fresh or processed. The value chain framework can be used to assess the flow of goods and revenues and the process of value addition.

The issue of "greening" refers to the process by which value chain participants reduce their negative economic, social and environment impact while building on successful processes, including rationalizing energy and water use, using clean and renewable energy resources, emitting less pollution effluents and wastes, adopting appropriate practices and quality and safety standards and/or ensuring fair-trade. Priorities and policies must be refined, markets and institutions must be strengthened and agricultural productivity and the access of farmers to the market must be improved.

### REVIEW OF LITERATURE

**H. Ramakrishna (2012)** has described about the ecological imbalance and the ozone depletion which has been the

contribution of manufacturing and service sector. The challenge before the business house is the process of manufacturing with least threat to the environment. The firms have started responding to these challenges and are in the initiative steps to adopt green marketing. In today's world it has become very important for a firm to go for green concepts to survive in the competitive market and the central theme i.e. the consumers are to be educated in this regard.

**Ravi Nandi, Wolfgang Bokelmann, Nithya Vishwanath Gowdru and Gustavo Dias (2014)** in their empirical study on purchase places of organic food products, have identified that the consumers are ready to prefer green products. The study also reveals that the education and family income of the consumers has impact on purchase of organic products. The marketers have to plan the green marketing strategy which can improve the organic products market in India.

**Muhtar Kent, the chairman of the Board and CEO of Coca-cola (2014)** says that organizations have to focus on sustainability without which no business unit can reach their goals. The initial financial investment for any programme related to sustainability is more but ultimately it makes the business units stronger in a long run. It also helps to contribute to the company's goal of reducing the carbon footprint. He also adds that companies have to operate a value creation model that can be driven globally but focuses locally, which means creating value for all the stake holders. In his opinion, balancing social and economic value is important for the organizations as the ever changing consumer attitudes and shifts in Geopolitics, Economics and Demographics has to be resilient. Sustainability can be built when organizations remain "constructively discontent," which means the way of recognizing achievement but by understanding the challenges and

setting higher goals and expectations to achieve. At the end he says companies have to operate with optimism but with reality.

#### OBJECTIVES OF THE STUDY

- To understand the concept of green value chain in agricultural commodities.
- To identify the awareness of innovative green practices to be followed in agriculture.
- To study on challenges faced by stake holders in green value chains.
- To provide suitable measures to improve the value chain issues in agricultural commodities.

#### GREEN VALUE CHAIN ISSUES IN AGRICULTURAL COMMODITIES

The economic development in the country has focused little on the agriculture sector as its contribution to overall economic output is less. However, from few years food price fluctuations are resulting disruptions in food supply in a number of countries which have to reconsider their overall food and agricultural strategies to ensure continuous and competitive access to sufficient and healthy food without depleting their limited natural resource base. Agricultural yields could be improved even within current constraints on land and water resources. The agriculture sector is dominated by small operators who generally have no or little access to an adequate agricultural production support system. Agricultural markets are subject to market forces, but the presence of many market intermediaries introduces uncertainty over commodity prices and quantities.

1. Value chains are composed of all the inputs required to produce and bring to market agricultural commodities either fresh or processed. The value chain framework can be used to assess the flow of goods and revenues and the process of value addition. Value chains contribute to alleviating poverty by linking smallholders to markets. Through the value chain framework, geographically dispersed activities can be traced and linked, the roles of stakeholders and firms can be identified and analyzed, and various other economic, social, technological, environmental and institutional issues can be studied. Regional agricultural value chains lack adequate economies of scale which are essential to achieve significant improvement in productivity, competitiveness and bargaining power.
2. The adoption of good practices is important for the development of green agricultural value chains. The issue of "greening" refers to the process by which value chain participants reduce their negative economic, social and environment impact while building on successful processes, including rationalizing energy and water use, using clean and renewable energy resources, emitting less pollution effluents and wastes, adopting appropriate practices and quality and safety standards and/or ensuring fair-trade. Greening should be understood as a strategic and transparent integration of material, information, and capital flows to achieve specific social, environmental and economic objectives. To improve the functioning of regional agricultural value chains, a few prerequisites must be met at the national and regional levels. Priorities and policies must be refined, markets and institutions must be strengthened, and agricultural productivity and the access of farmers to the market must be improved.
3. Agriculture is an important development tool as the sector is still the main source of income for a large

portion of the population. The agricultural sector could contribute even more to the national economy if more efficient and effective agricultural value chains could be promoted through green practices that could lead to and support the development of a competitive agricultural system. The value of a commodity increases at each step of the process in a value chain as a value chain is made up of inputs and services that are brought together in order to produce a commodity and then deliver it to the final consumer. Well-optimized value chains link producers, particularly smallholders and small and medium enterprises (SMEs) to markets, thus, they can contribute to alleviating poverty and foster the development of smallholders systems and SMEs. Value chains can improve revenue, productivity, competitiveness and entrepreneurship. Many countries are facing the challenge of ensuring continuous access to sufficient food without depleting their already limited natural resources. Thus, a country could improve its competitive advantage by enhancing efficiency through better management of its value chain.

4. Countries using green practices in agricultural value chains can improve competitive advantage and to assess the impact of trade on food costs and other factors to enhance overall food security. Improving food security by adopting green practices in value chain development may give production systems to minimize costs and increase supply. Without further improvement to current practices, competitiveness and the overall business environment, many of the actors and agribusinesses within the value chains will remain low-skilled and low-value thereby missing out not only on global agricultural markets but also, on local and domestic ones as well. By contrast, improving the efficiency of agricultural value chains may prove to be a way to achieve greater food safety and food security, growth in income, sustainable development and improved livelihoods.
5. Greening should be part of a concerted strategy for enhancing efficiency and for achieving sustainable development. In particular, greening agricultural value chains should be part of a clear strategy for agricultural development and to ensure food availability in both quantity and quality. It consists of a strategic and transparent integration of material, information and capital flows of key value chain processes to achieve social, environmental and economic objectives. To this, appropriate actions should be taken to guide the development of green agricultural value chains. Moreover, the increasing urbanized population of our country is demanding more high-value products composed of a wide range of processed foods. Resource-use efficiency paves the way towards a green economy, which advocates for clean methods of adopting green value chain. As part of the green economy, participants in green value chains meet certain social, economic and environmental objectives while acquiring inputs, producing and processing outputs, handling, storing and transporting goods, marketing and retailing the end product, and also in recycling and disposing of used goods.
6. Green value chains are a promising way to address economic issues such as profitability, cost reduction and revenue generation, but they also impact a wider range of social and environmental development issues including creating jobs, enhancing livelihoods and conserving the environment. Companies that

have taken the lead in greening their supply chains are finding significant savings by reducing packaging, using energy more efficiently, removing harmful chemicals from production processes and improving logistics. By becoming more efficient in those ways, firms that have greened their supply chain have also become more competitive and more resilient to crises. Green value chains are increasingly having global impact on performance of growth strategies which are allocating more and more resources to reduce costs and to become more socially responsible and environmentally friendly.

7. The important constituents for the development of green value chains includes
  - Consumers demand has been increasing for products that are attractive, safe, socially responsible and environmentally friendly.
  - Many global firms are attempting to reduce their negative impact by manufacturing and selling products that are branded as green.
  - Organizations must comply with policies framed by the Government from time to time.
  - As a result of green value chain, costs to the businesses increases significantly which is a challenge to the stakeholders to meet the necessary investment required.

#### Challenges faced by stake holders in green value chains.

- Long payback periods for green investments are a strain to many small operators;
- Lack of long-term commitments, and few financial incentives from green value chain buyers;
- Green investments are costly and may bring in additional operating costs;
- Limited access to adequate finance or a lack of capital for green investments;
- Competition from non-complying operators may force firms to cut costs for greening in order to stay in business.

Greening agricultural and food value chains should be understood as a strategic integration of resources, information and capital to achieve economic, social and environmental objectives through a systemic coordination of key processes. The greening process will include using fewer inputs and more efficient processes, reducing energy consumption, ensuring site cleanup, treating and reusing water, abating air emissions, adopting cleaner production techniques, recovering resources, and refurbishing and recycling. Inefficiencies in agricultural value chains have received much attention in recent years. Relevant issues include globalization, food recalls, technological innovations and the changing preferences and diminishing trust of consumers in the market.

However, moving towards green value chains will require that agricultural sectors achieve greater sustainability and resource-use efficiency while increasing productivity and incomes, enhancing the resilience of livelihoods and ecosystems and reducing greenhouse gas emissions. Greening food value chains has numerous benefits ranging from cost reduction to the integration of suppliers in a participative decision-making process that promotes environmental innovation. Greening is starting to become more common, particularly to showcase good business conduct and improve the environmental friendliness of companies, products, processes, systems or technologies.

Green agricultural value chains have the potential to generate green jobs while also improving livelihoods particularly in rural communities. Green value chains also minimize the pollution of natural resources such as air, water and soil. Using lower agricultural inputs (fertilizers and pesticides) for production and lower fossil fuel-based inputs for processing and marketing food products will help significantly reduce greenhouse gases in the air and chemical levels in soil and water. This would improve the health of workers and rural population. However, greening comes at a cost. Though many sustainable processes are becoming affordable and greening is progressively being accepted in project design and implementation, the adoption of advanced or innovative practices and technologies may add (in some cases significantly) to costs. Larger firms may find it easier to meet the added cost, but it may be too expensive for smaller firms and particularly for family owned.

#### CONCLUSION

Globalization has led to increased international competition, which is currently dominated by global firms that set the standard of competitiveness for countries and particular sectors or industries. Value chain analysis sheds light on issues related to production, consumption and trade along with the ways that connected economic, social and environmental issues, such as employment, relationships, health and greening impact development and competitiveness. In this increasingly globalized world, greater attention must be paid to the dynamics of green value chains, especially agricultural value chains, given their impact on food security and livelihoods in each country. This is one of the reasons why the study of green value chains has become a major development tool used by various government and development organizations. The major issue in green value chain analysis is upgrading the activities towards delivering green products according to the market demand. The development of green value chains, which emphasize using natural resources more efficiently, has not yet taken hold and sufficient support programmes have not yet been developed. More initiatives are needed, along with further assessments of the impact of green value chains and the green economy on economic development in the region to inform policymakers on available alternatives and their impacts. These assessments will have to go beyond economic factors, as environmental degradation cannot be solved with economic policies alone.

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