# Overview

The bottom-up perspective of the global value chain (GVC), centrally argued in this publication, puts weight on activities of suppliers and their upgrading in domestic value chains and GVCs. It can be a core question for the bottom-up development of the food value chain (FVC) of how agri-food producers, mainly characterised by small-scale and unstable management, can improve their profitability by participating and utilising the chain. Such a question has also been associated with issues on poverty reduction and on the development of small and medium-sized enterprises in agri-food industries and has been actively argued in the literature of value chain development.

This publication aims to contribute to economic development and poverty reduction in agrifood sectors in countries of the Association of Southeast Asian Nations (ASEAN) by identifying the policy implications obtained from case studies of selected FVCs. Different case studies commonly seek pathways by which agri-food producers and processors can increase their profit by utilising the FVC. Each study focuses on functions of various actors vertically linked with producers or processors, and of stakeholders supporting the construction of the FVC.

The major analytical method is the description of the FVC's structure, which includes distribution channels of products and functions of actors within and surrounding the chain. Some case studies focus on cost—benefit structure, product price, and explicit coordination of key players. Others emphasise the structural characteristics of the FVC and detect opportunities and chokepoints buried in the chain. Those analyses are based on both primary data collected through interviews or sampling and secondary data obtained from various sources.

Chapter 2 describes the theoretical background of the FVC and the transition of the FVC in Thailand, mainly focusing on fresh vegetables and broiler value chains. Chapters 3 and 4 explore feasible solutions to generate more value added and allocate more suitable benefit among actors in the chain through case studies of high-quality rice and fresh milk in Viet Nam. Chapter 5 considers how to improve the profitability of dairy farmers by investigating their marketing channel of fresh and processed milk in Malaysia. Chapter 6 seeks opportunities and challenges in the value chain of seafood in Indonesia, which is the second-largest producer of marine fish in the world. Policy implications obtained through case studies are as follows.

### **Increase in Productivity and Product Quality**

To drive the transition from the traditional to the modern value chain corresponding to higher requirements of consumers and buyers, producers need to reduce production and marketing costs and ensure high-quality products through good farming practices.

The most challenging issue is to devise the appropriate food safety rules or institution and incentives acceptable to all stakeholders. The development and dissemination of the traceability system and documentation, which allow consumers and retailers to trace

products back to the farm, would also contribute to overcoming a bottleneck in the export of agri-food products. Such rules should be enforced at reasonably low costs for all stakeholders in the FVC.

The collective action realised through community enterprises or cooperatives can share input costs, especially that of labour cost, within the FVC. That would be a major means for small-scale producers who do not have enough assets to respond to various issues arising with the transition of the FVC. New types of agri-food production and marketing based on modern digital technologies, such as precision farming and marketing utilising social media, would also increase the level of automation and reduce input costs.

# The Rise in Resilience against External Shocks

Companies should quickly adopt new technologies and maintain a tight control of information flowing within their companies to adapt to new requirements and the changing consumer preferences on social, environmental, and animal welfare concerns.

Risk-sharing arrangements within the FVC would reduce farmers' risks of heavy debt and bankruptcy against serious external shocks such as bird flu outbreaks. The government and the industry need to constantly monitor possibilities of such external shocks and establish an effective warning and preventive system. The GVC can also be actively used as a competitive strategy to be a winner of the intensifying international competition and to avoid risks of import restrictions.

#### **Enhancement of Vertical Collaboration**

Strengthening the marketing actor's functions in the FVC would increase value added and farmers' income. The case study of high-quality rice in Viet Nam shows how the cooperative of paddy collectors significantly contributed to the increase in value added through the exploration and quality control of products. Secondary actors or relevant stakeholders not directly involved in the FVC, such as provincial governments and non-government organisations (NGOs), can also play important roles for poverty reduction, improvement of the livelihoods of local people, and multi-faceted rural development by intervening in the FVC.

An illegal action, deliberately mixing ordinary types of rice with high-quality rice, is reported in the case study in Viet Nam. Such action would be caused by under-exploitation of main products and by-products due to outdated processing technology and lack of innovation. Upgrading the current technology in processing and paying more attention to innovative higher-value product are recommended. Furthermore, increasing awareness of the long-term benefit of quality and customer service is necessary.

Results of the cost–benefit analysis show that farmers can benefit when they can manage production cost well, even if they cannot get high cash receipts. Thus, this study emphasises

the importance of contracts between buyers and suppliers which can contribute to cost reduction and efficiency of farm management.

### **Expansion of Market Channels Particularly of Small-scale Producers**

Many small-scale farmers and their labour shortage seem to restrict the production of high-value products according to the case study in Malaysia. The purchasing prices of milk and its products in the formal market or milk collection centres may not be fully profitable for small-scale farmers producing a limited volume of products. Small-scale farmers are required to seek informal or niche markets on their own, and that sacrifices time and money in managing farms. It would be helpful if the government formulate intervention strategies in assisting these farmers to establish contacts with niche markets.

Furthermore, the establishment of an efficient cold chain system, including transportation and storage for milk and dairy products, is crucial since most small-scale dairy farms are located in rural areas, away from large consumer markets.

## Improvement in Distribution and Production Systems to Fully Utilise Resources

Value addition to seafood highly relates to technologies on processing and distribution, and systems to introduce and manage those. The case study of seafood in Indonesia repeatedly mentions the necessity of the cold chain system in the entire FVC – from handling in the fishing boat, landing, processing, to distributing – to maintain freshness and better hygiene. Improvement of technologies to ensure a high survival rate is also needed from capture to distribution of live lobster and many live maricultural products, such as grouper, which are sold at high prices.

Resource management to enable sustainable production is a problem specific to the capture of fish. Our case study suggests the importance of investment for production resources, technology development, and sufficient consideration on policies for fully utilising and saving resources.

We should not easily generalise policy implications without careful consideration since the study sites and target items vary and are limited. Despite that, this study sheds light on obstacles for developing FVCs, which would exist in many ASEAN member states, and provides ideas to solve those obstacles. This study's outputs can be a clue to deeper arguments and contribute to improving the FVC and profitability of agri-food producers in ASEAN.