

Food Safety and Development: How Effective are Regulations?

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I. Introduction

Food safety of vegetable has become a widely publicized issue in Vietnam. Some studies have been conducted in order to assess the quality of vegetable. Analyses conducted by the Research Institute of Fruits and Vegetables in Hanoi showed that contaminants are presently well above maximum residue limits, including pesticides, nitrate and heavy metals. In response to public concerns of vegetable safety, the government of Vietnam launched a « safe vegetable program » in 1995. Major components of the program include: vegetables are distributed through specific “safe vegetable shops” and control mechanism on pesticide residues have been established (Agroviet 2005).



II. Objectives and Methodology

The main objectives of this research are (1) to identify regulations influencing vegetable quality and (2) to analyze strenghts and weaknesses of different vegetable supply chains in Vietnam.

This research adopts a supply chain approach to study the food system in Vietnam. A literature review combined with interviews are used to collect data. The research takes the case of specific cabbage supply chains in Hanoi.



III. Main results

Currently, two types of cabbage supply chains can be distinguished in Hanoi:

- The conventional cabbage supply chain
- The safe cabbage supply chain, which produces within a “safe vegetable production program” issued by the Ministry of Agriculture and Rural Development.

In this context, two different production systems can be differentiated. Differences include: levels of pesticide and fertilizer use, water for irrigation and marketing (table 1).

Concerning marketing strategies, safe cabbage are distributed in special safe vegetable shops and directly to institutional consumers such as schools, restaurants, hotels, and canteens. Producer prices in this supply chain are generally higher as compared to conventionally produced products.

Conventional cabbage is well-known for overuse or misuse of pesticides and fertilizers. Therefore, conventional cabbage producers can only sell their products either to collectors (who will later on trade vegetables at retail/wholesale markets) or transport and trade products themselves at wholesale/retail markets. By trading vegetables themselves, the incomes become unstable for producers because vegetable market’s prices in Vietnam are extremely volatile. The flows of cabbage in Hanoi markets are presented in figure 1.

Consumers’ perception on vegetable safety: Generally, consumers are willing to pay price premiums for safe products. However, it is due to the lack of an effective control system that leads to consumers mistrust of whether vegetable sold at shops are really “safe”. Therefore, demand is still low at a price that is many times higher conventional ones. Furthermore, the limited number of shops and the long distance from their homes is a limiting factor for consumers to buy safe vegetables.

IV. Conclusions

•Agro-chemical inputs used for vegetable production in Hanoi are increasing due to intensive production and resistant of pests and diseases to pesticides. Consequently, many farmers use pesticides excessively, not compliance with the recommended amounts, and some forbidden pesticides by the Vietnamese regulations are still used.

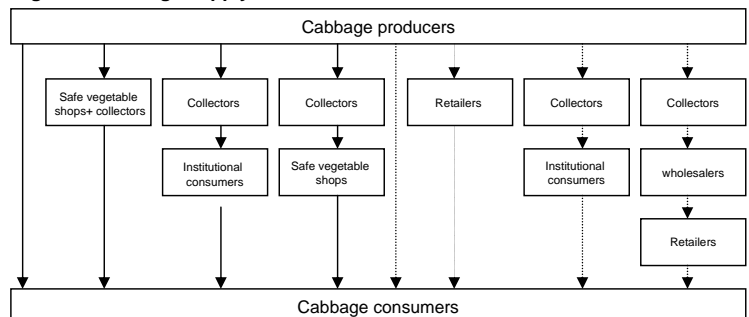
•Safe vegetable production, in wich producers have started applying special application such as IPM. However, there is a lack of control system. Consumers doubt about the quality of vegetables sold at shops. Therefore, it makes consumers resist buying them at the higher prices. These limiting factors have induced the development of safe vegetable products supplies at Hanoi markets.

•The enforcement of the legislations upon actors involved in vegetable supply chains, to ensure the benefit of consumers as well as execute the regulations are still weak in Vietnam.

Table 1: Differentiation between conventional and safe cabbage in Hanoi

Main differentiation	Conventional cabbage	Safe cabbage
Producing technique	•Own experience	•IPM, •Net houses •Safe vegetable know- how
Areas of Production	•Agricultural field	•Within safe vegetable projects
Certification	•No certification	•Safe vegetable certification
Fertilizer in use	•Fresh manure •Liquid fresh manure •Composted manure	•Composted manure
Pesticide in use	•Approved pesticides •Forbidden pesticides	•Approved pesticides
Markets	•Retail markets •Wholesale markets	•Safe vegetable shops •Supermarkets •Retail markets
Consumers	•Low-income •Medium-income	•High-income •Medium-income

Figure 1: Cabbage supply chain in Hanoi



Source: Hoan survey 2005
 Notes: Safe cabbages (solid arrow)
 Conventional cabbages (dotted arrow)

V. References

Agroviet 2005. Safe vegetable research and development in Vietnam: status and prospective. The Ministry of Agricultural and Rural Development, <http://www.agroviet.gov.vn> (accessed January 2005)

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