

**Fresh Fruit and
Vegetable Marketing:**

**Updating the
Urban Wholesale
Marketplace
in Asia**

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Fresh Fruit and Vegetable Marketing:

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FOREWORD

Agricultural marketing systems in many South and Southeast Asian countries have been criticized for not providing the quality, variety, and forms of commodities local consumers have come to expect. Within these marketing systems, the urban wholesale marketplace is rapidly becoming one of the major bottlenecks to the efficient and effective operation of the entire agricultural marketing system, from farmers to consumers.

In devising a practical and applicable approach to the improvement of wholesale market facilities, it is imperative to use the lessons learned from wholesale marketplace experiences throughout the world, avoiding many pitfalls previously encountered. Case studies of successful wholesale marketplaces provide insight into the situations, problems, and solutions of wholesale marketplace development. To understand the dimensions and implications of this problem area, a basic orientation is useful.

The Asia Regional Agribusiness Project (RAP), a \$5 million four-year project financed by the U.S. Agency for International Development (USAID), provides technical support to USAID missions in Asia and their agribusiness clients to increase the effectiveness of agribusiness projects and programs. RAP promotes market transparency, marketing efficiency, and environmentally sustainable trade and investment in the region. RAP marketing specialists examined the topic of wholesale marketplaces for fresh produce, identifying critical problem areas. Their findings are presented in this paper.

Annex A provides an overview of the services available through RAP for updating wholesale market facilities for fresh produce. Annex B lists reference materials related to this topic, including case studies commissioned by RAP on wholesale marketplaces in Asia. All of the publications are available through RAP. Helpful organizations that can provide additional information are highlighted in Annex C.

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EXECUTIVE SUMMARY

In most Asian countries, a large wholesale market in the national capital city serves as the coordinating point for the flow of money, information, and product in fresh produce marketing. Most such markets are facing common problems: inadequate services for farmers and traders, severe traffic congestion, outdated and dilapidated facilities, and increased garbage disposal problems. New problems are arising as urban consumers increase in number and sophistication: restructuring of traditional food distribution systems, increased awareness of pesticide residue concerns, increased product variety of both domestic and foreign origin (and the increase in variety will be accelerated by the General Agreement on Tariffs and Trade), and even more sophisticated service requirements for producers and traders.

Two trends are of particular importance. One is the emerging role of urban supermarkets, which, as nations develop, become the main source of a wide variety of high-quality, specially packaged foods demanded by Asia's upper-middle and high-income consumers, who are rapidly increasing in number. The second is heightened emphasis on increasing the fresh produce supply for both domestic and export markets by expanding production area, improving production techniques, enhancing product diversification, and reducing postharvest loss. Consequently, it is important to understand the roles of diverse outlets — such as urban wholesale marketplaces linked to traditional retail markets versus supermarkets — and to anticipate the implications of exports and imports of fresh produce.

There is little available literature on the role of urban wholesale markets, especially relative to the new competition from supermarkets. This paper presents findings from case studies of progressive urban wholesale markets in Singapore, Hong Kong, and Taiwan, as well as observations on the evolving role of supermarkets in the marketing of fresh produce. The insights and basic principles obtained will be useful to food scientists and urban planners confronting problems in the marketing of fresh produce.

Initial findings include (1) urban wholesale marketplaces, not supermarkets, still dominate the distribution channels for fresh produce in countries such as Taiwan, Korea, and Hong Kong; (2) wholesale marketplaces that handle substantial quantities of imports and exports, such as those in Hong Kong and Singapore, have distinctive communications, transportation, and transactions features not found in marketplaces handling domestic commodities; and (3) certain wholesale marketplaces, such as those in Taipei, have a long history of handling domestic produce and using various measures — for instance, market information services — to improve the livelihood of local farmers.

SECTION ONE

INTRODUCTION

Most Asian countries rely on a large wholesale market in the national capital to serve as the coordinating point for the flow of money, product, and information for marketing fresh produce. These wholesale markets face many common problems including inadequate services to farmers and traders, severe traffic congestion, outdated and dilapidated facilities, and deficient garbage-disposal systems. As urban populations grow and consumers become more sophisticated, additional issues arise. These issues include the best ways to restructure traditional food distribution systems, reduce consumer concerns over pesticide residues, manage an increased array of products of both domestic and foreign origin (which will be accelerated by the General Agreement on Tariffs and Trade [GATT]), and administer more sophisticated service requirements for producers and traders.

Although many Asian governments recognize the declining performance and deteriorating conditions of their urban wholesale marketplaces, government officials assume that the emergence of large numbers of supermarkets will mitigate or eliminate marketing problems for fresh produce in the near future. Therefore, there is a tendency to neglect efforts to improve and upgrade existing urban wholesale marketplaces. However, our studies indicate that wholesale marketplaces will continue to play a critical and essential role in the urban distribution of fresh fruits and vegetables.

This paper discusses the role of urban wholesale markets and supermarkets in Asia. Fresh produce in supermarkets is not now available to or affordable by many urban households. Consequently, the performance of wet markets should be improved to meet the current and future needs of all urban consumers for healthy, less expensive fresh produce.

The Asia Regional Agribusiness Project (RAP) of USAID's Global Bureau is interested in assisting urban officials and departments of agriculture in exploring options for improving wet markets in South and Southeast Asian cities. The goal of RAP is to promote market transparency, marketing efficiency, and environmentally sustainable trade and cooperative venture development in order to raise employment and income levels in Asia. RAP currently provides technical support to agribusiness projects throughout South and Southeast Asia. A working hypothesis is that improved performance of the domestic fruit and vegetable marketing systems, especially within the terminal markets of each Asian capital, will increase the level of urban consumption and improve the distribution of the benefits from increased exports and imports of fresh produce within the region.

SECTION TWO

PROBLEM SETTING

Terminal markets for fresh fruits and vegetables in Asian capital cities are experiencing and, in turn creating, many difficulties for food distribution. Large cities experience problems in their market facilities where perishable fruits and vegetables are distributed each morning. The problems common to large cities can be classified as follows:

- (1) **Urban-related**, such as severe traffic congestion near the marketplaces, large amounts of waste products rapidly filling landfills (garbage disposal problems), operating costs that exceed market revenues, and dilapidated appearance as well as strong odors creating a bad public image;
- (2) **Trading-related**, such as periodic substantial spoilage and loss of revenue for traders because of market gluts, high marketing costs as a result of non-competitive trading practices, and multiple layers of traders; and
- (3) **Facility/management-related**, such as commodity losses or damage during unloading and loading because of insufficient space, poor layout, improper handling and packaging practices, lack of adequate shelter from rain and sunlight, inefficient management practices including little arbitration for disputes, reduced earnings of traders within markets as a result of part-time traders selling at reduced prices outside the facility, and insufficient cold storage space.

Other problems with wholesale marketing may be shared by only one or two countries. These problems are often based on the structure of the country's particular marketing system for fresh fruits and vegetables.

Urban wholesale markets in both Singapore and Hong Kong, for example, experience problems because they depend on large-scale imports. Singapore's fruit and vegetable sector relies almost entirely on imports from neighboring Malaysia and other international suppliers. At the same time, Singapore also supports an active re-export industry orchestrated from its Pasar Panjang facility. Until recently, the government maintained a low profile, using indirect means of managing the marketing system with minimal interference in terms of tariffs, regular price monitoring, or enforcement of grades and standards.

Hong Kong promotes some local production of several leafy vegetables that are marketed through the Vegetable Marketing Organization. This approach is balanced with daily, large-scale imports of fruits and vegetables arriving from China or other countries in container vessels, cargo ships, and airplanes. Periodic oversupplies of some commodities cause substantial losses to individual importers struggling to anticipate daily deliveries.

In contrast with Hong Kong and Singapore, Taiwan and Korea experience problems resulting from their protectionist policies regarding domestic agricultural production. These countries have traditionally organized and operated their urban wholesale facilities to service, primarily, the marketing needs of local farmers and, secondarily, the concerns of consumers. Given the recent GATT negotiations, however, the increasing prominence of imports in competition with local products may cause problems with the organization and operations of those marketplaces.

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Marketing experts have suggested useful changes in the design, organization, and operations of wholesale marketplaces for fresh produce that address some of the problems discussed above. Few experts, however, have provided practical and continuous guidance on how to work closely with a country's leaders, market managers, and funding sources to regularly tailor a facility's organization, operations, and trading practices to emerging changes in the food distribution systems.

Food distribution systems undergo different forms in their process of changing over time. These changes may include the emergence of supermarkets and hypermarkets and the formation of alternative marketing channels (especially for imports and exports) that bypass urban terminal markets. As economies improve, the consumption of fresh fruits and vegetables increases. Both cases suggest that professional guidance is needed to support public sector services and the planning process for improved urban infrastructure.

SECTION THREE

TRENDS IN MARKETING FRESH FRUITS AND VEGETABLES

Traditionally, large traders in urban wholesale marketplaces have marketed most of the produce shipped from production areas and between large urban centers. Their clientele consists of retailers in the wet markets; vendors; restaurants; hotels; and institutions such as the army, schools, and cafeterias. Today, most fruits and vegetables are still sold in the wet markets, where residents of all income levels, social groups, and ethnic groups shop on a regular basis. Supermarket chains that purchase produce from importers or directly from suppliers in major production areas are a relatively new trend in produce marketing in South and Southeast Asia. By arranging contracts with these suppliers, the chains bypass wholesale markets and reduce costs. Higher-income households are the principal purchasers of fresh produce sold in the supermarkets.

Other recent trends noted in Asian food distribution systems include:

- Stronger preference for high-quality traits in terms of new flavors, freshness, consistent size, improved packaging, and spotless appearance;
- Demand — as a result of trading patterns — for more choices than have historically been available;
- Concern about food safety and packaging because of growing apprehension about the negative health effects resulting from excess pesticide residues; and
- Stronger emphasis on environmental issues including recycling of packaging material and proper disposal of urban wastes.

According to the main text on wholesale markets by the Food and Agriculture Organization, theory suggests that the percentage of fresh produce sold in public retail markets will diminish substantially as a country moves from a low level to a high level of development (Figure 1).¹ The theory further states that shipments to wholesale markets will substantially decline with the shift from a low level to a high level of development (Figure 2). These phenomena have not yet occurred in countries such as Taiwan and Korea, but signs of these changes are evident in Japan.

Although there is a sizable increase in the number and distribution of supermarkets, sales of fresh produce have played relatively minor roles in generating their revenues and in the ability to draw consumers. In fact, industry sources mentioned that, although supermarkets were introduced in Singapore more than 20 years ago, they still sell less than 35 percent of marketed fruits and vegetables. The remaining 65 percent is sold in urban wholesale markets.

¹ "Wholesale Markets — Planning and Design Manual," Tracey-White, J.D., *FAO Agricultural Services Bulletin*, #90, Rome, 1991.

Only 12 to 15 percent of fresh produce reportedly moves through supermarkets in Hong Kong despite the fact that supermarkets have existed there for more than 20 years. Taiwan and Korea have had a shorter history with retailing fresh produce in supermarkets and, consequently, less than 10 percent of fresh fruits and vegetables is currently sold through their supermarkets.

Although price differences are becoming less pronounced between supermarkets and wet markets in Singapore, consumers in all other Southeast Asian countries find cheaper produce in the traditional wet markets. Table 1 illustrates the magnitude of the price difference based on the findings of research conducted in Bogor, Indonesia.

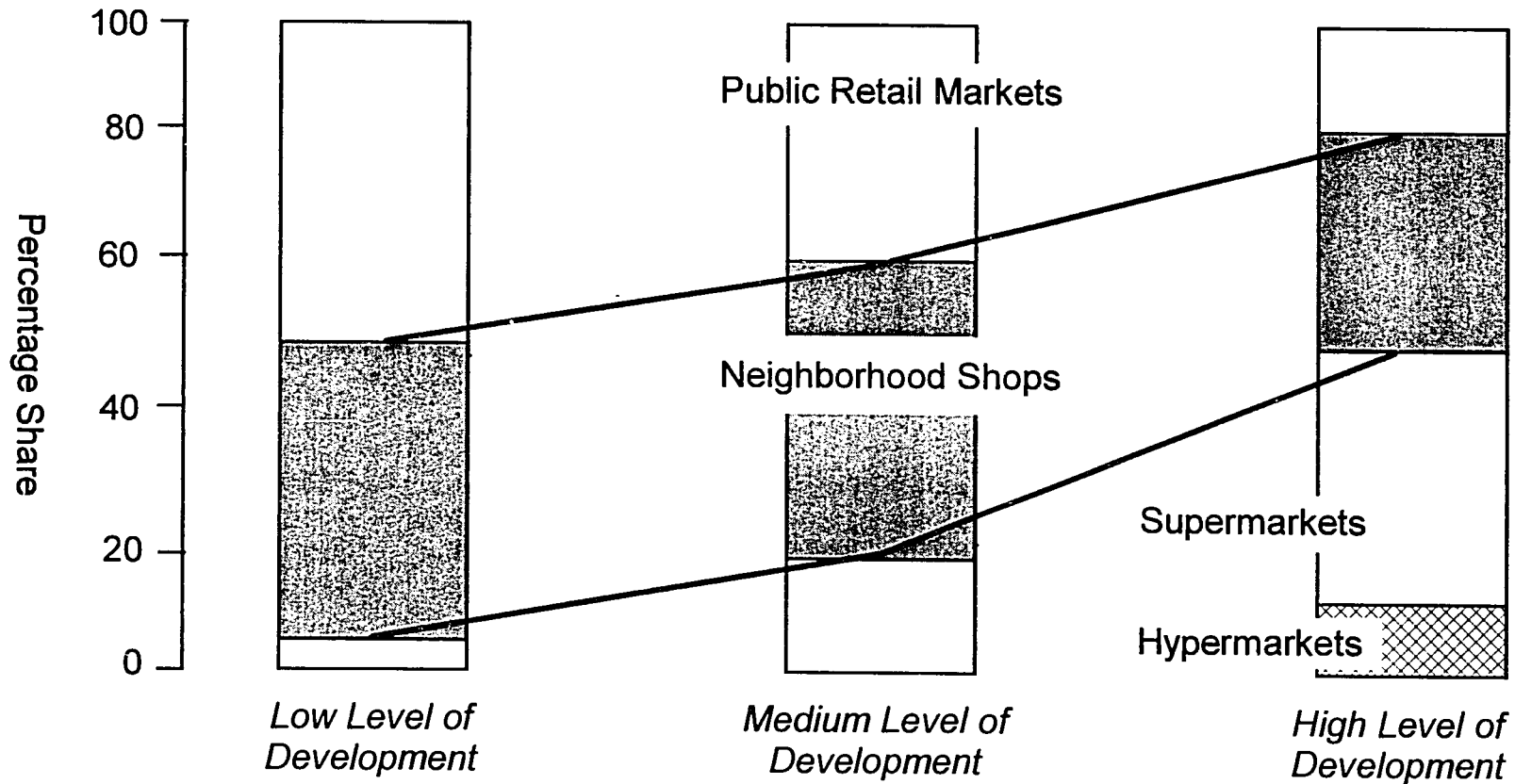
TABLE 1
RETAIL AND SUPERMARKET PRICE COMPARISONS PER KILOGRAM
FOR SELECTED VEGETABLES IN BOGOR
(November 28, 1993)

COMMODITY	RETAIL	SUPERMARKET	DIFFERENCE	
	(Rp)	(Rp)	(Rp)	(%)
Potato	775	1,350	575	74
Tomato	742	1,870	1,128	152
Carrot	517	1,333	816	158
Chilies	1,983	2,500	517	26

Source: Adapted from Table 4, page 18, of Menegay, M.R., Hutabarat, B. and Siregar, M. 1993. *An Overview of the Fresh Vegetable Subsector in Indonesia*. Agribusiness Development Project Working Paper No. 12. p. 6 [Joint project of the Indonesian Ministries of Agriculture and Industry with support from USAID and technical assistance from DAI and subcontractors]

FIGURE 1

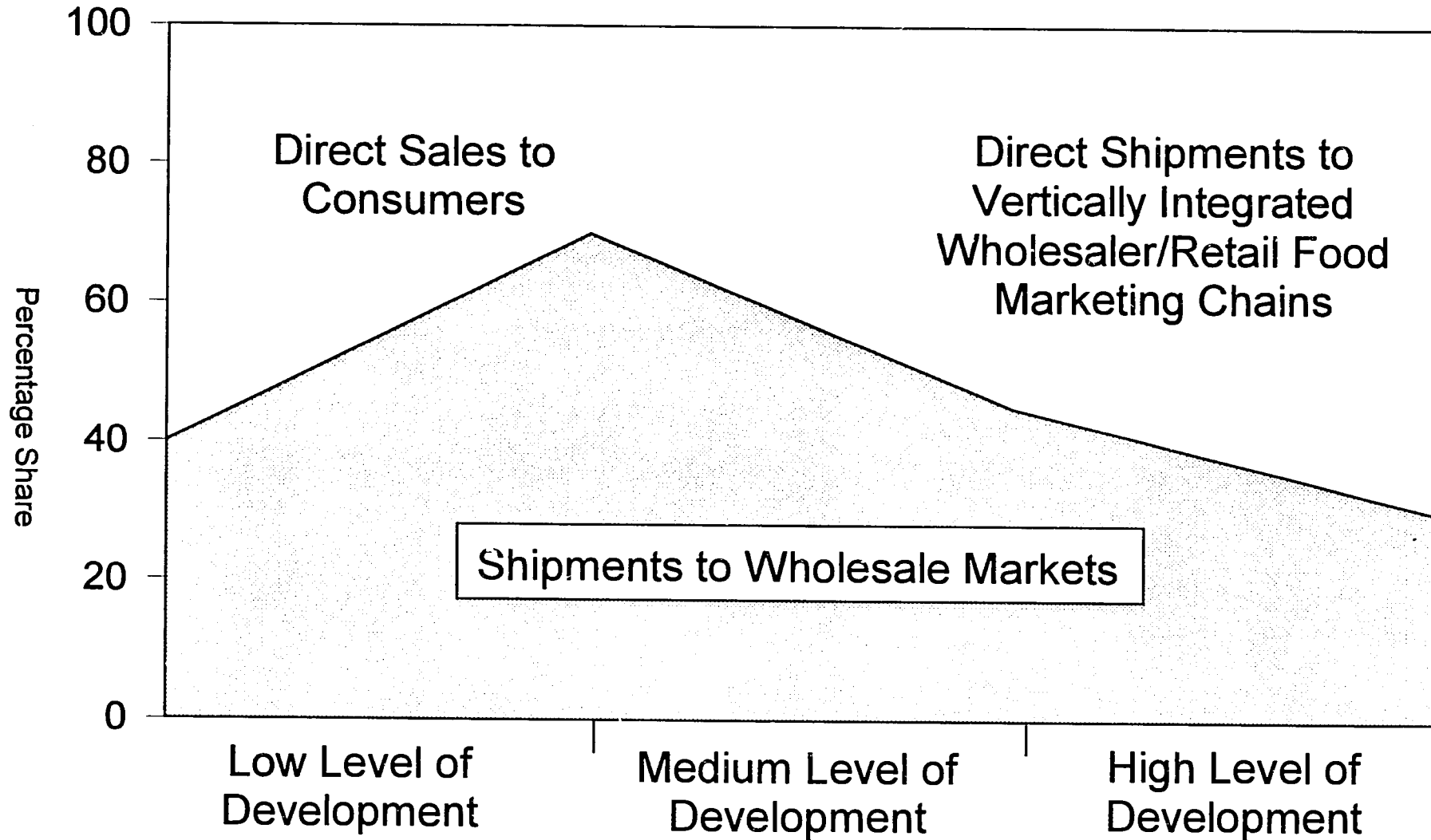
CHANGES IN RETAILING PATTERN



Source: "Wholesale Markets — Planning and Design Manual," Tracey-White, J.D., *FAO Agricultural Services Bulletin*, #90, Rome, 1991.

FIGURE 2

CHANGES IN WHOLESALING PATTERN



Source: "Wholesale Markets — Planning and Design Manual," Tracey-White, J.D., *FAO Agricultural Services Bulletin*, #90, Rome, 1991.

SECTION FOUR

BASIC CONCEPTS

Agricultural marketing specialists have developed conceptual frameworks to gain greater insights into trends in marketing fresh produce. The initial concept is useful for understanding the basics of food marketing based on a large number of producers serving the food needs of many consumers (Figure 3). A second concept concerns the efficient movement of commodities from distant production areas to large urban markets through wholesaling. Figure 4 illustrates benefits from wholesaling, especially the reduced number of transactions required in moving produce from farmers to consumers.

The actual location where wholesaling of perishable commodities occurs in an urban center is also important. For example, wholesaling might be concentrated within a large, well-organized wholesale marketplace or within several scattered individual shops throughout an urban area. A smaller number of wholesale marketplaces has the advantage of scaled economies in terms of a greater number of transactions, garbage removal, efficient breaking of bulk of large shipments, and better access to market information.

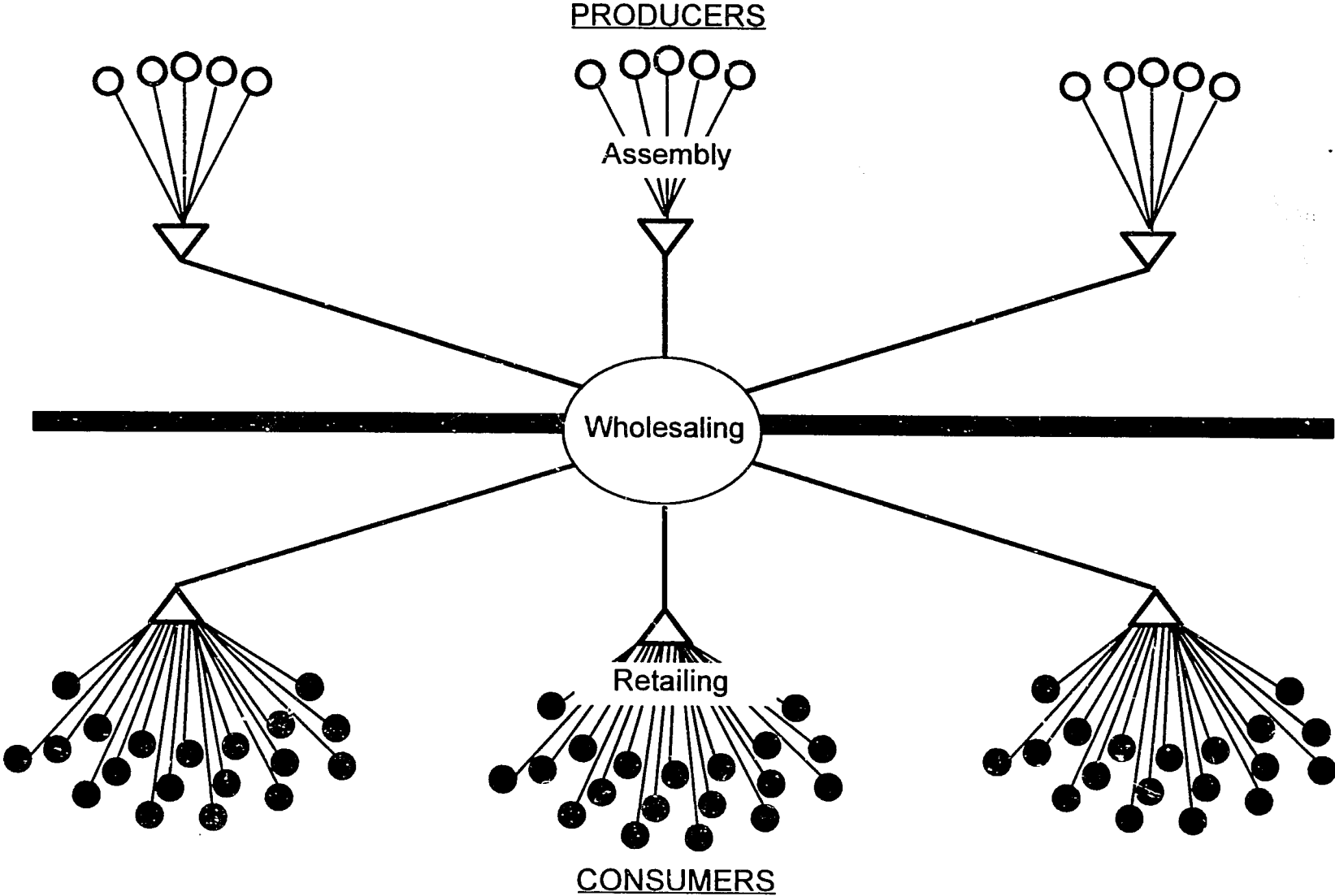
At the retail level, large numbers of vendors still sell fresh fruits and vegetables to consumers from small stands and carts throughout Asian cities. These retailers, as well as their clients, depend on the performance of the urban wholesale markets.

The position and roles of the terminal market are explained in Figure 5, which illustrates the key participants and their interrelationships within most domestic marketing systems for agricultural commodities. Key points include: (1) demand-driven systems — consumer preferences; (2) duality of prominent channels servicing foreign versus domestic consumers; (3) demand implications based on the dual major forms possible in terms of processed products versus fresh commodities; and (4) pivotal position of urban wholesale marketplaces in demand areas relative to alternative types of consumers, channels, and forms. Those marketing channels and participants operate within unique policy and institutional environments for each country.

Figure 6 presents a food systems orientation using a subsector framework, as focused on fresh fruit and vegetable commodities. The main types of market participants are linked as channels responding to domestic and foreign consumers while an array of relevant concerns, functions, and activities are listed under headings of public and private sector. The sectoral designations are indicative of prominent responsibilities and not exclusive jurisdiction of the public and private sectors. This arrangement of concepts illustrates key concepts an analyst should examine in assessing the status and problems of a commodity system.

FIGURE 3

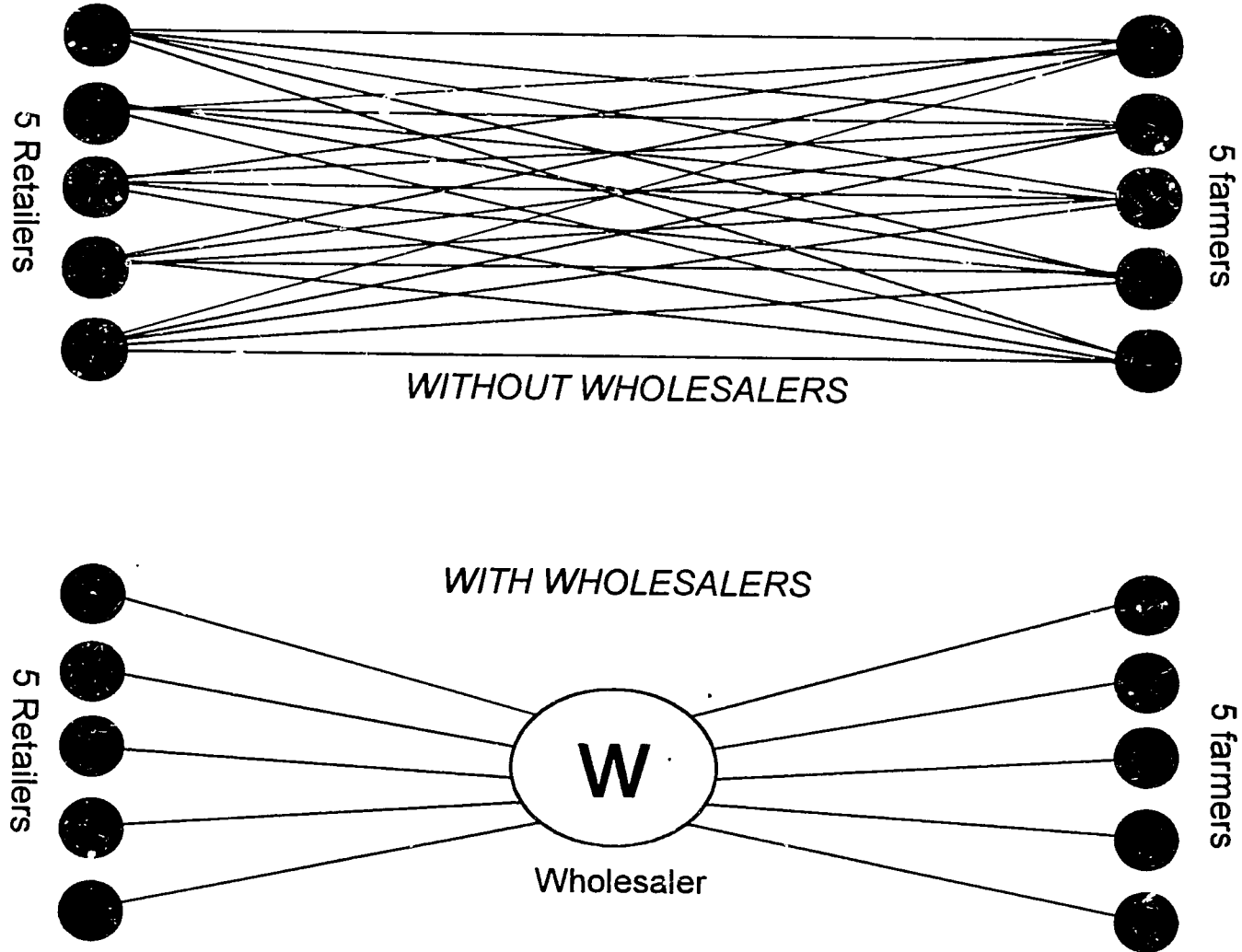
ILLUSTRATIVE FUNCTIONS OF A FOOD MARKETING SYSTEM



Source: "Wholesale Markets — Planning and Design Manual," Tracey-White, J.D., *FAO Agricultural Services Bulletin*, #90, Rome, 1991.

FIGURE 4

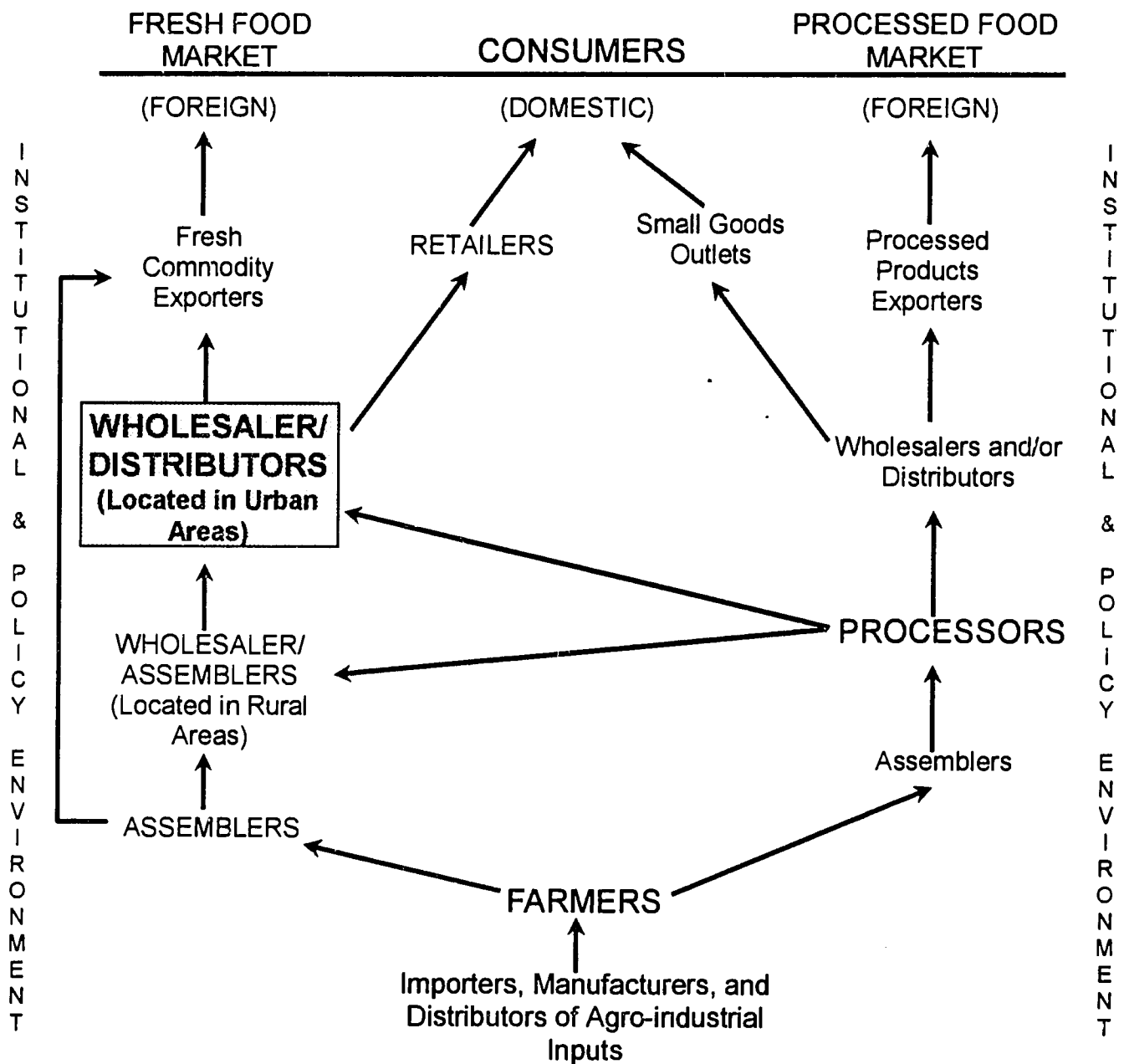
IMPACTS OF WHOLESALING



Source: "Wholesale Markets — Planning and Design Manual," Tracey-White, J.D., *FAO Agricultural Services Bulletin*, #90, Rome, 1991.

FIGURE 5

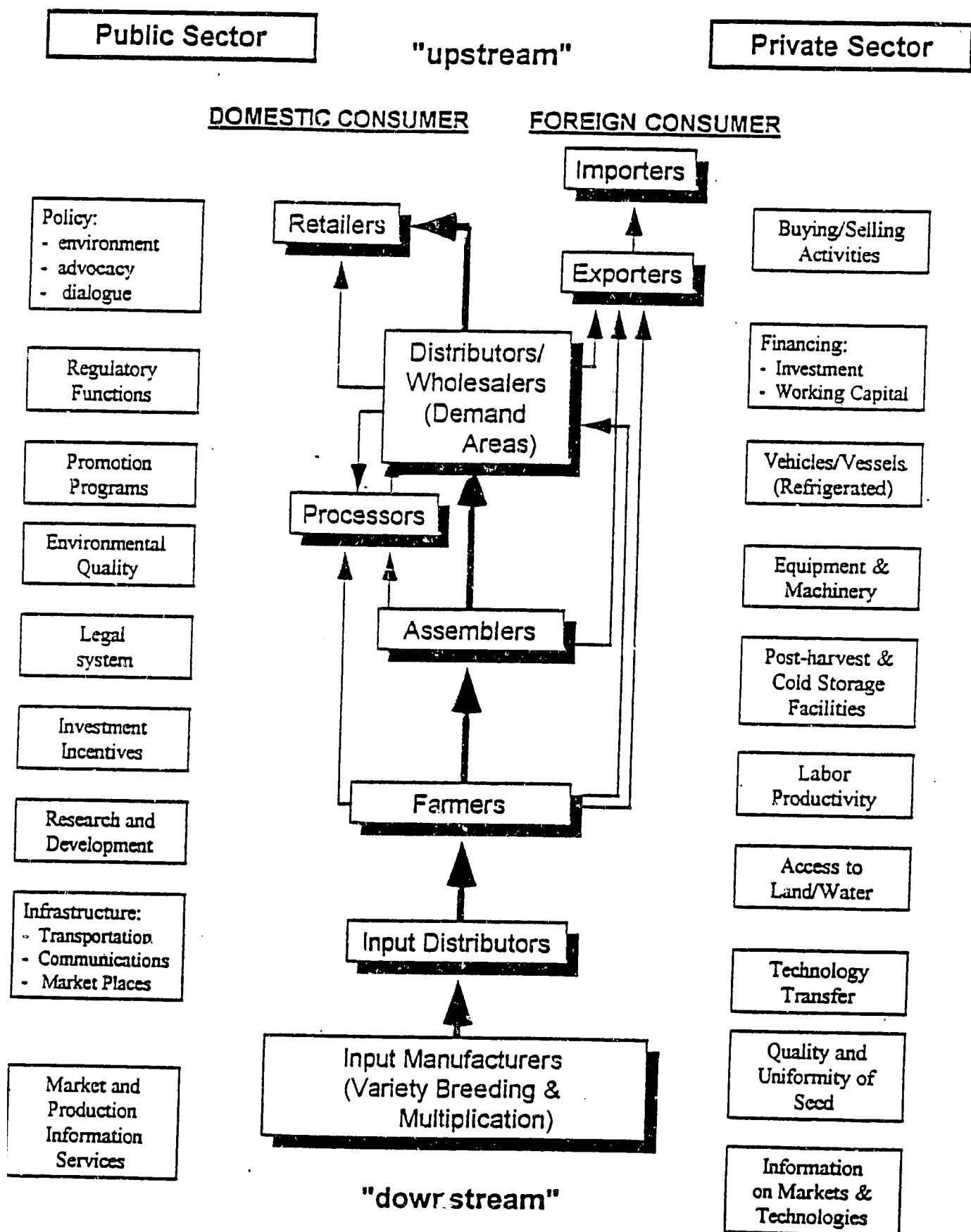
ILLUSTRATION OF SYSTEM PARTICIPANTS IN AN AGRICULTURAL COMMODITY SYSTEM



Adapted from *User's Manual on the Fundamental Analytics for Rapid Marketing Appraisals in the Philippines* by Menegay et al., March 1990.

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FIGURE 6

SUBSECTOR FRAMEWORK FOCUSED ON FRESH FRUITS AND VEGETABLES
(Food System Orientation)



Source: Menegay, M.R., Hutabarat, B. and Siregar, M. 1993. *An Overview of the Fresh Vegetable Subsector in Indonesia*. Agribusiness Development Project Working Paper No. 12, p. 6 [Joint project of the Indonesian Ministries of Agriculture and Industry with support from USAID and technical assistance from DAI and subcontractors]

SECTION FIVE

RAP's APPROACH TO MARKET RESEARCH AND DEVELOPMENT

RAP has developed three main principles for its research and development effort:

- Each country needs a national agricultural-marketing master plan and improvement program to benefit both consumers and growers.
- Improved performance of existing facilities should be based on clear goals and objectives, an understanding of existing marketing systems, familiarity with successful options used elsewhere, and active support for the selected options.
- Marketing research and development as a continuous process should be funded at the national level but with strong municipal support.

All three points will need the insights of lessons learned from successful cases found elsewhere. To achieve these targets, RAP uses a nine-step approach:

- Establish a library of reference materials;
- Prepare an overview of this problem area and a framework for its diagnosis;
- Write workshop and conference papers to generate an awareness of the problem area and its effects;
- Develop guidelines for case studies of successes in managing market modernization and for cross-country diagnostic comparisons of failures to resolve problems;
- Prepare illustrative case studies on more successful marketplaces, such as those in Singapore, Hong Kong, and Taipei;
- Co-sponsor seminars or workshops, followed by an observation/study tour of more successful wholesale marketplaces;
- Conduct cross-country diagnostic comparisons of urban wholesale marketplaces in RAP beneficiary countries;
- Prepare a series of practical guidelines — for example, "How to Define and Expand the Role of Urban Terminal Markets"; and
- Develop practical diagnostic methods for the design, implementation, and monitoring of improved wholesale marketplaces.

Based on the application of this research and development approach, various services will be notified for key participants in the marketing of fresh produce. For consumers, these services may include broadcasts of retail prices early each morning and pamphlets on cleaning fresh produce of common pesticides. For the newer generation of vegetable growers, potential programs would include production and marketing training on postharvest handling techniques, the value of integrated pest

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management techniques, and alternative forms of packaging practices. For wholesalers, programs on banking practices, ways to use available market information, and improved access to foreign market information may be suggested.

This research and development effort assists in developing skills and knowledge for marketing participants that will complement the typical engineering and financial practices for the planning and construction of appropriate physical structures, equipment, and operating procedures.

SECTION SIX

LESSONS LEARNED FROM RECENT CASE STUDIES

There are two main dimensions to lessons learned: macro-oriented problems and the micro-oriented services or functions undertaken.

From the macro perspective, any market improvement plan must match or anticipate changes within the food distribution system over time. For traders within an improved marketplace to coordinate the supplies of fruits and vegetables effectively, communication facilities are needed between markets and major supply areas (domestic and foreign), and transportation infrastructure must ensure easy and rapid access by road, vessels, and/or air cargo.

Depending upon the location and conditions, either a satellite or centralized urban wholesale marketplace may be appropriate. The satellite strategy refers to positioning a few medium-sized marketplaces around the border of the city, along major highways leading from major fruit and vegetable production areas. The centralized strategy refers to choosing a site within the heart of the city.

In Taiwan, the old terminal market for Taipei city was centrally located to provide easy access to retailers during the early morning hours. However, to support over 3 million consumers, the new improved facility was built along the edge of the city with easier access to farm commodities and with a fleet of small pick-up trucks that buyers would rent to transport goods to their individual shops throughout the city. Later, as demand for fruits and vegetables grew, a second marketplace was built along the edge of the city in another area.

In Hong Kong, one facility was built along the edge of the island and another on the edge of the Kowloon mainland to support the 6 million residents within the very densely populated city. Each marketplace has improved access but is not centrally located.

The size of wholesale marketplaces is also critical. Several types of managerial and service problems at the huge Garak Dong Wholesale Market of Seoul result from its extremely large size. There are currently plans to construct additional, more moderate size facilities in other sectors of the city. Tokyo has constructed nine wholesale markets for fresh fruits and vegetables in preparation for entering the 21st century.

More advanced marketplaces in Singapore and Taipei were constructed by the government but are managed by private sector firms or semi-private agencies. Private sector management has been more flexible and efficient than management at facilities previously operated by government agencies.

Although the new Singapore Wholesale Market initially attempted to enforce auctions for all vegetables, it was not accepted by traders so the management shifted to negotiated sales for imports from countries other than Malaysia. Modifications of this facility represent important lessons.

As urban areas and populations expand over time and consumer incomes rise, city planners anticipate the need for changes in urban wholesale market facilities. For instance, Tokyo took advantage of the 1923 earthquake to reconstruct its 20 wholesale markets and has consistently anticipated urban expansion and subsequent needs for improved wholesale facilities. The 1971 Wholesale Market Law was required to cope with the rapid changes and plans for future markets.

Similarly, in the early 1970s, the Executive Yuan of Taiwan promulgated a work plan entitled "Plan for Organizing an Island-wide Agricultural Marketing Corporation." The main objective of the plan was to streamline the flow of agricultural commodities such as fruits, vegetables, meat, and fish. This effort involved planning, constructing, and managing a new wholesale marketplace in Taipei.

Both Japan and Taiwan consciously designed plans, legislation, and investments required for such improvements. They did not make ad hoc improvements to selected facilities but systematically organized this important sector of their urban infrastructure.

SECTION SEVEN

IMPLICATIONS FOR FOOD SCIENTISTS

Improving the performance of urban wholesale marketplaces has several implications for food scientists, food safety experts, and agricultural marketing specialists. There needs to be more applied and adaptive research on practical, cost-effective ways for hauling, handling, and storing fresh fruits and vegetables within and outside cold-storage-chain technologies. This includes training, technologies, and research activities pertinent for supermarkets.

Marketing research on tropical fruit is of particular importance in Southeast Asia. Research needs include short-term storage techniques and packaging methods within urban wholesale markets and at retailers' stands, especially if, by extending the shelf life, more income is earned by everyone in the marketing chain.

Extensionists familiar with the common pesticides applied to each type of crop prior to harvesting should communicate directly with resident food safety specialists, who would monitor residue levels each morning in the urban wholesale markets. Such a program could employ two permanent staff supervising students from a local university. Effective monitoring assumes the availability of practical technologies to measure quickly whether excessive residue is present on particular lots as they arrive and that test results are available before produce is sold. The food safety staff must be able to communicate findings to suppliers of the goods, farmers within the production area, and market authorities who would dispose of the harmful goods.

A select team of agricultural marketing specialists should serve as advisors to the public institution, agency organization, and/or committee responsible for planning the programs to develop food distribution systems. These programs would include urban marketplaces and appropriate enabling legislation. The specialists would consistently monitor changes in the food distribution system and conduct ongoing research and development efforts to improve the organization and operations of that system as well as its ability to service the needs of consumers, traders, and farmers.

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ANNEX A
SERVICES AVAILABLE THROUGH RAP

SERVICES AVAILABLE THROUGH RAP

In many South and Southeast Asian countries, the fruit and vegetable sector of the agricultural economy has grown and become an increasingly important source of food, employment generation, and export earnings. Several of these countries have active agribusiness projects that focus on the expansion of fruit and vegetable exports. Unfortunately, most of the promotion of and fanfare over the expansion of the export component of the horticultural supply has contributed to the neglect of the basics — performance of the local marketing system.

One critical problem recognized by RAP comprises the deteriorating condition, reduced performance, and inefficient operations of many urban wholesale market facilities for fresh fruits and vegetables in major South and Southeast Asian cities. In response to the problem, and in response to requests for assistance from Asian missions, RAP has initiated a multifaceted research and development approach to assist missions and agribusiness projects in addressing this issue. RAP's activities include:

- Establishment of a library of reference materials that are available to the public;
- Preparation of an overview of the urban wholesale marketplace problem area and a framework for its diagnosis;
- Writing and presentation of papers to generate awareness of the problem area and its effects;
- Development of guidelines for case studies of successes in managing market modernization and for cross-country diagnostic comparisons of failures to resolve problems;
- Preparation of illustrative case studies on more successful marketplaces, including Singapore, Hong Kong, and Taipei;
- Co-sponsorship of seminars or workshops, followed by an observation/study tour of successful wholesale marketplaces;
- Implementation of cross-country diagnostic comparisons of urban wholesale marketplaces in RAP beneficiary countries;
- Preparation of a series of practical guidelines — for example, "How to Define and Expand the Role of Urban Terminal Markets"; and
- Development of practical diagnostic methods for the design, implementation, and monitoring of improved wholesale marketplaces.

ANNEX B
REFERENCE MATERIALS

REFERENCE MATERIALS

RAP has identified and assembled materials on the position, role, and conditions of wholesale marketplaces and related topics. Studies, dissertation abstracts, reports, and case examples of marketplace development are available. Major technical areas include agricultural economics; produce marketing; urban development, as part of the services for urban households; and infrastructure, the construction of marketplaces. The box at the right describes specific keywords used in the literature search to identify publications. Documents are arranged by title, followed by author name. When ordering a document, please indicate the title, author, date, and the number listed on the left side of the page. For further information, contact Dr. Merle Menegay at the RAP Clearinghouse, 7250 Woodmont Avenue, Suite 200, Bethesda, Maryland, 20814, USA. The fax number is (301) 907-2655; the Internet address is rap@dai.com.

Key Words Used in Literature Search

- ▶ market facilities
- ▶ wholesale markets
- ▶ wholesale facilities
- ▶ marketplaces
- ▶ public markets
- ▶ urban infrastructure
- ▶ vegetable markets
- ▶ fruit markets
- ▶ fruit trade
- ▶ produce marketing

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ANNEX C
INFORMATION RESOURCES

INFORMATION RESOURCES

Helpful organizations and their contact information are highlighted below.

University of Maryland, Agricultural Economics Department

Symons Hall
2200 Campus Drive
College Park, MD 20742
Ph. (301) 405-1293

Although modest in size, the agricultural library offers many journals and doctoral dissertations in agricultural economics. Computers equipped with electronic card catalogues are useful for keyword searches. The literature is available in the agricultural library or in the main library of the university.

The main library provides access to several databases, including Dissertation Abstracts International. This comprehensive database is a definitive subject, title, and author guide to master and doctoral dissertations worldwide. The system is user-friendly, and abstracts are available for almost all the citations. In addition, the library has business and economic literature indexes.

The Library of Congress

10 First St., S.E.
Washington, D.C. 20540
Ph. (202) 707-5000

Besides housing the largest collection of literature in the United States, the Library of Congress serves as an FAO depository. Many of the official documents of the FAO are available upon request in the Serial and Government Reading Room in the Madison Building. To request documents, a form must be completed and presented, along with a photo I.D., to the reference librarian. Waiting time is 45 minutes to 1 1/2 hours. There are plenty of copy machines to xerox the retrieved documents.

The electronic card catalogue uses interactive screens that make navigating through the database easy. Multiple keyword searches allow the user to narrow and define the search.

National Agriculture Library

10301 Baltimore Blvd.
Beltsville, MD 20705
Ph. (301) 504-5755

This library is the official library for the U.S. Department of Agriculture; articles and reports from USDA will be located at the National Agriculture Library, not at USDA. The library contains an extensive collection of materials and information about all fields of agriculture. This library is an excellent resource for agribusiness materials.

As in the Library of Congress, request forms must be submitted to the reference librarian. There is a 45-minute wait to receive documents. It is a good idea to perform searches on the library's electronic

card catalogue, AGRICOLA (available from the library on CD-ROM) before going to Beltsville. Copying facilities are limited.

World Bank/International Monetary Fund Joint Library

1875 Eye St., N.W.
Washington, D.C. 20433
Ph. (202) 623-7054

An application form must be submitted to the library before an appointment can be scheduled. Appointments have at least a two-week waiting period, as the library only accepts a limited amount of people per day. A photo I.D. is required.

This library is a good resource for reports and case studies of developing countries, although one should have a list of materials to obtain before coming to the library. It is a self-serve system, and documents are easy to find. The joint Bank-Fund library is the largest of several World Bank libraries. Other parts of the Bank, such as the Economic Development Institute, house their publications in other locations.

Food and Agriculture Organization Library

1001 22nd St., N.W.
Washington, D.C. 20437
Ph. (202) 653-2402

The FAO library contains a small collection of recent FAO studies and reports. The library is tiny and has a limited number of documents. An appointment must be scheduled in advance. As there is no computer catalogue system, it is a good idea to ask the librarian about specific reports before making an appointment. Copying facilities are available.

Food Marketing Institute

800 Connecticut Ave., N.W.
Washington, D.C. 20006
Ph. (202) 452-8444

An appointment must be scheduled in advance to visit the FMI library. Documents are available in a self-serve system, but a reference librarian is assigned to help individuals find relevant material. There is a substantial collection of magazines, folders with clippings organized by subject matter and country, and books relevant to the food industry. The library is useful for up-to-date references, particularly those cited within trade journals and related publications. A computerized card catalogue with a subject-searching capability is available.

Development Information Center: U.S. Agency for International Development

SA-18, Room 105
Washington, D.C. 20523-1801
Ph. (703) 875-4818

The library's collections include major USAID reports, USAID project and technical documents, the USAID historical collection, books, serials, and newspapers. Services include access to databases, references, interlibrary loans, and document delivery. Microfiche copies of more than 80,000 project and technical documents are available, including field studies, manuals, and research reports, as well as project design, implementation and evaluation reports. There is a 10-page photocopy limit. Full text copies, however, can be ordered from the Development Information Services Clearinghouse, at (703) 351-4006.

Postharvest Institute for Perishables

University of Idaho
Moscow, ID 83843
Ph. (208) 885-3576

Operating under a Cooperative Agreement with USAID, PIP works with other international donors and the private sector in its efforts to reduce postharvest losses of perishable commodities and improve marketing systems. PIP has various functions and facilities which enable it to respond to requests for assistance relating to the entire postharvest handling and marketing system. These include information and networking services, marketing systems analyses, and postharvest program development.

U.S. Department of Agriculture, USAID Technical Inquires Group

USDA/FAS/ICD/DRD/TIG
Room 3110-A, South Building
Washington, D.C. 20250
Ph. (202) 690-1826; fax (202) 690-4846

TIG at USDA researches and provides technical literature about agriculture, agribusiness, and natural resources. In responding to inquiries, the staff reviews, selects and disseminates literature and data from USDA and worldwide sources. The literature furnished to requesters is individually tailored, and links the users with worldwide research results and technology applications in all aspects of agricultural production, with emphasis on sustainable agriculture and integrated pest management; and in agro-enterprise development, marketing, and food processing.

TIG responds to inquiries from USAID project officers, policy makers, project implementers, and cooperators in governments, nongovernmental organizations, trade promotion agencies, and environmental organizations. The materials are used for policy formulation, market analysis, feasibility studies, project planning and evaluation, applied research, and local information-resource building.

University Microfilms International

300 North Zeeb Rd.

Ann Arbor, MI 48106

Ph. (800) 521-3042

UMI helps researchers identify relevant titles of doctoral and master theses within specific subject areas, such as marketing. Each entry in a subject catalog lists the author, full title, degree earned, school name, date of degree, number of pages, citation to *Dissertation Abstracts International* or *Masters Abstracts* (volume/issue/page number), and the order number. All titles listed in the subject catalog are available as xerographic reprints on paper, on microfilm, or on microfiche.

UMI also provides other tools for quick access to the dissertation database. *Dissertation Abstracts International*: The author-prepared summaries of dissertations provide a basis for evaluation of a source's relevance to a research topic. Comprehensive Dissertation Index Database (CDI): This database contains citations from *Dissertation Abstracts International*, *American Doctoral Dissertations*, *Masters Abstracts* and *Research Abstracts*. CDI contains bibliographic information on almost every doctoral dissertation accepted in North America since 1861, organized into broad subject keyword indexes and an author index.

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