

DEVELOPMENT PLANNING FOR AGRICULTURAL MARKETING SYSTEM IN DEVELOPING COUNTRIES

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I. Introduction

Marketing has been defined in many ways. Kohls and Downey define marketing as the performance of all business activities involved in the flow of goods and services from the point of initial agricultural production until they are in the hands of the ultimate consumer.¹ Dahl and Hammond view marketing as a sequential series of functions that need to be performed as the input or product moves from its point of primary production to ultimate consumption. The underlying idea is that production ends and marketing begins at the farm gate when the first transfer of ownerships takes place.² Purcell defines marketing as the set of economic and behavioral activities that are involved in coordinating the various stages of economic activity from production to consumption. Production is viewed as a part of an interrelated set of economic activities, and emphasis is placed on the working of the marketing system as the means of achieving coordination between production and consumer demands. Starting with production, there is a set of economic stages of activities that constitute building block in establishing the bridge between production and consumption. Each stage produces either form, place, and/or time utility to contribute to the final product that is made available to the consumer, shown in Figure 1.³

For the purpose of planning for marketing development in developing countries, the development of marketing activities include;

- 1) Improvement or investment in physical facilities, such as,
 - Retail markets,
 - Wholesale markets including marketing centers,
 - Rural markets,

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¹ Richard L. Kohls and W. David Downey, *Marketing of Agricultural Products*, New York, Macmillan, 1972.

² Dale C. Dahl and Jerome W. Hammond, *Market and Price Analysis*, New York, McGraw-Hill, 1977.

³ Wayne Purcell, *Agricultural Marketing Systems, Coordination, Cash and Future Prices*, Reston, Virginia, A Prentice-Hall Co., 1979.

FIGURE 1 Economic Stages of Activities in a Marketing System

Consumption
Retailing
Wholesaling
Processing
Assembly
Production

- Storage facilities,
 - Transport facilities,
 - Handling facilities,
 - Packing and packaging facilities,
 - Processing facilities,
 - Slaughterhouse and dressing facilities.
- 2) Strengthening marketing facilitating services, such as,
- Grading and standardization,
 - Packaging,
 - Marketing information,
 - Marketing financing and credit,
 - Marketing extension services,
 - Rules and regulations,
 - Trade practices,
 - Research.
- 3) Establishing or strengthening marketing institutions, such as,
- Official marketing organization,
 - Cooperative marketing organization,
 - Public-sector marketing and agri-business organization.
- 4) Training of manpower
- Organization of trainee at different level; policy and planning level, managerial level, extension officer's level, merchant's level, farmer level,
 - Development of curriculum for the different level,
 - Development of training institute.
- 5) Operation and management of marketing facilities
- Buying and selling method,
 - Coordination of operation, maintenance, unloading, monitoring and cleaning,
 - Antitrust activities,
 - Development of new technique for operation and management.

The integrated planning for agricultural marketing development is essential to increase efficiency of marketing system. The marketing system

from farmer to consumer as a chain made up of individual links; farmers, rural collectors, processors, truckers, wholesalers, retailers and consumers, are mostly private firms participating in a free market. Their actions are circumscribed by supply and demand forces as well as legal constraints, government policies, resource availability and access to management, education and technology.

Since a chain is only as strong as its weakest link, the entire system is affected by the structural weaknesses and inefficiencies of each link. Furthermore, the forces development have modified the cultural and economic environment which produced the current marketing agents and their methods. A systematic diagnosis of whole agricultural marketing system performance in relation to development goals is a necessary first step toward formulation of integrated marketing development plans/programs.

II. Considerations in Planning for Agricultural Marketing Development

1. Criteria for Evaluating and/or Improving System Performance

Improvement in marketing efficiency have their origins in productivity improvements in the use of labor, capital or management resources by individual marketing firms (regardless of whether ownership of the marketing firm is public or private). Those productivity improvements reduce marketing costs, which in turn may produce greater profits for the marketing firm or, in a competitive environment, may be passed on to consumers and producers.

Therefore, marketing productivity improvements are clearly beneficial to the society at large but only to the extent that marketing firms are obliged, by competition or some other mechanism, to pass on a substantial portion of those benefits in the form of lower prices to consumers or higher prices to producers. Again, it matters not if the firm is privately or publicly owned.

Six concepts of marketing and micro economic theory have been shown to give rise to productivity improvements. At each level of the marketing system it is possible to use these criteria as a yardstick to evaluate the degree to which appropriate innovation has been achieved, and to provide an indication of the kinds of activities which might be undertaken by government to stimulate improvements in marketing productivity. The first has to do with functional and product specialization. The second is linked to economies of scale. The third is associated with task routinization. The fourth, location economies is closely related to transportation costs. The fifth, economies of transformation, is associated with changes in product form of temporal presentation to the market. Finally, the efficiency and progressiveness of a marketing system can be judged by the prevailing attitude toward technolo-

gical and managerial innovation. The Korean marketing system will be examined in light of each concept as briefly described below.

The *concept of economics of specialization* in the food system can be confusing because of different interpretations at various points in the system. On the one hand, experience has shown that increasing product specialization by individual farmers and their buyers within a region normally leads to increased efficiency. Thus, climatic and soil conditions in a given area lead to production of a few products best suited to those conditions. Similarly the buyers of those products develop special knowledge and expertise in the purchasing, packaging, handling, transportation and sale of those products. But on the other hand, on the distribution side of the marketing system, there are diseconomies to product specialization. The food wholesaler or retailer who specializes in relatively few products will have higher costs than the retailer or wholesaler who carries a broader assortment of products. The efficient retailer should specialize in supplying a complete assortment of products required by consumers in his geographic trade area. Similarly the efficient wholesaler should specialize in supplying the assortment of products required by retailers in his geographic trade area.

The concept of *economies of scale* is straightforward: as a marketing firm's sales volume increases up to a certain point, the cost per unit declines as a result of spreading fixed costs over a large number of units.

Economies of routinization are associated with identifying, through trial and error or research, the most efficient way to perform a task or set of tasks. Once discovered, those work patterns can be transmitted to others through job training in the form of work routines or standard operating procedures. Operating costs can be reduced by decreasing labor costs per unit of sale, increasing sales volume per unit of capital invested, reducing product loss by improved handling methods, and similar business performance standards. In marketing, such things as grading, standard measures and standard packaging are routinization strategies. Marketing firms, like other businesses, can also benefit by routinizing certain business decisions, such as accounting procedures, inventory control, and reorder procedures. All these things can reduce transaction and managerial costs.

The concept of *location economies* is linked to the simultaneous minimization of raw material and final product transportation costs, assuming that other production costs are equal. Thus, one would expect a bulky product (say potatoes) to be produced near consumption centers, all other things being equal. There are many opportunities to reduce urban food costs through integrated production-marketing planning with special attention to location economies.

Economies of transformation are associated with those marketing activities which modify the presentation of the product in its form or time of delivery in order to enhance value or reduce costs. Storage, processing, packaging and grading are all ways of achieving transformation economies.

In all cases, the decision by a marketing firm to undertake one of the transformation activities must be economically evaluated: Will the cost of transformation be more than offset by increased price? Clearly, storage or any of the other transformation activities will not always be economical. In fact, experience has shown that often a given transformation activity is not economically justified. For example, it is sometimes uneconomical to adopt improved packaging or grading. Nevertheless, a high physical loss rate and extreme temporal price differentials indicate opportunities for achieving increasing marketing system efficiency through transformation economies.

The final concept useful for evaluating the performance of the Korean food marketing system is related to *economies arising from technological innovation*. A progressive marketing system would be one where firms are constantly seeking out and adopting new ways of performing their marketing activities more efficiently. As in any economic activity, the developing country cannot automatically assume, however, that technological marketing innovations from more developed economies are economically efficient in their particular situation; but the other extreme should also be avoided. Specialized marketing education plays a crucial role in creating the kind of environment in which technological and managerial innovation can thrive.

In order to determine if sufficient competition is present, we can draw on the economic theory of the perfect market which states that a market will work perfectly when there are numerous competitors with perfect information and no barriers to trade. Thus, in a perfect market, competition will force participants to pass on the benefits of productivity improvements to consumers in the form of lower prices. The operational criteria for determining if a market is working well are: (1) to determine whether price differences for a given product at a deficit location exceed transportation and marketing costs from a surplus location, and (2) to determine whether price differences for a given product at one point in time exceed storage, transformation and interest costs from an earlier time period.

2. Economic Justification for New Investment or Use of Existing Facilities

It is often found that the agricultural marketing development plan includes mostly new facilities investment plan before considering the improvement of the existing facilities and alternative use of the existing market place.

In the most developing countries, the existing marketing facilities are so old and light-invested that their salvage values are very low and that new investment in marketing facilities is likely to be justified. Market is mostly located in the center of a city and price of the market site is very high. It is necessary to evaluate every alternative use of market site before rehabilitation of or new investment to the existing market facilities is determined.

Economic justification for new investment of marketing development is very complicated because the social benefit is very hard to quantify. The

feasibility analysis of agricultural wholesale market project is shown as example.

Feasibility Analysis of Agricultural Wholesale Market Project

Normally, there are six(6) basic steps in the feasibility analysis for the agricultural wholesale market project as shown by the accompanying chart.

- 1st step: Projection of market throughput by product
- 2nd step: Determination of market scale and facilities requirement
- 3rd step: Estimation of capital investment costs
- 4th step: Estimation of benefits(or revenues)
- 5th step: Estimation of operating costs(or annual expenses)
- 6th step: Calculation of ERR and FRR

Projection of market throughput in the 1st step provides a basis for determining the size and scale of market facilities as well as basic information for estimating the flow of benefits or revenues in the 4th step. The 2nd step, estimation of required scale of market, provides an essential information for the 3rd step, estimation required capital costs, and for the 5th step, estimation of operating cost.

No matter how rigorous the formal analysis in the 6th step may be, the accuracy and effectiveness of the project evaluation depends upon how accurately each of the preceding steps have been carried out. None of the six steps should be overlooked or given short-cut treatment in the analysis. The complete feasibility study requires a team members representing the technical, engineering, economic knowledges required for the concerned project.

A. Projection of Market Throughput

In order to project the volume of farm product to be marketed through the planned market, the following items should be determined or estimated on the basis of available data.

- 1) Follow-in of agricultural, fisheries and livestock products by items by feeder road
- 2) Transaction volume of agricultural, fisheries and livestock products in the existing wholesale markets
- 3) Consumption by item by market sphere
- 4) Projection of population and total demand by item
- 5) Possibility of inducing merchants(i.e.wholesales, retailers, jobbers) and products to be merchandized

What is important in determining the scale of wholesale market concerned and its facilities is the average daily throughput, not the annual or monthly volume. Seasonal variation of farm products transactions should be fully taken into account in projecting the average daily volume of marketing through the wholesale market concerned.

B. Determination of Market Scale, Facility Requirements

If the volume of products to be marketed through the wholesale market concerned is estimated, the next step is to determine the scale and various facilities and equipments to be installed for the planned market. The development of the general plan and design for the project and the specifications for facilities and equipments represents one of the most crucial prerequisites for and accurate estimate of capital cost and investment schedule in the 3rd step.

The steps involved include (1) the general plan, design and specifications for the facilities(including land purchase), (2) the list of quantities of materials and equipment, (3) the unit prices from the most reliable sources for the materials and equipment, (4) the construction schedule.

B.1. General Plan, Design and Specification

The plan and design must be technically sound and completely workable for the planned market. They must represent the most efficient way of doing the job considering available technology. If a similar wholesale market is operating successfully in the area, it may represent prototype upon which the design of project can be based. If the project is new to the area, then experts who have experiences in similar project must be brought in to help with the project planning.

Normally several alternative plans(including different locations) must be considered in the process of selecting the one to be used for the feasibility analysis. Some of the alternatives may be rejected for technical reasons or because of unsuitable location, or because of difficulties involved in purchasing land for market site.

B.2. List of Quantities of Materials and Equipment

A complete list of the quantities of each type of construction materials and kind of equipment needed for the project must be worked out from the general design and specifications for the facilities. This list of quantities provides the basis for the cost estimate. Care should be taken not to overlook important items.

Any change which reduces the amount of materials required or permits substitution of lower cost materials or equipments without affecting the technical soundness of the project will reduce the total capital cost and upgrade the project feasibility.

B.3. Unit Costs

Unit costs must be estimated for each of the items included in the list of materials. The unit costs should reflect any taxes, duties and subsidies as well as transportation costs from the source to the site of the project.

The labor cost for construction, erection and installation should be estimated separately for each item in the list of materials so that the total in-

place cost can be determined. Both the unit costs for the materials and the construction labor costs should be based on current price levels, so as to be comparable with projected revenues and operating costs for the project. Inflation may cause the cost to be underestimated by the time construction contracts are awarded, but this can be reflected after the feasibility analysis has been completed.

B.4. Construction Schedule

Feasibility analysis based on the ERR and FRR is highly sensitive to the timing of capital expenditures for the project. For the reason, the economic and financial potential for any project depends in part on how carefully the construction schedule has been planned. A construction schedule which moves the various phases of construction through well-timed sequence in a minimum total period can enhance the economic and financial feasibility of any project. A schedule which requires large capital expenditure at the beginning of the construction period may reduce substantially the potential ERR and FRR.

Alternative methods of phasing the construction stages and sequencing these phases should be studied. Special attention should be given to minimize the time interval between the start of construction (or the purchase of land site) and the realization of actual operation.

C. *Estimation of Capital Investment Costs*

The steps involved are (1) capital cost estimate, (2) useful life of major facilities, (3) schedule of capital investment for major facilities, and (4) schedule of total capital investment.

C.1. Capital Cost Estimate

The total capital cost estimate is based on the list of materials (including land purchase), unit costs and construction cost for the project. The contingencies reflected in the cost estimate should be consistent with sound engineering practice and the degree of detail in the designs upon which the estimate is based. Normally, costs for contingencies are entered explicitly as percentages of the total construction costs and included in the estimated total capital cost for the project.

In the cost estimate, it is important to identify separately the costs for items which must be imported. The size of the foreign currency component of the total cost estimate can be a major factor in determining the source and terms of financing the project. It may also affect the foreign exchange position of the country and therefore the indirect benefits that will accrue from the project.

Indemnities to be paid for property to be occupied or damaged due to the project implementation (for example, crop harvest foregone, etc.) should be included in the capital cost estimate. Reductions in incomes on adjoining

properties must be included as negative benefits in economic analysis, regardless of whether they are to be reimbursed by the project. Any reduced incomes already reflected by indemnity payments in the capital cost estimate should not be entered again. Care should be taken to avoid double counting.

C.2. Useful Life of Facilities

The estimated number of years of useful life of each facility is necessary for determining when the replacement cost for that facility should be re-entered to the investment schedule. The years of useful life for facilities, machinery and equipment should be based on realistic expectations of when the item will need to be replaced.

Manuals are available which list for depreciation purposes the normal useful life for most kinds of machinery and equipment. The best source of information is the Official Manual Published by the government which lists the years of useful life over which depreciation is to be taken for income tax purposes.

In exceptional cases where the hours of operation for a certain equipment are expected to be unsuually high or unusually low, the years for replacement may be calculated appropriately.

C.3. Capital Investment Schedule for Major Facilities

The schedule of capital investment for major facilities by year over the planning period for the project is developed from the capital cost estimate, the construction schedule and the years of useful life for each of the facilities and kinds of equipment. The original installed cost of each facility (including land purchase) is entered to the investment schedule for the year in which that facility is to be constructed.

The cost for facilities which need to be replaced one or more times over the planning period of the project is entered again for the year or years in which it will be replaced. The cost entered for the year of replacement should be identical to the original cost without adjustment for inflation. If the facility to be replaced has a residual value at the time it is to be replaced, then only the difference between the original cost and the residual value is entered as the net replacement cost.

C.4. Total Capital Investment Schedule

The final schedule of total capital investment for the project represents the combination of the investment schedule for major facilities, the schedule of working capital requirement, replacement costs, contingencies, and any other capital requirements for the project as a whole. In this schedule the preparatory expenses for project planning and design such as survey cost and expenses incurred for feasibility analysis must also be included. When completed, the schedule of total capital investment shows the combined capital requirement for all purposes associated with project for each year over the

planning period.

It is important to understand that the schedule of total capital investment does not show the amount of equity and borrowed capital which must be raised for the project. The net requirements for equity and borrowed funds needs to finance the project are determined at a later step in the feasibility analysis, when the various financial statements are to be prepared.

D. Estimation of Benefits (or Revenues)

In financial analysis where we are undertaking our analysis from the standpoint of an individual entity, we are mainly concerned with the revenue earning considerations of a project. In economic analysis, however, where we are considering the return to the whole society, any added values generated from the project implementation must be regarded as benefits. Therefore, the specific forms in which benefits appear are not always obvious and valuation problems may be exceedingly difficult. It may be tangible or intangible, quantifiable or unquantifiable. Those benefits, even if intangible or unquantifiable, need to be evaluated as part of the over-all appraisal of the project with appropriate explanation.

D.1. Benefits for Economic Analysis

The primary objective of the establishment of new wholesale market is to improve farm products marketing for the benefits of both producers and consumers. Benefits due to improved marketing arise from following sources:

- 1) Reduction in spoilage losses
- 2) Improvement in product quality
- 3) Reduction in traffic congestion and transport delays
- 4) Reduction in transport cost through improved distribution system
- 5) Additional incomes from improved backhauling
- 6) Benefits (or incomes) from alternative use of the old market site

D.1.1. Reduction in Spoilage Losses

The effect of reducing spoilage loss, in the marketing process may differ depending on product item handled, temperature, degree of humidity and season. Since there is no uniform method available for evaluating spoilage losses, an appropriate method must be studied and developed to suit to the individual cases.

A method usually applied is to estimate, through an actual survey or interviews with merchants, the rate of spoilage losses in the existing market and the new market concerned, and to estimate the differences between two spoilage loss rates. For references, the World Bank survey team projected a reduction of spoilage loss for various items in connection with the establishment of the Garak-Dong Agricultural Wholesale Market in Seoul. Spoilage loss rate for horticultural products was estimated as 5.5 percent in the currently existing Yongsan Market, but it was estimated to be reduced to 3.3

percent when the new market was to come into operation. This means that about 2.2 percent of horticultural product throughput would be saved from spoilage, representing net benefit due to project. In case of marine products, the rate was projected to decline from 2.3 percent to 1.3 percent, with net benefit of reducing 1.0 percent.

According to their report, these rates of spoilage losses would further be reduced by 40 percent in one year after the market comes to fuller operation.

D.1.2. Improvement in Product Quality

Because of reduced congestion within and near the new market, and because of availability of higher capacity storage and prompt transactions, the quality of handled products would be substantially improved. The improved quality makes it possible to claim for higher prices for the benefit of shippers. It is not easy task to evaluate the degree of quality improvement and to connect it to value terms.

One method of evaluating the quality improvement is to apply the price difference between different quality products on the basis of quality standard. Again as references, the World Bank team estimates indicate that auction price of fruit and vegetables would be 3.3 percent higher and that for marine products 2.0 percent higher in the new market than in the existing market.

D.1.3. Reduction in Traffic Congestion and Transport Delays

Transport delays due to traffic congestion can be regarded as social cost in that the idle time caused by traffic congestion could be used for earning additional income. If traffic congestion is to be reduced by establishing a new market in different location, it would result in reduction in social cost. Net savings in social cost due to improved traffic conditions, therefore, are the difference between the estimated social cost arising in the existing market and in the new market.

Social cost in each market can be estimated through four steps: (1) estimation of total idling time, (2) estimation of number of trucks running for each market, (3) estimation of opportunity cost per unit time of idling, and (4) estimation of total social cost.

In the first step, total idling time can be obtained by subtracting the normal requirement of stop-hours in running-time for shipping from the estimated stop-hours due to congestion. Total idling time can be estimated by subtracting the time length during which loaded trucks flow into the market most frequently. That is:

- Total idling time
= (total stop-hours) – (normally required stop-hours in running)
- Total stop-hours
= (time length with highest frequency flow-in of unloaded trucks)
– (time length with highest frequency flow-in of loaded trucks)

The next step is to estimate the number and kind of trucks by different size that are engaged in shipping for each market. The third step is to estimate the opportunity cost per unit time of unnecessary idling due to congestion. The opportunity cost can be estimated based on the normal running fee per unit of time for different sizes of transport delay is estimated as:

- Total social cost

$$= (\text{estimated opportunity cost per unit time}) \times (\text{unnecessary time of idling}) \times (\text{total number of running trucks})$$

Finally net savings in social cost due to the improved traffic condition can be obtained by subtracting the estimated social cost in the new market from that in the existing market, that is:

- Net savings

$$= (\text{social cost in the old market}) - (\text{social cost in the new market})$$

D.1.4. Reduction in Transport Cost through Improved Distribution System
 In order to estimate the effect of improved distribution system, the following informations are needed:

- Shipment by feeder road
- Location and estimated throughput
- Estimated demand by retailers
- Distance from the market site to each retail market

D.1.5. Additional Income from Improved Backhauling System

Presently a large number of shippers stay idle or return to producing areas with empty trucks because of lack of efficient information system which links the needs of shipment between producing and consuming areas with the supply of transport means. If the new market would provide this linkup, additional income could be earned by shippers through fuller realization of trucks. The effect of improved backhauling can be estimated as:

- Additional income

$$= (\text{rate of backhauling}) \times (\text{number of ship-in trucks}) \times (\text{estimated transportation cost between local and urban market})$$

D.1.6. Benefits from Alternative Use of Old Market Site

The old market site can be disposed of in a number of ways. If it is to be sold for a lump sum money and if that money is to be used for the purchase of land for the new market, it needs to be deducted in the capital cost estimates. But if new facilities such as new buildings are to be built to obtain rent regularly, the old market site must be entered as cash revenue.

If no decision is made as to disposal until the new market comes in to operation, it is recommended that the value of land be evaluated at the price of land for the residential purposes in the vicinity. And the amount must be

deducted from the land purchase cost for new market site.

D.2. Revenues for Financial Analysis

Because financial analysis deals primarily with the revenue earning consideration of individual entity which participates in the wholesale market project, the source of revenue may differ depending on each participant. The market management authority derives its revenue from rents, various commission and fees, and interest earnings on guarantee money paid by wholesale companies. Main sources of income for wholesale companies are commission and interest earnings on guarantee money paid by jobbers, and those for jobbers are sale commissions and bonuses paid by the wholesale companies.

D.2.1. Rates of Rents

Rates of rents are determined by various factors such as business profitability and the location of market. But since the rent is the price paid by users of building space and facilities, usual practice is to determine their rates at such as level that the total capital investment costs be recovered over the project life. Based on this principle, annual rate of rent is generally determined as follows:

- Total annual amount to be collected as rents
= (Total capital investment) $\times i (1+i)^n / [(1+i)^n - 1]$
- Annual rate of rent per unit area
= (Total annual amount of rents) / (Occupied space area)
- Occupied space area
= (total building space area) - (area occupied by common facilities)
(where: i = interest rate, n = project life)

D.2.2. Rates of Commission Fees

Commissions are the remuneration for rendering various services in selling and buying products. The amount of commission is usually determined as a certain percentage rate of total sale proceeds. In the wholesale market, the market management authority imposes a certain rate of commission on the wholesale companies for utilizing market facilities. The wholesale company in turn collect a certain rate from shippers for rendering marketing services and places for auctioning and jobbers also receives a certain rate from retailers as a brokerage fee.

Annual income of commissions for each participant is determined as follows:

- Annual income of commissions
= (annual volume of handling) \times (average commodity price) \times (commission rate)

Because it is almost impossible to estimate the annual receipts of com-

mission fee for each individual commodity items, commodities need to be classified into groups and for each group average prices need to be calculated applying weight.

The following fomula shows how to obtain the weighted average price of a commodity group:

$$P = \sum X_i P_i / \sum X_i$$

where

P = weighted average price

X_i = weight of i -th commodity (or proportion of i -th commodity handled)

P_i = wholesale price of i -th commodity.

E. Estimation of Operating Costs

Accurate estimates of operating costs for the project are essential for any project feasibility analysis. As the projected annual operating costs continue over the entire planning period of the project, even an small error is likely to multiple to a large cumulative error.

The estimated total annual operating cost for the project should be based on the estimated quantities of products to be marketed through the market concerned, kinds of facilities to be operated and unit costs of various components of the total cost. The operation costs should be estimated separately for each year during the transition from the start of operations until the market is operated to its full capacity.

For the wholesale market project, it is also necessary that separate cost estimates be developed for each different market participant, that is, market management authority, wholesale company and jobbers.

E.1. Operating Costs for Market Management Authority

The major items normally include are (1) labor, (2) utility such as electricity, water supply, fuel, etc., (3) management and administration, (4) repairs and maintenance, (5) development and other overhead costs, such as research and manpower training. Taxes and various public charges, and depreciation should also be included in the annual operating cost.

Most of the basic data needed for developing the estimated operating costs come from previously completed steps. For example, the annual repair and maintenance costs are based on the estimated capital cost for various facilities. The estimates of annual costs for management and administration should be based on the size of manpower and training program.

Since utility costs are normally subjected to seasonal changes, they must be developed on a monthly basis. But in actual calculation the annual total should be used.

E.2. Operating Costs for Wholesale Companies and Jobbers

The major cost items for wholesale company and jobbers include: (1) utility,

(2) labor, (3) repairs and maintenance of own facilities, (4) management and administration, and (5) taxes and other public charges. In addition to these cost items, the wholesalers pay rent and various fees to market management authority for using office and common facilities owned by market management corporation.

F. Calculation the ERR and FRR

Once the capital investment schedule, the annual benefit (or revenue) schedule and the annual operating cost schedule are prepared in the previous steps for both economic and financial analysis, our task is to prepare the annual net benefit (or net revenue) schedule by subtracting the operating cost from the benefit (or revenue) for each year for entire planning period. In doing this, differences between economic and financial analysis, as already explained in standard rules, must be strictly observed.

After this is done, two worksheets are to be prepared entering the annual capital investment and net benefit flow, one for computing ERR and the other for FRR. The next step is to calculate the ERR and FRR. There are a number of different methods of computing the IRR by handworks. One method is to select high and low discount rates and to apply linear interpolation technique to determine approximate rate of return. Another method is to discount separately the investment schedule and the net benefits schedule at several alternative rates (3%, 5%, 10%, 15%, 25%) and then to plot the results to determine the point of inter-section. Each method has advantage and disadvantage. But since efficient computer algorithm has been developed and easily available for running IRR these days, one may not need to go through tedious calculations by handworks.

G. Developing Pro Forma Financial Statements

The final step in the project feasibility analysis is to develop pro forma financial statements for each participant entity, that is, market management authority, wholesale companies and jobbers. Financial analysis normally draws on three main financial statements: (1) projected income and expenditure statements, (2) sources and applications of funds statements, and (3) pro forma balance sheets. The development of these statements requires explicit assumptions regarding the potential terms of financing for the project, including subscriptions of equity capital, amount to be borrowed annually, principal repayment plan, interest rate and timing of interest payment.

The projected income and expenditure statements shows the anticipated income, expense and net income by year over the projection period. The primary purpose of the statements is to evaluated whether the market management authority or wholesalers (as private entity) will be able to cover its expenses and still realize a profit. Previous data provided the supporting detail for most of the figures in the statement, but supporting schedules for depreciation and income taxes must be developed.

The sources and application of funds statement take into account all cash flows in and out for both the recurrent and the capital accounts. It shows for each year over the projection period the amount of funds to be derived from each source, and the amount to be used for each of the applications in the project. The statement is developed in such a way that the total funds from all sources are equal to the total applications for all uses for each year. The statement is developed from the income and expenditure statements and the supporting information in the previous analysis.

The pro forma balance sheets show the listing of assets, liabilities and net worth at the end of each year over the projection period. The basis figures come from prior information used in economic analysis, and the balance sheet is developed so that the total assets equal total liabilities plus net worth at the end of each period.

Since the pro forma financial statements are to be developed following the usual practice for the corresponding accounting statements, the detailed presentation of format is omitted in this resume.

3. Inducement of Private Sector for Marketing Development

The government intervention by means of marketing development plan and investment programmes aims to increase efficiency and effectiveness of individual firms such as merchants and other marketing participants. The most functions of marketing is performed by private participants. Increase in efficiency of marketing participants and individual firms is essence in the agricultural marketing development and can be achieved by their active involvement. Their active involvements in marketing development should be encouraged by some incentives. The incentives include profit, free choice, prosperity, favorable environment for job, security and willingness to improve marketing activities. Such incentives can be provided by government, public organization and institutional arrangement. The government plays a role to facilitate marketing development and to provide momentum for private firm to participate in agricultural marketing development.

The first role of the government to facilitate agricultural marketing development is provision of social infrastructure such as transportation, communication and information. The second is regulation of facilitating standard sanitary conduct to protect producers and consumers. The third is to provide marketing service which can not be provided by private firm such as uniform measurement and weight, uniform grade standard, market information and research and advisory services. The fourth is provision of credit arrangement to facilitate the adoption of technological change and the more efficient operation. Finally, the government plays role of creating favorable environments for incentive, drives, and freedom of commercial firm in marketing development and improvement.

4. Emphasis on Marketing Support Services and Institutions Building

Well designed physical market alone is not sufficient to assure full utilization of the market. Market should also be run efficiently.

Well organized operation and management bodies are essential to assure full utilization. The organization should be reasonable, and the staffing should be made on the basis of the limited in number and their special knowledge and technique. Where sufficient qualified local personnel is expected not to be available for operating the market, staffs can be trained and educated at home and abroad.

For an efficient operation of a market, certain rules and regulations have to be enforced. The regulation might include: (1) market services, (2) market hours, (3) trading method, (4) rents and fees, (5) traffic and parking regulations, (6) lease contract, (7) loading and unloading regulations, (8) market zoning, (9) sanitation and fire prevention, (10) penalties and fine, (11) sub organization, (12) ancillary services, (13) arbitration, (14) supervision, (15) administrative and financial autonomy, (16) selection of general manager, (17) functions and services apportioned among specialized sections and departments, etc.

The related marketing improvement programs may be established and implemented to utilize fully the the existing and new markets. This may refer to the standardized grades and packing material, to the establishment of rural markets in producing areas, to the specialization of production, the enforcement of legal weights and measures, and to the improvement of roads for the supply side. This also refers to the promotion of quality consciousness of retailers, and to the adjustment of pricing practices to quality standard at wholesale and retail levels. The introduction of pallets, forklifts and conveyor belts may become an improved program in high labor cost countries. A full explanation about the working of marketing system to all personnels who will use the market, or will be employed, is an essential precondition for making full use of the marketing facilities, existing and new.

The government has to assume a key role in supporting the efficient operation of the marketing facilities. The government takes water, sewage, electric power, telephone and telegram connections.

Finally, it is essential for success of the new market facilities to obtain traders support and understanding of the new market functions. Wholesalers faced with creation of new facilities are likely to be suspicious or even hostile. An appropriate public relations campaign about functions improved, lower operation costs, reduced loss, improved opportunities to increase their turnover, lower rents and fees, the follow-up training measures, etc., is required to convince prospective market users of the benefit deriving from new facilities and to obtain traders support.

The marketing supporting services are as following.

A. Standardization, Grading and Packaging

There are many difficulties in the standardization and grading of the agricultural and fishery products because these products are easily perishable and not homogeneous in their form and quality. However, as the standardization and grading of the agricultural and fishery products assist in eliminating the inefficiency of the market activity, help reduce marketing costs, bring the greater efficiency in pricing, and increase the consumers awareness of information about goods, the need for such standardization and grading becomes increasingly important.

Standardization helps the consumer understand trading units of goods, and handle goods more easily. By dividing goods according to quality, the grading custom emphasizing the homogeneity of a unit helps the consumer better understand the various grades in quality of goods. Standardized packaging divides goods into easily marketable units improving the efficiency in marketing and preventing the goods from being damaged in the process. Standardization, grading, and packaging complement one another and they have to be achieved simultaneously. The following are their economic inter-relationships.

- 1) They enable easy handling of the goods so that the goods can be transported and stored in mixed lots to reduce the cost of handling, transportation and storage.
- 2) As each standardized units of consistant quality, merchant and consumer can carry out their transaction on the basis of product model, name, and sample, elminating the inconveniences of item by item inspection of quality, thus reducing the time and cost of the transaction.
- 3) Through the raise of effectiveness of marketing information, we can get the precision in pricing and forecasting, and reduce risks in the commodity trading. Also it can make it possible to practice the futures market. For this reason especially, the standardization and grading must be achieved first in order to improve the effectiveness of the marketing information.
- 4) They prevent physcial damage and reduce deterioration in quality in marketing. And they increase the benefit to the consumer by guaranteeing a fair price through maintaining a consistent quality. In spite of the benefits of standardization, grading, and packaging mentioned above, efforts to achieve them often bear fruit because some expense and continuous attention are required in their enforcement.

In order to expand standardized goods, inspectors to check the quality of the goods and training for the inspectors are needed.

B. Marketing Credit

The purpose of marketing credit is to enable the smooth flow of goods among

producers, merchants, processors, and consumers. It can be divided into short-term credit covering the advancing credit, the credit sales, the credit for the management of the marketing facilities as well as middle and long-term credit which can be used to support transportation, storage, market facilities and processing.

Marketing credit is aimed at the effective financing and supplying of credit needed by marketers. Followings are the principle goals of marketing credit.

- 1) rationalization of the function of marketing credit.
- 2) Improvement in the effectiveness of the marketing credit supporting system.

Following is the direction required to reach the above mentioned goals.

- 1) Increase of supply of short-term credit for farmers.
- 2) Expansion of supply of merchants operational fund through the institutional credit.
- 3) The purpose of preservation and release of agricultural and fishery products by the operational for agricultural price stabilization is to narrow the price gap by maintaining stability in the wholesale price and preventing short-term price hikes.
- 4) Expansion of financial support for modernization of marketing. The enhancement of the marketing efficiency and the saving of marketing cost can be expected by the increase in financial support for the modernization of marketing and additional facilities and equipments. And financial support using long-term low interest rate should be increased for the sorting place at producing area, chilled storages, slaughtering plant for sanitary food supply, transportation facility (freezing/cold storage vehicles) and stores which want to have developed facilities.

C. Diversion of Risk

Risk in marketing means unexpected loss arising in the course of transporting the agricultural and fishery products from one place to another and transferring title. It can be divided into physical risk and economic risk. Physical risk is the possible loss in transit due to unexpected damage such as spoiling, reduction, fire, wind, and flood. Economic risk is the possible economic loss such as an additional marketing cost and lowered market price because of delayed transportation and unexpected decrease in commodity volume at the time of sale. Many efforts are made for diversion of risk and minimization of risk as follows.

C.1. Contract Production of the Farm and On-Farm Sale

Contract production is one way of transferring the risk arising from producers to contractors enabling them to control the quality and quantity of agricultural products and minimize the possible risk while marketing. Another

way of transferring physical risk to contractors due to bad weather and economic risk arising from change of price is *on-farm sale* of fresh agricultural products. Contracted production of the farm is confined to some raw agricultural products with small quantity, failing to contribute to the dissipation of risk. On-farm sale is widely accepted in case of fresh agricultural products. But, farmers who are not well-informed of market price and not good at price negotiation are likely to be paid below the reasonable market price.

C.2. Diversion of Risk in the Transportation

It is common that traders compensate the demander for physical damage arising from accidents in transportation, on the basis of wholesale price. When products are not delivered in auction time due to the delay of transportation means caused by troubles of vehicles, traffic accidents and bad weather, there come economic risks such as the decrease in the market price. As long as there is no contract on such economic risk, economic risk is the responsibility of the requesting producers.

C.3. Diversion of Risk during Storage and Processing

Risks involved in the storage and processing are caused by fire, flood, unusual reduction of quantity, easy food spoilage and deterioration of quality. The only institutional device to divert such risks is mutual insurance of agricultural cooperatives in case of fire. Usually risks brought by factors other than fire is the responsibility of the owners of the products.

C.4. Diversion of Risk by Wholesale Merchants

Merchants' risks come from the inaccurate supply and demand forecasts as well as their subjective forecast in the short- and long-time. Merchants provide their advancing credit to producers to secure the products, on the basis of short and long-term supply and demand forecasts of their own. Risks involved credit in advance is that they may not be able to return their credit in case they fail to secure the volume of expected goods because of bad weather and overall market price fall. Wholesale merchants build networks of fixed clients vertically and horizontally and work with them on the basis of mutual trust in order to minimize or divert risks of the return of credit in advance. They rarely dispose their property by public sale to be paid back in case of the loss. Rather, they extend the period of redemption or provide a more operational loan to farmers to enable them to continue their production activity. This means that they make up for the loss from the excessive profit of the following period, successfully transferring the risks and loss to consumers and producers.

C.5. Diversion of Risks by Retail Merchants

Retail merchants have risks stemming from the low quality of goods and the decrease in prices of fruits, vegetables and fishery products involves the risks

due to the gradual degradation of the freshness of goods instead of the physical damage of goods. They use the sales according to price table by hours to divert risks. Morning prices are higher than the average price, while evening prices are lower than the average price. This apparently transfers the risks to consumers. They can set the monopolized price onesidedly in small areas.

C.6. Other Ways for Diversion of Risks

Hedging is a way to divert risks in the future market and subscription to various insurance is another way of diverting risks, which are not widely used.

D. Administration of Marketing

The purpose of the administration of marketing is to support the fair marketing of the agricultural and fishery products. Recently due to the increase in the volume of marketed products, the demand for the administration of marketing is rapidly growing. Thus, measures will be needed.

- 1) Plans of the central government have to be carried out more effectively by strengthening local marketing administration structure to prepare for the increase of the demand for the administration of marketing.
- 2) Autonomy of the institutions taking charge of the marketing has to be guaranteed and the improvement in local marketing and efficiency in the marketing general have to be achieved by transferring the role of designating marketing compound to establishing and operating wholesale markets.
- 3) Departments of the Government relevant to marketing should be reorganized and upgraded into marketing of agricultural and fishery products for overall control of rapidly growing distribution and for effective producing requiring improvement plan.
- 4) The company for marketing of agricultural, fishery and livestock products must be set up and operated. It will handle the necessary business for the nationwide execution of policies for improvement in distribution of agricultural and fishery products.

5. Marketing Training and Manpower Development

Agricultural marketing development needs well-trained and educated manpowers. They have to have special knowledge and managerial ability. At the first stage of economic development, skillful and specialized manpowers are employed in high industrial sector. Educated persons are reluctant to work in agricultural marketing especially in developing countries. They prefer to have a job in non-agricultural marketing.

Before well educated people are willing to be employed in agricultural marketing in long future, it is urgent for efficient agricultural marketing that

on-job training and manpower development must be carried out immediately.

Severe competition among middlemen due to high commercialization of agricultural production requires middlemen to have high education and specialized knowledge.

They want to have an opportunity to get new technique and knowledge. As long as such need is there, the society should provide institutes and opportunity to meet their needs.

One way to fulfill such a requirement is to establish training centers for participant in agricultural marketing.

The purpose of the training center should be determined and well-planned as well

- 1) Education of personnels responsible for training center,
- 2) Education of middle-men and marketers who are less qualified,
- 3) Improvement of physical and managerial function for efficient marketing.

It is needed to establish a new training institution for the effective marketing training. And short-term plans should be set systematically to guarantee the success of the original aims. They must be designed to evaluate the outcome at practical education.

It's desirable to establish the training center at metropolitan area and to spread it into local areas. Management Committee, comprising high ranking officials of the Agricultural and Fisheries Ministry, experts of universities, research centers, and marketing field, should be set up to establish policy of training center for distributors and management for it.

Education for better marketing should require the review of its need in the first place, establishment of training plans, selection of eligible participants for training, invitation of competent educators, theoretical and practical study and final evaluation.

Key points in the training plan should be seriously discussed so that trainees can better understand the current management structure, and instrument of price, and be led to carry out modernization of marketing. Training plan should be set up after full consideration of the content of the curriculum with its period. Training includes the methods such as audio-visual education, observation tour to market and paper presentation.

III. General Approach for Planning Process

1. Reviewing Present Problems

The marketing system should be examined to discover to what extent the marketing operations are carried out at the lowest cost. The first step is the identification of marketing channels, type, size and number of marketing participants, the volume marketed and the facilities utilized. The second step is

the estimation of various costs such as transportation cost, rental cost, loss cost from product deterioration, pilferage and theft, transfer cost through the facilities. The transportation costs will be high if the marketing facilities are mislocated and if inappropriate transportation facilities including road, mode and size are used.

Rent will be high if the facilities site is very high in price. Usually the land price is closely related with the location and conditions of surrounding areas.

The transfer costs through the facilities include unloading, movement into the facilities, movement within facilities such as sorting, assembly and preparation for shipment, and loading on to the buyer's vehicle.

The evaluation of marketing system should conclude with the identification of its major shortcomings and problems.

For the planning purpose, projection of future as well as evaluation of present marketing system is also one of important factors. The following questions should be answered to plan the agricultural marketing development.

- 1) What are the Projected change in:
 - Consumer income?
 - Consumer numbers and location?
- 2) What are the implications of those projections for food marketing system development?
 - Income elasticity of demand and consumption patterns
 - Types of products with more rapid demand growth
 - Added processing
 - Retailing services
- 3) What is the 5-year projected demand and supply of major products?
 - Consider the expected changes in consumption patterns and related demand for additional product transformation and marketing services to meet consumer desires for added convenience?
- 4) What will be the expected characteristics of the food marketing system in 5 years, 10 years, 15 years, without a food marketing master plan?
- 5) What will be the implications of that evolution in terms of:
 - Agricultural sector
 - Demand for processing expansion
 - Credit
 - Government policies, laws, services
 - Transport
- 6) What is the status of different marketing firms with respect to achieving economies of specialization, scale, routinization, location, transformation and management innovation?
 - Farmers
 - Rural collectors

- Transporters
 - Traditional wholesalers
 - Traditional retailers
 - Chain store wholesalers
 - Chain store retailers
 - Food processors
 - Cooperatives
- 7) What is the degree of risk and uncertainty imposed on different market participants by the existing food marketing system?
 - 8) What opportunities exist for adoption of marketing economies?
 - 9) What is the likely effect of the adoption of those economies of marketing on:
 - Farmers
 - Other marketing firms
 - 10) In what practical ways will marketing firms be expected to change their behavior in adopting marketing economies? What kinds of business structure, management, and technology changes will be required? Describe how the "new" business will look and operate?
 - 11) Will they be profitable? If not, and it appears the innovations should be socially beneficial, how can government intervene to provide economic incentives to enhance feasibility of adoption?
 - 12) How could the government facilitate the more rapid adoption of appropriate marketing economies through:
 - Research
 - Education
 - Revised or new policies
 - Revised or new laws
 - Reorganization or creation of new institutions
 - Credit
 - Direct investment in facilities
 - Commodity forecasting, outlook and market information
 - 13) What is the current market structure at different levels of the food marketing system? I.e. number of competitors, nature of price formation, degree of information, effectiveness of competition.
 - 14) Are there abnormally high price differentials through space and time?
 - 15) Does the current market structure impede progress toward adoption of marketing economies?
 - 16) How can government simultaneously facilitate adoption of appropriate marketing economies while encouraging effective competition?
 - 17) Having the benefit of research results on objectives (a)-(c), what should be the major components of a plan for marketing development?
 - 18) What are the implications of the plan in terms of:

- Government policies
 - Direct government investment in marketing facilities
 - Indirect government investment in marketing facilities through cooperatives, provincial and local governments, credit directed to private firms, etc.
 - Marketing education and training requirements
 - Government facilitating services, e.g. crop forecasting, outlook, market information, grading standards, inspection services
 - Antitrust activities
- 19) What specific marketing system development projects should be considered for international founding?
- 20) What are the major parameters of such projects?

2. Policy Issues in Marketing Development

With the exception of the pure subsistence economy, the coordination of economic exchange must be performed in every economic system. Coordination of economic activities among individuals and firms through exchange and price, (2) administrative coordination linking activities within firms or government organizations and, (3) the rules of the game, specified by the political and social system, that regulate market processes and administrative decisions. No markets are free of rules. Social and political forces largely determine the relative importance of these three coordinating mechanisms for a given country at a given point in time.

The cultural and political heritage of developing countries has left a predominantly market exchange system in most countries. In recent years, however, a growing interest in planned development has resulted in an administrative mechanisms being instituted to supplement or replace free markets. It is argued that due to poor market information, market concentration and other market imperfections, private firms are able to extract monopoly profits. The oft advanced solutions are price and margin controls, antispeculation laws and, ultimately, nationalization. While all of these measures may be appropriate under certain circumstances, they can also make matters worse if applied indiscriminately. Consequently, there is a real need for developing countries to indigenously develop the analytical capacity and information base needed to evaluate policy decisions on economic coordination. Some of the difficult policy issues that must be carefully analyzed are discussed below.

Perhaps the most important marketing policy issue has to do with food prices. Farmers prefer high prices for their products, while consumers want low food prices. Government operated farm price support programs are constrained on the one hand by the need to establish a level of prices that will call forth the production required to satisfy consumer requirements, while on the other hand attempting to avoid creating burdensome surpluses and artificially high prices for consumers. Less developed countries are hardly able to

provide income transferral price policies favoring farmers. And the benefits of price supports are usually proportional to the size of land holdings. Hence, careful economic analysis should be available to guide policy makers in the establishment of farm product price support levels.

Retail food price controls pose similar problems. If prices are set too low, production will be discouraged and consumers will be faced with product shortages. The extent and nature of resulting market distortions need to be weighed against possible benefits of price fixing schemes as a means of constraining inflationary pressures or guaranteeing minimum prices to farmers. Effective price policy analysis requires a fairly sophisticated level of knowledge about market organization and behavior as well as economic analysis.

A second marketing policy issue is related to public sector intervention in food distribution activities. There are wide difference of opinion concerning the extent to which the government should directly intervene in the actual buying and selling of commodities and thus take on the function of intermediaries. Although private sector intermediaries continue to be the central core of the food marketing systems in developing countries, there is a trend toward increasing government intervention.

When products become scarce and prices rise, consumer interests accuse the intermediary of speculation. When products are in abundant supply and prices are low, producer interests accuse the intermediaries of using market power to increase marketing margins and thus worsen the farmers' income situation. Political leaders are therefore attracted to highly visible interventions in food marketing that will allegedly eliminate the lecherous middleman or at least force him to charge lower prices for his services. Before instituting such programs, careful analysis is need to determine whether private intermediaries are indeed operating with unreasonable inefficiencies or exorbitant profits and to evaluate the possibilities of instituting a public bureaucracy with the administrative capacity and institutional flexibility to do any better. The effect of public intervention on private sector investment in food marketing should also be contemplated. If subsidies are involved, the net effect may be to discourage private sector investments, thereby reducing competition and slowing down the spread of more efficient methods of food distribution.

Thirdly, should government stimulate improvements in marketing efficiency? If so, what kinds of changes should be encouraged? Food marketing activities are normally quite labor intensive. Proposed improvements in marketing facilities and institutions must therefore be carefully scrutinized to determine their effects on employment. The concern over employment effects has been elevated in relative importance in recent years by the rising levels of unemployment and underemployment of human resources in developing countries.

If food marketing costs are to be reduced, it stands to reason that one of the major areas for cost reduction is in improving efficiency of labor utiliza-

tion. This can be accomplished in various ways. The adoption of improved physical handling methods can reduce labor requirements. Investments in better designed and larger scale marketing facilities and materials handling and processing equipment may also reduce labor costs and aggregate marketing costs. When marketing technology options are being considered by private enterprise, the decision will be made on the basis of the internal costs and returns to the firm. But public officials considering marketing improvement policies and programs must take into account external effects, of which the disemployment effect looms large. This same basic policy issue is, of course, involved in decisions regarding investments in new technologies in farming and industrial production processes. Hence, marketing improvements are not a special case. And the relative importance of the disemployment effects must be weighed against potential benefits. Furthermore, longer run national development goals usually include several dimensions, not the least of which is increasing resource productivity as a means of achieving higher income levels. Thus, the goal of reducing unemployment can be pursued concurrently with the goal of increasing resource productivity.

A fourth policy issue is related to the kinds of regulative and facilitative actions government can take in an effort to stimulate improvements in market performance. Such public actions might include: (1) improving access to and use of credit, (2) establishing protection for property rights, (3) assuring fair exchange rules, protection both buyer and seller, (4) providing or encouraging services such as special education basic research, market information, transport, storage and other marketing infrastructure through tax or credit policies, (5) searching out and encouraging alternative institutional arrangements for accomplishing effective vertical market coordination (e.g., partnerships, limited partnerships, private corporations, mixed economy corporations, cooperatives, marketing boards, autonomous government-owned corporations, etc.).

Most developing countries have no effective strategy for dealing with these important market related policy issues. Government actions are usually based on conventional wisdom rather than scientific knowledge about the marketing system. As a consequence, government policies and programs often have little positive effect or, worse, may have a negative effect on the performance of the food production-distribution system.

It is believed that developing country governments can and should strive to formulate long-range national programs for improving food marketing system performance. Such long-range programs will, however, require investment to develop the knowledge base and the analytical capacity to assure realistic analysis of difficult policy issues and to formulate effective government regulations, policies and programs.

3. Determining Strategies and Action Programmes for Agricultural Marketing Development

The steps in formulating a government program of food marketing system development are (1) formulation of general development goals, (2) preparation of specific agricultural marketing system development objectives, (3) articulation of agricultural marketing system development strategies, and (4) specification of program, project and policy measures to be used in agricultural marketing system development.⁴

Three levels in the system have been identified (1) firm or farm level, (2) distribution channel level, and (3) agricultural marketing system level.

Specific actions must, of course, be taken by individual entrepreneurs at the firm level. We are concerned with the economic efficiency and effectiveness of individual firms as the basic building blocks of the economic exchange system. Their individual performance in terms of both cost effectiveness and meeting consumer needs is a major determinant of economic development.

A distribution channel consists of a set of institutions that handle a product or group of products from production to consumption. The focus is on the interrelationships of firms bound together, either tightly or loosely, by a common objective-servicing consumer demand at a profit. At one extreme, a completely integrated channel would consist of a firm that produces, processes, transports and distributes products from the farm to the consumer under single ownership. At the other extreme, a variety of independently owned firms would produce, process, assemble, transport and distribute products from the farm to the consumer. These independent firms may be bound together in a variety of exchange arrangements that coordinate their activity over a substantial period of time.

A distribution channel is concerned with moving a "package" of goods that are meaningful in terms of the buying patterns of final and intermediate customers. Thus, a retailer will carry a wider line than a country assembler. An assembler provides a part of the final package to a wholesaler, who in turn may provide all or part of the final package to the retailer. In an integrated or closely coordinated channel, each channel member is a provider and recipient of information flows, management techniques, credit arrangements and physical distribution practices, in addition to pure product flows. Thus, the channel members work together and obtain a synergistic effect from their relationship.

The term agricultural marketing system refers to the highest level of aggregation with which we are concerned, the interrelationships of all institutions involved in market-related activity. Individual firms, commodity subsys-

⁴ Harrison, Kelly, Donald Henley, Harold Riley and Jame Shapper, *Improving Food Marketing Systems in Developing Countries: Experience from Latin America*, Latin American Study Center, Michigan State University, 1974.

tems and distribution channels are major elements in this aggregation. In addition, the important elements of laws and regulations and government policies and programs are added to the previous levels of aggregation to provide the environmental umbrella under which private and public firms operate.

It is believed that governments can effectively stimulate improvements in market performance and thereby generate production incentives, productivity improvements and dynamic growth in the food production-distribution-consumption system. Some mix of public actions directed at each of the levels described above is required. Also, some optimum sequencing of actions and some optimum level of intensity for each government action are probably required.

It could be emphasized that to use this framework in a given country, it would be necessary for the implementing group to have a fairly extensive level of knowledge about the interworkings of the food marketing system in that country. It would be also be helpful if that group included individuals with basic training in managerial marketing as well as economic analysis. Generalized and illustrative objectives, strategies and marketing development measures are presented. A diagnosis of the specific system in question would be necessary before applying this framework in a given situation.

A. General Development Goals Related to the Agricultural Marketing System

- 1) Achieve an abundant and reliable supply of food at economical prices
- 2) Achieve production and distribution of that combination of foods and related services which best reflect the demands and preference of consumers and the real relative cost of production
- 3) Create incentives for increased productivity of the food production-distribution system
- 4) Stimulate development of opportunities for productive and rewarding employment and promote development of productive labor force
- 5) Achieve a fair and equitable exchange system
- 6) Discourage uneconomic use and spoilage of natural resources and the environment
- 7) Encourage socially desirable population settlement patterns
- 8) Encourage a sense of belonging and effectiveness among participants in the economic system

B. Specific Agricultural Marketing System Development Objectives

- 1) At the individual firm or farm level:
 - a) Stimulate adoption of performance improving managerial technological innovations
 - b) Stimulate "creative" re-investment of profits in the food system
 - c) Reduce product loss and spoilage
 - d) Improve product quality and hygiene

- e) Encourage firms to achieve appropriate economic size (scale) of operation
- f) Encourage firms to achieve appropriate degree of economic specialization
- 2) At the distribution channel level:
 - a) Reduce market channel uncertainties
 - b) Encourage coordination and integration of product channels
 - c) Encourage necessary channel wide adoption of performance improving innovations
- 3) At the agricultural marketing system level:
 - a) Encourage economically efficient (in time, space and form) specialization of resource use
 - b) Improve mobility of resources within the food system
 - c) Improve mobility of resources between the food system and other parts of the economy
 - d) Improve the food system's capability to respond creatively to changing economic, political, social, and environmental conditions

C. Agricultural Marketing System Development Strategies

- 1) At the individual firm level:
 - a) Improve efficiency of resource use within firm in following areas:
 - Determination of economical mix of inputs
 - Market "supply" information assimilation and analysis
 - Supply transactions(order processing)
 - Physical logistics of procurement (i.e. transportation and handling)
 - Storage
 - Inventory management and financing
 - Market "demand" information assimilation and analysis
 - Product sales transactions (i.e.order processing)
 - Physical distribution
 - Customer servicing
 - b) Develop appropriate size, location, and types of plants through vertical and horizontal integration of stages of economic activity
- 2) At the distribution channel level:
 - a) Assist firms in commodity channel to identify effective channel "Captains" or leaders in order to help:
 - Routinize order processing
 - Stabilize buyer-seller relations through longer standing verbal agreements, written contracts or vertical integration
 - Introduce performance improving innovations of relevant points in the channel
 - b) Provide appropriate social infrastructure

- c) Promote effective food distribution chains
- 3) At the agricultural marketing system level:
 - a) Improve decision making information availability and use for:
 - Daily marketing and management decisions
 - Long term planning decisions
 - b) Facilitate effective competition by encouraging appropriate mix of economic institutions
 - Private firms (horizontal competition)
 - Private firms (vertical competition)
 - Mixed economy corporations
 - Cooperatives (of farmers, assemblers, wholesalers, retailers)
 - Marketing boards
 - Voluntary associations (not strictly cooperatives) (i.e. voluntary retail chains, farmer bargaining, associations, etc.)
 - Publicly owned agencies
 - Stimulate evolution of brokers
 - Innovative combinations of the above designed specifically for comparability with socio-economic idiosyncracies of each country)

D. Projects and Programs for Market Development

- 1) At the individual firm level:
 - a) technical, economic and marketing education-at all curriculum levels (nonformal elementary, secondary, vocational and higher education)
 - b) Technical assistance in economic analysis, financing and implementation of profitable and socially beneficial innovations
 - c) Supervised credit with technical assistance programs to help firms adopt profitable and socially beneficial innovations
- 2) At the distribution channel level:
 - a) Utilize "timely" introduction of socially beneficial infrastructure as a tool to stimulate improvement in channel performance
 - Transport
 - Storage
 - Processing
 - Commercial facilities (i.e. for location of buyer and sellers)
 - b) Technical assistance to identify and implement channel coordinating innovations
- 3) At the agricultural marketing system level:
 - a) Technical and economic research
 - b) Dissemination programs for research results
 - c) Demand and supply "outlook" programs
 - d) Programs for regular collection and timely dissemination of economic information

- Daily price and market
- Crop estimates (outlook)
- Historical time series data
- Census information (population, commerce, industry)
- e) Facilitative and regulatory programs
 - Product grading standards and enforcement
 - Standard weights and measures and enforcement
 - Sanitary standards and enforcement
- f) Competition encouraging regulations (anti-monopoly, etc.)
- g) Public market intervention (i.e. price supports, price controls, publicly owned intermediaries)

E. Legal, Administrative and Policy Environment

The effects of these kinds of legal issues are generally quite pervasive. Yet our entire framework for stimulating marketing system development through government action is dependent on enabling laws like those described as follows.

- 1) Structure public sector to facilitate effective service to and stimulation of development in the food systems
- 2) Provide for coordinated national planning and implementation
- 3) Device fiscal and monetary policies that while accomplishing overall development objectives, simultaneously provide incentives for market system development
- 4) Device laws that control access to society's resources in such a way as to encourage effective market coordination and improve resource use efficiency (in accordance with overall development objectives)
- 5) Device appropriate government budget allocations to facilitate market development plan implementation
- 6) Pass enabling legislation required to provide at government expense:
 - Increased formal and nonformal marketing education
 - Change-management assistance programs
 - Technical and economic research
 - Demand and supply outlook information
 - Decision making information
 - Marketing infrastructure
 - Effective allocation of credit to production-marketing firm
 - Marketing performance facilitating public programs
 - Competition encouraging public regulation (e.g. anti-money and unfair trade practice laws)
 - Public intervention in market: (i.e. agricultural price supports, public ownership of production and/or marketing facilities, government price controls, etc.)

The performance of a given political system with respect to these kinds

of issues gives us some response to the following questions: How serious is the country about promoting agricultural marketing system development? And how far is the political system willing to go toward changing the traditional structure of things? The answer to these questions is found by reviewing the composite of laws, administrative decrees and policies in a given country and by testing the willingness to modify those that do not promote development.

To be sure, some inappropriate laws, decrees and policies are the result of misinformation or ignorance. But most are deliberately planned to protect some specific interest group. Clearly, the effectiveness of public actions would depend heavily on the specific ways in which the laws were implemented.

The first deals with the question of organization of the public sector's activities relating to the agricultural marketing system. It has been simply stated that, given specific political and cultural constraints, the public sector should be organized so as to efficiently stimulate development of the marketing system. Applying a systems approach, there is logic in the concept of a single governmental agency responsible for all public actions affecting the agricultural marketing system. Unfortunately, most governments are divided along the traditional sector lines derived from national economic accounts.

4. The Problem of Priorities

The age-old problem of development planning is that of deciding where to invest the government's scarce resources. Development literature essentially reflects the struggle for understanding the development process in order to help with those tough priority questions. Development literature has been through the social infrastructure syndrome where writers concluded that all countries should first strive to reach a certain level of infrastructure development; and the industrial and the agricultural fundamentalist syndrome, where writers argued successively that each respective sector should be developed first. It now appears that many are in the small-farmer, low-income consumer syndrome. We are not suggesting a marketing syndrome. Rather, it is hoped to have provided some additional understanding of the issues of development.

The difficult question about priorities remains. How does one decide where to allocate scarce government resources in light of all the various competing demands for public funds, and even in light of the many things mentioned above. Obviously there are no pat answers. The question of priorities must be battled out in each country through some combination of research, economic analysis, political pressures, personal biases and just plain luck. It is believed, however, that many governments put too little priority on issues of market coordination.

Three simple observations (or rules of thumb) would be offered, that have grown out of our experience. It is believed that heavy emphasis on the use of government resources should be placed on human resource develop-

ment. The individual human being is by far the most important and flexible of all production factors. Investments in things (e.g., capital goods, projects, etc.) are very permanent investments. And there is great risk that political, economic, social or environmental changes will render such investments obsolete in a few years. A second observation is that infrastructure investment should be programmed to complement ongoing development processes. Infrastructure projects should be used to fill obvious gaps and then only when there is certainty (1) that the system is ready to "manage" the project and (2) that the project is designed so as to truly mesh with overall system development.

The third observation is that careful attention should be paid to long-term sequencing of development actions. Too often, development actions are not in phase with system evolution. There is still much to learn about these kinds of observations. Hopefully, additional research and reflection on development processes will permit further specification of an approach to use in determining priorities for agricultural marketing system development.

5. Data Requirement and Their Analysis

Plan is involved with numerical setting. Many components in agricultural marketing development is expressed in number. Arriving the final number targets requires many steps of data analysis. Exact and complete data of marketing activities and environments results in practical and useful plans and programs.

In planning agricultural market development in developing countries, we often encounter shortage and incompleteness of the necessary data.

Required data for agricultural marketing development planning include data of marketing activities, production and consumption data and their projection, aggregate economic indicator such as national income, inflation rate, employment etc., and marketing environment and financial situations. The data requirements and analysis area is described as follows.

A. Analysis of Present Marketing Status

- 1) Commodities under consideration
 - fruits and vegetables
 - livestock and animal products
 - marine products
 - grain
 - flowers
 - others
- 2) Major contents
 - demand and supply estimation (production, import and export, losses, carry-over and carry-in, consumption, seed)
 - spatial analysis
 - seasonal analysis

- yearly analysis
- marketing system analysis
 - marketing channel
 - type of market participants at assembling wholesaling and re-tailing stages
 - trading methods
 - market volumes by each marketing functions and by each marketing channels
 - operational system of markets
- marketing margin
 - cost
 - losses
 - various charges and taxes
 - profit
- price (seasonal and annual) and grading practices
- vertical and horizontal integrations
- analysis of the market volume by market zone and by market
- existing market facilities and manpowers engaged in the markets by market zone and by market
- transported volume between market zones and between markets
- stored volume by market zones and by markets
- processed volume by market zones and by markets
- credit and financial situation
- urban planning and market environment

B. Evaluate the Performance the Various Marketing Participants

- 1) Entities to be evaluated
 - producer's shipment activities
 - assemblers in producing areas
 - middlemen
 - wholesalers (jobbers in legal wholesale markets and consignees in quasi-wholesale markets)
 - retailers in retail markets
 - consumer's purchasing activities
 - cooperative marketing group and cooperative marketing center
 - other firms such as loading & unloading co., cleaning co., and guarding co..
- 2) Major contents
 - estimate the cost of size to be dealt
 - fixed cost
 - operational cost
 - assembling cost
 - distribution cost
 - estimation of average cost function

- compare the cost between middlemen, firms, commodity groups, and market channels
- correlation between price and cost
- dispersion of the average cost

C. Spatial Equilibrium Analysis and Determination of Sizes, Numbers, and Locations of the Marketing Facilities to be Needed

- 1) Project demand and supply and marketing volume of each zone
- 2) Develop the transportation models
 - estimate the transportation cost function (will be linked to the transportation system study)
 - estimate the operational cost function of various marketing facilities (evaluate the efficiency of the market participants)
 - determine the optimum sizes, numbers, and locations of the marketing facilities to be needed
- 3) Estimate the investment cost for physical facilities
- 4) Feasibility study for investment

D. Improvement of the Operational Efficiency of the Producing Area Marketing

- 1) Compare the competitiveness between various shipment organizations in producing area
 - individual shipment by producer
 - shipment by middlemen
 - shipment through cooperative channel
- 2) Evaluate the productivity of the various shipment organizations in producing area
 - assembler
 - cooperative joint shipment organization and marketing center
 - producer's marketing activities
 - slaughter houses and livestock market
 - periodic market (5 day market)
 - marketing center in landing port
 - transportation firms
- 3) Analysis of the market facilitating functions in producing area
 - packaging
 - grading
 - market information
- 4) Plans for the improvement of the assembling system in producing area
 - shipment organization
 - physical facility
 - assembling function

E. Improvement of Wholesale and Retail Markets

- 1) Improvement of wholesale market operation
 - ownership
 - supply of investment fund for wholesale markets
 - organization, management and operational system
 - improvement of the trading methods such as auctioning
 - operation of jobber system
 - tax system
 - credit and financial situation (payment in advance to producers, operating capital etc.)
 - auxiliary facilities and related services
- 2) Improvement of retail markets
 - trends of large-sized stores such as supermarkets
 - market share of the chain stores
 - improvement of the traditional retail markets
 - evaluation of the optimum size of the retail stores such as “ma and pa” stores
 - consumer protection scheme

F. Demand Analysis of the Storage (chill storage, cold storage, and freezing) and Processing Facilities

- 1) survey of the existing storage and processing facilities
 - present status of the facilities by kind and their investment cost
 - distribution of facilities by market zone
 - operation and management of facilities
 - charges imposed to users
 - operation rate
- 2) program for the improvement of storage and processing system
 - analyse the amount needed to be stored and to be processed by commodity group
 - estimate the facilities requirement for chill storage, cold storage, freezing, ice making, and ice storing
 - relocate the facilities
 - estimate the required investment cost
 - feasibility study for the projects
- 3) technical analysis of the storage and processing facilities
 - estimate the number, kind, and size of the facilities
 - review the technical conditions
 - locate and link the facilities
- 4) feasibility study of the operation of the freezing and cold storage system
 - financial analysis of the firms
 - economic feasibility study

G. Improve the Agricultural Marketing Information System

- 1) Evaluate the performance of the existing marketing information system
 - government system
 - cooperative system
 - price information system of various organization
- 2) Formulate the national agricultural marketing information network
 - estimate the facilities needed
 - select the suitable institute
 - develop soft-ware
 - estimate optimum man-power required
- 3) Improve grading, packaging, and standardization practices
- 4) Develop a program for the improvement of the marketing information system
 - prepare a program for the establishment of the needed facilities and institute
 - develop soft-ware and technics needed
 - prepare an operation and management program
- 5) Study to link information system with forecasting system
 - search for the methods to link information system with forecasting system
 - study on the additional facilities for the agricultural forecasting program and develop technics needed
 - develop soft-ware for forecasting system

H. Study on Laws and Regulations Related

- 1) Analyze the existing laws and regulations
- 2) Revise the existing laws and regulations in order to
 - encourage the competition
 - encourage the economy of scales
- 3) Measures to improve the administrative organizations and orders

I. Education and Training

- 1) Analyse the present status and trends
 - present status of education and training for market participants
 - tendencies of the participants to education and training
- 2) Feasibility on the establishment of an educational institute
 - organization
 - location and facilities needed
 - courses and curriculum
 - courses
 - curriculum
 - contents of the curriculum

- operational program
 - trainees mobilization program
 - lecturers and trainers recruiting program
 - field training program
 - overseas training program

J. Survey on the Urban Planning

- 1) land use program
- 2) road and traffic system program
- 3) agricultural products transportation program
- 4) market compound program

K. Transportation Analysis

- 1) analyse traffic volume
 - by seasonal
 - by commodity group
- 2) analyse transportation costs by commodity group, by transportation mode, and by region
 - fixed cost
 - semi-fixed cost
 - variable cost
- 3) estimate transportation cost function
 - cost to amount
 - cost to distance transported
- 4) analyse traffic congestions of the major cities
- 5) effects of the traffic congestion on;
 - transportation cost
 - the selection of transportation mode

L. Financial Analysis

- 1) analyse the financial structures of the various market participants
 - wholesale market company
 - wholesaler
 - middlemen
 - retail market company
 - retailer
 - transportation firm
 - processing firm
 - cooperative marketing center
 - supermarket
 - chain store
 - assembler in producing area
 - rice miller
 - producer and consumer

- 2) financial analysis of the newly proposed projects
 - benefits and costs analysis
 - FRR (financial rate of return)
 - IRR (internal rate of return)
 - SRR (social rate return)
- 3) financial analysis of the participants in the newly proposed projects

6. Planning Task Forces and Coordinating of Sub-Plans

The agricultural marketing development plan becomes either an independent plan or a part of socio-economic development plan. As a part of national socio-economic development plan, marketing development plan is established including agricultural and nonagricultural marketing development.

The ministries concerned agree to have national economic development plan with specific time span. They provide overall guidelines for planning, socio-economic indicators such as national income, inflation rate, unemployment rate and so on, and national tentative targets. These indicators and targets are apt to be revised recursively in the process of planning.

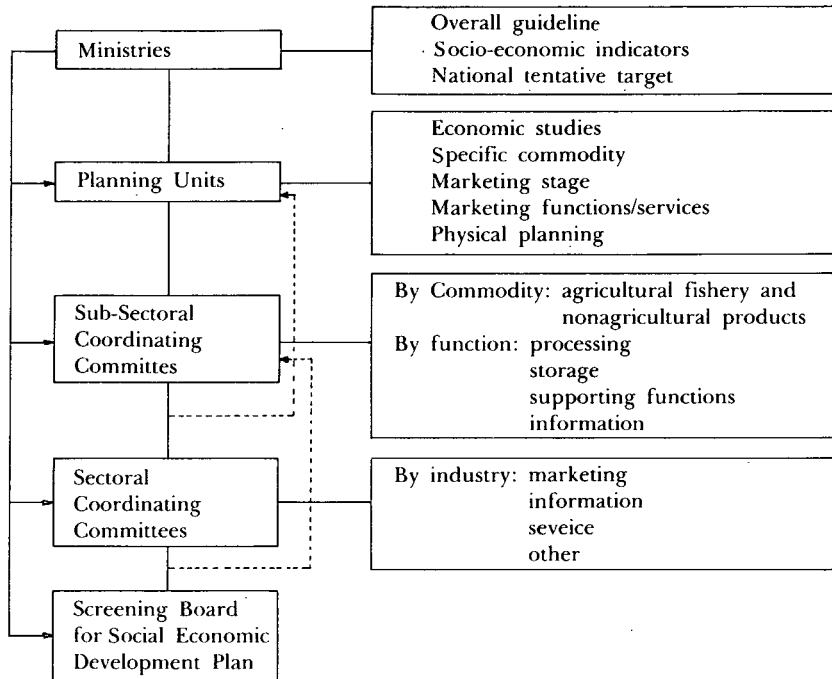
The Planning Units for sub-sectoral and regional plans are established under the guidelines and are located the relevant division and section. They are helped by the research institutes, university and specialists at very starting point. The Planning Unit carry out the situation study, commodity analysis, market stage development, improvement plan for marketing functions and services, and physical planning for marketing development. The units spend much time for specific plans and programs and submit them to assistant division for Sub-sectoral Coordinating Committees which are usually located at bureau or inter bureau level.

The assistant division collects the detail plans/programs established by planning units and make them into sub-sectoral plans and programs either by commodity or functions, and submit to the Sub-sectoral Coordinating Committee for coordination them into sectoral plan. The sub-sectoral plans are made by commodity such as agricultural, fishery and nonagricultural products and by functions such as processing transportation, storage, information and supporting or facilitating functions.

The Sectoral Coordinating Committee is established at vice and deputy ministerial level to coordinate the development plan by industries. The sectoral plan includes marketing, information and service industries. When the marketing development plan is an independent one, the sectoral plan becomes the final plan.

At every coordinating stage, the issues, comments, revisions and suggestions are feedback to lower level planning activities. The repeated feedback process takes place to coordinate and balance the whole plan. The final socio-economic development plan brings up for discussion to the Screening Board which is composed of Ministries concerned. The plan adopted as medium term (5 years) national socio-economic development plan long enough to

FIGURE 2 Planning Task Forces of Agricultural Marketing Development Plan as a Part of Socio-Economic Development Plan



make action programs before actual implementation (See Figure 2).

The system of make-up of planning task forces and coordination of sub-plans may differ from country to country, depending on their economic structure, bureaucratic system, cultural and social build-up and the national eagerness for development.

The marketing development plan is not a private one but a national plan. The government's willingness to do so is the most important factor to have the excellent development plan and programs.

7. Implementation Agencies

The agricultural marketing development can not be achieved by one agency but requires cooperation and coordination of many different agencies concerned. The marketing development projects and programmes specified in the above section are implemented by government, corporations, cooperative, private individual firms and combinations of them.

The agency or agencies responsible to implement the marketing development projects/programmes are determined depending on their role of market development.

- 1) Roles of government, local and central
 - Investment of infrastructure
 - Marketing services which individual firm can not carried out, such as sanitary conduct, information, standardization, research and training
 - Investment to and open of wholesale markets
 - Preparation of marketing development plans and implementation of projects
 - Law and regulation
 - Marketing administration
- 2) Roles of public corporations
 - Management and operation of market
 - Provision of credit
 - Education and training
 - Manpower development
 - Arbitration among marketing participants
- 3) Roles of cooperatives
 - Investment to assembly markets
 - Standardization and grading
 - Enhance farmers' bargaining power
 - Market information service for farmers
 - Cooperative marketing
 - Coop marketing specialist development
- 4) Roles of private sector
 - Investment to retail market
 - Efficient operation of trade
 - To have opportunity for training and learning
 - New investment for R & D
 - Introduction of new management skill and technique

The government includes various ministries such as Economic Planning Board, Ministries of Finance, Commerce and Industry, Agricultural and Fishery, Rural Development, and local governments. The various government should be fully cooperative and coordinated to achieve marketing development targets and goals. They have their specific role and functions in agricultural marketing development.

8. Securing Financial Resources

The agricultural marketing development programmes and projects are limited by the financial availability, especially in developing countries. Financial sources for the marketing development may be national budget, local government budget, public corporation fund, special fund, loans from public sources, private bank and international monetary institutes and private investment.

The government direct investment and subsidy should be the last resort

in the free economy system. Subsidy may increase the marketing cost due to inefficiency and over-investment.

The developing countries have to make useful utilization of international aid because the aid does easily waste and results in having nothing to do with marketing development.

The loans with favorable conditions are the most recommendable resources to finance agricultural marketing development projects.

As long as the agricultural development plan is one of the national socio-economic development plan, the government encourage private firm to invest with seed money provided by government.

In most developing countries, wholesale markets are completely financed by governments at different levels because investment for wholesale market facilities is too large for private individuals to invest, and because the agricultural wholesale markets are known as a kind of social overhead capital or social infrastructure. Central and city government provide a sufficient part of the investment capital required to construct wholesale market facilities. Most of them are operated on a non-profit basis. The rentals and other market charges are normally sufficient to cover operating costs, debt service, and a reasonable amount of reserves. This financing method can be found in Europe, Asia and even in the United States.

As the other financing method, wholesale markets are organized as public cooperations. Public authorities such as central and city governments, farmers' cooperatives, growers' organizations and wholesalers may participate in financing the market investment. When the public authorities resources are insufficient, even if investment capital may be obtained from the loan markets, at home and abroad, with official warranty, an easier way to finance a new wholesale market may be for the public authorities to provide market site, to pave the traffic land inside it, to lease part of the market area to a growers' organization, and to arrange for wholesalers to finance the construction of their own sales premises. The form of financial contribution by wholesalers can either be by financing their own stalls in a form approved by the market authority, or by buying the shares of the market corporation.

In many developing countries in which the complete financing of investment capital from national resources may not be feasible, market authority or city government explores the possibility of investment cost being financed by bilateral assistance or international loan. It is the last way of financing the new wholesale market that private wholesalers are being called upon to invest completely. In any event, financing by private fund will be more costly than by government loan or banks loan at home and abroad.

9. Preparing Annual Work Plan

The agricultural marketing development plan is established in terms of 15 years, 10 years or 5 years. The 5-year agricultural marketing development plan has its targets, directions and strategies at the end of the last year of the

planning period. It has action programmes and development project under the targets and has to have annual work plan. The annual work plan is based on fiscal year, availability of resources and manageability of the project. Statistical data can be collected and available at the basic of a year. The result of the project implementation can be easily evaluated using annual statistical data.

Construction of a market facilities such as wholesale market takes two or three years for completion. But the process of construction can be divided into annual work plan. It is true for manpower development, legislation and institution building and especially for financial resource allocation.

When the agricultural marketing development plan is established, the PERT (program evaluation and review technique) system can be utilized to prepare a specific projects and annual work plan for physical facilities development, manpower development for management and operation of the facilities, effective programmes for marketing supporting functions and services, and financial resource allocation.

The utilization of PERT system for the preparation of annual work plan for agricultural marketing development might be constrained by availability of materials, manpower requirements and financial resource limits.

The annual work plan should include work targets, working schedule, implementation unit, financial procedure and amount and monthly or quarterly work plans.

10. Monitoring, Evaluation and Coordination Arrangements

The agricultural marketing development plan has a component of project development and implementation. The monitoring and evaluation system should be included for effective implementation of the projects.

The monitoring and evaluation unit will be either government sub-unit, independent unit or their mix.

The functions of monitoring and evaluation unit include:

- 1) Reporting
 - Monthly reports from each agency on physical progress and corresponding expenditure
 - Continuous supervision to check accuracy of the report
 - A monthly report on the overall progress
- 2) Monitoring
 - Physical progress of the project compared with original plan
 - Financial progress compared with original schedule
 - Staffing
 - Check and factor finding for gap between actual and schedule progress
 - Feedback monitoring results into next progress and program
- 3) Evaluation
 - Project impact evaluation

- Ongoing evaluation and monitoring
- Post evaluation
- Institution building effects
- Evaluation of benefit and effectiveness of the project
- Economic and financial analysis

The annual work plan and project is monitored and evaluated and the results are feedback to next year annual plan.

IV. Concluding Remarks

The planning for agricultural marketing development can be one of procedure to learn by themselves. The planning should be done by people in their countries because they understand deeply their marketing conditions and middlemen's behavior and because they should establish continuously their marketing development plan in the future.

They may not have idea and knowledge for planning for agricultural marketing development in developing countries.

It is recommendable that they send their people to more advanced countries to learn the idea, skill and knowledge for the planning rather than they invite specialists from abroad.

Invitation of specialists from abroad needs another invitation in future.

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