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The Roles of Farmers' Associations and Agricultural Development Programmes in Taiwan

Taiwan is a subtropical island located in the West Pacific and bisected by the Tropic of Cancer. Its total area is 13,890 square miles, about one-eighteenth the size of the Province of Alberta. Roughly two-thirds of the island is mountainous terrain, leaving only 24 per cent of the land or approximately 2.2 million acres for farming.

And yet within this small area now live nearly 17 million people, almost as many as the total population of Canada excluding Toronto and Montreal. Because of heavy population pressure, Taiwan's agriculture is characterized by a small farming scale, with the farms averaging about one hectare, or 2.5 acres. With about six members and one hectare of land per farm family, farm operations in Taiwan has been labour-intensive. Three, sometimes four, crops are often grown each year on the same piece of land.

In the early 1950s when our economy was about to grow under the first Four-Year Economic Development Plan, agriculture was the dominant sector, over 50 per cent of the civilian population were rural people and farm workers accounted for 55 per cent of the total labour force. Agricultural production provided more than 35 per cent of the domestic product.

Because of its predominant economic and social importance, the agricultural sector has always been accorded full attention in our economic development. Even at present when industry has replaced agriculture as the major economic sector, the welfare of the rural people has never been overlooked. My paper today will first make a brief description of Taiwan's agricultural development programmes and then, in greater detail, examine the role of the farmers' association in Taiwan.

1 AGRICULTURAL DEVELOPMENT PROGRAMMES IN TAIWAN

Since the economy of Taiwan is predominantly agricultural, the Government realized very early in its course of economic development that the agricultural sector is not only a source of food but also a source of

investment capital and raw materials required by the industrial sector. Moreover, industry depends on the export of agricultural products for needed equipment and supplies and looks to the rural population for an outlet for its manufactures. Consequently, the Government made clear at the very beginning its policy to "develop industry with agriculture and support agriculture with industry", and proceeded with its economic development with due emphasis on both agriculture and industry.

After seven years of recovery from the ravages of World War II, Taiwan's agriculture had by 1953 restored its prewar production levels and laid the foundation for further development. Since 1953 Taiwan has entered the period of planned development and carried out a series of economic development plans.

The first and second four-year plans (1953 to 1960) emphasized increases in the production of rice and other crops to reduce imports and raise self-sufficiency in food supply.

During the third and fourth plans (1961 to 1968), the production of export crops and industrial raw materials was stressed instead.

Rapid industrial growth since the mid-sixties has drawn more and more farm labour to urban areas. Therefore, the fifth and sixth four-year plans (1969 to 1976) and the subsequent first six-year plan focused on farm mechanization, improvement in farm marketing and the promotion of foreign trade. In the meantime, a nine-point programme for accelerating agricultural and rural development was put into effect in 1972. It calls for increased investment in rural infrastructure, regional resource planning and improvement in farm income by lowering production cost.

The agricultural development plan follows the basic guidelines of and constitutes an integral part of the national development plan. Its policy objectives are flexible and change with changing situations.

The highest government agency in charge of agricultural matters in Taiwan is the Ministry of Economic Affairs. Earlier the Sino-American Joint Commission on Rural Reconstruction (JCRR) played a very important role. On 15 March 1979 this commission was replaced by the Council for Agricultural Planning and Development which may be regarded as an agricultural administrative agency. Actually, the JCRR assisted in formulating policies and programmes and provided technical and financial assistance for their implementation. At the provincial level, the agencies concerned with agriculture are the Department of Agriculture and Forestry, the Food Bureau, and the Water Conservancy Bureau. At the local level, each county government has a reconstruction division and each township a reconstruction section to take charge of agricultural production activities. In addition to government agencies, farmers' associations have played an active role in implementing the agricultural programme.

In general, the sectoral programmes and supporting measures for agricultural development were drafted by provincial agricultural agencies. All agricultural programmes reflect general economic policy, trends in production and marketing, and the government's financial position. Annual production goals are set up tentatively in each development plan

but are adjusted each year to meet the changing conditions of the market both at home and abroad. Apart from annual revision, these goals also have to be broken down into regional goals. For this purpose, provincial and county production conferences are held at the beginning of each year. The participants include representatives from local agricultural offices, local extension services, banking institutions, food processing industries and other public and private organizations. At such meetings, participants express their opinions and make suggestions regarding overall annual plans and regional goals. The central planning agency also sends representatives to these annual production conferences. Such two-way communication has contributed greatly to the smooth and successful implementation of agricultural programmes.

To achieve the production goals, detailed projects are developed for irrigation improvement, distribution of chemical fertilizers, demonstration of improved cultural methods, pest control, storage and processing, provision of rice production loans, extension of improved rice varieties, etc.

Such projects covering one or more items are implemented by the agencies and organizations concerned. Many of the field projects are carried out by the county and township governments or farmers' associations under the supervision of provincial agencies.

I would like to emphasize that the agricultural development plans of Taiwan have great flexibility. The government does not force farmers to plant certain crops or to raise certain animals. It passes on relevant information, disseminates technical know-how, and gives economic incentives to encourage and induce farmers to work towards goals set by national agricultural programmes. But each farmer makes his own decision in the allocation of his limited land, labour, and capital resources.

2 FARMERS' ASSOCIATIONS IN TAIWAN

From the very beginning, the role of Taiwan's agricultural development of institutional improvement and farmers' organization has been recognized. Prior institutional adjustments are essential to obtain the desired results because they give farmers more inputs and improve their way of doing things. Thirty years of experience have led us to believe that projects for increasing agricultural production and improving the general well-being of rural communities can be successfully executed only by the farmers themselves; our policies and programmes have been formulated accordingly.

There are a number of farmers' organizations in Taiwan, but the largest and most outstanding is the farmers' association. Other major farmers' organizations include the irrigation association, the fishermen's association, and specialized agricultural co-operatives. The farmers' associations in Taiwan are a federated system of co-operative organizations which render credit, purchasing, marketing and agricultural extension services

to their members. An understanding of the farmers' associations will give us an idea of how the rural community in Taiwan is organized for mutual benefit.

The farmers' association in Taiwan is a rather unique one, and it is more than a multi-purpose co-operative society, as is generally known in many parts of the world. In Taiwan, farmers' associations are organized on three levels: township, county and provincial. Each corresponds to a level of local government. Under the Provincial Farmers' Association, there are now 20 county and city associations and 273 township associations. Each township association serves on the average 2,400 farm households.

Furthermore, farm households of each village within a township area are also organized into a small "agricultural unit". On the average, there are about 15 units to each association and about 180 members per unit. The small agricultural unit is organized to serve as a bridge between a township farmers' association and its members for disseminating useful information on agricultural improvement and for election purposes. Therefore, the farmers' association in Taiwan is not only an agency to serve its members in practically all aspects of social and economic life, but also a grass-roots organization to train the farm people in parliamentary practices as well as in self-help activities.

3 THE ROLE OF FARMERS' ASSOCIATIONS

During the past years, the farmers' association has rendered a variety of services both to the farmers and to the government. Although its role may have varied with the emphasis of development, it has been an essential instrument for carrying out various rural reconstruction programmes. The following is a brief description of the major functions that the farmers' association has performed.

1 *Assisting government to work out agricultural development plans*

Agricultural experience in the postwar period indicates that no development plan can be effectively carried out without the active participation of the local people. It is also noted that the local people cannot fully participate unless they are sufficiently organized and trained to put forth a united effort. In this respect, the farmers' association in Taiwan can offer a unique example.

The farmers' association in Taiwan serves in the capacity of partner with the government. With a three-tiered organization to correspond with the levels of civil administration, the farmers' association acts as a channel to make government plans and policies known to all the farmers. By the same token, the farmers can express their views about government plans or make their problems known to the government. This two-way communication system has helped make government agricultural plans

meet the felt needs of the farmers. As I mentioned earlier, annual production targets are not decided by the overall planners; they are the result of close consultations between local governments and farmers' organizations, whose opinions reflect farmers' wishes.

In Taiwan, many agricultural programmes have been carried out with the active participation of the farmers' association. In the case of land reform, the farmers' associations were entrusted with the task of collecting land purchase prices in kind from the farm operators and paying the land bond in kind to the landowners on behalf of the government during the ten-year period from 1953 to 1962. In recent years, the farmers' associations have played an active role in realizing contract production for some cash crops under the Accelerated Rural Development Programme. In addition, the farmers' associations handle other government entrusted services such as the distribution of fertilizer, the collection of rice and other farm products from the farmers and the processing of these products for the government.

2 Facilitating agricultural extension

Newly developed agricultural practices and expertise must be diffused and put to use in actual farming operations. This is usually done by means of the agricultural extension system, which serves as a bridge between agricultural research at the experimental stations and adoption of new farming techniques at the farm level.

One of the major services that a farmers' association performs is farm extension. In each township association there is an agricultural extension section with an average of six extension workers. Among all the farm extension activities the farm discussion groups have been the most successful, influential and unique in several respects. As each farm adviser often had more farm families to care for and more subjects to teach than he could handle, farm extension authorities began in 1957 to encourage the establishment of farm discussion groups in every agriculture unit of the township farmers' association. Owing to the farmers' keen interest, the number and membership of discussion groups have increased rapidly. At present, there are 6,415 farm discussion groups.

A farm discussion group is composed of approximately twenty farmers. They meet once a month to study, discuss and carry on agricultural production activities and receive instruction and advice from township advisers. Subjects for the discussion groups usually include crop production techniques, family farm management, problems relating to joint operations, joint marketing and procurement, mutual assistance and co-operative service, and training in citizenship.

In addition, the farmers' associations help organize 4-H clubs for farm boys and home economics clubs for farm women. The 4-H club teaches the youngsters the rudiments of farming, under the guidance of local leaders and 4-H advisers. Under the home economics programme, farm women are given new knowledge on nutrition and new cooking methods.

It should also be mentioned that the agricultural extension service

performed by the farmers' associations is closely co-ordinated with other activities of the associations and other agencies concerned. In the technical aspect, the specialists at the various District Agricultural Improvement Stations play a very important role. They do research and field experiments and supply new techniques and cultural methods.

3 Providing supply and marketing services

In the process of agricultural development, it is essential to provide farmers with adequate inputs of production and convenient outlets for their outputs. The farmers' associations in Taiwan have also played an active role in these respects. In the supply business, the distribution of chemical fertilizer has been most important.

Under the rice production programme, the Food Bureau of the Taiwan Provincial Government is responsible for the procurement and allocation of chemical fertilizer. But actual distribution is handled by the township farmers' associations as they are conveniently located and well-equipped with warehousing facilities.

To meet the needs for crop and livestock production, the farmers' associations have made considerable efforts to develop self-initiated purchasing and supply services during recent years. The supply of feed-stuffs, pesticides, seeds, breeding stocks, farm implements, etc. has increased year by year.

The marketing service is to eliminate the undue profiteering by middlemen. As the agricultural industry has become more commercialized in recent years, the role of the farmers' associations in the marketing of farm products has become more important. The farmers' associations in Taiwan now handle about 30 per cent of the farm products marketed by the farmers. The co-operative marketing of hogs is one of the most successful activities of the farmers' associations. In the major cities, the hogs supplied by farmers' associations account for about 35 per cent of the total number marketed. Increasing volumes of vegetables, eggs and fruits have also been co-operatively marketed through the associations in recent years.

4 Supplying farm credit

Modern farm inputs mean to some extent higher production costs for the farmers, which in turn become a heavier financial burden. To relieve this financial constraint, farm credit is needed.

Before the implementation of land reform in 1952, approximately 50 per cent of farm credit had been furnished by the landlords. After the land reform, landlords ceased making advances to farmers and other credit sources had to be sought. Since then the credit departments of township farmers' associations have supplied the lion's share. Such credit departments are like rural banks and are operated on a co-operative basis. They accept savings deposits from and extend loans to members. They promote farm production and free the farmer from exploitation by the usurer.

The expansion of credit services of farmers' associations since 1953 has

greatly assisted the small and low-income farmers in obtaining input factors. The loans extended by farmers' associations are more effective and compatible with the farmers' needs because extension services often go along with them. Most of the loans extended are for production purposes. The lending funds of the farmers' associations come mainly from the savings deposits of their members. Borrowings from the government and banks make up the seasonal shortage.

The farmers' associations in Taiwan are generally recognized as very effective in financing agricultural production. Because they have an intimate knowledge of the farmers' needs and are capable of linking the farmers' borrowings with extension services, they are in a position to render credit service directly to the farmers. At present, about 80 per cent of agricultural production loans made to the farmers in Taiwan are handled by the farmers' associations and over 90 per cent of the farmers can get loans from their associations to meet their financial needs. Since farmers usually feel more at ease discussing their financial problems with staff members of the farmers' association than with bankers, some of the loans provided by the government and banks are also channelled through the farmers' associations. This has contributed greatly to the successful implementation of agricultural development programmes.

5 *Training farm leaders*

Although they are organized primarily for social and economic development purposes in rural areas, the farmers' associations offer the best opportunity for training local leaders in parliamentary procedures and in self-help activities.

Good leaders are made, not born. But before they are made, they must be found. And before they are found, we must know how to look for them. By means of election, the farmers' associations find potential leaders in rural communities in a democratic way, and get them interested and trained in programmes for the good of their communities. It is now no surprise to find magistrates, mayors and provincial assemblymen who were formerly elected officers of the farmers' associations.

4 CONCLUSIONS

The postwar economic experience of Taiwan indicates that the agricultural development process involves not only a close relationship between inputs and outputs but also various human and institutional factors. Agricultural development calls for detailed planning and, most important, practical actions. Therefore, co-ordination among various agencies and economic activities becomes indispensable for ensuring the success of a development programme. In other words, concerted effort is an invisible ingredient which is essential to putting many visible ingredients together to achieve satisfactory performance and policy goals.

The ultimate aim of agricultural development is to increase production

and improve the welfare of the farm people. Farmers' active participation, besides sophisticated planning, is therefore a "must" to guarantee successful agricultural development.

Taiwan's agricultural development adopts a "package" approach, although the term had not been coined when Taiwan started its development planning. This approach calls for simultaneous improvement in many aspects— institutional, technological, financial and organizational. Farmers are given various incentives, modern inputs, new technology, and, more important, a system which can deliver these things to the farmers efficiently.

Finally, before I conclude my report, I would like to say a few words about the transferability of the Taiwan experience. We all know that no two areas have the same social and economic conditions and that to transfer an institution from one area to another is a difficult and complex process. Nevertheless, if the will to develop is strong, the Taiwan experience may serve as a useful reference to countries which have similar basic conditions and face similar problems as Taiwan.

DISCUSSION OPENING—PAUL G.P. HILL

Dr Wang's factual account of the policies underlying Taiwan's remarkable agrarian development and the part which farmers' associations played in achieving it is appreciated. What is particularly intriguing is Taiwan's approach to development, whether made explicit, like reliance on economic incentives, or implicit, like the apparent harmony at all levels which is taken for granted. To open the discussion I should like to refer to Taiwan's approach to development, to events which may have contributed to increased farmer participation in decision-making, and finally to revert as Dr Wang did to the question of transferability.

Taiwan's success is due in part to the early identification by government of the potential contribution of agriculture to national development and to the systematic creation of institutional arrangements and economic incentives which harmonize farmer and national interests. Remarkable progress has been achieved through an approach which provides positive roles for government and farmers, and where farmers' associations provide a two way communication vehicle for implementing development plans and programmes. Are there no conflicts of interest between government's need for revenue, urban consumers' need for cheap food and farmers' desire for higher incomes, which cannot be equitably resolved using the Taiwanese approach? Was one essential element to successful rural development in this instance the existence of a thriving industrial demand for food, raw materials and workers which enabled possible tensions to be relieved?

Secondly, it has been stated that concerted effort is essential to achieve satisfactory performance. How is this invisible ingredient acquired? Is an early egalitarian land reform programme a pre-condition for whole-

hearted participation by all farmers? In addition to achieving a more equal distribution of assets, does such a programme also hasten the decline of traditional local leadership patterns dominated by landlords and open the way for greater representativeness of participants in local decision-making bodies?

Finally, transferability is like the medieval search for the elixir of life. Transplants are clinically difficult even between identical twins as Dr Wang indicates. What would be of particular value would be some appreciation of how and why farmers' associations started, what evolutionary stages they went through, and what parallel circumstances facilitated their growth such as land reform and industrial off-farm markets. It is the guidance from experience rather than the association blueprint which, with luck, may be transferred in a timely way to facilitate development elsewhere.

GENERAL DISCUSSION – RAPPORTEUR: ROGER G. MAULDON

The first speaker referred to the structure of farms in Taiwan as typified by small farms with many workers and family members. He considered that it was likely that farmer associations would act to reinforce that structure rather than change it. Dr Wang replied by saying that there were many conflicts of interest in farmer associations, and many arguments over production targets. This required getting people together and working out compromises. Land reform had paved the way for the formation of the associations since the landlord no longer stood in the way of change. Labour now is flowing off farms, and farm labour shortages have been developing.

Another speaker felt that it would be useful to identify the sociological variables which made the formation of the associations possible. If this were done it might help other countries to innovate a similar movement. He also asked if the smallness of farms and absence of fences between them enabled farmers to co-operate in the use of facilities. Dr Wang said that smallness of farms was not important. The greatest problem was developing an adequate water supply. Many small machines were now privately owned on farms and rented out to other farmers, but machine usage has made the scheduling of water supply a critical factor.

In reply to a question about the average number of years of schooling attained by most farmers in Taiwan and the percentage of illiteracy among farm families, Dr Wang said that illiteracy was virtually non-existent. Schooling is compulsory through the 9th grade. Most Taiwanese children now take two further years' training at either a technical school or an agricultural vocational school.

Participants in the discussion included Christian Jorgensen, Mario J. Ponce and Harold C. Love.