

# ENHANCING THE ROLES OF TAIWAN FARMERS' ASSOCIATIONS IN RESPONSE TO CHANGES IN FOOD CONSUMPTION

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## INTRODUCTION

For the past 30 years, the food consumption pattern has tremendously changed in Taiwan. Due to the increase in personal disposable income and more westernized life style, food selection is more diversified and specially consumes less on the starchy food.

From Table 1, it has shown the food consumption change in cereal, meat, eggs and milk for the past 30 years.

Table 1. The Per Capita Annual Availability of Food in Taiwan

Year	Cereals			Meat	Eggs	Milk
	Total	Rice	Flour			
1985	111.5	86.0	25.5	54.3	11.2	29.6
1995	100.4	59.1	31.9	72.8	16.2	58.8
2005	92.3	48.6	38.7	77.1	16.8	47.4
2015	86.6	45.7	37.0	78.1	17.3	46.7

Source: Council of Agriculture, Food Balance Sheet, various year

For cereals, people prefer pasta to rice, as a result of increasing for imported wheat flour and the annual consumption of local rice per capital from 86 kilograms in 1985 to 45.7 kilograms in 2015, while the protein intake from meat, eggs and milk consumption is rising. Meat consumption from 54.31 kg in 1985, jumped to 78.1 kg in 2015, milk consumption from 30 kg in 1985 to 46.7 kg in 2015. As a result, people in obesity in this country has significantly increased, and people health also gets alarmed. To educate people in Taiwan a balanced diet has become a major issue.

Due to the small scale of farmland and the climate in Taiwan, farm is not suitable for planting grains. For the consideration of cost for feeding hog and chicken, supply of soybeans and corn has to be depended on imports. Also, as mentioned before, the dietary habit has changed from rice to flour (wheat), the food self-sufficiency rate in Taiwan declines significantly. From Table 2, food self-sufficiency rate by calories from 47.7% in 1985 down to 31.4% in 2015, which means one-third of the food eaten by people in Taiwan is dependent on imports.

Table 2. Food Self-sufficiency of Ratios in Taiwan

Unit: %		
Year	Calculated by Calories	Calculated by Prices
1985	47.7	88.0
1995	37.3	84.9
2005	30.2	74.0
2014	34.0	68.3
2015	31.4	66.4

Source : Council of Agriculture, Food Balance Sheet, various year

On the other hand, Taiwan's current world-wide political situation, to maintain a stable international food supply become increasingly important. Therefore, the food security in Taiwan has been promoted to the level of national security. Raising the food self-sufficiency rate has long been one of the priorities of Taiwan's agricultural policies, based on ensuring food security supply.

In addition, with the rise of consumer and environmental awareness, people eat healthy and safety has also been the major concern. More and more consumers like to know the food traceability.

### **THE NEW AGRICULTURAL INNOVATION PROGRAM**

The new government in Taiwan won the national election in 2016 and the new agricultural team (the Council of Agriculture, Executive Yuan, equivalent to the Minister of Agriculture) proactively planned The New Agricultural Innovation Program which the strategy of constructing agri-food security system to ensure consumers' rights and interests is one of the three major strategies. The measurements of this strategy are as following.

#### **Implement the Big Granary Project: designate non-genetically modified grains production areas**

To increase rural vitality and farmers' income, COA will encourage farmers to grow import-substituted crops or non-genetically modified soy beans or corns on fallow lands. In addition, COA will construct post-harvest and agro-products processing system, encourage contractual production between farmers and enterprises, and offer advises to young farmers for vertical integration food production to processing.

#### **Promote organic and environmentally-friendly farming**

To enhance water conservation, soil fertility preservation, and soil microbe, COA will promote organic farming, biotic- control, and carbon sequestration technology. Furthermore, COA will promote the legislation of Organic Agriculture Act for facilitating organic farming.

### **Strengthen agriculture products safety from source**

To prevent farmlands pollutions, COA will promote the separation of irrigation and discharge system, and strengthen investigation on farmland contaminations. In addition, COA will promote the reduction of chemical pesticide and fertilizers use, agricultural consultation system, and integrated management on crop cultivation and pest control.

### **Increase inspection frequencies on agricultural products**

To prevent contaminated agricultural products being consumed, COA will strengthen inspections for residual chemicals, heavy metals, or animal drugs on agricultural, fishery, and livestock products as well as heavy metal contamination on agricultural materials such as fertilizers and animal feed.

### **Establish a trust worthy labelling system of agricultural products**

By the end of 2015, the production area of traceable agricultural products (TAP) reached 8,932 hectares, taking up 1.7% of cultivated areas. COA will establish a TAP task force to strengthen capacity building and raise consumer's recognition and trust in it. In addition, COA will make a connection between TAP and Global Good Agricultural Practice (Global GAP) and increase the production scale of certified agricultural products.

The above strategies and measures hope to reach 40% of the grain self-sufficiency rate in 2020, and the goal of integrating the single trust-worthy labeling for consumers in four years.

## **THE EFFORTS OF TAIWAN FARMERS' ASSOCIATION (TFAS) IN HELPING GOVERNMENT TO PROMOTE THE POLICY OF FOOD SECURITY AND AGRICULTURAL SAFETY**

In addition to all levels of government to actively counseling the relevant organizations to help promote "food security and food safety" policy, the TFAs, the government's vital partners, also play an important role.

TFAs in Taiwan are one kind of the civil organizations which are long-standing, well-organized, deep-rooted and have large number of members, having been playing the role as a communication bridge between the government and farmers. Each association has 4 departments dealing with the tasks as credit, insurance, supply and marketing, and agricultural extension respectively. In agricultural extension department not only helps government to communicate with farmers on many aspects, but actively counseling the consumers participation in promoting food security and food safety work as well

### ***TFAs assist to promote local food and farming education program:***

Taiwan Farmers' Associations are the most nationwide and grassroots organizations. Almost every township has a Farmers' Association, which has the most direct and extensive contact with the farmers. The goal of agricultural extension work in Taiwan is to help rural people improve their life economically, socially, and physically by obtaining new knowledge, applying new skills, and developing new attitudes. The Farmer's Association takes advantage of the group approach to handle the extension programs, which includes Production and Marketing Clubs for adult farmers; 4-H Clubs for rural youths; Home Economics Clubs for rural women. These three kinds of clubs emphasizes on strengthening the linkage of the local food and farming.

In respect of 4-H club, the advisors guide the 9-24-year-old rural youth who are students, or residents of rural communities to organize as units to practice the projects which include learning the eco-friendly farming, the relationship between the food they eat and grow, and the knowledge about where the food products come from, and the benefits of local-grown food, etc. The advisors also act as the tutors of schools near their county to provide the guidance toward the children to understand the agriculture of their hometown, to know the source of the food they eat, what the crop grows locally etc. The 4-h advisors all around the country hope to make the rural youth to be interested in agriculture, to support local agriculture products, love to enjoy the food produced by local farmers instead of the imported products, and even want to be a farmer as his career in the future. In 2017, there were 189 township farmers' associations handling 620 4-H units, with a total of 24,000 young people, over 50% of them focusing on the local food and farming.

Regarding to the home economic clubs, the home economics advisors take the responsibility to help rural women to reinforce the function of family and improve their livelihood situation. The advisors will direct the members to discuss major goals and subjects under the guidelines of COA national policy every year. For example, food consumption by local production, healthy diet and green consumption are the major subjects in 2017, and the members of home economics must discuss or practice in each meeting at least 4 times per year. Through the meeting process, the members will involve the local food and farming education activities. They also develop the specific recipes with local food materials, and promote it to other groups. For example, they apply the rice flour to make rice noodle, rice cake, rice bread or other traditional rice cookies or deserts. There were 245 FAs which have 2,751 home economics clubs, a total of 72,168 members, serve as a bridge between producers and consumers, They actively strive for cooperation with the county government, school community, supermarket, farmers market, young farmers to discuss cooperation promotional activities in marketing agricultural products, cooking, recipes and so on . And through the activities of the story-tell contest of "from the farm to the table", contesters will tell the characteristics of local food and farmers, and to show the type of "good recipe by talk."

In addition, according to the diverse demand, advisors of 4-H and home economics are also encouraged to design the different teaching materials on local food and farming which strengthen healthy eating and agriculture care, so that rural youth and women would understand the crop production process, the friendly farming environment, organic agriculture, and also know how to eat local grown and on-season food, and have a balanced diet.

In 2016, on the 60th anniversary of Home economics education, TFA promoted the "Having dinner at home" project to encourage family members to have dinner together at home. At the same time, the rural women are motivated to do the specific lunch box by local food and to cook rice instead of noodles, to eat at home instead of eat -out and fast food.

Besides, there are another 18 Farmers' associations which are subsidized to implement the local food and farming and education activities for the general public and school children in the year of 2017. These activities requested the associations to select one of any local farm products as the contents which at least include hands-on experience of farming, harvesting or processing of specific local food, to support local agricultural industry and to identify the certificate of the healthy product such as CAS,TPG logo etc.

### ***To implement the "Country Mother's" programs***

The advisors of home economic club in the farmers associations not only promote the concept of "local consumption by local production" among the members of home economics and general consumers , and how to identify the certificate of the health agricultural product

such as CAS,TPG etc. they also teach their members to eat healthy and more balance. Meanwhile, they encourage the members of home economics club who are good at cooking to organize the 'Country Mother' (Tian-Ma-Ma) group to develop business as another source of income. The members of Tian-Ma-Ma, are trained and inspired to use the local food materials and combine their unique skills with traditional menu to generate innovative and healthy cuisine. Additionally, coping with the policy of agri-tourism which is encouraging people from cities to stay overnight and have meals at countryside, Tian-Ma-Ma's program provides a good chance for consumers to know the local, seasonal and delicious food which are made by friendly farming. These members of Tian-Ma-Ma are very proud of their dishes with three 8's principles (80% food materials from local, within 8 kilometer distance or 8 minutes) . They not only have created the job opportunities for other rural women, but also have developed their business successfully. Currently in Taiwan 138 Tian-Ma-Ma gourmet units around the country, which were sponsored by the COA and guided by the farmers associations, have generated 1,472 local jobs including the younger generation and earned a total of NT\$330 million in revenue over the past years.

### ***To develop the premium produce in agriculture***

In supply and marketing departments, many farmers associations have been motivated to develop premium products with fine package and high quality by local agricultural produce. Every years COA will selecte the top 100 products produced by Farmers' and Fishermen's Associations which are printed as delicate catalogues and are sent to the large enterprises in Taiwan for their reference on large-scale purchase as holiday gifts. Under COA restrict inspection and TFA's efforts by themselves, these premium products not only meet the food safety regulation and upgraded to the high quality, but also won the trust of consumers, and becoming the best choice of souvenirs or holiday gifts for their friends. These premium products include, rice, fruits, tea, beverages, liquors, seafood, delicacies and combines.

In 2015 the premium products make profits about totally NT\$800 million for TFAs. For instance, Da-Hu(in Mia-li), Xi-yi and Wu-Feng Farmers' Associations take the rural product such as strawberry, plum and rice respectively to make different kinds of wine which won the top 100 products in 2015 , but also earned gold medals and silver medals from international liqueurs award, helping to introduce Taiwan's wine and liqueurs to the international markets. Meanwhile, integrating with agri-tourism, these Farmers Associations make a lot of money from these products every year to improve their economic status.

There are some good examples as following.

1. The Cha-yi Farmers' Association has taken advantage of local maize which are grown by its contract farmers to make it as delicious snacks. Due to the non- GMO and freshness, it becomes as the best-selling product.
2. Making contract with young farmers who are motivated to produce the imported substitute grain, such as soybean, the Lo-Dong Farmers' Association in I-Lan County makes bottled soybean milk as drink and has become popular breakfast choice.
3. Kinmen Kaoliang Liquor Inc., which makes very famous and popular sorghum liquor in Taiwan, recently researched and developed the wheat wine which the materials are grown by farmers contracted with FA in the year of 2017. The National Farmers' Association is in charge of marketing to around the country through the local Farmers' Association. Because this kind of wheat liquor which are made by Taiwan local grown wheat with special flavor get more and more popularity with consumers, and by the assistance of TFA, Kinmen Kaoliang Liquor Inc. is able to expand its scale of production through the contracted farming. This is another successful story of the Big Granary Project.

### *To encourage the young farmers to grow imported substitute crops*

Grains grown in Taiwan may not be able to compete with other countries on the basis of quantity and the price, but the quality is superior. Consumers won't have to worry about GMO, and local produce will always be more fresh than imported produce. Through the Implementation of above the local food and farming education activities, plenty of consumers have built the confidence on local agricultural food and are willing to pay extra on home-grown grains both for the guaranteed quality and freshness and to support organic farming practices. In recognition of the market potential, many young people have been interested in those areas and tried to start up their career in agriculture and engage in the production of imported substitute crops. Those young farmers not only get assistance from relevant authorities directly or indirectly while facing the challenges and difficulties in the actual practices of agriculture, but also get a lot of support and assistance from the Farmers' Associations. For example, with respect to obtain farmland, TFAs establish the e-farmland bank making the linkage of land lord and tenants to introduce the fallow land or land owned by the elderly farmers to the young farmers. With respect of demand on operational capital, the credit department of FAs will provide policy-oriented specific agricultural loans which is long term and low interest. There are more than 10 types of agricultural loan projects for young farmers, including the startup loan, business improvement loan, land purchasing loan, and agricultural machinery loan as well. In 2015 NT\$360 million are loaned to 224 young farmers to solve their financial problems. If the mortgages are not sufficient, FAs will assist the young farmers to seek assistance from the Agricultural Credit Guarantee Foundation and receive a guarantee for 95% of its loan. The advisors of 4-H club and Production and Marketing Group have built a platform for the young farmers on exchanging their knowledge, skill and experiences. And hopefully the young farmers will successfully manage their agricultural business and will become a problem-solving team together.

### **CONCLUSION**

The change on the food consumption pattern and the raising concern on the food security and food safety are big challenges for Taiwan. The government not only has to make the best efforts to deal with it, but needs the assistances from civil organizations. Taiwan Farmers' Associations (TFAs) are best friends and partners by the government historically. The TFAs could play both the pulling-pushing role on this issue. On the one hand, TFAs have made great efforts on assisting the confidence of domestic consumers on our local agriculture products. On the other hand, TFAs have motivated the farmers, especially the young farmers, to supply safe and healthy food. In the future, we have strong confidence that the TFAs could make great contributions in overcoming the challenges of Taiwan's agriculture.

Submitted as a country paper for the FFTC-NTIFO International Seminar on Enhancing Agricultural Cooperatives' Roles in Response to Changes in Food Consumption Trends, Sept. 18-22, Taipei, Taiwan