

## **SUSTAINABLE AGRICULTURAL SYSTEM FOR FOOD SOVEREIGNTY: EXPERIENCE FROM SMALLHOLDER SYSTEM IN TAIWAN**

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### **Abstract**

The issues concerning sustainability and viability of the agricultural sector in Taiwan has been a daunting issues ever since the diversion of the national economy into more centered on manufacturing and services. In the mean time, Taiwan has faced with ever declining food self-sufficient rate and became one of the lowest in Asia with a mere 31% by calorie in 2015. Explanations have been made such as it is a fact that the vast importation is used for animal feed or food processing, yet, it also reflected the challenges for the agricultural sector. The major challenges included fragmented and declining farmland size, aging faming population, increased set-aside and especially low food self-sufficiency rate. As indicated in the recently released initial census report for 2015, more than 80% of the faming family were cultivating on less than 1 ha of farmland and the average age of the farm owner-operator was 63.5 years old. As such, agro-food policy is a national security issue: as it closely link to the welfare of the stakeholders, farmers, food industry, consumers, future generations. Food sovereignty perspectives can be an interesting dimension to address the ability of the nation to respond to the multiple stokeholds involved. Food is a culture, yet it is a dynamic process. Therefore, it is important to understand the dynamic of food preference and choice over time as the population structure changes, and how the agricultural sector can respond to it. This report intended to present recent new initiatives in Taiwan to address these issues.

**Keywords:** Sustainability, food sovereignty, smallholder, agribusiness.

### **INTRODUCTION**

The issues concerning sustainability and viability of the agricultural sector in Taiwan has been a daunting issues ever since the diversion of the national economy into more centered on manufacturing and services. Taiwan has faced with ever declining food self-sufficient rate and became one of the lowest in Asia with a mere 31% by calorie in 2015. Imported items were mainly used for animal feed or food processing, yet, it also reflected the challenges for the agricultural sector.

The major challenges included fragmented and declining farmland size, aging faming population, increased set-aside and especially low food self-sufficiency rate. As indicated in the recently released initial census report for 2015, more than 80% of the faming family were cultivating on less than 1 ha of farmland and the average age of the farm owner-operator was 63.5 years old.

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changes, and how the agricultural sector can respond to it. This report intended to present recent new initiatives in Taiwan to address these issues.

### **Sustainability and Food Sovereignty**

Food sovereignty perspectives can be an interesting dimension to address the ability of the nation to respond to the multiple stakeholders involved. Food is a culture, yet it is a dynamic process. In my opinion agricultural sustainability and food Sovereignty are interlinked. Food sovereignty is not achieved merely through food self sufficiency from the commodity perspective; it also need to fulfill the heart's desire of the consumers who take the liking while making rational informed decisions about food nutrition with altruism for others in mind.

Food sovereignty is about what people want to eat and what they (should) desire to eat. It is dynamic because it is about culture and its people: in fact the population composition is also changing over time. Taiwan has becoming a silver age society and it has been a society of migrants that is rich in the cultural diversity as well as food diversity.

Food is also about health: nutrition education, dietary recommendations, and healthier food choice. Again, food is culture and it is a dynamic process. How do we get the food in an efficient and sustainable is the challenge to us as professionals in the field. Agro-food education should provide communications between producers and consumers as both side play equal role in achieving food sovereignty. The components include understand and be able to make judgment on good quality food, appreciating the local specialties as it links to local people that they interact with. Rice culture is important in Taiwan, as it is not only a product, but also a process that bring people together. It links with the memory of the land and create imaginations as it is the livelihood of people, especially the small farmers. It is also the amenity, the landscape, poem and song, and the owe for the mighty nature environment that farmers faces at the front seat.

### **Current Situation, Challenges and Strategies**

It is important to understand the dynamic of food preference and choice over time as the population structure changes, and how the agricultural sector can respond to it. The traditional outlet for farm product has been well established in Taiwan. The channel for rice is perhaps the most mature one that takes away the hassles from the rice growers. For other fresh items such as fruit and vegetables, the vast majority of the product goes into the wholesale-retail channel. Farmer's access to such market is protected by law to have such outlet in production areas.

Innovative farmers easily found other forms of market access, such as direct selling in all different forms (roadside, own shops, virtual e-shop). To resolve the issue of only producing commodity but not the value-added products, the government has been promoting the one town one product (mainly for SME) for a long time. They are not limited to food items. Farming groups such as farmers association also undertook the development of the regional specialized products.

The smallholder system is challenging and some product do require larger scale of option to benefit from scale economy. New government initiative to revitalize the set-aside farmland, farmers are encouraged to enlarge the scale by leasing larger parcel of land from the small farm owners. It is voluntary participation, but economic incentive has been provided and the farmers association serves at the databank for the match making between land owner and tenants. The fact that Taiwanese farm land owners tend own smaller parcel of land due to the generations of succession after the land to the till (land reform) programs; the tenants tend to be able to increase the scale of operation. Another for is through contract farming to ensure that both side of trade.

Farmers's market is now population for urban residents. Such market created channels for encouraging local consumption as well as training farmers to enhance their ability to directly communicate with the consumers. The average gross income of per agricultural enterprise that adopted diversified operation (processing or recreation) were NT\$1.8 million

which were 5.3 times the gross income of traditional farms (DGBAS, 2013). To do that, the government should have set in place the following: supporting services (research, extension, financial), an enabling environment for family farms business by supportive regulatory environment such as mechanism for product quality certification and communication.

Other examples include encourage the farmers to build their own branding: Farmers, farming organization (cooperatives and production and marketing group), farmers associations.

Certification or identification of quality, which includes Certified Agricultural Standards, Traceability System/TGAP; QR-Code for traceable agricultural product, Awards (and recognition of top 10 farmers each year), and other new channel for quality communication.

### **Cases of small and viable agribusinesses**

To make sure the small farming entity is supported, farming groups such as production and marketing groups has been promoted aside from the farmers associations at the local level. It is expensive to operate on all aspect of the farming activities on a single small farm, therefore development of the supporting services and infrastructure to support its operation is important.

The simplest form of support is from neighboring farms is in the form of exchange of labor or more systematically to become joint operation while job division or specialization is realized. The examples show cased here include production and marketing group of one specialized fruit product: wax apple. Other examples include the young farmer who created his own branded pineapple; winner of rice competition that more than 5 members of the same organic rice farming family is featured. The last one is the example of the daylily industry that not only provide fresh daylily as a vegetable, but also engaged in the processed (dried) form, and the local government's initiative to give "value" to those unharvested field to create a public good, which is the amenity for tourist to visit the site.

### **CONCLUDING REMARKS**

Economic viability of small farmers needs technical support, infrastructure, financial, fair channel for product marketing, extension services. But the sustainability of the industry need farmers to feel dignified and happy to take of the food system.