

**Threats and Opportunities of Agricultural Trade Liberalization for  
East Asian Countries**

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# Threats and Opportunities of Agricultural Trade Liberalization for East Asian Countries

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## ABSTRACT

*Trade liberalization is an irreversible trend keep influencing the domestic and international agricultural sectors. However, agricultural trade liberalization not only brings threats but also provides opportunities for different people, industries, and nations.*

*Taiwan, Korea, and Japan are net importing nations of agricultural products in the East Asian region. These nations with small-scale farming system are highly dependent on imported agricultural commodities, and are confronted with the problem of low food self-sufficiency rates. Trade liberalization opens up markets, enhances policy reforms and structural adjustments of the domestic agricultural sectors in these nations. While market mechanism strengthens its influences in the markets, the principle of comparative advantage leads the agricultural sectors of these East Asian nations to adjust under trade liberalization. In order to ensure the sustainable development of the domestic agricultural sector, threats need to be identified and overcome, meanwhile, opportunities should be recognized and grasped.*

*This paper discussed the theoretical background regarding the possible impacts of trade liberalization first. Possible impacts of agricultural trade liberalization upon domestic agricultural sector were then discussed. Threats and opportunities of agricultural trade liberalization for the East Asian nations were drawn. The core value of domestic agriculture was also discussed, and policy measures and strategies for sustainable agricultural development under trade liberalization were finally discussed and suggested.*

*It is expected that the policy suggestions raised might help in adjusting agricultural policies in Taiwan, Korea, Japan or other net food importing nations with small-scale farming system to ensure for sustainable development of their domestic agriculture.*

### **Key words:**

agricultural trade liberalization, agricultural policy, agricultural development

## **I. Introduction**

Since the Agreement on Agriculture was reached in the Uruguay Round Multilateral Trade Negotiations of GATT in 1993, the international society has actively set out for agricultural trade liberalization. The objective of the Agreement on Agriculture is to reform trade in the agricultural sector towards fair competition and less distorted sector, and to make trade related policies more market oriented.

Although the new round of WTO agricultural trade negotiations began in the early 2000, there is still no sign that the negotiations will be concluded soon in the near future. Nevertheless, various free trade agreements (FTAs) or Regional Trade Agreements (RTAs) have been signed between/among nations in recent years. Without prejudging the possible outcome of the agricultural negotiations of the Doha Round, it is for sure that trade liberalization will be the irreversible trend that will keep influencing the domestic and international agricultural sectors.

Agriculture is a prime candidate for government intervention due to political, social, cultural, and economic reasons. Despite the theoretical arguments about the benefits of trade liberalization, the application will impose hardship on some individuals and industries. Therefore, agricultural trade liberalization brings threats and provides opportunities for different people, industries, and nations.

Taiwan, Korea, and Japan are net importing nations of agricultural products in the East Asian region. These nations with small-scale farming system are highly dependent on imported agricultural commodities, and are confronted with the problem of low food self-sufficiency rates. Trade liberalization opens up markets, enhances policy reforms and structural adjustments of the agricultural sectors in these nations. While market mechanism strengthens its influences in these markets, the principle of comparative advantage leads the agricultural sectors of these East Asian nations to adjust and change under trade liberalization. In order to ensure the sustainable development of the domestic agricultural sector, threats need to be identified and overcome, meanwhile opportunities should be recognized and grasped.

What are the possible threats and potential opportunities in agricultural trade liberalization in the East Asian countries? What are the core values of the existence of domestic agriculture in these nations? What strategies can these nations adopt to cope with the trend of trade liberalization while pursuing for the goal of sustainable development of domestic agriculture? The objective of this paper is to explore the

answers of the questions stated above.

Theoretical background regarding the possible impacts of trade liberalization will be provided first. Possible impacts of agricultural trade liberalization upon domestic agricultural sector will then be discussed. Threats and opportunities of agricultural trade liberalization for the East Asian nations will be drawn. The core value of domestic agriculture will be discussed, and policy measures or strategies for sustainable agricultural development under trade liberalization will be suggested finally. It is expected that the policy suggestions raised might help in adjusting agricultural policies in Taiwan, Korea, Japan, or other net food importing nations with small-scale farming system to ensure for the sustainable development of their domestic agriculture.

## **II. Theoretical Impacts of Trade Liberalization**

Although trade liberalization is an irreversible global trend, and there are “gains from trade” suggested by trade theories of economics, almost all nations intervene in trade or trade related policies in different degrees. The reasons are complicated; some are economic, others are political, social, or cultural.

Under a two-nation trading regime, trade liberalization leads both of the trading partners to specialize in producing and exporting the commodity with comparative advantages. Eventually, both exporting nations and importing nations are better off due to “gains from trade” (as the triangle areas of both nations illustrated in Figure 1). However, there are several crucial points that need to be noticed before concluding that “trade is good for everyone.”

First, “gains from trade” are not for everyone. Trade liberalization benefits some people but hurts some others. The price of imported commodity in the importing nation will decrease, while the price of exported goods will increase after trade. Apparently, the consumers of the importing nation and the producers of the exporting nation of the specific trading commodity are benefited from trade liberalization, while the producers of the importing nation and the consumers of the exporting nation of the specific trading commodity are hurt. In other words, trade liberalization causes income redistribution effects. Moreover, according to Heckscher-Ohlin theorem, trade liberalization encourages the growth of exporting industry while discourages the development of domestic import substitution industry. In other words, trade

liberalization not only affects consumers and producers but also influences the development of industries, and hence causes resource reallocation effects in both exporting and importing nations. In short, trade liberalization causes income and resource reallocation effects.

Second, trade liberalization causes factor prices to be equalized between trading partners. According to Stolper-Samuelson theorem and factor-price-equalization theorem, not only the prices of traded commodities, but also the factor prices, have the tendency of equalization after trade liberalization. Therefore, if the imported commodity is labor-intensive, the domestic price of labor (i.e. wage) in the importing nation will drop after trade liberalization, while the price of capital (i.e. rent) will rise. In other words, commodity trade has substitution effect of factor movement between trading partners, and will cause both commodity and factor prices to be equalized between trading partners.

Third, trade liberalization might deteriorate the uneven income distribution problem in the society. Since some gain from trade while others lose, if the people who lose belong to the “weak groups” of society, trade liberalization could reduce their wages and income, and thus cause these people to become relatively poorer. Contrarily, if the people who gain are with higher income, they become relatively richer after trade liberalization. Therefore, the uneven income distribution phenomenon in the importing nation could be deteriorated due to trade liberalization. In other words, trade liberalization could bring unexpected social problems caused by deteriorated uneven income distribution situation in the society.

Fourth, “gains from trade” are calculated and concluded too simplified. Gains from trade are calculated simply by summing up the losses and the gains of the producers and consumers. However, one dollar could mean different value to different individuals. Summing up the losses and gains of consumer and producer surpluses to conclude that trade can bring gains to the whole society due to the positive summation of the changes in surpluses might be a simplified conclusion derived too roughly.

Fifth, “gains from trade” neglects some important social costs associated with trade liberalization. There are strong assumptions of the trade theory that resources are full employed and no adjustment cost for resource reallocation. However, resources are usually not fully employed, and the adjustment costs for reallocating resources do exist in real life. Trade liberalization could cause unemployment of resources. Unemployment does bring about social costs not to be neglected. In addition, even

though resources could be reallocated by market mechanism, there are costs for structural adjustments. Therefore, the social costs associated with trade liberalization could out pass the gains from trade, and the gains from trade would no longer be so certain when associated social costs due to trade liberalization are taken into full consideration.

Sixth, while the development of domestic industry is affected by trade liberalization, the external benefits/costs associated with the production activities of domestic industries are also affected. Therefore, the external benefits/costs associated with the domestic import substitution industry will be decreased or diminished after trade liberalization. However, these external benefits/costs are not taken into account when calculating “gains from trade”. If the external benefits decreased or diminished due to trade liberalization are taken into consideration, “gains from trade” could be less than the socially desired values lost.

### **III. Threats and Opportunities of Agricultural Trade Liberalization**

Agricultural trade liberalization eliminates non-tariff trade barriers and lowers down the import tariff levels of agricultural markets, enhances the performance of market mechanism in the agricultural markets. Thus, domestic agricultural industries with less international competitiveness will lose their domestic market shares gradually after trade liberalization. In other words, domestic agricultural commodities with higher prices than international competitors will be replaced by imported commodities with lower prices in the domestic markets after trade liberalization, if they do not possess some non-price advantages.

When the domestic markets lose their protection from trade barriers, agricultural imports from abroad will be increased gradually after trade liberalization. Meanwhile, the domestic prices of the importing commodities will be dropped, and the domestic production will be reduced gradually. Thus, the import substitution industries in the domestic agricultural sector of the importing nations will be withered gradually. Providing no structural adjustments, the food self-sufficiency rates in these importing nations could be decreased further when agricultural imports increase.

For East Asian nations such as Taiwan, Korea, and Japan, the domestic agricultural sectors are generally not price competitive in the international markets due to the relatively high production costs. Small-scaled production units and scarcity in

resources are major factors that contributed to the high costs of agricultural production. Prices of farm land and labor are relatively high compared with the international competitors. The disadvantage in production costs and hence in prices of agricultural products make these East Asian nations not price competitive in the world markets, and become net agricultural importing nations with low food self-sufficiency rates.

Agricultural trade liberalization has opened up the domestic agricultural markets, even the highly protected rice markets, in the East Asian nations. Agricultural imports have been increased gradually in these net food importing East Asian nations after trade liberalization. The deficits in agricultural trade have also been increased since the growth in imports outpaced the growth in exports. In addition, food self-sufficiency rates also deteriorated after agricultural trade liberalization. When lower-priced agricultural products imported from abroad increase, domestic production and prices of agricultural products, as well as the income of farmers, have the tendency of decrease.

On the other hand, food processors, consumers, and other stakeholders in the food supply chain utilizing the imported agricultural products as material for further process or for consumption find themselves the beneficiaries of agricultural trade liberalization, due to lower costs of agricultural material for process or lower prices of agricultural products for consumption, they have more alternatives or choices.

At least in the short run, the job opportunities of domestic agricultural production in the rural areas and the wages of farm labor could be decreased after agricultural trade liberalization. The resources used for domestic agricultural production, such as farm land and farm labor, could be reallocated since the domestic agricultural productions shrink. There are tendencies that the areas of idled farm land in the East Asian nations have been increased since the domestic agricultural markets are opened. Therefore, the social costs associated with unemployment of agricultural resources, or the transfer costs of resource reallocation or structural adjustment could be increased due to agricultural trade liberalization.

For the society where average farm household income is lower than that of the non-farm household, income redistribution effects of agricultural trade liberalization will cause the weak group of the society to become weaker. Thus the social costs of uneven income distribution could be deteriorated after agricultural trade liberalization.

Moreover, the externalities (either external costs or benefits) associated with domestic agricultural production and marketing activities decrease after agricultural trade liberalization. If there is no sufficient incentive provided by the government or the publics, the market mechanism under trade liberalization won't be able to guide the domestic markets efficiently to provide enough public or semi-public goods for the society.

The multifunctionalities of domestic agriculture, especially the public goods which cannot be guided by the market mechanism efficiently, (such as food security, biodiversity, cultural heritage, etc.) will be diminished along with the shrink of domestic agricultural industries after agricultural trade liberalization. The external benefits provided by domestic agricultural activities might not have market values although they have socially desirable values which could far exceed the market values of agricultural products or the value of theoretical "gains from trade".

In addition, agricultural sectors in Taiwan, as well as in Korea and Japan are facing many challenges, such as: small-scale farm operation and relatively low farm income, aging farm population, lack of vitality and job opportunities in rural areas, enlarging gaps between urban and rural areas, negative impacts from agricultural trade liberalization, as well as various problems in farm land utilization, food safety, agricultural price volatility, farmers' and farm organizations, rural planning and reconstruction, agricultural development and environmental concerns.

Changing environment derives threats while at the same time, provides opportunities. The direction of agricultural development and policy adjustment should coordinate with the global and regional trends of economic, social, cultural, technological, climate, and environmental development closely, if sustainable development is the final goal.

The production technology, management skills, and the qualities of agricultural products are generally well in East Asian nations. Although agricultural trade liberalization has opened up the domestic agricultural markets, and the imports of agricultural products from abroad have been increasing, there are still opportunities for the domestic products to expand their international markets since the foreign markets have also been liberalized, and agricultural trade barriers have been reduced.

Global and regional trends closely related to agriculture including: persistence in trade liberalization and globalization; emergence in bio-technology; rapid progress in



information technology; consistent but slower economic growth with deteriorated uneven income distribution; climate changes which awake consciousness of environmental protection; needs of improving quality in physical life and fulfillment in spirit stimulated by affluence; growth of health consciousness; aging population due to longevity and declining birthrate; intensified consciousness of local and community identity; emergence of energy crises and the need for alternative energy resources; improved relationships and closer exchange activities between Taiwan and China while the relationships among Japan, Korea, and China are changing in ambiguous direction.

The structure of agriculture and the yields of outputs will be affected by dramatic climate changes, and the risks of agricultural production will be increased. Food security thus remains as an important issue most nations are concerned with. On the other hand, the non-production functions provided by the agricultural sector will be realized, respected and promoted more actively.

Advanced technologies could partially overcome the pressure of growing food demand and the negative impacts of global climate changes. However, new technologies also bring uncertainties in environment and human health. Technological changes will also cause structural changes in agricultural production, process, marketing and trade, which in turn will influence the international competitiveness and farm incomes of individual nations.

Under trade liberalization, market mechanism will be more respected and will bring its influence in agricultural production and marketing into full play. Meanwhile, protection and support to domestic agriculture will become more difficult. Nevertheless, multifunctionality of agriculture will be emphasized, especially by net food importing nations with less international competitiveness, to ensure sustainable development of domestic agriculture under agricultural trade liberalization.

Closer international relationships will increase the opportunities of foreign agricultural investments, imports of lower cost materials and commodities, and exports of agricultural products among nations. However, the technologies, funds, varieties will outflow more rapidly from advanced nations. In turn, imported nations will be confronted with problems of food safety, diseases, and competition in domestic and international markets. Effective market segmentation via differences in safety and quality of agricultural products will become a more important task of food importing nations to compete with agricultural imports from abroad.

Emergence of energy crises will intensify the needs for alternative energy resources. Alternative energy supply using crops as the material of bio-fuels will increase the demand and prices of crops such as corn and soybeans, which in turn will influence the agricultural structure and markets globally, regionally, and domestically.

The consumption pattern and behavior of agricultural products and the demand for agricultural multifunctionality will also be changed due to social and cultural changes. The effective demand for good quality, safe and sanitary food will grow to fulfill the needs for health concerns and tastes of life. The needs for leisure and travel to relax from pressure will grow persistently. Agricultural tourism will be a good choice for such needs. Besides, environmentally friendly agricultural activities will be respected and supported by consumers more actively.

The structure of agricultural production and the development of rural areas will also be influenced by social and cultural changes. Although the need for young and full-time farmers will be urgent, small-scaled, aged part-time farmers will still exist persistently, farm organizations will thus be very important in integrating individual small farmers. In addition, the needs for improving the living quality and the economic vitality in rural areas will also be intensified.

Domestically produced agricultural products with relatively high prices could lose their market shares gradually while lower-priced imports flow into the domestic markets as results of gradually diminished trade barriers and domestic supports required by the international rules of agricultural trade liberalization. Domestic prices of agricultural products could also be decreased when imports increase, which in turn could cause domestic agricultural production to be reduced, the domestic agricultural industries to be withered, the job opportunities in the agricultural sector to be reduced, and the income of producers to be decreased.

Nevertheless, if the structure of the domestic agricultural sector is adjusted after trade liberalization, resource allocation could become more efficient, and operation of domestic agricultural industries could become more competitive in the international markets in the long run.

Market segmentation strategies could be adopted in East Asian countries to distinguish domestically produced high quality agricultural products from lower quality products imported. Of course, the quality of domestic products has to be

believed and trusted by the consumers. Food safety is one of the most important attributes of good quality agricultural products. Certification with credibility and brand with goodwill are key value-added factors to distinguish products with good quality from others. This will eventually earn confidence and loyalty among consumers. Fortunately, East Asian countries are possessed with sufficient technology, capital and management skills to fulfill such strategy. Moreover, R&D is the basic driving force for innovation and improving the quality of commodities as well as the competitiveness of the domestic agricultural industries and thus, should be emphasized and enhanced actively and persistently.

Market segmentation strategies mentioned above not only could prevent domestic agricultural products from price competition of imported goods but also could provide export opportunities for domestic products. Agricultural trade liberalization opened up domestic markets, while at the same time, foreign markets are also opened for international competitors. Therefore, more efforts should be contributed to explore the foreign agricultural markets. Marketing research is essential to find out the potential markets, to segmentize and select the targeting markets, and to position domestically produced products to be exported.

Since most farm households are small-scale family farms in East Asian countries, it is of great importance to integrate these small farmers to provide economies of scale for production, processing, marketing and trade. Organization is essential to integrate the producers and suppliers of the supply chain of agricultural products. Fortunately, East Asian countries have well established agricultural cooperative systems (JA in Japan and NH in Korea) or farmers' association system (in Taiwan) to integrate small-scale famers. However, since the agricultural sectors were protected and supported by the governments before agricultural trade liberalization, most efforts of such organizations were concentrated in providing services for domestic marketing, extension, training and education, supply of production inputs, as well as financial services for farmers. International trade is another important function which the farmers' organizations could expand to assist the producers to explore the international markets after agricultural trade liberalization.

Although enlarging the scale of farming (which has been urgently promoted by some East Asian nations), could possibly increase the efficiency of production, the weakness of limited natural resources for agricultural development should not be ignored. Apparently, the competitive advantages of domestic agriculture in East Asian countries are not in producing commodities which are produced and traded massively

in the world commodity markets. On the contrary, the competitive advantages are in producing unique, fresh, characteristic, healthy and safe agricultural products with good quality which require relatively intensive capital and technology in production, as well as skills in management and marketing. The production costs of such products could be relatively high, but the quality is what specific consumers demand for and concerned with mostly. Thus production scale might not be the most crucial factor which contributes to their competitiveness, and should not be over emphasized.

Furthermore, the social values of multifunctionality of domestic agriculture and of family farms should not be overlooked. International competitiveness is certainly one important aspect which needs to be improved for domestic agricultural industries to survive and develop sustainably under trade liberalization. Nonetheless, functions and values of domestic agriculture should be realized by the public more thoroughly.

#### **IV. Core Value of Domestic Agriculture**

To provide agricultural products and food, and to contribute to national GDP are important basic functions of domestic agriculture. However, for developed and newly developed industrial nations in the East Asian, the industries comprising the agricultural sector are not the major contributors to their GDP's, and the food self-sufficiency rates are low in East Asian nations. Therefore, the core value of domestic agriculture in these nations should not be the traditional function of providing food and farm income only. Food security, environmental and resource protection, rural development, social and cultural values provided by domestic agricultural activities are also of great importance, and need to be emphasized and enhanced more actively under agricultural trade liberalization.

Markets can work, and markets can fail. Under certain assumptions, especially the assumption that markets are complete, a market economy will provide a Pareto-efficient allocation. However, there are situations wherein market mechanism leads to either under- or over-allocation of resources to specific economic activities. We call these cases of "market failure". The market, or price system, fails to present the correct signals to the buyers and producers because the price the buyer (or the cost the producer) is willing and able to pay does not reflect all the benefits (or costs) of the item. Natural monopoly, externalities and public goods are possible sources of market failure. As a result of market failure, people believe that it is desirable to modify, restructure, complement, or supplement the unrestricted market mechanism.

Discrepancies between private and social costs lead to externalities, which are benefits or costs of a transaction incurred or received by members of the society but are not taken into account by the parties to the transaction. The government can correct externalities in a variety of ways. In the case of positive spillovers, the government can either finance the production of the good or produce the good itself, or provide special subsidies either to producers or to consumers to internalize the externalities (Figure 2), or require by law that a certain action be undertaken by individuals in the society.

Market failure is not the only case when government intervention is required. The failure to serve social goals other than efficiency, such as a desired distribution of income or the preservation of value systems, also requires interventions by the government. According to Romstad *et al.* (2000), any welfare economic analysis entails a weighting of different interests roots in the rights structure and perceptions about equality and fairness. Free trade may deteriorate or damage the realization of important public goods in some countries. Net domestic effects of international trade for some commodities may then be negative for these societies.

Non-trade concerns are normally restricted to public goods provisioning. However, if private and public goods are interrelated in production, such a distinction cannot be drawn. Instead, the issue becomes a question of defining what a legitimate protection is, and what an illegitimate harm to others is. The concept of trade distortions follows from a theory where the assumptions are that every trading nation gains from trade. When this is not the case, avoiding trade distortions actually becomes a restriction on the system and forces some countries to choose less efficient solutions. When a country is unable to compete in the market for private goods, the joint supply of public goods will vanish. In this case, a price support equal to the marginal value of the jointly produced public goods is considered the most cost efficient way in the whole system.

## **V. Policy Measures for Sustainable Agricultural Development**

Agriculture, unlike industrial or service sectors, possesses special and unique characteristics in each individual nation. It is limited and characterized by land resources, climate, soil conditions as well as cultural heritage etc. Without the existence of agriculture and its related activities, not only the economy will be

seriously affected, but also the environment and the quality of life in the region will deteriorate tremendously.

For Taiwan, Korea and Japan, agriculture played a very important role in economic development during the past several decades. It provided the necessary inputs for the development of the industrial and service sectors by exporting agricultural commodities for foreign exchanges during the early stages of their economic development. However, due to the sharp increase of producing costs, many of their agricultural products have lost their competitiveness in the world markets.

In addition to agricultural products, agriculture also provides many other functions. Safeguarding food security, maintaining landscape, ensuring social stability and protecting environment are some of the major functions provided by multifunctional agriculture. During the process of agricultural trade liberalization, we believe that all nations have the right to maintain their multifunctional agriculture adequately.

Small household farming is one of the characteristics of East Asian nations' agriculture to produce staple food and some other basic foods mainly for domestic consumption. Most of the agricultural products produced domestically are not competitive in the world market, and the limited amount produced would not affect the benefits of exporting countries significantly. In addition to the small size of the farm, the wage rate and land values are so high that the investment in agriculture usually does not generate reasonable income to support the living conditions of farmers.

In this regard, to guarantee an appropriate income level for farmers has been one of the government's policy goals. Furthermore, the main purpose to produce basic agricultural products, especially staple food crops, is done more for purpose of food security, environmental protection, and other non-trade concerned issues. In addition, since there are business cycles in the non-agricultural sectors from time to time, it is a consensus of the people that adequate size of the agricultural sector and its associated activities should be maintained to prevent economic instability and to help in stabilizing the whole society.

It is important to tailor adequate measures to suit the needs of the nation's specific condition. In addition, it takes time to adjust the structure of domestic agricultural sector to minimize the transaction costs and impacts of trade liberalization. Therefore, the agricultural trade liberalization process should be done persistently but gradually.

Besides, longer time period and more flexibility for national policy design are urged for the reform process.

As members of the international community, Taiwan, Korea and Japan should cooperate with other nations to pursue the goal of improving the standard of global welfare. However, trade liberalization is a tool, but not a goal, in support of sustainable agricultural development and improving the social welfare standard. The adjustment to freer trade in agriculture will not be without pain and cost. Nonetheless, if proper policies and approaches are taken, the welfare of farmers and the society may be maintained or even improved. The cost of adjustment, as well as the time required to accomplish the reform process could all be reduced to an acceptable minimum.

Direction of agricultural policy adjustment under agricultural trade liberalization could be discussed in three aspects: industrial policy, resource and environmental policy, and rural development policy.

### **Industrial Policy**

Food security, environmental concerns, and rural development are the major functions provided by domestic agriculture, although production is still considered its foundation. In the past, to improve productivity and production of domestic agriculture was the major goal of agricultural policy. Different from the past, the functions of environmental protection and rural development to be provided by domestic agriculture should be highlighted.

To improve the international competitiveness of domestic agriculture should be the major goal of the industrial policy. Competitiveness could be improved via price and non-price aspects. To improve price competitiveness, the increase in productivity of production by lowering costs and increasing outputs will be essential. To improve non-price competitiveness, it could be started from the improvement of product quality and the creation of needs for domestic products. In other words, effective market segmentation in world markets should be established for domestic products.

Although to encourage the enlargement of production scales and to cultivate younger full-time farmers will be major strategies for improving productivity, we should be aware of the limitations and should not deny the disadvantages of domestic agriculture. It is not wise to compete with others regarding the weakness of the

domestic market. On the contrary, it is the non-price competitiveness that we should strive for more actively. Thus, encouragement and innovation through research and development in production, and enhancement of skills in marketing, management and control in markets are crucial.

Agricultural tourism (or agritourism) is one of the possible alternatives of agricultural development or structural adjustment after agricultural trade liberalization in East Asian nations. Agritourism has different definitions, including farm stays, buying produce direct from a farm stand, navigating a bush maze, picking fruit, or feeding animals. As it is defined most broadly, agritourism involves any agriculturally-based operation or activity that brings visitors to a farm or ranch.

#### Strategy to Improve Competitiveness of Domestic Agriculture

1. Structural reform in production and marketing  
“Separation of ownership and operation” of farm land through leasing, or integrate individual farmers via farm organization so that the operational scale could be enlarged. Active cultivation of younger full-time farmers through education, training, assistance and encouragement by the government is also essential.
2. Strengthen functions of farmers/farm organizations  
Establish core value of farmers/farm organizations, amend related laws or regulations (such as the “Farmers’ Association Law” in Taiwan), encourage the organizations to engage more actively in marketing, trade, production, and community rehabilitation activities, as well as to assist in structural reform and policy adjustment.
3. Preserve foundation of agricultural production  
Release unnecessary agricultural resources according to properly planned zoning plans, and prevent from pollution or spoil of agricultural resources so that adequate foundation of agricultural production could be well preserved. To ensure food security, preparation for “food self-reliance” in emergent periods is more important than improvement of “food self-sufficiency” in ordinary time periods.
4. Encourage innovation and R&D  
Adopt bio- and info- technologies to develop agricultural bio-industries and to apply in environmental protection and resource conservation, so that values of agricultural products could be added, and competitiveness of domestic agricultural



industries could be improved.

5. Reinforce agricultural education

In addition to vocational education in agriculture, it is necessary to carry out programs to improve the recognition and understanding of domestic agriculture and multifunctionality of agriculture through compulsory and social education systems. The goal is to realize the ideal that domestic agriculture is recognized, supported, and shared by the public. After all, agriculture is for all people, not just for farmers.

6. Ensure food safety

An integrated food safety system should be established to improve the food safety situation. Only when the welfare of consumers and producers are taken good care of simultaneously, the domestic agriculture could be recognized and supported by the public.

7. Improve marketing channels and expand trade

Utilize information technology to improve the efficiency of market mechanism and expand marketing channels for agricultural products, so that the market mechanism can perform well and prevent from exploits. It is also important to provide assistance in developing international markets to smooth out the pressure and negative impacts on domestic agricultural sector caused by agricultural trade liberalization.

## **Resource & Environmental Policy**

Due to climate change, the importance of environmental protection and resource conservation has been recognized, and the impacts of agriculture upon environment have been reviewed. It is also recognized that the impacts of agriculture on environment are not necessarily negative, they could be positive if they are well managed.

The major function of agriculture was traditionally emphasized in production, but more attention should be paid on the functions of environmental protection as well as ecological and resource preservation. Under the trend of agricultural trade liberalization, the importance of domestic agriculture is no longer limited to providing food for food security. The reasons for developing domestic agriculture have been extended over the supply of non-trading goods. The positive impacts of domestic

agriculture upon ecology, environment and natural resources are some of the reasons. Agricultural products could be imported, while the positive impacts mentioned above can only be obtained from domestic agricultural activities but not by trade.

Furthermore, the consumption behavior and the philosophy of living have been changed toward environmentalism, which in turn will request modern agriculture to provide such function of environmental protection. To ensure that domestic agricultural sector could be developed sustainably, not only the competitiveness of domestic agricultural industries should be improved, the functions of environmental protection and rural development to be provided by domestic agricultural sector should also be enhanced. Thus, agricultural policy should serve as a guide for domestic agriculture to develop and provide such function more actively

#### Strategy to Enhance Environmental Function of Domestic Agriculture

1. Promote environmentally friendly agricultural processes such as low pollution, energy saving, and carbon reduction practices.
2. Encourage production of agricultural crops which could help in modifying climate change: coordinating with purposes of carbon dioxide decrement and the development of 'agritourism', more sufficient incentives should be provided to encourage afforestation.
3. Maintain and improve landscape of rural areas:  
Plan ahead and grow landscape crops with scale, preservation of traditional rural culture, and rehabilitation of rural community.
4. Make full use of forestry resources  
Enhance the management and utilization of forest resources so that the multifunctionality of forestry, especially in ecological and resource conservation, could be fully developed.
5. Improve and protect coastal landscape and resources  
Improve environment of coastal areas, make good uses of coastal resources to develop fishery tourism (under the premise of environmental protection, ecological and resource conservation).
6. Respect and take responsibility to improve biodiversity and animal welfare.

7. Provide assistance and guidance for agricultural and community development of the remote and mountainous areas.

### **Rural Development Policy**

To improve the people's quality of life is one of the main functions provided by domestic agriculture. Therefore, domestic agricultural sector should be developed toward a wider scope. Instead of the traditional scope concentrating on farming, farmer, and rural village, the scope of agriculture should be expanded into aspects of production, ecology, and people's quality of life (it's also referred as 3P's: product, planet, and people).

To improve the quality of life for all people, domestic agriculture could provide safe and good quality products, help in enhancing environmental protection, as well as resource and ecological conservation, promote competitiveness and value added to improve farmers' income and the economy of rural society.

Domestic agriculture could also help in many activities to fulfill the physical, mental, and spiritual needs of people. To enhance the rural development function of agriculture, development in human resource, infrastructure, and job opportunity in the rural areas are necessary to improve the vitality of rural economy, and to transform rural areas into a sweet homeland suitable for living.

Agricultural tourism is a form of niche tourism that is considered as a growth industry in Taiwan. It is one alternative to improve the incomes and potential economic viability of small farms and rural communities. It can also be used to educate visitors, especially children, about agricultural practices, and to understand the important role that domestic agriculture and rural life plays in our society.

While country living is becoming a pastime rather than an occupation, the numbers of hobby (or pleasure) farms are growing in the East Asian nations as well as in many other developed nations. A hobby farm is a small farm that is maintained without expectation of being a primary source of income. Some are merely to provide some recreational land, and others are managed as working farms for sideline income, or are even run at an ongoing loss as a lifestyle choice, functioning more like a country home than a business. There is a blurred line between the small farmer and the hobby farmer: a small farmer tries to make money on his land, while a hobby farmer spends

money on the land. Hobby agriculture covers a wide spectrum, from backyard eggs-and-jam to large areas of grazing land.

Many farms sold in recent years in Taiwan, especially those located around big cities, were bought by non-farmers with well-paying city jobs who wish to live in the country temporary for vacations, or by retired people who wish to be active as part time farmers. These small hobby farms are more like gardens, not quite fully-fledged farms. Even though each type of pleasure farm may be clearly seen by its owner as a non-profit enterprise, lifestyle farmers claim great satisfaction in making the land productive enough to cover the costs of planting vegetables or fruits, or feeding the poultry or livestock, and giving some high-quality additions to the household menu, from fruits and vegetables to meat and eggs.

Area of idled farm land has been increased in Taiwan after agricultural trade liberalization. This is partly due to limited profits of farming, and partly due to aged farm laborers. Also, as farms grow in size, small farms owned by old farmers become less economically viable. Although the government is encouraging the old farmers to lease out their idled farmlands, the policy effects are still ambiguous and need to be observed persistently. Hobby or leisure farms might not be considered a growing trend, but the government of Taiwan wishes to encourage this at the current stage. It is surely a trend which should not to be overlooked and needs to be watched and guided carefully in Taiwan as well as in other East Asian nations.

#### Strategy to Enhance Rural Development Function of Domestic Agriculture

1. Promote integrated development program for rural areas:  
Facilities and programs to improve quality of livelihood, such as: education, information, public health, security, and transportation systems should be improved under integrated development programs coordinating with local characteristics.
2. Develop rural tourism, leisure agriculture, and micro-farm industries to provide job opportunities, and to improve economic vitality in rural areas.
3. Implement rural development programs with the help of existing programs such as “regional development program of agricultural tourism” of Taiwan, and “sixth industrialization of agriculture” program of Japan.

## CONCLUSION

Under trade liberalization, market mechanism will be respected and will bring its influence in agricultural production and marketing into full play. Meanwhile, protection and support to domestic agriculture will become more difficult. Although domestically produced agricultural products with relatively high prices due to high production costs could lose their market shares gradually, there are lower-priced imports that flow into the domestic markets resulting in gradually diminished trade barriers and domestic supports required by the rules of agricultural trade liberalization in the international society.

If the structure of the domestic agricultural sector is changed after trade liberalization, resource allocation and operation of domestic agricultural industries could become more efficient and competitive in the international markets. However, multifunctionality of agriculture should be emphasized, especially by net food importing nations with less international competitiveness, to ensure sustainable development of domestic agriculture under trade liberalization. Food security, environmental concerns, and rural development are the major functions provided by domestic agriculture, although production is still the foundation of agriculture. The value of agricultural multifunctionality is much more valuable than the output value of agricultural products or what it appears to be of the percentage contribution of the agricultural sector to GDP in East Asian nations.

Agricultural trade liberalization not only brings threats but also provides opportunities for individual nations. In order to ensure the sustainable development of the domestic agricultural sector, threats need to be identified and overcome, Meanwhile opportunities should be recognized and grasped. The direction of agricultural development and policy adjustment should coordinate closely with the global and regional trends of economic, social, cultural, technological, climate and environmental development.

To improve the international competitiveness of domestic agriculture should be the major goal of the industrial policy of domestic agricultural sector. Competitiveness could be improved via price and non-price aspects. To improve price competitiveness, the increase in productivity of production by lowering costs and increasing outputs will be essential. To improve non-price competitiveness, it could start from the improvement of product quality and the creation of needs for domestic products. In

other words, effective market segmentation in world markets should be established for domestically produced products.

We should be aware of the limitation and should not deny the disadvantages of domestic agriculture. It is not wise to compete with the weaknesses of others. On the contrary, it is the non-price competitiveness that we should strive for more actively. Thus, encouragement of innovation through research and development in production, and enhancement of skills in marketing & controls in markets are crucial.

The major function of agriculture was emphasized in production, but there should be more attention paid to the functions of environmental protection as well as ecological and resource preservation. To ensure that domestic agricultural sector could be developed sustainably, not only the competitiveness of domestic agricultural industries should be improved, the functions of environmental protection and rural development to be provided by domestic agricultural sector should also be enhanced. Thus, agricultural policy should serve as a guide for domestic agriculture to develop and provide such function more actively.

To improve the people's quality of life is one of the main functions that could be provided by domestic agriculture. Therefore, domestic agricultural sector should be developed toward a wider scope. Instead of the traditional scope of concentrating on the farmer, rural village, and farming, the scope of agriculture should be expanded into aspects of production, ecology and quality of life for all people (it's also referred as 3P's: product, planet, and people).

To improve the quality of life for all people, domestic agriculture could provide safe and good quality products, help in enhancing environmental protection as well as resource and ecological conservation, promote competitiveness and value-added to improve farmers' income and economy of rural society. Domestic agriculture could also help in many activities to fulfill the physical, mental, and spiritual needs of people. To enhance the rural development function of agriculture, development in human resource, infrastructure, and job opportunity in the rural areas are necessary to improve the vitality of rural economy, and to transform rural areas into a sweet homeland suitable for living.

It is worth emphasizing again that the core value of domestic agriculture is to provide socially desired values which could not be obtained from trade to improve the quality of life of you, me, and our descendants sustainably.

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**Figure 1 Two-nation trading regime**

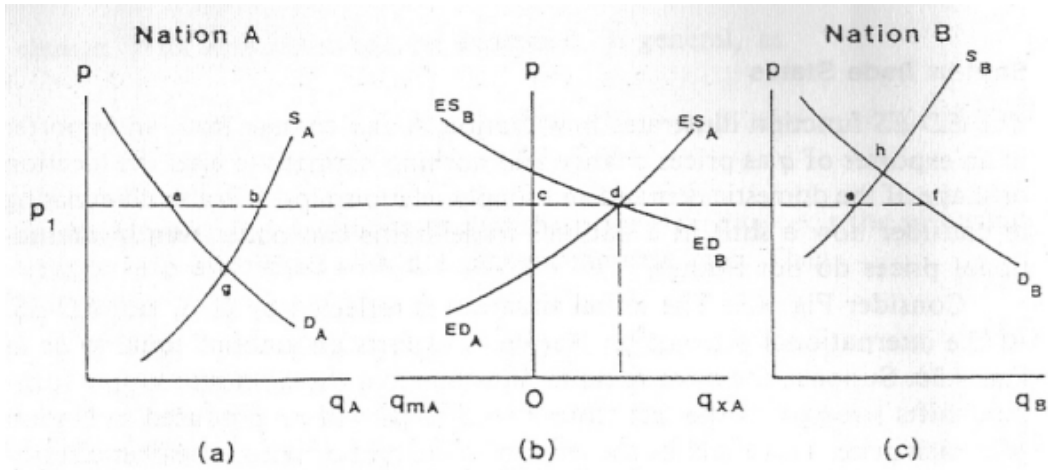


Figure 4.4 Two-nation trading regime

**Figure 2 Externalities**

