

Agricultural Economy and Economic Resilience

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ABSTRACT

One can indicate to import substitution strategy and self-sufficiency in the agricultural sector as one of the components of the resistive economy that both these components are related to the diversification of the economy is to increase its resilience. Experiences have shown that although noting the benefits of trade and efficiency in different economic sectors has a significant role in the diversification of the economy, it, in certain circumstances – that many focus of economy in terms of resistance is also on the same circumstances – can be transformed into an economic threat. In terms of the threat of major economic impulses the market and people's livelihood would be in crisis if the storage does not done properly. The solution not to meet the conditions is paying special attention to productivity and efficiency and combining it with improvements in seed and agricultural practices to prevent the emergence of negative consequences. On the other hand and beyond, it can provide beds for exports and also, economic diversification in agriculture.

KEYWORDS: agricultural economics, economic Resilience, diversification of the economy.

1. INTRODUCTION

Agriculture is not only an important part of the economy in the area of food supply, but also play a pivotal role in the social, cultural, political and security and economic development. Optimization in this section such as land, water and investment in this sector in order to increase agricultural production can be replaced by other production sectors. Given the threats facing the field of economic sanctions and lack of economic security, national security would be seriously endangered; because during the collapse of the ideology of Islamic Revolution which extends to the whole world one of the critical points in the establishment of the resistive economy is agriculture which can be both the Achilles heel and the point of self-reliance in terms of sanctions; therefore, it is necessary to take necessary actions to promote agriculture in turn threats into opportunities. The first part of the paper discusses about the definition of the agricultural basic resource and sustainable rural development and sustainable development of agriculture; as there is an appropriate and meaningful relationships and partnerships between rural sustainable developments, sustainable development of agriculture, self-sufficiency and enhancing the economic resilience. The relationship between self-sufficiency, efficiency and diversification in agriculture as one of the principles of economic resilience and the strategies to increase economic resilience in agriculture are discussed in part 2 and part 3, respectively.

1. Conceptualization

1.1 Agriculture's Basic Resources

Agriculture is an important sector in the economy, that's resource base can be divided into the following sections.

1. Water: with an average about 931 mm of rainfall per year, Iran is included in dry and arid regions of the world.

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2. Soil: The latest estimates of the soil having potential to grow indicated the limits in this field. Of the vast territory of the country, less than 91 million hectares have the potential of irrigated and rain-fed agriculture that of 3 million hectares are currently used in the production process.

3. Forests and meadows: Forests area in northern Iran are estimated about 12.4 million hectares that of 9.1 million acres are the commercial forests. About 31 million hectares of pastures also been estimated. Plant species diversity of flora is one of the most important features.

4. Rural development: Rural population is declining more than the urban population in recent years. A special view to the rural development in terms of specific objectives and policies and the light of careful foresight in connection with manufacturing facilities and rural infrastructures and resources available at the macro level can address the issues and constraints with which the rural population is faced. [5]

5. World Trade and agriculture sector: if agricultural sector is not equipped with modern and mechanized methods and the agriculture issues are not overwhelmed, with population growth and increasing food requirements, dependence on global markets for agricultural products will be more. Given the obstacles on the way to membership of Iran in the World Trade Organization, with the rising prices of agricultural products in world markets and growing dependence on imports, these products will be in worrying situation in the future.

6. Food security: the concept of food security is sustainable access to adequate food for all members of society in order to achieve a healthy and active life. It should be noted that the main causes of food security is access level to food and the ability to purchase it. Food security is measured at the national and individual levels. [8]

Food security is a function of economic, social, natural, cultural and political variables. Therefore it is influenced by factors such as agricultural production policies, food distribution systems, country natural resources, food consumption patterns, employment and income distribution, foreign trade policy and the influence of nutrition. [5]

Food supply in a country depends on the level of domestic production, part of the production is marketed (producer surplus), value of food imports and extension of existing reserves. Food security problems at the international level is not necessarily caused by an insufficient supply (as many believe) but due to the lack of purchasing power as well. Thus, in case of insufficient domestic food production, the foreign exchange position is the most important determinant of food security for people in society. [8]

Achieve a stable supply of food and community food security is of the most important national strategic priorities, given the country's twenty-year outlook that should be considered in a new approach. (Leader of) Food security as a realization of national security is basic tasks of government in each country. If we consider food security as a national security policy that quantity and quality determines the amount of supply and quality of each country's national security, optimum supply in a desired level of national security required to provide the optimum level of food security. [2]

1.2 Functional objectives of sustainable development

According to the World Commission on Environment and Development, the functional goals of sustainable development are:

1. Increased economic growth.
2. Changings in the quality of economic growth.
3. Meeting the immediate needs for jobs, food, energy, water and sanitation
4. Control of population in the stability limit.
5. The protection and conservation of resources.
6. IT transformation.
7. Simultaneous attention to the environment and economy in decision making.
8. The transformation of international economic relations.

9-participatory development. [9]

1.3 Components of sustainable rural development

To achieve sustainable development, giving importance to a few key components was put on the agenda of the world's summit that the man is on the top of them, these components are:

- 1 person (emphasis on the behavior of local communities)
- 2 Environment (including basic ecological elements)
- 3 women (as half of the population)
- 4 children (as the future decision makers)
5. Culture (including attitudes, behavior, and moral values)
6. Education (empowerment processes, etc.)
7. Security (social, food, etc.)
8. Participation (in decision-making, implementation, monitoring, and benefits)

All these elements have a fundamental role in the formation of sustainable development and its continuity. [3]

1.4 – Necessity of emphasis on sustainable rural development in the rural community of Iran

However, in order to achieve rural development decade since 1951s various strategies have been used, but still haunting nightmare of poverty is on the rural communities body, and problems like lack of income for rural communities, lack of social amenities needed including health and education services, as well as uncontrolled migration to cities is quite tangible. In most of them, the development of agriculture has been the main focus of attention; and in fact, all agriculture is all the assets of a village and any change in the village depends on changes in the agricultural sector. But for now, the situation in rural communities is otherwise and these strategies which assume rural development and agricultural development the same are no longer associated with optimal efficiency. In fact, the development of agriculture has to be considered as the following set of the rural development. Now, neither agriculture-based rural development nor infrastructure-oriented rural development will not be able to respond to rural communities; Considering the severe reduction of the natural base resource (water, soil, and vegetation), in terms of economic and social insecurity, reducing inequality in access to basic services in rural areas comparing to cities, and also looking at an issue of participation and local institutions, many villagers abandoned their agricultural resources and come to the cities to achieve sustainable livelihoods. [7]

It seems that getting rid of this difficult condition demands public attention to sustainable development as a human-centered development and flexibility in rural areas and close cooperation and coordination of public and private factors with the rural communities to implement the principles and guidelines derived from indicators of sustainable development in our rural communities. [3]

1.5 definition of sustainable development of agriculture

Sustainable agriculture is a system that while right managing and use of resources to meet human nutritional needs, increases the environmental quality and the natural resource reserves. According to the UN Food and Agriculture Organization (FAO), agricultural sustainable development is a pattern of development of land, water and plant and animal genetic resources conservation, and is acceptable in terms of not degrading the environment, technically appropriate and relevant, economically rational and credible and socially accepted. Among the most important criteria for the sustainable development of agriculture one can indicate to the basic food needs of present and future generations quantitatively and qualitatively, the creation of permanent jobs, sufficient incomes, and favorable conditions of life and work for those who are engaged in agricultural production process and to maintain and improve the productive capacity of the natural resource base and renewable resources without disrupting the functioning of basic ecological cycles and natural balance and ultimately, reduce the vulnerability of the agricultural sector than the natural, economic and social factors and other threats and strengthen the sector's self-reliance.

Aspects related to the development of sustainable agriculture can be categorized as follows:

- Social dimensions: coping with poverty, population and sustainable development, education, training, etc., support and protection of public health, sustainable forms of human settlements, transfer of environmentally friendly technologies, fertility, population density, unemployment, net migration rate, life expectancy, access to clean water, infant mortality rate, compared to medical care and so on.
- Environmental aspects: protection and exploitation of freshwater, sustainable use of land resources, fight against desertification and drought, sustainable mountain development, sustainable agriculture and development of rural areas, the preservation of genetic diversity, environmentally friendly manner in using of biotechnology, how to act on the issue of waste and waste water and proper use of chemicals and other toxic.
- Economic aspects: unemployment, income gap ratio, the proportion of women employed, per capita residential area, savings, and productivity in different occupations. [6]

1.6 Indicators of Sustainable Agriculture

Agriculture sector is responsible for food supply security in the country, with an emphasis on the production of internal resources, enhancing the income of farmers and villagers and establish appropriate mechanisms to improve the efficiency of production factors. At present, because of the critical role of agriculture and its impact on sustainable development, it is one of the most important economic sectors. This sector contributes about 14% of GDP, 31% of total non-oil exports (excluding gas), 23% of the country's total employment and the self-sufficiency rate of over 94%. According to the mentioned items and in order to achieve the sustainable development of the sector the following parameters can be expected:

- The share of irrigated farmland to the total agricultural lands
- Develop annual yield
- the amount of pesticides used in agriculture
- The use of chemical fertilizers per hectare of agricultural land
- Promoting the development of technology and mechanization
- Improve and develop the rail transport system
- Improving soil and water
- Developing crops
- Development and reconstruction of the conversion industries with an emphasis on manufacturing poles
- Development the Silos to maintain the products
- Animal and Plant Quarantine equip Places
- Development of demand-driven and customer-focused researches

2. The relationship between self-efficacy and diversification in agriculture

Another policy that may arise in connection with the diversification of the economy and the strength of the economy is that efficiency in agriculture is far more important than self-sufficiency. Existing a bunch of major export goods in countries, usually undermine other economic sectors that in this regard, the most vulnerable sector is agricultural sector. In Iran, the oil price increase in early 1971s and caused serious damages to the agricultural sector and since then, it has been the problem of self-sufficiency in agriculture. Of course, the self-sufficiency in this section has been located at the agenda of the Ministers of Agriculture since then. Iranian society always considered needs to import wheat, rice, meat and oil from abroad as a major weakness so that the need for self-sufficiency in agricultural products, especially commodity, have been announced as the main agenda of the previous government, even the founders of the Constitution put it as one of the most important goals of the Islamic state since beginning. Indeed, concerns about the possibility of political pressures and undermine the independence of the country through the needs to import essential commodities have led the government, the early

days of the revolution, to pay special attention to self-sufficiency not only strategic commodity, but also in all the required goods.

In 2005 it was announced that Iran is self-sufficient in wheat production, self-sufficiency in wheat production has been faced with lots of criticism. Regardless of the allegedly imported wheat with other names such as feed for livestock and poultry have continued. Some economic criticism is: buy wheat from abroad is cheaper than those produced in the country. For example, in the first quarter of 2011, price of imported wheat was 300 USD based on the computational cost of the time and the government announced the purchase guaranteed price of 36 dollars, while the experts indicated that the minimum price of wheat on inflation was 381 Toman. The other agricultural products (Oats, oilseeds, feed, and sugar) have been victimized due to increased production of wheat that in this case, the country will have to import these goods.

The interesting issue in higher production of wheat was not enough place to keep the wheat-production that lead to high losses of 30 percent. Some believe self-sufficiency in agricultural products is not a proper idea due to the limitations of a bad idea, rather the important index for a country is country's trade indicator balance. Concepts of self-sufficiency and independence varied comparing to the past. So that independence does not mean not to import or not to need to import a commodity, but if a country order a variety of international markets, have greater bargaining power against suppliers and reduces the risk of damage to the country's independence. Also, equipping with state of the storage infrastructure and consuming the most efficient goods a country can overcome many problems at a lower cost. In this regard, the Country Planning System have to move from making the capacity to increase efficiency. Summarizing the issues raised regarding the policy of import substitution and self-sufficiency in the production of strategic goods and especially agricultural show that although attentions to the benefits of trade and efficiency in different economic sectors have an effective role in the diversification of economies in countries and also Iran, however, in certain conditions, can also become a threat to the economy. When storage does not apply right, the market is in crisis and if this crisis is about products which has become part of the other sectors the challenge will be more severe. Also, if the international economy change in such a way that would not be easy to meet these needs the import substitution will be justified. In addition, one should not neglect the responsibility of the relevant agencies in increasing the productivity and efficiency. If this policy be associated with the seed improvement and agronomic practices modification, it does not provides evidences for emerges of some negative consequences, and import substitution policies, especially in the agricultural sector, can export these products and diversify the exports. Diversification of exports could solve one of the major problems that is incorrect and inadequate use of capital equipment. Incomplete use of existing capacity in the economy is connected to the fluctuations in demand and inadequate supply of raw materials. And this shoe their problems seriously in export industries.

Today, the country has more maneuverability so that earn more foreign exchange through commercial transactions, to have flexible production lines and in trade restrictions, have less need for foreign exchange. After all, it must be configured in the economy and be coordinated and linked with different rings. [4]

3. Ways to increase economic resilience in agriculture

To promote and optimum agriculture and to turn it into an opportunity and to avoid threats, measures such as prevent the vulnerability of the agricultural sector from lack of resources and lack of coherent planning, supply of agricultural inputs, production of organic products, mechanization of agriculture and production, eliminating middlemen and intermediation of this section, given the appropriate infrastructure and efficient, rural entrepreneurship, infrastructure investments in agriculture to cover the risk of depreciation, employing graduates in agriculture and applying support policies are very important and necessary; of the main strategies to increase economic resilience are as follows:

- Feasibility and storage of basic commodities like wheat.
- Strategies for guaranteed purchase of agricultural commodities.
- Problems of pricing guaranteed purchase of agricultural commodities.
- The ways of sharing of knowledge of engineering techniques in the fields of agriculture, horticulture and rural areas in order to reduce waste and increase efficiency.
- evaluate the real macroeconomic variables (consumption, savings, investments, etc.) and the influence of the sanctions.
- making the agricultural production more economical and help to complete value chain.
- strengthening the competitiveness of products and the development of wisdom. [1]

2. Conclusion

The most important threats ahead is the economic sanctions that are directly concerned with national security. In addition to repairing tissue resistance economy and old economic structures which involves the growth and dynamism of the economy, as an effective tool to deal with this threat in the first place, the deep restructuring of the economy and in the next step, the emergence of a strong, competitive economy in the world can provide the national security of supply. Resistance and Agricultural Economics have reciprocal and abundant relation and interaction. Agriculture can be considered as one of the pillars of the economy resistive that plays an important role in achieving the objectives of economic strength and the strength of the economy as well as the processes, products and support that will affect agriculture. [4] So if people, privacy, and risk of being productive are seen as an indicator of economic strength, doubtless the agricultural economy is strong. Advantages in both domestic agricultural production is perfected, and can focus on and strengthen small enterprises in the country and does not need foreign investments. The realization of the shadow economy, strengthen the resilience of agriculture is possible.

Given the shortcomings and problems of the agricultural sector and also to look at the underlying capabilities of this section helps to overcome the negative effects of the sanctions or modified and, if possible, turn this crisis into opportunity. Farming to product the food and to provide the food security in the country and to provide a suitable ground for the exchange of goods in exchange for money in crisis leads to stability in peace of country's mind resulting social security, economic security and national security.

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