



## Agricultural Development Role in Economic Development of Shahrood, Iran

**S. Mohammad Mousavi**

Faculty of Industrial Engineering and Management, Shahrood University of Technology, Shahrood, Iran

\*Corresponding Author: Mosavi.shams@gmail.com

**Abstract:** Agriculture section of Shahrood despite all the problems it faces could play an important role in economic development of this city. The present study investigates the role of agriculture in economic development of this city according to different aspects. Simon Contuse and many of economists believe that agriculture can help the economic development process. The aim of this research is first, to determine the status and role of agriculture in economic development of this city and then, providing practical solutions to maintain and reinforce this role in the economic development process of Shahrood. Research methodology of this study is a library method; using statistics and information of the management of agriculture organization and planning management, required information were collected and necessary calculations performed. Also, along with providing practical solutions to develop this section, viewpoints of the experts of the city were used.

**Keywords:** Agricultural Development, Economic Development, Agricultural Sections.

### INTRODUCTION

During past decades, different viewpoints have been provided about the role of agriculture in economic developments. Based on these viewpoints, agriculture section has been evolved from the inactive role that it had had in 1940s and 1950s and found an active and dynamic role in recent decades, so that, today it is commonly believed that, agriculture section despite the decrease of its share in employment and national gross production, requires more attention regarding its key significance in development process particularly with respect to supplying foodstuffs and industrial raw materials. As living in cities develops, the importance of agriculture section increases since along with economic development and income increase, demands for foodstuffs will be increased too and as domestic and internal productions of Shahrood because of its potential and various climate situations are very much and namely it is called a small continent, there is more need to develop its agriculture<sup>1</sup>.

Discussions which are studied, investigated, argued, and concluded in this research in order to achieve research objectives are as follows:

Studying and investigation of framework of agricultural development and statistical investigation of agricultural development of Shahrood and also investigating the viewpoints of agriculture experts of Shahrood about issues and problems and ways of agriculture development in 1- gardening, 2- farming, 3- stockbreeding and poultry, 4- facilities, 5- forest and pasture sections levels .

Results of this investigation of viewpoints which was performed by interviewing Shahrood's agriculture experts asking their opinions about issues, problems, and solutions of agricultural development; and the conclusion of the research has been provided; since Shahrood is considered as one of the agricultural centers of the country, this study can be a solution for agricultural development of Shahrood.

### **Importance of agriculture**

Measuring the value of agriculture for a nation is not possible because on one hand agriculture provides the required foodstuffs for survival of a country, and on the other hand, raw materials for many of industrial goods are prepared through agriculture<sup>2</sup> .

Therefore, agriculture is considered as the first part of an economy and industry is regarded as the second part of it. During prolonged centuries, agricultural development has been very slow, but over two past centuries, because of the fast growth of sciences and technologies, production power of the agriculture section has been increased<sup>3</sup> .

So, agriculture section is usually the most important economical part of the developing countries. Because in most of these countries the responsibility of producing and preparing foodstuffs of the country and saving a great amount of country's exchange reservoirs is undertaken by this section. On the other hand, this section involves a huge mass of human resources and agricultural development must be one of the big economic and social goals of these countries<sup>1</sup> .

### **Role of agriculture in economic development**

Agriculture section is usually the most important economical section of developing countries<sup>2</sup> because in most of these countries responsibility of producing and preparing foodstuffs of the country and saving a great amount of country's exchange reservoirs is undertaken by this section. Regarding this description, this section involves a huge mass of human resources and agricultural development must be considered as one of the big economic and social goals of these countries<sup>1</sup> .

Without any doubt, much and excessive generalization about every event or historical –social characteristic results in some losses and specially it might involves human in unneeded expectations and incorrect predictions. But at the same time,

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no social or historical phenomenon can be investigated and studied seriously without considering a general form. These two issues have the same general share in agriculture section in developing various countries, and on the other hand, we should not have any doubt that this issue in its general lines has been generalized in most countries of the world. It is clear that, in investigating the importance of agriculture section in development and expansion of every under-developed country, we must adjust the general framework with economical features of that country and then make a conclusion and provide the ways<sup>4</sup>.

### **Location domain of research**

Generally, significant development and expansion of Shahrood which became faster after Fathali Shah-e Qajar period relates to some factors like existence of available resources, green meadows and prosperous lands and abundant fruit gardens and appropriate climate, defensive advantages like the existence of the mountains and also favorable and strategic communicational aspects. One of the advantages of this city is the variety of climate it has.

Geographically, the southern part which is located next to desert has a relatively hot and dry weather, central and eastern parts of Shahrood have mild weather, and northern areas have mountainous climate with relatively cold and dry weather. Because of this, this city has a variety of fruits so that it is possible to produce and grow apple, grape, date, and pistachio in different areas of this city.

The average annual temperature in this city is 14 c degrees and the mean annual raining is 180 ml. because of being located next to desert edge, Shahrood does not have any share regarding surface waters in the form of permanent rivers and there are exclusively flood-water and season rivers in this city<sup>3</sup>

Despite the shortage of surface waters, which has made people dig wells and subterranean canal, economy of Shahrood relays on agricultural products. Regarding the agricultural productions, Shahrood is ranked first in the province and in the country is among the 19 agricultural centers<sup>5</sup>.

### **Results and discussion:**

Shahrood is one of the agricultural centers in Iran which has much potential in different agricultural parts (gardening, farming, stockbreeding and raising chickens).

Undauntedly, these sections have some problems too. Therefore, we decided to seek the viewpoints of the agricultural experts on the issues, problems, and solutions which can be regarded about Shahrood, through a questionnaire. The results are as follows:

#### **Potentials and capabilities of agricultural section of Shahrood**

- 1.** Presence of various and appropriate climate to plant different kinds of farm and garden products.

2. Possibility of expanding fruit-bearing and non-fruit-bearing productions.
3. Capability of creating direct and indirect employment producer.
4. Existence of required capabilities and potentials in order to reinforce and expand mechanization services companies
5. Variety of Ecological conditions and plant coating in forest arenas of the province
6. Having appropriate potential of producing different types of fruit-bearing and non-fruit-bearing saplings
7. Relatively high extent of postural areas of the province
8. Possibility of growing herbal plants in all over the pastures of the province
9. Existence of required fields for developing hand crafts and rural industries and presence of appropriate industrial areas
10. Creating industrial animals and birds productive units instead of traditional animal husbandry .
11. Investing in the field of transforming, producing, and packaging industries
12. Reinforcing and expanding productive organizations and cooperative companies
13. Existence of educational, scientific, and application centers in the province
14. Presence of necessary fields in order to increase livestock productions and white meat
15. Existence of graduates in this section and using them in order to increase the enjoyment<sup>6</sup>.

- Results related to the viewpoints of gardening section experts on agricultural development in Shahrood

- Because of the lack of management in agriculture section and unmethodical use of agriculture water, 70% of which has been wasted, the government must support the execution of drop aggregation system for planting.

- In each area, the type of agriculture which is appropriate for that area must be propagated, because most of the trees are suffering from frostbite and bear heavy loss.

- Garden products are purchased by brokers and are delivered to the consumers with a high price.

Main products: apricot, grape, apple, black cherry, pistachio, and walnut.

The most important: apricot, planted area: 3500 acres.

- Highly consumed types include: Rajabali, Ghavami, Jaafari, grain, Daneshkadehee, Jahangiri, average performance: 12 tons per acre.

- Record of apricot is 77 tons per acre (first rank in the country), frostbite problem which is the most important problem.

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- Grape: 3000 acres in Zirostagh area of Shahrood.
- Average 18 ton per acre in the country, 80% of Sorkh-e Fakhri Shahrood items, 20% of summer items including Khalili, Askari, Lal, Rishbaba; the advantage of Sorkh-e Fakhri is that it has the capability of being kept in refrigerating room and so it can provide the country's need to grape during all winter.
- Tree apple, planted area: 700 acres<sup>7</sup>.

Its average performance is 20 tons per acre, which is the most planted area in Bastam, Tash, and Majan (cities of Shahrood). Its types include yellow, red, and sweet-smelling apples<sup>8</sup>.

In recent years, in gardens, short-foot apple (including Malik trees) trees have been established in this city. Among the advantages of these trees, high planting density per acre (about 1000 to 2000 trees in each acre) can be mentioned<sup>9</sup>.

Pistachio: 500 acres: producing 2 tons per acre.

Types: Abasali that grows in areas which have salty water and soil, but have less pistachio.

### **Problems and difficulties**

- Frostbites of the gardens
- Inappropriate market for some products and brokerage
- High expenses ( regarding the lands being small and not using

### **mechanization and under-pressure aggregation and(...**

- Scarcity of refrigerating room
- Lack of suitable machineries
- Lack of applicable researches
- Lack of sorting
- Lack of packaging industries
- Lack of various laboratories regarding poisons and fruit health
- Lack and shortage of dynamic researches to increase quantity and quality

Using modern aggregation methods with respect to water shortage in the area and high need of the gardening section to water, producing other types of apricot regarding early coldness of spring and frostbite of the main gardening product, training the garden-owners of the area to fight frostbite of products in spring, encouraging garden-owners to use garden heaters and creating smoke in garden in winter is difficult.

### **Results of farming (agronomy) section experts' viewpoints about agricultural development of Shahrood**

- Lack of activity of agricultural researches section in order to select the best species for the area with the appropriate soil of that area
- High expenses
- Expensiveness of some machinery like tractor and...
- Small size of lands

- Inappropriate market of some products
- Lack of highly produced types
- Non-uniformity of lands
- Lack of appropriate mechanization
- Lack of correct training, lack of price stability and production expenses, and underlying problems of farming lands
- Not using aggregation technologies and optimal uses
- Lack of necessary rules to run adaptable planting model because of inefficiency of expert (specialized) and lack of experienced people in agriculture section.
- Lack of introduction and farm management
- Not protecting and maintaining water and soil to keep permanent and continuous production.
- Using appropriate fertilizers (complete fertilizer) for resistance of trees against pests and diseases, training the garden-owners for correct pruning.

### **Results of livestock and poultry experts' viewpoints about agricultural development of Shahrood**

Most of the problems in livestock industry relate to management, so they must be more modern and updated. Unfortunately, most of the poultries have their previous traditional form and now we can see that, those poultries which are being ran by update industry give better productions and render more benefits. The solution for this problem is administering meetings and educational classes for owners of poultries and stockbreeders for better exploiting of up-date knowledge.

- Perishing of meat sheep and as a result, meat becomes expensive
- Expensiveness of grasses and livestock's medicines.
- Removal the city's pasture because of drought and unmethodical pasturing.
- Cheapness of milk
- Lack of methodical and fundamental support by the government
- Lack of logical and methodical use of pastures.
- Relative growing of pasture places results in power and facilities wasting.
- Loans related to livestock and poultries must be paid with the lowest interest (at most 4%) to be reasonable.
- Problems of veterinary medicines and unavailability of these medicines.
- Lack of fitness between livestock and pasture which caused the pastures to be destroyed.
- With respect to the issue that, Shahrood has had a very suitable climate to create pasturing years, developing pasturing has a priority and also, because of the presence of springs and subterranean canals in the Alborz mountain chains, this city has a high capability in growing trout fish.

### **Results of fishery experts' viewpoints about agricultural development in Shahrood**

Fishery has a short life in Shahrood, which is about 10 years. Shahrood has many water resources including, springs, subterranean canals, and wells. And regarding its climate, especially north of Shahrood is susceptible of cellar fish growing, particularly trout. In spite of this, there is a restriction, that is, the waters being jointly-used and establishing fish growing pools depends on the owners' permission or agreement which is faced with problems. About 6 units of fish growing are active and they have just 40 tons annually and since 2005 to 2008, another five units have started to work in this filed, and 9 other units will be built till the year 2010 and they will be developed until 2011 and the city's production will be increased. The species which can be grown in this city are cellar, trout, rainbow, sole, and red fishes. And the water species which can be grown in reservoir and soil pools carp can be mentioned which is now being grown .

### **Results of forest and pasture experts' viewpoints about agricultural development in Shahrood**

#### **Problems of pasture:**

- Natural factors:
  - Drought
  - Flood and hail
- Unnatural factors:
  - Excess domesticated animals
  - Unauthorized domesticated animals
  - Lack of summer and country travelling parts appropriate for stockbreeders
  - Scarcity of produced plants and grasses

#### **Solution:**

- Non-entrance of livestock to pastures in drought years and help of owners of livestock
  - Using plain grasses for domesticated animals
  - If the productive role of pasture grasses in country and summer-quarter areas is considered, summer-quarter pastures of Shahrood desert area, which is one of the biggest pasture areas in the country, will cause the development of livestock growing.
    - Actually, because the bed of summer-quarter areas of Sangsari and Firoozkoohi stockbreeders, therefore, they have less role in the city development ; and also in country a high percent of pasture owners reside in Golestan and Mazandaran areas, like Chahrbagh and Abr pastures, so totally they have a little effect on the city development.

### **Obstacles of jungle development**

- Existence of livestock which causes the removal of forest.
- Existence of nature tourists who damage the forest because they lack the culture of using it.
- Limitations like climate factors including drought.

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