Evaluating the Spatial Distribution of Saffron in Afghanistan and Factors Affecting its International Marketing

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1. INTRODUCTION

Because of its special climatic conditions, Saffron is produced in limited Latitudes. Considering these climatic conditions, large markets and high demands together with high potentials of this product, exporting countries have a close economic competition in the global level. According to existing historical documents, the first saffron fields were planted by Iranians in the ancient state of Mede in the Alvand region and Zagros hillsides and then it was extended over other saffron producing parts of the world (Abrishami, 2004:119). The major saffron producing countries of the world are: Iran, Spain, India, France, Greece, Morocco, Italy, Austria, and Afghanistan (Parmeh, 2011). The total amount of saffron production in the world in 2009 was about 157 tons from which the largest share belongs to Iran (95.6%). During the last 10 years, the number of saffron fields and the amount of saffron production in the Afghanistan has greatly increased because of its importance and Afghanistan's proximity to Iran. To the extent that saffron cultivated area in Afghanistan has increased from 16 ha in 2004 to 250 ha in 2008. Also its production in terms of weight has risen from 60 kg in 2004 to 800 kg in 2008, and in 2009 its share from total world production was 1.93%. The major aim of the present study was to evaluate the spatial distribution of saffron cultivation in Afghanistan, and proper marketing of this product with regard to its quality in the international market. Another aim of the study which highlights the importance of the study is to examine the international policies that support saffron production in Afghanistan. The national necessity of conducting this study is due to the fact that if the Iranian officials responsible for saffron production and marketing do not take proper measures for improving the production and export performance of this product with regard to Afghanistan speed in this field, Iran will soon face a serious challenge, as Afghan farmers and Afghanistan government have improved their international position with conscious and purposeful steps and international supports in production and post-production stages. With regard to growing increase of saffron production in other countries, its superior quality and global

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market and its effects on saffron at international field, this study tries to bring up and analyze these questions:

1. How is the historical record of saffron production and its spatial production in Afghanistan?
2. What factors do affect Afghanistan's international saffron market?

2. THEORETICAL FRAMEWORK

Saffron historical records in Afghanistan date back to 10th century when Afghanistan was a part of Iran. In the past it was produced in Badghis city and Darghash rural area, but now it is not produced in those areas (Abrishami, 2004:120). Saffron was produced in 1973 by Afghanistan government in an area of 400 square meters for experimental purposes in Farm Ordomkan of Herat. It resulted in good product, but there was no serious following-up (Parmeh, 2011). But on early 1993, after the return of the first group of Afghan refugees from Iran and after they resided at Ghorian region in Herat province, they brought saffron corm which caused a development and evolution in Herat province and since then it is going to be a proper alternative for opium in the region. In 1999 various research organizations including a Danish committee with the assistance of Afghanistan refugees organization (DACAAR) started experimental production of saffron in Pashton Zarghon region. It was taken more serious when 28 tons of contraband saffron corms were smuggled out of Zahedan boundary in 2003 (Parmeh, 2011). In 2004 a project called "a study on stable production and marketing of saffron and its production feasibility as an alternative product" was authorized by Life level improvement research organization dependent on ICARDA, it was conducted with the financial support of Britain by DACAAR organization and Washington University. Their goal was the replacement of saffron with opium which is a part of Afghan families' income. In 2006, the Netherlands provided Afghanistan with 20 tons of saffron corm, every corm weighting about 10 grams which bloomed on the very first year. In 2007, Italy also provided Afghanistan with 40 tons of saffron corm. Today, many countries like the Netherlands (which provided Afghanistan with dryers for drying saffron in a sanitary way), Denmark (which helps Afghanistan in production development), France (which provides Afghanistan with processing machinery), Germany (which helped Afghanistan with 500000 euros for the establishment of a well-equipped laboratory for quality test of saffron) and finally the USA (which emphasizes on sustainable economy of saffron) support Afghanistan in production of saffron. Soon after these supportive measures, some committees were established in Afghanistan including cooperative committee of saffron farmers, exporters' committee, and the national committee of saffron. Furthermore, in 2005 the first national symposium on saffron was held with the presence of researchers, faculty members, and executive officials of Ministry of irrigation and agriculture (Parmeh, 2011). These developments in such a short period are indicative of the successful extension of this profitable production with regard to its growth rate and its
function in an area unit. It promises a booming market full of investment potentials for countries that have understood its comparative advantage.

3. DISCUSSION

Saffron production was developed by Islamic republic of Afghanistan and international organizations in a 5 year strategic program in 2003-2008 to reduce drug production. After the war, international organizations' studies in Afghanistan about profitable products which can provide effective alternatives to drugs, introduced saffron as a profitable product which has high potentials and is compatible with climatic conditions of western Afghanistan (Aslami, 2006:15). Afghanistan was a major drug producer for a decade which has heavily disrupted Afghanistan's economy and undermined region's stability and security. Thus, many projects were executed by international organizations with the assistance of Afghanistan ministry of agriculture for spatial development of saffron in the north and west of the country in order to replace it with poppy. Saffron cultivated area in Afghanistan was reported about 4.38 ha in 2000-2001. In this year, only Zarghon Pashton and Ghorianwere were producing saffron and the other western towns did not produce any saffron since they produced poppy and were unfamiliar with saffron production (wyeth, 2008:28). Among other western provinces, Herat province benefited from the best geographical conditions and the broad distribution of saffron began from this province. In addition, after getting to know this product, other provinces including Shindend, Robat Sangi, Kerh, and Enjil turned to saffron production (Gohar, 2008: 23). During 2004, the development of saffron production especially by studies conducted by Danish organization of DAKAAR (Assisting Afghan refugees) and ICARDA, saffron was introduced as a proper alternative for poppy in Herat region and distribution of saffron corm begun in Herat province. During this evolution saffron cultivated area was reported to be 16 ha in 2004. Addition of northern and eastern towns of Herat province and saffron corm distribution in other provinces for the first time encouraged Afghans to enter a new level of spatial distribution in provinces which had suitable climatic conditions and fertile soil including Ghor, Balkh, Qandehar, Zabol, Orezgan, Kandez, Ghazni, Daikandi, Nangarha, Loghman, and Loger (Ralf, 2008:123).

In the agricultural year of 2005, saffron cultivated area was reported to be 40 ha which was mainly affected by saffron production in new provinces. In 2006 and 2007 saffron cultivated area was reported as 83 and 161 ha, respectively. Finally, in 2008 saffron spatial dispersion reached 250 ha. Addition of 27 provinces to saffron producers, and taking into account droughts and severe frost in recent years, saffron was introduced as a product with great potentials in expansion, economic development, and job creation which has an international market. It is important to know that according to data and statistics provided by Afghanistan's ministry of agriculture for organizations like DAKAAR, ICARDA and Ralf program, Herat province was yet the first saffron
producing province in the last agricultural year (2008) with about 2 tons of production, with a value of 4 million USDS.

4. CONCLUSION

The political will of the world community and supportive measures of international organizations against drugs, made Afghanistan choose saffron as an alternative to poppy. Saffron cultivated area in Afghanistan rose from 16 ha in 2004 to 250 ha in 2008 and its production rose from 60 kg to 800 kg, which on the one hand shows environmental (ecosystem), ethnic, and cultural potentials, and on the other hand, the presence of global management system as a support for agricultural development, production, harvesting along with modern marketing based on information technology, electronic trade, and macro-investment especially in labor training which introduce Afghanistan as an important alternative in global trade of saffron. The most important point about Afghanistan is its global support and macro-investment in classic training of saffron on all levels including cultivation, harvesting, packing and marketing by international expert groups. Trade unions' improvement, especially paying attention to women's training in management of saffron fields and sanitary processing are important points in saffron development strategy of Afghanistan for accelerating its qualitative and quantitative development (Mojtabae, 2011).

The most important factors in development of saffron production in Afghanistan are as follows:

1. Quality improvement and raising the knowledge of Afghan families about cultivation of saffron as an alternative for poppy;
2. Improving farmers' access to local markets and conducting research on peripheral matters of saffron production;
3. Expanding capacities for the production, processing and marketing of saffron through universities and private sector;
4. Supporting national committees of saffron and coordinating those who contribute to saffron industry;
5. Participation of women in collecting the flowers, drying and packing them which raises employment and efficiency in saffron producing regions, and also helps to establish saffron producing committees in which women can play a significant role.

The study results showed that Afghanistan has a proper spatial dispersion for saffron production because of its special climatic condition. Saffron average production in Afghanistan is 10 kg/ha which is a good figure compared to global standard. Easy cultivation and harvest, low irrigation, compatibility with geographical position of Afghanistan especially western Afghanistan and above all its high price, encouraged saffron producers to increase its cultivated area year by year. One decade ago, saffron production began from a small farm in Herat and now, as the statistics of Afghanistan's ministry of agriculture shows thanks to trainings and propagations of local and international organizations, it has extended to other provinces.
5– SUGGESTIONS

High economic value, considerable job creation, cheap labor force, short cultivation period, and high demands of international market are factors that have encouraged Afghan farmers to cultivate saffron rather than poppy. The competition between producers for higher market share and increasing demands of international market encouraged new ideas and strategies for production and development of saffron which includes:

1. Having high quality and achieving international standards require improved strategies for laboratories, packing and others process which ensure quality improvement and rise in global market demands.
2. To devise new strategies to raise people's knowledge about production and marketing through enough training and guaranteed purchase of saffron by government make farmers not to worry about selling their products; it also encourages them to produce more saffron.
3. To make use of other countries' experience in saffron market, even cooperation with them for a peaceful presence in the international market.
4. To provide production cooperatives and packing companies with necessary facilities and capabilities and removing existing impediments to import various machinery and using latest technology to develop related industries for the existing units.
5. To use new marketing methods, choosing more efficient methods, and paving the way for the presence of exporters in new markets.
6. To prevent in bulk sale (bulk cargo) of saffron, as improper packing and sometimes insanitary ones impede having real value added saffron, so government supports in this respect seems absolutely essential.
7. To provide support for training, attracting and promotion of efficient labor force in order to capture the target market in embassies far from Afghanistan.
8. To provide infrastructures, facilities and security by government to encourage foreign investments.

Keyword: Spatial Distribution, International Marketing, Saffron, Afghanistan

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