

## Organic Food & Farming in Iran

PAUL RYE KLEDAL<sup>1</sup>, HOSSEIN MAHMOUDI<sup>2</sup>, AND ABDOL MAJID MAHDAVI DAMGHANI<sup>3</sup>

### Geography and socio-economy

If one should compare the complexity of the geo-physical landscape of Iran with another nation it would be Spain. Both countries have a vast central tableland, arid summers, and are often bitterly cold in winter. Both also have wild mountainous areas that are infertile. However, in Iran the scale is larger (Iran is over three times the size of Spain), the mountains are loftier (more than 4'000 meters), and the extremes of heat and cold are more pronounced. The country itself is an elevated plateau (more than 1'000 meters above sea level) set between two depressions: the Caspian Sea to the North and the Persian Gulf to the South.



**Picture: A young shepherd with his goats in North Central Iran**

The central plateau is surrounded by two tall mountain ranges. In the North (following an east-west line) is the Alborz range creating a fertile coastal plain along the Caspian Sea where the major crops are rice, tea, and citrus. In the west, going south all the way to the Persian Gulf, is the Zagros mountain range reaching more than 4'000 meters in height in some places. Transverse valleys along the Zagros mountain range still have remains of what was once vast oak, pistachio, almonds and walnut forests, but are now mainly occupied by grazing herds of sheep and goats. In general, the mountainous areas and the valley floors offer opportunities for growing wheat and barley accounting respectively for 50 and 17 percent of Iran's agricultural production. On the plateau, sugar beet and potatoes are grown, while in more arid areas one can find plantations with dates, jujubes, and tamarisks. Iran's pistachio production is located in vast groves of desert oases in the southeast,

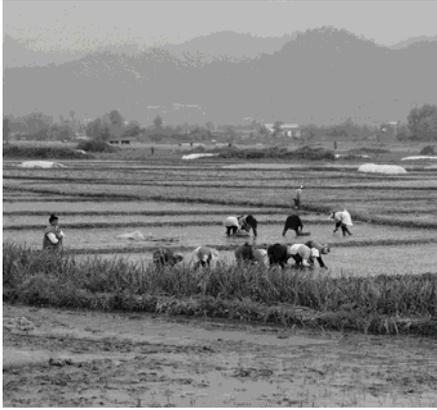
<sup>1</sup> Dr. Paul Rye Kledal (corresponding author), Director Institute of Global Food & Farming, Denmark, e-mail: paul@igff.dk. www.igff.dk

<sup>2</sup> Hossein Mahmoudi, e-mail: aseman421@gmail.com. Environmental Science Research Institute, Shahid Beheshti University, Iran and Institute of Social Science in Agriculture, Hohenheim University, Germany.

<sup>3</sup> Abdol Majid Mahdavi Damghani, e-mail: mmd323@yahoo.com. Associate Dean for Research & Graduate Studies, Head of the Department of Agroecology Environmental Sciences Research Institute, Shahid Beheshti University, Iran

supporting the earnings of 350'000 people. Iran is the world's largest producer and exporter of pistachios (200'000 metric tons), followed by USA and Turkey (Blunt 2009; Loveday et al. 2010; Wikipedia: Economy of Iran).

Roughly one third of Iran's total surface area is suited for farmland, but because of poor soil and lack of adequate water distribution in many areas, most of it is not under cultivation. Only 12 percent of the total land area is under cultivation, but less than one third of the cultivated area is irrigated; the rest is devoted to dry farming. Farmland is increasingly suffering from overgrazing, desertification, water pollution and soil degradation (salination).



**Picture: Women planting rice at the fertile coastal plain by the Caspian Sea, Northern Iran**

Agriculture itself contributes to 11 percent of the GDP, holds almost 30 percent of the export earnings, but contains 25 percent of the labor force illustrating a sector of low productivity. About 78 percent of the farms have less than 10 hectares, and 11 percent have less than 1 hectare. However, farms with less than 10 hectares make up 37 percent of the cultivated land and represent half the rural population (12 million out of 24) producing less than 10 percent of the marketed agricultural production. Farms over 10 hectares provide about three quarters of the market supply (Keshavarz et al. 2005).

## History

Organic agriculture in Iran started within universities, and is taught in specific courses and lectures. The lectures of Professor Koocheki at Ferdowsi University of Mashad during the 1990s were especially important during this time. Subsequently in the mid-2000s, Ferdowsi University of Mashad and Shahid Beheshti University in Tehran established a Master program in Agroecology. In 2005, the Iranian Scientific Society of Agroecology (ISSA), an NGO, was established. Its main focus is on research and education in the field of organic farming. In 2006, the Iranian Organic Association (IOA) was established, focusing on marketing and trade. Both organizations have been the drivers behind the legislation of the national standard for organic farming.

Parallel to the interest for organic agriculture within the universities, the market began to develop. Certified organic products in Iran were first documented in 1999, when an orchard with roses for extracting essential oils in Kerman province was converted to organic. In 2006, another company in the Province of Farce was recorded to have exported organic

pomegranate, figs, dates, and medicinal herbs to the European Union, and the organic market has been growing rapidly since.

### Legislation and certification

The “Organic Committee” under the Agricultural Ministry and the “Iranian Standard and Industrial Research Institute” are responsible for the organic legislation. In 2008, the latter passed the Iranian National Standard for Organic Products: ISIRI – 11000. The Iranian Scientific Society of Agroecology (ISSA) and the Iranian Organic Association (IOA) had active participation in the process of legislating the standard. In Article Number 143 of the fifth development plan (2011–2015), the development of organic farming is specified. However, there are no overall organic policies or direct support schemes for farmers to convert. Hence, some private market initiatives like the ‘Iran Association of Saffron’ is trying to develop the first national standards for organic saffron production and processing. In terms of certification, three international Certification Bodies are at the moment active in Iran: BCS (Öko-Garantie Germany), Control Union (The Netherlands) and the Soil Association (UK). Biosun Certifier Company is a local inspection body. It has entered into a partnership agreement with the international certification body bio.inspecta in Switzerland.

### Present organic production base

As illustrated in Table 52, organic agriculture can be found in 11 out of Iran’s 31 provinces. More than half of the organic agricultural land is placed in the fertile Northern provinces, but only five percent (144) of the organic farms are located there. This means that the average farm size in this part of the country is 30 to 40 hectares. The remaining 95 percent of the organic farms (2’870) are concentrated in the Southern provinces, but with an average farm size of only 1.2 hectares. Hence, the organic sector of Iran resembles the conventional farm sector, but with a much higher concentration of very small farms.

**Table 52: Iran: Distribution of organic farms 2010**

| Location            | Provinces       | Hectares     | Number of farms | Major produce                             |
|---------------------|-----------------|--------------|-----------------|---|
| <b>North</b>        | Qom             | 120          | 1               | Olives                                    |
|                     | Golestan        | 30           | 1               | Tomatoes                                  |
|                     | Tehran          | 40           | 1               | Apples                                    |
|                     | Mazandaran      | 10           | 1               | Rice                                      |
| <b>Center North</b> | Esfahan         | 40           | 1               | Pomegranate                               |
|                     | Markazi         | 1’172        | 28              | Pistachio, peach                          |
| <b>North East</b>   | Khorasan        | 1’653        | 50              | Wheat, raisin, pistachio, potato, saffron |
| <b>North West</b>   | East Azerbaijan | 137          | 60              | Apple                                     |
|                     | West Azerbaijan | 500          | 1               | Carrot, alfalfa                           |
| <b>South East</b>   | Kerman          | 2’068        | 1’470           | Rose, walnut, dates, pistachio, safflower |
| <b>South West</b>   | Fars            | 1’486        | 1’400           | Medicinal herbs, pomegranate, fig, dates  |
| <b>Total</b>        | <b>11</b>       | <b>7’256</b> | <b>3’014</b>    |   |

Source: ESRI 2011

The organic agricultural land consists of 7’256 hectares of which 1’265 is in conversion. The wild collection area amounts to 40’700 hectares, and it is located in the three provinces of Fars, Kerman, and Khorasan. Main products are wild pistachio, herbs, and licorice.

Animal production is all concentrated in the province of Khorasan in Northeast Iran with 13'000 chickens, 3'000 sheep, 500 cows, 140 turkeys, and 50 geese. Poultry is often kept on wheat farms, which is a major organic product in terms of area.

In Table 53, the ten major organic products from Iran in terms of hectares occupied are listed. The economic value could not be obtained, which could alter the rank of the products. Famous Iranian products are also significant in organic production, including products such as pistachio, rose, dates, and pomegranate.

**Table 53: Iran: Key organic products 2010**

| Product     | Hectares |
|-------------|----------|
| Pistachio   | 1'382    |
| Wheat       | 1'156    |
| Rose        | 900      |
| Fig         | 780      |
| Raisin      | 700      |
| Date        | 595      |
| Pomegranate | 508      |
| Walnut      | 500      |
| Apple       | 125      |
| Olives      | 120      |

Source: ESRI 2011

## Markets

### *Local*

As in many developing countries, the domestic market for organic products in Iran is still relatively small. However, local demand for organic products has been growing parallel with rising incomes and consumer awareness as well as concerns related to a number of food safety issues. It is typical for developing countries that the domestic organic market start of in the capital city with smaller outlets/health shops. These shops are usually located in residential areas that are inhabited by upper-middle class citizens (Sirieix et al. 2011; Kledal et al. 2009 & 2010). The same goes for Iran, where a number of organic products such as rice, honey, and olive oil are now occasionally available in a few outlets in some high-end residential areas in the northern part of Tehran. The market is not stable, however, and lacks a consistent supply of products. Also, quality and packaging need to be improved in order to lower both distribution costs and secure a growing consumer interest.

### *Export*

More than 95 percent of the organic production in Iran is being exported. However, official statistics about export volumes and value are non-existent, and the private firms are very reluctant to inform or hand out information on these issues. Thirty-five companies are involved with exporting. They are all conventional, but they have started an organic product line. A majority of the companies are private intermediaries purchasing products from the farmers. There are also a few large farm enterprises specialized in pistachio, fully vertically integrated from production to export. The main importing countries of Iranian organic products are Germany, France, the UK, and The Netherlands (Mahmoudi & Damghani 2011).



**Package of Iranian organic saffron**

Picture: Hossein Mahmoudi 2010

### Future prospects

Iran is in considerable need for private investments to modernize its agriculture, and it would be important to create new intersector linkage jobs in agro-industries and service. However, private investments will demand a more transparent and competitive economic system contrary, to the present dominant state-run economy characterized by “clientelism” and inefficient distribution systems. This leaves, on the one hand, the organic sector in a dire strait but on the other hand, it also offers valuable potential for the future. At present, it means growth is depending on personalities, and it is based on trust, commitment and risk seekers among farmers, intermediaries as well as agribusiness companies. The latter will often need to organize their business in vertical integration when many smallholders are to be included, since the costs of training and educating farmers in organic production methods will lie solely with the entrepreneurs. On the other hand, the requirements of a third party control integrity and transparency in organic production, leaves the organic sector with important expertise on producing sustainable food to modern urban markets under the country’s increasing environmental constraints.

### References

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### Relevant websites

- [www.agroecology.ir](http://www.agroecology.ir): Website of the Iranian Scientific Society of Agroecology
- [www.iranorganic.com](http://www.iranorganic.com): Website of the Iranian Organic Association
- [www.bcs-iran.com](http://www.bcs-iran.com): Website of the German certification body BCS in Iran (Persian language)
- [www.organic-farming.persianblog.ir](http://www.organic-farming.persianblog.ir): Blog on organic farming in Iran
- [www.biosuncertifier.com](http://www.biosuncertifier.com)