



International Society of Organic Agriculture Research

19th Organic World Congress - Call for Papers is Now Open



The 19th Organic World Congress of IFOAM - Organics International, taking place from 09 - 11 November 2017 in India, now opens its Call for Papers.

Every three years sector stakeholders come together at the Organic World Congress (OWC), the world's largest and most significant organic gathering, to discuss and deliberate the issues of the day.

The 19th OWC is structured in four conference tracks: Main Track, Farmers Track, Scientific Track, and Marketing Track.

The Main Track, composed of two parallel sessions, is a series of public discussions and debates by leaders from the organic movement on how we can best promote and implement the organic agenda. The overarching theme is "Global Adoption of Organic Principles for Truly Sustainable Agriculture" and the audience is invited to contribute to strategic discussions with the panel experts.

The Farmers' Track provides a forum to highlight farmers' work in organic especially with regards to innovations used on their farms. Presentations will be on the topics of Seeds & Biodiversity, Soil Fertility & Health, Soil Life & Plant Health, and Ecological Farming Practices & Systems.

The Scientific Track is a platform where research results are presented and discussed in 20 sessions of 1.5 hours each. Papers must link to scientific disciplines such as soil, plant, animal, or economics. All papers should give at least an outline of how the research presented contributes to [Organic 3.0 - The next phase of organic development](#).

The Marketing Track discusses innovative ideas for shortening value chains, for systems that build trust between actors, for promising marketing methods and for organic and fair trade alliance building. Papers are called for that deal with emerging trends in quality assurance, e.g. PGS (Participatory Guarantee Systems), CSA (Community Supported Agriculture), fair trade and other alternative and integrative systems.

More information on the [OWC](#) and the [Call for Papers](#).

Please note, the deadline for submissions is 30 September 2016.



International Society of Organic Agriculture Research

Letter from the President, May 2016

Dear ISO FAR members and friends,

I hope that you are all well and able to work in a peaceful and healthy environment, and can do respected work for Organic Farming. This is the world we need for our wishes and children. To dream about and work for a better world. But, the world today seems not as peaceful and healthy as we would like to have.

More than 60 Million refugees – the highest number ever counted – are searching for a better life. Due to increasing numbers of wars and destroyed livelihoods (degradation, pollution, and poverty) mainly in Asia and Africa, more and more people move to other areas, countries and even continents (e.g. Europe, USA). They leave home, not voluntarily, and with a lot of fear. Still there are – and increasing – 800 Million hungry people on Earth. The El Nino phenomenon 2015 has impacts on agriculture and resulted in severely bad harvests particularly in Eastern and Southern Africa, 2016 is not clear yet. Climate change becomes an obvious reality for many fragile farming systems, despite all countries have promised to fight against this change and keep the global warming below 1.5 °C.

Annually, 100 billion US-Dollar have been promised for adaptation and mitigation in poor countries, but will this do? Population growth is still a major challenge for many poor countries, because it eats the economic growth. On the other side of these negative messages – which can and should fear us – only few people own the wealth of the Earth, obesity is increasing, and we continue to exploit natural and fossil resources for advantages of already wealthy people. This is not fair, but it is reality. My fear is, that the final fights for resources and livelihood have already started. Nationalism, radicalism and terrorism dominate the political news everywhere on the Earth. What is Organic Agriculture in such a critical phase? I have the wish and hope: „A lot!“. Shall we give up and say: „Because there are so many problems, we stop our activities and wait for better times?“ I say: no, just now we must contribute to solve the problems.

As many of you know, I have moved for some years to work in Ethiopia and Africa to support actions to make more food: enough, healthy and affordable. That is not easy but makes me motivated. That is also a life of a scientist, to bring knowledge into practice. I am more than ever before convinced that Organic Agriculture can help to solve future challenges and already offers good suggestions and answers, which will work, especially for poor and remote farming conditions. I know, that many of you have changed your positions and duties. That is good and helps to change the world towards better conditions.

Nevertheless, there are also many good news for our intentions. Many people on the Earth fight, act and shop for a better world. Organic is growing well, as we could see at BioFach Nueremberg in February 2016. 80 Billion US-Dollar and 42 Million hectares are figures we can be proud of. Many countries put Organic on their political agenda and research funding grows, slowly but constantly. That does not mean, that we should be happy with the development. More is needed. But it is also clear: Organic is not a political niche anymore. It is forcing and challenging conventional farming as well. Together, organic and conventional can solve future problems, when we learn from each other instead of fighting each other.



International Society of Organic Agriculture Research

Upcoming scientific track at the 19th OWC

ISO FAR representatives have worked in cooperation with TIPI and NCOF colleagues to develop the scientific track of the coming 19th Organic World Congress, November 9-11, 2017 in New Delhi, India (OWC17; <https://owc.ifoam.bio/2017>). The OWC and its scientific track will be a good place to discuss about the potential of Organic Agriculture to solve the future challenges. Therefore the topic is „An Organic World through an Organic India", based on the IFOAM strategy „Organic 3.0 - The next phase of organic development".

The Scientific Track is the track of the OWC where research results are presented and discussed. Papers must link to scientific disciplines such as soil, plant, animal, or economics. All papers should give at least an outline of how the research presented contributes to answer to the question: "How does your research contribute to go Organic 3.0?". Further, it should address at least one of the following issues in the summary and discussion:

- 1 Feeding the world (productivity, efficiency);
- 2 Minimizing food chain induced global changes (ecology);
- 3 Respect for ethical and cultural issues (ethics);
- 4 Improvement of the quality and health benefits of food (quality);
- 5 How to make organic prosper and be profitable (economics);
- 6 Better cooperation among global research communities (networking).

The Call for Papers is open until September 30, 2016, facilitated by an easy online platform: https://owc.ifoam.bio/users/sign_in , where papers can be uploaded. All accepted papers will be uploaded to Organic E-prints, if accepted by the authors. Papers will be complete papers between 2 and maximum 4 pages, A4, with the outline Title, Author names, Abstract, Introduction, Material and methods, Results, Discussion, Summary, References. For the review, following criteria will be used for selection of oral papers and posters:

1. Does the research address organic farming?
2. Does the paper fulfill scientific standards?
3. Does the paper provide solutions to future challenges?
4. Does the paper represent diversity in terms of regions, gender, ages and topics?

Accepted papers will be presented and discussed in 20 sessions of 1.5 hours each, and must link to the ordinary scientific disciplines (i.e. soil, plant, animal, economics, social) which will be the well known session titles.

Regards

Prof. Dr. Gerold Rahmann
President of ISO FAR



International Society of Organic Agriculture Research

National Organic Farming Research Institute in Sikkim, India



Shri Radha Mohan Singh, Union Agriculture & Farmers' Welfare Minister of India, announced on 10th February 2016 the establishment of National Organic Farming Research Institute (NOFRI) at Gangtok, Sikkim during 87th Annual General Meeting of Indian Council of Agricultural Research.

Sikkim - a state in India's North Eastern hill region has recently been declared as the first organic state in the country. The organic research institute will promote research and education on organic farming, and provide research and technological backstopping to organic production systems, especially in the North East Hills Region of India.

The institute will undertake basic, strategic and adaptive research on efficient, economically viable and environmentally sustainable organic farming systems for improving productivity, resource use efficiencies and quality of produce. Besides, it will impart vocational and advanced training to stakeholders for promotion of organic farming in the country. Required financial resources, manpower and infrastructure facilities will be made available accordingly.

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International Society of Organic Agriculture Research

National programs on organic farming in India

The Indian Institute of Farming System Research, Modipuram, Meerut is operating two projects on organic agriculture. The first is the National Network Programme on Organic Farming, another is All Indian Coordinated Project on Integrated Farming Systems.

Both collaborate with agricultural universities for research in this area (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=138185>). In addition, the OWC 2017 partner National Centre for Organic Farming (NCOF), Ghaziabad is working on promotion of organic farming through its regional centres. This institution is working for human resource development, technology transfer, production, production of organic quality agri-inputs and distribution.

Analyses of bio-fertilizers and organic manures is also performed by NCOF. The standardization of the quality of organic manures and promotion of organic farming is also done. All in all, the Government of India has shown high commitment for organic agriculture research and development activities.'



Author
Dr. Mahesh Chander



RECENT NATIONAL EVENTS ON ORGANIC AGRICULTURE IN NIGERIA

Nigeria – population and agriculture

Nigeria is the most populous country in Africa, with 170 million people. Agriculture provides employment for 70% of the population, and contributes by 32% to the gross domestic product (GDP). The total area comprises 91 million ha land area out of which 82 mill. is arable, but only 42 mill. is cultivated. In 2007, Nigeria had 3,154 ha certified organic land and no data on producers. By 2014, certified organic land had increased to 9,521 ha with 597 producers.



Map of Nigeria showing the neighbouring countries

11th NATIONAL CONFERENCE ON ORGANIC AGRICULTURE ORGANISED BY ORGANIC AGRICULTURE PROJECT IN TERTIARY INSTITUTIONS IN NIGERIA (OAPTIN)

Background

The 11th National Conference on Organic Agriculture with the theme "Promoting Organic Agriculture for Nigeria's Socio-Economic Development and Environmental Health" was successfully held during November 23-26, 2015 at the Federal University of Technology (FUT), Minna, Niger State, Nigeria. 23 full members and 9 students participated in the Conference. A



International Society of Organic Agriculture Research

courtesy visit was paid to the Vice Chancellor (Prof. M. Akanji) in his office by the National Officers of OAPTIN before the opening ceremony.



Courtesy visit of the National Officers of Organic Agriculture Project in Tertiary Institutions in Nigeria

(OAPTIN) to the Vice Chancellor (Prof. M.A. Akanji) of FUT, Minna.

The key note address was delivered by Prof. G.O. Adeoye, the former President of the Association of Organic Agriculture Practitioners of Nigeria (NOAN). The highpoint of the opening ceremony was the launching of Volume 3 of the Journal of Organic Agriculture and Environment (JOAEN), published by OAPTIN.



Prof. M. Akanji (VC of FUT, Minna) launching Volume 3 of Journal of Organic Agriculture and Environment (JOAEN) published by OAPTIN.

<https://www.futminna.edu.ng/index.php/news/item/328-don-charges-government-on-organic-agriculture-development>

Scientific track

ISO FAR board member, Prof. Dr. Victor Olowe gave one of two key presentations of the scientific track, entitiled "Enhancing the productivity of organic agriculture in Nigeria: Role of Research". Prof. Isaac Aiyelaagbe gave the other keynote, entitiled "Promoting organic agriculture for Nigeria's socio-economic development and environmental health: Role of Capacity Building". Further, 40 scientific papers were delivered on agronomy, horticulture and plant health by scientists and students.



Prof. Suleiman Sadiku, Deputy Vice Chancellor (Administration) in white dress and some participants after a plenary session.

MANY NEW MEMBERS FOR ISO FAR

At every local, national and international event in Nigeria during 2015, a brief presentation of ISO FAR activities was made. This work has been fruitful indeed: 66 new individual members and 8 students joined ISO FAR, from Nigeria as well as other African countries.

ORGANISATION OF STAKEHOLDERS FORUM

The national umbrella body for organic agriculture in Nigeria, NOAN held four stakeholders' events during 2015. Locations were Lagos on August 12, Abuja on October 12,



Participants at stakeholders forum held at Lagos State Agricultural Development Authority headquarter on Oct. 21, 2015.



Participants at the Stakeholders forum held in Abuja on Oct. 12, 2015.

University of Ibadan, Ibadan on November 11, and Oyo Agricultural development program office at Ibadan on December 14.

All events were well attended by management staff of agricultural development programs, industry and business leaders, scientists and more. The annual General Meeting of NOAN was held on November 19, and eight national officers were elected for the next two years (2016 - 2017), with an excellent gender balance- four male and four female. Prof. Victor Olowe was elected as the new NOAN President. The stakeholders' forum provided updates on curriculum developed on Ecological Organic Agriculture (EOA) at different levels, to mainstream EOA into the curricula of major higher educational institutions in the continent. Based on 10 institutions reviewed in Nigeria, it has been concluded that:

1. EOA is indirectly included in the curricula of most higher educational institutions, but no institution offers a full course in EOA
2. The institutions are generally stronger in crop topics than animal topics, and at graduate level, EOA related courses in animal science are much fewer than crop based courses

International Society of Organic Agriculture Research

3. There is a need to increase the awareness about EOA at the institutions
4. Specialized universities of agriculture are better suited to marshal EOA into the current curriculas.
5. Lack of qualified and trained faculty members in organic agriculture is hindering the adoption of courses and programs on this topic in in the curricula of the institutions.

www.noanigeria.net

www.eoa-africa.org

www.orgfarmob.org



Participants at the NOAN stakeholders' forum at University of Ibadan, Ibadan on November 12, 2015



Participants at the NOAN s takeholders' forum at Oyo State Agricultural Development Program headquarter at Ibadan on December 14, 2015



Some of the new National Officers of the Association of Organic Agriculture Practitioners of Nigeria (NOAN) for 2016 – 2018. In the middle, Prof. Victor Olowe, board member of ISO FAR and President of NOAN.

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Prof. Dr. Victor I. Olowe

Agronomist

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International Society of Organic Agriculture Research

Country Report: Tunisia 2016

Tunisia is an interesting example of a country where a strong public support for organic agriculture has contributed significantly to develop a strong organic sector, including research to support organic production and processing and exports.

Development of Organic Agriculture in Tunisia

The organic movement in Tunisia started in the 1980s and was based on private initiatives. However, the development of the sector was very slow until 1999 when the government launched a national strategy for organic agriculture (OA) that covered several key areas. These included a legislative basis for organic farming, together with support for research, education and training, extension, organization, structure and promotion.

Under this program the government bears 30% of all the costs regarding the conversion of farms to organic production and 70% of the expenses for certification and inspections. This has led to significant growth in Tunisia's organic sector.

The main growth areas have been in the production of organic olive and dates, crops that are relatively easy to grow organically. At the same time there has also been an increase in the volume of certified almonds, vegetables, citrus fruits, medicinal plants, honey and jojoba coming onto the market. Tunisia's organic sector ranks as the second most developed in Africa and 24th worldwide (Heinze, 2012).

Performance of Tunisia's Organic Sector

From 1997 onward, because of government support, OA in Tunisia evolved from individual producers' operations to a sector backed with state-facilitated institutions, programmatic and market development activities, and explicit nationwide policy supports and measures. This sector also witnessed a remarkable turnaround in terms of the increase in certified organic farmland (Fig. 1), the number of organic farmers (Fig. 2) and organically cultivated crops; these facts are reflected in the following organic key sector performance data (Ben Khedher, 2012).

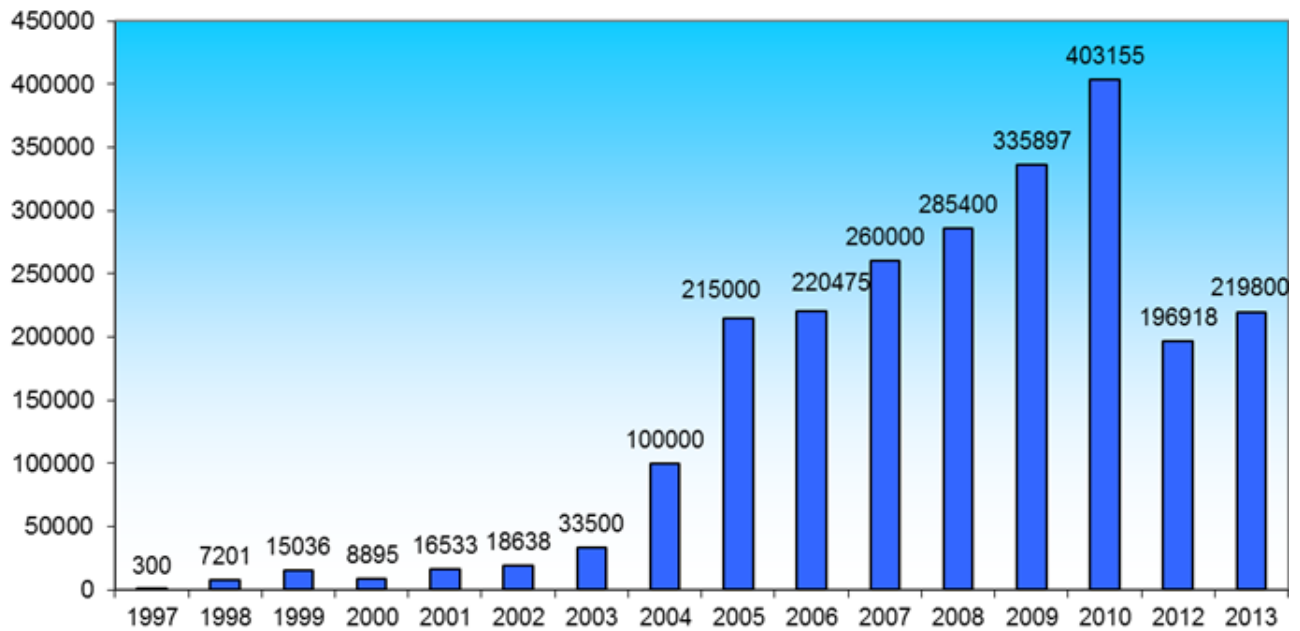


Fig. 1. Total Certified Organic Area (Ha) in Tunisia (MAHRF, 2013)

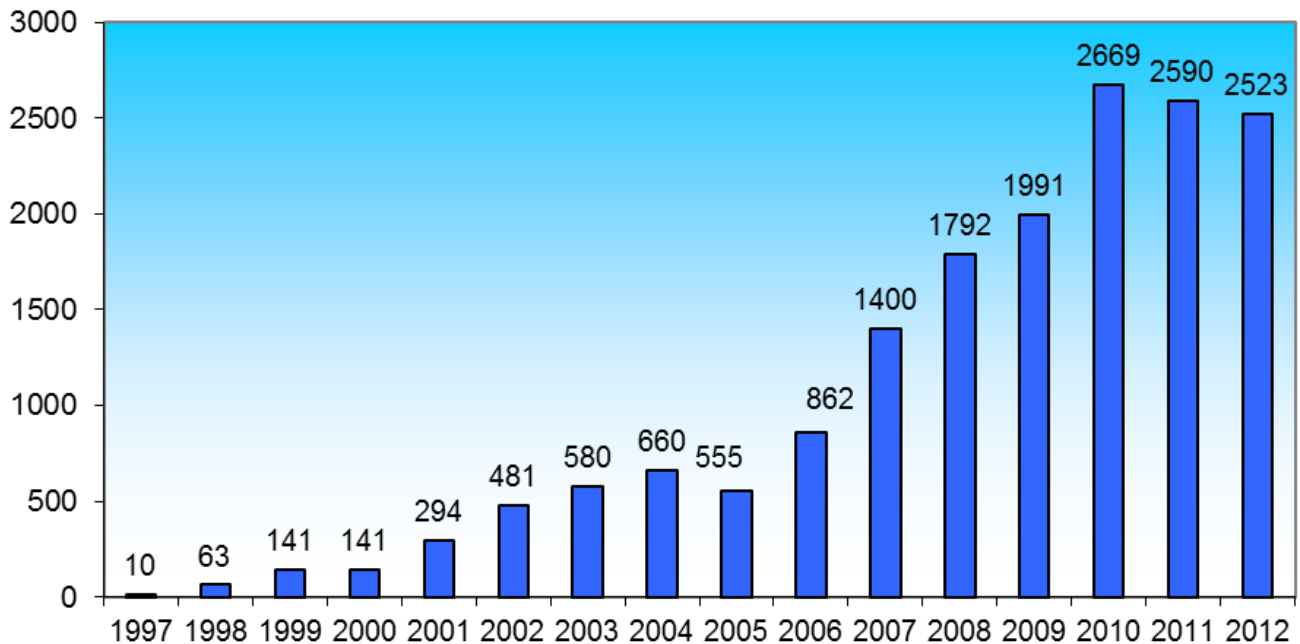


Fig. 2. Total Number of Certified Organic Farmers in Tunisia (MAHRF, 2013)

International Society of Organic Agriculture Research

In addition, and as shown in Fig. 3, Tunisia's export earnings from OA produce has been on the rise as well, experiencing an impressive growth between 2004 and 2012.

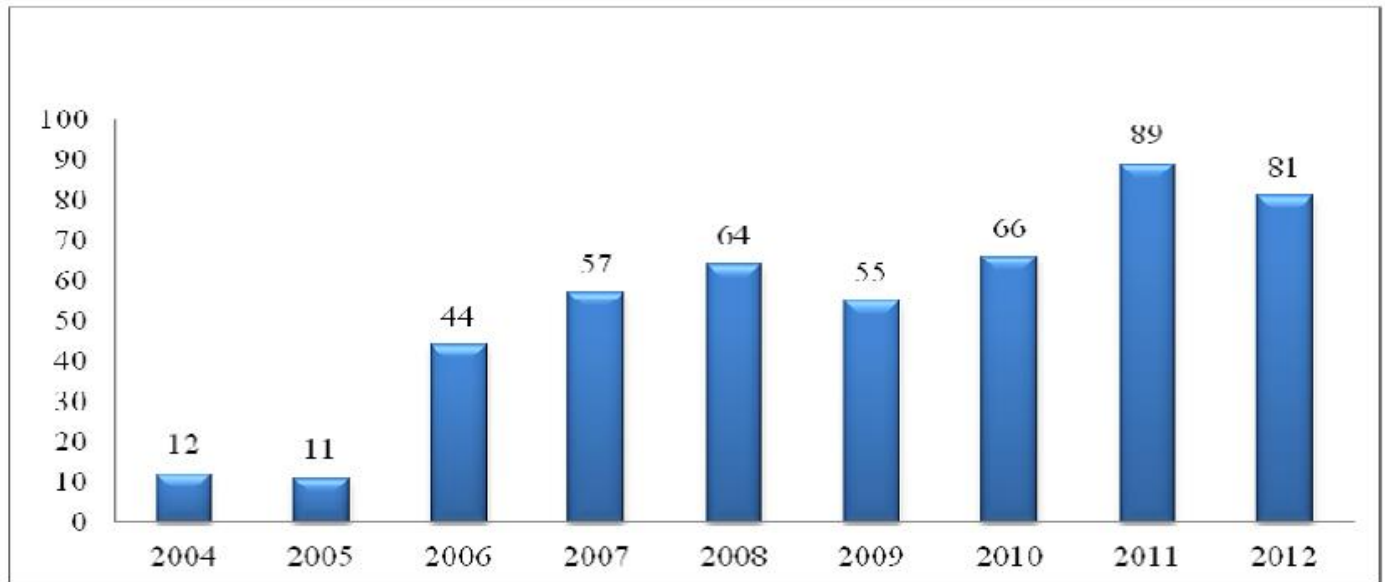


Fig. 3. Tunisia's Organic Export Value (Millions TND) (MAHRF, 2013)

The export organic crops and products include olive oil, dates, almond, vegetables, jojoba, fruit trees, dried fruits, grain crops, palm trees, aromatic and medicinal crops, and honey (The Technical Centre of Organic Agriculture (CTAB), 2013).



Organic date palm trees
(Ben Alaya Oueslati et al. 2006)



International Society of Organic Agriculture Research



Organic olive trees

To give added value to Tunisian organic products, the Tunisian government has created in 2010 a logo 'Bio Tunisia' as the hallmark of the country's organic products (JORT, 2010). It has allowed the value and benefits of all organic products to be communicated to consumers both nationally and abroad.



*Logo of Tunisian organic products
(JORT, 2010)*



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Institutionalization and Specialized Institutions

The institutionalization of the OA sector in Tunisia arose from the creation of specialized central and regional level administrative government agencies and technical institutions. These include (1) the National Commission for Organic Agriculture; (2) the Technical Centre of Organic Agriculture; (3) The Regional Center of Research in Horticulture and Organic Agriculture; and, (4) The General Directorate of Organic Farming inside Tunisian Ministry of Agriculture. These specialized government OA establishments are tasked with well-defined and structured responsibilities aimed at promoting and advancing the development of the country's organic sector.

Their activity areas span the design and provision of extension services, the organization of capacity building trainings and the conduct of research covering different aspects of organic operations. Furthermore, they are engaged in activities coordinating and regulating the organic sector. These include but are not limited to: overseeing and auditing the activities of organic certification and inspection bodies to ensure compliance with existing regulations; the organization of promotional activities aimed at increasing the adoption of organic farming systems and boosting public awareness about buying and eating organic products; the dissemination of information and the transfer of technology to organic farmers to help boost their productivity; and the creation and maintenance of a database that contains the inventory of organic operations in the country as well as sector performance information (Morgera et al., 2012).

Another governmental body involved in the development of the organic sector is the Institution de la Recherche et de l'Enseignement Supérieur Agricoles (Institution of Research and Higher Agricultural Education (IRESA)). IRESA is an institution under the Ministry of Agriculture, Hydraulic Resources, and Fisheries (MAHRF) and it is responsible for coordinating almost all agricultural academic and research institutes in the country as well as their research activities (IRESA, 2010).



International Society of Organic Agriculture Research

To foster the development of the organic sector, IRESA created a body known as the National Commission for Planning and Evaluation of Organic agriculture Research. Its activities include working with all the stakeholders involved in the organic sector to discuss their operational problems and constraints with a view to work out how they can be addressed through research activities. Through this body, IRESA also works with the research teams and institutions under its coordination to develop and fund research projects on topics that are considered crucial for the growth of the sector. In addition, through this body, IRESA engages in the evaluation of the outcomes of government funded OA research. In collaboration with CTAB and the Organic Agriculture Regional Networks, IRESA also coordinates the transfer of OA technology to stakeholders (Ben Khedher, pers. comm. 2013) and organizes human capacity development trainings for OA technicians and farmers (Ben Salah, 2007).

Organic Agriculture Research and Training

The Tunisian government made provisions for other research and training activities on OA, including compulsory OA courses at all higher agronomic institutes of learning. Similarly, master degree programs in Sustainable Agriculture and Protection in OA have been developed and offered in some of the higher institutions of learning in the country. These programs serve the dual purpose of training students on OA and as a way of researching organic production systems (Ben Khedher, 2012; Belkhiria, 2008). Equally, a diploma program in OA was developed to provide professional trainings for stakeholders involved in the country's organic sector. This program is jointly conducted by the Agence de Promotion des Investissements Agricoles (Agricultural Investment Promotion Agency, APIA) and the Agricultural Training and Extension Agency, AVFA (Kilcher and Belkhiria, 2011).

In addition, through a technical collaboration with FAO, Tunisia established an organic school for farmers, which is focused on providing training for farmers based on the farmers field school model. The project, which started as a pilot has since been replicated by the Tunisian government following its huge impact in helping organic farmers with their production activities.



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Organic farmer field school (Maamer & Nabli, 2006)



*Composting demonstration at the Organic farmer field school
(Maamer & Nabli, 2006)*



International Society of Organic Agriculture Research



*Best practices learned in organic orchards
(Maamer & Nabli, 2006)*

In Tunisia, training and research covering certain aspects of OA played a significant role in aiding the development of the organic sector to a large extent. There were well-linked dedicated central and regional institutions with representatives at the local levels created by the government to organize OA trainings, provide extension services and technical support to organic producers, processors and exporters.



Development workshop to enhance the organic field crops sector



International Society of Organic Agriculture Research



National workshop on Organic Agriculture

To summarize, Tunisia has well organized and elaborate institutional arrangements committed to carrying out OA research. The government provided sufficient financial support for the organic sector, and established the institutional structures needed to conduct research on organic food production systems and to provide training and technical support to organic operators.

Regulatory Framework, National Organic Action Plans and Certification Bodies

One of the decisive actions taken by the Tunisian government to develop its organic sector was to enact a national OA legislation. To this end, the Law No. 99-30 of April 5, 1999, was enacted, making Tunisia the first African country to have national organic regulations (Parrott et al., 2003). This Law, which birthed the evolution of the organic sector in Tunisia, was followed by a series of decrees through 2005, when a comprehensive version of the Tunisian organic regulatory law was issued (Barrouhi, 2010). The Tunisian organic regulations set forth general and specific requirements that guide organic production operations, post-harvest handling, processing and marketing.

In addition, the IFOAM Basic Standards, EU organic regulations and Codex Alimentarius were referenced to develop the Tunisian organic regulation, thereby making it the equivalent of those international standards (Kilcher and Belkhiria, 2011). At the same time, the Tunisian regulation is



International Society of Organic Agriculture Research

adapted to the local context of organic farmers, processors and marketers in the country. The referencing of the EU organic regulations facilitated the endorsement of the Tunisian regulation on the EU's 'third country list' and on the Swiss equivalence list (Ben Khedher, 2012).

Another remarkable step taken by the Tunisian government to stimulate and guide the development of the organic sector was to facilitate the formulation of a comprehensive OA national development strategy and action plans. These are based on planning components which listed several constraints affecting the country's organic sector. One of these is the diversification of organic production in the country. To accomplish this, the two organic-specific plans sought to expand the country's organic products beyond its flagship products (olive oil, dates, and aromatic plants) by including organic cereals, fruits and vegetables, as well as forestry products.

Market development is another component of the plans. In this regard, action steps were mapped out to create demand for domestic organic product consumption through sensitization campaigns and by further providing for the creation of local organic marketing channels through supermarkets, hotels and tourist routes. In addition, strategies were laid out to increase the visibility of the country's organic products and its share of international organic markets through awareness campaigns, participation in international fairs, and the branding of the country's organic products (Belkhiria, 2008).

Besides putting in place national organic legislation and action plans, the Tunisian government also created a conducive environment within which organic certification and inspection bodies can operate. Also, the national organic legislation details specific provisions spelling out the process and conditions guiding the accreditation of the inspection and certification agencies in the country. There are also the provisions pertaining to the audit of the activities of the organic certification and inspection bodies, and the process to be followed for penalizing them when their operations do not comply with regulations. Presently, there are five inspection and certification companies operating in the country. These include ECOCERT (German), CCPB (Italian), BCS (German), SuoloeSalute (Italian) and INNORPI (Tunisian) (CTAB, 2013). With the exception of INNORPI, the remaining certification and inspection bodies are wholly foreign-owned. They



International Society of Organic Agriculture Research

conduct their inspection and certification activities using Tunisian organic regulations; they are also able to certify Tunisian organic products for European, United States, and Japanese markets (Belkhiria, 2008). Furthermore, the Europe-wide recognition enjoyed by the foreign-owned certification bodies has resulted in their services contributing to the ease of entry and acceptance of Tunisia's organic products in European markets.

Conclusion

The Tunisian government has been the main driver of the country's organic sector and it has been able to do this by establishing specialized administrative, technical and research-oriented OA institutions. The roles of each of the dedicated OA institutions were well defined and so were the responsibilities that they have had to carry out with one another. This largely helped drive, provided the focus, and synergy needed to sustain the growth of Tunisia's sector.

Other than the specialized OA institutions, there were public institutions and non-governmental stakeholders playing roles instrumental to the development of the country's organic sector. Among others, such roles include the organization of human development capacity trainings, organic agriculture awareness creation and the provision of technical support for organic operators.

There exists also a high level of collaborative relationships between the specialized organic institutions and other public and non-governmental establishments supporting the development of the sector. Furthermore, to facilitate the development of its organic sector, the Tunisian government had to develop a national organic regulatory framework that is internationally recognized and also adapted to the country's local agro-climatic and farmers' socio-economic conditions. Likewise, the government cooperated with non-governmental stakeholders to develop vigorous organic market development activities, awareness creation, organic national action plans and policy measures to steer the growth of the sector. The government provided sufficient financial support for the organic sector, and established the institutional structures needed to conduct research on organic food production systems and to provide training and technical support to organic operators.



International Society of Organic Agriculture Research

Finally, the sector's development was inspired by the government's well directed interventions covering all aspects of OA. In this sense, the Tunisian OA development experience illustrates that as an infant sector, to foster its development and make it compete favorably and succeed in established markets, a country's organic sector needs the support of the state. Also, it was found that OA in Tunisia is export-oriented and further that market-oriented instruments were created to facilitate the entry of the country's organic products into international organic niche markets. The foregoing, coupled with the delimitation of the role of the Tunisian government to the creation of enabling framework to help spur and support the development of the country's organic sector further suggests that a mix of the state and market explains the success of the Tunisia organic sector.

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International Society of Organic Agriculture Research

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Relevant links:

<http://www.ctab.agrinet.tn/>

<http://www.inat.tn/fr>



International Society of Organic Agriculture Research

Country report: Iran

Organic agriculture has a rapid development in Iran, with increasing interest from consumers and agricultural students. Being a centre of evolution of agriculture, organic agriculture represents an interesting alternative for a fruitful development of traditional farming methods.

Iran: A land of high value organic products

The future for organic agriculture in Iran is very positive. The growth rate, experienced over the last few years, suggests a fast and considerable development of the sector. Iran may become a central area for producing high value organic products with a world-wide demand, such as Saffron, Pistachio, Pomegranate and Medical plants. Cultural studies have shown that Iranians always were interested in traditional products originating from the villages. Hence, organic products are favored because they are considered free from toxic chemicals, additives, artificial flavorings and colorings, preservatives, and are perceived as having a higher quality.

Iran, the second largest country in the Middle East, is located in the southwest of Asia with an area of 1.65 million km². IFOAM President Andre Leu visited Iran together with ISO FAR President Gerold Rahmann in 2014. During their visit to Persepolis – more than 2500 years old- they stated the importance of Iran as a center for the evolution of agriculture (Fertile Crescent). Since people engaged in agriculture first settled here some 10,000 years ago, Iran is the origin of many domesticated plants and animals which are among the main sources of food for human beings all over the world, as indicated by Figures 1 and 2.



Persepolis; Shiraz- Iran 2014, Left: Andre Leu- President of IFOAM (Australia); Right: Prof. Gerold Rahmann- President of ISOFAR (Germany)

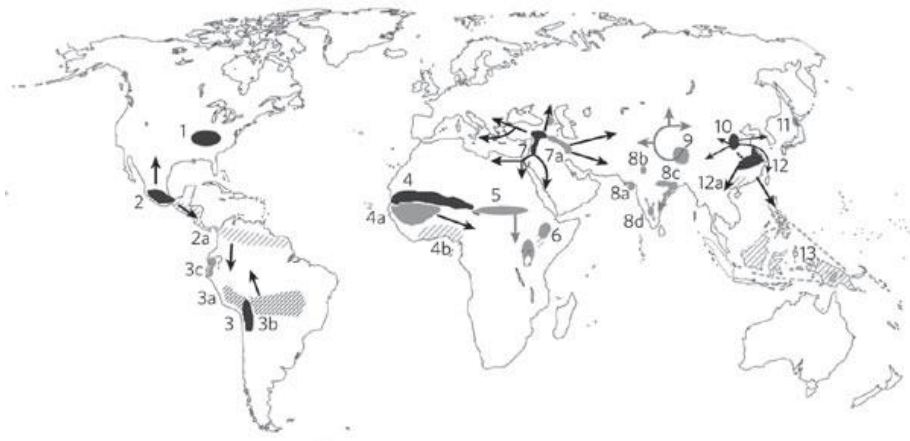


Figure 1. From Purugganan & Fuller, 2009. Nature 457, 843-848.

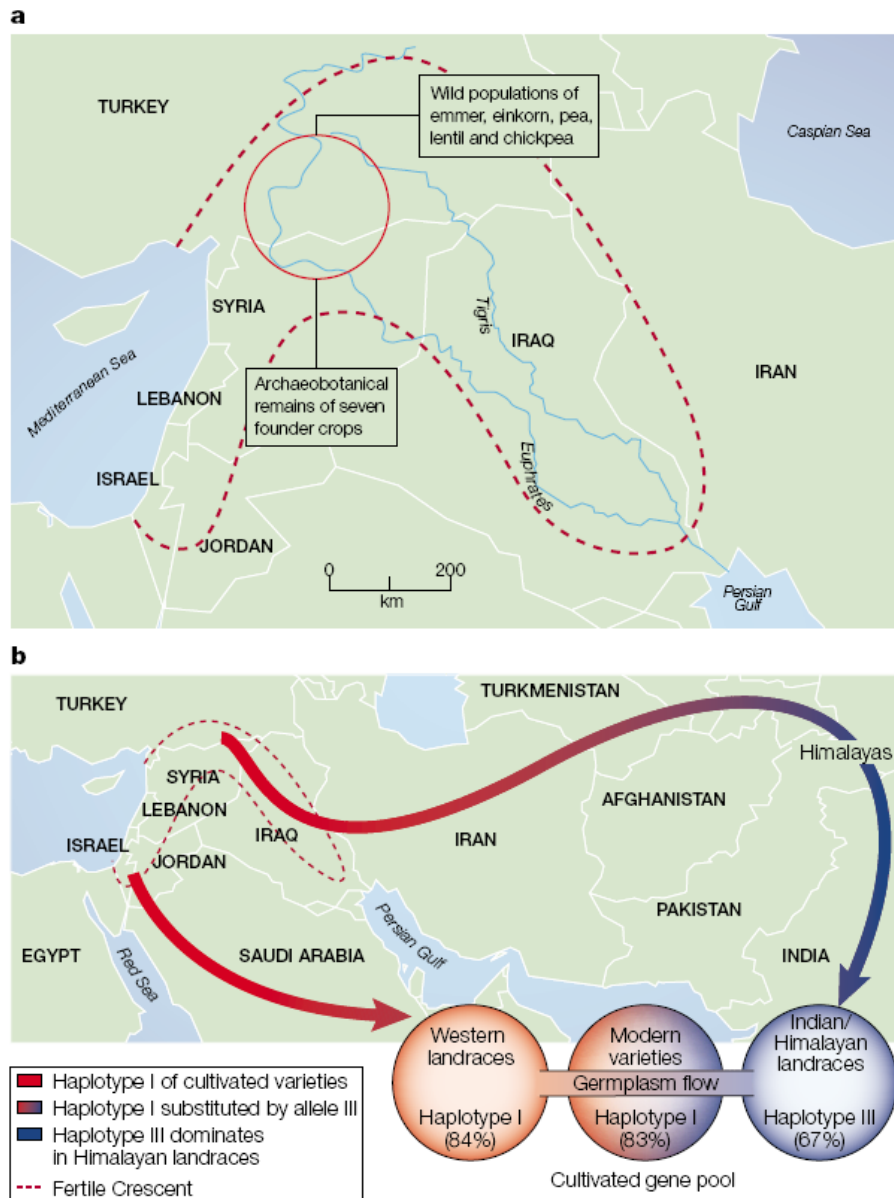


Figure 5 | Geography of early domestication and of later events during crop differentiation. **a** | The map summarizes the two kinds of data (phytogeographical and archaeological) that support the existence in the Fertile Crescent (dashed red line) of a 'core area' of domestication (red circle) (see also Lev-Yadun *et al.*²⁵). **b** | This panel summarizes the experiment of Badr *et al.*¹², which shows that, from its domestication in the western Fertile Crescent, barley moved eastwards and diversified in the Himalayas. This last route was monitored by following the flow of haplotypes of the *Barley knotted-like-3* (*Bkn-3*) gene from wild *Hordeum spontaneum* populations to cultivated germplasm. Haplotype I is pervasive in domesticated western varieties (present in 84% of varieties; lower red arrow), whereas haplotype III prevails in the Himalayan and Asian forms (present in 67% of varieties; upper arrow). The borders of the primary habitats of *H. spontaneum* are in the Fertile Crescent (dashed red line).



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Figure 2. From Salamini, Ozkan et al. 2002. Nat Rev Genet 3:429–441.

Iran has a diverse physiography, climate, vegetation and biological productivity (Koocheki and Ghorbani, 2005). Traditional small scale farming was the main structure of farming communities for centuries. Here, the land management was based on indigenous farming systems, practices and knowledge associated with self-sufficiency and family associated communities.

However, with the advent of new technologies this has been changed but no proper alternatives have been introduced (Koocheki, 2004). About 86 percent of farmers in Iran are smallholders who manage close to 40 percent of arable lands in Iran (Koocheki, 2004; Mahmoudi et al, 2007), without access to agrochemicals, and traditional mixed farming systems remain prevalent. In small-scaled farming systems, ecological practices are still prevalent which include:

- Diversified crop, animal husbandry integrated
- Use of animal manure, wastes and by-products for soil improvement
- Biological pest and disease control
- Community cooperation, family labor and local market orientation

These systems may be considered as organic farming by default (Koocheki and Ghorbani, 2005), or non-certified organic agriculture (Mahmoudi and Mahdavi Damghani, 2008). There is an increasing public concern about food safety, but only few people really know about organic farming.

Organic agriculture in Iran started within universities, and is taught in specific courses and lectures since 25 years ago. The most important challenge of transition to organic agriculture is the management of plant nutrition and protection against pests, diseases and weeds during the first years of conversion to prevent yield reduction.

Organically cultivated area in Iran

Parallel to the interest for organic agriculture within the universities, the market began to develop. Certified organic products in Iran have been available since 1999, when an orchard with roses for extracting essential oils in Kerman province was converted. In 2006, a company in the province of Fars was certified to export organic Pomegranate, Figs, Dates, and Medicinal herbs to the EU. Since then, the organic market has been growing rapidly. Recent statistics published by IFOAM & FiBL show that there are 43000 hectares under organic management, and about the same certified for wild collection.



Organic Honey production in central part of Iran.



Organic Tea production in the mountains area of northern of Iran.



The only densed wild Pistachio forest in the world located in Northern East of Iran.



Iran is the main origin of Saffron production in the world.

Opportunities for Organic Agriculture in Iran

As in many countries in the Mid-East, the domestic market for organic products in Iran is still relatively small. However, local demand for organic products has been growing parallel with 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 starts in the capital city with small corners in the supermarkets. These shops are usually in residential areas that are inhabited by upper- and middle class citizens (Sirieix et al., 2011; Kledal et al., 2009, 2010, 2012) especially in northern part of (capital) Tehran.

The main problem for organic market growth is a consistent supply of products. Organic agriculture may enable Iranian smallholders to achieve household food security and gain better incomes while regenerating the land, enhancing biodiversity, and supplying quality food to local communities (Mahmoudi and Mahdavi Damghani, 2009). At present, there is increased interest for organic products for export. The majority of the organic production in Iran is being exported (Kledal et al., 2012). The main importing countries of Iranian organic products are Germany, France, The UK, The Netherlands and some countries in East Asia (Mahmudi & Damghani, 2011).

Standards and Regulation

An updated version of "Requirement of production, processing, inspection & certification, labeling and marketing of organic food (INSO - 11000)" was published by the Institute of Standards and Industrial Research of Iran (ISIRI) in 2014, in cooperation with universities and private companies. In these standards, a list of permitted organic inputs was included. The first draft of "Organic Wild Collection: Plant Collection Guideline" was released by ISIRI in 2009.



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National support for developing Organic Agriculture

The Ministry of Agriculture recently established a 'Committee on Organic Agriculture' to make a policy and provide an action plan for the development of organic agriculture in Iran. An Agricultural Research, Education and Extension Organization has introduced a program to implement a new research department called "Farming Systems", where a research program for organic agriculture was included. Governmental subsidies on agrochemicals have been reduced dramatically since 2007, which may contribute to a positive development for organic agriculture.

Research and education

Research programs on organic agriculture production, processing and marketing are carried out by several institutions, including the Environmental Sciences Research Institute of Shahid Beheshti University in Tehran, Ferdowsi University of Mashhad and Islamic Azad University, Karaj Branch. Activities are carried out as students' theses, or research projects. A postgraduate course on agroecology has been extended to several of universities across the country. The Iranian Scientific Society of Agroecology (ISSA) has since 2008 conducted regular meetings on sustainable agriculture in which organic agriculture is one of the common topics. A Center of Excellence of Organic Agriculture of Iran is supported by the Ministry of Education, and works to disseminate knowledge on organic farming in Iran.

Non-governmental organizations and private companies

NGO's play an important role to develop the organic movement in Iran, especially since a majority of people cannot define what organic means, and how it differs from non-organic products. The Iran Organic Association (IOA) is supported by the Iran Chamber of Commerce. IOA works with market development, and supports all people and organizations active in developing organic farming in Iran. Since 2011, IOA conducts an annual international congress and various workshops, and promotes organic business by international and national networking. IOA recently established a GMO debate committee. IOA also has a strong collaboration with the municipality of Tehran and conducts the annual "Tehran Organic Week Festival", which provides an opportunity for organic producers to introduce their products to consumers as well as increasing public awareness through media.

IFOAM- IRAN was established in May 2014, initiated by the IOA, and is also supported by Iran Chamber of Commerce.



Center for Sustainable Development & Environment, CENESTA is a non-profit organization dedicated to promote sustainable community and culture based development. Its main area of



International Society of Organic Agriculture Research

work is Iran and Southwest Asia. CENESTA experts are also active in Africa, Latin America and on the international arena in general. CENESTA is a member of IUCN—the World Conservation Union, and is affiliated with the University of the North (Iran).

In line with the increasing organic area, production of organic inputs such as fertilizers and bio-control agents such as parasitoids and predators insects is an increasing industry for private companies across the country.

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Organic Food System Program on web

The Organic Food System Program (OFSP) aims at developing the organic food system as a pilot model and living laboratory for sustainable food systems. The central question is how to make food systems more sustainable, which includes the concept that sustainable diets are healthy diets.

The change in consumption patterns is a crucial issue in the transformation to sustainable food systems. The OFSP will study how to change consumption patterns, and improve the nutritional quality and related health characteristics of food. The program contributes to global activities such as FAO/UNEP-SFSP and Organic 3.0 and brings together initiatives and stakeholders at international, national, regional and local levels.

Established in Berlin, Germany in October 2015, the program has currently 56 partners from 30 countries, all over the world. The program will be launched during the Biofach event in Nuremberg, Germany on February 10, 2016.

Contact persons are Professor Dr. Johannes Kahl at the University of Copenhagen, Denmark, Dr. Carola Strassner, A-verdis, Germany and Jostein Hertwig, BERAS project, Sweden. More information is found at www.organicfoodsystem.net



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Agroecological Innovation by Iranian Youths

YPARD Iran works to develop Eco-friendly Agriculture and Green Innovations, which are relevant for ISO FAR. The main purpose is to make efficient use of the potentials of young professionals, in an association, for sharing innovative ideas worldwide. Empowering the youth to participate in national and regional decisions is another purpose.

Young Professionals for Agricultural Development (YPARD) started its activities as an international movement in 2006. Since 2013, the Kimiaye Sabz Markazi NGO in Arak province has been the official representative of YPARD Iran.

Innovative Biofertilizers

The lack of inputs for certified organic agriculture complying with IFOAM standards, particularly fertilizers, has prompted the Iranian Young Professionals to look for innovative fertilizer inputs to organic fields and orchards. YPARD members in Iran have recently patented several inventions in the field of crop nutrition. Enriched Vermiwash is a complete fertilizer consisting of beneficial microorganisms, appropriate for fields, orchards and greenhouses. Enriched Vermiwash is a liquid fertilizer which can also be used in hydroponics, and inhibits diseases and pests.

Another innovation is an Aqua-phyto Bio-fertilizer production unit. This equipment is specifically designed and manufactured for greenhouses and novice farmers. The product is a soluble foliar bio-fertilizer which consists of available raw materials of plant origin, e.g. nettle leaves or aloe vera, and beneficial microorganisms which may be derived e.g. from fertile forest soil.

A main part of this fertilizer consists of Vermiwash enriched with fish pond waste. The mixture is sprayed on plants in accordance with nutrient demands and/or the presence of pests and diseases. The archetype of this device was produced in 2013 with International Patent Classification A01B:F01B. The quality of fertilizers has been evaluated by scientific experiments in field, greenhouse and orchards.



International Society of Organic Agriculture Research



An Aqua-phyto Bio-fertilizer

Eco-friendly village

A model of an Eco-friendly village has recently been designed YPARD Iran and with experts from Tolooe Safar Zagros, Ganjine Sabz, Ehyagarane Tabiat, Kimiaye Sabz Markazi NGOs as well as Arak Organization of Agriculture Jihad. The model aims at achieving a favorable agricultural and residential environment in accordance with national standards. The project comprises renewable energy, climate-smart agriculture, healthy and organic agriculture, participatory guarantee systems, good agricultural practice standards, agricultural and domestic waste management, and training of villagers.

The educational and promotional section of this project, Eco-Club, promotes green products and conducts training workshops for empowering rural youth and women. Healthy and organic agricultural and processed products and handcrafts are sold to tourists, or sent to regional market, under standards developed by the Eco-friendly Village model. Experiences acquired in the village become accessible to the other farmers by the Eco-Club and on the Eco-friendly Village website: www.ksngo.org

1. Presentation of Eco-friendly Village Model in 27th International Leadership Workshop for Rural Youth 2015 held in Herrsching, Germany
2. Aqua-phyto bio-fertilizer production Unit

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www.ypard.org

PhD study on biodiversity in Italy

Agrobiodiversity science is a one-stop-shop for all those, farmers, researchers, networks, players and actors interested in this topic and wishing to find out about the unique International PhD Programme on Agrobiodiversity managed by the Scuola Superiore Sant'Anna of Pisa, Italy (SSSA).

SSSA's International PhD Programme, with yearly calls for scholarships, has reached its 14th edition and has become a reference point not only for international students but also for the research community. This PhD offers a valuable opportunity to acquire advanced scientific skills and facilitate job employment for young generations of scientists and professionals interested in agrobiodiversity.

If you wish to share any related news, events and/or job opportunities and highlights, we welcome them and will upload your content on the portal for further visibility and dissemination. Please do not hesitate to contact us at info-phdlifesciences@sssup.it This email address is being protected from spambots. You need JavaScript enabled to view it.>



Photo: Prof. Paolo Bàrberi.

Mariateresa Lazzaro, PhD candidate and Giacomo Nardi, technician both working at the Scuola Superiore Sant'Anna in Pisa observe the growth of bread wheat cultivar mixtures in a pot experiment with planned weed infestation.



International Society of Organic Agriculture Research

Visit: www.agrobiodiversity.science

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International Society of Organic Agriculture Research

CAPSELLA Project: Collective Awareness Platform for Environmentally-sound Land Management based on Data Technologies and Agrobiodiversity



Just like the tiny yet sturdy little plant it takes the name from, the CAPSELLA project will deepen the roots of sustainability in agri-food systems by harnessing scientific and local knowledge, people's and innovation skills around the theme of agro-biodiversity by making use of novel, improved and demand-driven ICT solutions.

CAPSELLA's main outcomes will be:

- Innovative tailor-made data driven solutions for farmers, small communities, networks and clusters
- Open data driven innovation in the agri-food through a comprehensive open data catalogue
- A cloud based platform to support community based initiatives concerning biodiversity in agri-food systems and food quality
- Concrete and bottom-up pilots and ICT applications for three different scenarios: Seed, Field and Food



Photo: The Capsella plant («Shepherds purse») belongs to the Brassicaceae (mustard) family.

CAPSELLA will engage with farming communities and networks, in order to understand and collect their needs and requirements through a bottom up approach. This way CAPSELLA will try to provide tailor-made solutions that hopefully address the issues of the farmers.

In this light, the project will held its first awareness raising workshop in Volterra, Tuscany on the 30 & 32 of May. Its scope is to bring together agrobiodiversity farmers, networks, clusters and stakeholders to raise awareness and collect their needs and requirements on ICT future solutions to be developed.

Visit: www.capsella.eu



International Society of Organic Agriculture Research

Nigerian project: Farmers' training by mobile phone

A recent project, ORGFARMOB, aims at enhancing the adoption of organic farming in Nigeria by using mobile phones.



The ORGFARMOB project (www.orgfarmob.org) provides a mobile based organic farming training system, designed specifically for both small, medium and large-scale organic farmers. The organic farming training system is presently in English, but will soon be translated into three common ethnic languages in Nigeria.

The system delivers up-to-date information on organic farming practices to farmers with mobile phones. When fully operational, the tool will enable farmers to adopt organic farming practices with less assistance from extension officers.

Orgfarmob is innovative and unique because presently there is no mobile platform for delivering agricultural extension services in Nigeria. The high proportion of small and medium scale farmers in the rural areas coupled with non-availability of internet services inspired the development of OrgfarMob. The rising awareness of the need to eat healthy and nutritious foods is also serving as a catalyst for the development of this tool.



International Society of Organic Agriculture Research

The smart phone version of the OrgfarMob can be downloaded from the website of the project. The next stage is to test the tool with registered organic farmers from the Association of Organic Agriculture Practitioners of Nigeria (NAON).

www.orgfarmob.org

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