



Charter of the International Organic Action Network in Expo

ORGANIC AGRICULTURE CAN FEED THE PLANET TOWARDS SUSTAINABLE CONSUMPTION & PRODUCTION

By the end of 2015, the global Millennium Development Goal 1c of reducing by half the percentage of undernourished people has been reached, mainly thanks to government efforts to support production and social protection. Nonetheless, 795 million people today are still food insecure, and achievement of hunger targets is challenged by issues of access, infrastructure, climate, macroeconomics and political stability¹. Notwithstanding the unpredictability of such factors as climate change, crop failures, and food price volatility – which no production model can yet control – organic agriculture represents the only food and farming innovation of the last century that is a socially, and economically and ecologically resilient approach for the production of food and agriculture-based raw materials. Proof of this global success are the two million practitioners in 164 countries² that have entered the global organic food market by harnessing local resources, decreasing their dependency on external inputs and non-renewable resources, and increasing resilience to external shocks or natural disasters.

This Charter seeks to synthesize the opportunities offered by the organic and biodynamic sector, without in any way concealing its constraints, by gathering scientific evidence and empirical field experiences that demonstrate why and how organic agriculture can not only feed but nourish the Planet.

¹. FAO, IFAD, WFP, 2015. The State of Food Insecurity in the World. Meeting the 2015 International Hunger Targets: Taking Stock of Uneven Progress. <http://www.fao.org/3/a-i4646e.pdf>

². FiBL and IFOAM, 2015. The World of Organic Agriculture. Statistics and Emerging Trends 2015.



Organic agriculture and ecology

While 10 million hectares of land are lost annually to unsustainable agricultural practices³, organic agriculture has demonstrated that it: increases soil fertility and therefore productivity on the medium/long term; improves soil structure and its capacity to retain and filter water, which results in significantly lower irrigation requirements and lower impact of droughts and floods; reduces water pollution and nitrate leaching in groundwater; reduces erosion by wind, water and overgrazing⁴; increases soil carbon sequestration and thus, contributes to climate change mitigation, while being inherently adapted to climate change⁵. Globally, the combined advantages of organic practices – including non-use of synthetic fertilizers, reduced nitrous oxide emissions on farms, and soil carbon sequestration⁶ – have a GHG reduction potential of 5.1 to 6.1 GT CO₂ equivalents⁷. This means that a global conversion to organic management would transform agriculture from being a main cause of climate change to being a carbon-neutral activity that is more resilient against increasingly unpredictable weather. Additionally, energy use by organic farms is reduced by one-third compared to conventional enterprises due to the use of less fossil fuel-dependent practices and a higher efficiency in biological nitrogen fixation. Decreased energy use is paramount with peak oil and corresponding energy price fluctuations that impact the economy at all levels. As ecosystem services⁸ and natural resources are prime productive inputs, organic farmers are stewards of biodiversity and landscapes and often, organic farms embody the symbiotic relationship between man and nature⁹. Ecological benefits achieved by organic production need to be extended to the whole supply chain, where innovations are required in order to recycle non-renewable input materials (e.g. rock phosphate) and minimize energy use during processing and packaging, along the circular economy principle.

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 - 4. Gomiero, T., Pimentel, D and Paoletti, M. G., 2011. Environmental Impact of Different Agricultural Management Practices: Conventional vs. Organic Agriculture. *Critical Reviews in Plant Sciences*, 30: 1, 95-124.
 - 5. El-Hage Scialabba N., 2013. Organic Agriculture's Contribution to Sustainability. USDA Organic Farming Systems Research Conference. Proceedings. In: Crop Management, 29 April 2013. <http://www.fao.org/docrep/018/aq537e/aq537e.pdf>
 - 6. Skinner, C. A. Gattinger, A. Mueller, P. Mäder, A. Fließbach, R. Ruser, and U. Niggli 2014, 2014. Greenhouse Gas Fluxes from Agricultural Soils under Organic and Non-Organic Management—A Global Meta-Analysis. *Science of the Total Environment*, 468, 553-563.
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 - 8. Sandhu, H. S., Wratten, S. D., & Cullen, R., 2010. Organic agriculture and ecosystem services. *Environmental Science and Policy*, 13(1), 1-7.
 - 9. Bengtsson, J., Ahnström, J., & Weibull, A. C., 2005. The effects of organic agriculture on biodiversity and abundance: a Meta-analysis. *Journal of applied ecology*, 42(2), 261-269.



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Organic agriculture, health and well-being

Nutrition-related disease is one of the greatest concerns of coming years. Many of the benefits of organic agriculture result from the establishment of an ecological balance between soil, plants and animals, which translates to a higher quality of the goods produced from it. Organic dairy products commonly contain more polyunsaturated fats, more omega-3 fatty acids and a better ratio of omega-3 and omega-6 fatty acids; organic crops tend to have up to 90% more vitamin C, significantly more secondary metabolites with antioxidant properties and, more importantly, contain much less pesticide residues, nitrates and toxic heavy metals¹⁰. While drastically reducing exposure to such harmful substances, organic diets seem to be less associated with allergies, with evidence of greater immunity towards certain diseases in children and animals. Scientific evidence is mounting that organic diets decrease the incidence of cardiovascular and neurodegenerative diseases and of certain cancers, especially if associated with diets increased in fruit, vegetable and whole grain consumption. In particular, some local organic diets – for instance the Mediterranean one - seem to offer an ideal solution to the diet-environment-health trilemma¹¹. Furthermore, some studies have drawn attention to the fact that greater emphasis on animal welfare afforded through organic management offers related benefits to ecological and dietary health. In particular, refraining from antibiotic use in organic livestock management cannot but offer a solution to the alarming trend of antimicrobial resistance¹².

Organic agriculture and fairness

In our world of unemployment and under-employment, organic farming appears to generate about 30% more work in rural areas, while farm labour achieves higher returns per unit of labour input¹³. Organic agriculture empowers social systems to control their own food supply, while organic labels enable consumers' right to make informed choices. With innovations in traceability systems, new technologies to show the authenticity of foods, and related guarantees to consumers, the certification system based on minimum standard requirements will be enhanced by a participatory

10. Baranski M. et al, 2014. Higher Antioxidant and Lower Cadmium Concentrations and Lower Incidence of Pesticide Residues in Organically Grown Crops: a Systematic Literature Review and Meta-analyses. British Journal of Nutrition 112(5):794-811 <http://www.ncbi.nlm.nih.gov/pubmed/24968103>

11. Tilman D and Clark M., 2014. Global Diets Link Environmental Sustainability and Human Health. Nature, Volume 515, 27 November 2014. <http://www.nature.com/nature/journal/v515/n7528/full/nature13959.html>

12. World Health Organization, 2014. Antimicrobial Resistance: Global Report on Surveillance 2014. <http://www.who.int/drugresistance/documents/surveillancereport/en/>

13. Nemes Noemi, 2009. Comparative Analysis of Organic and Non-Organic Farming Systems; a Critical Assessment of Farm Profitability. FAO Natural Resources Management and Environment Department. <ftp://ftp.fao.org/docrep/fao/011/ak355e/ak355e00.pdf>



and transparent approach that builds upon good practices in both farming and food processing. Organic principles and practices are particularly conducive to short and fair supply chains, where family farming and small-scale establishments are widespread. In combination with a Fair Trade approach, this potential can be tapped even more. Small and medium-scale processing and distribution companies are likewise enabled to build new relationship models with citizens. Another benefit of short supply chains is a reduction of food waste; nowadays a substantial part of the food produced worldwide is lost during the post-harvest phase. Urban agriculture, often characterized by a social or community-based approach, increasingly complements professional agriculture. Organic agriculture strongly supports these new relationship models between rural and urban areas, inspired by common principles that have always been part of the production experience of mission-driven organic companies. On global trade, the combination of Organic Agriculture with Fair Trade practices by marginalized small holders is providing a better access to markets and at the same time granting better environmental and social conditions.

Organic agriculture and ethics

Organic agriculture promotes a cautious and responsible management of food and farming systems and rejects those farming, breeding and processing techniques that do not respect human rights and animal welfare and that cannot guarantee safety and/or could have unforeseeable negative consequences, such as has occurred with genetic engineering. Recent studies opened-up discussion in the organic scientific community about rewilding techniques that, despite making use of advanced procedures of molecular biology, would, however, be compatible with the principles of organic agriculture. Organic agriculture takes a scientific approach to development and supports research to achieve technological solutions and innovations that are sustainable from an economic, social, ethical and environmental perspective, while building on local knowledge, as well as ancient or local seeds and breeds. The organic sector promotes a transparent and participative research approach among researchers, farmers and processors to innovate and disseminate the latest scientific and technological advances¹⁴.

¹⁴. Alrøe, H., Kristensen, E. S., & Halberg, N., 1998. A systems approach to research in sustainability and organic farming. *Research Methodologies in Organic Farming: on-farm participatory Research*, 89.



Organic agriculture can nourish the planet

Organic agriculture offers a feasible sustainable solution to nourish the planet by improving performance at all levels, including better access to food, relevant technologies, economic efficiency, nutritional adequacy, environmental quality and social equity¹⁵. Organic farming especially increases household food security by empowering women to grow diverse food and thus, address children malnutrition. Conversion of global agriculture to organic management, without further converting wild lands to agriculture and using N-fertilizers, would result in a global agricultural supply in 2050 comparable to that of conventional agriculture, that is 3038 kcal/person/day¹⁶; although sufficient calories and proteins can be produced through organic management, global consumption of animal-derived foods will need to decrease substantially, as less livestock can be sustainably produced. Furthermore, organic agriculture seems to improve stress and shock resilience in family farms and small-scale enterprises, thus allowing rural families to be self-sufficient and reducing impoverishment of small-scale producers who are currently reliant on external inputs and/or subject to severe economic losses in case of poor harvests¹⁷. The capacity of the world to nourish all its inhabitant requires the self-reliant farming systems as well as healthier diets, such as promoted by the organic community.

In 2013, the organic market was estimated at USD72 billion (about 2 percent of retail food sales), 43 million ha of certified crop and pasture lands and 35 million ha of certified wild harvested areas¹⁸. There is much room to grow the organic sector for the benefit of the entire world.

The Organic Action Network has gathered views from its 244 adhering organizations from environmental and ethical movements, an on-line public consultation, three thematic events at Expo Milan (i.e. ecology, health and climate change in July and August 2015), an open Organic Week at Expo Milan and an International Conference of the IFOAM AgriBioMediterraneo in Vignola, both held in September 2015. Thus, this Charter represents a shared vision of the role of organic agriculture in responding to multiple challenges of the 21st century.

Organic Action Network, September 29th 2015

15. FAO, 2007. Organic Agriculture and Food Security. International Conference, 3-5 May 2007. OFS/2007/5. <ftp://ftp.fao.org/docrep/fao/meeting/012/ah952e.pdf>

16. Schader C., Muller A. and El-Hage Scialabba N., 2013. Impacts of a Global Up-scaling of Low-Input and Organic Livestock Production. Preliminary Results. FAO Natural Resources management and Environment Department. http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/SOL-m_summary_Final.pdf

17. FEI-Hage Scialabba N., Pacini C. And Moller S., 2015. Smallholders Ecologies. FAO Natural Resources management and Environment Department. <http://www.fao.org/3/a-i4196e.pdf>

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SELECTED QUOTES RECEIVED TO THIS CHARTER

Olivier De Schutter

Co-chair, International Panel of Experts
on Sustainable Food Systems
Former UN Special Rapporteur on the Right to Food



Organic agriculture is not about the past: it's about the future. It's not about returning to the traditional way of doing things: it's about moving to a low-carbon agriculture, one that is less dependent on fossil energy, and that maximizes interactions between plants, animals, and trees - mimicking nature in order not to destroy it. This is a transition we must prepare now, or it will be imposed on us by events that we can already predict.

Hans Rudolf Herren
Head, Millennium Institute
1995 World Food Prize & 2013 Right Livelihood Award



Organic agriculture fits the bill for guaranteeing humanity's survival. It has all the needed attributes of a multifunctional and sustainable agriculture model, which will deal in one go with the major challenges of climate change, change in consumption patterns and the depletion of the very natural resources that support food production. Organic agriculture must become the standard and the main practice for the production of our food, feed and fiber as it is the cautious and regenerative approach to the use of natural resources we need at global level.



Ibrahim Abouleish

Founder and Chair of the SEKEM Group, Egypt
2003 Right Livelihood Award & 2012 Business
for Peace Award

The future of humanity depends on how much we care for the fertility of the soil through organic agriculture.



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Tewolde Berhan Gebre Egziabher

Director General, Environmental Protection Authority, Ethiopia
2000 Right Livelihood Award & 2006 Champions of the Earth Award



Trying to maintain agricultural productivity through the increasing application of synthetic chemical fertilizers merely temporarily hides the continuing deterioration that we impose on the soil until an inevitable collapse deprives humanity of food. If we care for future generations in this era of accelerating climate change, we need to care for the soil and its biomes organically, so that its nutrient cycles simultaneously maximize ecological stability and productivity.

Vandana Shiva

Founder of Navdanya International, India
1993 Right Livelihood Award & 2010 Sydney Peace Prize



The choice of organic farming is the first essential step to restoring fertility to the ground, and its development on a global scale is the first, necessary step for launching a new circular economy.



Pat Roy Mooney

Founder and Executive Director of the ETC Group, Canada
1985 Right Livelihood Award & 1998 Pearson Medal of Peace

When people talk about organic agriculture, they always ask whether it can scale-up but the peasant food web is already feeding 70 percent of the world's population. When we look at the industrial food chain, we realize they are only feeding 30 percent of the population but using 70 percent of the resources. The real question is if they can scale-up.



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Kathleen Merrigan

Executive Director, George Washington Sustainability Collaborative, USA
Former Deputy Secretary U.S.
Department of Agriculture



Most of the young people entering agriculture today don't come from farming families and many are engaged in organic practices and alternative marketing strategies. Many are also women. Locally grown organic is one of the things drawing young people into agriculture. Even for the older generation of farmers who might not be interested in organic themselves, they can see the importance of supporting these market opportunities in order to bring in the work force for the future.

Renate Künast

Chair, Parliamentary Group of Alliance '90/The Greens, Germany // Former Minister for Consumer Protection, Food and Agriculture

With organic agriculture people have the opportunity to feed their family and themselves in a sustainable manner. With organic agriculture people have food and seeds tomorrow and in future, because they protect the healthy soil that is basic. This is why I support the Charter, it shows the way for the planets people to feed themselves without destroying the chance to have food tomorrow.

Steffan Browning

Green Party Member of Parliament, New Zealand



Despite mounting evidence of industrial agriculture' damages, the agribusiness mantra of the need to feed the world is used to justify interests linked to intensification and the use of dangerous pesticides and unsustainable new technologies; the current dairy production and new herbicide-tolerant forages are strong examples. Yet, a conversion to organic production in that sector alone can reduce nitrate leaching and greenhouse gas emissions considerably, while producing safer and more nutritious food. The considerations of ecology, health and well-being, fairness, ethics must be at the forefront of all food production decisions. This Charter documents beautifully why organic production must feed the world, it can, better and for longer.





FINAL DECLARATION

We, the organizations who promoted and joined the 'Organic can feed the planet' Action Network, fully identify with the principles and commitments expressed in the Milan Charter and endorse it.

Therefore, on the basis of our Charter – the outcome of our discussions and work in the context of EXPO – and on behalf of the millions of farmers and companies who practice organic agriculture and of the citizens whose food choices support them, we declare that the organic food and farming model represents the innovative system that can enable institutions and governments to implement the principles of the Milan Charter in the most complete and effective manner.

Accordingly, we ask Minister Martina, as the representative of the Italian Government at EXPO and of the heritage represented by the Milan Charter:

- to commit the Italian Government to consider organic agriculture as the spearhead of the Italian food and farming model in terms of innovation and sustainability;
- to consider the organic farming model as an effective solution to address decisive challenges such as the effects of climate change, desertification, need to improve nutrition for the world's population, inadequate support for family farming, and the urgency to protect biodiversity and therefore to commit to explicitly promote the role of organic and its uptake in policies and agreements both on the national and international levels, starting with the next conference on climate change, COP21, in Paris, and the setting of new Millennium Goals in the UN.

Milan, September 29th, 2015



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