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**Biofach special theme: Food security**

# Yes, organic can feed the world!

## But how?

So far, the world has managed to meet the challenge of food productivity. Today, there is a 25% global oversupply of food – measured in terms of the calorific production (after post harvest losses) needed to feed the world's population. The challenge is ensuring that hungry people have access to this food. The strategy of ecological-intensification, using organic principles and practices is a new paradigm for feeding the world while at the same time empowering the poor and mitigating against climate change and biodiversity loss.

**W**hy is it that we have enough food to feed the world's current population (and an extra 1.5 billion people) but that world poverty and hunger is increasing and is predicted to continue to do so? Despite sufficient global food production, there are one billion hungry or starving people in the world, most of them living in rural areas. It is expected that the world will produce 70% more food by 2050. The Food and Agriculture Organization (FAO) of the United Nations estimates that 80% of this will need to come from productivity increases and only 20% from bringing new land into production. Both strategies will have effects in terms of loss of biodiversity, degeneration of soils, water demand and, of course, climate change.



A talk on the Biofach about organic food and food production.

The main causes of hunger are poverty and a lack of livelihood opportunities. Conventional, green revolution-based or industrial agriculture currently fails to feed 15% of the world's population - so it's clear that focusing solely on production does not solve global hunger. Often, smallholder farmers are pushed off their

land by international investments, land-grabbing and bad governance. While globalization has opened up opportunities for many, it has also amplified the challenges facing humanity. More than ever, our planet and its poorest inhabitants are suffering the consequences of poorly thought through strategies. Poverty and

**“We need a paradigm shift - a new strategy based on ecosystem intensification for increasing the resilience of farms and using biodiversity wisely.”**



## People before Commodities: The IFOAM Food Security Campaign

Agriculture is back on the agenda of international decision makers. Through targeted activities during the World Food Day and related summits and conferences, IFOAM has been bringing the message of ‘Sustainability through Organic Agriculture’ to the heart of the debate. IFOAM’s message is that Organic Agriculture is not merely a certification standard but a strategic option that can greatly contribute to improving security. IFOAM continues to carry this message to decision makers in the public or private sectors, at local, national or international levels.

hunger, climate change, the loss of genetic diversity, ecocide and land grabbing are some of the consequences of this - to which the world has to find effective answers. The IAASTD report clearly stated that ‘Business as usual is not option any more’. Addressing the global food security challenge is not a question of doing the same things more effectively, but about developing an appropriate and equitable strategy.

Sadly, the most recently revived debate on agriculture and food security has been largely characterized by a renaissance of productivity-oriented strategies. Some of these rely on techno-scientific and large-scale agribusiness options which involve substantial economies of scale, but which are neither ecologically and socially sustainable, nor efficient in land use. The proposed ‘second green revolution’ does not provide any convincing answers as to

how deprived people will get access to healthy food and it neglects the key challenges of equipping the poor with access to resources, appropriate farming systems and personal skills. This is an extension of the type of thinking that created the problem in the first place and is incapable of ensuring that all people, at all times, have physical, social and economic access to enough safe and nutritious food to meet their dietary needs and food preferences enabling them to live active and healthy lives.

### **Is ‘Organic’ just a certification standard for rich people?**

It is widely acknowledged that organic agriculture has brought tremendous benefits many of those involved in it. It currently achieves sales of over 50 billion US\$ annually, which benefit millions of



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people along the value chain (not least small scale producers and consumers). Yet there is still a widespread misconception that organic agriculture cannot feed the world. In 2009, at a high-level expert forum on how to feed the world in 2050, Jacques Diouf, FAO Director General stated : While organic agriculture contributes to hunger and poverty reduction and should be promoted, it cannot by itself feed the rapidly growing population. He

expressed the thoughts of many experts: that organic production is good for creating added value for those who can tap into the right market niches. But its broader applicability has not been appreciated and as a consequence, organic agriculture has rarely managed to be part of a broad-based vision for international organizations, governments or donor agencies. This is despite the impressive impacts that organic agriculture has had in recent years on the livelihoods of rural people, often in highly marginalized and fragile environments. The organic movement needs to make policy makers more aware of the potential of organic farming as a viable and proven strategy for developing and improving livelihoods.

## Spearheading the New Green Economy

Organic operators are potential key players in the New Green Economy that has been envisaged by UNEP. A fast-growing community of organic consumers (the annual value of organic retail sales worldwide is US\$ 50 Billion) are looking for agriculture products that are not just healthy and tasty, but also contribute to environmental sustainability and the food security of the families and communities that grow the produce. Organic standards and verification systems assure fair prices and support the resilience of organic producers to both climatic and economic shocks. Through ethical investment and consumption choices the entire value chain is contributing to enhanced food security and promoting products that have a smaller ecological footprint and improve the livelihoods of the producers.

**The need for a paradigm shift** - a new strategy based on affordable production systems for the poor - is obvious. The answer to the question, how can organic agriculture meet the growing global demand for food can be summarized in one word: eco-intensification. Eco-intensification has several aspects. It involves intensifying the natural process

of nutrient cycling, stimulating soil biology through composting, crop rotation, mixed cropping or agro-forestry. These practices enhance the health, vitality and productivity of farm ecosystems. Higher levels of organic matter in the soil enhance water retention and build robust soils that are resilient to erosion. Avoidance of toxic pesticides and the utilization of diverse species enhance (rather than inhibit) nature's constant drive for balance, thereby enabling the ecosystem to regulate pests and diseases naturally. The farming system is managed through applying ecological knowledge and practices that stimulate and intensify beneficial the systems' ecological functions.

**Eco-intensification** often draws on the knowledge and practices of the world's traditional farming systems that have nourished communities for hundreds, or even thousands, of years. The key to success

soils or limited water resources the yields from organic production are often much greater. Thus organic production helps improve productivity in the areas where it is most needed.

There is huge potential to significantly increase agricultural productivity and biodiversity by harnessing, developing and intensifying biological soil activities. Eco-intensification generally also involves more labour and better knowledge, thus contributing to more opportunities for landless poor people and improving the 'quality of work'.

**If the is to nourish its people** on the principles of eco-intensification, we need to learn much more about natural processes in order to optimize diversified, locally adapted food production systems. This could not be achieved overnight but would involve a slow transition of learning and undoing the negative impacts

of unsustainable farming of past decades. However, if humanity invests resources and effort in learning to better use the potential provided by nature, the existing land and water and human resources will be able to provide more than enough food to

meet the requirements of an expanding human population. We are confident that organic agriculture can provide abundant food to feed a growing world population. The main bottleneck to such a vision becoming a reality is not the limitations of natural resources but a lack of political willingness and imagination.

is to consciously work with, rather than against, nature and to support ecosystem services. In places where intensive agriculture is practised most farmers who convert to organic production achieve yields that are close to those of conventional farms, within a few years of conversion. In marginal areas with depleted

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#### **Eco-intensification as a reality.**

Ethiopia and Egypt are two countries that are already adopting strategic elements advocated by the organic movement. In both countries, land has been regenerated with organic agriculture and people-centred approaches. This has resulted in thousands of people finding confidence in their farming abilities and being better able to feed their families. The Ethiopian government has recently put organic practices at the heart of its national agriculture development policies and Egypt has been dramatically reduced pesticide use after consultation with local organic farmers.

Supporting small-scale farmers across the world strengthens the livelihoods of the poor and increases their access to food. To make this a reality, the right policies are needed at international, national and local levels, policies that require corporate social responsibility and support the capacity of the poor, through relevant research and advisory services in ecological intensification. ■