Organic agriculture – improved value chains can have a greater impact in terms of biodiversity conservation and food security

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PRINCIPLES *of* ORGANIC AGRICULTURE

Principle of HEALTH

Organic Agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.

Principle of ECOLOGY

Organic Agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.

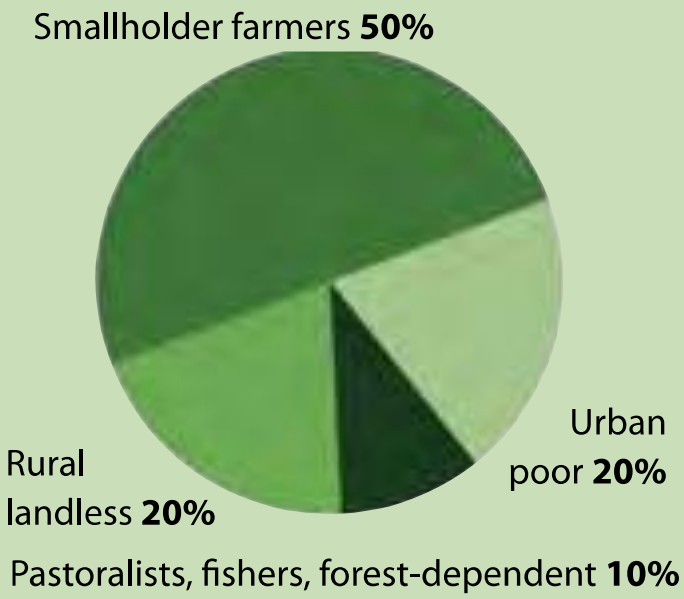
Principle of FAIRNESS

Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.

Principle of CARE

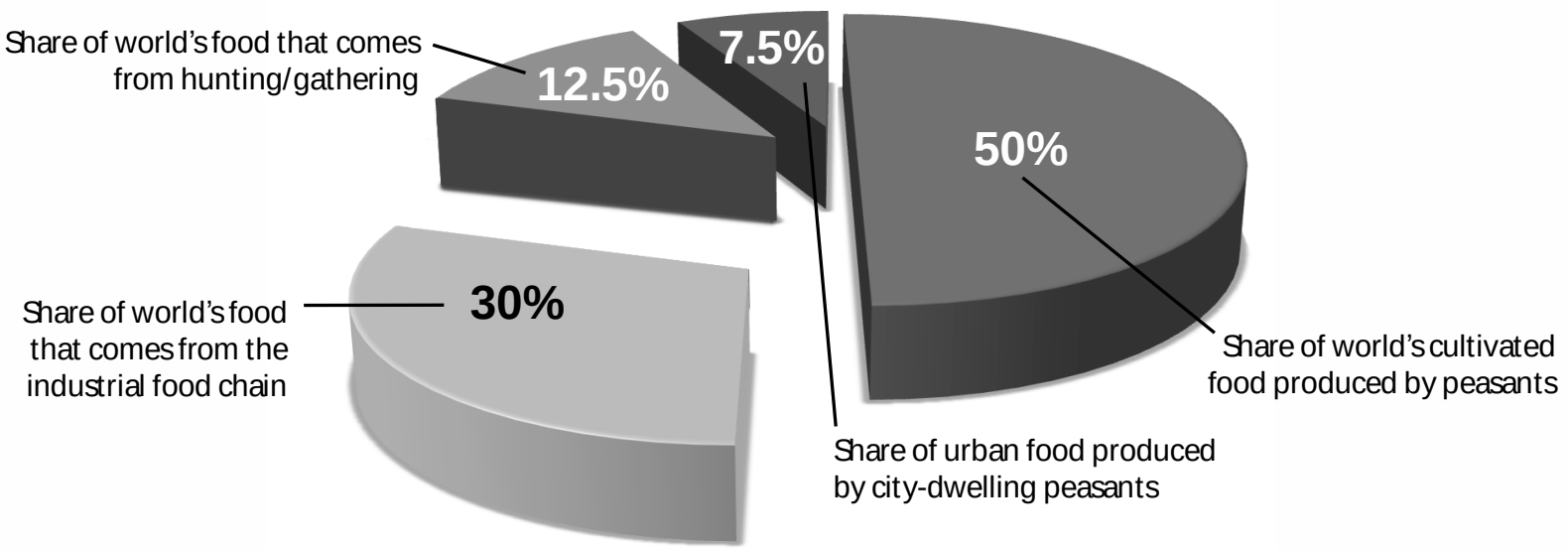
Organic Agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

Who the hungry are



Source: Hunger Task Force

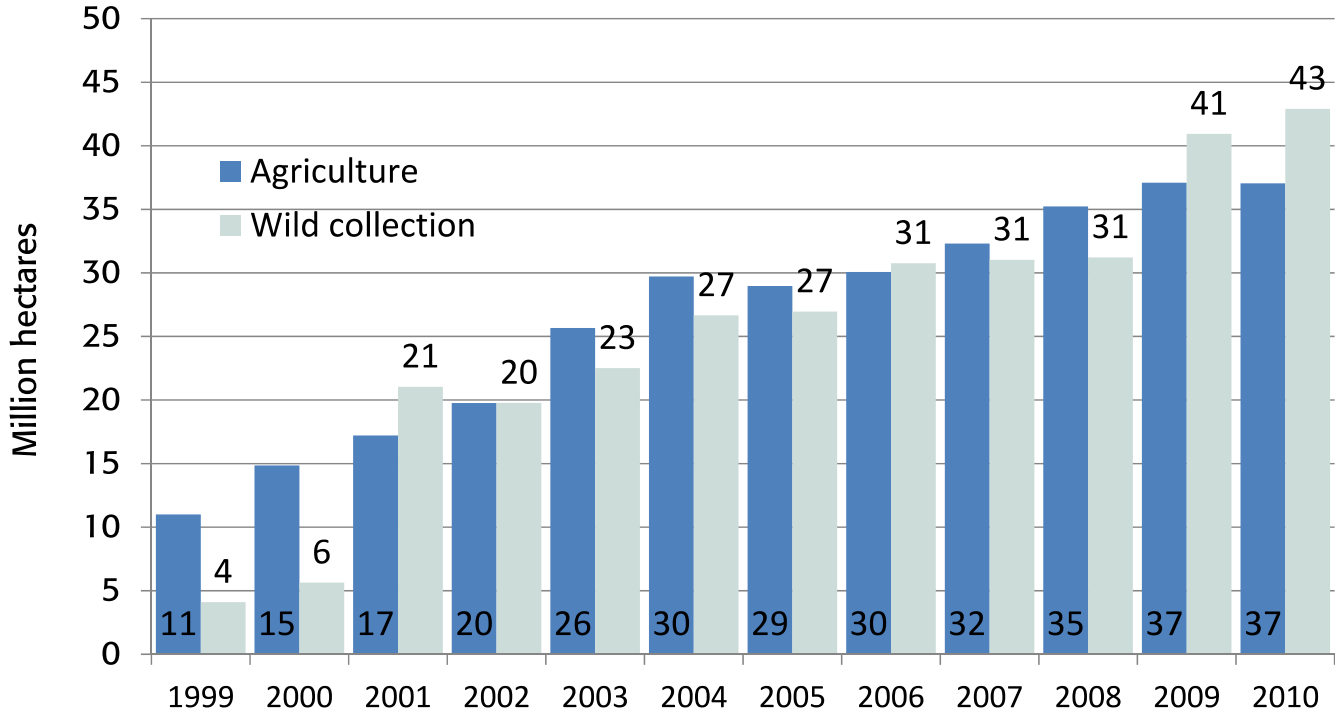
A viable food future. The Development Fund, Norway, 2011



Questions for the Food and Climate Crises. ETC Group, 2009.

80 million ha of organic certified land

Growth of the organic agricultural land and of wild collection areas 1999-2010

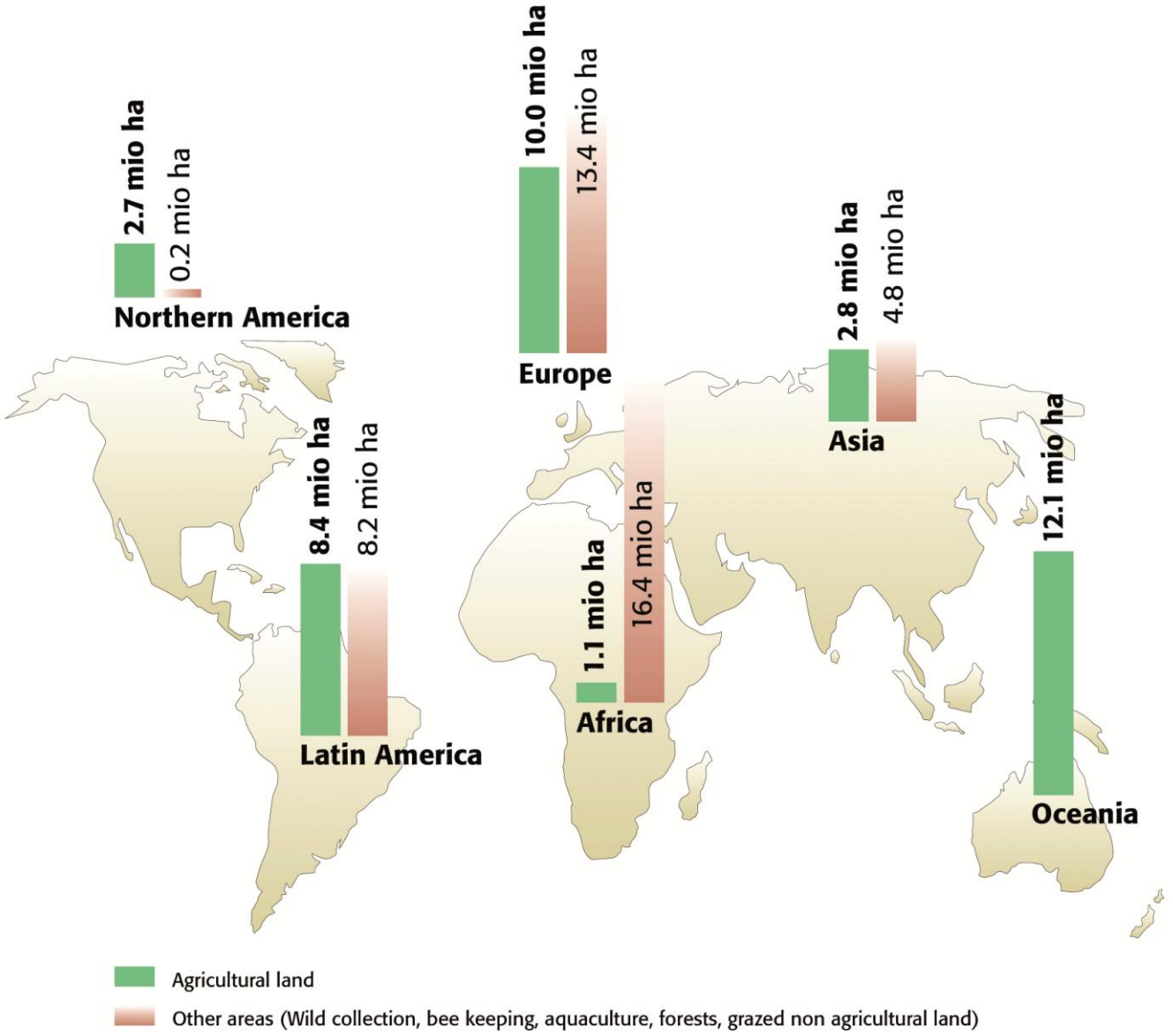


FiBL www.fibl.org

Source: FiBL-IFOAM-SOEL Surveys 2000-2012,based on data from governments, the private sector and certifiers.

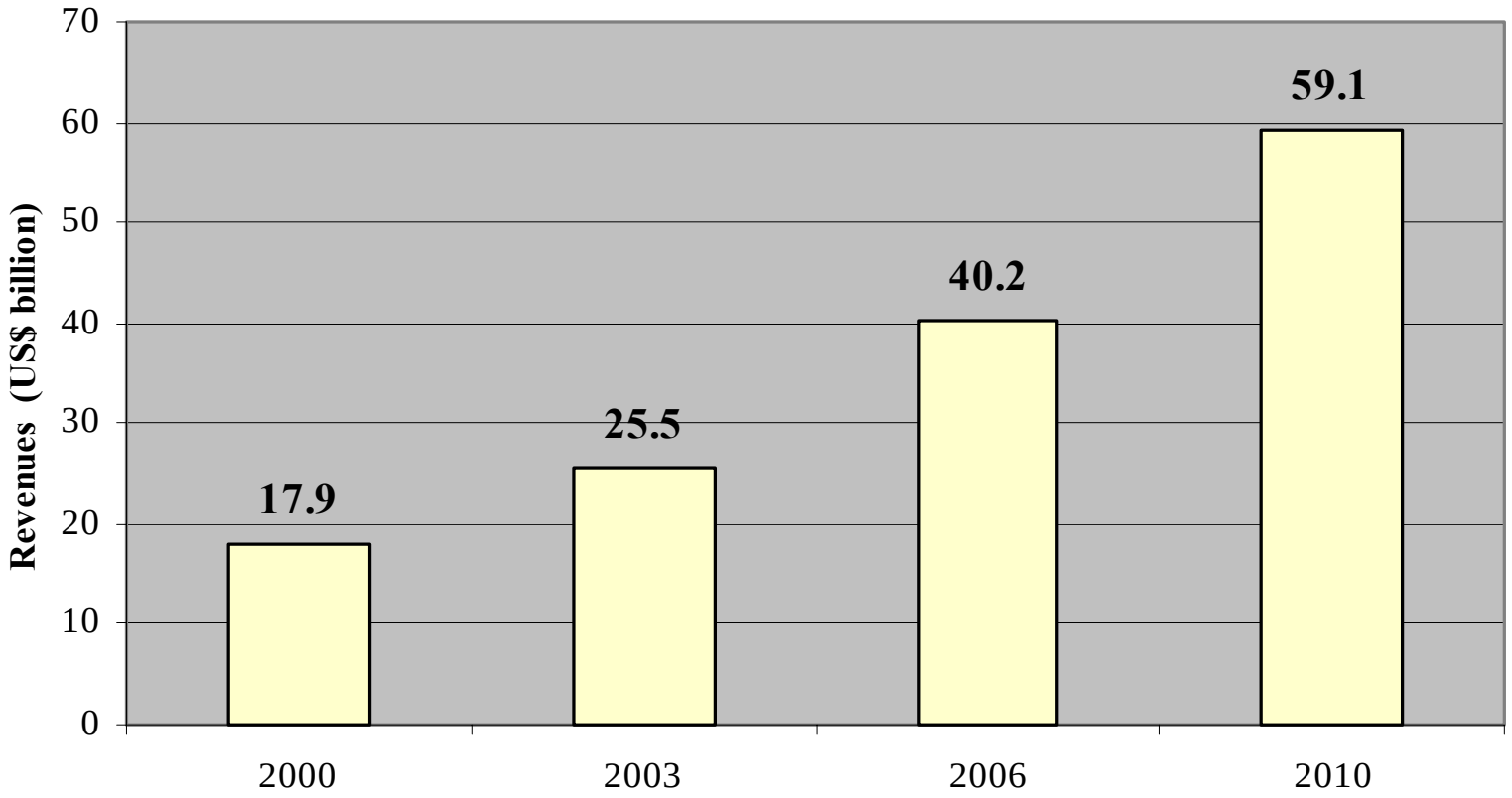
IFOAM INTERNATIONAL FEDERATION OF ORGANIC AGRICULTURE MOVEMENTS

UNITING THE ORGANIC WORLD



Source: FiBL-IFOAM Survey 2012, based on data from governments, the private sector and certifiers.

Organic market growth worldwide



Presented at: BioFach Congresss 2012, Messezentrum Nürnberg, Germany, Feburary 15, 2012

Sahota, 2012

Organic Monitor

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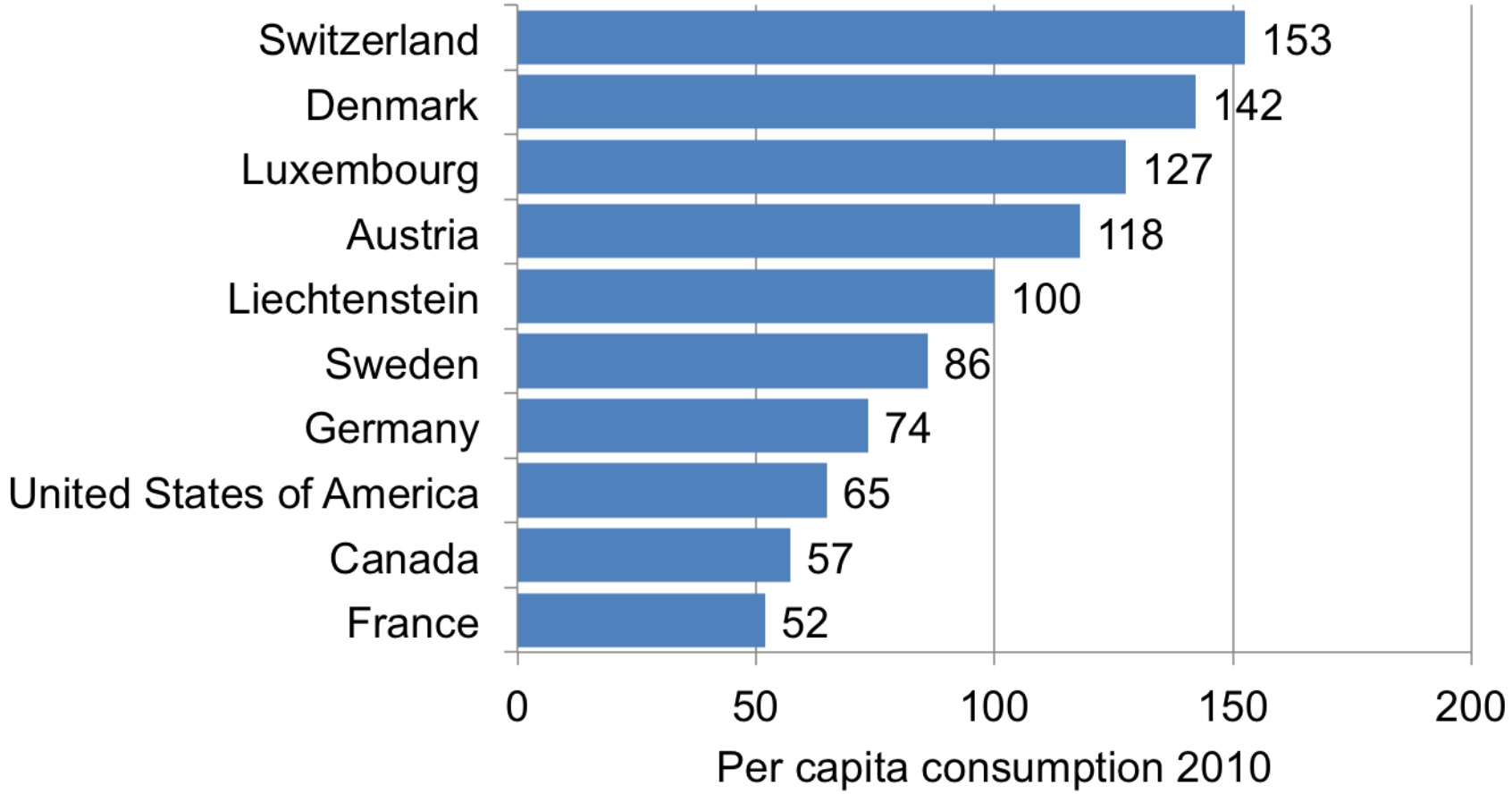
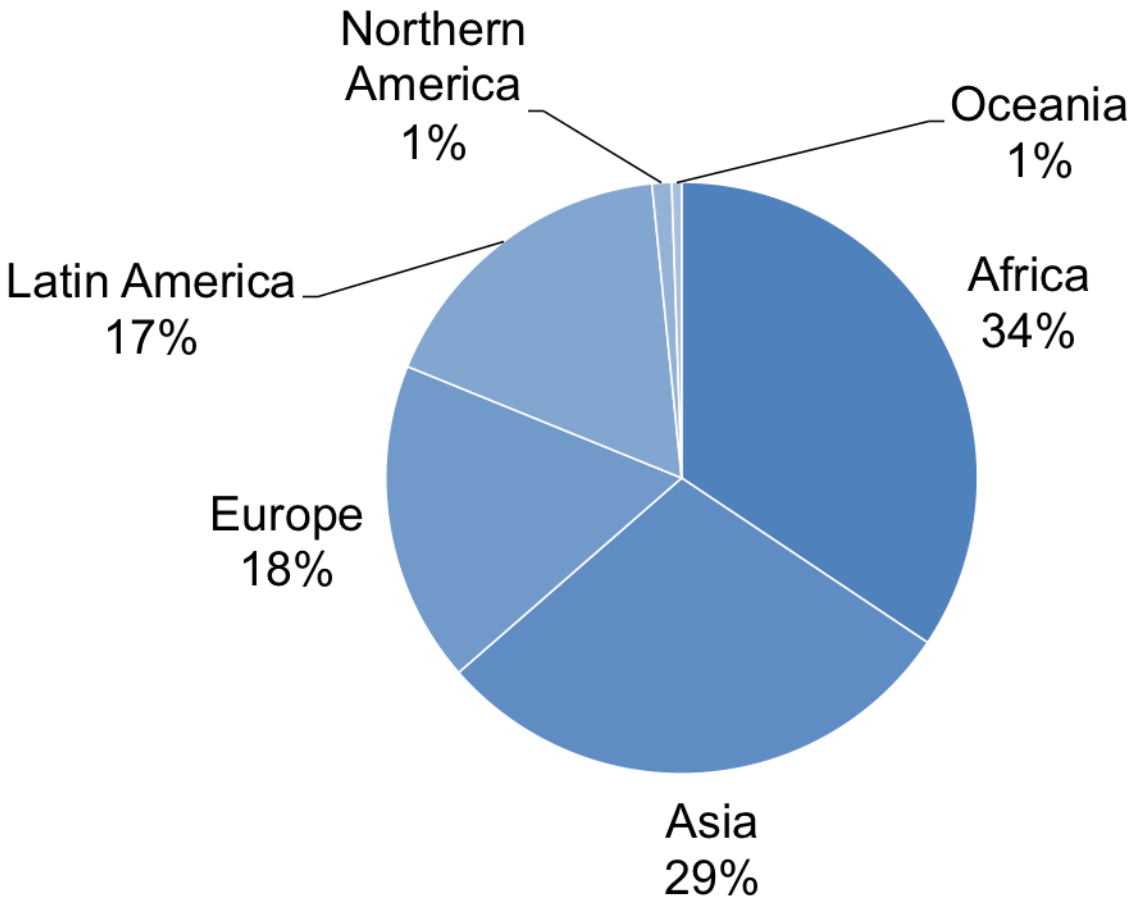
The ten countries with the highest per capita consumption of organic products 2010



Source: FiBL-AMI Survey 2012, based on data from governments, the private sector and market research companies.

Distribution of organic producers by region 2010



Source: FiBL-IFOAM Survey 2012, based on data from governments, the private sector and certifiers.

Some misconceptions about organic agriculture

- It is organic by default
- Organic products are aimed at a niche market for the wealthy
- Certification is expensive and bureaucratic
- Organic agriculture does not protect the environment and biodiversity

GLOBALG.A.P.
The Global Partnership for Good Agricultural Practice

Export-oriented smallholder agriculture is the most regulated agricultural sector, with compulsory and voluntary certifications

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Types of organic agriculture according to the guarantee system:

- ✓ Third-party certification (based on ISO 65)
- ✓Third-party certification - exception for smallholder groups
- ✓ Participatory guarantee system (PGS)
- ✓ Public or semi-public certification
- ✓ Public supervision of smallholder groups
- ✓ Direct sales
- ✓ Non certified

The challenge is to increase the number of farmers integrated to improved value chains at the local, regional, national and international levels – the smaller the level the higher the potential impact on biodiversity and food security.

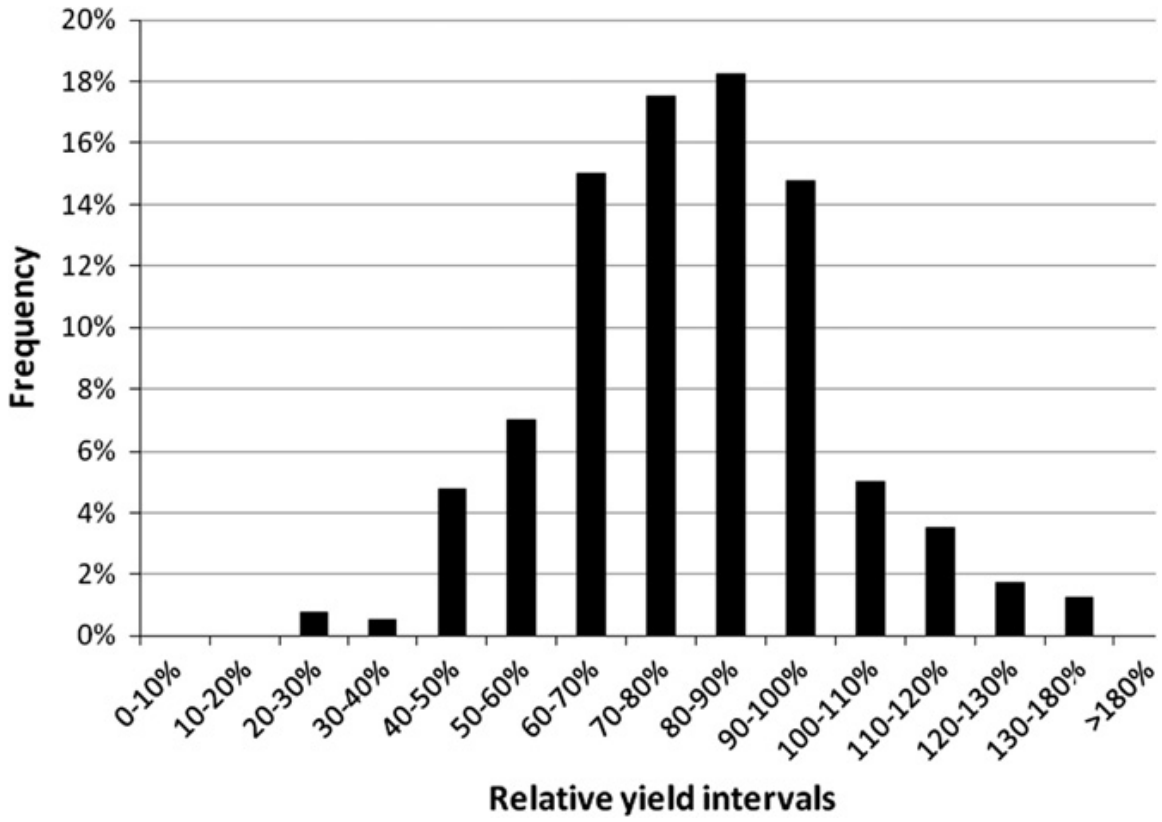


Fig. 1. Frequency of occurrence of relative yields of organic vs. conventional agriculture, grouped in 10% intervals.

De Ponti *et al*, 2012. The crop yield gap between organic and conventional agriculture

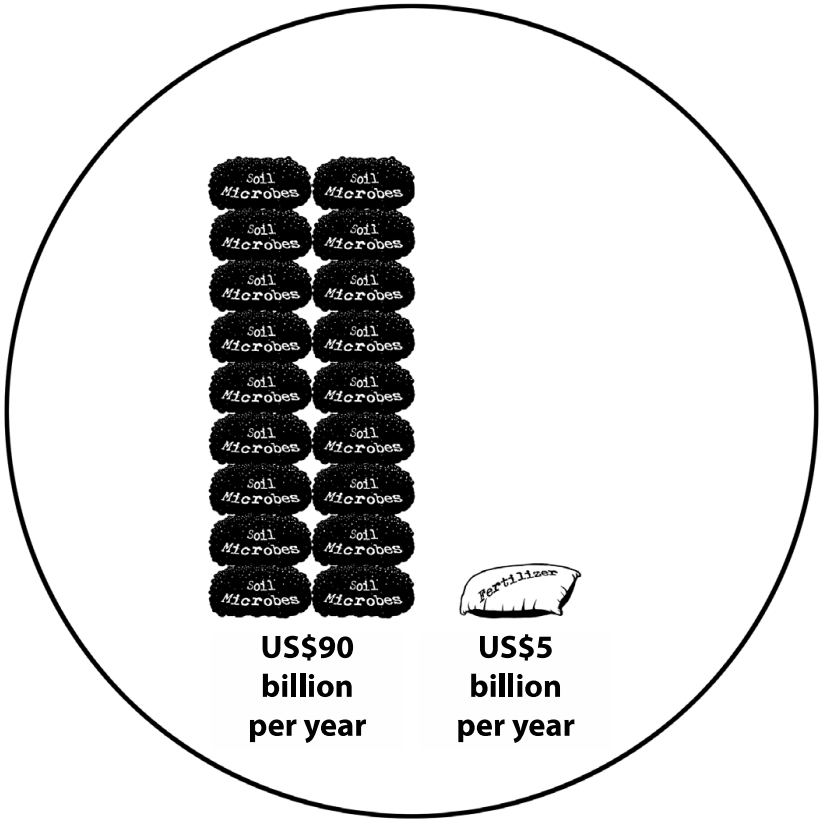
Box 7. Key improvements shown by case studies

Improvement to:	Mechanism:	Number of case studies which showed improvement (out of a possible 15)	Per cent
Amount of available food	• Increase in food produced • Increase in yields of food crops/ livestock	**12**	**80 (92)[a]**
Natural capital	• Benefits to natural environment – soils, water, fertility etc	**14**	**93**
Social capital	• Builds partnerships between groups • Increased community cohesion and cooperation	**14**	**93**
Human capital	• Increase in knowledge and skills of farmers • Health and education benefits to farmers, households and community	**15**	**100**
Physical capital	• Improvements to infrastructure and markets	**6**	**40**
Financial capital	• Increased incomes to farmers	**13**	**87**

[a] For two of the case studies examined (organic cotton in Uganda and Tanzania) increasing food production was not part of the remit, as such, in project objectives. If only those 13 case studies which were centred on food production were considered, the percentage would be 92 per cent. One case study did not provide data on food availability.

UNCTAD-UNEP. 2008. Organic Agriculture and Food Security in Africa.

The Value of Microbial Diversity



Microbial diversity in peasant farmers' soil fixes nitrogen worth $US90 billion per annum. By contrast, the world's seven giant fertilizer corporations have annual sales of less than $US5 billion.

Questions for the Food and Climate Crises. ETC Group, 2009.

Productive farms can be 'greener than organic’

Highlights

- It is important to include the opportunity costs of land use in agricultural Life Cycle Assessments.
- Integrated farming has potential to reduce negative environmental impacts.
- Land sparing can have higher biodiversity benefits than organic farming.
- GHG mitigation potential of various farming practices is quantified.
- Recycling of nutrients can mitigate GHG emissions.

Tuomisto *et al*, 2012. Comparing energy balances, greenhouse gas balances and biodiversity impacts of contrasting farming systems with alternative land uses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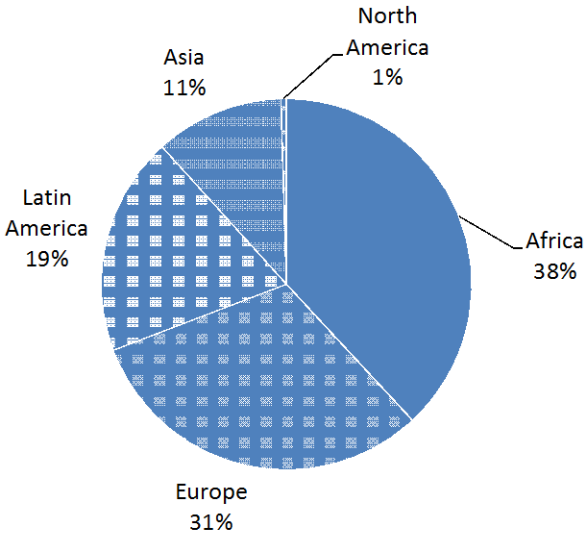
Huanuco, Peru: The oldest organic Saturday market in the country

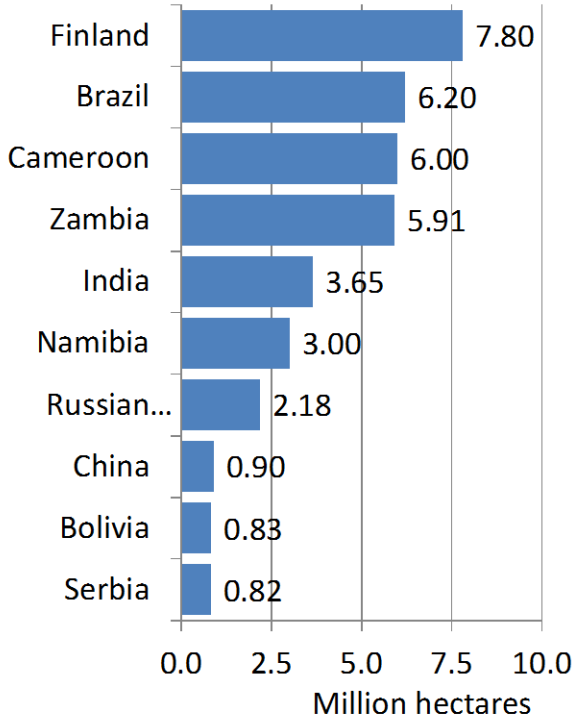
Organic Agriculture and Biodiversity

January 7, 2002

The 2000 IUCN Red List of threatened species of the world highlights habitat loss as the main threat to biodiversity, with agricultural activities affecting 70 per cent of all threatened bird species and 49 per cent of all plant species. However, despite agriculture being responsible for such well-documented losses in biodiversity, it can also provide a tool for biodiversity conservation if policies and approaches, which combine agricultural production and biodiversity conservation, can be defined and implemented…

Wild collection by continent and the ten countries with the largest wild collection areas 2010





Sustainability in organic agriculture

- Ecofunctional intensification
- Beyond input substitution
- Environmental impact: water!
- Social standards
- Biodiversity conservation

www.natureandmore.com