Feasible Alternatives to Industrial Livestock Production.
Organic Agriculture Perspective

Markus Arbenz, Executive Director of IFOAM
Introduction

Feeding the Planet in a sustainable way
Sustainable Organic Farming in Practice

1. IFOAM and Organic Agriculture (OA)
2. The challenge
3. The organic paradigm
4. Ecointensification
5. OA needs a feasible alternative to industrial livestock production
40 Years Leading, Uniting and Assisting the Worldwide Organic Movement.

• Definition of Organic Agriculture
• The 4 Principles of Organic Agriculture
• The Scope of Organic Agriculture
• The Family of Standards
• IFOAM Positions
• IFOAM Policy Briefs
THE DEFINITION OF ORGANIC AGRICULTURE

Organic Agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.

THE PRINCIPLES OF ORGANIC AGRICULTURE

Organic Agriculture is based on the principles of health, ecology, fairness and care.

Other terms used are: Bio, Biological, Eco, Ecological, Agroecological Farming, Low Input Agriculture, Sustainable Agriculture, Natural Farming, Biodynamic, Permaculture etc.

Some of these terms are legally protected, usually for a defined range of products, in some countries.
That’s Organic - Worldwide.

GLOBAL
IFOAM Standard
International Standard for Forest Garden Products (FGP)

AFRICA
Tunisia Organic Regulation
East African Organic Products Standard
EnCert Organic Standards, Kenya
Basic Norms of Organic Agriculture in Senegal, Senegal
Afriso Standards for Organic Production, South Africa
Siyavuna Organic Standards, South Africa
Organic Standards for Tancert, Tanzania
Uganda Organic Standard, Uganda

ASIA
Saudi Arabia Organic Regulation
China Organic Regulation
India Organic Regulation
Israel Organic Regulation

Note: Applicant standards are marked in grey.

JAPAN
Japan Organic Regulation
OFDC Organic Certification Standard, China
Hong Kong Organic Resource Center Standard, Hong Kong
IBOAA Organic Agriculture Standard, Israel
Japan Organic & Natural Foods Association Organic Standard, Japan
MASIPAG Organic Standards, The Philippines
CONU Organic Standard, South Korea
DCOK, LLC International Standards, South Korea
GOAA International Standards, South Korea
ACT Basic Standard, Thailand
Vietnam PGS Standards, Vietnam

EUROPE
EU Organic Regulation
Switzerland Organic Regulation
Turkey Organic Regulation

BIO SUISSE STANDARDS, SWITZERLAND
Organska Kontrola Standards for production and processing, Bosnia and Herzegovina
Biocyclic Standards, Cyprus
Nature & Progrès Standards, France
BioPark Guidelines for Organic Production and Processing, Germany
Ecoland Standards for Organic Agriculture and Food Production, Germany
Ecowellness Standard, Germany
G&G Private Standards, Germany
NaturLand Standards, Germany
CCPB Global Standard, Italy
Italian Organic Standard, Italy
Krav Standards, Sweden

SOUTH AMERICA
Argentina Organic Regulation
Costa Rica Organic Regulation
Argencert Organic Standard, Argentina

LETIS IFOAM Standard, Argentina
OIA Organic Standards, Argentina
Bolicert: Organic Standard for Production and Handling, Bolivia
Guidelines for the IBD Quality Organic Standard, Brazil

NORTH AMERICA
Canada Organic Regulation
USA Organic Regulation
DOAM Organic Standards, Dominica
Red Mexicana de Tianguis y Mercados Orgánicos’ Standard, Mexico
CCOF Global Market Access Standard, USA
Farm Verified Organic Requirements Manual, USA
NOFA Standards for Organic Land Care, USA
QCS Int. Program Standard Manual, USA

THE FAMILY OF STANDARDS contains all standards officially endorsed as organic by the Organic Movement, based on their equivalence with the Common Objectives and Requirements of Organic Standards. Both private standards and government regulations are admissible.

www.ifoam.org/ogs
THE ORGANIC MOVEMENT CAMPAIGNS FOR THE ORGANIC ALTERNATIVE

ADDRESSING

POVERTY AND HUNGER. CLIMATE CHANGE. GENETIC DIVERSITY LOSS. ECOCIDE. LAND GRABBING.

OPENING

OPPORTUNITIES FOR THE ORGANIC WORLD.
Ecuador: The Ayme family of Tingo
Food expenditure for one week: $31.55
Egypt: The Ahmed family of Cairo
Food expenditure for one week: 387.85 Egyptian Pounds or $68.53
United States: The Revis family of North Carolina
Food expenditure for one week $341.98
Food security

Number of undernourished people in the world, 1969–71 to 2010

- Millions
  - 1969–71: 850
  - 1979–81: 870
  - 1990–92: 850
  - 2000–02: 1050
  - 2005–07: 1080
  - 2009: 1120
  - 2010: 1160

More than 1.02 billion hungry people

- Near East and North Africa: 42%
- Latin America and the Caribbean: 53%
- Sub-Saharan Africa: 265
- Developed countries: 15%
- Asia and the Pacific: 642

FAO estimates that 1.02 billion people are undernourished worldwide in 2009. These are more hungry people than at any time since 1970, the earliest year for which comparable statistics are available.

Hunger has increased not as a result of poor harvests but because of high domestic food prices, lower incomes and increasing unemployment due to the global economic crisis. Many poor people cannot afford to buy the food they need.

The chart on the left shows where the world’s hungry people live.

- Hunger at a glance
- Policy brief
- More graphs

At Least Half of the World’s Population is Badly Served by Today’s Food Production Systems*

- People hungry: 1 billion
- People with micronutrient deficiencies: 1 billion
- People overweight and obese: 1.3 billion

Presumed adequately nourished: 3.3 billion

*Total Population: 6.6 billion
Facts and figures

• The world produces 125% of its need on calories
• Nevertheless, 1 Billion hungry people which are predominately the rural poor
• The world will need to produce 70 percent more food for an additional 2.3 billion people by 2050 while at the same time combating poverty and hunger, using scarce natural resources more efficiently and adapting to climate change.
• By 2050, the demand for livestock produces will double.
• Resources and technology for production increases are available, but not so the political willingness to ensure access to natural resources or income for all.
• 75% of the poor live in rural areas and depend on agriculture, 70% of present global food supplies come from smallholding family farms.
The main Food Security issues and debates

- Worsening ToT for farmers and the global south and volatile prices
- Agrofuels
- Land grabbing
- Losses, waste and inefficient livestock production
- Oil and P-peak
- R & D and Extension in Agriculture decreasing and shifted from Governments’ to private investments
- Concentration of companies controlling seed, fertilizers and pesticides
- Multi-functionality of agriculture and ecosystem services neglected
Livestock challenges

• Sharp increase of demand through more wealth and change of habits
• Inefficiency of livestock products
• Climate footprint (Methane, fodder transports, but also land use changes)
• External effects (positive and negative) not part of the value chain system
• Livestock a scapegoat for many ecological and ethical challenges, however no clear divide between livestock systems in the perception of people
• The social dimension: 500 Million poor depend on livestock alone.
Nearly 40% of our global grain supply feeds animals. Some 650 million tonnes of grain – nearly 40% of global production – is fed to livestock. That amount of grain is equivalent to the annual calorie needs of more than 3.5 billion people.
Figure 12: A gross estimate of the global picture of losses, conversion and wastage at different stages of the food supply chain

Verluste entlang der Ernährungskette (Parfitt J., et al. 2010)
Meat consumption

Source: FAOSTAT 2009
Einkommenswachstum ist ein Hauptgrund für steigenden Verbrauch.
Dichte arme Tierhalter (bezogen auf die Produktionssysteme)

- 56 Mio
- 10 Mio
- 166 Mio
- 39 Mio
- 26 Mio
- 199 Mio
- 59 Mio

Total: 555 Mio
Business as usual is not an option any more....

Continuing to focus on production alone will undermine our agricultural capital and leave us with an increasingly degraded and divided planet.

Prof. Bob Watson, Director IAASTD
OA offers the world an alternative to address global challenges

- Food security
- Climate change mitigation/adaptation
- Biodiversity conservation
- Sustainable natural resources (water, soil)
While organic agriculture contributes to hunger and poverty reduction and should be promoted, it cannot by itself feed the rapidly growing population.

J. Diouf, 2009 (FAO Director-General)
Yes, organic can feed the world!
Ecointensification: the new paradigm for the 21st century

More production on the same land, but based on ecological processes not on agro industrial inputs

- Organic farming optimizes system performance through the intensification of ecological knowledge, ecological practices and ecological functions rather than through intensification of finance, chemicals, energy and waste
- Organic farming builds the resilience of the farm itself rather than outsourcing resilience to companies through the purchase of fossil fuel intensive chemical inputs

poweredbynature
The goal is high efficiency thanks to Biodiversity

- **High external inputs, high recycling rates, crop–livestock integration**
  - Alta
  - High

- **Low external inputs, diversified with low levels of integration**
  - Baja
  - Medium-Low

- **High inputs, industrial monocultures**
  - Alta
  - Low

- **Specialized systems with low external inputs**
  - Baja
  - Medium

**Agroecosystem Diversity**
Milk and meat of industrial livestock keeping is cheaper on short term only

- 70% of agricultural land is grassland
- Its importance is mostly underestimated
- 30% of global carbon is stored in the soils of grasslands
- More than 30% of greenhouse gas emissions come from land use change
- E.g. Turning prairie soils in the US into monoculture crops caused on average 25% loss of topsoil and soil carbon.
DIE EVOLUTIONÄRE ERNÄHRUNG DES MENSCHEN

The Organic Movement needs the Livestock Alternative

- Combat hunger without livestock is not possible. OA is people, not production centered.
- Animals are crucial for nutrient cycles
- It is natural to consume Livestock produces
- OA is demand driven and bases production on the 4 organic principles
- Animal welfare is part of the organic principles
- We have to name the feasible alternative to Industrial Livestock Production
Thank you for your attention

Build in animal husbandry into the crop production system
Example 1: Diversity in the landscape
Example 2: Greening the Desert (Egypt)

The first SEKEM building in 1979

The same building in 2009

A SEKEM field in 1987

The same fields in 2009
Trends in Konsum, Produktion und Handel von Nutztieren und Tierprodukten

- Der Anteil tierischer Produkte in der Ernährung von Menschen in den Entwicklungsländern nimmt stetig zu durch
  - Einkommenswachstum
  - Urbanisierung
  - Bevölkerungswachstum und Bevölkerungsstruktur
  - Tierproduktion verschiebt sich von Industrieregionen in Entwicklungsregionen
Figure 11: Food losses for different commodities. (Source: Kantor et al., 1999).
Treibende Kräfte des Wandels im Agrar- und Nutztierbereich

- Der Nutztierbereich innerhalb des Agrarsektors ist sehr dynamisch
- Nutztiere beanspruchen
  - 60 % der gesamten landwirtschaftlichen Nutzfläche der Erde
  - 30 % der Erdoberfläche
  - 33 % der Ackerfläche der Welt für die Produktion von Tierfutter
- Nutztiere sind verantwortlich für 18 % der anthropogenen Treibhausgase

Treibende Kräfte des Wandels im Agrar- und Nutztierbereich

- Eine Milliarde Bäuerinnen und Bauern sind für ihr Einkommen und ihre Ernährung mindestens teilweise von Nutztieren abhängig
- Mehr als 500 Millionen der Armen dieser Welt (ca. die Hälfte aller Armen) ernähren sich und erwirtschaften ihr unzureichendes Einkommen vollständig durch Nutztiere
Treibende Kräfte des Wandels im Agrar- und Nutztierbereich

- Durch steigende Einkommen in der Mittel- und Oberschicht und *sinkende Nahrungsmittelpreise* haben sich die Essgewohnheiten in den letzten 40 Jahren in den Entwicklungsländern verändert:
  - weniger pflanzliche Grundnahrungsmittel
  - mehr Milch, Fleisch, Früchte, Gemüse (teurere Nahrungsmittel)
  - mehr verarbeitete Nahrungsmittel (zum Beispiel Fertigpizza in Indien)
Ein strategisches Prinzip

**Intensivierung ist notwendig**

- Mittelfristig können nur intensive Systeme („intensivere“) die wachsende urbane Bevölkerung ernähren
- Intensivierung reduziert die Menge der benötigten Ressourcen und produzierten Emission pro Einheit Produkt
- Intensivierung erleichtert die Regulierung in Richtung Null-Emissionen

*Also: Intensivieren aber nicht konzentrieren*
- Suche nach effizienter Ressourcennutzung
Vier Prinzipien (für die Nutztierpolitik)

- **Gerechte Preise**: Ineffiziente Ressourcennutzung, erhöht oft die Nutzung und führt zu Fehlallokation von Ressourcen zwischen konkurrierenden Nutzungen (innerhalb und ausserhalb der Landwirtschaft)

- Anwendung von “Verschmutzer bezahlt, Erbringer von ökologischen Leistungen wird bezahlt” Prinzipien

- Anstreben einer guten: Ökobilanz: Nutztiere ins Gleichgewicht zum umliegenden Land bringen (AWI)

- Die Nutztierbranche muss die Nachhaltigkeit selber vorantreiben, muss Vorreiterrolle spielen

- **Erkennen und abstimmen von verschiedenen Zielen**
Der Anteil tierischer Produkte in der Nahrung von Menschen in den Entwicklungsländern nimmt stetig zu.

Durchschnitt weltweit: 39 kg /P/J

Source: FAO data reported in Delgado et al., 1999.
Der Anteil tierischer Produkte in der Nahrung der Menschen in den Entwicklungsländern nimmt stetig zu.

Source: FAO data reported in Delgado et al., 1999.