agri benchmark ORGANIC
an approach to understand and compare organic farming systems world-wide

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Jürn Sanders, Gerold Rahman

Institute of Farm Economics
Institute of Organic Farming

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1. Why do we need to compare organic systems?

To sum up

- Organic supply and demand is growing
  → international trade / quality standards / competitiveness are becoming more important
- General information on organic farming available
  → FiBL/IFOAM: World of Organic
- BUT – There is a lack of detailed information on
  - production structures
  - economic performances
  - processing and trade
  at global scale

2. What is agri benchmark?

Growth of the global organic area and market for organic food and drinks, 2000-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Area (million hectares)</th>
<th>Revenues (billion US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>10</td>
<td>10</td>
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<tr>
<td>2001</td>
<td>20</td>
<td>20</td>
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<td>2002</td>
<td>30</td>
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<td>2003</td>
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<td>2004</td>
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<td>2005</td>
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<td>2006</td>
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<tr>
<td>2007</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>2008</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>2009</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Revenues (billion US$)
Key characteristics

- International network of agricultural economists, advisors, producers and specialists in key sectors
- Internationally standardised methods to analyse farms
- Combination of farm-level knowledge, international commodity markets and value chains
- “You put your country in and get the world back”

Countries in the agri benchmark Cash Crop Network

Crops in the comparison:
- Corn
- Soybeans
- Wheat
- Sugar beet
- Rice
- Rapeseed
- Oats
- Rape
- Maize
- Sunflower
- Groundnut
- Cotton
- Flax
- Beans
- Palm oil

Countries in the agri benchmark Beef & Sheep Network

Countries participating in the agri benchmark Cash Crop

Countries in the agri benchmark Beef & Sheep Network

Participating countries 2011

Participating countries with national networks

Participating countries with national networks based on agri benchmark

Contact for further growth

Establishment of further agri benchmark branches

Commodity related
- Dairy
- Pig and poultry
- Horticulture

Farming system related
- Organic farming

Approach

First step: Description of the organic sector

Second step: Comparison of production costs

Third step: Comparison of ecological parameter (e.g. GHG emission, soil quality)
Step 1 - Description of the organic sector

Country profile

- Area under organic management
- Number of organic farms
- Production structure (e.g. farm size, land use, crop rotation)
- Number of farm animals per livestock category
- Production techniques (e.g. pasture, silage, feedlot, cut&carry for beef cattle)
- Physical performances / Yields
- Farm gate and consumer prices
- Processing and trade structure
- Import and export
- Production and certification requirements

Overview of ecological indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Environmental areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Nitrogen saldo</td>
<td>++</td>
</tr>
<tr>
<td>2 Phosphorus saldo</td>
<td>++</td>
</tr>
<tr>
<td>3 Organic matter level</td>
<td>++</td>
</tr>
<tr>
<td>4 Energy efficiency</td>
<td>++</td>
</tr>
<tr>
<td>5 Greenhouse gase emission</td>
<td>++</td>
</tr>
<tr>
<td>6 Soil compaction</td>
<td>++</td>
</tr>
<tr>
<td>7 Biodiversity potential</td>
<td>++</td>
</tr>
<tr>
<td>8 Land erosion</td>
<td>++</td>
</tr>
<tr>
<td>9 Product intensity</td>
<td>++</td>
</tr>
<tr>
<td>10 Landscape protection</td>
<td>++</td>
</tr>
</tbody>
</table>

Example: sustainable indicators for German organic and conventional farms

Milk yield per cow life

Energy input and –output of a farm ha⁻¹

Biodiversity
Summary and outlook

What agri benchmark is bringing to the table

1. National and local capacity building through
   - trainings
   - joint data collection / focus group discussions
   - joint research projects.
2. Exposure of national experts to global developments: creates ability to judge external impacts; allows to build own networks.
3. A lasting national infrastructure of experts, farmers (groups) and advisors (if any).
4. Make transparent natural, political and economic framework conditions and use of technologies and their impact on farmers decisions and production/income.
5. Creation of time series: demonstrate how production systems evolve over time.
Step 2 - Comparison of production costs

The data and the methods

- Typical farms representing majority of production in important regions (e.g. typical organic dairy or beef farm)
- Typical production systems = prevailing
- Harmonised selection of regions, farming systems, data collection and processing (standard operating procedure)
- Feedback with advisors and producers
- Detailed production systems and economic / financial data
- Whole farm data and allocation of costs to enterprises
- Consistent data sets and comparability of results

Mission statement

agri benchmark – understanding agriculture worldwide

agri benchmark is a global, non-profit network of agricultural economists, advisors, producers and specialists in key sectors of agricultural the value chains. We use internationally standardised methods to analyse farms, production systems and their profitability. Our farm-level knowledge is combined with analysis of international commodity markets and value chains. In this way we are able to provide scientifically consistent and soundly based answers on strategic issues to decision makers in policy, agriculture and agribusiness.

Step 2 - Comparison of production costs / Example beef

Production systems– feeding and management

<table>
<thead>
<tr>
<th>Region/Region</th>
<th>Feedlot</th>
<th>Feedlot</th>
<th>Feedlot</th>
<th>Feedlot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasture</td>
<td>Silage</td>
<td>Other</td>
<td>Feedlot</td>
</tr>
<tr>
<td>North America</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>South America</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Europe</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Asia and Africa</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>

Annex
Share of organic area in total UAA, 2009

Estimated value of exports of organic food and drinks in selected countries, 2009

Source: Own presentation based on IFOAM / FIBL (2011)