Advancing organic farming through research, development and innovation

Bram Moeskops
Senior Scientific Coordinator

26 February 2019
Our mission

To strengthen research & innovation for organics and other agroecological approaches that contribute to sustainable food and farming systems
Growing political challenges

Transforming food and agriculture is key to SDGs
A safe and just space for humanity

Source: Kate Raworth, 2012.
Transforming food and farming systems by 2030

» Three narratives
  » Efficiency narrative
  » Consistency narrative
  » Sufficiency narrative
Efficiency narrative: producing more with less

Source: http://precisionagricultu.re/producing-more-with-less/
Consistency narrative: respect boundaries of ecosystem

Sufficiency narrative: avoid rebound effect
Diversified farming systems based on ecological approaches

Diversified farming systems based on ecological approaches
Main research needs

» Most organic research focuses on temperate zones
» Need to combine local tradition with innovation for smallholder organic farming
» Soil fertility building + tillage systems
» Cultivars + breeds suitable for organic
» Biocontrol + weeds
» Aquaculture
» Reduction of parasite pressure
» Mastitis prevention and therapy methods
Redesign of food and agricultural policies

Redesign of food and agricultural policies
Main research needs

» New policy mixes: sustainable food policies
» Internalisation of external costs
  » New calculations of food value – linking costs to carbon/water demand
  » New methods rewarding public goods provided by farmers
» Research on possible communication methods to reach policy makers and consumers
Redesign of food and agricultural policies
Indicators (example SAFA guidelines)

Source: FAO symposium “Towards Sustainable Food Systems” (2013)
Sustainable food systems for sustainable consumption

Source: https://westoahu.hawaii.edu/ekamakanihou/wp-content/uploads/2017/05/Food-System.jpg
Sustainable food systems for sustainable consumption
Main research needs

» Assessing factors of consumer trust in different regions
» Sustainable diets
» Development of sustainable packaging materials
» Reduction of food waste
» Small-scale processing technologies for tropical products
  » Efficient cracking of indigenous nuts
  » Solar drying
Budget needed

» Less than one percent of the budget for food and farming research is spent on organic

» There is a lack of funding for basic and applied projects

» This hinders development of innovations by scientists and farm advisors.

<table>
<thead>
<tr>
<th>Continent</th>
<th>Research (million US$)</th>
<th>Extension</th>
<th>Networks</th>
<th>Farmland (million hectares)</th>
<th>Share of total farmland (%)</th>
<th>Markets (billion US$)</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>~ 5</td>
<td>poor</td>
<td>poor</td>
<td>1.7</td>
<td>0.1</td>
<td>&lt;0.1</td>
<td>big, poorly addressed</td>
</tr>
<tr>
<td>Asia</td>
<td>~ 20</td>
<td>poor</td>
<td>insufficient</td>
<td>4.0</td>
<td>0.2</td>
<td>6.9</td>
<td>big, poorly addressed</td>
</tr>
<tr>
<td>Europe</td>
<td>~ 180</td>
<td>moderate</td>
<td>moderate</td>
<td>12.7</td>
<td>2.5</td>
<td>33.0</td>
<td>addressed with some progress</td>
</tr>
<tr>
<td>Latin America</td>
<td>~ 20</td>
<td>insufficient</td>
<td>moderate</td>
<td>6.7</td>
<td>0.9</td>
<td>&lt;0.1</td>
<td>big, poorly addressed</td>
</tr>
<tr>
<td>North America</td>
<td>~ 60</td>
<td>insufficient</td>
<td>moderate</td>
<td>3.0</td>
<td>0.7</td>
<td>42.8</td>
<td>addressed, but insufficient</td>
</tr>
<tr>
<td>Oceania</td>
<td>~ 5</td>
<td>poor</td>
<td>poor</td>
<td>22.8</td>
<td>5.4</td>
<td>1.2</td>
<td>big, poorly addressed</td>
</tr>
<tr>
<td>World</td>
<td>~ 290</td>
<td>poor</td>
<td>poor</td>
<td>50.9</td>
<td>1.1</td>
<td>84.0</td>
<td>big, poorly addressed</td>
</tr>
</tbody>
</table>
Strategies to advance global organic agricultural research and innovation

» Development of research methods appropriate for organic farming systems and practices,

» A renewed partnership between farmers, farm advisors, scientists, and consumers

» Integration of technological, social, and ecological dimensions of innovation
Strategic Research and Innovation Agendas

2009

2014

2019
THANK YOU FOR YOUR ATTENTION

See you at Organic Innovation Days – November 2019

Bram Moeskops
bram.moeskops@tporganics.eu

www.tporganics.eu
Knowledge exchange + picture of face to face knowledge exchange