Organic livestock in the tropics – a neglected opportunity?


Photo A. Buerkert

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Science Day 2016 at Biofach- 12.02.2016

Organic livestock in the tropics – a neglected opportunity?

I. Current situation of organic livestock husbandry in the tropics

II. Frame conditions

III. Possible areas of research and action

Photo S. Riedel

Some general remarks…

Terrestrial livestock husbandry

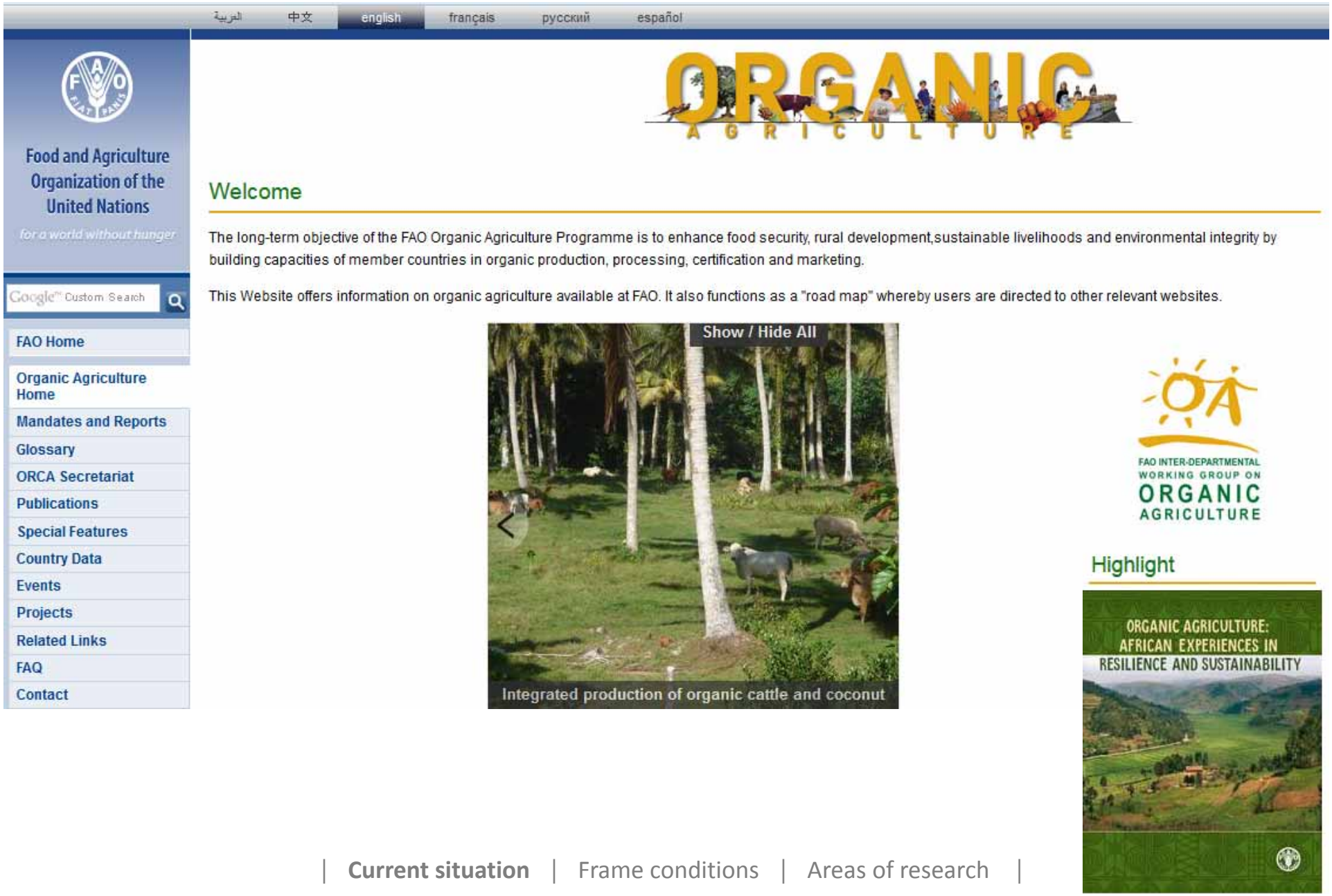
… uses ~30% of ice-free terrestrial surface

… employs ~1.3 x 10^9 people

… secures the livelihood of 600 x 10^6 poor / small-scale farmers

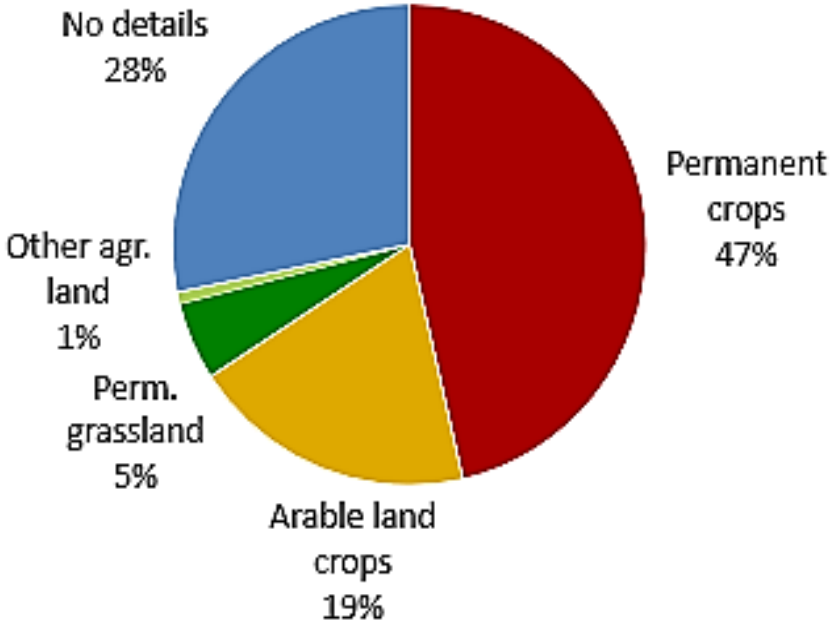
→ ~20% of the global population is involved in small-scale livestock keeping

Organic livestock production data for Africa, Asia, Latin-America?



Organic livestock production data for Africa, Asia, Latin-America?

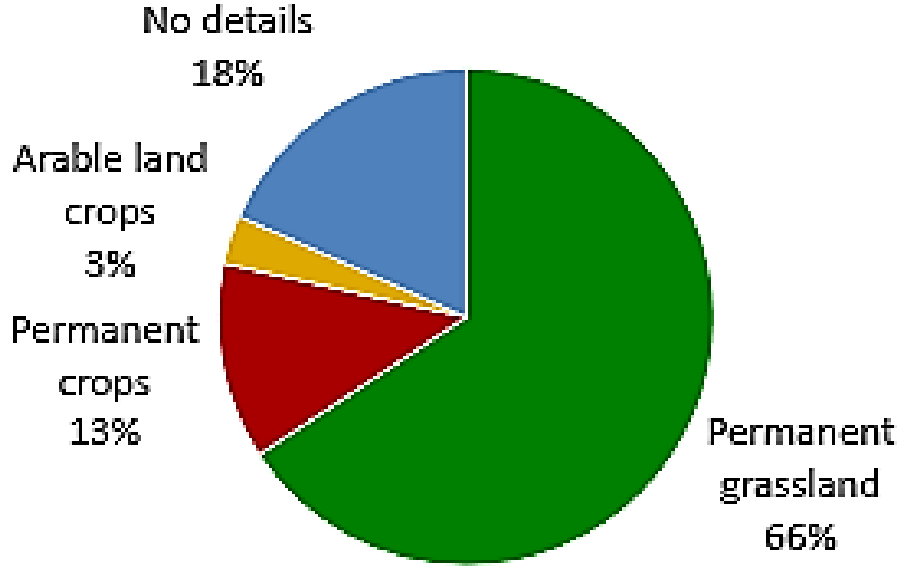
FiBL The World of Organic Agriculture 2015 – Land use data 2013



Africa (1.2 * 10^6 ha)

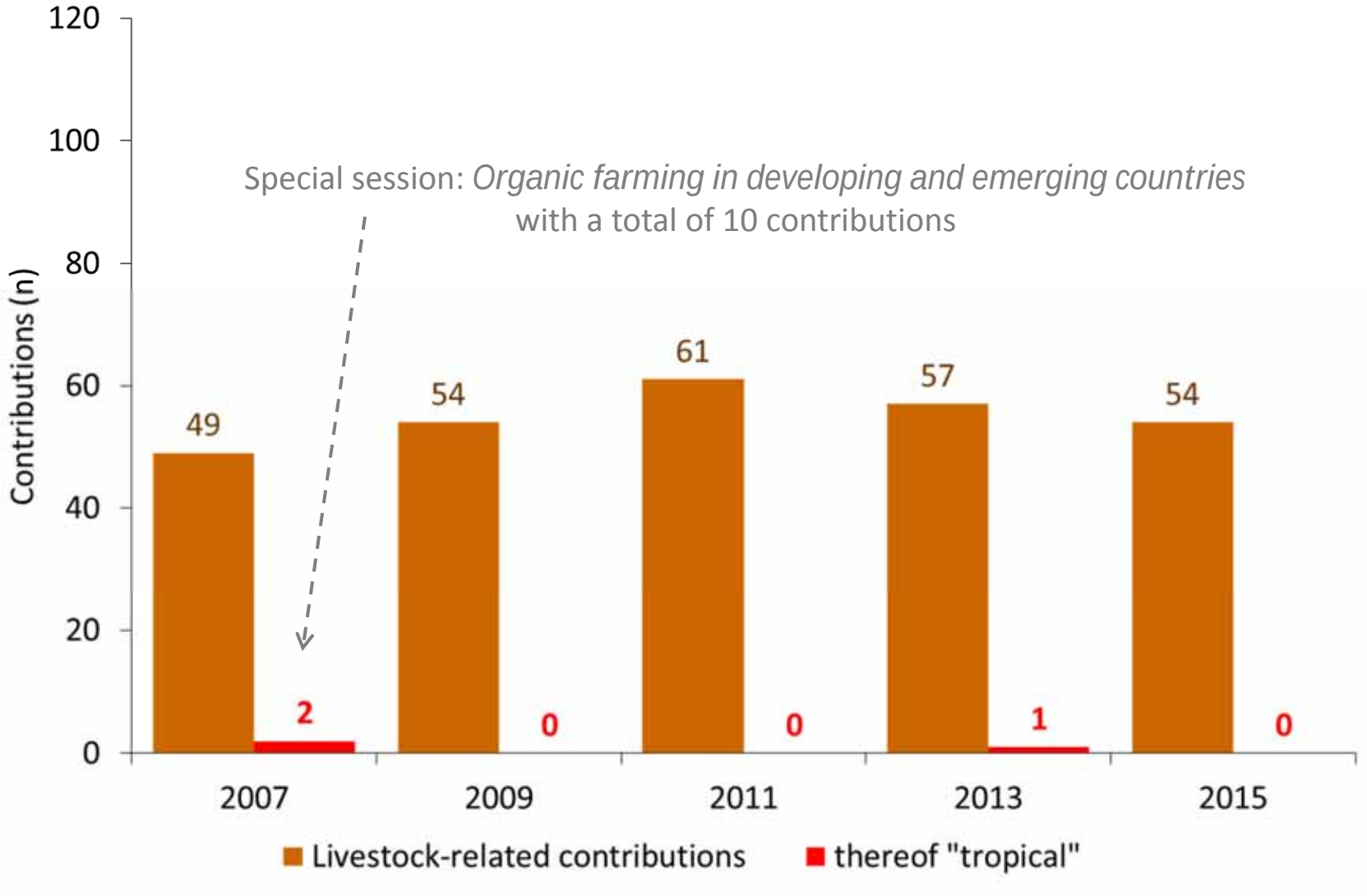
Pasture allowance ~2ha/animal*year
→ 2,1780,00 organic grazers?

L-America & Caribbean (6.6 *10^6 ha)

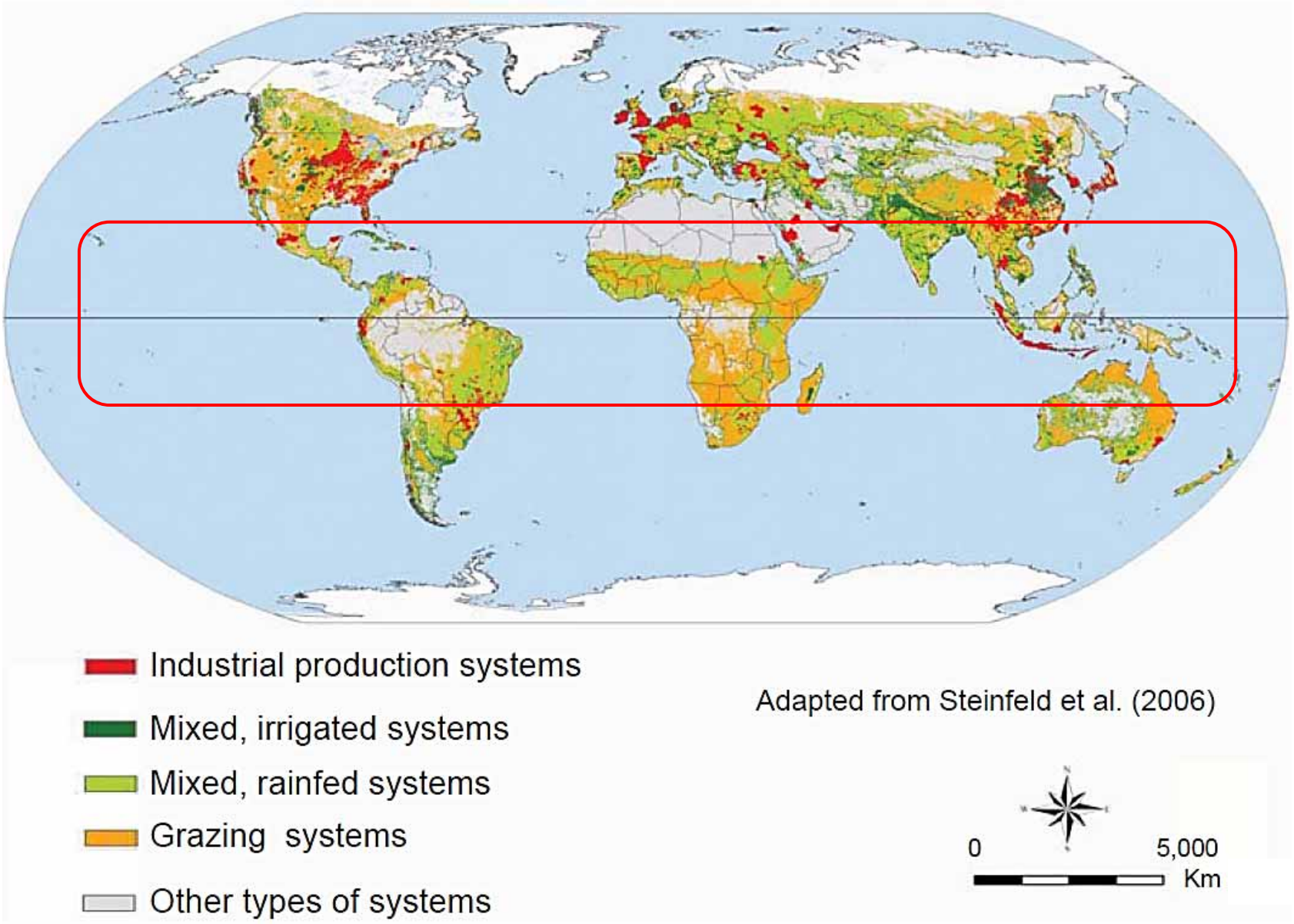


Scientific interest in organic livestock farming in the tropics

Contributions to “Wissenschaftstagung Ökologischer Landbau“



Global distribution of major livestock systems



Livestock systems in tropical countries

- Are for the vast majority small-scale and show a low level of mechanization
- Cannot produce all animal feed on the farm → grazing on communal land, roadsides, harvested fields
- Have to cope with seasonal feed scarcity and low quality feeds
- Have no / rudimentary animal houses
- Rarely & irregularly use agrochemicals (e.g. acaricides) / veterinary drugs


Photo A. Buerkert

Traditional tropical livestock systems - organic by default ?

- Traditional low external input animal husbandry ≠ organic
- Conflicting issues
  - Animal health: some diseases can only be prevented through allopathics
  - Animal welfare: inappropriate housing, cruel traditional medical practices
  - Animal nutrition: grazing common grounds prohibits feed quality control

- BUT: Many consumers and farmers are interested in healthy food products and sustainable utilization of (natural) resources / environmental protection


Photo A. Buerkert

Frame conditions of organic livestock production in the tropics

- Small farmers mainly market their products (low volume, not / little processed) through informal and local markets

- Food chains get longer and more complex, include numerous safety and quality aspects

- Educated / wealthier consumers turn to supermarkets, processed and packed food

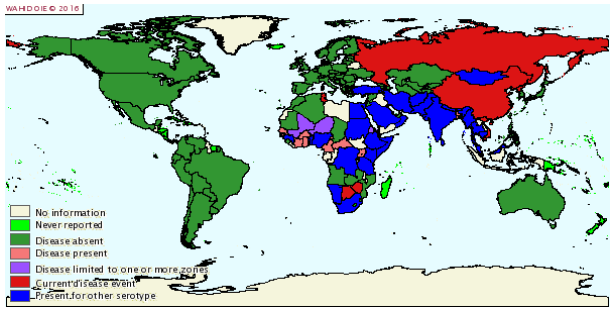
- Economies of scale & agglomeration → advantages in meeting standards, acquisition of inputs, marketing / sale of products


Photo A. Buerkert

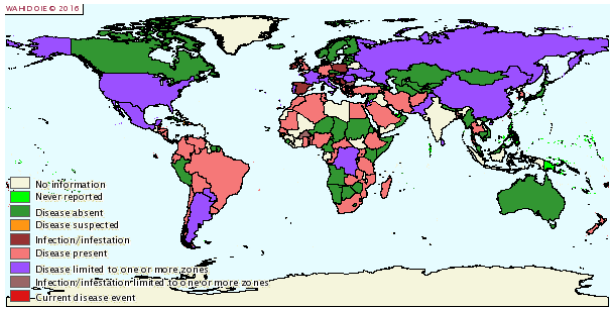
Frame conditions of organic livestock production in the tropics

- Local / regional markets for organic livestock products exist,
  for African producers e.g. in large cities (Nairobi, Cape Town, Accra…),
  and in the Gulf countries
- Even within regions, but especially on the international scale, prevalence of zoonoses such as foot-and-mouth disease exclude countries / regions from formal large-scale trade of animals and (raw) livestock products

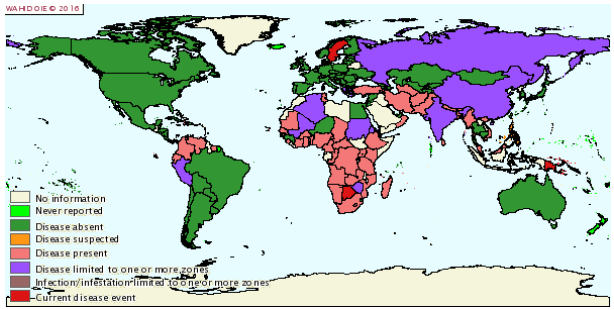
→ low incentives to take up certified organic livestock farming



Foot-and-mouth disease



Bovine tuberculosis



Newcastle disease

OIE disease distribution maps for Jan – Jun 2014

Organic (livestock-based) agriculture in the tropics

- Focus in production and research is on
  plants – cereals, legumes, tubers, vegetables, fruits, coffee, cocoa, nuts
- With respect to livestock, sizeable certified organic production exists for
  - Honey (central & south America)
  - Aquatic organisms (south-east Asia)
  - Beef (Brazil, Argentina, parts of east & south Africa)
  - Dairy products (Egypt, S-Arabia, UAE, Brazil, India)
  - Poultry (only locally relevant)
  - Pigs (only locally relevant)

→ For products from mammals & birds, international exports are negligible, except for beef

→ Growing production and marketing of green & organic livestock-based foods in China;
mostly traded within the country / region


Photo A. Buerkert

Research and **action** to foster organic livestock husbandry

Areas (as per IFOAM 2014 norm):

5.1 Livestock management:

5.1.2 Environment, installations, animal density and herd size must allow for species-specific **behavior**

5.1.3c Protection from direct sunlight, wind, rain … *(= adequate housing)*

5.1.6 Control of pests and diseases in animal houses *(and beyond!)*

5.2 Animal origin and conversion period

5.4.2 Animal provenience:

- Animals must be born and raised on organic farms
- Max. 10% of breeding animals may originate from conventional farms
- Female animals from those farms may not yet have any offspring when joining the organic farm

Research and **action** to foster organic livestock husbandry (ctd.)

5.3 Breeds, breeding:

Breeds must be adapted to the environment

(they are, but often production is low)

5.4 Mutilations:

Mutilations such as castration, tailing or dehorning are prohibited; there are some regional exceptions, but only allowed with anesthesia

traditional health care also includes branding, bleeding… → mutilations / pain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5.5 Animal nutrition:

Animals can cover their nutritional requirements with organic and qualitatively good fodder

Research and **action** to foster organic livestock husbandry (ctd.)

5.6 Veterinary medicine:

Organic animal husbandry fosters & maintains animal health and welfare through

- balanced organic feeding (?)
- stress-free living conditions (?)
- breeding for resistance against diseases, parasites, infections (??)

selection for health traits, especially disease resistance, is only partly feasible and takes long until success is reaped

5.7 Transport and slaughter:

Stress for animals during transport and slaughter has to be minimal

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Further areas of action

- Product harvest, handling, processing
- General & specific education, training, consulting

- Social capital building through cooperatives, knowledge exchange, participatory learning (government / NGO-supported)
- Cooperative conversion to organic, certification, record-keeping & auditing, purchase of inputs, transformation & marketing of products
- Identification & use of niches – e.g., regional markets, hotels, specialty shops

- Efficient coordination, reduced bureaucracy
- Lobbying for supportive legal framework and policy incentives


Photo A. Buerkert

Selected literature

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