The usefulness of *agri benchmark* for developing and emerging countries

*Livestock futures conference*, Bonn September 6, 2012
Contents

A. Who we are

B. What we do

C. *agri benchmark* and livestock projects in developing and emerging countries
Contents

A. Who we are
agri benchmark Branches

Cash Crop
- Cereals
- Oilseeds
- Sugar
- Other

Beef and Sheep
- Cow-calf
- Fattening

Pig and Poultry
- Sows
- Fattening

Dairy

Horticulture

Organic

Coordination

EU: EDF

Global: IFCN
What is *agri benchmark* Beef and Sheep?

*agri benchmark* – understanding agriculture worldwide

- **Our core competence:** Production systems and their economics
- An expert network which started in 2002 >>> more than just data
- Global, non-profit, independent >>> credibility
- Standardised methods >>> global comparability
- Reflecting framework conditions and drivers >>> comprehensiveness
Countries in the *agri benchmark* Beef & Sheep Network

- 67 beef finishing farms in 25 countries
- 47 cow-calf farms in 20 countries
- 15 sheep farms in 8 countries

A. Who we are
Countries in the **agri benchmark** Beef & Sheep Network

**Typical Farm Approach**

- **National level:** production regions
- **Regional level:** production systems
- **Local level:** Production systems: typical farms
- **Typical farms:** Size, management, feeding, etc.

- Countries with sheep analysis
- Contacts for further growth
- Participating countries (PC) 2012
- PC with own national farm networks
- PC with own national farm networks based on **agri benchmark**
Partners of *agri benchmark* Beef and Sheep

**Europe**
- Arge Rinio
- Tragsotec
- Agralyx
- Instituto de L'Elevage
- LRF Konsult
- Zealon
- C.R.A.
- VTI
- EBLEX
- INRA
- Novus
- IUSB

**North America**
- Kansas State University Department of Agricultural Economics
- University of Alberta

**Africa**
- University of the Free State
- National Agricultural Marketing Council

**South America**
- FAUBA
- Cepea
- COBRA

**Oceania / Asia / Middle East**
- NSW
- Charles Sturt University
- MLA Meat & Livestock Australia
- IAED
- Acepas
Contents

A. Who we are

B. What we do
B. What we do

- **Create** a harmonised database of typical farms
- **Analyse** the farms using harmonised methods for benchmarking by regions, by production systems
- **Provide** up-to-date sector information
- **Validate** results at the Conferences (Beef & Sheep conference)
- **Participate and promote** special studies and research and developing projects
- **Publish** the results in the annual Reports (Beef & Sheep reports)
- **Improve** methods continuously
- **Exchange** ideas on current issues and research projects
Some examples (cow-calf)

Land intensity in cow-calf farms

B. What we do
B. What we do

Some examples (cow-calf)

Margin over cash costs in cow-calf 2005-2011

USD per 100 kg life weight
Some examples (Beef fattening)

Total cost by countries 2011

US$ per 100 kg carcass weight sold
Some examples (Beef fattening)

Total cost by production systems 2011

US$ per 100 kg carcass weight sold

- Pasture
- Silage
- Feedlot
Some examples (Sheep – lamb fattening)

Costs of the ewe enterprise

3.6.1 Cost of the ewe enterprise by factor and non-factor costs - absolute values

US$ / 100 kg LW

- Total capital cost
- Total land cost
- Total labour cost
- Non-factor costs
B. What we do

Some examples - Emission benchmarking (Cow-calf and finishing)

1. Higher weight gains – lower emissions
2. How much sequestration is possible on grass?
3. Something forgotten in feedlot emissions?
4. Land use changes difficult to quantify (reference)

Source: Own calculations
Some examples (Emissions from transport – return included)

Note
Latest research shows that the proportion of transport emission of Brazilian beef to Europe has a proportion of less than 2 percent in total emissions (farm level + transport).
Source: Bedoya et al. (2011)
B. What we do

Some examples
(Institut de l’Elevage is implementing LCA using agri benchmark)

Agri benchmark
and Environmental assessment

- What has already •
  - « Emission Benchmark •
    → A consistent data set

- The Agri benchmark
  • environmental reference
    × Harmonized and well defined
    × make it possible to
      understand the different
      diversity, variability,
    × discuss about the figure

LCA = An environmental assessment in 3 points

- Multicriteria :
  × Climate change (GHG), Water quality, Energy, …
  → to avoid pollution transferts (i.e. from soil to air)

- Global:
  × Whole life cycle, or part of it
  → to avoid transferts from one step to an other

- Fonctionnal Unit
  × The fonction of the product, or of the system
    (kg of live weight meat, kg of meat produced, ha …)

Source: Beef conference 2011 (Armelle Gac, Institut D’Elevage, France)
Contents

A. Who we are

B. What we do

C. *agri benchmark* and livestock projects in developing and emerging countries
   - Indonesian project
   - FAO project and Maghreb region
   - Other initiatives and expectations
Indonesian project
Benchmarking the Beef Supply Chain in Eastern Indonesia

Supply chain

- Farmer
- Trader
- Butcher/Abattoir
- Wholesaler
- Retailer/Catering
- Consumer

Cost from buying animals or meat from previous level
Cost of production and value adding on own level
Returns
Margin

Source: Benchmarking the beef supply chain in eastern Indonesia - Deblitz at al, ACIAR 2011
## Indonesian project
### Comparing incomes and costs

![Bar chart comparing incomes and costs for different regions and sectors.](chart)

- **AU-FEED**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.
- **ID-EXT**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.
- **ID-SEM-DRY**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.
- **ID-SEM-IRR**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.
- **ID-INT-DRY**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.
- **ID-INT-IRR**: Animal purchase, Other cash costs, Depreciation, Labour costs, Land costs, Capital costs, Beef returns.

**Source:** Benchmarking the beef supply chain in eastern Indonesia - Deblitz et al., ACIAR 2011

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1000 IDR per 100 kg carcass weight
FAO project and Maghreb region

Farm level monitoring and projections

agri benchmark, a complementary tool for FAO policy work at country level
Experiences from the Maghreb Region

Source: CFS37, side event. Farm level monitoring and projections, Feiler, 2011
## FAO project and Maghreb region

Agri benchmark complementarity and compatibility with FAO policy work in the region

<table>
<thead>
<tr>
<th>Selected FAO core functions</th>
<th>Agri benchmark</th>
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<tbody>
<tr>
<td>b) Stimulating the generation, dissemination and application of information and knowledge</td>
<td>Major objective</td>
</tr>
<tr>
<td>d) Articulate policy and strategy options and advice</td>
<td>Aim of utilization</td>
</tr>
<tr>
<td>e) Provision of technical support to promote technology transfer, catalyze change and build</td>
<td>Outcome when using the tool</td>
</tr>
<tr>
<td>capacity</td>
<td></td>
</tr>
<tr>
<td>g) Bring integrated, interdisciplinary and innovative approaches to bear on the Organization’s technical work and support services</td>
<td>Impact when using the tool</td>
</tr>
<tr>
<td>h) Work through strong partnerships and alliances where joint action is needed</td>
<td>Underlying philosophy of the tool</td>
</tr>
</tbody>
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Source: CFS37, side event. Farm level monitoring and projections, Feiler, 2011
### Other initiatives

agri benchmark is participating in the Livestock Dialogue (IMS)

<table>
<thead>
<tr>
<th>Topic</th>
<th>agri benchmark possible contribution</th>
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</table>
| 1] Closing the efficiency gap                                        | • Measuring productivity differences of production systems  
• Evaluating the economics of more efficient systems and their implications |
| 2] Restoring value to grasslands                                     | • Economics of existing and improved grazing systems                                                              |
| 3] Reduced discharge                                                  | • Emission and life cycle analysis of beef production 
• Environmental benchmarking of livestock supply chains                                                              |
Other initiatives

Participation in the World Agricultural Watch (FAO-CIRAD)

- The aim of WAW is to conduct comparative analyses on various scales, by organizing a network of national observation centres, covering the different types of agriculture, their dynamics, structural change and their impact in terms of sustainable development.
- A pilot project between WAW and *agri benchmark* is under discussion.

In the process

- ILRI (two exploratory meetings)
- Sustainable Livestock Grazing Systems on Chinese Temperate Grassland Project (Gansu – Inner Mongolia - ACIAR)
We, as a network …

- ... have observed:
  - Land tenancy and availability, labour (skilled and competition)
  - Being part of the value chain (market oriented – avoiding distortions)
  - Access to services (know how, technology adaptation, training)
  - Farmers organizations

- ... can provide:
  - Measurement and benchmarking (comparability, household considerations)
  - Capacity – building (access to information, analysis and simulation)
  - Visibility (participatory approach showing results, potentialities and possibilities)
  - Understanding regional differences and economic rationality behind production systems and farmers reactions

- ... would expect:
  - Increase participation from developing countries
  - Access to local contacts in countries like India, Pakistan and Kenya for the participation in the network activities
Livestock Network Platform

Participating countries (PC) 2012
PC with own national farm networks
PC with own national farm networks based on agri benchmark

Countries with sheep analysis
Contacts for further growth
Thanks for your attention

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Visit our webpage: **www.agribenchmark.org**

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FAO project and Maghreb region

Outlook

- Build on what exists: Improving information on existing typical farms
- Adding new crops/livestock systems
- Using information for policy dialogue in combination with FAPDA
- Strengthening cooperation with local stakeholder organizations (including fund raising)
- Working at smallholder level

Source: CFS37, side event. Farm level monitoring and projections, Feiler, 2011
Some examples (Beef fattening)

Proportion of feed related costs in total costs

Proportion in total costs

- **Cut & Carry**
  - ~25%

- **Pasture**
  - ~25%

- **Feedlot**
  - ~25%

- **Silage, weaner**
  - ~25%

- **Silage, dairy calf (Fleckvieh)**
  - 40-50%

- **Silage, dairy calf (Holstein)**

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Feed related costs:
- Purchase feed
- Seed, fertiliser, pesticides
- Machinery depreciation & maintenance
- Fuel and energy
- Land