Session 2: How we can contribute further to the FA1 in terms of livestock information systems

Input: An applied example

Ernesto Reyes – agri benchmark
Contents

1. Closing the efficiency gap: Elements to take into account

2. An applied example of possible contribution

3. The session
1. **Scoping production systems and regions**
Institutions from the FA1 agreed to demonstrate their database and data collection method and how they could be used to **identify gaps in natural resource use efficiency** by species, by production system and within regions/countries.

2. **Defining a detailed assessment of the “gap”**
Based on this analysis, an assessment of the reasons behind the gaps is required, in order to **direct potential interventions**.

3. **Pilot Projects Development**
To produce strategic sector guidance, the FAs will develop a framework to catalyze concrete actions into practice change. These actions can be analyzed in a preliminary phase as **pilot projects**, where selected regions and production systems could be tested (adoption and adaption of technology, and management practices which could reduce the efficiency gap).

4. **Scaling up**
Based on the experience acquired, the next step would be to **scale up the applied knowledge** to other regions and production systems.
Basic elements to take into account for closing the efficiency gap

1. Identify the gap
2. Measure the gap
3. Define how to reduce the gap
4. Measure the change within the gap
5. Scale up

"There are gonna be some changes around here."
Basic elements
Identify the gap

Identify the gap

- Measure the gap
- How to reduce the gap
- Measure the change
- Scale up

a. Define efficiency boundaries
b. Define the scope for selecting and defining production systems and regions
c. Define criteria to select production systems and regions
d. Select production systems and regions where future strategic guidance could take place
Basic elements
Measure the gap

Identify the gap

**Measure the gap**

How to reduce the gap

Measure the change

Scale up

a. Define a standardised system for collecting, analysing and evaluating results

b. Collect field/farm information for defining the base line

c. Standard analysis and evaluation of the gap – preliminary results of the gap identified
Basic elements
How to reduce the gap

Identify the gap
Measure the gap

How to reduce the gap
Measure the change
Scale up

a. Identify alternatives for reducing the gap
b. Define scenarios for selecting and implementing these alternatives (modeling)
c. Implementing the alternatives on selected farms (piloting)
Basic elements
Measure the change

Identify the gap
Measure the gap
How to reduce the gap
Measure the change
Scale up

- Compare new findings with previous base line
- Quantify how much the gap has been reduced
- Lessons learnt
Basic elements

Scale up

Identify the gap
Measure the gap
How to reduce the gap
Measure the change

Complex issue out of the range of this analysis
An applied example of *agri benchmark*'s possible contribution

1. A detailed assessment of the gap (Defining the region)

Some examples

- **Morroco - Sheep Pastoral area** (INRA)
- **China - Sheep** (6 provinces Pastoral area, Zisiwang, Inner Mongolia – IMAU)
- **Colombia - Dual purpose** (small holders - Colombian Cattle Fed.)
- **S. Africa - Beef/sheep** (Communal farms - Free state Univ.)
An applied example of *agri benchmark*‘s possible contribution

1. A detailed assessment of the gap *(measuring the gap)*

   - Define a standardised system for collecting, analysing and evaluating results
   - Collect field/farm information for defining the base line
   - Standard analysis and evaluation of the gap – preliminary results of the gap identified

**Identify the gap**

- Measure the gap
- How to reduce the gap
- Measure the change
- Scale up

**Technical performance**

**Economic performance**

**Environmental performance**

At the farm level
An applied example of *agri benchmark*'s possible contribution

2. **Determining the change required and implications (Modeling alternatives – what if analysis)**

   - Identify alternatives for reducing the gap
   - Define scenarios for selecting and implementing these alternatives (modeling)
   - Implementing the alternatives on selected farms (piloting)

**Identify the gap**
- Measure the gap

**How to reduce the gap**
- Measure the change
- Scale up

**Resources involved**

**Cost/benefit ratio**

**Steps involved**
An applied example of *agri benchmark*'s possible contribution

**At the farm level**

**Participatory approach**

**Local capacity building process**

**Identify the gap**

**Measure the gap**

**How to reduce the gap**

**Measure the change**

**Scale up**

**Identify the gap**

**Measure the gap**

**How to reduce the gap**

**Measure the change**

**Scale up**

- **Define a standardised system for collecting, analysing and evaluating results**
- **Collect field/farm information for defining the base line**
- **Standard analysis and evaluation of the gap – preliminary results of the gap identified**

- **Define alternatives for reducing the gap**
- **Define scenarios for selecting and implementing these alternatives (modeling)**
- **Implementing the alternatives on selected farms (piloting)**

**Resources involved**

**Cost/benefit ratio**

**Steps involved**

- **Technical performance**
- **Economic performance**
- **Environmental performance**
An applied example of *agri benchmark*’s possible contribution

**At the farm level**
- Increasing yields by feeding ration substitution (Beef)
- Introducing herd testing schemes for Improving fertility rates (C-Calf)

**Participatory approach**
- Associative farmers schemes for better access to services and economy of scale (dairy)
- Communal fattening centers for reducing market risk, and providing easy access to tech. (beef & Sheep)

**Local capacity building process**
- Introducing animal genetic programs for improving Efficiency gains (C.Calf)
- Defining profit break even points for concentrate use on beef farms

**Steps involved**
- Identify the gap
- Measure the gap
- How to reduce the gap
- Measure the change
- Scale up

**Identify alternatives for reducing the gap**
- Define a standardised system for collecting, analysing and evaluating results
- Collect field/farm information for defining the base line
- Standard analysis and evaluation of the gap – preliminary results of the gap identified

**Resources involved**
- Economic performance
- Environmental performance
- Cost/benefit ratio
- Technical performance

**Steps involved**
- Identify the gap
- Measure the gap
- How to reduce the gap
- Measure the change
- Scale up

**Identify alternatives for reducing the gap**
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**Resources involved**
- Economic performance
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- Technical performance
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Objectives

- To define possible contributions to the FA1 in terms of:
  - Information requirements and availability
  - Models and tools used
  - Possible means of future regional intervention.

Input session

- Closing the efficiency gap in livestock farms. An applied example of possible contribution (Ernesto Reyes, agri benchmark)

Methodology (matrix and cards)

- Each institution will show how they can contribute to the FA1, specifically in terms of:
  - Livestock information systems and applicability to the FA1
  - Defining pilot regions
  - Defining pilot projects
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<table>
<thead>
<tr>
<th>Livestock Information Systems</th>
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<table>
<thead>
<tr>
<th>Type of data</th>
<th>Products covered</th>
<th>Updated databases</th>
<th>Availability</th>
<th>Regional coverage</th>
<th>Regional depth</th>
<th>Applicability</th>
<th>Levels of measurements</th>
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<tr>
<td>Physical, economic, environmental, socio-economic</td>
<td>Cow-calf, beef finishing, sows, hogs, ewes, lambs, milk cows</td>
<td>last year available, update annually, bi-annually</td>
<td>Public, exclusive, electronic, print</td>
<td>Country, regional, continent, global</td>
<td>Country, regional, continent, global</td>
<td>??</td>
<td>Whole-farm, enterprise, gross margin, total costs</td>
</tr>
</tbody>
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ILRI
CIRAD
Danish Meat Council
FAO-AGAL
GIZ
agri benchmark