Livestock Information systems (LIS) in relation to FA1

Ernesto Reyes

Rome, 19-20/10/2013
Contents

1. Background

2. Objectives and expected outcomes

3. What we have – feedback FA1 members

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5. Main outcomes
1. **Background** – FA1 doc.: closing the efficiency gap in NRU

1. Develop capacity to quantitatively evaluate and benchmark the environmental performance of different production systems and supply chains.

2. Assess the potential natural resource use efficiency gains that can deliver both environmental and production benefits.

3. These assessments need to be complemented with cost benefit analyses for suitable policy interventions.

4. Information generated and sharing. To be discussed.
1. **Background** – Liv. Inf. Syst. meeting (Brauns., 18-19/04/2013)

1. We have been discussing elements of LIS which could potentially have:
   a) Global coverage
   b) Able to make evaluation at the farm/field level
   c) Able to analyze production, economics and environmental elements

2. LIS able to develop a detailed assessment of the gap.

3. For defining regions and production systems, as an example, FAO could provide GLEAM (Global Livestock Emissions Analysis Model), where a global scope could provide the first step to this process.

4. Other organizations could provide a multi-disciplinary approach in some regions where they have been working in (e.g. CIRAD).

5. A detailed assessment of the use of natural resources in relation to technical and economic efficiency can be explored by using the agri benchmark framework and models (network – standardized model).
2. Objectives

Objectives and expected outcomes

1. To explore the availability of livestock information systems (LIS) that can contribute to a better characterization and definition of production systems and regions

2. To exchange information regarding methodologies for collecting, processing, analyzing and benchmarking production systems and regions

3. To identify information systems which could be potentially used by the FA1 for scoping production systems and regions to work with

4. To identify models and tools which can be used for the assessment of the changes implicated in the improvement of efficiency
### 3. What we have? Feedback from the FA1

#### Contribution to FA1 - Livestock information systems

<table>
<thead>
<tr>
<th></th>
<th>Type of data</th>
<th>Products covered</th>
<th>Updating</th>
<th>Availability</th>
<th>Regional coverage</th>
<th>Regional depth</th>
<th>Levels of measurements</th>
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<tr>
<td><strong>agri benchmark</strong></td>
<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>Region (within a country), country, regional, continent, global</td>
<td>Whole-farm, enterprise, gross margin, total costs</td>
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<td><strong>CIRAD</strong></td>
<td>Physical, (socio-)economic, environmental (emissions)</td>
<td>All listed</td>
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<td>Milk, meat</td>
<td>2010</td>
<td>Exclusively (depends)</td>
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<td>Farm chain</td>
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<td><strong>ILRI</strong></td>
<td>Animal production system parameters (production, structure, feed,..), environmental</td>
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<td>Supply chain level</td>
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<td>Dairy, cattle. Sheep, pigs, cereals and oil seeds</td>
<td>Monthly, quarterly update</td>
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3. What we have? Feedback from the FA1

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

A detailed assessment of the gap is needed

"There are gonna be some changes around here."

Therefore, an standardized LIS is required
3. What we have? Feedback from the FA1

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
3. What we have? Feedback from the FA1

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
3. What we have? Feedback from the FA1

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
c. Modeling these alternative scenarios
d. Implementing the alternative(s) (piloting)
3. What we have? Feedback from the FA1

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

a. Compare new findings with previous base line
b. Quantify how much the gap has been reduced
c. Lessons learnt
3. What we have? Feedback from the FA1

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

Scale up

Complex issue out of the range of this analysis
4. Discussion

1. Do we need a detailed and standardized assessment of the gap?
2. Production, environment and economic?
3. How deep this assessment might be?
4. How to measure a baseline scenario (*status quo*)
5. How to model alternative scenarios for selecting the most appropriate
6. How to measure the changes found?
7. Farm/field level