

# Milking the Data

## Measuring Income from Milk Production in Extensive Livestock Systems. Experimental Evidence from Niger



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### 1. MOTIVATION & OBJECTIVE

Milk production data are difficult to collect in household surveys because:

- Milk can be produced daily, but with seasonal patterns
- Milk varies depending on the lactation stage
- It can be fed to calves
- Productive/lactating animals may be present but not necessarily being milked

For these reasons, the quantification and valuation of milk production is particularly difficult in household surveys, introducing possibly severe biases in the computation of full household incomes and farm sales.

The typical 'Livestock products' module in Living Standard Measurement Study (LSMS) surveys simply asks questions on the quantity of milk produced over a given period, and the quantity and value of sales. Specialized livestock surveys sometimes attempt to obtain information on milk production at different times in the reproductive cycle of the animal and on the duration of the lactating period. Yet other surveys collect milk recordings on a regular basis and correct them with adjustment factors for suckling frequency.

This paper presents preliminary results from an ongoing validation exercise being implemented in Niger, where three alternative survey instruments were administered to randomly selected households.

The objective of this work is to draw lessons for questionnaire design by selecting the best performing option and identifying outstanding issues.

### 2. APPROACH

Restricted focus on milk off-take for human consumption (not milk 'production').

Test different survey instruments (questionnaires) on randomly selected households.

Three different questionnaires used:

1. Standard LSMS livestock by product module:

- # months of production
- Avg. production/month

2. Liters per herd per day

- # months of production
- # animals milked
- Avg. milk/herd/day
- Additional milk-specific questions (suckling, parturition)

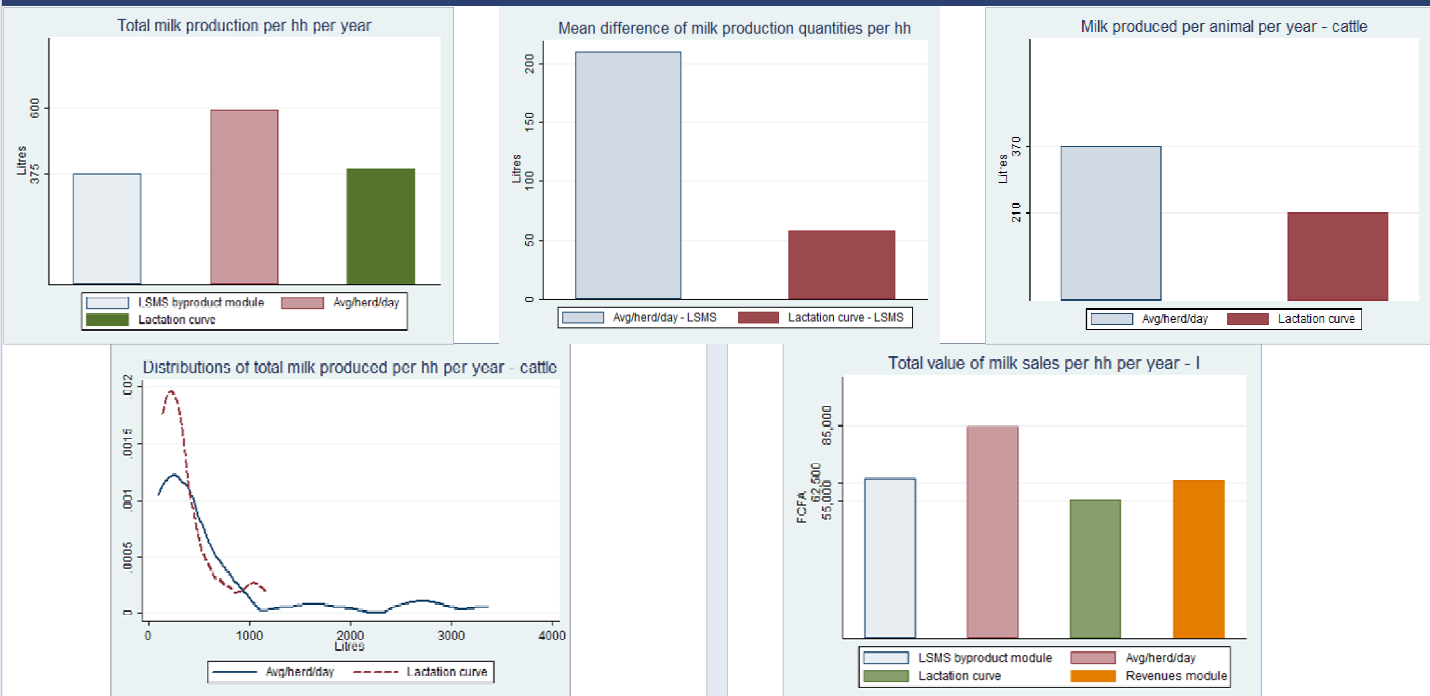
3. Lactation curve

- # months of production
- # animals milked
- Avg. milk/animal/day 1 week, 1 & 3 months after parturition, length of lactation
- Additional milk-specific questions (suckling, parturition)

4. A 12 month-by-month recall of milk sales

- Pilot carried out in February-March 2011 (small sample, ~50 observations)
- Full-scale survey in the field in November-December 2011
- Preliminary (pilot) results presented here

### 3. RESULTS



### 4. CONCLUSIONS AND FURTHER STEPS

- Too few observations to draw any conclusion (yet) but:
  - Average/herd/day appears to return larger Q than lactation curve
  - Sales inconclusive (fewer, noisier)
- Modules seem all 'feasible', i.e. intelligible to respondents
- Full experiment in the field now (Nov-Dec 2011)
- Possible additional experiments in other countries (East Africa)
- Possibility of introducing a 'gold standard' (more reliable benchmark) in future exercises (physical milk measurement, short recall)
- Findings to feed into:
  - Future survey questionnaires
  - Livestock data sourcebook

### 5. CONTACTS AND CREDITS

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This work is a joint effort of two projects funded by the Bill and Melinda Gates Foundation:

- the Livestock Data Innovation in Africa Project (LDIA), [www.africalivestockdata.org](http://www.africalivestockdata.org), &
- the Living Standards Measurement Study - Integrated Surveys on Agriculture Project (LSMS-ISA), [www.worldbank.org/lsms-isa](http://www.worldbank.org/lsms-isa)

The Niger survey was carried out in collaboration with the Institute National de la Statistique (INS). The authors are indebted to the survey managers, Diane Steele and Prosper Backiny-Yetna, and to Isabelle Baltenweck, Celine Dutilly, Jane Poole, and Steve Staal for extensive comments and useful discussions. All remaining errors, as well as the views expressed in this poster, are the authors' only.

Giovanni Federighi provided able research assistance.

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