



Perspectives from the Field: Measuring and Promoting Animal Source Foods



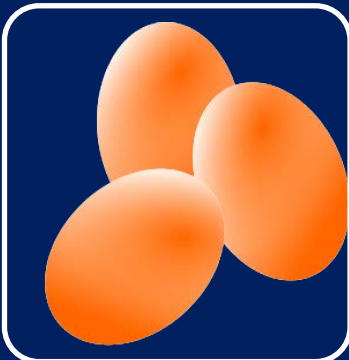
- > Land O'Lakes takes a private sector, facilitative approach, collaborating with diverse livestock and dairy value chain actors.
- > Today we will share our experience about the role livestock play within rural households.
- > Measuring consumption of milk by households has been a consistent challenge for development organizations; today we will talk about how Land O'Lakes has tackled this challenge as part of our dairy development work in Rwanda.
- > Our participation today is part of a year-long series of activities to promote learning around livestock production and linkages to human nutrition, partially supported by the TOPS project.





Milk – Seasonal but daily product

- Milk for household consumption
- Milk for calf
- Farmgate or local sales for immediate cash (small income each day)



Eggs

- Eggs for household consumption
- Eggs for chicken reproduction
- Local (market) sales for income (weekly/bi-weekly income)
- Farmgate/ or local sales for immediate cash or barter, routine income (weekly/bi-weekly sales)

Chickens (live animals)

Birds for gifts/donations (church fundraiser, wellness gifts, appreciation gifts)

Meat for special occasions

Local sales for immediate cash or barter (food needs, school fees, medical fees)

Local sales for season cash needs (crop inputs, season labor)



Goats / Sheep

Breeding animals (i.e. female adults) for herd growth

Local sales for seasonal cash needs (crop inputs, school fees)

Local sales for immediate cash needs of moderate size

Savings for medium to large investments (housing, cattle)



Cattle

Breeding animals for herd growth & adult males of good quality for stud service

Breeding animals for milk

Social status & traditional / ceremonial needs

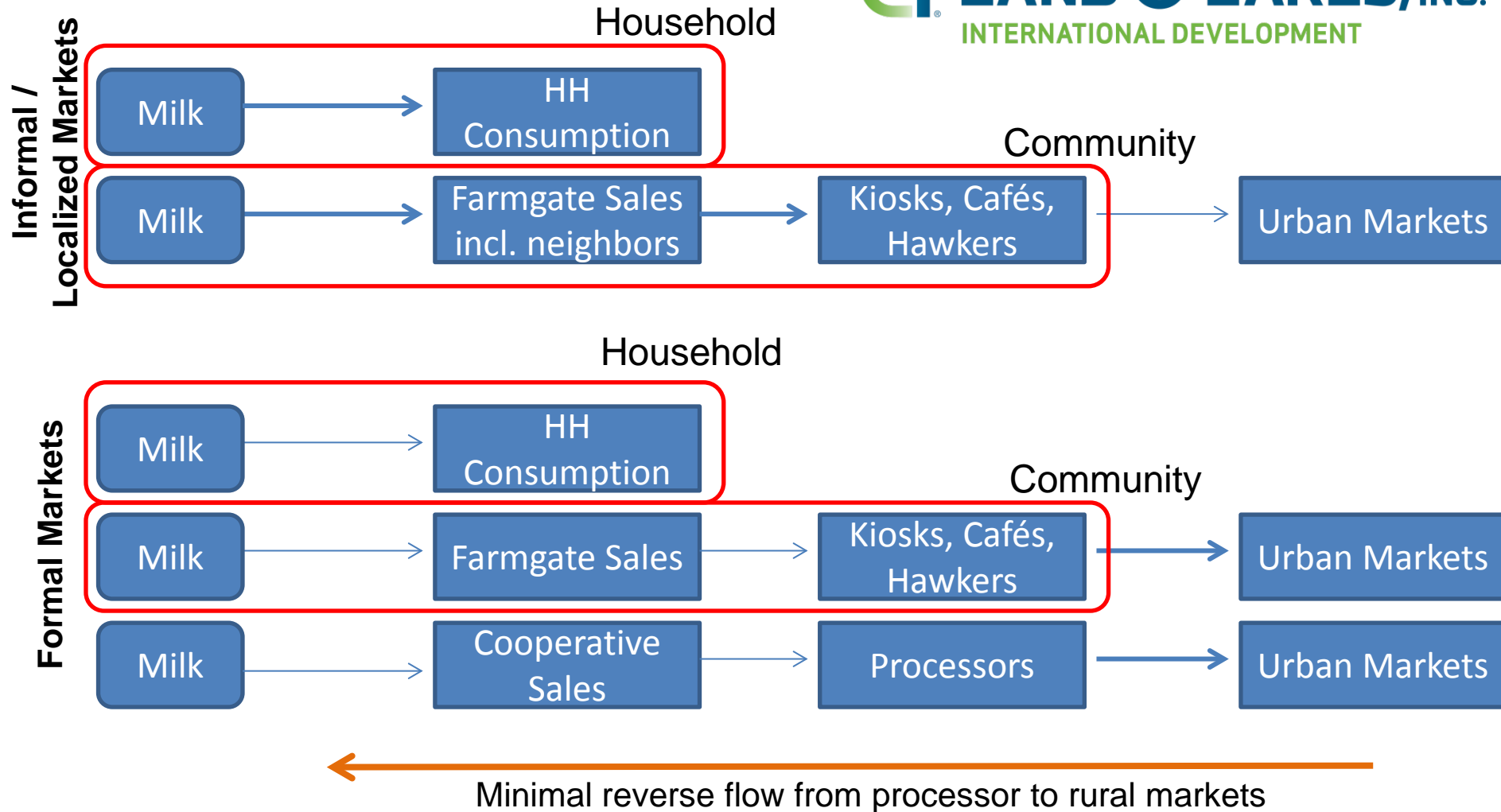
Local sales for immediate cash needs of large size & savings for large investments



Role of Livestock in Smallholder Households – Live Animals

ASF	Rural HH
Eggs	Own production Kiosk Market day
Milk	Own production Neighbor Kiosk, market/hawker
Chicken meat	Own production Market day (live bird)
Goat/Sheep meat	Market day Butchers (in town center)
Beef	Market day
Fish	Market day

Animal Sourced Foods Acquisition



Trends as Value Chains Become Commercially Oriented

- > **The Rwanda Dairy Competitiveness Program (RDCP II) is aimed at increasing the competitiveness of Rwandan dairy products by building capacity along the dairy value chain, improving food safety and enhancing the quality of dairy products**
- > **Issues in the dairy sector include disease-resistant livestock, clean hands, rapid product transport, hygienic processing, and adequately refrigerated distribution centers**



Rwanda Dairy Competitiveness Program (RDCP II)



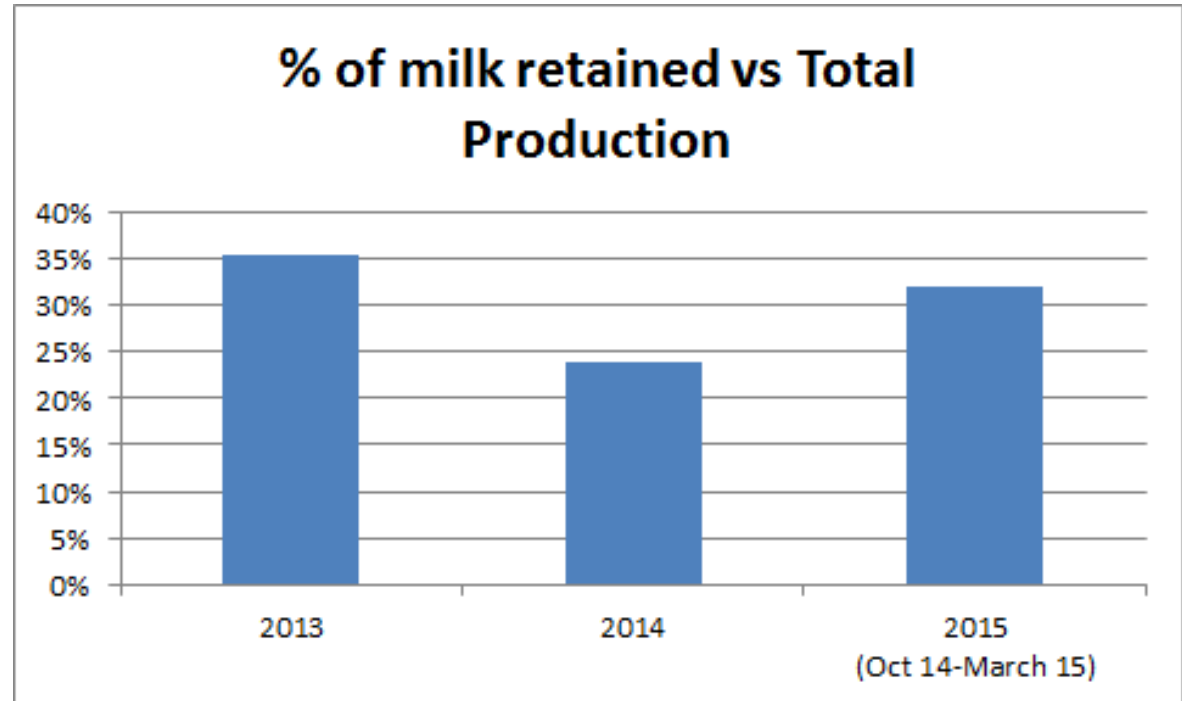
- > **RDCP II spans from 2012-2017 covering 17 of 30 districts in Rwanda**
- > **Beneficiaries include all value chain actors, but survey covers only dairy farmers majority owning (1-5 cows)**
- > **Sampling frame:**
 - Dairy Farmers: 8,274 (2013); 15,492 (2014); 39,257 (2015)**
 - Frequency: Annual (2013-2014); Semi-Annual (2015-2016)**

Rwanda Dairy Competitiveness Program (RDCP II)

The main challenge in collecting milk retention & consumption data is the lack of record keeping habit among rural households

- > **Information based on memory**
- > **Variation in milk production depends on multiple factors: season, animal nutrition, animal age, lactation period, etc**
- > **Standards are different across households**
- > **Record-keeping efforts prioritize milk which is taken to the market, as this relates to household income**

Until March 2015, RCDP has asked farmers “how many liters of milk are consumed at home or given away for free to neighbors?”



Asking the Right Questions

- > **In 2013 (at the start of intervention), milk consumption appeared higher than in other years, but this was due to the underestimation of the total production by most households.**
- > **Over the course of implementation, we realized formulation of questions on milk production and milk retention were not specific enough.**
- > **When reporting about milk consumption, evening milk was not regarded by the respondents as part of total production.**
- > **Change in milk production and consumption figures is partly due to improved formulation of questions which avoided unintended omission of information (asking about different times of day and seasons).**

RCDP Annual Survey Findings

To learn more about how questions influence data on milk retention, in September 2015 and March 2016, RCDP randomly divided households and asked two different types of questions:

“How many liters of milk are consumed at home or given away to neighbors”

OR

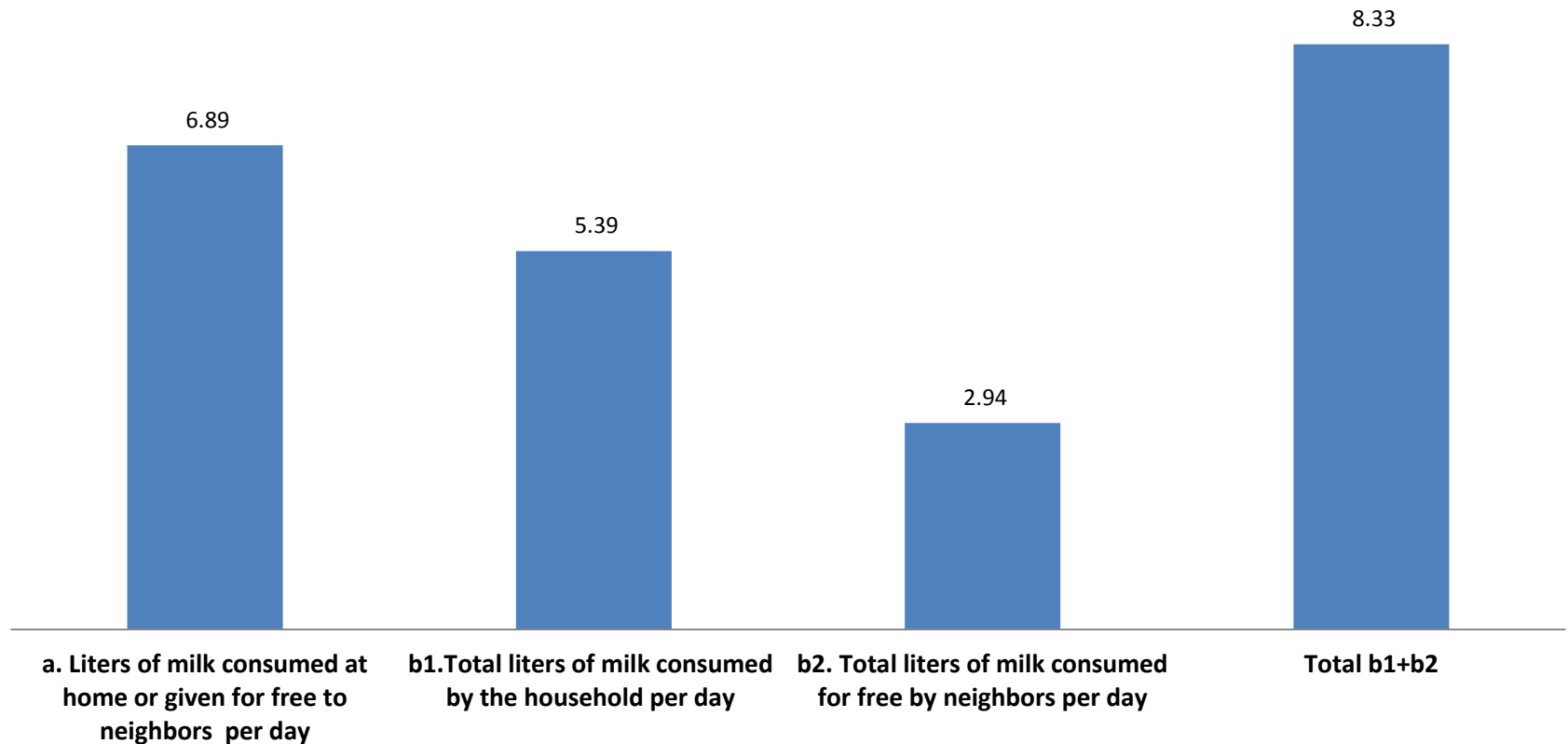
“How many liters of milk are consumed at home”

and separately,

“How many liters of milk are given away to neighbors”

Asking the Right Questions

Comparison of results from similar questions asked differently

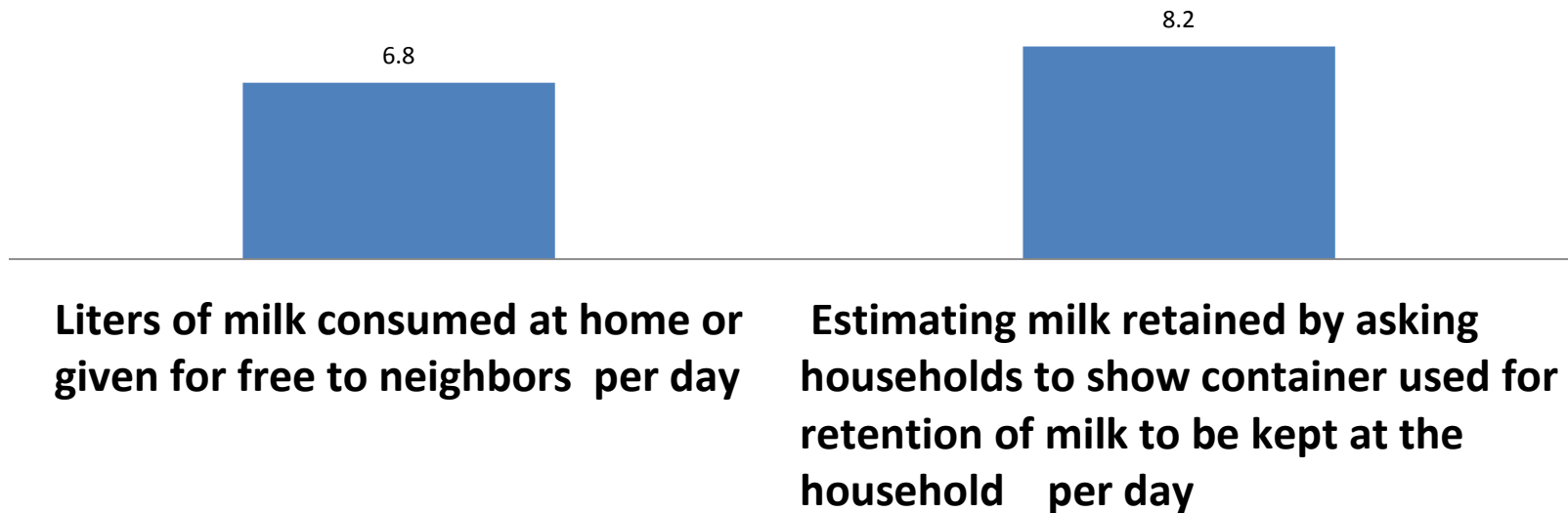


Asking the Right Questions

- > **We found there was a large discrepancy between the groups asked questions in different ways**
- > **The group asked one single question (consumed at home + neighbors) generally reported much lower total milk retention than the group asked about their own consumption and provision to neighbors separately**

Asking the Right Questions

- > In March 2016, RDCP II also collected data from a subset of households by asking them to “show the container” they used for milk kept for home consumption.
- > These households found to have higher consumption than those who were asked one question (home consumption + neighbors).



Asking the Right Questions

- > Results on milk consumption when respondents refer to a specific container used to retain milk are 20.5% higher than when the information is provided in bulk (for both home and neighbors' consumption). When asked only about their own consumption, results are almost the same as when respondents refer to used container, indicating that respondents may use the container as a reference point
- > This indicates when respondents referring to a specific container tend to minimize error or bias when estimating quantities. Most of respondents are clear about the container size as they use similar tools to measure milk for sale or purchased cooking oil.



So Why This Discrepancy?

- > **Asking about family consumption may trigger respondents to recall specific meals or times of the day when they consumed milk, rather than the bulk amount they set aside before taking the remainder to a milk collection center.**
- > **If respondents tend to round answers up, this effect will be doubled when the question is asked twice.**
- > **Promoting sharing milk between households is one of the strategies adopted by the government of Rwanda to fight against malnutrition issues in rural areas and it was in Rwanda culture even in the past. Reason why capturing correctly milk quantities shared through social solidarity is of great importance.**
- > **More research and testing of questions is recommended in similar future projects.**

So Why This Discrepancy?

- > **Collecting data by each farming season would provide a better estimate for the whole year**
- > **Conducting a specific survey aimed at collecting data on production and consumption as the household level collects a variety of information**
- > **Standardizing the estimate of milk in containers and measuring the retained milk by the household accordingly**
- > **Rigorous testing of questions to see how local norms may inform responses**
- > **Emphasizing proper record keeping practice in future programs as basic education for all is becoming a reality in countries**



Recommendations + Best Practices



THANK YOU
