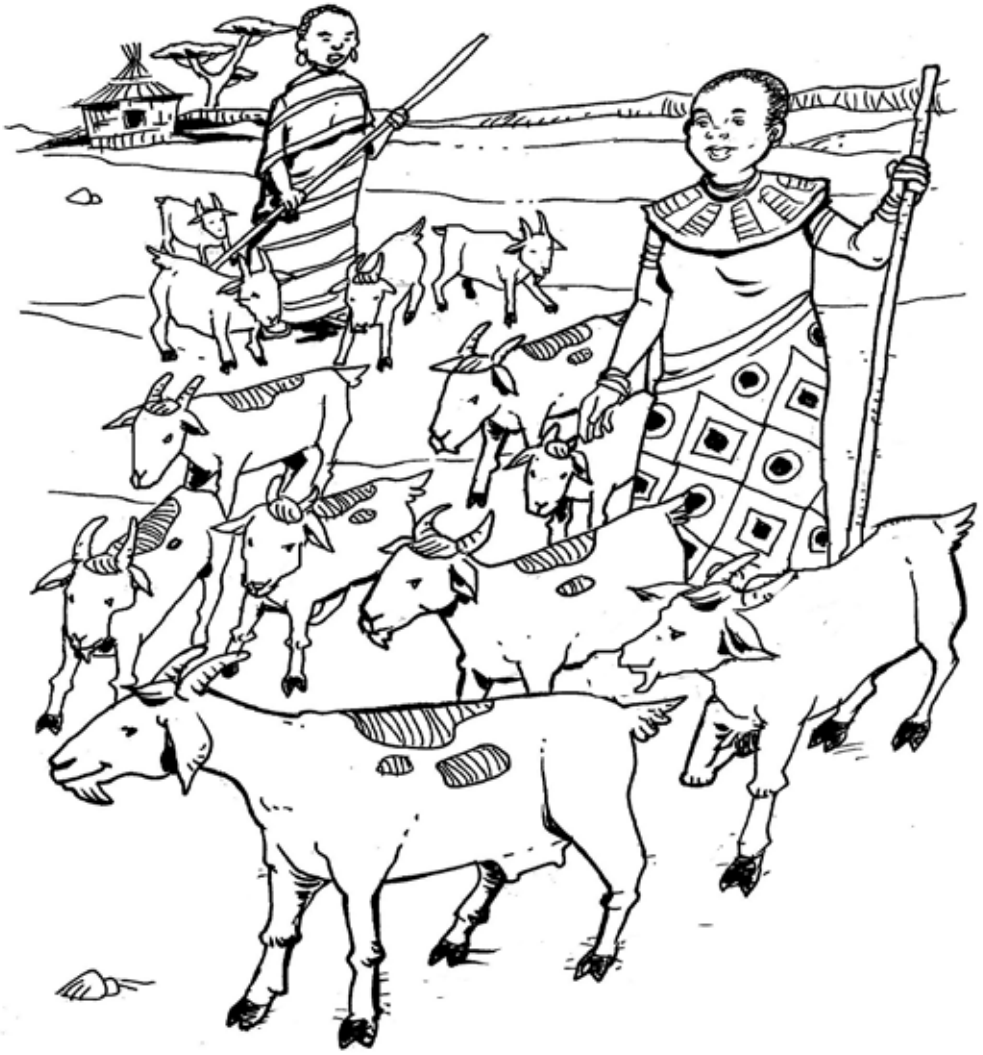
Beyond Fetching Water for Livestock

A Gendered Sustainable Livelihood Framework to Assess Livestock Water Productivity



Livestock keeping can be a pathway out of poverty (ILRI 2002). However, livestock production systems are complex. In this system, men and women have specific roles and responsibilities and are benefiting differently. This system also varies between countries, cultures and ecosystems. To understand this diversity and the different roles of men and women in livestock production systems, a Gendered Sustainable Livelihood Framework (GSLF) is useful. The framework is based on the Sustainable Livestock Framework (SLF), and includes the assessment of livestock utilization by gender, distribution of inputs and outputs, as well as the governing arrangements for livestock production. Emphasis is put on gendered access and control over productive assets of poor livestock farmers.

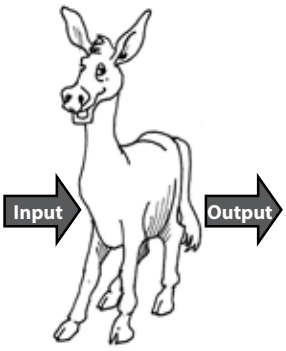
Analytical framework on gender and assets in the SLF

The SLF enables us to get a better understanding of livelihood dynamics in general and of the role of livestock within those dynamics in particular. The gender dynamics in livestock productivity as related to the roles and responsibilities of men and women, both at the household and community levels, is shown in the GSLF framework. The GSLF (Table 1) combines the SLF with the gender analysis framework developed by Feldstein and Poats (1989).

The research questions are the following:

- Labor: who does what?
- Incentives and benefits: who benefits?
- Governing arrangements: who has access and control over resources?

Table 1. The Gendered Sustainable Livelihood Framework (van Hove and van Koppen 2005).

Livelihood asset	Cost to access assets	Access/control					Livestock as an asset Keeping livestock as a strategic activity	Benefits/ outputs or outcomes	Access/control					Risks/ vulnerability contexts=shocks, trends, seasonality	Institutional contexts
		M	W	H	C	G			M	W	H	C	G		
Natural -Water -Land -Feed							Water? Feed? Land? ◆ Where? ◆ How much? ◆ At what cost? (time, labor, price?) ◆ Which mechanism helps optimize water use?  	-Soil fertility -Biodiversity -Optimum water use							
Human -Labor -Knowledge -Skills								-Nutrition							
Physical -Water infrastructure -Services								-Traction -Transport -Energy/fuel							
Financial -Cash to purchase or pay for goods and services								-Income -Insurance -Coping							
Social -Resource-sharing groups -Gift bride price -Cultural festivals								-Status -Social security							

M= Men; W= Women; H= Household; C= Community, G= Government

The last two columns - Vulnerabilty and Institutional - help to show the different constraints and opportunities of livestock keeping in the context of other productive and nonproductive activities in the system.

Livestock are productive assets and the roles and responsibilities related to livestock keeping are thus valued as productive. In the GSLF, efforts made to use certain assets for livestock keeping are referred to as 'livelihood costs.' On the other hand, 'livelihood benefits' refer to outputs from livestock that provide value to men and women and their dependents. Household members also have varying degrees of entitlement and mobility, often dictated along gender lines by institutions such as marriage, inheritance and parenthood. These entitlements and mobility are largely influenced by the dynamics of incentives, allocations and benefits to men and women. These are referred to as 'structures and processes.'

The GSLF considers five livestock-related livelihood assets. These are factors required to keep livestock, improve livelihood production systems and ensure that men and women derive livestock-related benefits.

Applying the GSLF

Livelihood costs and benefits are changing due to different feeding strategies, increased need for veterinary care and other external inputs, and access to markets, credit systems and information. These changes result in a shift in roles and responsibilities at the household level. The introduction of technologies can be positive for women in terms of reduced workload. Women can then have more time to look after the children or get involved in other income-generating activities. On the other hand, the introduction of new technologies (e.g., forage technologies) could also involve extra labor for women.

The GSLF can be used for three different purposes:

1. **To assess livestock water productivity.** Identify the role of a specific animal in the livestock production system. This can offer insight into which animals are most valuable for men and women in a specific system. The information can contribute to a more holistic and meaningful assessment of livestock water productivity.
2. **To perform a gender impact assessment**. Predict what the expected impacts on the gendered costs and benefits will be when a specific technology is introduced, particularly in water scarce areas.
3. **To enhance learning.** Use the framework as a tool at different levels (community, development agent, researchers) for communities to analyze the importance of livestock, as it relates to water, in their livelihood. This is to stimulate mutual understanding about the importance and limitation of livestock rearing.

Tools for Applying GSLF

Central in the assessment of livestock-productivity is to determine what the specific values are of different animals in the livelihood systems of men and women. The assessment gives a gender specific picture of livestock productivity at the community level. This picture can be evaluated with the LWP framework.

Programs focusing on livestock - water productivity can consider the following gendered livestock information, taking the different common animal species as starting point.

1. Get a good overview of the existing livestock production system of the area. The system can be evaluated using the five capital values, to determine costs and benefits for men, women and children (see Table 2). It also explores what

benefits are more important than others, and why.

2. Identify the governing processes and structure related to livestock keeping. Discuss questions like who has access and who has control over the costs and benefits, and how flexible are these arrangements?

3. Assess how the governing arrangements enable or disable men and women to reach their specific livelihood objectives if there are opportunities for change, and how these changes would impact others (gendered SWOT assessment of governing arrangements).

The assessment used different participatory approaches (e.g., ranking, historical mapping, calendars). Information (related to LWP) from other studies can be added to the tables and maps to quantify the cost and benefits and changes over time, like for example, the amount of water consumed per year, availability of feed liters of milk produce per day etc.

Table 2. How cost and benefits can be summarized in a seasonal calendar

WOMEN	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Costs												
Walk to the market to sell milk/eggs	X	X	X	X	X	X	X	X	X	X	X	X
Milking goats/ sheep/cows	X	X	X	X				X	X	X	X	
Looking after sick animals					X	X	X					X
Others												
Benefits												
Income from milk/eggs	X	X	X	X	X	X	X	X	X	X	X	X
Milk/ eggs own consumption	X	X	X			X	X	X		X	X	
Meet own consumption in household	X		X			X		X		X		
Religious celebration						X				X		
Others												

The participatory assessment of livestock productivity enhances discussions between community members. To pinpoint these discussions on LWP we can do a ranking exercise (Table 3). In this exercise, the gendered importance of livestock as decided by the local community is compared with the LWP. The ranking can be done for dry and wet years. Leading question could be: what animals are most important in a dry year and why?

Table 3. Comparing community interests with livestock water productivity (LWP)

	Ranking of livestock species by importance to community (1: least important)		**Ranking of species according to LWP**
	Men	**Women**	
Male sheep	8	5	5
Female goat	9	10	4
Female camel	7	7	10

This table can be used as a learning tool by discussing why men, women, and the 'LWP' assign ranks in this particular way. Awareness of the differences and similarities can be the starting point to explore options to improve LWP of the livestock production system. All materials derived from the participatory exercises can be used to see if proposed changes are realistic; what the impacts might be on the costs and benefits of livestock production to men and women; if governing institutions need to be adapted or strengthened; and if improving LWP contributes to poverty alleviation.

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Key Reference

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