GLOBAL AGENDA FOR SUSTAINABLE LIVESTOCK

A PROPOSAL FOR AN ACTION NETWORK

LIVESTOCK AND SDG # 1

TACKLING POVERTY THROUGH LIVESTOCK SECTOR POLICIES AND INVESTMENTS

Livestock and SDG # 1:
Tackling Poverty through Livestock Sector Policies and Investments

Introduction

The Sustainable Development Goals (SDGs) are a bold commitment by governments to finish what was started with the Millennium Development Goals (MDGs). "Ending poverty in all its forms everywhere" is the first of the 17 Global Goals that make up the 2030 Agenda for Sustainable Development. Globally, 900 million people live on less than $1.90 a day.[i] Rapid economic growth, particularly in China and India, has lifted millions out of poverty, but progress has been uneven.[ii] The incidence of poverty is the highest in sub-Saharan Africa and South Asia; it is higher in rural than urban areas; women are more likely to live in poverty than men due to unequal access to assets, paid work and education.[iii,iv] An integrated and multi-stakeholder approach is crucial to eradicate poverty. Stakeholders in all sectors of the economy, including the livestock sector, can make a difference.

This note discusses the role the livestock sector plays for achieving SDG # 1, and proposes core milestones for policies and investments that support an inclusive growth of the sector. It is a living document aimed at promoting discussion, dialogue and consensus among livestock stakeholders – including partners of the Global Agenda for Sustainable Livestock (GASL) – on joint actions for the design of policies and investments that enhance the contribution of livestock to SDG # 1.

The channels through which livestock contribute to SDG # 1

Livestock development can support the achievement of several SDGs, as farm animals provide a wide spectrum of benefits to society. These include revenue and employment, food and nutrition, manure, draft power and hauling services, savings and insurance, and environmental and health services.[v] Where poverty looms large, notably in Sub-Saharan Africa and South Asia[vi], livestock development is pivotal for achieving SDG # 1. Available data suggest that at least half of the 900 million people living below the US$ 1.9 day poverty line depend on livestock for their livelihoods.[vii]

SDG # 1 includes seven targets centred on three pillars: (1) poverty eradication; (2) social protection and increased resilience; and (3) policies and investments. These latter can ensure that livestock contribute to poverty eradication, reduced vulnerability and increased resilience through three major channels.

- The first channel is through "livestock asset building and protection". Policies and investments should ensure that poor households build, protect and increase their livestock asset-base and get access to basic production inputs, such as water, pastures and animal health services. This helps them climb a first rung in a ladder out of poverty, for example through the regular availability of protein, investment in education and remunerative enterprises, the capacity to cope with unexpected shocks and expenditures, or the use of animal manure and power for increased crop yields.
- The second is through "increasing the productivity of and returns on livestock assets". Policies and investments should ensure that livestock farmers adopt improved husbandry and production practices. This helps them exit poverty, when combined with market access measures that allow farmers to regularly sell live animals and surplus meat, milk, eggs and other products to the market.
- The third channel is through "on-farm and non-farm livestock related employment". Policies and investments should ensure that the poor find jobs, either as employee or as self-employed, in livestock farms (e.g. as wage employees in a layer farm) or along the livestock value chain (e.g. as small entrepreneurs trading milk). By so doing, they can exit poverty.

These three livestock-poverty eradication channels operate simultaneously in developing countries. However, as at least half of the world's poor depend

on livestock for their livelihoods, the "social protection" and the "increasing productivity" channels tend to dominate, with the "employment channel" becoming more relevant as economic development progresses. They are closely interconnected: non-vulnerable households, who are protected against risks, are likely to invest in productivity-enhancing and higher-return technologies and practices. Investments in productivity-enhancing and higher-return technologies and practices are the foundation of sustainable livestock enterprises, which create on-farm and off-farm jobs along the value chain.

Challenges for enhancing the contribution of livestock to SDG # 1

Designing and implementing policies and investments that consistently and coherently target the three livestock–poverty eradication channels is challenging because of the complexities and intricacies of the decision-making process, and because of major information and knowledge gaps.

- While there is agreement that about 18% of the world's population is engaged in animal husbandry and associated activities[viii], the number of poor livestock keepers is unknown with any degree of precision. For example, the 2014 GASL Discussion Document "Towards Sustainable Livestock" reads that "the [livestock] sector provides … livelihoods to 1 billion poor", while Robinson et al. (2011) estimate that there are about 450 million rural poor livestock keepers.[ix,x]
- There is preliminary evidence that social protection programmes with a livestock component have positive impact on the livelihoods of the poor.[xi] The potential role of livestock to reduce vulnerability and increase resilience, however, has not been yet documented and systematized, partly because social protection measures in agriculture are in their infancy.
- Improved practices and technologies are available for smallholders to increase livestock productivity, reduce their vulnerability and exit poverty.[xii] This evidence, however, is locally grounded (case studies). There are few attempts to systematically assess the scalability and applicability of good practices and technologies in different contexts.
- Decisions to invest in livestock for poverty eradication are often based on a simple narrative: given that a large share of poor households keep animals, investments in livestock reduce poverty.[xiii] The underlying assumption that investments in livestock development are good at reducing poverty, however, has not been consistently proved. Available evidence suggests that about 60 percent of livestock development projects are not successful.[xiv]
- The creation of decent employment opportunities represents an important channel for poverty eradication. However, there is limited data available on the number of jobs generated or that can be potentially generated along the livestock value chain, i.e. on the employment intensity of the livestock sector as a whole and of its sub-sectors.[xv]
- Governments regularly allocate resources to livestock sector development, as proved by the existence of Ministries responsible for livestock in all world's countries. However, available tools and guidelines to design policies and investments are rarely, if ever tailored to fit the needs and technical expertise of livestock stakeholders, such as breeding scientists, feed specialists, veterinarians and epidemiologists.[xvi]

Milestones to enhance the contribution of livestock to SDG # 1

Table 1 presents a theory of change that relates the overall goal of eradicating poverty through livestock with a set of impact, outcome, output and input measures. The latter are milestones or inputs to enhance the contribution of livestock to SDG # 1. These milestones represent tools and guidelines that assist decision-makers in designing, implementing and monitoring policies and investments that operationalize the three livestock-poverty eradication channels described above, thereby ensuring that the poor exit poverty (also) through livestock.

Table 1. Livestock and SDG # 1: A Theory of Change

Overall goal	The poor exit poverty through livestock
Impacts	1. Poor and non-poor livestock keepers set up sustainable businesses around their animals 2. Poor livestock keepers properly manage their animals, thereby using them as an effective social protection tool 3. The poor find jobs in small and medium enterprises (SMEs) along the livestock value chain
Outcomes	1. Poor and non-poor livestock keepers adopt productivity-enhancing technologies and sell surplus production to the market 2. Poor livestock keepers get access to basic livestock inputs and services 3. Livestock farmers, input and service providers, processors, traders and other stakeholders adopt small and medium scale value-addition technologies and inclusive business models
Outputs	1. Public and private stakeholders design and implement policies and investments that promote the adoption of productivity-enhancing technologies among business-oriented livestock farmers 2. Public and private stakeholders design and implement policies and investments that ensure that livestock farmers get access to basic production inputs and services 3. Public and private stakeholders design and implement policies and investments that favour the adoption of small and medium scale value-addition technologies and inclusive business models along the livestock value chain
Inputs (Milestones)	1. Database on the number of (poor) livestock keepers 2. Typologies of households that (are likely to) use their livestock either as a business asset or as a social protection tool 3. Toolkit to identify and document the returns and scalability of good livestock practices and technologies, for both business-oriented and social protection-oriented livestock farmers 4. Toolkit to identify and document small and medium-scale value addition technologies and inclusive business models along the livestock value chain 5. Guidelines to identify effective delivery mechanisms for livestock-related public and private goods, and their external validity 6. Guidelines to support evidence-based policy reforms in the livestock sector

Milestone 1 – A living dataset on (the poor) livestock keepers

Assessing the contribution of livestock to SDG # 1 requires counting the number of livestock keepers, including the poor. While there are no robust statistics available on the number of poor livestock keepers, the household surveys that are used to officially measure poverty and monitor progress towards the achievement of SDG # 1 – including household budget or expenditure surveys – often include a question on livestock ownership. The latter can be relied upon to count and monitor trends in the number and proportion of poor livestock keepers by country, region, urban and rural areas as well as by other dimensions (e.g. gender). This milestone aims at establishing a dataset on the number of (poor) livestock keepers in the different world's regions.

Milestone 2 – Typologies of business-oriented and social-protection oriented livestock farmers

While livestock farmers are heterogeneous, policies and investments necessarily focus on broad categories of beneficiaries. An important information for decision-makers is thus to appreciate whether livestock keepers are (or could be) business-oriented or whether they are more likely to use their animals as a social protection tool (which can also involve a degree of market orientation). This helps anticipate their likely response to given policies and investments, which largely depends on their main purpose for keeping animals. This milestone aims at developing (structural) typologies of livestock keeping households for decision-makers to better tailor and target business- and social-protection oriented policies and programmes.

Milestone 3 – Toolkit to identify and document the returns and scalability of livestock practices and technologies, both for business-oriented and social protection-oriented livestock farmers

There are plenty of profitable, sustainable and scalable livestock-related technologies that, if adopted, can reduce farmers' vulnerability and increase their revenue. These technologies and practices are largely documented from a technical and management perspective with little information, if any, available on their returns and potential scalability. However, only technologies and practices that generate risk-adjusted positive returns for the adopters and are scalable can significantly enhance the contribution of livestock to SDG # 1. This milestone aims at developing a toolkit for stakeholders to estimate the returns of investing in different livestock-related technologies and assess their scalability, i.e. their applicability in different contexts.

Milestone 4 – Toolkit to identify and document small and medium-scale value addition technologies and inclusive business models along the livestock value chain

The International Labour Office estimates that there are 420 to 510 million Small and Medium Enterprises (SMEs) worldwide, contributing about 67% to global employment.[xvii] The development of SMEs is thus essential for employment creation. The number of jobs that SMEs can create depends on a variety of factors, including potential value addition (e.g. due to processing, packaging; etc.) and the labour-intensity of the underlying business model. This milestone aims at producing a toolkit for stakeholders to identify and document small and medium-scale value addition technologies and inclusive business models to support the establishment of livestock SME-driven "labour-intense" value chain.

Milestone 5 – Guidelines to identify effective delivery mechanisms for livestock-related public and private goods and their external validity

A major challenge for decision-makers is to design and implement policies and investments on the ground. There are no blueprint solutions, for example, to improve the system of animal health services. Should the government adopt a supply-side policy and recruit more veterinarians? Or should it recruit more para-professionals? Or should the government adopt a demand-side approach? In this latter case, should it provide vouchers to farmers to purchase livestock services from private providers or should it assist farmers in establishing cooperatives? This milestone aims at generating evidence on effective delivery mechanisms of public and private livestock-related goods and on their external validity, i.e. on the economic and institutional contexts in which they could effectively work.

Milestone 6 – Guidelines for evidence-based policy reforms in the livestock sector

A robust follow-up and review mechanism for the implementation of the 2030 Agenda for Sustainable Development requires a solid framework of indicators and data to monitor progress, inform policy and ensure accountability, including in the livestock sector. However, on the one hand, available livestock datasets are largely unexploited by stakeholders and, on the other, they can only provide a detailed picture of the situation on the ground with little insights on how to move forward. This milestone aims at developing guidelines for stakeholders and policy makers to make effective use of available livestock datasets and to assemble other relevant, often *ad hoc* information to design evidence-based policies and investments.

Towards joint action: a Livestock SDG # 1 Action Network

The proposed theory of change connecting livestock policy and investment to SDG # 1 and the associated milestones represent an initial framework around which to articulate discussion, activities and actions for designing policies and investments that enhance the contribution of livestock to SDG # 1.

Partners in the Global Agenda for Sustainable Livestock may wish to contribute to refine the proposed framework and propose to the GASL Guiding Group the establishment of one or more action networks working around livestock and SDG # 1. As a first step, the network(s) could refine, improve and expand this note to arrive at a shared consensus on the causal linkages between livestock development and SDG # 1. It can then detail a programme of action and secure human and financial resources to implement it in the coming years.

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[i] World Bank (2016) *World Development Indicators 2016.* Washington D.C.: World Bank.
[ii] Ravallion M. (2011) A Comparative Perspective on Poverty Reduction in Brazil, China, and India. *World Bank Research Observer* 26(1): 71-104.
[iii] World Bank (2016) *World Development Indicators 2016.* Washington D.C.: World Bank.
[iv] World Bank (2012) *World Development Report 2012: Gender Equality and Development.* Washington D.C.: World Bank.
[v] Otte J., A. Costales, J. Dijkman, U. Pica-Ciamarra, T. Robinson, V. Ahuja, C. Ly and D. Roland-Holst (2012) *Livestock sector development for poverty reduction: an economic and policy perspective.* Rome: FAO.
[vi] World Bank (2016) *World Development Indicators 2016.* Washington D.C.: World Bank.
[vii] Robinson T.P., P.K. Thornton, G. Franceschini, R.L. Kruska, F. Chiozza, A. Notenbaert, G. Cecchi, M. Herrero, M. Epprecht, S. Fritz, L. You, G, Conchedda and L. See (2011) *Global Livestock Production Systems.* Rome: FAO, and ILRI: Nairobi.
[viii] LGA (2016) *Livestock for Sustainable Development in the 21st Century.* Livestock Global Alliance. Washington D.C.: World Bank.
[ix] GASL (2014) *Towards Sustainable Livestock.* Discussion Document. Global Agenda for Sustainable Livestock. Rome: FAO.
[x] Robinson T.P., P.K. Thornton, G. Franceschini, R.L. Kruska, F. Chiozza, A. Notenbaert, G. Cechhi, M. Herrero, M. Epprecht, S. Fritz, L. You, G, Conchedda and L. See (2011) *Global Livestock Production Systems.* Rome: FAO and ILRI: Nairobi.
[xi] Banerjee A., E. Duflo, N. Goldberg, D. Karlan, R. Osei, William P., J. Shapiro, B. Thuysbaert and C. Udry (2015) A multifaceted program causes lasting progress for the very poor: Evidence from six countries. *Science* 248 (6236): 772-788.
[xii] Gerber P.J., H., Steinfeld, B. Henderson, A. Mottet, C. Opio, J. Dijkman, A. Falcucci and G. Tempio (2013) *Tackling Climate Change through livestock – A global assessment of emissions and mitigation opportunities.* Rome: FAO.
[xiii] Otte J., A. Costales, J. Dijkman, U. Pica-Ciamarra, T. Robinson, V. Ahuja, C. Ly and D. Roland-Holst (2012) *Livestock sector development for poverty reduction: an economic and policy perspective.* Rome: FAO.
[xiv] Wanyoike F. and Baker D. (2013) Pro-poor development performance of livestock projects: analysis and lessons from projects' documentation. *Development in Practice*, 23(7): 889-907.
[xv] FAO (2014) *Youth and development of aquaculture and livestock in Africa.* FAO Regional Conference for Africa. Twenty-eight session. Tunis, Tunisia.
[xvi] Norton R.D. (2004) *Agricultural Development Policy*. Chichester: John Wiley & Sons.
[xvii] ILO (2015) *Small and medium-size enterprises and decent and productive employment creation.* Report for the 104th Session, International Labour Conference. Geneva. ILO.