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Lessons learned from 'livestock master plan' development and implementation

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Key messages

Since 2014, 'livestock master plans' (LMPs) developed by the International Livestock Research Institute (ILRI) and partners have been used as a reference for gov-ernment plans and strategies in livestock sector de-velopment, and to guide investment in livestock sector areas (e.g. value chains and infrastructure) in various countries. The main lessons to emerge from the uptake of LMPs include the need to

- involve more stakeholders during development of the LMPs,
- hold target consultations with investor groups
- align budgeting with national systems
- establish data collection and monitoring systems
- ensure institutionalization of the LMP, and
- contextualize LMPs for local use.

Introduction

The livestock sector, despite comprising on average 40% of agricultural gross domestic product (GDP), suf-fers from underinvestment. For example, only about 5% of overseas direct investment (ODI) to developing countries goes to agriculture, and less than a tenth of even that low investment is directed towards livestock development.

In sub-Saharan Africa countries, which have substan-tial livestock industries, national agricultural priorities typical focus on staple crops and livestock develop-ment remains systematically underfunded compared to its economic importance in these countries.

To address this issue, an expanding area of ILRI sup-port to public policy has been the development, with partners, of national LMPs. These LMPs provide analy-sis, information and capacity to set priorities within national livestock development strategies to generate public and private investments. The LMP development process combines quantitative analytical tools with consultative and partnership exercises and uses both international experts and national capacity to jointly develop plans.

This brief presents evidence on the uptake of LMP out-puts in four countries – that is, how much were the LMPs recommendations taken up and how can we im-prove the process?

About livestock master plans

A livestock master plan (LMP) is a five-year sector investment plan. It includes both investment anal-ysis and a budget—including a financial and a human resource budget that guide the develop-ment of a country's sustainable livestock sector. It is meant to positively impact the economy of the country or state in which it is carried out and to achieve the development objectives of the people and government. These include reducing poverty, increasing the revenue that the sector contributes to either state or national income, and improving food and nutrition security by including a strategy to increase animal-sourced food consumption and exports.

Road maps with specific visions, targets, chal-lenges, strategies, and proposed investments in technology and policy interventions, with ex-pected outputs, outcomes and impacts are mapped out. Through joint effort among interna-tional and national experts, the LMP develop-ment process also builds the analytical capacity of government analysts to carry out data-driven and fact-based analyses for quantitative livestock sector planning.

The LMP provides government policymakers, pri-vate investors, and development partners with re-liable quantitative facts on:

- The current contributions and constraints of the livestock sector.
- The potential of the sector to contribute to national development objectives.
- Priority livestock commodities and value chains and proposed investment options (com-bined technologies and policies).
- Projections of how better targeted invest-ment in livestock can improve economic perfor-mance and improve lives in the sector.

More information: https://www.ilri.org/livestock-master-plans.

To date, ILRI in partnership with the French Agricultur-al Research Centre for International Development, CIRAD, and the Food and Agriculture Organization of the United Nations (FAO) and national partners has supported the development of LMPs in Ethiopia, Rwanda, Tanzania and the Indian state of Bihar. New LMP exercises are currently being conducted in Od-isha State (India), Kenya and the Gambia.

We conducted lesson learning evaluations in the countries where the LMPs have had more than one year to demonstrate impact to assess the success of these exercises and to refine them to increase future impact. The findings from Ethiopia, Rwanda, Tanzania and Bihar (India) are presented here.

LMP assessment methodology

In each country site, some variation of the follow-ing steps was conducted, which comprised both the collection of secondary data and information, as well as in-depth consultations with key stake-holders in the livestock industry.

1. Collect background information in order to a) review and document evidence as to how well the LMP projection targets were achieved, such as in livestock industry trends, and b) to identify key stakeholders for consultation.
2. Establish contact with key livestock officials and other key stakeholders and conduct the con-sultation with stakeholders. These include public officials, non-governmental organizations (NGOs), farmer and donor representatives and private sector actors.
3. Validate the assessment findings with stakeholders and identify ways forward for im-proved implementation of LMPs.

A farmer leads his sheep and goats to market in Menz,

Table 1: Details on the assessment process, a summary of the results of the assessment and finally areas for im-provement.

Ethiopia	
LMP assessment process	The Ministry of Agriculture recommended and facilitated contacts with a number of key stake-holders in the Ethiopian livestock industry. Three consultation meetings for public/government officials, NGOs/donors, and private sector, respectively, were held in 2021, followed by a final validation workshop.
Overall results of the assessment	Over 60% of the stakeholders had heard of the LMP, and had mixed levels of awareness of its contents. Livestock industry data from both the Government of Ethiopia (GoE), the Ethiopia Central Statistical Agency (CSA) and FAOSTAT show that the projected increases in livestock industry production from the LMP were largely unachieved. Data on public investment in livestock were not easily obtained, but various sources suggest that the LMP contributed in particular to new World Bank/GoE livestock investment of USD132 million (http://projects.worldbank.org/P159382?lang=en), new donor project financing of USD75 million, and new private-sector investments of USD200 million. The analytical results and projections from the LMP were incorporated directly into the GoE Growth and Transformation Plan 2015–2020, which was a key national planning document. In that way, the LMP played an important national planning role. The LMP was perceived to have contributed to the dairy industry particularly through investment in breeding services and infrastructure, and because of strong private co-investment in the dairy value chain. Other perceived benefits included establishment of new quarantine systems for exported animals based on a public-private partnership, new improved forage farms, and the development of new guidelines for improving animal health, welfare and surveillance in the meat value chain. Constraints to LMP implementation were perceived in the overly ambitious targets and projections, and inadequate public finance support beyond that already committed to the livestock sector. In addition, the regional structure of Ethiopian government planning, implementation and budgeting did not match the value chain structure of the LMP.
Lessons for future LMPs	During development of the LMP, improve coordination between federal, regional and local offices, and secure their participation in the planning. Coordinate budget preparation with the normal budget planning process, not in par-allel, and ensure that budget needs at various levels are addressed. Ensure underlying data and typologies adequately reflect reality on the ground and have sufficient local validation. Establish data collection and monitoring system to gauge and adjust progress associ-ated with the LMP implementation.
Rwanda	
LMP assessment process	The Ministry of Agriculture and Animal Resources (MINAGRI) guided the LMP assessment pro-cess, with the director general for animal resources suggesting key stakeholders to include. Government agencies, private industry actors, and NGOs stakeholders were consulted, usual-ly in individual meetings or informal small groups. MINAGRI also emphasized the need to ob-tain farmer-level input into the process. To achieve that, focus group discussions were held with 4-6 farmer representatives in several districts.

Overall results of the assessment	During the LMP projections period (2016/2019), livestock populations in Rwanda re-mained mostly constant, although cattle increased by 13% according to government estimates. Milk production increased by 11% and non-poultry meat by 22%. NGOs and donors indicated that they used the LMP to justify and support proposal de-velopment and relied on some of its projections for the livestock sector. Private actors such as feeds manufacturers said they were aware of the LMP, but had not used it. Government officials (MINAGRI and RAB, the animal resources department) indicated much more familiarity with the LMP, particularly at the central level and had made use of it. District-level veterinary and livestock officials were aware of it. Officials indicated that they use the LMP as a guide in developing sector strategies, projects and activities for Rwanda's livestock sector. They consider the LMP as the ref-erence and guide for all activities that the ministry plans to carry out. The MINAGRI and RAB confirmed that the Strategic Plan for Agriculture Transformation Phase 4 (PSTA4) was developed using the LMP as a guide with the PSTA4's information and the road map provided by, and similar to that of, the LMP. The PSTA4 is the implementation plan of the National Agricultural Policy (NAP), which is the agriculture sector's main strategy document under Rwanda's National Strategy for Transformation. The LMP also was used to do a livestock sector analysis that provides a comprehensive wider picture for each sub-sector.
Lessons for future LMPs	Stronger involvement of livestock actors at various levels in the LMP development and planning process.
Bihar	
LMP assessment process	The assessment was based on interviews with staff from the Department of Animal and Fisher-ies Resources, Directorate of Animal Husbandry, the Indian Council of Agricultural Research (ICAR) and the Bihar Veterinary College.
Overall results of the assessment	The Bihar LMP was to be implemented over five years starting in 2019 to improve the livestock sector in the state but this was delayed because of the COVID-19 pandemic. Thus, this assessment was conducted rather early in the implementation stage, to see if any follow up is needed. One direct impact of LMP is the 'Digitalization of Livestock Management System (DLMS)', which is a comprehensive administrative and management system being taken up by the Department of Animal and Fisheries Resources. It is now part of the National Livestock Mission and is an extension of the LMP itself. When the government of Bihar presented the LMP to the National Livestock Mission, they readily agreed and approved it. Bihar will be the first state in India to implement the DLMS under the National Livestock Mission. Under DLMS, all livestock development programs in the state will be available online. The special secretary also informed that the new phase of the World Bank project, developed as part of Kosi River Flood Rehabilitation, has livestock components that were inspired by the LMP. Budget was allocated for piggery development in six project districts, which was not there earlier, and new goat farms, layer farms, broiler farms and a frozen semen station, which were also based on LMP recommendations, have been funded by the government. This was especially needed as there has been some development in the dairy and poultry sub-sectors because of private investment but not in piggery and goatery. Discussions with private sector actors revealed they had yet to use the LMP The government is currently implementing a new program 'Saath Nichai' (seven determination), whose components include livestock development. Under Saath Nichai, entrepreneurship development is included targeting livestock entrepreneurs rearing goats and pigs who receive about 50% subsidy as incentive. This may be considered an LMP effect promoting private sector investment.

Lessons for future LMPs	Targeted consultations with investor groups should be a requirement in the LMP devel-opment process. After the LMP is developed, operational plans should be prepared to guide LMP im-plementation with roles for LMP team members to ensure that they are involved in insti-tutionalizing it the system. Many of those who participated in the Bihar LMP process now work in different departments and are not involved in its implementation. At the beginning of LMP development, an LMP project cell should be formed within the department of agriculture for the development and implementation of LMP for five years with an active monitoring and evaluation component. Data collection is required at regular intervals to know the status of the livestock sector at the grassroots level such as cost of production, milk price, disease status, adherence of breeding policy etc. It is important to include more stakeholders in the development of the LMP, including private sector actors. There is a need to prepare brief supplementary booklets e.g., on dairy, meat and eggs, drawing content from the main LMP document, for easy reference and action by different stakeholders.
Tanzania	
LMP assessment process	The findings from the interviews carried out are clustered into three stakeholder groups: gov-ernment ministries, departments and Local Government Authorities (LGAs); private sector and NGOs.
Overall results of the assessment	Interviewees demonstrated knowledge and familiarity with the contents and goals of the master plan although there was less awareness of it by LGAs. Interviewees, however, reported lower levels of knowledge about the implementation status of the plan. Government (ministries, departments and LGAs): The Tanzania livestock master plan (TLMP) is commonly used as guide by investors on where to invest in the livestock sector. The understanding of the TMLP among government stakeholders that were consulted varied. Several interviewees who participated directly in the TLMP's development had a clear understanding of the master plan and its targets, while those whose participation was limited had a moderate understanding it. In some instances, only a few department heads demonstrated a thorough understanding of the TLMP's vision and goals. The level of awareness of the TLMP at the LGAs-level is relatively low with only 30% of interviewees reporting being aware of the plan. As a result, the TLMP is not frequently referenced by the LGAs in the development of their district agricultural plans. They usually refer to the governing party CCM (Chama Cha Mapinduzi) manifesto, the National Development Strategy, and Agricultural Sector Development Programme (ADSP) II priorities. It should be noted that several of the government stakeholders interviewed reported that they were not sufficiently involved in the formulation of the TLMP but were instead engaged at the launch stage of the plan. Private sector: 50% of the interviewed private sector respondents had heard about the TLMP but had limited knowledge of how it was being implemented in their respective sectors. It was evident that the private sector is interested in the TLMP, but most of the actors did not know how the TLMP's impact is being measured. However, some of the private sector stakeholders indicated that they have worked in close collaboration with the government to address challenges hindering investments in the livestock sector. NGOs : About 90% of the interviewed NGO respondents were aware of the TLMP and its objectives because most of them were involved in the TLMP process since its inception. But their participation in the implementation of the TLMP has been minimal. For example, 80% of the respondents reported that they have never received an update or report on the TLMP's implementation progress from the ministry.
Lessons for future LMPs	All the key sector players must be identified and effectively represented in the TLMP's implementation and a budget set aside to effectively resource implementation. The Ministry of Agriculture should create a system to track and report on the implemen-tation of the TLMP. This should be underpinned by a robust data collection and moni-toring system for effective monitoring. The government should coordinate the TLMP's implementation. This should start by government first appointing a team to specifically bring together the different players and resources needed to ensure key TLMP deliverables are met.

Lessons for future LMP development and implementation

In several countries the LMP was confirmed as having contributed directly to national livestock development plans. It was also seen as a reference point for the development of projects, strategies and planning documents. In some cases, the LMP contributed to specific investments in infrastructure of sub-sector projects. In the case of Bihar, the administrative and manage-ment system was taken up by the state government.

Key lessons include:

Involve more stakeholders during development of the LMP: This will ensure coordination between federal, regional and local offices and secure their participation in the planning.

Consultations with investor groups: These should be made an essential activity in the LMP development process.

Align budgeting with national systems: Budget preparation should be done in coordination with nor-mal budget planning processes, not in parallel, and should ensure that budget needs at various levels are addressed.

Establish data collection and monitoring systems: T gauge and adjust progress associated with the LMP implementation. In Tanzania, for example, it was suggested that the Ministry of Agriculture creates a sys-tem to track and report on the implementation of the TLMP. This should be underpinned by a robust data collection and monitoring system for effective monitor-ing.

Ensure institutionalization of the LMP: Operational plans are needed to help institutionalize LMPs in different countries, with involvement of LMP team members. An LMP project cell, or bureau, could be formed within the relevant ministry for the development and implementation of the LMP for five years with an active monitoring and evaluation component.

Contextualize LMPs for local use: In more decentral-ized countries, it is important that local government administrators are aware of the LMP and it is appro-priateness for use in their own planning systems. This was seen in both Ethiopia and Tanzania where the LMP was not appropriate for local level use.

For further reading

1. Livestock master plans
2. Why a livestock master plan?
3. Tanzania livestock master plan
4. Bihar livestock master plan 2018-19 – 2022-23
5. Rwanda livestock master plan
6. Ethiopia livestock sector analysis: A 15-year livestock sector strategy

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