



Republic of Costa Rica

Costa Rica – Linking LEDS and NAMA in the Livestock Sector

Activity	Integration of the livestock Nationally Appropriate Mitigation Action (NAMA) with the livestock Low Emission Development Strategy (LEDS)
Country	Republic of Costa Rica
Sector(s) involved	Livestock (agriculture)
Time frame	2012 – ongoing

Case summary

According to Costa Rica's last national greenhouse gas (GHG) inventory (2010), the livestock sector is the second largest emitting source, being responsible for 23.6% of national GHG emissions.

To support creating a more eco-competitive livestock sector, Costa Rica is implementing three closely-related initiatives in parallel in an integrated process to improve coherence and synergy. These are the National Strategy for Low Carbon Livestock, a Livestock NAMA, and its NAMA pilot plan for implementation. These initiatives, led by the Ministry of Agriculture and Livestock, are carried out in a participative process with active involvement of private sector representatives. The strategy serves as an umbrella, giving political orientation to the sector. The NAMA provides operationalisation guidelines that are being implemented through a pilot plan.



Feeding hungry calves © iStock.com/CREATISTA

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Background

In 2007, the Government of Costa Rica announced its goal to achieve carbon neutrality by 2021. This goal is also emphasised in several public policy documents such as the National Development Plan (2015–2018), the National Climate Change Strategy (2009) and the National Climate Change Program (2013).

According to the last national greenhouse gas (GHG) inventory (2010), the livestock sector is the second largest emitting source, being responsible for 23.6% of national GHG emissions.

With 45,870 livestock production units occupying 35% of the national territory and employing at least 12% of the national workforce, the livestock sector is one of the most important sectors for the national economy. Production systems are primarily based on meat cattle (34%), dairy cattle (21%) and dual purpose (38%) (Low Emission Capacity Building (LECB) Project – Costa Rica, 2014).

Costa Rica's vision for the medium term (10–15 years) is to have an intensified, environmentally sustainable, modern and more efficient livestock sector (meat and milk production). In the long term (15 years and beyond), it is expected that herd density will increase and that small farms will diversify. Also, an evolution towards cleaner production systems is anticipated, assuming that the domestic market will be satisfied and specialised goods will be exported. Both the low carbon strategy and the NAMA aim at realising and optimising this vision.

By the end of 2012/beginning of 2013, three independent initiatives were under development:

- » The plan for a National Strategy for Low Carbon Livestock resulted from informal conversations among relevant stakeholders. In the beginning, the work was supported by UNEP Risoe Center (now UN-EP-Danish Technical University) and later adopted by the Climate Change Directorate at the Ministry of Environment and Energy (MINA).
- » Supported by United Nations Development Program (UNDP), a Livestock NAMA was elaborated and adopted by the Ministry of Agriculture (MAG). Since the Livestock Directorate did yet not exist at this point, this initiative was conducted under the International Affairs Directorate.
- » A pilot plan for meat cattle was promoted by the Livestock Corporation (CORFOGA), which initially focused on improved cattle management. In the process, the pilot plan was elaborated into a pilot currently underway for the livestock NAMA.

Activities

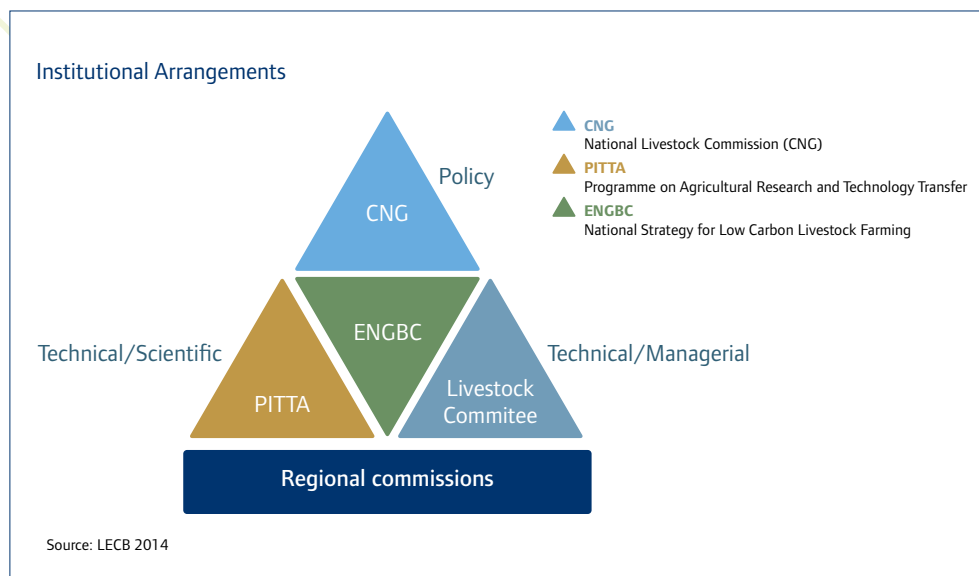
Creation of the Livestock Directorate: Although the three initiatives were initiated independently and by different institutions, they ended up being coordinated under the recently created Livestock Directorate of the MAG. This allowed the conceptualisation of the low-carbon strategy as an umbrella under which the NAMA acts as the operational tool and the pilot plan focuses on the application of technologies on the ground.

Establishment of a public-private institutional arrangement: As a means of moving these initiatives forward, a public-private institutional arrangement was established to allow for active participation of all stakeholders (see Figure 1). It consists of four levels (LECB, 2014):

- » **Policy level:** consisting of the National Livestock Commission (CNG) and senior officials from public and private institutions.
- » **Management level:** represented by the Livestock Committee (“mesa ganadera”), which includes representatives from public and private organisations and international cooperation agencies.
- » **Technical level:** consisting of the Programme on Agricultural Research and Technology Transfer (PITTA) and bringing together researchers from academia, NGOs, and public and private institutions.
- » **Operational level:** comprising the Regional Commissions, extension agents from public and private institutions, as well as livestock producers.

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Meetings of both the Livestock Committee and the PITTA are convened by the MAG and take place approximately once a month.



Current status of the three initiatives¹:

- » **Livestock LEDS:** The strategy has been finalised in a participatory workshop in July 2015, and is waiting for political approval. Its official launch is expected in October 2015. The Livestock LEDS is a policy tool that includes a baseline, mitigation scenarios and a plan for removing barriers, providing as such a framework for the implementation of the Livestock NAMA.
- » **Livestock NAMA:** The NAMA has been registered in the NAMA Registry of the UNFCCC and is currently seeking support for implementation. It aims at a transformational change in livestock production and processing in order to generate “eco-competitive” livestock practices, improving the income and the quality of life of producers in Costa Rica.
- » **Livestock NAMA Pilot plan:** Over the past months, fieldwork for baseline development and information-gathering has been carried out on pilot farms. This learning will support development of a training programme for farmers and technicians on eco-competitive technologies. The current phase aims at testing technologies and defining indicators for monitoring and evaluation.

Institutions involved

The key institutions involved are:

- » Ministry of Agriculture and Livestock Farming (MAG)
 - » Livestock Directorate: in charge of leading and coordinating all three initiatives
- » Ministry of Environment and Energy (MINAE)
 - » Climate Change Directorate: gives orientation on climate change issues and support in UNFCCC processes (i.e. COP, NAMA Registry)

¹ End of July 2015.

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Other relevant actors:

- » Livestock Corporation (CORFOGA)
- » National Chamber of Milk Producers (CNPL)
- » Tropical Agricultural Research and Education Centre (CATIE)
- » International Centre for Tropical Agriculture (CIAT)
- » National Institute of Agricultural Technology Innovation and Transfer (INTA)

Cooperation with

- » UNDP in Costa Rica supported the NAMA process and pilot activities
- » UNEP-DTU supported the Livestock LEDS process

Finance

The NAMA process and pilot plan was financed by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the European Community and the Australian Government through the UNDP LECB programme.

The Livestock LEDS work was supported by UNEP DTU, channelled resources of the Danish International Development Agency (DANIDA) through the Facilitating Implementation and Readiness for Mitigation (FIRM) project.

People

The Head of the Livestock Directorate in the MAG is responsible for coordinating all three initiatives and has been a key player in the process.

The Vice Minister for Livestock and Agriculture (formerly leading CORFOGA and recently appointed Vice Minister) brings the producers perspective to the governmental sector.

Impact of activities

- » **Coherence:** The fact that all three initiatives were incorporated into an integrated process allowed for coherence and synergy. The Livestock LEDS provides a long-term vision (20 years), undertakes an in-depth analysis of the sector and sets the conditions, while the NAMA develops the activities at a technical level. The pilot plan, aimed at livestock enhancement, has been aligned to the low carbon efforts that promote the implementation exercises on the ground.
- » **Ownership and stability:** An institutional setup that allowed for participation in the development process of the initiatives created strong ownership among the key stakeholders involved. This further ensured the stability of the process which survived several political disruptions, such as a threefold change of the vice minister and one governmental change.
- » **Mitigation:** The implementation of the NAMA is expected to achieve a reduction of 6 MtCO₂e in a 15-year period, mainly through the adoption of technologies and processes that lead to increased efficiency in the digestion process that breaks down livestock feed. The measure is expected to reach at least 70% of the herd and 60% of the area devoted to livestock farming in Costa Rica. Key technologies and processes suggested include: plantation of hedges in pasture areas; rational grazing or herd rotation; pasture improvements to improve nutrition for livestock; and improved fertilisation plans. These components will be complemented with a migration towards renewable energy sources and more efficient cooling systems at the processing level. The integration with the broader strategy makes the implementation feasible.
- » **Co-benefits:** Following a Climate Smart Agriculture approach, the implementation of the NAMA is expected to provide co-benefits such as soil conservation and land restoration as a result of improvement and rotation of pastures; ecosystem services such as protection of water sources, protection of biodiversity and landscape improvement; and increased profitability as a result of increased productivity of economic activity and improvement of employment opportunities in rural areas.

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Why is it good practice

- » Alignment with existing LEDS and/or national environmental and climate strategies: Both the proposed Livestock LEDS and the Livestock NAMA are aligned with the National Development Strategy of the country.
- » Awareness and support among key stakeholders through a participatory process: From the beginning, all relevant stakeholders from the private and public sector were involved in the process through the Livestock Committee, becoming supporters of the activities and ensuring ownership and stability.
- » Inclusion of a diverse set of interventions developed on the basis of a thorough analysis of barriers: The Livestock LEDS is based on an in-depth analysis not only of mitigation scenarios but also of the barriers that need to be overcome to create the enabling conditions for the implementation of the actions that are envisioned in the Livestock NAMA.

Success factors

- » **Producers involved from the beginning:** Inviting the producers to the Livestock Commission at the beginning of the process, understanding their needs, asking for their comments, and taking into account their suggestions along the process strengthened their participation and helped to build ownership for the initiatives.
- » **Tailored messages according to audience:** Producers gained interest in the process through an initial call that was not focused on environmental or climate issues, but rather on productivity issues, more specifically on how to increase the efficiency of farms. This attracted producers in the first place, and later environmental and climate issues were linked.
- » **Centralised coordination:** Organising the coordination of the three initiatives under one focal point helped to effectively link and articulate all three initiatives. The fact that the focal point was established at the Livestock Directorate at the MAG gave technical clarity as to the overall organisational responsibility.
- » **Political support:** Political support from both the government and the corporate side is crucial to launch important processes. In this sense, the involvement of, for example, the president of CORFOGA (representing the private sector) in the Livestock Commission has been central.

Overcoming barriers/challenges

Financial

**What were the main barriers/challenges to delivery?
How were these barriers/challenges overcome?**

Lack of financial resources at the national level to initiate the processes.

International cooperation has played a key role in supporting the planning process and the launch of pilot activities. Also, keeping an integral view of the processes (LEDS and NAMA) framed within sectorial objectives made it possible to identify domestic resources that can be allocated to continue the activities and push them towards the implementation phase.

Capacities

When the NAMA design process started, there was little comprehension of how to conceptualise a NAMA or when to start the MRV design.

It was important to introduce key players to the relatively new concepts of NAMAs and MRV through specific capacity-building efforts. For example, MRV considerations were needed by those involved in the design from the beginning of the processes (although not readily acknowledged) while the extension officers supported the farmers' implementation per se.

For those leading the process, it was important to always be one step ahead.

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Socio-cultural

Resistance to change sometimes creates resistance towards new proposals and processes.

Topics that generated controversy or resistance, especially from those reluctant to change, were discussed in the Livestock Commission. The participation of diverse actors acting in concert diminished resistance and promoted understanding and agreements between stakeholders.

Also, the inclusion in the discussion of topics related to adaptation that can be tangibly understood eases the process (see below, in Lessons learned – Beyond mitigation)

Stakeholder participation

Reluctance of stakeholders to participate in activities around new topics.

A key factor for stakeholder involvement has been the creation of trust, through people-to-people relationship building, coupled with the provision of technical information.

Lessons learned

- » **Go beyond mitigation.** Both the strategy and the NAMA initially only focused on mitigation. Nevertheless, during the process it was realised that, with a little extra effort, adaptation criteria could be included and both issues could be dealt with in a joined approach (e.g. actions aiming at accelerating the growth of pasture will increase the availability of food for cattle and at the same time will decrease the impact of rainfall in soil). This has helped to build ownership and increase efficiency in policymaking.
- » **Inter-sectorial communication.** From the beginning, efforts should be made to establish trustful relationships among key sectors (e.g. environment and livestock). Although it may seem time and resource consuming, it prevents the building-up of communication barriers between institutions.
- » **Synergies in cooperation.** Synergies in cooperation efforts, avoiding duplication and streamlining lines of work improved the efficiency of processes. As was mentioned before, having one person in the lead to coordinate the sector-related initiatives facilitated the alignment of efforts.

How to replicate this practice

It is recommendable to follow three steps for a conceptualisation strategy leading to implementation:

1. Design a broad low carbon strategy for the specific sector, including a participation strategy for key stakeholders.
2. Design the NAMA, in alignment with the strategy, and involve all relevant stakeholders.
3. Pilot implementation with those willing to engage such that each actor is aware of his role and contribution.

Any transformation may generate resistance in some parts of the society. These resistances need to be understood and dealt with along the way.

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