COSTA RICA — Livestock NAMA: Towards a climate-friendly, Eco-competitive Livestock Sector

NAMA Summary

The Livestock NAMA, which sits within the national Low-Emission Livestock Strategy political framework, is a key tool for advancing the national goal of carbon neutrality as the NAMA will be the key instrument to modernize and transform the livestock sector in Costa Rica. Using a holistic and innovative climate-smart agriculture approach, the NAMA plays a decisive role for biological connectivity, protection of water supplies, and increased resilience of the landscape and vulnerable rural populations, by integrating economic and social decisions into environmental policies.

Objectives and Targets

The Livestock NAMA will affect change not only in the primary production of meat and milk, but also in the processing of livestock products within the agricultural value chain, through the generation, dissemination and adoption of new mitigation and adaptation measures (technologies and processes) including:

1. Improved fertilization plans
2. Rational grazing / live fences
3. Improvement of pastures
4. Silvopastoral systems

The NAMA also seeks to improve the extension services provided to farmers in the form of policy, management, technical and operational support and greater engagement of both public and private actors. Finally, the NAMA will promote greater consumer awareness on the importance of reducing GHG emissions in the livestock sector. Labelling to identify products manufactured with low GHG emissions will be created as an incentive for producers and industries to adopt the proposed processes and technologies; this, in turn, will allow consumers to recognize the products more easily.
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Costa Rica

Sectors

Agriculture

Implementation Timeframe

15 years

Estimated GHG Emissions Reductions

Over a 15-year period, the NAMA is expected to reach at least 70% of the herd and 60% of the area devoted to livestock farming, achieving a mitigation potential of approximately 6 million tCO₂e. Additionally, as a result of the measures implemented, the NAMA is expected to capture approximately 4 million tCO₂e by 2030 through the sequestration capacity of biomass on the farms.

National Context and Background

In Costa Rica, there are 37,171 livestock production units spread through the country covering 35% of the entire national territory (Cenagro 2014).

A key economic sector, livestock production employs at least 12% of the national workforce. According to last national GHG inventory, for 2010, the livestock category was the second largest subsector in terms of emissions generation, responsible for approximately 23.6% (3,317,000 tCO₂e) of national gross emissions. Total gross emissions for the subsector were 14,044,040 tons of CO₂e, for a net total of 8,778,840 metric tons of CO₂e, after subtracting carbon sinks nationwide (IMN, 2014).

The current model of livestock production is based on grazing, with an average farm size of 41 ha and an animal density of 0.9 AU/ha. Of the total land area, 5% is used for silvopastoral activities, 24% is devoted to forest protection, and at least 45,000 ha devoted to forest plantations. Production systems are primarily meat cattle (42.1%), dairy cattle (25.6%) and dual purpose (32%). Herd distribution is asymmetric with two clearly distinctive segments -- a large number of small producers (50% of farmers, with herd sizes of approximately 16 heads) and a smaller segment of large-scale producers (10%) who own most of the cattle herds.

Alignment with National Goals and Policies

In 2007, the Costa Rican government announced its goal of becoming a carbon-neutral country by 2021. This commitment is stated in several public policy documents, including:

- the National Development Plan 2015-2018,
- the National Climate Change Strategy 2009;
- the National Climate Change Program (ENCC Action Plan 2013); and
- the Policies for the Agricultural Sector and Development of Rural Areas 2015-2018; and
- the National Strategy for the Development of Low Carbon Livestock Farming (ENDGBC).

The new ministerial authorities (2014-2018) have publicly committed to strengthen the sustainability and climate change agenda, including the strategy to promote low-emission livestock farming.

The National REDD+ Strategy being developed under Fonafifo leadership includes a landscape restoration strategy. The Costa Rica Livestock NAMA works in a coordinated way with REDD+ actors to encourage restoration of degraded farm areas.

Institutional Arrangements

The NAMA has been designed by the Ministry of Environment and Energy (MINAE) and the Ministry of Agriculture and Livestock Farming (MAG), along with the Livestock
Corporation (CORFOGA) and the National Chamber of Milk Producers (CNLP). MAG, which will implement the NAMA, has designed an institutional framework to encourage open dialogue among all stakeholders on policy, management, and operational issues, as well as ensure technical public and private research and agriculture extension services are coordinated. Approximately 20 institutions and all cattle producer chambers are represented in this institutional framework, covering a range of key NAMA services including: farmer training, technical assistance, dissemination and generation of eco-competitive technologies, innovation and transfer of technologies and process-development, and dissemination of information to consumers.

**MRV Plan**

The Costa Rica livestock NAMA is performing the first implementation of an MRV system that will allow measuring and monitoring of:

i. Reduction of GHG emissions attributed to these activities and its results

ii. Changes in productivity and profitability of livestock farming

iii. Resilience variation in livestock areas—according to Climate Smart Agriculture principles—and in the social component in the ranching families, including gender equity

Moreover, the existing information system, the Integrated Agricultural Establishments Registration System (SIREA), will be strengthened.

**Sustainable Development Benefits**

**Soil Conservation and Restoration:** Improved pasture management and pasture rotation will lead to improved soil quality and carbon sequestration. This, in turn, contributes to a higher organic content and an increased capacity to retain moisture—which is crucial for the expected reductions in rainfall and increases in temperature—as well as a reduction in runoff and soil erosion.

**Ecosystem services:** Protection of water sources and biodiversity, improvement of biological connectivity, and enhancement of the landscape will benefit tourism and other ecosystem services.

**Profitability:** Increased productivity will increase the income to farmers, improving their livelihoods and allowing better access to education and health for their families. The NAMA can also help secure employment opportunities in deprived rural areas and increase rural income.

**Increased forest cover:** Will result due to the planting of hedges and trees on farms as well as greater protection of larger riparian forests.

**NAMA Cost**

Up to 10 million Euro for NAMA implementation, plus 7.6 million Euro in domestic co-financing.

**Funding Mechanisms and Requirements**

A variety of financial instruments are required to suit the needs and characteristics of the differing production segments of the sector, namely:

i. a high level of co-financing (direct payments) for the adoption of measures for small-scale producers;
ii. Credit guarantees for those with limited access to credit as a result of lack of collateral; and

iii. Prime interest rates for producers with access to credit through the National Bank of Costa Rica (BNCR), which has supported the NAMA since 2014, as well as other interested financial institutions.

Including the livestock sector in the new domestic carbon markets is also under consideration.

The Government of Costa Rica is partially covering the costs of adoption of new technologies and processes in the current NAMA startup phase—by directly assisting farmers in 98 pilot farms, including the Brunca Region where the UNDP Low Emission Capacity Building (LECB) Programme is providing additional support.

Additional grant support of 1.5 million USD is needed to expand support beyond the pilot Brunca region. The funds will be used to strengthen technical and financial conditions for the banking sector to intervene and provide accessible credit to farmers and to make the Costa Rica Livestock NAMA even more attractive to investors.

National Partnerships

The Costa Rica Livestock NAMA is designed and supported through the following entities.

National Contact

For more information, please contact: Mauricio Chacón, National Program Manager of Livestock (mchacon@mag.go.cr) or lowemission@undp.org

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