

CTCN

Improved livestock management systems -Ecuador's Technical assistance case

Koronivia Joint Work on Agriculture
UN Climate Change Dialogues. Nov. 2020



Innovating

The Climate Technology Center and Network (CTCN) promotes the accelerated development and transfer of climate technologies for energy efficient, low carbon and climate resilient development.



Implementing

In its role as the implementing arm of the Technological Mechanism of the United Nations Framework Convention on Climate Change, CTCN is hosted and managed by the UNIDO and UN Environment and supported by more than 450 network partners around the world.



Connecting

The Center uses the experience of these institutions to provide technical assistance and training at the request of developing countries to contribute to the fulfillment of their NDCs. The countries, which work through national representatives, the National Designated Entities (NDE), transmit their requests for technology needs.



Title: Design and scale-up of climate resilient waste management and energy capture technologies in small and medium livestock farms. 2019

Request NDE: Undersecretariat of Climate Change, Ministry of Environment. Ecuador

- The agriculture sector is the largest generator of CH₄ emissions in Ecuador. *National GHG inventory*
- Mitigation line of action: Implementation of sustainable livestock practices at the national level that reduce GHG emissions, contribute to climate change resilience and increase productivity. *First NDC*

Implementors:

- Centre Internacional de Mètodes Numèrics en l'Enginyeria (CIMNE)
- Instituto de Investigación Geológico y Energético
- Instituto Nacional De Investigaciones Agropecuarias

Collaboration: Ministry of the Environment and Amazon Regional University (Ikiam).

Budget: \$250k aprox.

Scope of the TA

Preparation of an analysis detailing the **management model** necessary for the implementation of energy use projects.

Piloting this model in the province of Santo Domingo, where a demonstrative project will serve as an object of study for subsequent **scaling at the national level** and develop a subsequent National **Program for the Use of Biomass**.



Botero & Preston biodigester operating for 3 years in Las Lajas in 2013 (El Oro).

Source: TA final report. PNB Ecuador Plan. 2019

Climate change protection



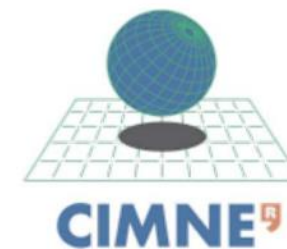
GHG emissions reduction:

- Methane gas from manure
- Energy consumption
- Use of nitrogen fertilizers

- Secure the distribution chain and reduce production costs → the producer has his own fuel and fertilizer.
- Initiation of agroecological practices → reduces pests, reduce use of agrochemicals and improves resilience to extreme climatic events (droughts)

Co-benefits

- **Improved water quality:** reduction of liquid waste discharged into nearby rivers.
- **Energy sovereignty:** Provide energy services on farms where there is no connection to the national interconnected system or expand energy uses that had not happen if the farmer has to increase its energy bill.
- **Reduction of production costs and income increase:** savings in the purchase costs of synthetic fertilizers and added value of organic management.



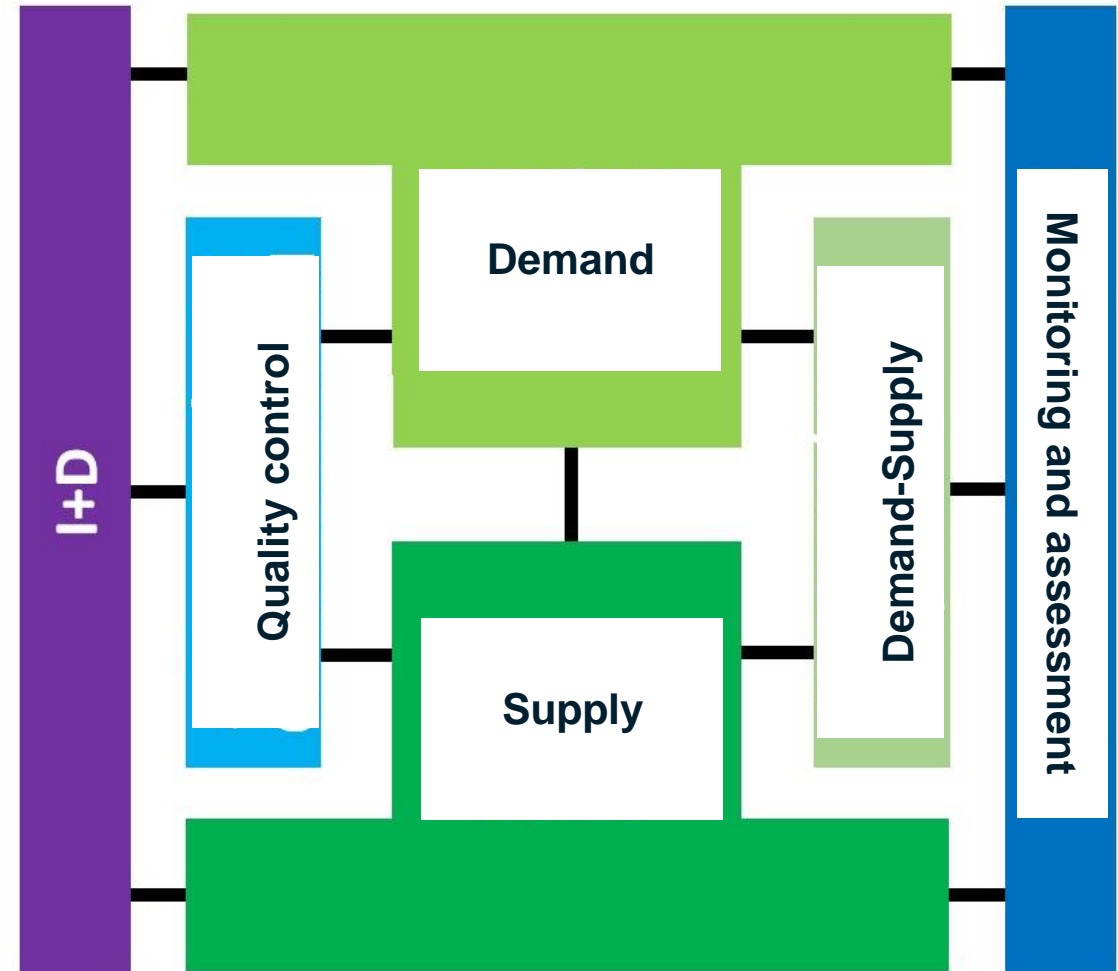
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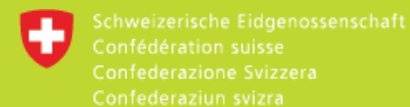
Final remarks

In the long term, this model is expected to be an input for local government planning and to have a national level of penetration.

Interaction between components of a NBP



Supported by



Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

