# AgriClimateChange Tool (ACCT) Assessment of Energy – GHG at the farm scale (the case of grazing livestock system in French Amazonia)

Global Agenda for Sustainable Livestock

Food and Agriculture Organization of the United Nations

ILRI INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

CGIAR

13 CLIMATE ACTION

## Key Messages

- **A Climatic AgriEnvironmental Measure** using a GHG tool at the farm scale appears to be a good opportunity to encourage low carbon farming practices.
- **Farm advisors training and information** for farmers is necessary to ensure the mitigation targets and the engagement of the livestock sector.
- **AgriClimateChange Tool: ACCT, Life AgriClimateChange European program).** A tool to evaluate E consumption and GHG emission at the farm scale (integrate national specificities in Europe, 5 languages).
- **ACCT DOM (Guyane):** Adaptation of ACCT in tropical overseas French territorials: An evolution of an official national tool managed by the French environment and energy management agency (ADEME) to explore potentialities for mitigation.

## Livestock-based solutions

- A software tool to assess C &energy balance at farm level based on different international standards and protocols.
- Energy and GHG assessment of a dozen farms in French Guiana have permitted the adaptation of ACCT taking into account GHG emissions related to the deforestation according to different methods based on variation of carbon stock and of his amortization.

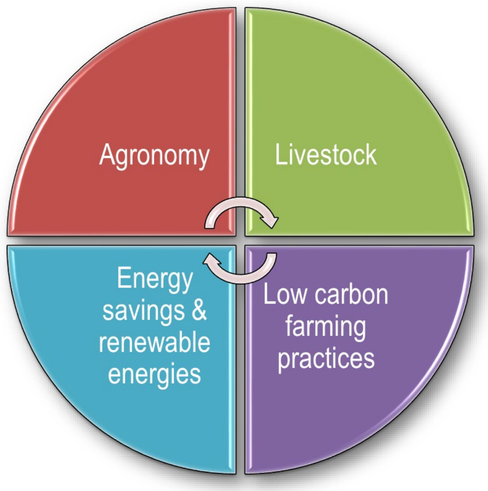
## Results and evidence

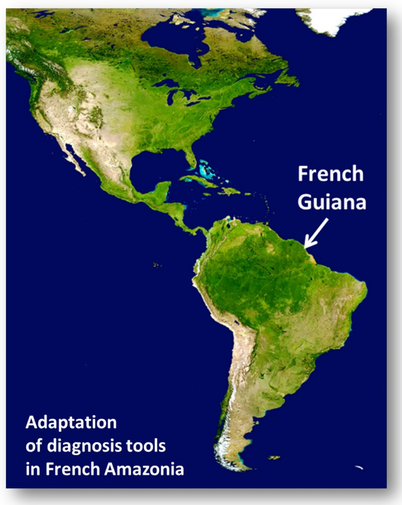
- The AgriClimateChange project's results show that it is possible to achieve significant progress (between 10 and 40% of GHG reduction) for the farming systems analysed.
- The ACCT DOM study in French Guiana shows that GHG emissions of stable system (older) are close to the references of the Congo ranches, and energy consumption are closed to French temperate area. Stable systems are characterised by a yearly C sequestration of grasslands (>24 years old) that compensates for up to 80% of the GHG farm's emissions in 2013.

| | French Guiana | France | Tropicals references | |
|---|---|---|---|---|
| | | *(PLANETE, 2010)* | Congo *(Duclos et al., 2012)* | Brésil *(Clerc et al., 2012)* |
| Energy efficiency | 36 *GJ/t meat* | 30 *GJ/t meat* | 6,5 *GJ/t meat* | / |
| GHG efficiency | 30 *teq$CO_2$/t meat* | 14 *teq$CO_2$/t meat* | 30 *teq$CO_2$/t meat* | 11-40 *teq$CO_2$/t meat* |

## Multiplier effects

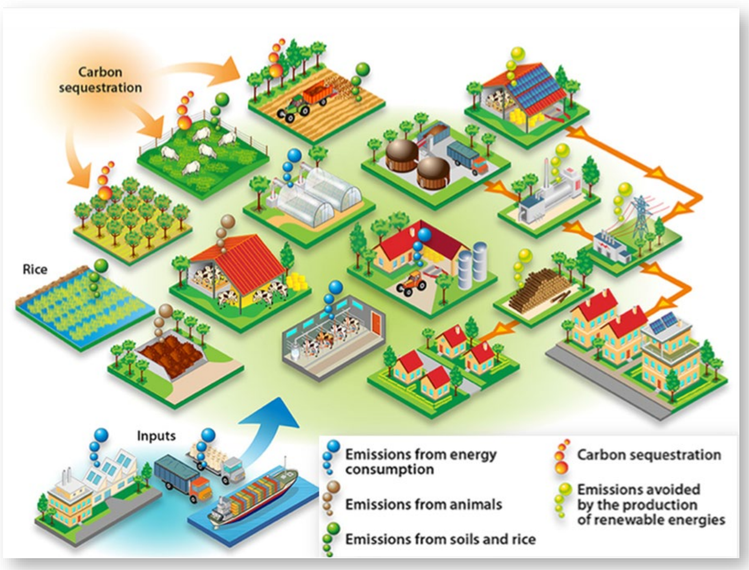
- Assessments at the farm scale can be very effective to improve climatic and energy performance by targeting the specific issues of each farm and showing the specific potential for reduction.
- From the initial diagnosis of the situation, users can build and test scenari to evaluate and prioritize actions to be implemented.
- Strengthening relations with producers organizations to identify and develop "climate-efficient" techniques.
- Methods of evaluation (references, tools should be standardized, shared, validated and adapted to different agro-ecological contexts).




- **AgriClimateChange proposals**

- **C balance:** (GHG emissions, C seq) Perimeter: Life Cycle Analysis at farm scale




- **Grazing livestock system Impacts** (deforestation, $CO_2$ emissions) versus food & service production (C sequestration)

## Partners

cirad AGRICULTURAL RESEARCH FOR DEVELOPMENT

ADEME French Environment & Energy Management Agency

Solagro

AgriClimateChange combating climate change through farming

APPLICATION OF A COMMON EVALUATION SYSTEM IN THE 4 LARGEST AGRICULTURAL ECONOMIES OF THE EU
*LIFE+09 ENV/ES/000441*

7th Multi-Stakeholder Partnership Meeting
Achieving multiple benefits through livestock-based solutions, Addis Ababa, 8-12 May 2017

## Contacts:

V Blanfort[1], B Dallaporta[1], JL Bochu[2], P Courtiade[3]
[1] CIRAD UMR SELMET, Montpellier France, vincent.blanfort@cirad.fr
[2] SOLAGRO Toulouse France, jean.luc.bochu@solagro.asso.fr
[3] ADEME Guyane