



GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

Country report : URUGUAY



Presentation to IRG Annual Meeting
24 June 2021

Specific contributions to IRG

Uruguay is a partner of the Low Carbon Livestock Research Network (LCL RN) - established August 2020

Coordinators: Eduardo Fuentes (UNALM, Peru); Florencia Garcia (UNC, Argentina)

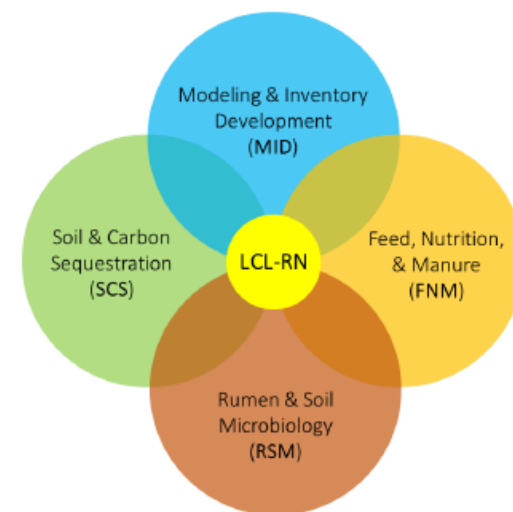
Partner countries: Argentina, Brazil, Chile, Colombia, France, Mexico, Peru, Spain and **Uruguay**; Participating from INIA Uruguay: V.Ciganda/A.Quincke/V.Pravia

LCL-RN Aims to improve the quantification and estimation of GHG emissions and carbon capture in livestock systems, for the identification of future mitigation options as well as for the improvement of the sector's inventories in the participating countries.

The LCL-RN covers the scientific areas/subgroups:

- Rumen and Soil Microbiology
- Soil Carbon Sequestration
- Modeling and Inventory Development
- Ruminant Nutrition and Manure Management

Proposals funding LCL-RN activities: CyTED and AmSud



Projects, initiatives and contributions to IRG's topics

Global Scale:

- **HoliSoils** project –EU Horizon 2020: “Holistic management practices, modelling and monitoring for European forest soils”. Coordinated by Natural Resources Institute **Finland (LUKE) (2021-2025)**:

The consortium includes +15 institutes across EU, and 2 non-EU partners: Japan in Asia, and **Uruguay in South America** (INIA Uruguay and FAgro-UdelaR).

HoliSoils will develop a harmonised soil monitoring framework and identify and test soil management practices aiming to mitigate climate change and sustain provision of various ecosystem services for human livelihoods and wellbeing

- **FAO - GSOCseq Map** “Global Soil Organic Carbon Sequestration Potential Map”. The team in Uruguay: MGAP, and INIA collaboration. Roth-C 20 yr simulations for different management scenarios at country scale .

Projects, initiatives and contributions to IRG's topics

Local Scale:

- **INIA Research project AgroGEI**; “GHG emissions and Soil C Sequestration in Agricultural Systems of Uruguay” – V. Ciganda/M.V. Pravia. Components: CH₄ emissions, N₂O emissions, soil C sequestration in LTE for crop-pasture systems and grasslands (different scales: LTE, field pairs, mapping)
- **Development Research (ANDE)**: SOC in irrigated crops in farms – RUU/FAgro-Udelar/IFEVA –UBA/INIA: S. Arana/G. Piñeiro
- **National Policies: Plans for Responsible Soil Use and Management (MGAP)**
 - Agriculture(erosion threshold- based on RUSLE): 5-years review
 - Dairy (erosion and available P content threshold)

Projects, initiatives and contributions to IRG's topics

Local Scale: Assessing SOC in Natural grasslands:

- Impact of Natural Grassland intensification (ANII) – F. Lattanzi/G. Piñeiro
- Inclusion of legumes (Procisur/Fontagro/GRA) – O. Constantini/F. Lattanzi
- Impact of grassland restoration (GEF) –Proyect GCP/URU/034/GFF: “Climate-smart Livestock Production and Land Restoration in the Uruguayan Rangelands” W. Oyhantcabal/G. Piñeiro/Dogliotti/Albin.

Local Scale: SOC in crop/pasture integrated Long-Term Experiments

- Irrigated rice (ANII – RR) – J. Terra
- Independent group on biogeochemistry of C and N (INIA -ANII – MPI BGC) (5yr) – V. Pravia
- Modeling soil C and GHG balance in agricultural systems (V.Pravia et al) – (ANII FMV 2021-2023 (24months)
- Erosion determined in LTE crop-pasture rotations using ^{137}Cs (ANII- FMV – 2020-2022) (30 month) (A. Quincke)

Opportunities, future actions and funding

FONTAGRO- NZMPI Project launching soon:

“Soil organic carbon sequestration opportunities in soils of Latin America and the Caribbean” (V.Ciganda/ V. Pravia/ F.Lattanzi) (4yr)

Uruguay (leader), Argentina, Chile, Costa Rica, Colombia

Aims to contribute to the design of land use and management for SOC sequestration & to build capacities for the quantification and monitoring SOC stocks.

Challenge: covert scientific information into tables!

Funding sources available for research in Uruguay:

International / Regional scale: FONTAGRO, PROCISUR.

National funding sources: CSIC , INIA (PEI), ANII;

ANII Posdoc open now! (closing 07/07/2021):

<https://www.anii.org.uy/apoyos/formacion/6/posdoctorados-en-uruguay/>

Thank you
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