Who's counting?

INVENTORIES & NDC NETWORK NEWSLETTER ISSUE 2 DECEMBER 2019

MRV platform
https://www.agmrv.org

IPCC Emission factor database
https://www.ipcc-nggip.iges.or.jp/EFDB/main.php

IPCC Guidelines
https://www.ipcc-nggip.iges.or.jp/public/2006gl

Inventories and NDC support
https://globalresearchalliance.org/research/integrative/networks/greenhouse-gas-inventories-network

GRA
https://globalresearchalliance.org

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Welcome to the second newsletter for the Inventories and Nationally Determined Contributions (NDC) Support Network of the Global Research Alliance on Agricultural Greenhouse Gases (GRA).

You will see there have been a few changes since the last newsletter. For a start the newsletter has a name, and we have tried to streamline how it is delivered to our membership via email, but still with the ability to print it out and distribute. Any feedback is welcome.

This newsletter contains articles written by the Network coordinators, general Alliance updates, and training and research opportunities of interest. Contributions are welcome, so if you have any opportunities or information to distribute to the wider GRA and Inventories and NDC network, please contact one of the Network coordinators listed below.

We look forward to hearing from you.

Spotlight

No stakeholder-left-behind!

By Ngonidzashe Chirinda and Jacobo Arango

The International Centre for Tropical Agriculture (CIAT) and partners are collaborating on a new CCAFS-funded project – **Agricultural innovation for the development of low-emissions cattle value chains in Latin America** (https://ccafs.cgiar.org/agricultural-innovation-development-low-emissions-cattle-value-chains-latin-america#.XVF_uuR8DnH).

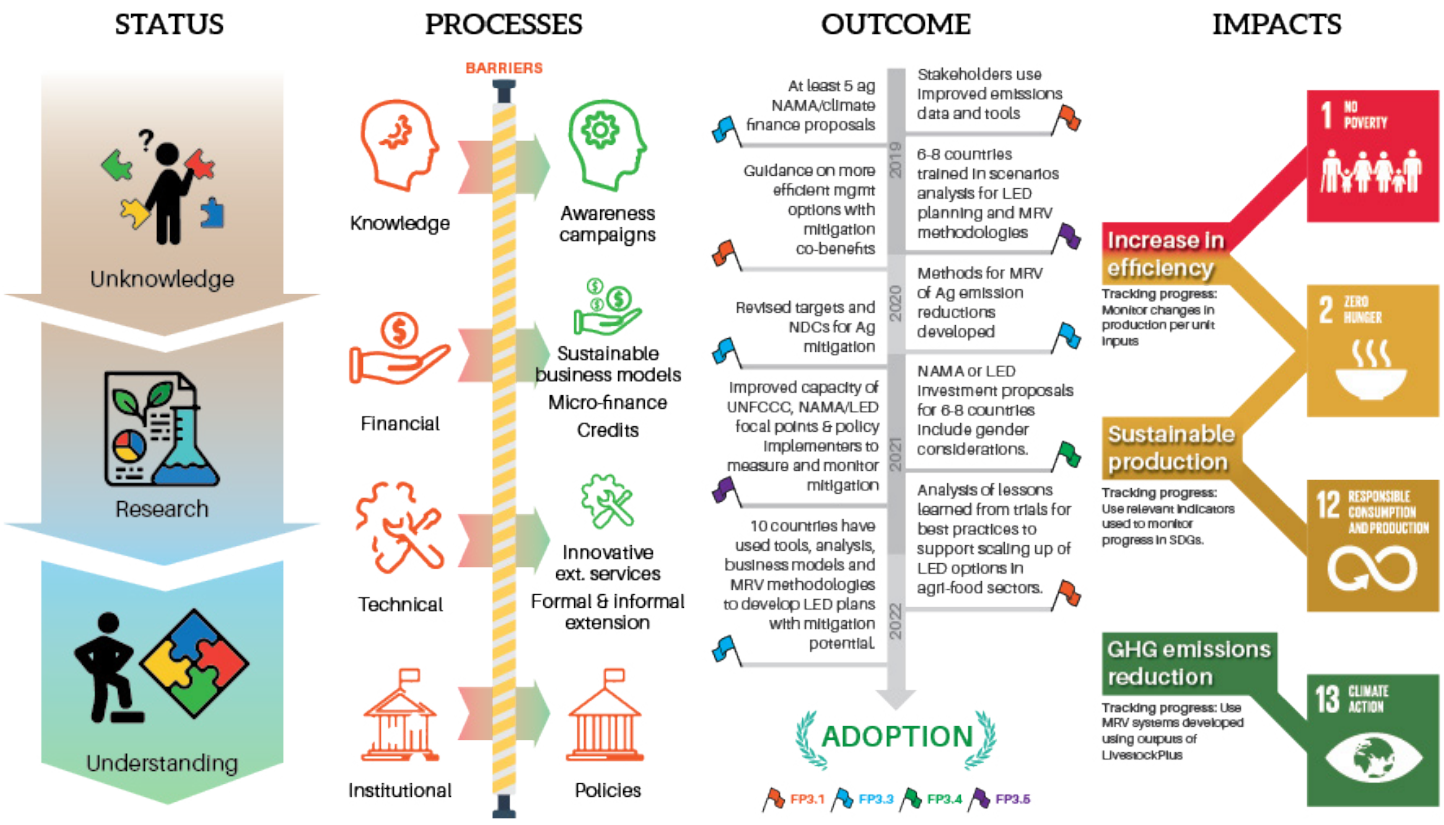
This project aims to bring together multi-disciplinary cattle- and non-cattle stakeholders to explore and exploit opportunities for reducing GHG emissions from cattle production systems. It also builds on the **Supporting low emissions development in the Latin American cattle sector** (LivestockPlus) project (https://ccafs.cgiar.org/supporting-low-emissions-development-latin-american-cattle-sector-livestockplus#.XVF-V-R8DnF).

It will establish a platform to foster creative low-carbon business models, feasible on-farm monitoring reporting and verification approaches, and public-private partnerships and alliances.

The platform will develop financial mechanisms that incentivise accelerated and sustainable implementation of promising innovations and best-fit practices by cattle value chain actors. The platform will also connect suppliers, producers, farmer organizations, regulatory agencies, financial and government institutions, NGOs and other support service providers and investors.

The project utilises knowledge from human behavioral science to better grasp the farmer psychology and decision-making criteria. Insights will be used to create and strengthen incentive structures and networks (e.g, livestock round-tables), to encourage change among modern large-scale farms (e.g. farmers who are enthusiastic about the use of technology and social media), without neglecting the traditional small and medium scale farms who wish to increase cattle productivity without increasing greenhouse gas emissions.

Clearly, as is the case with this new project, to meet NDC targets the mantra should be **No stakeholder-left-behind**, as we certainly need all hands, hearts and minds on deck!



Schematic of how the new project **Agricultural innovation for the development of low-emissions cattle value chains in Latin America** intends to catalyse change, through the three phases of 'unknowledge', 'research' and 'understanding', by overcoming existing barriers resulting in the needed outcomes and impacts.

UNFCCC National Inventory Report review

By Andrea Pickering

Recently, I was invited as an UNFCCC qualified agricultural expert to be part of an Expert Review Team (ERT) for one of the UNFCCC Centralized reviews in Bonn, Germany. I initially carried out the expert reviewer training 10 years ago when I was also a lead compiler of New Zealand's national agriculture inventory. The exam and qualification process proved invaluable to my work as an inventory compiler, as it furthered my knowledge on the reporting process and what was expected by the ERT.

While the IPCC Inventory Reporting Guidelines (2006) provide a comprehensive and comparable methodology for the reporting of national GHG emissions, understanding the nuances of reporting can be difficult at times. Countries national circumstances and resourcing can play a large part in the level of detail of what is reported on in a countries National Inventory Report (NIR).

Training to be part of an ERT can provide further guidance on what is considered priority areas by the ERT and provides further clarity on how to achieve the Inventory reporting quality aspects (transparency, accuracy, compatibility, comparable, consistent). It can be difficult to determine the level of detail and extent of information to incorporate in a NIR, and what can be left to supporting documents or referenced material.

Participating in an ERT built on my existing knowledge and helped clarify certain aspects of the review process. For example, why ERT's ask certain questions and seek certain knowledge during the review of country NIR's. A lot of Inventory compilers who have been involved in the review of their countries NIR may have been frustrated by the level of detail of ERT questions. However, when taken in the context of participating as an ERT member and the requirements on the ERT for clarification of all aspects of inventory reporting quality, it all becomes clear.

Whether you are an inventory compiler or just work in the space of agricultural inventories, I would highly recommend that you consider this training to build your understanding and knowledge of the inventory improvement process and NIR reporting requirements.

To register for the UNFCCC ERT training you need to be nominated to the UNFCCC Roster of Experts by your national focal point. Further information on this can be found under the training section of this newsletter.

GRA activities

GRA Council meeting

The 9th annual GRA Council meeting took place on 6–7 October 2019 in Bali, Indonesia. The meeting was hosted and chaired by representatives from the Indonesian Agency for Agricultural Research and Development (IAARD).

Discussions focused on the development of GRA Flagship projects, development of decision support tools, ways to increase the integration of science and training across the GRA Research Groups (Croplands, Paddy Rice, Livestock and Integrative).

Australia, represented by the Australian Centre for International Agriculture Research (ACIAR), was confirmed as the GRA Council vice-chair and will work to support Indonesia during its term as chair for the next 12 months. Council members also initiated discussions on the development of the GRA Strategic Plan and associated priority actions for the period 2021–2025. The Council meeting also provided an opportunity to hear from new Members and Partners of the GRA.

Members attending the meeting for the first time were Eswatini, Malawi, Mongolia, and new partners, the European Commission and AG-MIP.

The GRA Council meeting was held alongside the 5th Global Science Conference on Climate Smart Agriculture (CSA).

CLIFF-GRADS Programme

CLIFF-GRADS is a joint initiative of the Climate Change, Agriculture and Food Security (CCAFS) programme of the CGIAR and the GRA. It provides funding for PHD students from developing countries for short research visits of up to 6 months to contribute to specific agricultural GHG measurement and mitigation projects or quantification of emissions from reduced food loss and waste projects.

The first biennial workshop of the Climate Food and Farming GRA Development Scholarship (CLIFF-GRADS) Programme was held alongside the GRA Council meeting and 5th Global Science Conference on Climate Smart Agriculture (CSA) in Bali, Indonesia.

The CLIFF-GRADS Programme recently closed a call for applications for the third round, where 34 research projects were advertised. Applications are currently under review, with more than 200 applications received from students in 36 countries. Awardees will be announced at COP 25 in Chile in December 2019.

Another round for application is expected to be announced late 2019 or early 2020. We encourage researchers interested in hosting a CLIFF-GRADS awardee, or PHD students interested in applying for a CLIFF-GRADS award, to refer to the **GRA** or **CCAFS** websites later this year for updates.

Inventory and NDC activities

African low emissions livestock development regional workshops

As part of its activities under the Global Research Alliance on Agricultural Greenhouse Gases, the New Zealand Ministry for Primary Industries and the New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC), together with partner organisations including CCAFS, FAO, and World Bank, have facilitated an extensive awareness-raising campaign and consultation process in sub-Saharan Africa over the last 18 months.

This process included three regional awareness-raising workshops on low emissions livestock development that were held in east, west/central and southern Africa in July 2018, March 2019 and July 2019 respectively.

The workshops sought to demonstrate the benefits of advanced (Tier 2) greenhouse gas accounting methods for livestock systems, discuss countries' ambitions for agricultural/livestock development, and identify the steps needed for countries to improve the efficiency of livestock production and reduce greenhouse gas emissions.

The workshops were attended by over 150 senior government, policy and science representatives working in the livestock sector from 36 African countries.

These workshops have identified specific actions that can be undertaken to contribute to a country's capacity to move towards the sustainable development of their livestock sector and to meeting their reporting obligations.

The priority actions for low emission livestock sector development identified during the regional workshops converged under four overarching themes: (i) Development of GHG inventories, NDCs and MRV; (ii) Identification of mitigation action and policies; (iii) Establishment of regional hubs and studies; and (iv) Training.

These themes will inform planning and future investment by GRA members and partners to support strategic regional and climate change objectives in sub-Saharan Africa.

View the post-workshop TV appearance that highlighted the work of the GRA in Southern Africa

Training

UNFCCC Expert training

The information submitted by Annex I Parties under the Convention and the Kyoto Protocol and to measurement, reporting and verification (MRV), both for Annex I Parties and non-Annex I Parties is reviewed by experts. Training programmes are available for experts to enable them to participate in these various reviews

For Annex I Parties, these include, among others, the reviews of annual submissions of GHG inventories and supplementary information under the Kyoto Protocol, and reviews of national communications and biennial reports as part of the international assessment and review (IAR) process.

For non-Annex I Parties, this relates to the technical analysis as part of the international consultation and analysis (ICA) process for biennial update reports (BURs) submitted by non-Annex I Parties.

The UNFCCC welcomes new experts to this training. To register for the training you need to be nominated to the UNFCCC Roster of Experts. **Information on the UNFCCC Roster of Experts nomination process can be found here.**

Food and Agriculture Organization e-learning courses

National greenhouse gas inventory for agriculture: **https://elearning.fao.org/course/view.php?id=327**

National greenhouse gas (GHG) inventory for land use: **https://elearning.fao.org/course/view.php?id=453**

For questions related to FAO e-learning resources, please contact **micca@fao.org**

The Greenhouse Gas Management Institute: **https://ghginstitute.org**

Colorado State University's Master of Greenhouse Gas Management and Accounting (MGMA) degree: **https://warnercnr.colostate.edu/ess/ess-graduate-degrees/mgma**

Webinars

CLIFF-GRADS

CLIFF-GRADS students participated in a series of webinars to share their research and build capacity. Links to a video recording of each session and individual presentations can be found at **https://ccafs.cgiar.org/2019-cliff-grads-webinar-series#.Xa-cjpozaUl**

Reports and papers

Research review on *How to measure, report and verify soil carbon change to realize the potential of soil carbon sequestration for atmospheric greenhouse gas removal,* published in *Global Change Biology*. DOI: 10.1111/gcb.14815.

One proposed option for removal of carbon dioxide from the atmosphere is by increasing the amount of carbon retained in the soil organic matter, an option known as soil organic carbon sequestration. Given that soils already contain a lot of carbon, and changes in soil organic carbon are slow, it is difficult to measure increases in soil carbon against the large background soil carbon stock. Because of this difficulty in measuring changes in soil organic carbon, a key barrier to implementing programmes to increase soil organic carbon is the need for credible and reliable measurement/monitoring, reporting and verification platforms.

We review methods for measuring soil organic carbon change directly in soils, we examine novel developments for quantifying soil organic carbon change, and describe how surveys, long-term experiments and chronosequences (sites of different ages with changes at various stages of carbon gain) can be used for testing models and as benchmark sites in global frameworks to estimate soil organic carbon change.

We review measurement/monitoring, reporting and verification platforms for soil organic carbon change already in use and describe a new vision for a global framework for measurement/monitoring, reporting and verification platform of soil organic carbon change. The proposed platform builds on existing repeat soil surveys, long-term experiments, remote sensing, modelling and novel measurement methods and could be applied at national, regional or global scales.