

# Flagship: Inventories – Making it Count

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# Rationale 1

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- Increased obligations for reporting on GHG emissions and Nationally Determined Contributions (NDCs) under the Paris agreement,
- Important that all countries are able to estimate their GHG emissions to maximise transparency, accuracy, completeness and consistency (TACCC).
- The inventory flagship will provide varied outputs that enable :
  - Countries to increase their capability/capacity
  - Countries to overcome many barriers to make desired inventory improvements

# Rationale 2

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- **Share techniques, data, and emission factors** - fill in gaps for country specific information
- **Sharing of experience and knowledge** – develop guidance that represents best international practice and science on advanced inventory methods.
- **Realize efficiencies by increasing cooperation**
  - Identify gaps and add value to already existing work
  - Connect activities and people involved in inventory-relevant work

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- **Flagships are umbrella research programs that can encompass many different components.**
  - **Flagship provides an entry point for members, partners, and funders to put resources into inventory improvements**
  - **The GRA is in a unique position to address inventory as it links governments and scientists on a global scale.**
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# Four Main Themes

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<p><b>Enhancing inventory <i>structure</i></b></p> <p><i>Guidance, analysis</i></p>	<p><b>Building <i>capability</i></b></p> <p><i>Analysis, targeted experience sharing and competency building</i></p>	<p><b>Acquisition and administration of <i>data</i></b></p> <p><i>Identify, validate, use</i></p>	<p><b>Demonstrating <i>mitigation</i> in NDCs</b></p> <p><i>Identify, design</i></p>
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# Enhancing inventory *structure*

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*Components within inventory flagship proposal:*

- **Regional** and source-specific guidance for the development of advanced inventories
- **Tier 2 inventory development** – *utilise expertise and experience of GRA Members*
- **Guidance** for development and adoption of modelling approaches (i.e. Tier 3) for specific sources within inventories

*Components within inventory flagship proposal:*

- **Analyses** of current methodologies for estimating GHG emissions adopted in national GHG inventories by source, barriers to adoption of advanced methods and experiences of countries in adopting advanced methods (networks and reports from international workshops, technical and summary papers)
- **Identification** of training needs; country-specific guidance and training needs developed jointly with countries.
- **Delivery** of targeted technical training to improve emission factors and design inventories that work with existing national and regional data sources.

# Acquisition and administration of *data*

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*Components within inventory flagship proposal:*

- **Incorporation** of improved emission estimates in emissions databases (e.g. IPCC-EFDB, GRAMP, SAMPLES, MAGGnet) and activity databases.
- **National** and regional research projects that validate existing measurements and identify and **validate** approaches (measurements and modelling methodologies) to reduce the emissions intensity of food production and ensuring that those gains can be captured in inventories.
- **Dissemination** of improved estimates of GHG emissions developed from regional and national projects to inform the development and verification of methodologies by the IPCC and other inventory support mechanisms



# Demonstrating *mitigation* in NDCs

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*Components within inventory flagship proposal:*

- **Provide** targeted support for countries to use improved inventory methods to include mitigation in National Determined Contributions (NDCs) and for designing agricultural monitoring, reporting and verification (MRV) within Nationally Appropriate Mitigation Actions (NAMAs) or Low Emissions Development pathways

# What Next?

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**Concept notes** for activities (i.e. projects having clearly defined outputs) under flagship developed by Inventory taskforce

- Concepts will address Inventory flagship components under the four main themes
- Circulated to wider GRA community to determine interest, overlap with other activities, opportunities for synergies with other projects, and any initial ideas for resourcing

Concepts with sufficient interest will be developed into **detailed project proposals**

- Could be more than one related project proposals coming from a single concept note
- Example: projects with outputs in < 1 year and related projects with outputs in > 1 year

Those without sufficient immediate interest can be recirculated to GRA community when:

- It becomes feasible to address identified conditions necessary for support
  - New related developments could make concept more attractive for support
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# Example Concept 1

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**Title:** Guidance will be developed that identifies how to approach the incorporation of mitigation practices and technologies into agricultural GHG inventories

**What:** fit mitigation in inventory structure, restructure inventory to include effects of mitigation practices, obtaining clarity in mitigation effects

**Examples:** including dietary additives to livestock, novel forage types, high feed conversion animals, soil amendment to improve pasture productivity

**Resources:** dedicated coordinator + in-kind contribution from Members with needed experience

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# Example Concept 2

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**Title:** Developing guidance for good implementation of Tier 3 models in national inventories

**What:** documents that describes principles of sound practice for implementing a Tier 3 model for GHG emissions and/or removals. Covers decision processes for implementation, attaining good TACCC, uncertainty analysis

**Examples:** Inventory application of biophysical process models generally or specific modelling of soil C stock changes from changes in grazing management, etc.

**Resources:** dedicated coordinator + in-kind contribution from Members' inventory practitioners and GHG modellers

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# LRG and Inventory Flagship

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## Taskforce looks to LRG for guidance and assistance

- LRG has much experience and involvement on inventory improvement

## Connect relevant LRG projects to the inventory flagship

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# Current Task force

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- **Lead Authors**

- Brian McConkey (Canada), [brian.mcconkey@agr.gc.ca](mailto:brian.mcconkey@agr.gc.ca)
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- **Contributing Authors**

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- (14 from Argentina, BRAVO!)

- **One reviewer, 5 contacts**

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