

Inventory & Measurement Cross-Cutting Group Meeting

Erata Hotel, Accra, Ghana

22-23 November 2012

Meeting Report

OVERVIEW

The second meeting of the Inventory & Measurement (I&M) Cross-Cutting Group took place from 22-23 November 2012 at the Erata Hotel, Accra, Ghana and followed on from a three day regional capability building workshop organised by the I&M Group and the Livestock Research Group (LRG).

The meeting was attended by delegates, representing 8 Alliance member countries (Australia, Canada, Ghana, Netherlands, New Zealand, Philippines, United Kingdom, and Uruguay). See Appendix 1 for a complete participants list. The meeting was co-chaired by Canada (Dr Brian McConkey, Agriculture and Agri-food Canada) and the Netherlands (Dr Jan Verhagen, Wageningen UR) as country co-Chairs of the I&M Group. Because of difficulties arranging travel and visa regulations several countries that wanted to attend had to cancel at the last minute.

This report is a summary of key discussions, action points and outcomes from the meeting. Presentations are provided separately as PDFs.

MEETING OUTCOMES

The meeting achieved the following outcomes:

- Update on research activities in Member Countries.
- Update from the Alliance Secretariat on the latest Council meeting and the agreed Research Group reporting requirements.
- Updates on the other Research Groups of the Alliance, and any requests of activities that the I&M Group should undertake.
- Presentation from the Climate Change and Food Security Group of the CGIAR.
- Further discussion on the work areas identified at the last meeting, and development of the identified activities into a Group Workplan.
- Next steps for the Group and discussion about future meetings.

WORK AREAS OF THE INVENTORIES & MEASUREMENTS CROSS-CUTTING GROUP

Area of Work	Countries to Develop the Terms of Reference
Information Sharing	
1. To foster effective mechanisms of sharing emission factors and emission data	Canada
2. To produce an inventory and guidance on the use of tools and methods for Greenhouse Gas (GHG) estimation; Sharing approaches and lessons learned on application of Tier 3 methods.	not determined at meeting
3. To share methods and lessons learned on application of remote sensing to improve activity data.	United Kingdom, Philippines, Ireland Viet Nam
Networking	
4. To promote communication between inventory practitioners and research scientists working on specific inventory-relevant topics.	Ghana, Philippines, Malaysia
5. To identify opportunities to involve partners to further work on GHG inventory and measurements.	Canada, Netherlands, Uruguay, New Zealand, Japan
Guidance	
7. To produce best practice guidance on measurement techniques, harmonisation of approaches, and standardisation of technologies and methodologies for soil organic carbon (SOC), nitrous oxide (N ₂ O) and methane (CH ₄).	New Zealand, Canada (SOC); United Kingdom, (N ₂ O); Japan, United Kingdom, (CH ₄)
8. To produce the best practice guidance on development of activity data.	Netherlands, Canada
Methods and Capacity Development	
9. To increase our capability to estimate and communicate uncertainties of GHG emission/removals.	United Kingdom, Viet Nam, Canada, New Zealand
10. To build capacity to estimate and measure GHG emission and removals.	New Zealand, Netherlands, Ghana, Viet Nam, Indonesia, Uruguay, Argentina, Chile
11. To develop methods to evaluate the economic value of GHG mitigation.	Ghana, United Kingdom, Indonesia
12. To improve capability to quantify GHG emission and removals for further scenarios of farming systems and climates.	Uruguay, Netherlands, Canada, Viet Nam
13. To produce guidance on methodologies for determining emission intensity.	New Zealand, Netherlands, Canada, Canada, Viet Nam, United Kingdom

SUMMARY OF DISCUSSIONS

MEETING OBJECTIVES

1. Dr Brian McConkey opened the meeting by providing an overview of the Inventories and Measurement Cross-cutting Group including a summary of the capability building workshop held earlier in the week and the objectives for this meeting.
2. The I&M Group aims to facilitate activities across all three of the Alliance Research Groups (Croplands, Livestock and Paddy Rice) that have an inventory focus. This may mean that the Group undertakes activities that all three Groups have an interest in or it may mean providing input or coordinating activities organised by the Research Groups.
3. The first meeting of the I&M Group identified 13 work areas that were of interest to Group Members. The aim of this meeting will be to discuss the terms of reference developed for each work area and then prioritise activities for the Group. Following the meeting these discussions will be sent out to the participants of the I&M Group who were unable to attend and allow them to contribute and agree to the Group workplan and priorities.

REPORTS AND RECOMMENDATIONS FROM OTHER ALLIANCE GROUPS

4. The session provided an overview of the workplans for the other Research and Cross-cutting Groups outlining their Group's focus and sharing their views on where they saw opportunities for the I&M Group to contribute. These overviews provide an opportunity for the I&M Group to identify where it should focus its effort and future ways to contribute or collaborate with other Groups.

Livestock Research Group

5. Dr Victoria Hatton (NZAGRC) provided an update on the work of the LRG following their most recent meeting 1-2 November 2012 in Uruguay. The LRG categorises activities into six work areas
 - Five agreed networks now sit under the LRG, and a grasslands network is proposed
 - Collaborative research projects – a range of sizes, and international involvement each country funds their own involvement.
 - Knowledge transfer – best practice manuals and guidelines, The LRG recommends the I&M group work with the LRG for guidelines on Soil carbon measurements (I&M work area 7) and also measurements using Micro-metrological technologies.
 - More widely the LRG also sends out a regular newsletter, includes updates on the Alliance website and is developing a partnership with the US Animal GRACenet project.
 - Joint funding of research projects including; Fontagro regional projects in Latin America, an EU- JPI collaborative funding mechanism and developing synergies with the FAO GLEAM project.
 - Capability building activities include; workshops, technical training programmes, fellowships

Next meeting: 28-29 June 2013, Dublin during GGAA

Paddy Rice Research Group

6. The main work area for Paddy Rice Research Group is currently standardisation of methane measurement techniques and water management in paddy fields.

Knowledge sharing/transfer:

- The group is working for standardisation of measurement techniques.
- Experts from Japan, the Philippines (IRRI), Indonesia, and India exchanged automated measurement data for identifying the best time of the day to measure for representative values of methane emissions.
- Also considered was the frequency of measurements required during flooded and drainage periods of paddy rice growth.
- An original scientific paper from the analysis of Japanese data has published.

Data sharing opportunities:

- The group is preparing Database of Literature and Experts.
- The format of data input sheets was developed by communicated with members early this year.
- Data compilation at each member country is now at work.

Research networks:

- Since the last Council meeting, China and Republic of Korea have joined the group.
- Some observing countries, such as Thailand, Pakistan and India actively participate in the group.
- IRRI, CIAT, and AfricaRice are participating as partners.

Collaborative research projects:

- The Japanese government approved a research project to assess the feasibility of GHG mitigation through water saving techniques in irrigated rice, which was donated to IRRI.
- The project actualizes the Longer Term Action Plan of the group: Pilot multi-site/multi-country experiment focused on mitigation options, using standardized experimental protocol.
- The project will be initiated in January 2013 by collaborating with GRA member countries: initially with the Philippines and Vietnam, and may be expanded later.

Next group meeting:

- Next (4th) group meeting will be held at IRRI (Philippines) during 21-24 January 2013, in conjunction with the kick-off meeting of the multi-country project.

Croplands Research Group

7. The Croplands Research Group Workplan is developed under three component areas; net greenhouse gas emissions, agricultural peatlands and wetlands, modelling of N₂O emissions and soil carbon stocks

Capability and Capacity building action items:

- Borlaug fellowships run by the US supporting short term exchanges for developing Alliance Member countries.

- Partnering with Brazil's International expert exchange programme, and supporting Alliance member participation.

Information and Technology transfer action items:

- Developing agricultural greenhouse gas brochures for land managers and policy makers
- Initiating an Agro-forestry conference in Canada mid-July 2013.
- Continually updating the Croplands literature database, published literature references searchable by climate, crop, or management practice.

Networks and Databases action items:

- Developing a DNDC modelling network, lead by the UK
- Irrigation management and efficiency network, lead by Canada

Research Collaboration action Items:

- The Croplands Group is collaborating and extending the US initiated GRACenet project exploring mitigation practices across a range of crops, climates and soils.
- Collaborative project on drained organic soils with the FAO
- Exploring mitigation options with models in collaboration with the Soil Carbon and Nitrogen Cross-Cutting Group

Next Group Meeting: Tampa, Florida, USA November 2013.

Soil Carbon and Nitrogen Cycling Cross-cutting Group

8. Dr Bill Slattery from Australia, co-chair of the Soil Carbon and Nitrogen Cycling Cross-cutting Group presented the action items and outcomes from the Groups first meeting in Bari, Italy 7 June 2012.

The Group has agreed to focus on two main areas of work:

- Measurement techniques and the standardisation of measurement methods for N₂O emissions from soils. The methods and protocols will be benchmarked against a common site
- Modelling soil carbon and nitrogen biology and modeling of the soil carbon pool

Other activities from the workplan are listed below:

- Coordinate and establish access to data provided by Research Group databases – e.g. existing database of Croplands Group
- Coordinate with AG-MIP process
- Identification of mitigation options to be evaluated in models from guidance of the needs of the Research Groups and Members' policy communities.

UPDATE FROM PARTNERS –CCAFS

9. The CGIAR are a partner organisation of the Alliance, and the Climate Change, Agriculture and Food Security (CCAFS) work programme in particular shares many of the same goals as the Alliance. The Group was pleased to welcome Abdoulaye Moussa to present on some of the work CCAFS is doing in Africa and identify potential linkages with these activities.

10. The main goal of the CCAFS is to promote adaptation and mitigation and support climate change objectives in policy decision making. Currently projects supported by the CCAFS take place in West and East Africa as well as the Indo-Gangetic plains, and hope to move into South Asia and Latin America in the future. The programme forms scientific partnerships with International organisations, the regional CGIAR centres, Universities, NGO's and private companies.

11. The main focus of the work is on low net emissions agricultural development pathways, with activities concentrating on increasing soil carbon in degraded soils as a combined mitigation and adaptation activity. This work programme provides grants to enable greenhouse gas emission quantification for researchers identifying traditional African agriculture practices contributing to the reduction of emissions and increasing soil carbon sequestration.

12. The programme considers three main pathways when promoting mitigation options:

- Inform policy makers
- Farmer discussion groups
- Technology transfer

13. Through each of these pathways the programme has developed a wide range of activities including coordination of access to stakeholders, collaborative projects and partnerships with other organisations and on farm research programmes with baseline studies.

14. This presentation lead the group into an interesting discussion on technology transfer processes in each of the participating members countries and how to apply what the CCAFS programme has learned. Uptake of new technologies has to build on previous work and relationships developed with the farmers themselves. The farmers should be involved in developing the mitigation options and testing them on farm so they feel confident that any changes to their agricultural practices will reduce risk and provide a greater yield.

CAPACITY BUILDING WORKSHOP

15. Dr Victoria Hatton then provided an update on the regional capability building workshops organised by the LRG, including the Accra workshop held 19-21 November as a jointly activity of the LRG and the I&M Cross-cutting Group.

16. The workshops aim to bring together key scientists from a region to develop a shared understanding, progress agricultural greenhouse gas mitigation research and identify the capability needs of countries attending.

17. Workshop outcomes would then include developing targeted projects and capability training aligned with countries national development plans. Possible funding opportunities for future regional projects could then be identified by participants.

18. Three workshops have been held during 2012 in South East Asia, East Africa and West Africa, with the next planned for Eastern Europe later in 2013. The outcomes from the workshops so far have focused on capability building to improve country level and regional inventory data, which is the reason that the I&M Cross-cutting Group was invited to support the West Africa workshop. The Group was asked if they saw value in continuing to support the LRG with future capability building workshops

19. The Group discussion centred on the need for ongoing engagement with participants and countries, ideally countries within the region would then join the Alliance, and continued capability training could be provided to scientists. The Group was interested in discussing further; the LRG will provide more information about the next workshop as decided.

UPDATE FROM THE SECRETARIAT

20. The Secretariat gave a brief overview on the Research Group reporting outcomes agreed at the most recent meeting of the Alliance Council in Saskatoon, 5-8 June 2013 as these related to discussions the I&M Group would hold over the next two days as they developed a Group Workplan. The full presentation was not covered at the meeting as most meeting participants were already aware of the outcomes. However, the full presentation is summarised below for the wider Group (refer separate PDF presentation).

Council Meeting

21. Key outcomes of the Council meeting included:

- Canada takes over Council chairing responsibilities from New Zealand.
- Uruguay confirmed as vice-chair of Alliance Council.
- Brazil confirmed as co-chair of Croplands Research Group.
- New Zealand confirmed to continue as Alliance Secretariat.
- The Communications plan was agreed and adopted. Points in the adopted Communication policy that directly affect the Groups include:
 - External communication on behalf of a Group about Group activities will need to be approved by the Group by consensus of Members' nominated contact points. However, Groups may decide to authorise Co-Chairs to communicate information above on its behalf.
 - A disclaimer needs to be used by Members communicating about activities of Groups that they participating in. The disclaimer can be found in the Communication Policy.
- There will be a teleconference every three months between the Council Chair, Vice-Chair, Secretariat and Group Co-Chairs to improve co-ordination between Groups and provide updates on Group activities.
- Once finalised, action plans of the Groups need to be made available to the Council.
- Six monthly and annual reporting to the Council using a common reporting template is required. The template will be developed with Group Co-Chairs and is based on the workplan template shown in the presentation. It was pointed out that this should not be seen as a burden, rather it is a way for Council members to know what is going on in the Groups which, amongst other things, will help to mobilise research funding.
- Alliance Partners need to be integrated into the Groups' work.

Alliance Website

22. The Alliance Website has been updated to make it easier to use. Some of these updates include; multiple sub-pages for each Group, the ability to feature news and events, increased capability for downloading documents, further functionality to help navigate the website's pages, a new search function, and links to Alliance Partners and Networks. Refer to full presentation for further detail.

ROUND TABLE PRESENTATIONS

23. Countries were asked to share a brief presentation on their inventory progress and opportunities to contribute, collaborate or share with other members.

Ghana

- Assembling a national inventory team, who will develop new data
- Biogas project underway at the Livestock research centre
- Capacity building

New Zealand

- Project lead for developing LRG best practice manuals, SF₆, N₂O and respiration chambers (CH₄)
- Capacity building workshops and projects
 - South East Asia Project
 - Fontagro Project in Latin America
 - Funding for another two upcoming projects in Central and South America
- Participating in FACCE-JPI, 1 million NZ
- Extensive Ag Inventory improvement programme – can engage and share experiences with others

UK

- Inventory improvement Programme
- Measurement Research underway looking at CH₄ and N₂O emissions
 - Mitigation effects from diet, pasture, breed
 - Manure management options
 - Novel CH₄ measurement techniques
 - Fertiliser effects and N inhibitors
 - Ploughing and reseeded emissions,
 - Historical data sets for long term comparisons
- DNDC Modelling Network with the Croplands Research Group
- New project on arable and grasslands land management practices as related to Agriculture, Forestry and Other Land Use (AFOLU) emissions
- Interested in investigating potential earth observation technologies for inventory purposes

Australia

- National mitigation programmes are linked to the Alliance, priority given to projects that collaborate with Alliance member countries
- N₂O automatic chamber project funded by Australia is underway in Chile, with ongoing training. NZ also involved
- Supporting Measurement, Reporting and Verification workshops in Kenya – linking to I&M Group and Alliance membership is the next step

- Soil Carbon sampling and measurement protocols, collaborative Alliance project.

Netherlands

- Focus primarily on livestock emissions research
- Aligning 2013-14 projects with the Alliance, food security, sustainable production and animal health
- Croplands focus on food security – Potato, whole system approach looking at C and N cycling
- Inventory systems analysis, link to farming systems and geodata.
- Shifting to an adaptation focus, sustainable food production to survive climate shocks
- Future work with the UK – Intensity focus across farm landscape and regional scales

Uruguay

- Universities and PhD's are responsible for most research looking at emissions from systems
- First country emission factor for CH₄ developed – Dairy pasture system, using SF₆ technique
- Comparison of emissions from finishing systems –feed lots, pastures and supplemented pastures
- Developing technologies that can improve these system by reducing emissions
- World Bank project of \$40 Million on adaptation and mitigation effects of adaptation strategies
- Extension services underway, developing tools for farmers to increase production
- Fontagro project to develop Emission factors for grassland pastures

Canada

- Exploring artificial intelligence and earth observation tools to accurately categorise land use
- Including management practices and carbon accounting into grasslands modelling data, would be interested in collaborating with other Alliance Countries
- Developing activity data systems descriptions, would like collaborations on lessons learned
- Future work to include would include economic value of mitigation options and simplified intensity modelling at whole the of farm level

Philippines

- A recent national inventory meeting held, Philippines has a well supported national structure
- Rice Research has some activities that concentrate on greenhouse gas emissions, these have a methane focus
- Upland rice research also considers N₂O emissions

DEVELOPING THE WORKPLAN

24. The first meeting of the Group in Ottawa 2011 identified thirteen work areas of interest to the Group of which eleven were further developed by countries as terms of references outlining the timelines and stages of work required for each activity to move ahead.

25. The aim of this second meeting of the I&M Group was to confirm the activities based on member country interest in the terms of reference and identify the activities the Group will undertake over the next few months. The co-Chairs ask that the Group priorities activities by identifying what the Alliance can add value to.

1. Emission Factors and Emission Data Sharing

26. The meeting participants discussion around work area one focussed on the outcomes from the capacity building workshop just prior to the I&M Group meeting and the participating countries needs to develop better data handling and data management practices. The Group agreed to support country requirements in emission data handling by developing a summary document which could provide examples of the systems established by other countries. This would be a practical capacity building activity providing a brief overview of each countries system with links to more information.

3. Remote Sensing Technologies to Improve Activity Data

27. A proposal on guidance for earth observation was circulated to the Group by the UK before this meeting. The UK held a preliminary workshop to assess this topic in July 2012 and have identified a possible set of work packages which were presented to the Group.

28. The Group agreed that the Alliance could add value by supporting the first two areas of work and consider the future steps depending on the outcomes. The first action is a survey to identify the interested parties – inventory practitioners and earth observation experts about the data gaps and inventory requirements. The next step would be a workshop to understand the information and technology available currently and to identify if this is able to meet inventory needs and gaps.

6. Best Practice Guidelines – Measurement Standardisation

29. The LRG has already completed best practice guidelines on constructing methane measurement chambers, and N₂O Guidelines. Best practice guidelines for measuring methane using the SF₆ techniques are also underway. Following the last meeting of the I&M Group New Zealand has developed terms of reference for soil organic carbon guidelines which will outline protocols for measuring soil carbon stocks on agricultural lands.

30. The Group agreed to undertake these guidelines, developed through an international collaboration similar to the best practice guidelines already completed by the LRG. Canada and Australia have agreed to take the lead in scoping the initial project and then organising a workshop which will consider the Research Groups and other interested I&M participants.

31. The LRG asked the I&M Group to consider leading development of best practice guidance for Micromet technologies. The Group were uncertain of what techniques and methods should be included in these guidelines, or if these would be cross-cutting across different Research Group interests. The Group agreed to facilitate this process by first identifying the level of interest from all the Alliance Research Groups and then considering the next steps.

8. Developing Decision Frameworks for Farming Systems

32. Work areas eight and twelve are combined in this Group activity which aims to identify possible mitigation activities depending on the farming system, this would account for product (e.g. mixed cropping, wheat, tree-based), general climate and management practices already in use. This activity is important for the Alliance because it would link mitigation activities to adaptation concerns, and would provide good agricultural practice information to the private sector and international organisations who have established farmer groups.

33. This activity can be linked on new EU Framework 7 project, which is lead by Hein ten Berge (Wageningen-UR) of the Netherlands, and could link with or bring together similar regional projects but develop a shared language which could be used globally. The Group agreed to add this activity to the I&M workplan, but keep the initial stages fairly simple with participating countries first

identifying a list of farming systems. There will be some difficulties in linking agricultural emissions to each farming type, but there are several smaller scale studies which can be built on as a first step.

10. Building Capacity for Estimation and Measurement

34. Activities to meet the Groups capacity building outcomes are already underway, with the I&M Group supporting the LRG in a three day regional capacity building workshop on inventory and measurement in Accra 19-21 November 2012. Once the workshop outcomes and report have been distributed to the I&M Group the Group can decide how to support the LRG with future capacity building workshops in other regions. The next workshop is planned for Eastern Europe during the second half of 2013. The LRG will send out details about this when more is known and the I&M Group will decide how they can best support this activity.

11. Methods to Evaluate Economic Value of Mitigation Options

35. Work area eleven was an activity of particular interest to Ghana who wishes to develop incentive for small scale farmers to sequester carbon. The benefits to other sectors that reduce greenhouse gas emissions are easy to see and assign value to, but this is not so easily done for the agricultural sector. The outcome from this discussion is that Ghana will draft a concept paper clarifying this issue for the I&M Group and identify some possible questions that could be sent around to countries as a stocktake.

13. Quantifying Emission Intensity

36. The LRG requested that the I&M Group look at quantifying emissions intensity, and possibly develop a metric that could be applied to products. The discussions within the Group raised some areas of concern; such as a single measurement not having the ability to account for other considerations such as environmental and social tradeoffs and the concern that simplifying such a complex issue as emission intensity would open the metric up to misinterpretation.

37. However, the Group decided that emission intensity is a key concern for the Alliance; therefore the issues and complexities need to be openly discussed by the Group rather than waiting for others to develop a measurement without Alliance input. The Group agreed to a stocktake of work already underway in this area, with the possibility of publishing a paper.

Future Work Areas

38. The Group also discussed the areas of work that had been identified during the first I&M meeting in Ottawa but not yet developed further by participants. These include:

- Sharing approaches and lessons learned on the application of Tier 3 methods for inventory.
 - Australia has an interest in a work area on Tier 3 methods, the Group agrees that this could be an activity considered in the future and will review at next meeting.
- Communication between inventory practitioners and scientists who work on inventory relevant comments.
 - IPCC have an interest in workshops to facilitate this communication and the Group sees a role for the Alliance to support the agriculture discussion.
- Increasing capability to estimate and communicate uncertainties of greenhouse gas emissions and removals.

39. The UK has developed its methodology for uncertainty estimation under an ongoing research programme. The methodology is compliant with IPCC good practice guidance. A report on the approaches taken has been prepared and the UK is willing to share the document with the Group. However, at this stage the methods have yet to be reviewed by the UNFCCC. The Group may consider an activity to support this work area in the future.

40. The following table summarizes the work plan resulting from the meeting.

Area of Work	Work Identified from I&M CCG Meeting (Nov. 2012)	Who, When
Information Sharing		
1. To foster effective mechanisms of sharing emission factors and emission data	Produced summary document of data handling and management practices used by member countries	Not specified
2. To produce an inventory and guidance on the use of tools and methods for Greenhouse Gas (GHG) estimation; Sharing approaches and lessons learned on application of Tier 3 methods.	No immediate work identified but confirmed value for future work	
3. To share methods and lessons learned on application of remote sensing to improve activity data.	1. Survey inventory practitioners and earth observation specialists about data gaps 2. Organize a workshop to discuss capability of existing data and methods to address these gaps	UK will coordinate
Networking		
4. To promote communication between inventory practitioners and research scientists working on specific inventory-relevant topics.	No immediate work identified, GRA work with UNFCCC Secretariat when possible	
5. To identify opportunities to involve partners to further work on GHG inventory and measurements.	On-going	I&M CCG members, continual
Guidance		
7. To produce best practice guidance on measurement techniques, harmonisation of approaches, and standardisation of technologies and methodologies for soil organic carbon (SOC), nitrous oxide (N ₂ O) and methane (CH ₄).	Develop a best practice guidance for soil organic carbon measurements	Australia and Canada
8. To produce the best practice guidance on development of activity data.	Link to EU Framework 7 project to develop common system to describe farming systems, develop concept paper and hold workshop	Netherlands

Area of Work	Work Identified from I&M CCG Meeting (Nov. 2012)	Who, When
Methods and Capacity Development		
9. To increase our capability to estimate and communicate uncertainties of GHG emission/removals.	No immediate work identified but confirmed value for future work	
10. To build capacity to estimate and measure GHG emission and removals.	Participate in GRA Capability Building Workshops in E. Europe in late 2013	I&M CCG, 2013
11. To develop methods to evaluate the economic value of GHG mitigation.	Concept paper that clarifies issues	Ghana, 2013
12. To improve capability to quantify GHG emission and removals for further scenarios of farming systems and climates.	Work on 8. (activity description) is necessary first step	
13. To produce guidance on methodologies for determining emission intensity.	Stocktake on work underway, possibly develop paper	Netherlands, Canada

NEXT STEPS

41. The I&M Group then discussed ways that the Group would communicate its agreed activities out to the other groups and how it could coordinate activities across all Groups of the Alliance.
42. The Group agreed that the final report from this meeting along with some high level bullet points of the key outcomes would be provided to all Alliance Group Chairs for their comment or to pass along to their wider Groups. The co-Chairs also have regular 3-monthly teleconferences scheduled, along with 6-monthly reporting to the Alliance Council. This reporting was acknowledged to be a good way of identifying areas for collaborations between groups, or raising new areas of work for particular groups.
43. The Group agreed to consider possible dates for the next meeting of the I&M Group. There are no regular international conferences held that look at inventory topics in particular, which means it is difficult to organise a meeting that is able to be widely attended by Alliance Group participants, in particular funding for Developing Country members is difficult. The co-Chairs will take this concern to the Alliance Council at the next meeting in Uruguay.

CLOSING REMARKS

44. The meeting was closed by Dr Iddi of Ghana, who thanked everyone for their attendance over the past two days and participation during the meeting discussions. In particular The Ghanaian Ministry of Environment, Science and Technology were pleased to host this week of Global Research Alliance meetings and hope that the participants had enjoyed their time in Ghana. The Group co-Chairs Dr Brian McConkey of Canada and Dr Jan Verhagen of the Netherlands were thanked for their leadership and chairing of meetings across the week. Ghana looks forward in engaging with participants from the region and hopes that this week of meeting will increase African participation in the Alliance.

APPENDIX 1: Participants List

Country	Attendees
Alliance Member Countries	
Australia	Bill Slattery, Climate Change Office, Australia (Bill.Slattery@climatechange.gov.au)
Canada	Brian McConkey, Agriculture and Agri-food Canada (brian.mcconkey@agr.gc.ca)
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Uruguay	Gonzalo Becoña, Ministry of Livestock, Agriculture and Fisheries, Uruguay (gbecona@planagropecuario.org.uy)
Invited Partners	
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Secretariat: Deborah Knox, Ministry for Primary Industries, New Zealand (deborah.knox@mpi.govt.nz)	