

ALLIANCE COUNCIL MEETING

Krystal Grand Reforma Uno, Mexico City, Mexico

Tuesday 11 October – Wednesday 13 October

OVERVIEW

The sixth Global Research Alliance on Agricultural Greenhouse Gases (Alliance) Council meeting took place on Tuesday 11 and Wednesday 12 of October 2016 in Mexico City, Mexico. Following the meeting, a field trip was organised to visit the International Maize and Wheat Improvement Centre (CIMMYT), Postgraduates College (COLPOS) and to the Autonomous University of Chapingo.

Dr Raul Urteaga, incoming Chair of the Alliance Council, opened the meeting on Tuesday morning and welcomed all delegates to Mexico.

This report is a summary of the key discussions and outcomes from the meeting.

PARTICIPANTS

The meeting was attended by 61 representatives from 25 countries and other invited guests:

- **Alliance Members attending:** Argentina, Belgium, Canada, Chile, China, Costa Rica, Dominican Republic, Ecuador, Egypt, France, Germany, Ghana, Japan, Lithuania, Mexico, the Netherlands, New Zealand, Nicaragua, Spain, Sweden, Switzerland, United Kingdom, Uruguay, the United States of America, Viet Nam.
- **Alliance Members unable to attend:** Bolivia, Brazil, Colombia, Denmark, Finland, Honduras, Indonesia, Ireland, Italy, Malaysia, Norway, Panama, Paraguay, Peru, Philippines, Poland, Republic of Korea, Sri Lanka, Thailand, and Tunisia.
- **Invited Partners attending:** CGIAR – ISPC, CGIAR-CCAFS, CIAT, FAO, IADB, IICA, and UNEP-CCAC.
- **Other invited organisations attending:** FACCE-JPI, FONTAGRO, INIFAP, INECC, COLPOS and CIMMYT.

Refer to Appendix 1 for a full participants list.

KEY OUTCOMES OF MEETING AND ACTION POINTS

Outcomes	Action	By when
Council		
USA handed over Council Chairing responsibilities to Mexico	Completed	
Japan confirmed as the Vice-Chair of the Alliance Council.	Completed	
Members to work towards creating/updating country webpages	The Secretariat to work with Members.	Ongoing
Finalisation of the Strategic Plan 2016-2020.	Secretariat to provide the final version, including a current and future “snap-shot” of the Alliance.	Circulated to Members and Partners by January 2017
Provisional adoption of four flagship projects.	Completed	
Establishment of a task force for each flagship and indication of resources/ alignment of activities.	Members and Partners to respond to email sent 26 October from the Secretariat.	Responses due to the Secretariat by 11 November.
Research Groups		
Further the development of proposals not adopted as flagships.	With support from interested Members and Partners	Annual meetings of the RGs
Request for a third Chair for the CRG.	Members interested, and able to resource a Chair for the CRG to contact the Secretariat and CRG Chairs	Ahead of the 10-11 November 2016 annual meeting.
Partners		
FACCE-JPI invited to become an Alliance Partner.	Secretariat and Chair to send invitation.	November 2016
FONTAGRO confirmed as an Alliance Partner.	Secretariat to update website.	November 2016
GODAN confirmed as an Alliance Partner.	Secretariat to update website.	November 2016
The Alliance Secretariat to request observer status with the IPCC	Secretariat to complete required forms	November 2016

The Alliance Secretariat (Special Representative) to participate on the 4/1000 Consortia	Members to comment on draft letter circulated. Completed.	20 October 2016
Secretariat		
Hold a Ministerial meeting and alliance event alongside an international meeting(s) in the near future.	Secretariat and Members to identify opportunities	Over the next year.

SUMMARY OF DISCUSSIONS

OPENING REMARKS

1. Dr Catherine Woteki, Under-Secretary Research, Education, and Economics and Chief Scientist, United States Department of Agriculture (USDA), opened the Council meeting and reviewed the achievements of the Alliance from the past year. With the development of a Strategic Plan, the appointment of a Special Representative and the creation of a working group to consider mechanisms for international research collaboration, the Alliance has grown stronger and more focused. The Research Groups, the lifeblood of the Alliance, have continued to push forward the work of the Alliance, and the creation of the Integrative Research Group will continue to strengthen cross-cutting issues.
2. Dr Urteaga, General Coordinator for International Affairs, Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), began by noting Mexico's importance as a food producer and the challenge that climate change presented to agricultural production and food security. Mexico had introduced a broad range of measures to reduce agricultural greenhouse gases and it saw its Chairmanship of the Alliance as a component in this work. For Mexico, research was critical (especially in regard to dry zone agriculture) but even more important was knowledge transfer, particularly to small holder farmers. This knowledge transfer was important for community development.
3. The Executive Director of Foreign Affairs Mexico, began by noting Mexico's ratification of the Paris Agreement and, because of a number of ratifications including Mexico's, the Agreement would come into force on 4 November 2016. This was much earlier than many had anticipated and was a game changer for the world. She noted the need for all countries to change their development pathways to a more sustainable model that had less impact on natural capital. She also reiterated that agriculture would suffer the most under climate change and with it food security.

PREVIOUS COUNCIL MINUTES AND IDENTIFICATION OF THE NEXT CHAIR

4. The minutes from the previous Alliance Council meeting in Des Moines Iowa, USA were reviewed and approved. The agenda for the 2016 Council meeting was then adopted by Members.
5. Prior to the meeting the Council had been informed that Japan was interested in becoming the Vice-Chair and hosting the 2017 meeting of the Council. There was strong support from Members for Japan's nomination. Japan will hold a side event alongside the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP22) in Marrakesh, where Members are welcome to share their activities related to agriculture and climate change, especially in support of the Global Research Alliance on Agricultural Greenhouse Gases, Global Alliance for Climate Smart Agriculture (GACSA), 4/1000 initiative and the Food and Agriculture Organisation (FAO) Global Soil Partnership (GSP).

ANNOUNCEMENTS FROM MEMBER COUNTRIES

6. **Canada** announced the renaming of the Department of Environment and Climate Change, with climate change issues now an identified priority area for Agriculture and Agri-Food Canada. Canada's greenhouse gas programme has been renewed with an additional \$27million over the next 5 years, providing opportunities to create strong links with the Alliance.
7. **Spain** noted that it had been working to strengthen the co-ordination and co-operation between its Ministry of Agriculture and Ministry of Research. This was critical if Spain was to make progress on climate change and would assist Spain's engagement with international initiatives. In relation to this, Spain noted that there were a number of initiatives that had been launched or were about to be launched addressing various aspects of climate change.
8. **Uruguay** noted that the Alliance had a clearer and important role now that the Paris Agreement had been ratified. The Alliance's work also contributed to the Sustainable Development Goals. There were various initiatives on sustainable agriculture underway in the FAO and Climate and Clean Air Coalition (CCAC) where the Alliance was already contributing and this would continue into the future.
9. **Ghana** has been developing climate smart activities, funded by the World Bank. The identification of further funding for mitigation and adaptation synergies, and science capacity building continues to be a priority area. The contact information for Ghanaian researchers will be posted on the Alliance website for those able to support Alliance proposals.
10. **New Zealand** noted that the Alliance remains a high priority, with the Prime Minister announcing a further \$20M at the Paris COP21. Activities supported by New Zealand include opening a fourth round of the Global Partnerships in Livestock Emissions Research (GPLER) Fund, involving researchers from 12 other member countries. New Zealand is also developing a programme to support agricultural inventory improvement. New Zealand will host the third Alliance-World Farmers' Organisation study tour in November as this is an effective way to meet with farmers and identify on-farm research implementation.
11. **Costa Rica** noted that the objectives of Costa Rica are well aligned with the activities and objectives of the Alliance. Costa Rica has a particular focus on research to improve beef production systems.
12. The **United Kingdom** encourages other researchers to support the Global Research Alliance Modelling Platform (GRAMP) website. The outcomes of the Earth Observation project and webinars are now available on the website. The Animal Health Network has seen rapid growth, 100 members from 30 Countries and recently held their third meeting, the Department for Environment, Food and Rural Affairs has made bridge funding available until additional support is found. The environment data archive website makes greenhouse gas (GHG) and measurements data from the UK freely available.
13. **Argentina** noted that it ratified the Paris Agreement and as a result of this had established a "climate change cabinet" which linked together different Ministries with an interest in climate change matters.

ENHANCED SECRETARIAT REPORT

14. New Zealand as current host of the Alliance Secretariat provided an update on the activities of the enhanced Secretariat, as was agreed at the 2015 Council meeting. The activities of the enhanced Secretariat, including the appointment of Hayden Montgomery, Special Representative, are to raise the profile of the Alliance's work. The Special Representative was appointed in May 2016 and has since met with Alliance Members and Partners to increase participation in the Alliance.

15. The Special Representative thanked Members for supporting his nomination and provided a summary of his activities since taking up the role. The Special Representative first met with the Chair and Vice-Chair of the Alliance Council to agree on the work plan for the representative. He has since met with several Partners including the Consultative Group on International Agriculture Research (CGIAR), World Bank, Inter-American Development Bank, Inter-American Institute for Cooperation on Agriculture (IICA), Centre for Research and Education in Tropical Agriculture (CATIE), African Development Bank, World Farmers' Organisation, FAO, and attended the Latin America and the Caribbean Regional Fund for Agricultural Technology (FONTAGRO) Board meeting.

16. The Representative has also met with a number of Members and Partners to share the draft Strategic Plan and develop the draft flagship proposals.

INTERNATIONAL RESEARCH COLLABORATION WORKING GROUP

17. The Secretariat then provided a review of the International Research Collaboration Working Group (IRCWG) which was established following the 2015 Alliance Council meeting. The objective of the working group was to identify mechanisms that may be used to resource activities of the Alliance. The Group meet via teleconference and the held a physical meeting 13-14 June in Brussels to finalise the Terms of Reference and review a number of mechanisms. The purpose of the meeting was to gather experiences from other organisations including the Belmont Forum, Joint Programming Initiative on Agriculture, Food Security and Climate Change (FACCE-JPI), 4/1000, European Commission's International Research Consortium Model, New Zealand's Global Partnerships in Livestock Emissions Research.

18. The meeting report and outcomes were circulated to Members alongside a stocktake template developed to list existing mechanisms that could be used to support activities of the Alliance. The recommendations from the working group included:

- The need for the Alliance to develop a clear vision and research agenda
- A need to involve the funding agencies in member countries in the Alliance
- Strengthening partnerships and considering new Partners who can support collaborative activities.
- Establishing a research collaboration funding body
- Supporting an International Research Consortium on soil carbon.

FINALISATION OF THE STRATEGIC PLAN 2016-2020

19. The development of a Strategic Plan for the years 2016-2020 was agreed to at the 2015 Council meeting in Des Moines, with Members asked to participate in a working group to develop the draft version. In January 2016 the working group, comprising of 13 Members (Argentina, Brazil, Canada, China, Japan, France, Netherlands, New Zealand, Spain, Thailand, Uruguay, UK, and USA), held the first teleconference to comment on a first draft developed by the Chair and Secretariat. Several teleconferences were held to revise the Strategic Plan with a version circulated widely to the Council in July.

20. The Strategic Plan has four Key Strategies, identified during discussions at the 2015 Council meeting, and a set of Strategic Objectives and Priority Actions developed to meet these Key Strategies. These Key Strategies are:

1. Further research collaboration
2. Foster outreach, knowledge sharing and information exchange
3. Build effective partnerships

4. Leverage financial and other resources

21. There was support from the Council for the four Key Strategies, as addressing the issues that need to be considered by the Council to support the Alliance and its Research Groups. The actions of the Strategic Plan will be reviewed annually by the Council and updated (actions removed or added) by the Council. The Strategic Objectives will remain the same across the term of this Strategic Plan.

22. The Council noted that the Strategic Objectives needed to be measurable, to communicate what it is we wish the Alliance to have achieved in 2020. There was also a discussion about developing indicators that would demonstrate what the Alliance has already achieved to meet these objectives that could be updated at the end of the Strategic Plan's term to show the progress made by the Alliance. The Strategic Plan can be used internally for the Alliance to focus our intentions and priorities. But may also be shared externally to communicate with our Partners and stakeholders, to explain the purpose of the Alliance. Therefore, it is important that the Strategic Plan set out the Alliance's successes to date so as to provide context for our Partners about what the Alliance does well already and also to explain clearly through a "future state snapshot" what the Alliance was hoping to achieve should all of the strategic objectives be met.

23. The successes to date should include a snapshot of the state-of-play of the Alliance, e.g. currently 46 Members, 12 Partners, 5 flagships, 3,000 scientists, as well as the number of factsheets and brochures we have produced. This kind of information could then be used as the basis for an evaluation to help develop the direction of the next Strategic Plan, or an independent assessment of the impact of the Alliance.

24. It was agreed there needed to be an objective with a focus on developing better mechanisms for coordination and collaboration, as had been a recommendation of the International Research Collaboration Working Group.

25. Partners noted that the Strategic Plan refers to sharing relevant practices and technologies, and questioned if this covered policies. Barriers to adoption can include policies, so this is an important consideration that may not be covered by sharing practices. The Group agreed that the Alliance supports research and undertakes research activities. The analysis and outputs of this research is provided to Members as a research summary, which members may use to inform policy or not as they choose.

Decision

26. The Alliance Strategic Plan was discussed in a series of dedicated sessions throughout the Council meeting, taking into account inputs from Members and Partners, and drawing on the discussions in the various sessions. The Plan was finalised during the closing session of the meeting. The Plan includes 50 priority actions that are intended to operationalise its 9 strategic objectives. Priority actions range from the procedural (e.g. reinforcing the importance of regular coordination of Research Groups and Networks) through to new initiatives (e.g. Alliance joint programming). The Secretariat will be following up with Members and Partners in due course to ensure that momentum is maintained. Progress on implementing actions will be reviewed at each subsequent Council meeting.

27. The only pending issue contained in the Strategic Plan is the development of a snapshot of the state-of-play and a future snapshot of where we want the Alliance to be by 2020, should all Strategic Objectives be achieved. The Secretariat will undertake this task in consultation with the Chair, Vice-Chair and Members.

RESEARCH GROUPS REPORT

28. The Research Group Co-Chairs presented the report of their activities to the Council along with their joint recommendations to the Council regarding the Strategic Plan, flagship projects, Alliance conference, Partners and funding. The Co-Chairs team met the day before the Council meeting (Monday 10 October) to coordinate activities across the Groups.

29. By working as a team the Co-Chairs are able to lead several active research Networks under each of the four Research Groups, with 3,000 experts contributing to activities of the Alliance.

Croplands Research Group

30. Dr Jane Johnson (USDA-ARS) presented on the work completed by the Croplands Research Group (CRG) over the past 12 months. The Brazilian Co-Chair was not able to attend the meeting.

31. The seventh meeting of the Croplands Research Group was held in Brasilia, Brazil alongside the Crop-Livestock-Forest conference organised by EMBRAPA. At this meeting the CRG reorganised to form eight new thematic networks, with coordinators for each of these networks now in place. Members who have indicated an interest in participating in the networks will soon be contacted by the coordinators and asked to contribute to a fact sheet ahead of the next CRG meeting 10-11 November 2016 in Phoenix, Arizona.

32. The eight new Networks are:

- Integrated Nutrient Management, led by the USA.
- Conservation Agriculture, led by Canada.
- Landscape Management, led by China.
- Irrigation Efficiency, led by USA.
- Integrated Crop-Livestock Systems, led by USA.
- Agroforestry systems, led by Canada.
- Peatland management, led by Norway.

33. The CRG held a workshop in November 2015 on “Measuring Nitrous Oxide Emissions from Soil: Methodology, Instrumentation, Modelling, Data Stewardship and Analysis”. This workshop reviewed guidelines published by the Alliance, and videos of the presentations have been made available on the website.

34. The first edition of a brochure providing an overview of the CRG’s work was published earlier this year and is available on the Alliance website.

35. MAGGnet is an activity of the CRG that has collected experimental metadata from 318 experiments across 23 countries, with a call for further submissions recently sent out. The activity has been used by the Integrative Research Group to identify sites for use the model inter-comparison experiment, and the MAGGnet template has been adapted by the Paddy Rice Research Group to collect information on rice experimental sites. The template, map, and sharing agreement are able to be found on the Alliance and GRAMP websites.

Livestock Research Group

36. The Livestock Research Group (LRG) Co-Chairs Dr Harry Clark and Dr Martin Scholten presented on the activities of the LRG over the last year. The LRG has participants from all member countries and activities underway to support all six areas of the research groups work plans.

37. The LRG has five thematic Networks that undertake activities:
- Animal Selection Genetics and Genomics, led by Denmark.
 - Rumen Microbial Genomics, led by the UK.
 - Feed and Nutrition, led by the USA and the Netherlands.
 - Manure Management, led by France.
 - Animal Health Network, led by the UK.
38. Activities recently completed by the Networks include reviewing papers on *in vitro* and *in vivo* experiments, a practice brief on ruminant genetics and the establishment of a new regional Network for Mediterranean livestock systems.
39. The LRG is focusing on supporting countries to advance livestock greenhouse gas inventories and has recently produced a joint brochure “Livestock Development and Climate Change” with the Climate Change, Agriculture and Food Security (CCAFA) programme and the FAO, as well as host holding technical training workshops and providing country specific support.
40. Other joint activities include the project with FAO and CCAC “Reducing emissions intensity through improved productivity and livelihoods” which has collected data from three regions, South America, sub-Saharan Africa and south Asia to undertake modelling and analysis for mitigation options.
41. The Co-Chairs mentioned that the LRG also has a communications focus, with the translation of the LRG-Sustainable Agriculture Initiative (SAI) Platform best practice guidelines translated into French and Spanish and improvements underway on the Alliance website to better showcase each of the research Networks.
42. The LRG Co-Chairs reported back to the Council on the request that Research Groups look for opportunities to work with the Global Alliance on Climate Smart Agriculture (GACSA). While the LRG had met a few times with the coordinators of the GACSA Knowledge Action Group, the organisation preferred to work with individuals rather than the Research Groups collectively, so it was unlikely that this relationship would develop much further.

Paddy Rice Research Group

43. The Co-Chairs of the Paddy Rice Research Group (PRRG), Dr Kazuyuki Yagi (NIAES, Japan) and Mr Gonzalo Zorrilla (INIA, Uruguay), provided an overview of the group and its activities. The Paddy Rice Research Group is divided into two regional sub-Groups, Asia and America, although both sub-groups contribute to the same work plan of activities. An increase in participation means that 33 countries are now members of the PRRG. Partner organisations are also significant contributors to activities of the Group.
44. Collaborative activities of the Group include the MIRSAs project to compare alternate wetting and drying practices across four countries in South East Asia, three practices are compared across sites, with a fourth local practice tested at each site. The experiment began in 2013 and has led to the America’s sub Group developing a proposal for a multi-country experiment that looks at different management practices in the Americas.
45. The PRRG most recently met July 2016 in Arkansas, USA where the priority topics for flagship projects and new PRRG activities were the main discussions. The group discussed the development of the multi-country project on water management practices that are validated in farmer fields and how this could be extended to other regions. Completing a global assessment of regions and locations for specific water management practices, the identification of low methane emitting rice cultivars by summarising the work previously focused on this and inter-comparison and

improvement of models for understanding emissions from rice production were the other ideas considered.

46. The PRRG has a strong focus on inviting scientific experts and partner organisations in its activities. New partners include the Latin American Fund for Irrigated Rice (FLAR) and potentially the SAI Platform's Sustainable Rice project group.

47. Upcoming activities for the PRRG include a special issue of the scientific journal 'Soil Science and Plant Nutrition' on greenhouse gas mitigation from rice is planned for publication in early 2018 and a scientific session will be held alongside the 21st World Congress of Soil Science in Brazil, August 2018.

Integrative Research Group

48. Co-Chairs Dr Jean-Francois Soussana (INRA, France) and Dr Brian McConkey (Agriculture and Agri-Food Canada) presented on the establishment of the Integrative Research Group (IRG) which was launched following the Council meeting last year when the Inventories and Monitoring Cross-Cutting Group and the Soil Carbon and Nitrogen Cycling Cross-Cutting Group were merged to better support the cross-cutting function required by the other Research Groups and also expand the work areas of the groups to include other cross-cutting areas (such as grasslands and farm scale practices). The IRG meet with the Council Members in a briefing session ahead of the Council meeting (10 October 2016) to better elaborate on the progress made since the 2015 Council meeting. The presentations from this session will also be available on the Alliance website.

49. The vision for the IRG is to undertake collaborative work to develop the knowledge and capabilities for estimation, monitoring, and projection of GHG emissions and soil carbon within and across agricultural systems.

50. The IRG has established five Networks that will deliver the objectives of this group, Members have been provided with information on activities that each Network hopes to complete and asked to provide contacts for each Network. The Networks welcome any additional support, including countries willing to host initial meetings or become involved in the leadership of activities of the Networks themselves. The Networks are:

- Grasslands, led by Uruguay and Ireland.
- Soil carbon sequestration, led by France and Canada.
- Field scale, led by France and the UK.
- Farm and regional scale, led by Australia and IIASA.
- GHG inventories led by the Netherlands and Canada.

51. Co-Chairs for the Group have already met with the Livestock Research Group (February 2016) and Paddy Rice Research Group (July 2016) and will meet with the Croplands Research Group in November 2016. This has been an opportunity for the other Research Groups to understand the objectives of the IRG and the IRG to identify the activities that are of the most use to the Alliance as a whole.

52. The IRG will hold their first Group meeting 19-20 January in Rome, Italy alongside the IPCC meeting on Food Security and Climate Change. Monthly teleconferences have already been set-up between the Co-Chairs and the coordinators of the five Networks to ensure the activities are progressing.

53. While also understanding how the activities of each Network can support activities across the other three Research Groups the IRG Networks are an example of integration across scales – with activities from each of the networks scaled up to support the other Networks.

Tri-Chair request for the Croplands Research Group

54. The Co-Chairs have noted the success of having three Chairs managing the Integrative Research Group, this allows for resources to be spread across Members and the regional distribution of Co-Chairs covers systems and practices across different countries. Having three Chairs will also mean that there is continuity in the leadership when the existing Chairs for the Research Groups decide to step down from this role. The Co-Chairs request that Members of the Council nominate scientists/experts to the position of a third Chair for the Croplands Research Group. The Croplands Research Group is currently Co-Chaired by the USA and Brazil, but the scope of activities and regions that are covered mean that additional resourcing is required to support activities and leadership in this Group.

56. Members interested in taking a leadership role in the Alliance would need to be willing to resource the time and travel to annual meetings for their nominated Chair. In the future the Research Groups would also like to identify additional Chairs for the Livestock and Paddy Rice Research Groups with a view toward succession planning for the leadership of all the Research Groups.

Discussion

57. Following the presentation from the Co-Chairs Members discussed the responsibility they have to connect researchers in their own countries to the Research Groups and their Networks to ensure that countries activities are aligned with the Alliance and that Members benefit from the outputs of the Research Groups. The Networks are open to all researchers (including non-Members) to make sure that anyone can contribute to and participate in the Alliance. Members are welcome to contribute to any of the networks developed, including taking on a leadership role.

58. Regional Networks have been established in some of the groups (PRRG and a new Mediterranean systems network in the LRG). Although these Networks have great benefits to the participants they take more time and resources to administer (have to cover multiple regions rather than a few topics). Member's countries need to be active leaders and contributors to maintain regional networks they wish to establish.

Decision

- The Council agreed that a tri-Chair for the Croplands Research Group was a sensible way to manage the workload and spread the resourcing costs.
- Members are to nominate experts to this position if they are interested in assuming a leadership role in the Alliance.

ALLIANCE FLAGSHIP PROPOSALS

59. The report from the International Research Collaboration Working Group included a recommendation for the Alliance to clearly identify its research priorities, to focus on specific areas that Members could align existing research activities and funding. The Chair and Vice-Chair responded to this recommendation by asking the Research Groups to prepare priority activities or 'flagships' for discussion and adoption at this Council meeting. The requirements for a flagship are outlined as:

- Addresses a critical research and/or capability building need of the Alliance.
- Provides unique value-add, by making a major contribution to:
 - Reducing greenhouse gas emissions while supporting food security;
 - Advancing global knowledge through collaboration; and
 - Supporting countries in their developing and implementing solutions.

- Facilitates engagement by a broad range of Alliance Members and Partners.
- Has indicative resources identified (in-kind or cash).
- Clearly identifies milestones and deliverables.

60. Nine flagship proposals were presented for the Council to consider. The Research Group Co-Chairs presented each flagship and provided an overview of the focus, activities, value-add for the Alliance and the key partners and linkages. The nine proposals were:

- 1. On-farm assessment of multi-beneficial water management techniques in the rice sector**
- 2. Improved greenhouse gas inventories – making them count**
3. Healthy and resilient livestock systems
- 4. Enteric fermentation mitigation hub**
- 5. Soil carbon sequestration**
6. Nitrogen
7. Integrating mitigation and adaption actions for agriculture
8. Facilitating GHG mitigation research through a searchable, online meta-database
9. Identification of high yielding rice cultivars with low methane emissions

61. Of these nine proposals, Research Group Co-Chairs identified the four proposals that had the best chance of becoming a flagship project at this time. These four proposals (in bold above) already had some resourcing confirmed, key partners identified to support the project, and a well-outlined list of activities that could meet the objectives listed above.

62. The other projects were thought to be essential activities for the Alliance but were either not well defined projects or projects of a wide enough scope (Nitrogen, Integrating mitigation and adaption actions for agriculture, and Facilitating GHG mitigation research through a searchable, online meta-database) or did not yet have the initial resources to be one of the first Alliance flagships (Healthy and resilient livestock systems, Identification of high yielding rice cultivars with low methane emissions).

Discussion

63. There was general agreement and support for both the idea of flagship projects and the top four proposals as identified by the Research Group Co-Chairs. Members were of the view that a nitrogen flagship was also an important area to include, which the Research Group Co-Chairs also agreed with. However, the Co-Chairs noted the nitrogen proposal has no clear activities and will need to be developed further. Countries interested in supporting a nitrogen flagship that already have research underway, resources to align or know of a specific activity in this area where the Alliance could add value, should get involved in developing this proposal further.

64. With regards to the project integrating mitigation and adaptation issues, this proposal was also unclear as to what the direct activities would be. However, this is seen as a key area for the Alliance and the four flagships agreed by the Council should all include adaptation integration activities as a part of the project's scope.

65. The Council discussed the mechanism to further develop the flagships and how these would be resourced. Seed funding would be needed to help those involved develop the activities for each flagship and the existing activities of Partners could be leveraged, as well as aligning with member activities. A task force will be established for each flagship to ensure the projects have enough resources and commitment to proceed. The Alliance Chair and Vice-Chair will lead the process with support of the Secretariat. Members will be contacted asking for their commitment to the flagships.

Decision

- Adopt four Alliance flagships:
 - On-farm assessment of multi-beneficial water management techniques in the rice sector.
 - Improved greenhouse gas inventories – making them count.
 - Enteric fermentation mitigation hub.
 - Soil carbon sequestration.
- Secretariat to send out an email asking Members to identify which flagship they are interested in contributing to and what resources (cash and in-kind) will be made available to support/align with these activities.
- Those interested in the other proposals discussed should continue to develop these so they may be reconsidered along with any new proposals at the next Council meeting.

PARTNERS PRESENTATIONS AND DISCUSSION

66. The incoming Alliance Chair invited the European Joint Programming Initiative on Agriculture, Food Security and Climate Change (FACCE-JPI) and FONTAGRO to present to the Council as potential Partners. The pending request from GODAN was also considered.

Agriculture, Food Security and Climate Change (FACCE-JPI)

67. The Joint Programming Initiative on Agriculture, Food Security and Climate Change (FACCE-JPI) was invited to present to the Council, for consideration as a Partner, by the Alliance Secretariat. Dr Heather MacKhann, Coordinator of the FACCE-JPI Secretariat, spoke on the organisation and objectives of this JPI. JPI's are intergovernmental initiatives that align national funding across European Members and meet major societal challenges.

68. The FACCE-JPI was launched in 2010 by the European Union Council and includes 22 Member Countries (all from Europe, with New Zealand as an Associate Member), 15 Members in common with the Alliance. The FACCE-JPI is managed by a governing board, a Stakeholder Advisory Board (which the Alliance has a seat on, represented by Dr Martin Scholten) and a Scientific Advisory board (Dr Harry Clark sits on this board, although as an independent expert, not representing the Alliance).

69. Five Core themes are covered by the work of the FACCE-JPI:

1. Sustainable Food Security under Climate Change
1. Environmentally Sustainable Growth and Intensification of Agriculture
2. Assessing and Reducing Trade-offs: Food Production, Biodiversity and Ecosystems services.
3. Climate Change Adaptation
4. Greenhouse Gas Mitigation.

70. These themes become increasingly policy focused to support UN climate change agreements and the Sustainable Development Goals.

71. There are three types of joint actions, aligning largely already funded research at the national level, such as Knowledge Hubs and Networks; Actions which require new money (e.g. ERA-NETs) but also national funding calls; and actions that develop emerging funding areas such as exploratory workshops.

72. The FACCE-JPI has a systematic approach to partnerships, with partners considered for their impact, and ability to facilitate information exchange. The types of partners are:

- European initiatives (other JPI's and ERA-NETS) to ensure alignment of resources.
- International initiatives (Belmont forum, Global Research Alliance, GACSA, 4/1000) providing global visibility.
- Third country partners (New Zealand, USA, Canada, and South Africa) for global diplomacy.

73. Previously the Alliance has worked with FACCE-JPI to develop a multi-partner call in 2013 (also involving New Zealand, Canada and the USA), a Soil Carbon International Research Consortium is under development and FACCE-JPI was invited to participate in the International Research Collaboration Working Group meeting in June. Future opportunities could include further developing Soil Carbon research actions, animal health and dissemination of research outcomes.

Decision

- Agree to invite FACCE- JPI as a Partner.

FONTAGRO

74. The Regional Fund for Agricultural Technology (FONTAGRO) was invited to speak about their activities as a potential Partner. Dr Hugo Li Pun, Executive Secretary for FONTAGRO, provided an overview of this organisation's objectives and opportunities for collaboration with the Alliance.

75. FONTAGRO's objective is to provide sustainable support for agricultural research and innovation, it coordinates cooperation mechanisms across 15 Member countries in Latin America, Caribbean and Spain.

76. FONTAGRO is sponsored by the Inter-American Development Bank and Inter-American Institute for Cooperation on Agriculture (IICA). To finance regional projects at least two Member countries must participate, non-member countries may also participate with their own resources. Funding calls for projects are based on regionally identified priorities. A small amount of seed funding is also made available for the development of larger initiatives.

77. The fund focuses on farming and smallholders adapting to climate change and encourages projects that bring farming communities together. Potential activities that could be completed in partnership with the Alliance include sustainable intensification of livestock grazing using legumes in pastures (nitrogen flagship) and also dairy systems. FONTAGRO is also planning to establish a network for climate-smart, management of grazed livestock, to be led by CATIE. FONTAGRO is seeking further support for this.

Decision

- The Council agree that FONTAGRO should become a Partner of the Alliance.

Observer Status with the Intergovernmental Panel on Climate Change (IPCC)

78. Having the Alliance participate as an observer of the IPCC could be a powerful way for Alliance activities to be recognised, and contribute to the 6th assessment report. As an observer the Alliance would be allowed to attend the meetings of the IPCC Panel or working group, and then share information about these activities to Members. There are no specific obligations on the Alliance in terms of activities.

79. The Research Groups also informed the Council that they would be identifying experts to participate in and contribute to the work of the IPCC, including translation of materials, as resources permit.

Decision

- Agree that the Alliance Secretariat should seek observer status with the IPCC.

Global Open Data for Agriculture and Nutrition (GODAN)

80. GODAN presented to the Council at the 2015 meeting in Des Moines, and requested to Partner with the Alliance earlier this year. GODAN is a rapidly growing organisation with 370 partners agreeing to make agricultural data open and available world-wide. In this regard GODAN shares the same principles as the Alliance.

Decision

- The Council agrees to accept GODAN as a Partner.

4/1000 Soil Carbon initiative

81. The 4/1000 initiative to improve soil carbon sequestration was launched during COP21. 18 Members of the Alliance have already signed the 4/1000 declaration. The initiative proposes an international programme of scientific research in collaboration to better understand the mechanisms and improve carbon sequestration in soils. The proposal is that the Secretariat of the Alliance join the 4/1000 consortium to share information with Alliance Members on the activities discussed by this initiative. The first meeting of this initiative will take place alongside COP22 on 17 November.

82. While discussing this proposal Members were assured that the Secretariat's participation in 4/1000 did not mean that all Alliance Member Countries endorsed this initiative. Linking the Alliance Secretariat to the 4/1000 consortium meant that information was able to be effectively shared between the two organisations, a core function of the Secretariat.

83. Members agreed that the Secretariat would draft a letter requesting to participate in the 4/1000 consortium so that Members could seek confirmation of the proposal from capitals. Members would be asked to provide any comments in time for attendance at the meeting on 17 November.

Decision

- The Secretariat to send out a draft letter to Council Members asking for comments by 20 October, in time for participation at the COP22 Meeting.

Partners Discussion

84. Partners attending the Council meeting were invited to speak to the Council regarding their organisations and upcoming opportunities.

Climate and Clean Air Coalition (CCAC)

85. The CCAC has accepted the invitation to become a Partner of the Alliance. The CCAC and the Alliance have many partner organisations on common and already work together on several activities.

86. With regards to the flagship discussion the CCAC are most interested in the livestock and paddy rice proposals, as the organisation focuses on short lived climate pollutants, which include methane. There are aspects of these proposals that the CCAC would be interested in funding.

87. The CCAC has recently developed its own Strategy, which identifies what the organisation can deliver to Ministers and how to help countries work toward international commitments. The CCAC also has a trust fund that is identifying different mechanisms.

88. CCAC countries are contributing data to a Green Climate Fund activity the Short Lived Climate Pollutant Solution Centre support development of applications to this fund.

89. The CCAC is holding a conference April 2017 in Chile, which could be an opportunity for a joint activity or conference with the Alliance.

Inter-American Institute for Cooperation on Agriculture (IICA)

90. IICA has the technical capacity for on the ground training with partners who can share this knowledge with farmers. The Alliance is generating a great deal of knowledge and helping this to be effectively transferred to farmers and other organisations could be how Partners contribute to the Alliance. IICA has a project on risk management and adaptation.

Climate Change, Agriculture and Food Security (CCAFS) programme of the CGIAR

91. The CCAFS programme has collaborated in many successful activities with the Alliance previously, particularly the LRG. The main interest of CCAFS is in the policy to science interactions. Recent activities include a project on moving livestock systems to Tier 2 Monitoring, Reporting and Validation (MRV), and how to build confidence in these systems. It is important to develop baselines for emissions and emissions intensity and to understand how these should be created.

KNOWLEDGE TRANSFER AND IMPLEMENTATION TO SMALLHOLDER FARMERS

Research Implementation with the Mas-Agro Program and Climate Change Research at CIMMYT

92. Ivan Ortiz-Monasterio from the International Maize and Wheat Improvement Centre (CIMMYT) presented to the Council on the programme CIMMYT is leading on sustainable agronomic management and the transfer of technologies to smallholder farmers in Mexico and others countries in Latin America. The programme is supported by high profile partners such as the Bill and Melinda Gates Foundation, IICA, the Inter-American Development Bank, the World Bank and State Governments in Mexico.

93. MasAgro acts as a Hub, where scientists are able to interact with farm advisors, and committees of farmers are used to identify any on-farm issues and identify the technologies they are interested in when visiting research centres. Farm advisors are then responsible for supporting on farm implementation, and farmers are used to share successful technologies and results to other farmers.

94. The farmers asked to participate in the Mas-Agro programme are those that interact the most with farm advisors and are open to sharing successful new practices and technologies. MasAgro has seen increases in farmer yields and income and has provided training and certification to over 2,500 farm advisors (22% women) and now has over 300,000 farmers participating (21% women).

95. Climate change activities funded by MasAgro include a project to understand the effect of increasing night-time temperatures and solar radiation on wheat in the Yaqui Valley, Mexico. This location was chosen as it is agro-ecologically representative of 40% of the wheat producing regions in the developing world. Each one degree Celsius rise in temperature was found to reduce yield by 7-10%. To maintain the current wheat yields will be a great challenge to farmers when temperatures are expected to rise between 1-4% during the next 50 years.

96. Different systems are being used for technology transfer in different locations. The crops requirement for Nitrogen can be reviewed by handheld sensors, drones, manned planes or satellite

and recommendations made down at the field level. A combination of available technologies produces the most reliable system.

Climate Change Mitigation and Sustainable Agriculture

97. Jeimar Tapasco Alzante from the International Centre for Tropical Agriculture (CIAT) presented a three year programme on carbon Footprinting that is supported by the Ministry of Agriculture, Colombia as well as CIMMYT and CCAFS.

98. The project covers the most important livestock grazing system in Colombia and aims to identify the technologies and practices that provide the greatest benefits to increase soil carbon. Soil and livestock greenhouse gas emissions data are collected through field measurements and also biomass data is also recorded to ensure that the entire cycle is captured.

99. Climate prediction and modelling work is a component of the project to understand the requirements for adaptation to climate effects e.g. a shift in planting times or a different cultivar. Monthly bulletins, provided in several formats, are made available to farmers at each site with the climate forecast.

PROPOSAL FOR AN ALLIANCE CONFERENCE

100. At the 2015 Council meeting Research Group Co-Chairs proposed to the Council that a science conference be held in 2017. An Alliance science conference would be an opportunity to bring together researchers from across the Alliance Research Groups and holding the conference alongside a Council meeting would provide an opportunity for researchers and Council representatives to meet. The Council agreed to discuss this again at the 2016 Council meeting. The Secretariat developed a paper to help the Council identify the objectives and audience for a conference. The paper outlines two key options for the Council to consider:

- Whether the Alliance joins forces with other key agricultural research organisations to host a conference or whether the Alliance has its own conference; and
- Whether or not it is useful to also organise a Council and/or Ministerial meeting in conjunction with an Alliance conference.

101. The Research Group Co-Chairs had provided a recommendation that they did not see the value of holding a scientific conference, as the Alliance would need to compete with many other conferences. It would be of more use to hold a multi-stakeholder event that could showcase the achievements of the Alliance and what we have to offer.

102. Countries considered that the timing may be too soon for a conference, the flagship projects have only just been identified, and it may be useful to wait for some results to share. Holding a conference with others may distract from the achievements of the Alliance, although it would be of use if coordination of research activities was the main objective.

103. Members suggested it may be worthwhile holding a Ministerial summit, or linking to a G7/G20 Meeting to increase political visibility.

Decision

- Members agreed to consider the objectives of a conference, and for the Secretariat to look for opportunities to hold an Alliance event alongside another meeting.
- Secretariat to work with Member countries to scope the possibility of a Ministerial meeting in the margins of a suitable international meeting in the near future.

APPENDIX 1: PARTICIPANTS LIST

Country	Attendees
Alliance Member Countries	
Argentina	Miguel ArtinTchilinguirian: Ministry of Foreign Affairs & Worship (ith@mrecic.gov.ar) Cristian Feldkamp: Ministry of Agro-Industry (cristianfeldkamp@gmail.com)
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Poland	<i>Unable to attend</i>
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