JIRCAS-NARO国際シンポジウム

農業分野における温室効果ガス排出削減

JIRCAS-NARO International Symposium on Agricultural Greenhouse Gas Mitigation

日時：平成29年8月31日（木）9:30～17:15

場所：つくば国際会議場（エポカルつくば）

主催（共催）：
国際農林水産業研究センター（JIRCAS）
農研機構（NARO）

協賛：農林水産省農林水産技術会議事務局

使用言語：英語（日本語同時通訳あり）

国際研究ネットワーク「農業分野の温室効果ガスに関するグローバル・リサーチ・アライアンス(GRA)」において、今回、我が国がGRA議長国として、8月29～30日に理事会がつくばで開催されます。これに合わせ、我が国とアジアにおける研究成果を中心に、GRAの研究活動をご紹介し、ご理解いただくことを目的として、標記の国際シンポジウムを開催します。

http://www.naro.affrc.go.jp/event/list/2017/07/076305.htm

GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

We bring countries together to find ways to grow more food without growing GHG emissions.

つくりながらまもる

Tsukuri nagara Mamoru.

A Chronicle of GRA

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

- 2009 December, Was established in the margins of the UNFCCC Conference of Parties (COP15), Copenhagen, Denmark
- 2010 April, 1st Senior Officials' Meeting, Wellington, New Zealand
- 2011 March, 2nd Senior Officials Meeting, Versailles, France
- 2011 June, Ministerial Summit & 1st Council Meeting, Rome, Italy
- 2012 June, 2nd Council Meeting, Saskatoon, Canada
- 2013 June, 3rd Council Meeting, Montevideo, Uruguay
- 2014 June, 4th Council Meeting, The Hague/Wageningen, the Netherlands
- 2015 September, 5th Council Meeting, Des Moines, Iowa, USA
- 2016 October, 6th Council Meeting, Mexico City, Mexico
- 2017 August, 7th Council Meeting, Tsukuba, Japan
- 2018, 8th Council Meeting, Germany




GLOBAL RESEARCH ALLIANCE
ON AGRICULTURAL GREENHOUSE GASES

AT A GLANCE

48 member countries

4 Research Groups

- Paddy Rice Research Group
- Livestock Research Group
- Croplands Research Group
- Integrative Research Group

20 Science Networks

14 partner organisations

Over **3000** scientists involved in activities of the GRA

44 international collaborative projects supporting the GRA

50 fellowships awarded to recipients from **25** countries

19 technical training workshops held

12 technical guidelines, resource materials and databases produced





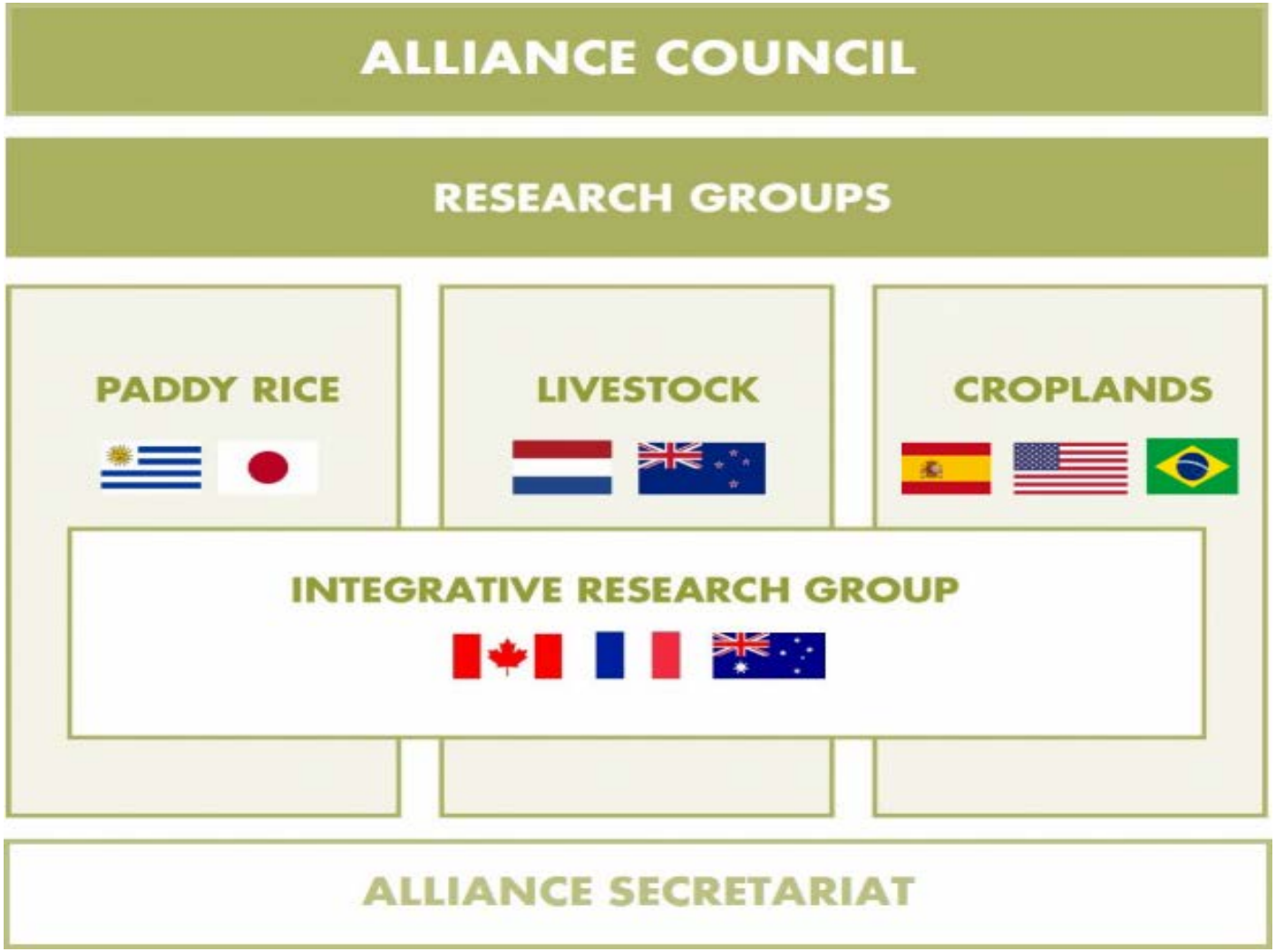



globalresearchalliance.org **@GRA_GHG**

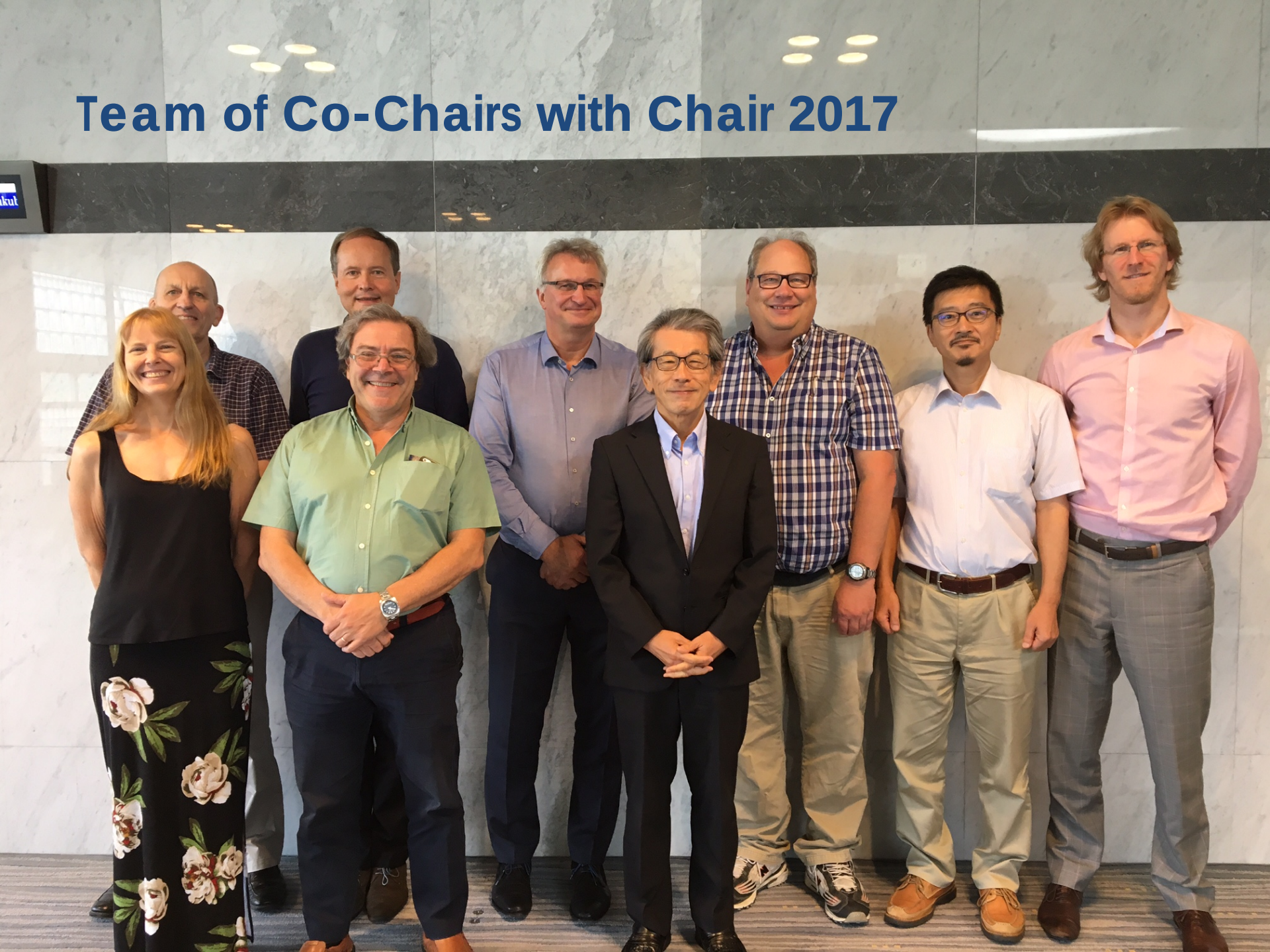
June 2017

Structure & Research Groups

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

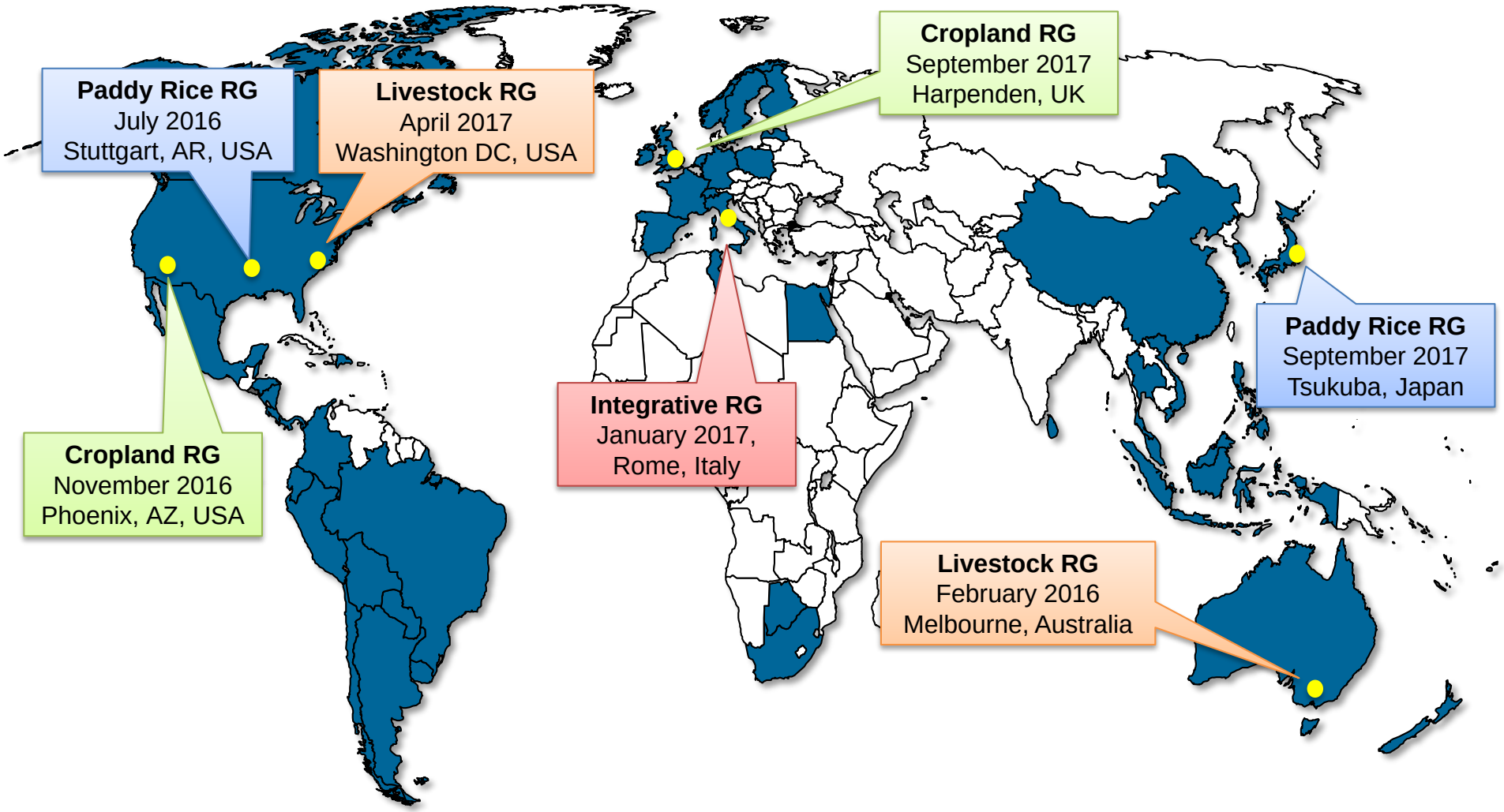


Team of Co-Chairs with Chair 2017



Research Group Meetings 2016-2017

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES



Research Group Meetings
2016-2017

GLOBAL RESEARCH ALLIANCE
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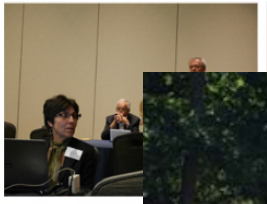
Phoenix | InstaMag



Partner Organizations

GLOBAL RESEARCH ALLIANCE
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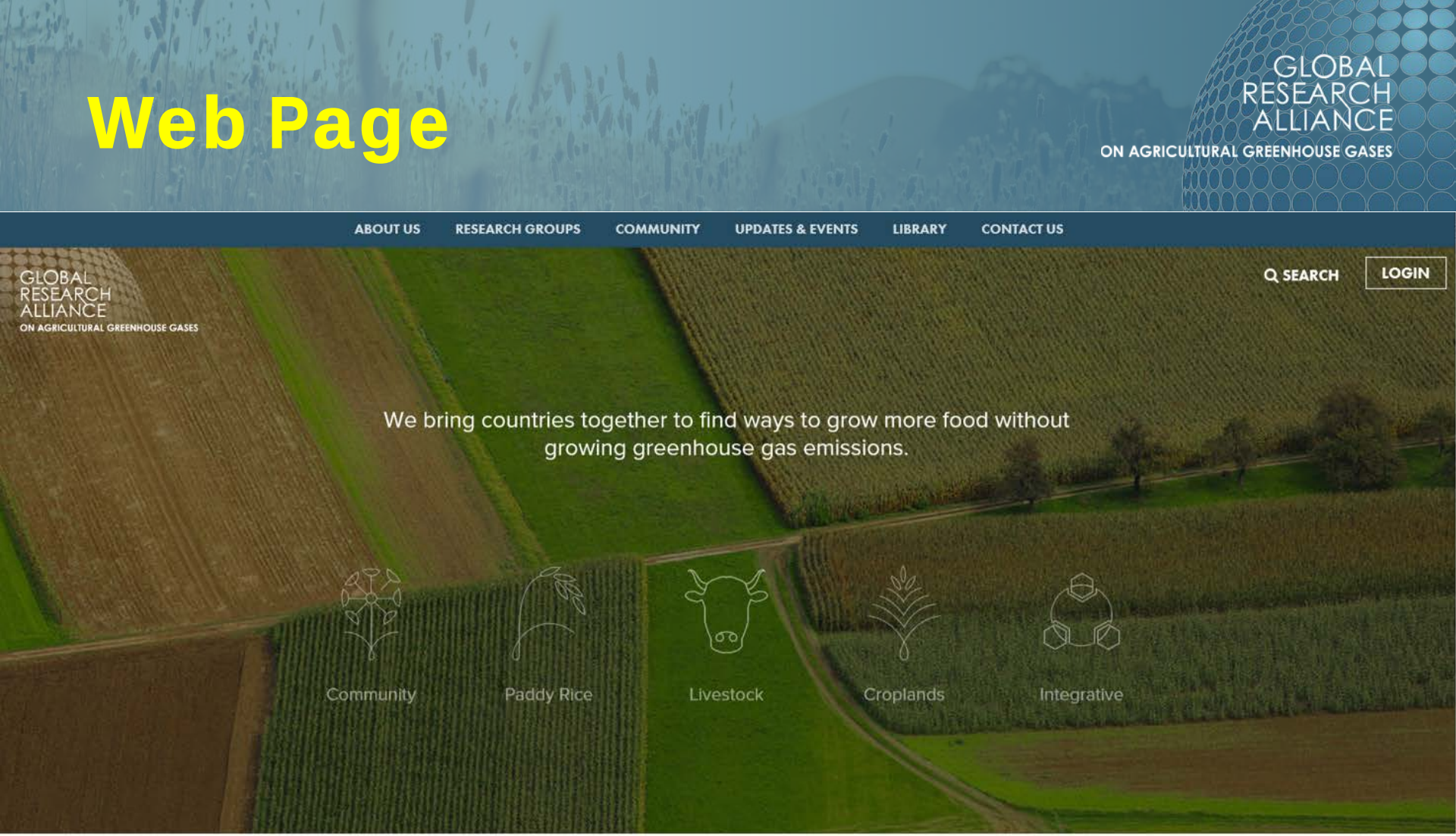
Inter-American Development Bank

world Agricultural forum

Web Page



August 2, 2017 • News

NEW BROCHURE FOR THE CONSERVATION AGRICULTURE

The Conservation Agriculture Network of our Croplands Research Group. led by Canada, has produced a new brochure of

July 27, 2017 • News

JOB OPPORTUNITIES WITH THE UNITED NATIONS' CAPITAL

A number of opportunities are currently available for research and officer positions with the United Nations' Capital

July 26, 2017 • News

FIRST GLOBAL SUSTAINABLE RICE CONFERENCE &

The Sustainable Rice Platform (SRP) is holding the 2017 Sustainable Rice Conference and Exhibition at the UN

www.globalresearchalliance.org

Outline of Work 2011-2016

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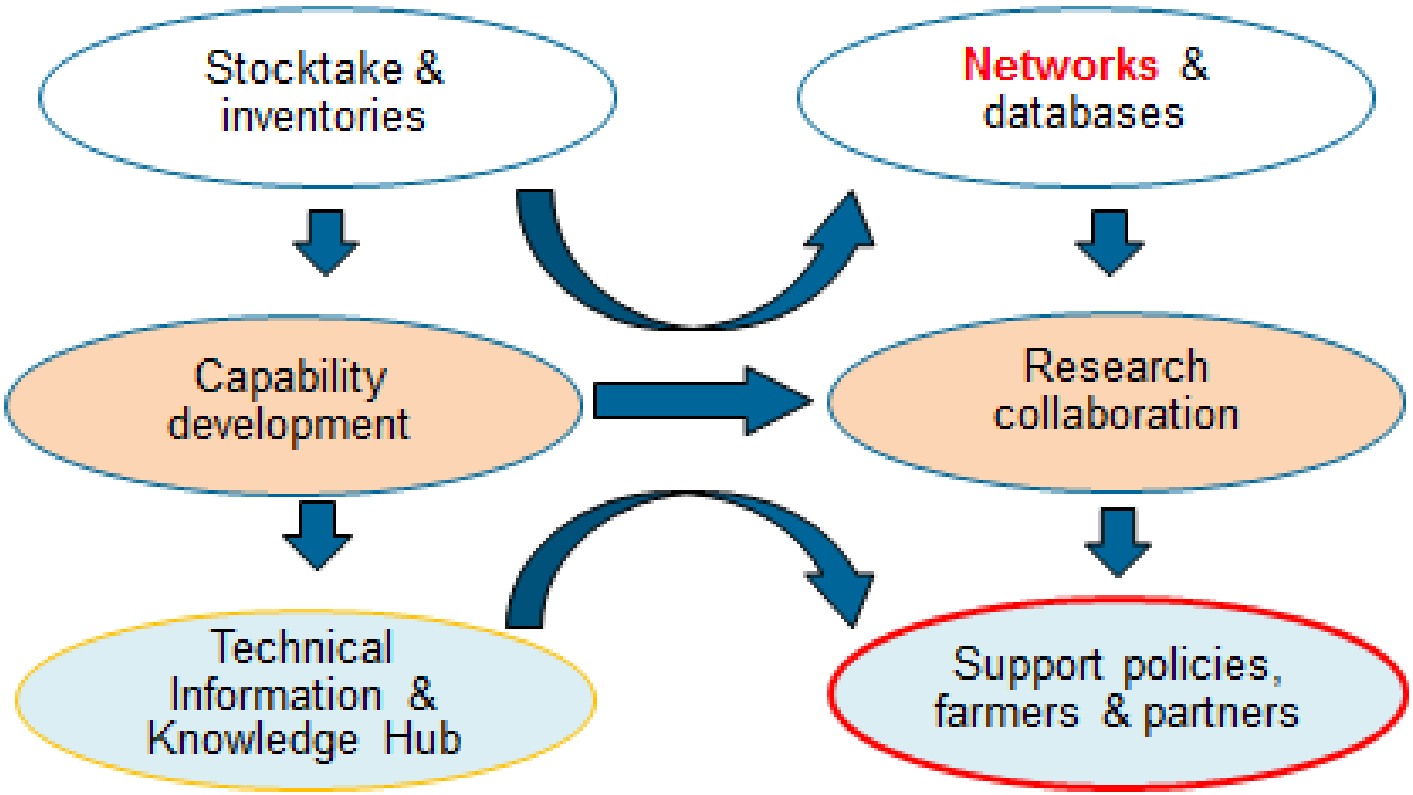
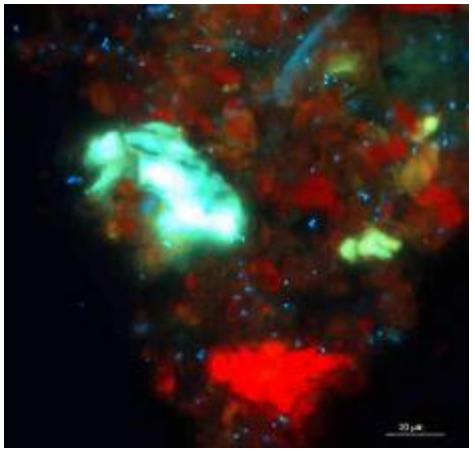


Research Networks
Livestock Research Group

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

Animal Selection, Genetics & Genomics Network

- Practice brief for policy makers on improved ruminant genetics for productivity and climate change outcomes
- Advanced state of knowledge on breeding low-emitting animals



Rumen Microbial Genomics Network

- Ground-breaking research in understanding rumen composition across animal species
- Development of global reference sets of data on the rumen microbiome

Feed & Nutrition Network

- Major global databases on predicting and mitigating livestock GHGs through feed & nutrition – being used in IPCC guidance
- Improvements to global good practice for research techniques

Research Networks

Integrative Research Group

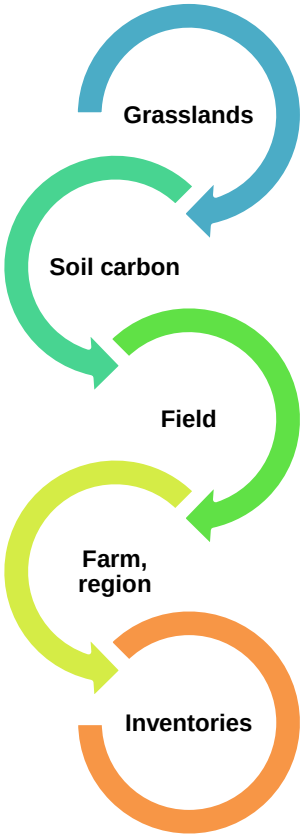
GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

- ***Soil carbon network**:* C-MIP, testing soil carbon models on a global network of long-term bare fallow sites (launched)

- ***Field scale network**:* GHG-MIP (in revision, Global Change Biology), showing that the median of 3-4 simulation models predicts within experimental error N_2O emissions and yields of crop rotations and grasslands at 10 sites across 4 continents.

- ***Farm-Region network***: first global map showing organic carbon inputs to soils required to reach the 4 per 1000 target (presented at COP23, Marrakech)

- *Coordination of international cooperation* for soil carbon sequestration research (CIRCASA project, 17 countries) funded by European Commission

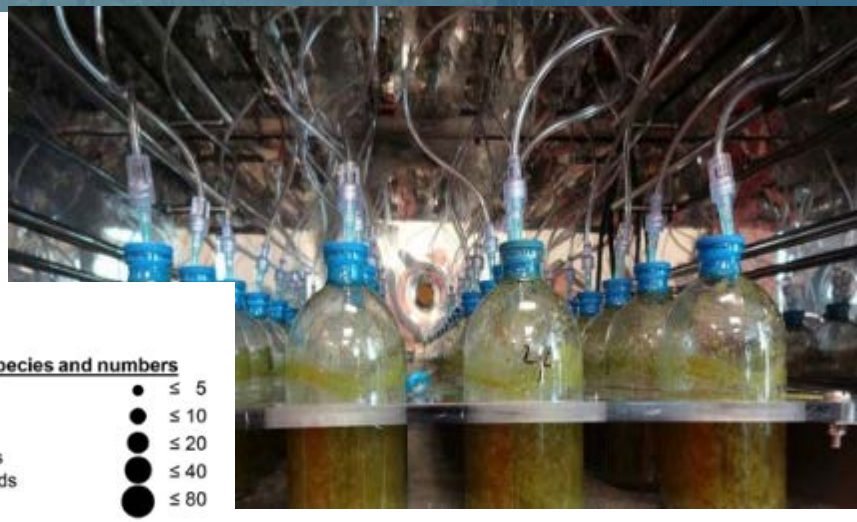


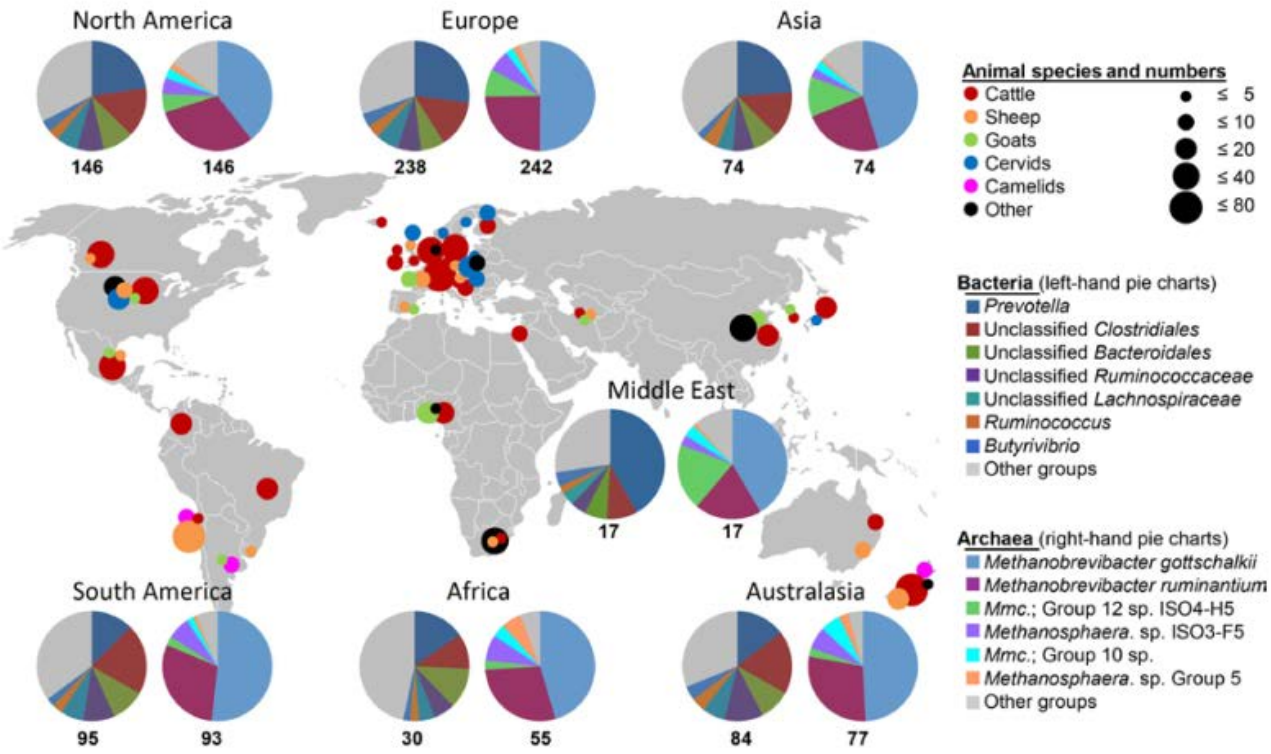
Collaborative Research Projects

Livestock Research Group

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

e.g. Global Rumen Census, Methane inhibitors, low methane rumen





Origins of samples and their bacterial and archaeal community compositions in different regions.
Numbers below pie charts represent the number of samples for which data were obtained. The most abundant bacteria and archaea are named in clockwise order starting at the top of the pie chart.

Active research networks leading major projects incl. methodological standardisation, data collections and identification of new mitigations

Collaborative Research Projects

Paddy Rice Research Group

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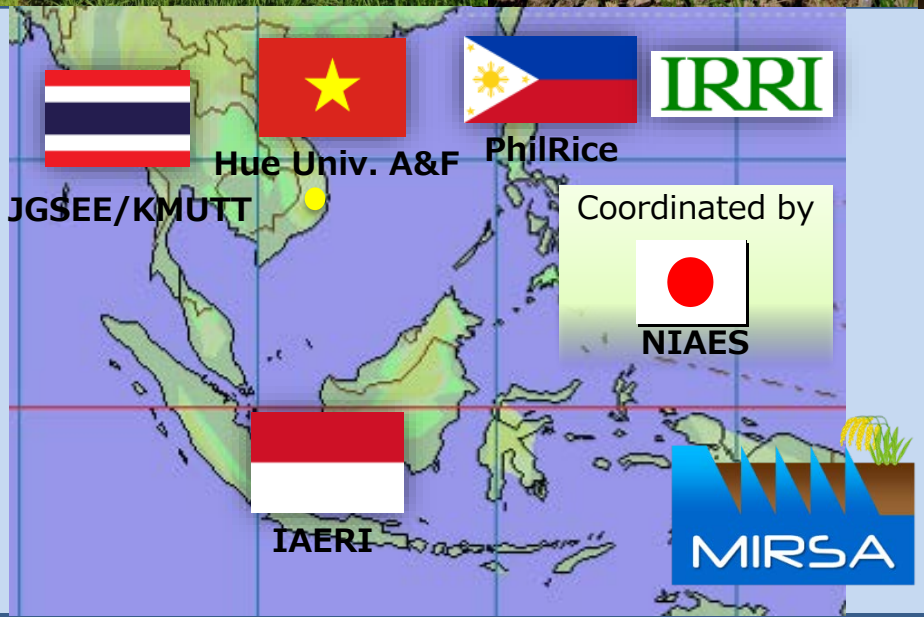
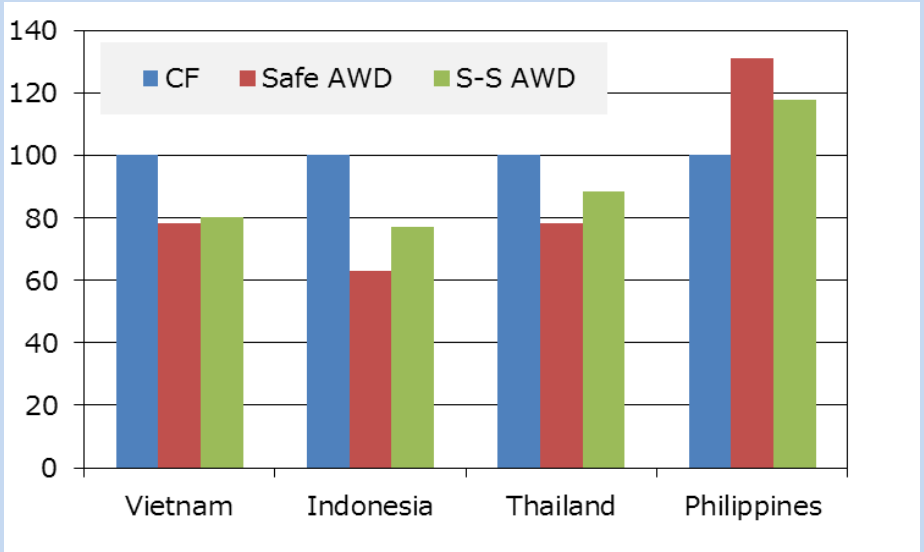
MIRSA Project

(Greenhouse Gas Mitigation in Irrigated Rice Paddies in Southeast Asia)





Knowledge Hub
Cropland Research Group

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

- **MAGGnet**
  - International metadata collections of relevant publication on agricultural management influences on GHG fluxes, carbon sequestration (including long-term experimental sites)
- **GRAMP**
  - Global Research Alliance Modelling Platform

GRAMP

- **Social media activities**
  - via Facebook and Website
- **Literature Database**

Communication

Research Group Brochures

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GRA Flagship Projects

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

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

- GRA Council endorsed development of four GRA Flagships in 2016:
  - Enteric Fermentation
  - Agricultural GHG Inventories
  - Soil Carbon Sequestration
  - Rice Systems
- New Flagships are under preparation:
  - Circular Economy
  - Nitrous Oxide

Outline of Work updated 2017+

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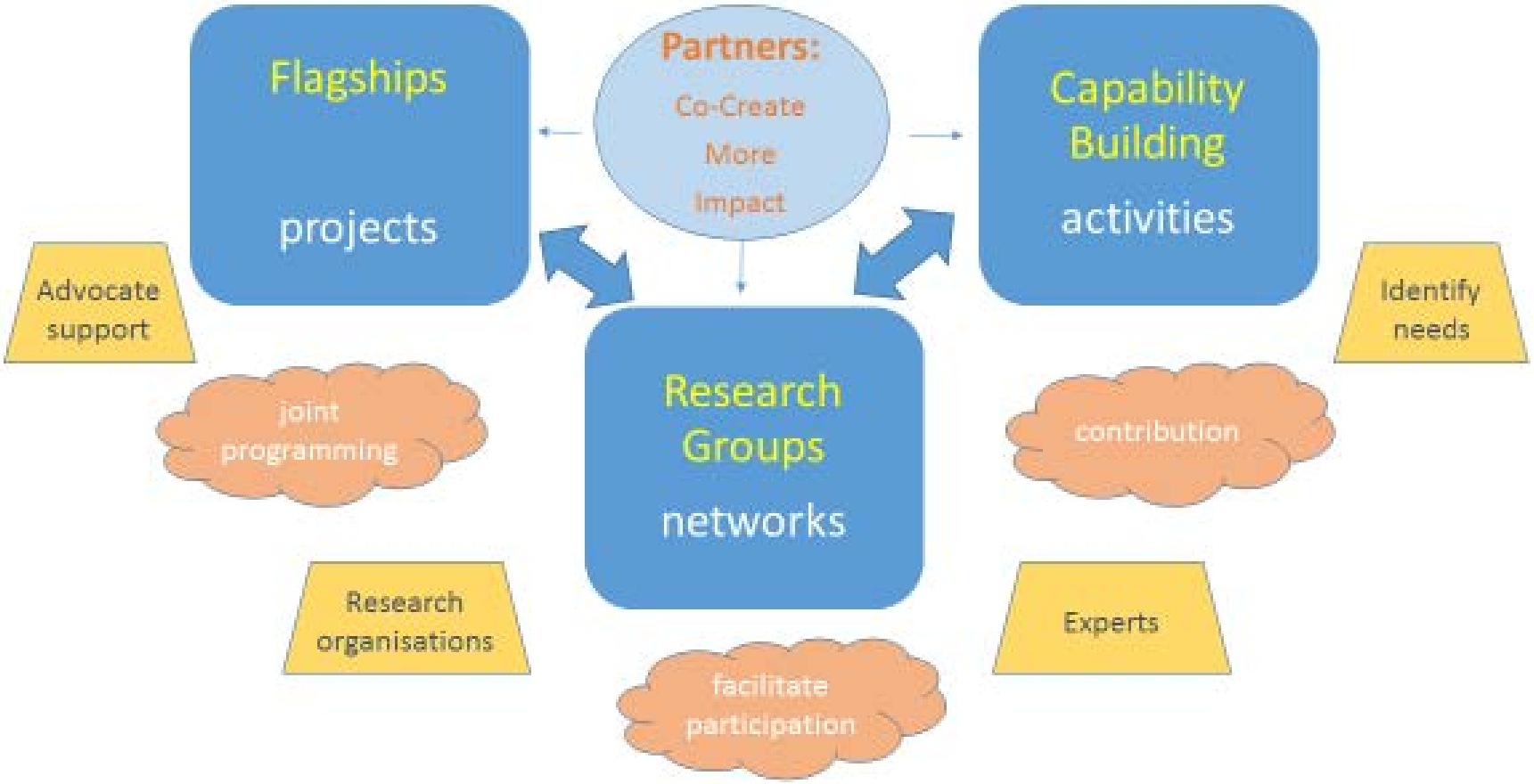

Outline of Work updated 2017+

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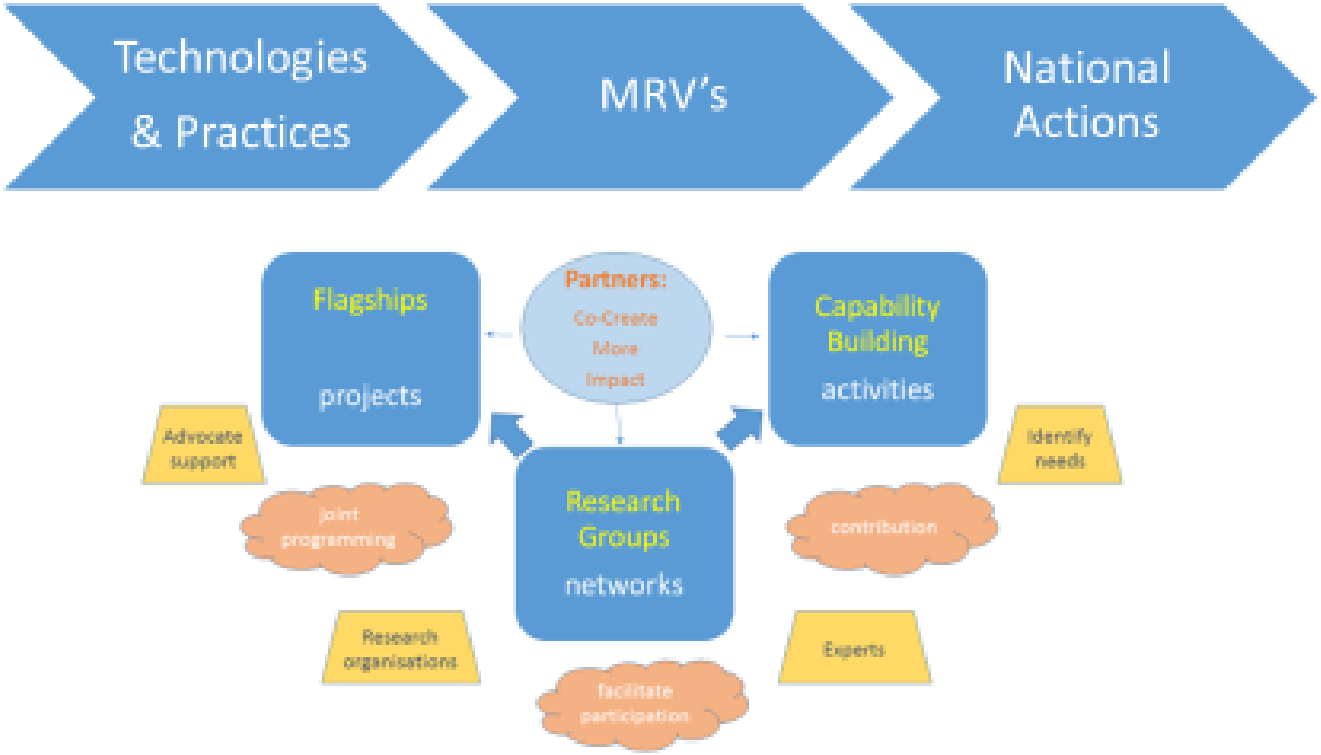
We bring countries together to find ways
to grow more food without growing GHG emissions



GLOBAL RESEARCH ALLIANCE
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FOR MORE INFORMATION

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secretariat@globalresearchalliance.org
Twitter: @GRA_GHG

ありがとうございます。
Arigatou gozaimasu.

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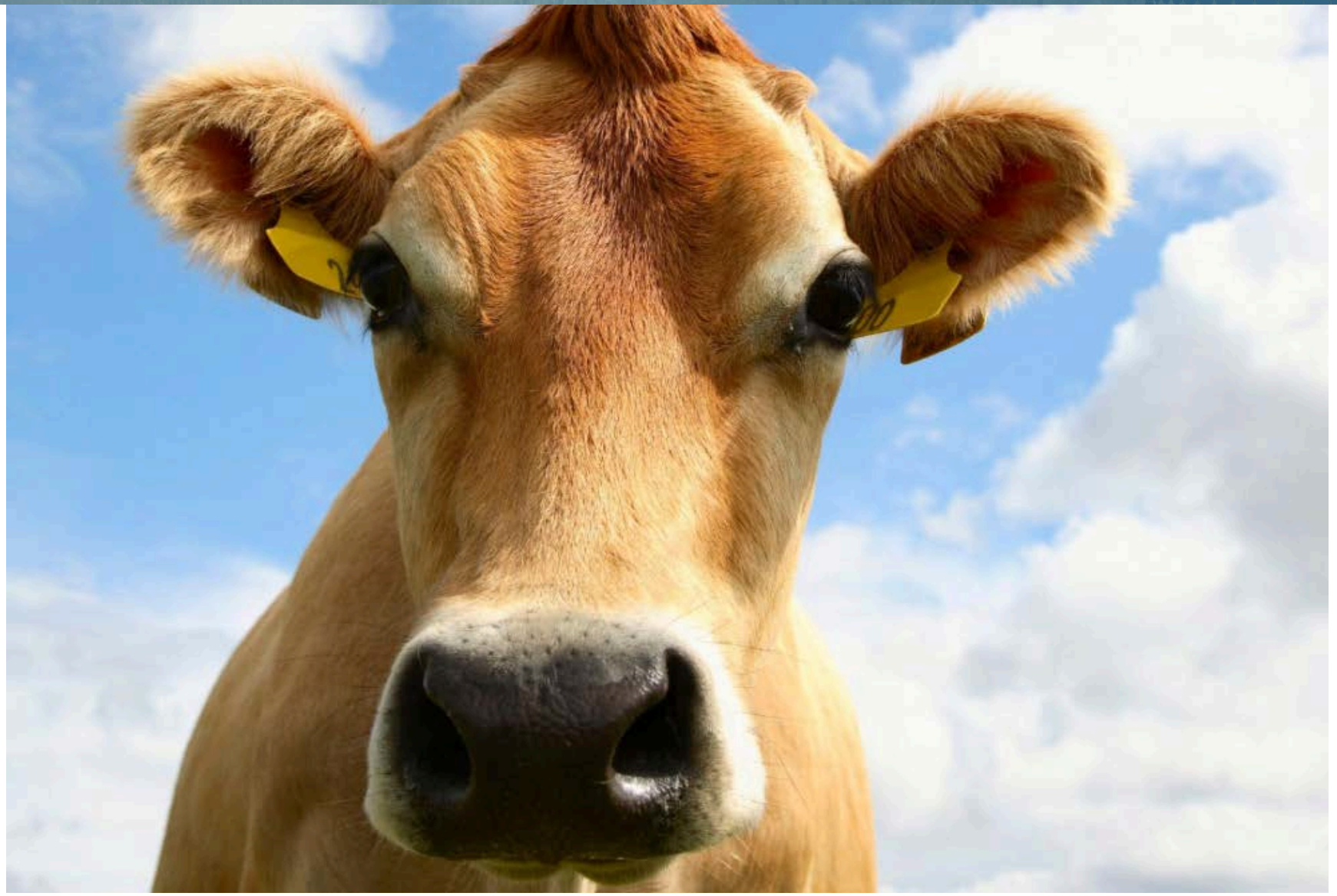

本日はよろしくお願いします。
Enjoy the Symposium Today!

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