Housekeeping – Tips for using Teams

**Turn your camera on.**
Consider turning your camera on so everyone can see you.

**Mute your microphone.**
Everyone should set the microphone to mute unless actively speaking.

**Use the chat pane.**
Enter questions here.

Use the emoticons to react to speakers during the meeting. If you have a question, please put it in the chat pane.

If you need help, please send an email to secretariat@globalmethane.org
Agenda

▪ Welcome and Opening of the Meeting
▪ Update on GMI Activities
▪ Biogas Subcommittee Updates
▪ Potential Roles of GMI in Support of the Global Methane Pledge
▪ Examples of GMI in Action
▪ Panel Discussion: Roles of Collaborators in Supporting Global Methane Pledge
▪ Wrap Up, Next Steps, Adjourn
Biogas Subcommittee Co-Chairs

Jorge Hilbert, National Agricultural Technology Institute (INTA), Argentina

Matt Hamilton, Environment and Climate Change Canada (ECCC), Canada

Nick Elger, U.S. Environmental Protection Agency (EPA), United States
Update on GMI Activities

Monica Shimamura, Director, Secretariat
GMI is an international public-private partnership focused on reducing barriers to the recovery and use of methane as a valuable energy source.

- 45 Partner Countries
- 700+ Project Network members
- Alliances with international organizations focused on methane recovery and use

GMI Partner Countries represent approximately 75% of methane emissions from human activities.

Re-chartered for 10 more years (through May 2031)
GMI Accomplishments Since 2004

- Grown from 14 to 45 Partner Countries
- More than $650 million in leveraged funding for projects and training
- Approximately 750 Project Network members
- Conducted hundreds of assessments, pre-feasibility studies, feasibility studies, study tours, and site visits
- Provided trainings for more than 50,000 people in methane mitigation
- Developed more than 60 tools and resources for methane mitigation

Since 2004, GMI has reduced CH₄ by about 500 MMTCO₂e including 42 MMTCO₂e achieved in 2020

500 MMTCO₂e is approximately equivalent* to the CO₂ emissions from any one of the following:

- 56 Billion gallons of gasoline consumed
- 550 Billion pounds of coal burned
- 60.8 Trillion smartphones charged

* [epa.gov/energy/greenhouse-gas-equivalencies-calculator](https://epa.gov/energy/greenhouse-gas-equivalencies-calculator)
## GMI “By the Numbers” for FY 2021

### In FY 2021:

- **11 countries** supported activities where more than 1,100 people received a total of approximately 1,000 hours of training about reducing methane emissions and capturing methane for productive uses.

### Key Activities:

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capacity Building/Information Sharing</strong></td>
<td>fostering best practices</td>
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<tr>
<td>Workshops/Trainings</td>
<td>European Commission, United States, Partnership-wide</td>
</tr>
<tr>
<td>Manuals/Websites/Other Outreach</td>
<td>All Partners</td>
</tr>
<tr>
<td>Assessments</td>
<td>identifying opportunities for emission reductions</td>
</tr>
<tr>
<td>Reports/Tools/Models</td>
<td>United States, Partnership-wide</td>
</tr>
<tr>
<td>Study Tours/Other Technical Assistance</td>
<td>India</td>
</tr>
<tr>
<td>Partnerships</td>
<td>building relationships to foster action</td>
</tr>
<tr>
<td>GMI Meetings (Steering Committee/Subcommittees)</td>
<td>Online</td>
</tr>
<tr>
<td>Conferences</td>
<td>Partnership-wide Online</td>
</tr>
<tr>
<td>Webinars, Informational Meetings, and Presentations</td>
<td>Colombia, Indonesia, Poland, Serbia, Ukraine, United States, Partnership-wide</td>
</tr>
</tbody>
</table>

- Leveraged virtual platforms to maintain and increase engagement with stakeholders.
- Expanded direct communications with social media.
- Promoted GMI’s technical expertise.
Recent Accomplishments

- Rechartered GMI through May 2031
  - Raise ambition over next 10 years
  - Elevate international awareness of the critical need to take action now to reduce methane emissions
- Published New Terms of Reference in June 2021
- Hosted June 3 Call to Action on Methane
  - Influential global leaders on methane
  - More than 360 attendees, materials available online
- Developed new Steering Leadership model
Refreshed Steering Committee Participation

- **Chair and Vice Chairs Model**
  - The Steering Committee makes appointments to each position by consensus for a 2-year term
  - Chair provides overall leadership for the Initiative
  - Vice Chairs offer additional leadership to delegate responsibilities and improve coordination with GMI Subcommittees, delegates, and strategic partners

- **Current Steering Committee Members**
  - Canada
  - China
  - Colombia
  - Ecuador
  - Finland
  - Ghana
  - India
  - Indonesia (NEW)
  - Nigeria
  - Saudi Arabia (NEW)
  - Serbia (NEW)
  - Turkey (NEW)
  - United States
Steering Committee Priorities

- Providing support to countries that are working to aggressively reduce methane emissions, including signatories of the Global Methane Pledge
- Hosting the Global Methane Forum (planned for 2022 or 2023)
- Encouraging Subcommittees to expand their membership
- Leveraging strategic partnerships to improve collaboration – for example, with United Nations Economic Commission for Europe (UNECE) and Climate and Clean Air Coalition (CCAC)

Opportunities for the Biogas Subcommittee

- Expand Subcommittee membership
- Identify sector-specific, regional, and informal organizations to partner with
- Focus on opportunities to deliver technical solutions for methane mitigation
Thank you!

Monica Shimamura

shimamura.monica@epa.gov
secretariat@globalmethane.org
Biogas Subcommittee Updates

Nick Elger, Biogas Subcommittee Co-Chair, U.S. Environmental Protection Agency (EPA), United States
Biogas Subcommittee Updates

- **Coming Soon!** *Policy Makers Handbook for Measurement, Reporting, Verification in Biogas Sector*

- Biogas Toolkit Updates
  - *Solid Waste Emissions Estimate Tool (SWEET), OrganEcs, Anaerobic Digester Screening Tool*

- Subcommittee working on developing an Action Plan
  - **June-August:** Conducted survey of Country Delegates to assess priorities and actions to mitigate methane
  - **November-December:** GMI Biogas Delegate Workshops
    - Deeper dive and identified Partner Countries’ priorities
  - Plan to reconvene in new year to develop Action Plan with broader Subcommittee
Delegates discussed area of expertise, country priorities, and national actions to mitigate methane.

**Key Takeaways**

- Methane measurement, verification and reporting is a key challenge for all three sectors (agriculture, waste, and wastewater)
- Delegates working in the agriculture sector highlighted additional methane issues and actions beyond biogas (e.g., alternative methods for manure management, feed additives)
- Anaerobic digester/biogas systems are not applicable for every situation
- Sectors (Ag, MSW, WW) have different needs, challenges, and opportunities for mitigating methane
Global Biogas Opportunity
Paris Agreement set a goal to limit global temperature increase to well below 2 degrees Celsius, while pursuing efforts to limit the increase to 1.5 degrees.

- 195 countries have signed the agreement, including all GMI Partner Countries.

Map includes both GMI & Non-GMI countries.

Image Source: Martin Armstrong, Statista (modified to update US ratification)
Global Methane Pledge (GMP)

- GMI is a key supporter of the GMP
- Countries joining the GMP commit to:
  - Work to achieve a collective goal of reducing global methane emissions by at least 30% from 2020 levels by 2030
  - Move towards using the highest tier good practice inventory methodologies, and to provide greater transparency in key sectors.
- 110 countries have signed, representing over 40% of global methane emissions
  - 34 GMI Partner Countries

Source: https://www.globalmethanepledge.org/
2100 WARMING PROJECTIONS
Emissions and expected warming based on pledges and current policies

Global Decarbonization Targets

Warming projected by 2100

2030 targets only
+2.4°C

Pledges & targets
+2.1°C

Optimistic scenario
+1.8°C

1.5°C consistent
+1.3°C

Image Source: Temperatures | Climate Action Tracker
Reducing methane emissions is an effective strategy to achieve near-term, impactful Greenhouse Gas (GHG) emissions reductions.

GMI can leverage network of 45 Partner Countries, private sector organizations, and multilateral partners, and unparalleled track record of developing and disseminating technical expertise, tools, and resources, enabling countries to reduce emissions and meet goals set out in the Paris Agreement.
Ways GMI Biogas Subcommittee Can Support the Global Methane Pledge and Methane Mitigation Efforts

- Convene experts to exchange information
  - For example, Subcommittee meetings, webinars

- Share tools and resources to assist countries to develop and implement:
  - Baseline emissions and resource assessments
  - Greenhouse gas inventories
  - Measurement, reporting and verification

- Explore full spectrum of options for methane mitigation
  - E.g., alternative waste treatment options, feed and manure additives, biogas to replace fossil fuels, soil carbon benefits from digestate

- Facilitate and provide platform for training, capacity building, and advice to member countries
Opportunities to Engage with GMI

- **Participate** in Subcommittee events and share best practices and research.
- **Connect** with countries to learn about best practices for methane mitigation.
- **Leverage GMI resources and expertise** to help craft methane mitigation policies in your country.
- **Use and Disseminate GMI tools and resources** in the Biogas Toolkit to support methane mitigation activities in your country.
- **Share relevant tools, resources, and events** that can be promoted through Biogas Toolkit and GMI’s events webpage and social media.
- **Recruit and engage** relevant in-country Project Network members and Delegates who might advance methane mitigation, as appropriate.
GMI Project Network in Action
Over several years, TERI, a GMI Project Network Member, worked alongside U.S. EPA to support waste management projects in India. This engagement helped build TERI’s capabilities through trainings and capacity building. TERI has since expanded work to support municipalities across India, and now houses a dedicated Centre for Waste Management. Sample TERI clients:

- Local Municipalities: East Delhi, South Delhi, North Delhi, Varanasi, Panjim, Simla
- Central Government: MoHUA, MoEFCC
- International: United States, Germany, Norway, United Nations

Dr. Pandey, head of the Centre, serves on multiple national expert committees.

Photo: TERI headquarters at the Habitat Centre in Delhi. Photo features EPA team members who led the waste characterization study and training in April 2019.
East Delhi Municipal Corporation

- Baseline GHG emission estimation through SWEET runs
- Slope failure analysis for the waste disposal site post failure and suggestions for remedial measures
- Waste management regulatory audits
- Audits for road sweeping operations
- Training and capacity building for bulk waste generators

Photo: EPA team members and representatives from the East Delhi Municipal Corporation at the Geeta Colony AD facility in East Delhi.
Waste Characterization Training

• Gurugram needed assistance in understanding city’s waste streams
• EPA, through GMI, led a waste characterization study that helped justify the need for organic waste treatment
• The study was used as an opportunity to train TERI staff
• TERI has since conducted similar analyses in other cities
• Study formed the basis of waste characterization guidance for use by other cities across the world

Photo: TERI staff sorting waste received at the Bhandwari landfill in Gurugram. The facility receives between 1,800 and 2,000 metric tonnes of waste per day.
Cities needed a way to estimate the emissions mitigation benefits of waste management alternatives

EPA, through GMI, provided demonstrations and trainings on SWEET, an EPA-developed tool

Tools has been used to inform strategic planning in East Delhi Municipal Corporation, Coimbatore, Varanasi, Panjim, and other locations

TERI staff have incorporated the tool into waste management curricula at the Indian Institute of Forest Management in Bhopal

Photo: Ghazipur Landfill in East Delhi. EPA assisted East Delhi in modeling emissions scenarios as part of the city’s waste management action planning process.
**Biogas Project Database**

- TERI, with assistance from EPA and GMI, supported MNRE in developing the framework for a national biogas database
- Data collected for three states (Punjab, Haryana, Uttar Pradesh) at first, with MNRE expected to expand the database nationally
- Benefits:
  - Standardize basic data collection across project sites
  - Track project GHG emission reductions, feedstock, and output, and link to national GHG inventory and mitigation goals
  - Promote new projects and information sharing
  - Identify “model” sites that can be used for case studies, and sites that may require targeted assistance

Photo: Biodigester facility in Hoshiarpur, Punjab. Punjab is one of the states that has been used as a pilot for the biogas project database.
Biogas Cooling to Reduce Food Loss

- Substantial post harvest food waste in India
- Potential to use biogas for cooling systems to reduce food loss and improve profitability by avoiding a supply glut
- TERI, with support from EPA and GMI, is currently conducting a prefeasibility assessment of pilot projects in two villages in Maharashtra
- If feasible, substantial impact in the agricultural sector

Photo: Group discussion with farmers for identifying the availability of commodity cooling application in Satara, Maharashtra. Maharashtra is one of the states that has been identified for conducting a prefeasibility assessment for the biogas based cooling application.
• Limited awareness in India of tools and resources for reducing financial risks of biogas project development
• TERI supported GMI in organizing a workshop to highlight GMI resources and showcase exemplary projects
• In addition, this workshop represented a first effort to bring together waste and agriculture sector stakeholders
• As a result, biogas sector stakeholders are better positioned to coordinate efforts to advance biogas projects
THANK YOU

Dr Suneel Pandey
Director, Environment and Waste Management Division
Email: spandey@teri.res.in
Novi Sad, Serbia
Composting Plant

Mira Radenović
City of Novi Sad
Background

Novi Sad is the second largest city in Serbia, with a population of approximately 340,000 as of 2011.

Novi Sad and the municipalities of Backa Palanka, Backi Petrovac, Beocin, Zabalj, Srbobran, Temerin, and Vrbas, are Waste Management Region (SBWMR), have a combined population of approximately 600,000.

The eight municipalities in the SBWMR produce approximately 204,770 tons per year (t/year) of solid waste, nearly half of which is organic waste.
Waste Management Strategy

- Serbia’s obligation, within the EU accession process, is to reduce the amount of biodegradable waste from municipal waste.

- Waste management strategy for the period 2010-2019 establishes a system for reducing the disposal of biodegradable waste in landfills by 25% by 2022, 50% by 2026 and 65% by 2030.

- Serbia has not yet adopted a new strategy, but must comply with a new EU directive on sustainable development, which stipulates that only 10% of the total amount of produced waste can be disposed on landfills by 2035/40.
Pre-Feasibility Study

Using funds from the German Corporation for International Cooperation (GIZ) and with the assistance of the U.S. Environmental Protection Agency (EPA), Global Methane Imitative (GMI) and Climate and Clean Air Coalition (CCAC), Novi Sad developed project documentation for and started construction of the first municipal composting plant in Serbia in 2020, with the projected capacity of about 5,000 t/year. When the first phase of construction finalized, current capacity of the Plant stands at around 1,500 t/year, and the potential to increase it to over 12,360 t/year once the plant is fully constructed and the operational plan optimized “(pre-feasibility study for composting plan of Novi Sad)
Significance and Results

- Before the construction of the compost field, the collected green waste from urban areas was mostly taken to the landfill. This created costs for taking the waste to the landfill, and also waste produced greenhouse gas (GHG) emissions at the landfill, which has a multiple negative impact on the environment.

- In accordance with the relevant decisions from the Kyoto Protocol, the emission reductions of any of the greenhouse gases are calculated and expressed in terms of carbon dioxide equivalent. Composting 5,000 tons of green waste per year, which is about 417 tons per month, will reduce 367 tons of CO2 emissions per month. That is equal to the pollution that 951 cars create per month.
Compost Production

- By producing compost, savings of more than half a million dinars a year are achieved, due to the elimination of the costs of transporting biowaste to the landfill.

- The planting of new greenery has been improved through the fertilization with quality compost from our own production.

- “Part of the collected green waste is also used for heating the building of PUC “Gradsko zelenilo” using wood chips in the heating boiler.”
Future Plans and Conclusions

- The city of Novi Sad is now in the final phase of developing a modern regional center for waste management.
- Biological-waste management (green waste, food waste and organic waste) is one of the most important aspects of the project in the context of reducing greenhouse gas emissions.
- We have important steps ahead of us in terms of establishing an adequate waste management system. There are many challenges ahead of us on this path that we will surely overcome with the help of our faithful partners.
Project Photos
The role of Biogas & RNG in the future global energy system
– and opportunities for more collaboration between Denmark and GMI

Chris Voell
Head, Biogas and Waste
Danish Trade Council of North America
Ministry of Foreign Affairs of Denmark

Enabling the introduction of Danish biogas and waste solutions into the North American market.
• Goal: Climate neutrality by 2050 – 70% by 2030
• 2/3 of all renewable energy in Denmark is bioenergy. 35% of all energy production is renewable energy. Wind power production rapidly increasing.
• Hydrogen from wind and CO2 from biogas expected to play significant role
• Overall strong political consensus across the 10 parties in the Parliament.
• RNG is recognized as a solution to reduce energy-, environment- and resource issues from society
• Triple helix cooperation
Denmark is the country in Europe with the highest share of renewable natural gas in the gas grid. Second largest gas producer in Europe.
The role of RNG in heavy industry and transport sectors towards 2050

- 51 plants connected to the grid (2021). More underway. Large scale industrial co-op plants.
- Biogas produced from manure and waste products. 50% of the gas is upgraded for the grid. Digestate is recognized as high quality fertilizer.
- In 2025 RNG is expected to make up 50% of the Danish gas consumption. By 2030, we expect to hit 100%
- Sector focus on:
  - process optimization
  - methane slip reduction
  - biomass sustainability
  - power-2-X integration

Source: Danish Energy Agency
Danish Biogas Model
Biogas Alliance – Danish Technology Solutions

- Sand/grit separation from manure & biosolids
- Food waste pre-treatment to biopulp
- AD system design and optimization
- Fertilizer production
- Food waste/high solids pumping and mixing
- Enzyme use to enhance digester performance
- Hydrogen sulfide and CO2 removal from biogas for RNG
- Biogas system ownership and operation
- Power to X technology for expanded biogas benefits

- Alliance Companies active in many other GMI countries outside North America
Biogas Go Global

- Biogas Go Global provides a commercial, R&D and policy knowledge sharing platform for the accelerated growth of the biogas industry in the United States, Denmark and other partner countries by establishing collaboration between industry, academia and the private sector.

- The goal of Biogas Go Global is to grow the global biogas sector through partnerships between Danish and partner country stakeholders.

- www.biogasgoglobal.com
Knowledge sharing: Policy and production of RNG

- Environmental benefits via biogas
- Pretreatment of biomass: Straw, grass, food waste
- Good use of digestate
- Upgrade of biogas to natural gas quality
- Power-2-X: Wind & Solar power integration to gas grid
- Biogas policy in Denmark

Download for free here via www.biogasgoglobal.com

Written by The Danish Energy Agency, Food & Bio Cluster Denmark et.al.
Webinars and partners

Biogas Go Global

Agriculture and Agri-Food Canada

CAV

Composting Association of Vermont

RENEWABLE THERMAL COLLABORATIVE

C-CHANGE

CDFA

California Department of Food & Agriculture

Stony Brook University | Institute of Gas Innovation and Technology

WORLD BIOGAS ASSOCIATION

Webinars

Methane leakages from biogas plant: How much and how can we reduce them?

Informationsmøde

A Celebration of Biogas’ Role in the Danish and US Energy & Agrifood Sectors

Circular City Week New York Food Waste & Biogas - Driving the Circular Economy in Denmark

Sustainable Biogas – Climate and Environmental Effects of Biogas Production
Areas where GMI and Denmark can benefit from each other

- Benefits of biogas – building a sustainable RNG sector with true green impact
- R&D&D within energy storage and power-2-X
- Knowledge sharing on pretreatment of biomass: Straw, grass, food waste etc.
- Gov2Gov policy development and implementation
Thank you for your attention
Roles of Collaborators to Support Global Methane Pledge
WHO ARE WE?

- Founded in 2016 by national associations from the UK, USA and Italy and 20 founding company members

- Now represent ~ 100 organisations from around the world, including national associations from Latin America, Asia, Africa and Europe

- Observer with UNFCCC, member of CTCN, CCAC, GMI, and a partner of C40 Cities Network

- Cooperating with FAO, EU, UNEP, IEA among others
WHY ARE ORGANIC WASTES A PROBLEM?

- Over 105 billion tonnes of organic wastes globally
- If not recycled, these emit methane and other GHG emissions
- Global Methane Assessment by CCAC demonstrated tackling methane is most ‘immediate and cost-effective’ way to keep global warming below 2°C
- Organic wastes from food production, food waste itself, farming, landfill and wastewater treatment are responsible for about 25% of global methane emissions
- Only 2% are treated and recycled
AD AND GLOBAL METHANE PLEDGE

- Anaerobic Digestion (AD) recycles organic wastes into
  1. Biogas
  2. Bio-CO2
  3. Natural fertilisers
  4. And other valuable bio-products

- Over 100 countries signed up to Global Methane Pledge
- AD can deliver ~50% of this
How does WBA support countries?

- **Raising awareness**
  - Flagship report *Biogas: Pathways to 2030* highlights the importance of recycling methane emitting organic wastes
  - Joint letters with national associations to national ministers
  - Hosted an official side event at COP26
  - Presenting at Third Party Events
  - WBA will publish a report on methane emissions from organic wastes next year
How does WBA support countries?

- **Knowledge transfer**
  - Global Food Waste Management
  - The Global Potential of Biogas
  - Biogas: Pathways to 2030
  - Country Profiles (Indonesia country profile will be published in 2022)
  - Policy Briefings
  - Operational Guidance Notes
  - Monthly newsletter
  - Regular Technical Webinars
How does WBA support countries?

- **Facilitating partnerships opportunities**
  - The annual World Biogas Summit and Expo
  - Members’ Meetings
  - Roundtables

- **Training and Standards**
  - WBA is in the process of establishing an International AD Certification Scheme
  - A virtual learning management platform covering all aspects of AD processes is also set to go live in Spring 2022
Charlotte Morton
Chief Executive

World Biogas Association
cmorton@worldbiogasassociation.org
www.worldbiogasassociation.org
Our support to countries & to the GMP
15 December 2021
ABOUT

Supporting climate and clean air solutions by:

- Enhancing capacity in national institutions
- Supporting science-based policies
- Catalysing action in key sectors

ccacoalition.org
The atmospheric concentration of methane is increasing faster now than at any time in the observational record.

- Methane emissions are projected to continue rising through at least 2040
- Likely in part due to fossil fuels - surge in gas extraction - in part due to tropical biogenic flux (perhaps climate driven)
- Need 45% by 2030 for the 1.5C target. Regardless of exact fraction of total or growth from specific sectors, we know the big ones and can reduce them!
Limiting Warming to 1.5°C at the Lowest Cost

By 2030

Methane emissions need to be reduced in each of the three main emitting sectors:

- Fossil Fuels: 60% - 35%
- Waste: 30% - 25%
- Agriculture: 20% - 25%
1. REQUEST FOR SUPPORT

2. CREATE THE FOUNDATION

3. PREPARE THE NATIONAL PLAN

4. OBTAIN POLITICAL SUPPORT

5. COORDINATE IMPLEMENTATION

ccacoalition.org
SUPPORT

- Expert assistance and resources
- Training and capacity building
- Science and research
- Technology demonstrations
- Support for developing regulations, laws, policies
- Political outreach and awareness raising

ccacoalition.org
**ENGAGEMENT STRATEGY WASTE SECTOR**

*CH₄ reductions*

- Preventing organic waste, as well as diverting it *from landfills and open dumps*
- Collecting and using/flaring of gas from existing landfills to *mitigate the methane already generated*
- Developing economic uses and facilities for organics, *such as composting or waste-to-energy*
ENGAGEMENT STRATEGY
AGRICULTURE SECTOR

• All CCAC countries have agriculture SLCP actions in climate policy plans, with a sufficient number to contribute to 20-25% CH4 reduction

• Commitments/plans from top 10 agricultural burning nations to eliminate unnecessary agricultural burning

• Foster enabling frameworks

• Forge cross-linkages to net-zero climate mitigation strategies by piggy backing on existing efforts

• Enteric: Advance market-readiness of products to reduce enteric CH4 + promote emissions intensity reductions
MUNICIPAL SOLID WASTE KNOWLEDGE PLATFORM

Hub of resources to support cities and national governments in their efforts to reduce short-lived climate pollutants from the waste sector (i.e. methane and black carbon), including information from cities that are already taking action to mitigate these pollutants.

ENHANCING NDCs: OPPORTUNITIES IN AGRICULTURE

KATHERINE ROGGE, WAREETA KITE, RICHARD WASTE, REBECCA CARTER, LAUREL POGBRICH, THOMAS SWANHUIZEN, AND WOBBIE KAJUMBO

EXECUTIVE SUMMARY

Highlights

- Climate change directly and indirectly affects food production in many regions, including hot crops and a wide range of key commodities. These changes can lead to increased costs and instability, and could have far-reaching consequences for global food security and the livelihoods of hundreds of millions of people annually.

- Now is the time to scale up efforts to reduce the agricultural sector to support farmers, avoid the externalization of food production, improve the productivity of climate-smart agriculture, and reduce greenhouse gas (GHG) emissions from the sector in line with the Paris Agreement. Five key agricultural sectors have been identified for the most transformative changes in the short-term:
  - Warm season croplands
  - Tropical livestock production
  - Rice production
  - Tropical livestock production
  - Cassava production

- This report provides a detailed look at the opportunities and challenges in each of these sectors, along with policy and action recommendations. It is the first in a series of reports that will further explore these sectors in more detail.

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World Press release providing highlights, analysis, and recommendations. For a comprehensive report, please download the detailed report, and for a snapshot of the key findings and recommendations, please refer to the press release.

Available At:
http://shindellgroup.rc.duke.edu/apps/methane/
SUPPORT TO GMP

- Projects on planning and sectoral action
- National consultants to build capacity and coordinate response
- Engagement of key players under sectoral hubs
- Additional advocacy tools under the CCAC Methane Flagship
- Supporting GMP communication and events
METHANE FLAGSHIP

Goals:

1. Support high level commitments *(with GMI)*

2. Foster action in key organisations *(e.g. IGOs, philanthropy)*

3. Raise awareness

4. Showcase action in sectors + planning

5. Develop policy tracker

6. Encourage scaled-up financing
Katie Ross,
Senior Associate,
World Resources Institute
Panel Discussion
Next Steps

- Tentative plans to meet in the new year to develop Subcommittee Action Plan
- Encourage participation of additional Partner Country delegates across the three subsectors (agriculture, municipal solid waste, municipal wastewater)
  - Country Delegates and Project Network members are encouraged to join
- Share relevant tools, resources, and events that can be promoted through Biogas Toolkit and GMI’s events webpage and social media.
- Meeting materials will be sent out via the GMI mailing list in the coming weeks
Thank you!

Questions? Please email secretariat@globalmethane.org