



Dr. Pradeep Monga



WORLD BIOGAS
ASSOCIATION

#MakingBiogasHappen Programme

Webinar 26 June 2025

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World Biogas Association

- ❑ Founded in 2016 by associations from the United Kingdom, the United States of America and Italy, together with 20 founding companies.
- ❑ It currently represents more than 100 organisations, including national associations, from around the world.
- ❑ WBA is an accredited member of the UNFCCC and REN21, an official partner of the CCAC (secretariat of the Global Methane Pledge) and the GMI, a founding member of the Global Biofuels Alliance (GBA), and an associate of the Global Bioenergy Partnership and the CTCN.
- ❑ WBA works closely with the IEA, UNIDO, FAO, the European Commission and C40 Cities, among others.
- ❑ Global association for the biogas, landfill gas and anaerobic digestion (AD) sectors, dedicated to facilitating the adoption of biogas globally.



WBA Vision and Mission

Our Evolving Vision



"A world where sustainable biogas is integral to climate, energy, agriculture, and waste solutions, with WBA as a definitive global voice in circular economy, member champion, and indispensable enabler"

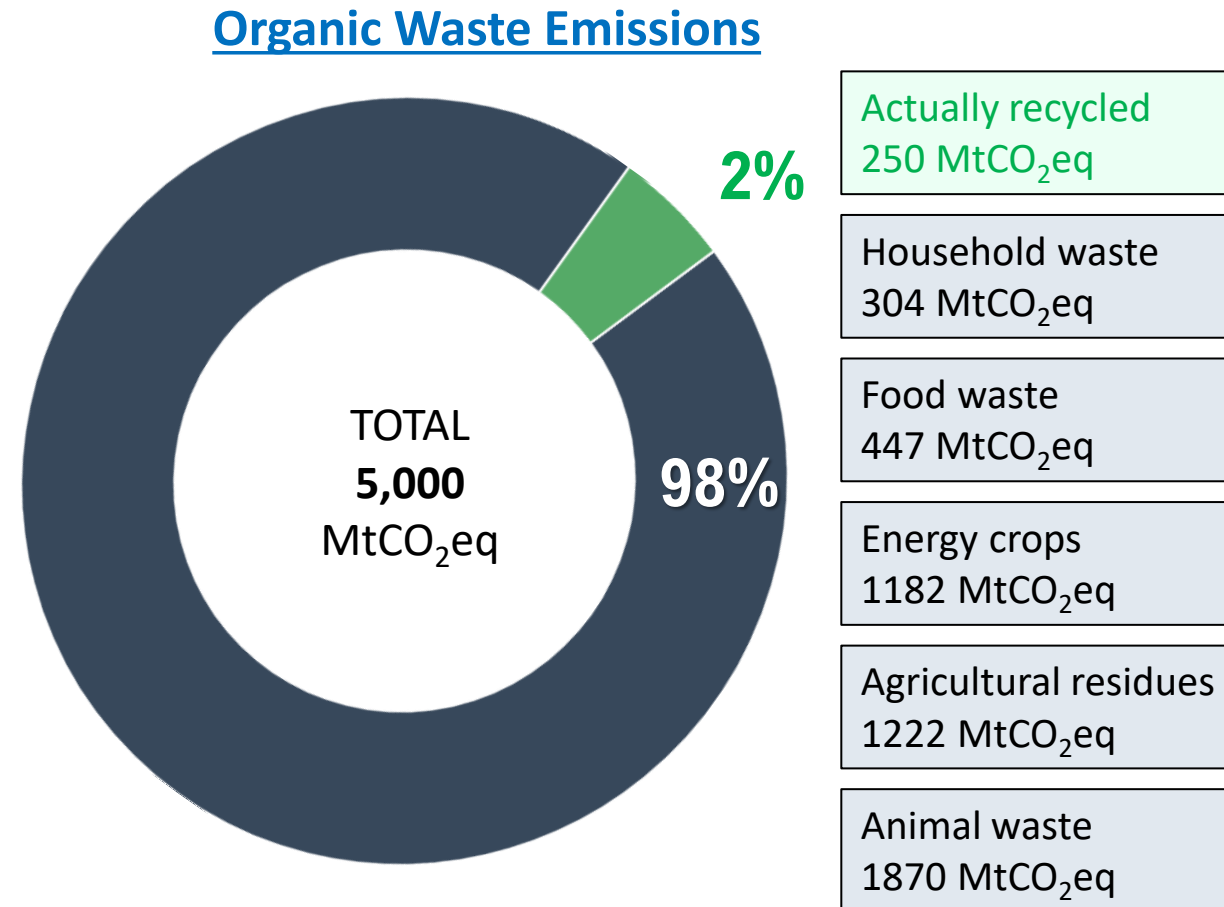


Our Mission

"WBA empowers the global biogas ecosystem, uniting members, nations, and industries to unlock biogas's full potential for a decarbonised, circular, and sustainable future"

Biogas, a circular economy waste to energy solution

- More than 105 billion tons of organic waste are produced worldwide annually. Not being recycled, they emit methane and other greenhouse gases – 98% are not recycled.
- Anaerobic digestion (AD) and biogas upgrading are recognised as one of the fastest, most cost-effective ways to reach net-zero.
- AD recycles organic waste, converting an environmental problem into a valuable solution, such as biogas, biomethane, bio-CO₂ and biofertilisers.
- By recycling available organic waste, it is possible to meet 50% of the Global Methane Pledge and reduce GHG emissions by 11% by 2030.
- Reduction of 5 billion tons of CO₂ equivalent



Global Biogas Market

- **40 billion cubic metres of natural gas equivalent (bcme) of Biogas is produced annually**, primarily for electricity and heat generation – IEA 2025
- **Upgrading Biogas to Biomethane for Transport Sector** is increasingly common, driven by efforts to decarbonise transport and ambitions for energy independence
- **10 billion cubic meters of Biomethane is produced globally**, equivalent to 0.2% of natural gas demand
- **Technological advancements** are increasing methane yields and recovery at biogas plants
- **Biogas, Biomethane and Bio-CO₂** are now seen as raw materials for producing hydrocarbons, sustainable aviation fuel (SAF), e-methane, e-methanol, bio-LPG and Renewable Dimethyl Ether (rDME)

Global Biogas Market

- **Investment in Biogas** is expected to surge, rising from the current USD 2 billion per year to **USD 15 billion annually by 2050**, underscoring the sector's increasing importance in the global energy transition.
- **Demand for Biogas and Biomethane** is projected to double between 2023 and 2035 under the IEA's Stated Policies Scenario.
- **Emissions-intensive industries**, gas networks, and big oil companies are turning to biogas and biomethane production as drop-in alternatives that require minimal changes to existing infrastructure, are reliable and mature technologies, and are attractive for rapid decarbonization at relatively low transition costs.
- **Governments and industry** are developing cooperative models, collection hubs and digital platforms to coordinate logistics for reliable feedstock availability for biogas projects.

Measures to scale up the Biomethane Market Globally

- **National Biomethane Production Targets:** Strategic instruments to guide the development of the sector, attract investment, and integrate biomethane into the energy matrix and fuel markets in a planned and sustainable manner.

1. The European Commission's RePowerEU plan aims to generate 35 billion cubic metres of Biomethane per year by 2030, reducing imports and increasing the European Union's energy storage capacity, while mobilising €37 billion in loans and subsidies.
2. India has set a mandate of 5% Biomethane in compressed and channelled natural gas by 2030.
3. As of 2026 in Brazil, at least 1% of the carbon dioxide (CO₂) emissions from fossil gas producers and importers must be abated through direct commercialisation or biomethane credits (CJOB).

Measures to scale up the Biomethane Market Globally

- **Linking to Emissions Trading System (ETS):** Market policies designed to control and reduce greenhouse gas (GHG) emissions cost-effectively.
 - The ETS is regulated by law and is compulsory for specific sectors (e.g., energy, industry, aviation, agriculture), unlike the voluntary system.
- **Providing initial Financial Assistance (CAPEX) to this fast-growing sector to have a level playing field like other renewables**

Examples

1. Ireland: *National Biomethane Strategy (2024)* provides subsidies of 20% of the CAPEX up to a maximum of € 5 million.

2. Italy: offers a subsidy of up to 40 % of the investment cost from the European Union's National Recovery and Resilience Plan (RRP).

Measures to scale up the Biomethane Market Globally

- **Recognise Anaerobic Digestion as a priority technology pathway for Waste Management.**

Examples

- 1. The Food Policy of the Municipality of Milan, which aims to reduce food waste, identifies anaerobic digestion and composting as priority methods for waste treatment.**
- 2. The Swedish city of Malmö has set among the objectives of its 2014 food policy the reduction of waste and the valorisation of organic waste to produce electricity and biomethane from biogas.**
- 3. Countries in Latin America (including Brazil) and the Caribbean have developed a joint roadmap for closing open dumps. Preventing landfills from forming reduces greenhouse gas emissions that enter the atmosphere and lowers risks to human health.**



The Biogas Sector still faces major challenges

- ❑ **Technical, operational and maintenance challenges**
 - ❑ Plants with low yield and environmental performance
 - ❑ Lack of information and qualification of operators
 - ❑ Lack of safety and standardisation
- ❑ **Policy, Regulatory, Standards, and Certification challenges for the market:**
 - ❑ Variations in regulations between councils and provinces,
 - ❑ Fragmented policies, agencies and ministries,
 - ❑ Delays in obtaining licences.
- ❑ **High CAPEX and limited financing options**

How can we construct hundreds of thousands of high-performance and reliable biogas plants, along with all the necessary infrastructure, within five years (by 2030)?

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MakingBiogasHappen (#MBH) Programme



Phase 1

Global Biogas Regulatory Framework (GBRF) and Anaerobic Digestion Certification Scheme International (ADCS)

- **GBRF: 9 Pillars** - Recommendations for local and national governments to encourage regulatory harmonisation and investment in the use of best practices, policies, and technologies from around the world.
- **Certification and Standards: 11 Modules** - Best practices and safety measures for biogas plants through an international certification scheme and a biogas-tailored Life Cycle Assessment (LCA) methodology.



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#MakingBiogasHappen - Phase 1

Global Biogas Regulatory Framework

Now available at:

 www.globalbiogasframework.org

GLOBAL BIOGAS
REGULATORY
FRAMEWORK



Nine Pillars:

1. International and National Policy
2. Feedstock Policy
3. Biogas Utilisation
4. Digestate Policy
5. Gas Quality Regulations
6. Technical and Operational Quality Standards
7. Permitting Regulations
8. Planning Policy
9. Health, Safety and Environmental Protection

#MakingBiogasHappen - Phase 1

AD Certification Scheme International

Now available at:

 www.adcsinternational.org



Eleven modules:

1. Site information and understanding
2. Managing health and safety risk
3. Staff training
4. Process monitoring
5. Maintenance of the plant, kit and infrastructure
6. Procuring services
7. Managing environmental risks
8. Cross-contamination regulations compliance
9. Digestate management
10. Biomethane process
11. Life cycle assessment (LCA)



#MakingBiogasHappen Phase 2

- Dissemination & Outreach
- Adaptation & Integration



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Phase 2

Roll out at the national and sub-national levels

- **Outreach and Dissemination** of #MBH findings at national and subnational levels. Participation in bilateral events and meetings.
- **Adaptation:** Preparation of Biogas Action and Implementation Plans at the national, state or city level as required, by customising key elements of GBRF and ADCS International to the local biogas ecosystem.
- **Capacity Building:** Training and resources to develop local expertise in the biogas value chain. Dissemination of the best practice regulatory framework.
- **Standardisation:** Technology Benchmarking, Standards, ADCS Certification, and LCA adapted for biogas.

#MakingBiogasHappen - Phase 2

Way Forward

- WBA presence at Global Events for MBH dissemination and outreach
- Establishing partnerships with national, state, and local agencies to roll out MBH phase 2
- Finalizing MoUs with national and state governments: **Focus on Brazil and India**
- Customise key elements of GBRF and ADCS International to the national policies and programmes, aligning with climate targets and energy security, building upon ongoing activities
- Workshops on GBRF and ADCS International for policymakers and regulators, operators, and entrepreneurs.
- **Present the key elements of the #MBH Phase 2 at the global events: COP 30**



Signing of MoU on 5 June with the State Government of São Paulo on the Roll-out of #MBH Phase 2

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Key Deliverables

1. Rapid and adaptive growth of the Biogas Industry and Supply Chain
2. Alignment with climate targets and ensuring business models
3. National policies adapted to promote high Performing Biogas / Biomethane plants
4. Standards and Certification with guarantees that regulations and safety measures are implemented
5. Life Cycle Analysis methodology dedicated to Biogas Plants, with links to the carbon market
6. Social acceptance and economic empowerment
7. Fast, efficient and dedicated licensing processes for biogas/biomethane.
8. Quality standards for the biogas industry
9. Global linkages, identification of pioneering technologies, and correct design
10. Linking Global Conventions, Protocols, and Alliances (GBA, GMH)

**Mission
Biogas**

**Mission
Possible**



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Thank you!

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