

BIOGAS TRAINING TOUR

23rd, 24th and 26th April 2018

Organized by

Indian Biogas Association (IBA) & German Biogas Association (GBA)

Background

In context of challenges in global climate protection, the usage of renewable energies must be further enhanced. Biogas, in this regard, can play an outstanding and useful role as showcased in Germany with the installation of over 9,000 plants and 40 GW cumulative capacity. Especially in India, with an ever-increasing growth in industrialization, biogas offers a great chance to bridge gap between energy and resources in a sustainable manner. There is a vast scope to convert various fermentable organic wastes into economical and versatile fuel and bio/organic manure organic energy sources.

Rationale of the Training Program

In general, aspiring entrepreneurs, environmental enthusiasts, research scholars, academics and NGOs can enhance their elementary information on biogas. The same goes for professionals related directly or indirectly to the field, as there remains an information asymmetry on several avenues within the sector. People still lack awareness of the holistic potential of biogas from all possible perspectives. Therefore, the goal of this training course is to provide a deepened awareness and understanding for the importance of biogas.

Training Program Details

The training tour will be implemented in Chennai, Bangalore and Mumbai from 23.-26.04.2018. At each location, the course stretches over a full day. They will be held by 2 experts from IBA and 2 biogas experts from Germany. The basic schedule of the training tour shall be as follows:

Duration

About 6 hours (10.00-12.30 Part I, 12.30-13.30 Lunch, 13.30-16.00 Part II)

Target group (maximum of 100-120 people)

Aspiring entrepreneurs, students, academics and research scholars, corporates looking to foray in the sector, environmental enthusiasts & NGOs and existing market players.

Training details

Venues:

Chennai- Indian Institute of Technology- Madras, Chennai on 23rd April 2018

Bangalore- CMR University (City Campus), HRBR Layout, Bangalore on 24th April 2018

Mumbai- Institute of Chemical Technology, Mumbai on 26th April 2018

Speakers:

Mr. Frank Hofmann (GBA)

Ms. Marion Wiesheu (GBA)

Mr. Gaurav Kedia (IBA)

Mr. Abhijeet Mukherjee (IBA)

Agenda:

Time	Event details
10:00 – 12:30	<ul style="list-style-type: none">- Need for renewable energies and waste-to-energy solutions- Basic concept of biogas- Biogas in India – Past, present and future- Biogas technologies, plants and prospective scope
12:30 – 13:30	<i>Lunch Break</i>
13:30 – 16:00	<ul style="list-style-type: none">- Planning, O&M and safety- German biogas scenario- Indian biogas scenario- Q & A session

Training course details:

- Need for renewable energies and waste-to-energy solutions
 - Introduction of IBA, GBA and the cooperation
 - Renewable energy targets in Germany
 - Reasons to support renewable energies and biogas in Germany
 - Renewable energies and waste management targets in India
 - Reasons to support renewable energies and biogas in India
- Basic concept of biogas
 - What is biogas?
 - Composition of biogas
 - Advantages of biogas
 - Biology and the four phases
 - Bacteria interaction
 - Feedstock
 - Biogas yields
 - Digestate as fertilizer

- Biogas use of energy (electricity, heat, transportation fuel)
- Scheme of a biogas plant
- Biogas in India – Past, present and future
 - History of biogas in India
 - Current situation
 - Future scenario
 - Centralized vs. decentralized plants
- Biogas technologies, plants and prospective scope
 - Examples of biogas technologies
 - Example of a typical biogas plant in Germany
 - Biogas upgradation technologies
- Planning, O&M and safety
 - The importance of planning, operation and maintenance
 - Safety on biogas plants
- German biogas scenario
 - Development of biogas in Germany
 - Electricity, heat and transportation
 - Incentive systems (FiT, quota, regulatory law, tax reduction, capacity building)
 - Business and employment
 - Lessons learned in Germany
- Indian biogas scenario
 - Legal framework
 - Stakeholders in India
 - Social part in biogas projects
 - Other major challenges
 - Biogas in business

Training Fees

- Free entry for iba's members
- INR 500 for students, NGO, and research scholars
- INR 2000 for corporate members

Profile of the Companies



The Indian Biogas Association (IBA) is the first nationwide and professional biogas association for operators, manufacturers and planners of biogas plants, representatives from public policy, science and research in India, and all other stakeholders of Biogas ecosystem. Since its inception in 2011,

IBA's efforts has been towards building a strong platform, which would prove to be instrumental in the growth of the biogas sector. The motto of the association is "propagating biogas in a sustainable way".

The Association has members from all across the biogas community and related fields involved in promoting biogas. Members represent industry, individuals from academia, institutes, government and non-government organizations contributing directly or indirectly to the biogas vision of India set forth by the Association.



The **German Biogas Association** unites operators, manufacturers and planners of biogas plants, representatives from science and research and all those interested in the industry. Since its establishment in 1992, the association, which has currently has more than 4,800 members, has become Europe's most influential and independent

organization in the field of biogas. It campaigns for the increased use of biogas technology through political lobbying at EU, national and state level. Furthermore, it encourages the exchange of biogas-related information and knowledge, for instance by collecting, evaluating and spreading knowledge of scientific findings and practical experience, or by means of conferences, exhibitions and other events.

Profile of Speakers



Mr. Frank Hofmann works as a Technical Specialist within the International Affairs Department at the German Biogas Association. In 1993 he received his Diploma as an Energy Management and Process Engineer from the Technical University Berlin. In addition, he graduated as a Consultant for Biotechnological Applications. Since 1998 he has been active in the biogas sector, when he started working for an engineering company planning biogas plants. In 2004 he transferred to a renowned research institute (which today is the German Biomass Research Centre), where he was responsible for several biogas studies and reports (e.g. on biogas upgrading and feed in into the gas grid), feasibility studies, biogas consultations and biomass lectures. Three years later, Frank started working for Ecofys Germany GmbH where he worked as Bioenergy Consultant, specialized on biogas. There, among other things, he was responsible for due diligences, biogas plant consultations and several research studies. Frank has been with the German Biogas Association since 2015.



Ms. Marion Wiesheu graduated from the University of Applied Sciences Weihenstephan-Triesdorf as a Graduate Industrial Engineer specialized in Agricultural Marketing and Management. At the same time, she received her Certificate as a Renewable Energies. In 2010 Marion started working for the German Biogas Association in the Member Services Department, where she was in charge of consulting members in legal and technical matters, as well as setting up a biweekly newsletter for German biogas companies containing news and updates on national and international markets. In addition, she has given numerous presentations to international delegations, in Germany and abroad. Since 2017, Marion has been heading the Training and Safety department, where she now coordinates the Biogas Training Network, writes political statements on safety issues for the German Government as well as technical publications and guides on safety on biogas plants.



Mr. Gaurav Kedia, Founder and Chairman of the Indian Biogas Association, is an IIT alumnus and guest faculty at IIM-Ahmedabad. At present, apart from his actions at IBA, he is director of Arka BRENStech Pvt. Ltd. and Tech-Machineryandmore Pvt. Ltd. After working in Germany for seven years in the engineering and scientific field, he wanted to utilize the gained knowledge to bridge the disparities existing in societies and technology. He initiated several innovative biogas projects. He strongly feels that to make commercial biogas plants a success in India, it is crucial to customize the technology and combine biogas with bio-fertilizer as biogas plants alone are not profitable without the latter.



- **Mr. Abhijeet Mukherjee** completed his B-Tech in Chemical Engineering from IIT-BHU followed by PGDM from IIM-Indore. He brings with him more than 12 years of experience in fields like Oil and Gas, Power, Waste Water and Renewable Energy. In his earlier stint in GAIL and Emerson Electric, he was involved in projects on industrial waste water treatment and municipal solid waste, analysing and harnessing potential Landfill gas from Landfills, and monitoring of quality management system. Since 2016, he is associated with the Indian Biogas Association, wherein he had been involved in analysing information on industry trends, working closely with Central and State Ministry on policy and standards formulation, liaising with Urban Local Bodies, working towards economic feasibility of various biogas technologies and overall promotion of biogas in the country.