Food and Agriculture
Organization of the
United Nations

11th GBEP Bioenergy Week

SUSTAINABLE BIOENERGY FOR CLIMATE AND DEVELOPMENT GOALS

17-21 June 2024

FAO headquarters, Rome, Italy

DRAFT

Organized by the
Food and Agriculture Organization of the United Nations (FAO)

In the context of the
Global Bioenergy Partnership (GBEP)

in collaboration with
Italian Ministry of Environment and Energy Security

CONCEPT NOTE

AND AGENDA

Concept note

Background

Since 2013, the Global Bioenergy Partnership (GBEP) has been organizing a Bioenergy Week every year in a different region of the world[1]. In 2024, for its 11th edition, the Bioenergy Week will be held in Rome, Italy, from 17 to 21 June 2024. The event is organized by the Food and Agriculture Organization of the United Nations (FAO) in the context of the GBEP Programme of Work, in collaboration with the Italian Ministry of Environment and Energy Security, and with the kind financial support of US Grains Council (USGC). This event, unlike previous Bioenergy Weeks focusing on regional priorities, will take a global perspective.

Objectives

The GBEP Bioenergy Week brings together a large network of bioenergy stakeholders, including international experts, decision makers and private sector representatives to discuss current trends, future opportunities and challenges in bioenergy. Previous editions have successfully contributed to exchanging views, best practices and lessons learned among officials and stakeholders on ways to improve the sustainability of bioenergy in agrifood systems through both practical and policy interventions on agricultural productivity and yield, feedstock logistics, and the use of modern conversion technologies.

The 2024 Bioenergy Week will enhance learning from positive experiences on sustainable production and use of bioenergy integrated within food production value chains, to support the design and implementation of bioenergy policies. Furthermore, it will provide the opportunity to continue a dialogue with the private sector and other stakeholders on ways to improve cooperation towards a clean energy transition.

Sustainable bioenergy for climate and development goals

The Bioenergy Week seeks to support efforts to ensure that bioenergy can play a constructive role in achieving the UN Sustainable Development Goals (SDGs) and implementing the Paris Agreement on Climate Change, thereby advancing climate goals, food security, better land use, and sustainable energy for all. Each day of the five-day conference will focus on a different theme:

- **DAY 1 – GBEP-YUNGA Bioenergy Week Youth Day**
  The GBEP-YUNGA Bioenergy Youth Day will be organized in cooperation with the Youth and United Nations Global Alliance (YUNGA) and will encompass both educative and training activities on sustainable bioenergy, with a focus on innovations and technologies. The activities will be targeted at students of various age groups, and will include a bioenergy discovery circuit for youth aged 14-17 and bioenergy lectures for master and PhD students. The day will also include a presentation of the 2024 GBEP Youth Award.

- **DAY 2 – Bioenergy at the science-to-policy interface**
  Enabling bioenergy expansion that supports SDG implementation requires that policies and measures to promote best practices are put in place. These should consider the variation in conditions across continents and countries, ensure biodiversity safeguards, and promote multiple ecosystem services in landscapes. This day will explore bioenergy policies and strategies, along with the supporting data, tools and models necessary for their design, monitoring and evaluation.

- **DAY 3 – Bioenergy in the context of the broader bioeconomy**

[1] More information on the activities of the Activity Group 3 (AG3) "Study tour for capacity building and training" of the GBEP Working Group on Capacity Building are available on the GBEP website: https://www.fao.org/in-action/global-bioenergy-partnership/programme-of-work/working-areas/study-tours/en

Bioenergy is part of a larger bioeconomy, including agriculture, forestry, fisheries, and the manufacture of food, paper, wood and agricultural fiber products, biomaterials, bio-based chemicals and medicines. This day will examine the contribution of bioenergy to bioeconomy. It will explore integrated multi-functional agrifood systems that ensure high resource use efficiency and reward sustainable production and use, supporting the provision of sufficient food and animal feed for a growing population, as well as biomass for bioenergy and other valuable bio-based products[2]. Discussions will investigate the various co-benefits that biomass production systems can provide, such as enhanced landscape diversity, habitat quality, retention of nutrients and sediment, erosion control, climate regulation, flood regulation, pollination and biological pest and disease control[3]. Specific sessions will also delve into the use of degraded or marginal land as an option for biomass production that helps restore soil productivity and avoids or mitigates competition for higher quality land, as well as the use of bioenergy for waste and residue management, and the use of bioenergy by-products.

- **DAY 4 – Bioenergy for climate change mitigation and energy access**
  During this day, participants will investigate good practices and innovative solutions for ensuring that the deployment of bioenergy contributes effectively to climate change mitigation and access to affordable, reliable, sustainable and modern energy for all. Global biofuels deployment will continue to expand in the near future, with biofuels remaining the dominant pathway for avoiding oil demand in aviation, shipping and heavy freight transport[4]. In urban systems, biomass provides the feedstock for highly efficient heat and power district systems and household cookstoves. The first session will focus on how bioenergy could contribute to the achievement of global climate change mitigation goals in various sectors. Lack of access to energy in many developing countries is a fundamental barrier to reducing hunger and ensuring that the world can produce enough food to meet future demand. SDG7 seeks to facilitate access to affordable, reliable, sustainable and modern energy for all. This is not only an important goal in and of itself; it is also linked with many other SDGs. However, progress towards this goal is slow – more than 2.3 billion people (around 30 percent global population) still do not have clean cooking facilities, and about 800 million people do not have access to electricity. The final technical session of the conference will consider the bioenergy options for enhancing access to clean cooking.

- **DAY 5 – Field visit**
  The Bioenergy Week will conclude with a field visit to a biogas facility located at a farm in Maccarese (40 minutes from Rome).

[2] IRENA, IEA, FAO, 2017. *Bioenergy for Sustainable Development*. Available online: https://www.ieabioenergy.com/wp-content/uploads/2017/01/BIOENERGY-AND-SUSTAINABLE-DEVELOPMENT-final-20170215.pdf

[3] IPCC, 2022. *Climate Change 2022: Impacts, Adaptation, and Vulnerability.* Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp., doi:10.1017/9781009325844.

[4] IEA, 2024. *Renewables 2023*, IEA, Paris https://www.iea.org/reports/renewables-2023

17 June 2024	18 June 2024	19 June 2024	20 June 2024	21 June 2024
GBEP-YUNGA Bioenergy Youth Day Plenary Room and Flag Hall	**Bioenergy at the science-to-policy interface** Plenary Hall	**Bioenergy in the context of the broader bioeconomy** Plenary Hall	**Bioenergy for climate change mitigation and energy access** Plenary Hall	**Field Visit** Maccarese
Welcome session Bioenergy Discovery Circuit Bioenergy Lectures	Opening Bioenergy policy and strategy	Bioenergy in multifunctional integrated agrifood systems Bioenergy for value addition on marginal lands	Bioenergy for decarbonization Private sector panel discussion on liquid biofuels	Field Visit
Lunch	Lunch	Lunch	Lunch	
Bioenergy Lectures (cont'd) Presentation of the 2024 GBEP Youth Award Training on Bio-CCUS	Roundtable: Financing the sustainable energy transition Data, tools and models to inform policies for sustainable bioenergy	Bioenergy by-products for a circular bioeconomy Bioenergy for residues management and waste disposal	Enhancing access to modern clean energy: Bioenergy for clean cooking Conclusions and closing remarks	Field Visit (cont'd)
	Reception			

Agenda

DAY 1 – MONDAY 17 JUNE

GBEP-YUNGA BIOENERGY YOUTH DAY

Various locations

08.30 – 09.00	Registration of participants
09.00 – 10.00	Welcome Session – *Plenary Hall* - *Welcome remarks* *Tiziana Pirelli, FAO/GBEP* *Reuben Sessa, FAO/YUNGA* - *Energy Challenge Badge and Bioenergy Supplement* *Constance Miller, FAO/GBEP*
10.00 – 10.15	Break and photo session

TRACK 1 (YOUTH 14-19)

10:15 – 12:45	Bioenergy Discovery Circuit – *Various locations* Participants will be invited to discover bioenergy through interactive activities and demonstrations by associations, universities, private sector, and NGOs. - *Energy Future Supplement – Iran Room* *Aston University - UK* - *Recycling of agrifood residues for biogas, biomethane and soil amendment – Atrium* *Council for Agricultural Research and Economics (CREA) - Italy* *Research centre for Livestock Production (CRPA) - Italy* - *Ethanol for clean cooking – Atrium* *PIVOT - USA - and KOKO Network - Kenya* - *Innovative processes to enhance the environmental and economic sustainability of advanced liquid biofuels – Flag Hall* *University of Perugia - Italy* - *Microgasification of solid biomass for clean cooking – Atrium* *World Bioenergy Association* - *Biochar for Carbon Dioxide Sequestration and the broader bioeconomy – Atrium* *Council for Agricultural Research and Economics (CREA) – Italy* *National Research Council, Institute for BioEconomy (CNR-IBE) – Italy* - *Used cooking oil: from waste to sustainable biofuels – Flag Hall* *ENI – Italy*
12.45 - 13.30	Packed lunch

Track 2 (Master's and PhD students)

10:15 – 12:45 **Bioenergy Lectures – *Plenary Hall***

Moderator: Maria Michela Morese, FAO

Selected academic experts will share the latest scientific and research findings on bioenergy. The event will include contributions from various universities and research centres.

10:15 – 11:00
- ***Sustainable bioenergy in the 21st century: why youth must take up the baton***
  Maria R. Murmis Cucullu, Ministry of Agriculture of Argentina and Member of Science Panel for the Amazon

11:00 – 11:45
- ***Science and policy integration: the case of sustainable forest management and bioenergy in Canada***
  Bruno Gagnon, Natural Resources Canada, Canadian Forest Service - Canada

11:45 – 12:30
- ***Policies and Technologies towards a Carbon Negative Bioeconomy***
  Prof. David Chiaramonti, Polytechnic of Turin - Italy

12.30 – 13.30 **Packed lunch**

13.30 – 14.15 **Bioenergy Lectures (cont'd) – *Plenary Hall***
- ***Biogas and biomethane: opportunities and benefits in a circular economy approach***
  Giulia Ceccarelli, World Biogas Association

14.15 – 15.15 **Parallel session 1: Poster session – *Plenary Hall***

Moderator: Estelle Nunez, FAO/YUNGA

Presentation of selected posters from the **2024 GBEP Youth Award**
- Harnessing Rice Straw to Empower Rice Farming Communities in the Philippines
  Czaneil Gomez, University of the Philippines Los Baños (UPLB), The Philippines
- Driving the adoption of low-carbon technologies in bioenergy systems
  Danilo Perecin, University of São Paulo, Brazil
- Efficient production and intelligent control system of biological natural gas based on power-to-gas
  Yali Zhu, China Agricultural University, China
- Mathematical Approach to Rank Biomass Resource Types for Power Generation
  Lala Rukh, Mehran University of Engineering & Technology, Pakistan
- Insights into Microbial Community Dynamics in Palm Oil Mill Effluent (POME) Anaerobic Sludge via Next Generation Sequencing
  Ng Hui Jing, Universiti Teknologi Malaysia, Malaysia
- Lignin as a sustainable game-changer to replace fossil fuels in the energy industry
  Matúš Majerčiak, Slovak University of Technology in Bratislava, Slovakia

- Investigation of electrochemical decomposition of organic waste for enhanced biogas production: ''Development of an Electro-digester''
  N'Dédji Rodolphe Sodokin, Africa center of excellence for sustainable power and Energy development (ACE-SPED), University of Nigeria, Nigeria
- Catalytic upgradation of pyrolytic bio-oil from thermal and catalytic pyrolysis of sawdust using a synthesized NiO/Al2O3 composite catalyst
  Munmi Bhattacharyya, Indian Institute of Technology Guwahati, India
- Technology Innovation assessment of low ILUC risk systems in the EU biofuels sector
  Lorenzo Testa et al., Polytechnic of Turin, Italy
- Bioethanol as a clean cooking fuel in African and Asian countries
  Sophia Demekas et al., FAO/GBEP

15.15 – 15.30 Parallel session 1: Presentation of GBEP Youth Award 2024 (Master's and PhD students) – *Plenary Hall*

15:30 – 15:45 Closing remarks

14:30 – 17.00 Parallel session 2 (PhD students – limited to 30 pax) – *Iran Room*
Training on "Bio-CO_2 from biogas: status, opportunities and challenges of CO_2 capture and Carbon Capture Utilization and Storage"
Rocio Diaz-Chavez, Imperial College of London, UK
Bettina Mueller, BTS Biogas
Isabella Porqueddu, BTS Biogas

14.30 – 14.45 - *Introduction to Training and to CooCE*

14.45 – 15.00 - *Succinic Pathway*

15.00 – 15.15 - *Biopolymers*

15.15 – 15.30 - *Biogas, biomethanation and industrial applications*

15.30 – 15.45 *Coffee break*

15.45 – 16.50 - *Sustainability training*
  a) *Creating a database*
  b) *Indicators and units*
  c) *Models approach*
  d) *Hands on Exercise*

16.50 – 17.00 - *Concluding remarks and closure*

DAY 2 – TUESDAY 18 JUNE

BIOENERGY AT THE SCIENCE-TO-POLICY INTERFACE

Plenary Hall

08.30 – 09.00	Registration of participants
09.30 – 10.00	**Opening and Welcome Remarks** - *Maria Helena Semedo, Deputy Director-General, FAO* - *Francesco Corvaro, Special Envoy for Climate Change, Italy – GBEP Co-Chair* - *Carlos Bernado Cherniak, Ambassador and Permanent Representative of the Republic of Argentina to the Rome-based UN Agencies, Argentina – GBEP Co-Chair*
10.00 – 10.15	Photo Session
10:15 – 10:45	Networking coffee break
10.45 – 12.45	**Bioenergy policy and strategy** State of the art, challenges and lessons learned. *Moderator: Maria Michela Morese, FAO* *Keynote speaker: Jeremy Moorhouse, IEA* - Bioenergy's contribution to net zero *Ricardo Gorini, IRENA* - Bioenergy in the EU Renewable Energy Directive II, as amended *Biljana Kulišić, European Commission, DG Energy* - Regional policies and strategies for bioenergy in Africa *Anthony Mongameli Mehlwana, Economic Affairs Officer, UN-Economic Commission For Africa - UNECA* - Supporting biofuel policies through international cooperation *Esha Srivastava, Global Biofuels Alliance (GBA)* - Bioeconomy and Bioenergy Policies and Strategy in Latin America *Adrian Rodriguez, Economic Commission for Latin America and the Caribbean, UN-ECLAC, tbc* - The role of bioenergy in Energy Transition – Preliminary outcomes from ETWG discussions at G20 *Brazil* - Q&A session
12.45 – 14.00	Lunch
14.00 – 15.00	**Roundtable: Financing the sustainable energy transition** *Moderator: Mark Brown, IEA Bioenergy*

- *Alexander Larionov, IFC (World Bank), tbc*
- *Nadine Valat, Green Climate Funds Unit, FAO*
- *Maude Veyret Picot, Global Environmental Facility (GEF) Coordination Unit, FAO*
- *Roberto Ferrante, Head of Natural Resources, Energy and Circular Economy, Cassa Depositi e Prestiti (Italy)*
- *Representative of the Government of Brazil, tbd*

15.00 – 15.30 **Coffee break**

15.30 – 17.00 **Data, tools and models to inform policies for sustainable bioenergy**

Exchange of experiences and opportunities.

Moderator: Leonardo Souza, Energy Statistics Section, UNSD

- Biofuel sustainability: The Aglink-Cosimo model and results from the most recent OECD-FAO Agricultural Outlook on biofuels
  Sergio René Araujo Enciso, EST Division, FAO
- Time to Carbon Parity and GHG Quantification Frameworks: Recommendations for Consistency and Improved Policy Making
  Bruno Gagnon, Natural Resources Canada
- Bioenergy statistics (launch of FAOSTAT domain)
  Francesco Tubiello, FAO
- Biofuels and land-use change: what can we learn from data to inform policies and improve sustainability?
  Keith L. Kline, Oak Ridge National Laboratory (USA)
- Sustainability criteria and GHG emission savings thresholds for gaseous biofuels in the EU
  Biljana Kulišić, European Commission, DG Energy
- Q&A session

18:00 – 21:00 **Reception**

Italian Geographical Society, Palazzetto Mattei within the Villa Celimontana, via della Navicella, 12 – 00184 Roma

DAY 3 – WEDNESDAY 19 JUNE

BIOENERGY IN THE CONTEXT OF THE BROADER BIOECONOMY

Plenary Hall

09.00 – 10.30

Bioenergy in multi-functional integrated agrifood systems

Exchange of experiences and opportunities.

Moderator: Mirjam Röder, Aston University, UK

- Sugarcane cultivation and advanced bioenergy technologies in an integrated food and energy system in Brazil: sugar, ethanol 1G/2G, biomethane, hydrogen for SAF and BECCS.
  Prof. Suani Coelho, University of São Paulo (Brazil)
- Farming For Future: an approach to develop a sustainable and integrated agriculture with bioenergy
  Guido Bezzi, Italian Biogas Consortium
- Silvopastoral systems for livestock and bioenergy production in Australia
  Mark Brown, University of the Sunshine Coast, Australia
- Bioenergy in Indonesia: Biomass, biofuels, biogas
  Edi Wibowo, Director of Bioenergy, Ministry of Energy and Mineral Resources, Indonesia
- Potential for utilisation of crop residues for clean energy in African context. Case studies from Zambia and Rwanda
  Ana Kojakovic, FAO
- Q&A session

10.30 – 11.00

Coffee break

11.00 – 12:30

Bioenergy for adding value to marginal land

Moderator: Guido Bonati, CREA

- GIS and Remote Sensing to support a sustainable bioenergy production in Europe
  Janik Deutscher, Joanneum Research
- Bamboo for adding value to marginal land, while contributing to food and energy security in Ghana
  Mr. Michael Kwaku, Director of West Africa Regional Office, International Bamboo and Rattan Organization (INBAR)
- Biofuels from Low LUC and degraded land in Brazil
  Thayse A. Dourado Hernandes, Brazilian Biorenewables National Laboratory/CNPEM
- Q&A session

12.30 – 14.00

Lunch

14.00 – 15.30	**Bioenergy by-products for a circular bioeconomy**

Moderator: Maria R. Murmis Cucullu, Ministry of Agriculture of Argentina and Member of Science Panel for the Amazon

- Bio-CO_2 from biogas for Carbon Capture Utilization and Storage
  Sara Giarola, Imperial College of London (UK)
  Bettina Muller, BTS - Italy
- Bioenergy by-products for soil restoration – EOM4SOIL project
  Valentina Lasorella, CREA - Italy
- Value-Added Agriculture: Ethanol Co-Products and Biobased products
  Emily Marthaler, Trade Advisor (Bioenergy), Foreign Agricultural Service, United States Department of Agriculture (USDA) – USA
- Biochar as a circular and valuable ingredient in animal feeding
  Luciana Rossi, University of Milan - Italy
- Q&A session

15.30 – 16.00	**Coffee break**

16.00 – 17.00	**Bioenergy for residues management and waste disposal**

Moderator: Rosemarie Gumera, Confederation of Sugar Producers Association, Inc. (CONFED), The Philippines

- Developments on densification of agro residues around the world
  Bharadwaj Kummamuru, World Bioenergy Association
- A systematic review of sustainable biogas utilization: dilemmas and solutions
  Zhang Mingming, Biogas Institute of Ministry of Agriculture and Rural Affairs (BIOMA), P. R. China
- Harnessing Rice Straw to Empower Rice Farming Communities in the Philippines
  Czaneil Gomez, University of the Philippines Los Baños (UPLB) - 2024 GBEP Youth Award Winner
- Q&A session

DAY 4 – THURSDAY 20 JUNE

BIOENERGY FOR CLIMATE CHANGE MITIGATION AND ENERGY ACCESS

Plenary Hall

09.00 – 10.30

Bioenergy for decarbonization

Moderator: David Chiaramonti, Polytechnic of Turin, Italy

- Advanced liquid biofuels for aviation, shipping and heavy freight transport
  Brazil, tbc
- The role of Sustainable Biofuels to meet the G7 2030 road sector and COP28 net-zero targets
  Giovanni Perrella, Energy Department, Ministry of Environment and Energy Security, Italy
- Woody biomass utilization for decarbonization purposes in the USA
  Carlos Rodriguez Franco, Senior Forester, Forest Service, United States Department of Agriculture (USDA) - USA
- A common pathway towards the Global Methane Pledge
  Giulia Ceccarelli, World Biogas Association
- Bioenergy with Carbon Capture, Utilization and Storage (BECCUS)
  Riccardo Savigliano, Chief of Unit on Energy Systems and Industrial Decarbonization, UNIDO
- Q&A session

10.30 – 11.00

Coffee break

11.00 – 12.30

Private Sector Panel discussion on Liquid Biofuels

Moderator: Gerard Ostheimer, Biofuture Campaign

Keynote speech:

- Bioethanol: Technology Compatibility is Driving a Sustainable Energy Future
  Mackenzie Boubin, US Grains Council

Panelists:

- *Luigi Ciarrocchi*, CCUS, Forestry & Agro-Feedstock – Director, ENI
- *Agustin Torroba*, Secretary of the Pan American Biofuels Coalition
- *Massimiliano Corsi,* Paraguayan Chamber of Biofuels and Renewable Energy (BIOCAP), Paraguay
- *Queenie Rojo*, EPAP
- *Paolo Corvo,* Biofuels Partners (BFP)
- *Santanu Gupta,* Indian Oil Corporation Limited, tbc
- *Marco Mannocchi,* NESTE
- *Emanuela Sardellitti,* Fuels Europe

12.30 – 14.00

Lunch

14.00 – 15.30

Enhancing access to modern clean energy: Bioenergy for clean cooking

Moderator: Tiziana Pirelli, FAO/GBEP

	Key note: Patrizia Fracassi, FAO
	- A call for action on clean cooking in African countries *Isabella Notarpietro, Directorate of Sustainability, Technology and Outlooks, IEA, tbc* - Bioethanol for clean cooking in Sub Saharan Africa: Safety standards and regulations *Alicia ElMamouni, PIVOT* *Hanaan Marwah, KOKO Network* - National clean cooking strategy *Justine Akumu, Ministry of Energy and Mineral Development of Uganda, tbc* - National Clean Cooking Strategy in Ethiopia *Tirhas Mebrahtu Hindeya, Ethiopian Environmental Protection Authority, Ethiopia, tbc* - Capacity building programme on the production of improved solid feedstock for clean cooking in Sub Saharan Africa *Paul Prauhart, World Bioenergy Association* - Q&A session
15.30 – 15.40	**Courtesy break**
15.40 – 16.15	**Conclusions and closing remarks** - *Ministry of Environment and Energy Security (MASE), Italy, tbc* - *Tiziana Pirelli, GBEP Coordinator*
16.15 – 16.45	**Final networking coffee/tea**

DAY 5 – FRIDAY 21 JUNE
FIELD VISIT – MACCARESE S.P.A FARM

The field visit will take participants to Maccarese S.p.A., which is considered one of the largest farms in Italy, and is situated just 45 minutes from Rome on the Adriatic coast. The farm represents a successful example of an integrated production system that incorporates crop, livestock and energy production, co-existing with biodiversity conservation and ecosystem restoration. Participants will visit all components of the farm, thus gaining an overview of this interesting integrated system.

The farm was established almost 100 years ago on 4 500 hectares of reclaimed marshy territory and has been a privately-owned farm by the Benetton Group since 1998. Today the farm extends over a continuous area of 3 200 hectares, of which 2 400 ha are cultivated with cereals, protein crops, fodder and vegetables. Recently, 120 ha of intensive almond tree orchard have also been planted.

In addition to crop cultivation, the farm today represents one of the largest dairy cattle farms nationwide, with 3 600 animals that produce 57 000 litres of high-quality milk per day, satisfying 15 percent of the daily consumption of the Rome area. The livestock cover an area of 17 ha and are managed using innovative technologies to monitor milk quality, milking efficiency, reproduction and feed consumption, with the aim of ensuring food safety and animal welfare.

In order to manage wastes and improve the energy self-sufficiency of the farm, in 2010, two biogas plants were established for the production of electricity. The anaerobic digesters are fed with livestock effluents and silage produced on the farm. Most recently, in 2021 a photovoltaic system with 300 KW of installed power capacity was set up on the roof of one of the cowsheds, which allows for daytime energy self-sufficiency of the entire company complex.

The farm complex also includes 400 hectares of wetland managed by WWF as a nature reserve, which are host to numerous species of wild animals, including migratory bird species.

Please wear comfortable clothes and shoes suitable for the weather conditions.

09.00	Coach leaves from FAO HQ
09.45	Arrival at San Giorgio Castle
10.00 – 10.40	Welcome remarks - *Welcome remarks* Maccarese S.p.A., tbc - *Maccarese S.p.A. as an excellence of the Italian Biogas Sector* *CIB, tbc*
10.45	Coach leaves from San Giorgio Castle to farm facilities
11.00 – 12.15	Farm Tour and visit to biogas facilities Integrated crop, livestock and energy systems for the production of food, feed and renewable energy.
12.15 – 12.30	Coach leaves from farm to WWF Nature Reserve
12.30 – 13.00	Packed lunch
13.00 – 14.00	Tour of the WWF Nature Reserve
14.00	Departure from Maccarese S.p.A to FAO HQ, passing by Fiumicino Airport
15.00	Arrival at FAO HQ

The 11th GBEP Bioenergy Week is financially supported by the ***U.S Grains Council.***