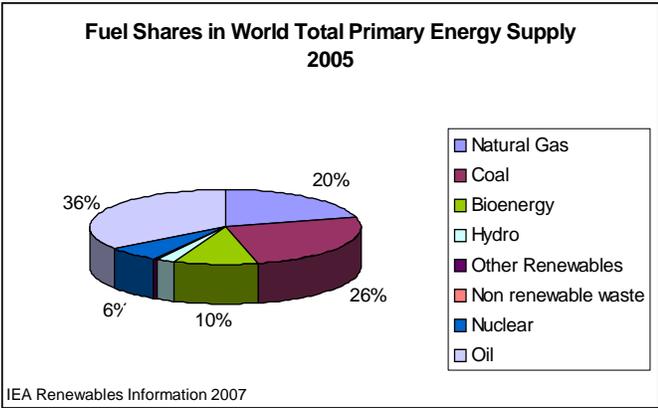


IEA Bioenergy

Facilitating commercialisation and market deployment of environmentally sound, sustainable and cost-competitive bioenergy technologies.....

Bioenergy

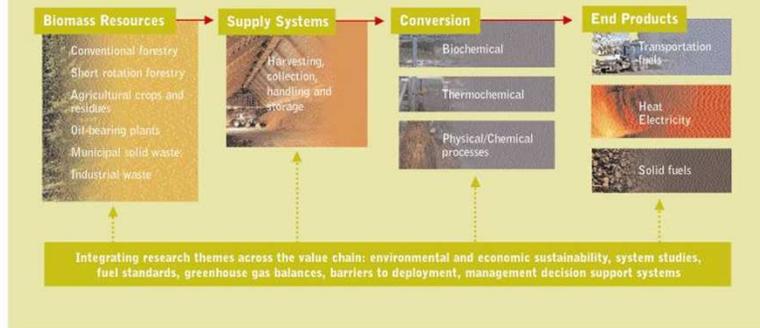
- *already plays a major role supplying ~10% of world primary energy supplies*



Bioenergy

- involves a range of feedstocks and technology options that can produce heat, power and liquid fuels

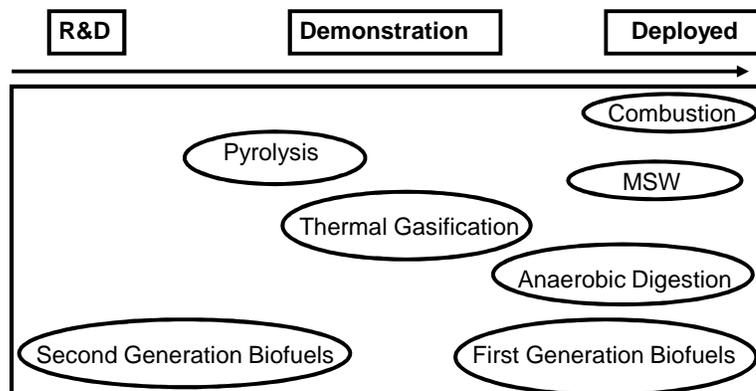
Scope of Bioenergy RD&D



3

Bioenergy

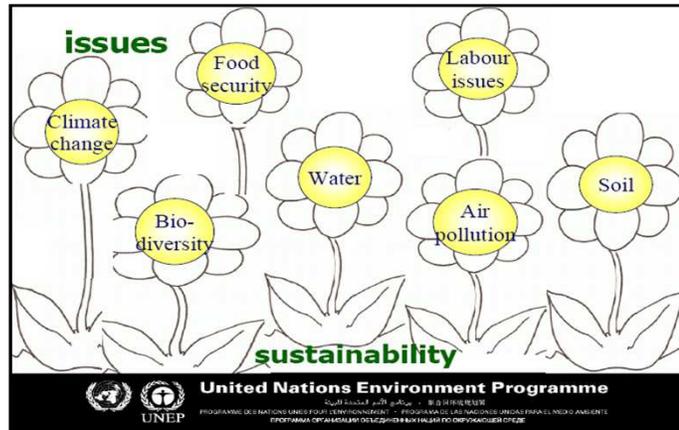
- involves a number of technologies which range from fully commercially mature through to those at R&D stage



4

Bioenergy

- deployment raises many issues and non-technical barriers



5

IEA Bioenergy.....

- Provides an international forum for sharing information and developing best practice on
 - Technology development
 - Non-technical barriers and issues
 - Regulatory and legislative issues
- Produces authoritative information on key strategic issues affecting deployment

6

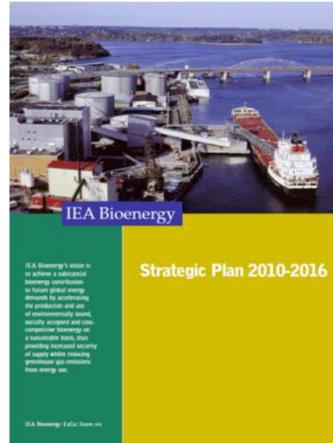
Vision and Mission

Vision:

To achieve a substantial bioenergy contribution to future global energy demands by accelerating the production and use of environmentally sound, socially accepted and cost-competitive bioenergy on a sustainable basis, thus providing increased security of supply whilst reducing greenhouse gas emissions from energy use.

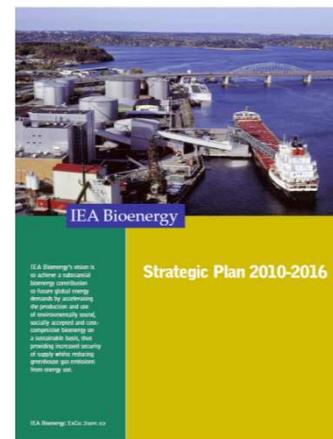
Mission:

To facilitate the commercialisation and market deployment of environmentally sound, socially acceptable, and cost-competitive bioenergy systems and technologies, and to advise policy and industrial decision makers accordingly.



Strategy

To provide platforms for international collaboration and information exchange in bioenergy research, development, demonstration, and policy analysis. This includes the development of networks, dissemination of information, and provision of science-based technology analysis, as well as support and advice to policy makers, involvement of industry, and encouragement of membership by countries with a strong bioenergy infrastructure and appropriate



Objectives

The strategy of IEA Bioenergy will be accomplished by carrying out a number of actions to meet the objectives listed below. The success of the plan will be monitored and evaluated at regular intervals.

- **Objective 1:** To promote the market deployment of technologies and systems for sustainable energy production from biomass.
- **Objective 2:** To understand the potential for bioenergy to reduce greenhouse gas (GHG) emissions, and to identify and promote best practice solutions which lead to significant GHG savings.
- **Objective 3:** To advise policy and decision makers by providing scientifically sound and politically and commercially independent data and information.

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Objectives continued....

- **Objective 4:** To support policy development and deployment in Member Countries, and more widely, by communicating effectively with the relevant IEA bodies, industry, other key stakeholders in the IEA Technology Network, and other interested parties.
- **Objective 5:** To actively encourage the maintenance and development of networks of participants involved in research, development, demonstration, deployment, and education, and to provide for the effective dissemination of information on bioenergy.
- **Objective 6:** To increase the involvement of industry in IEA Bioenergy.
- **Objective 7:** To increase membership with emphasis on countries with a significant bioenergy RD&D infrastructure and appropriate policies.
- **Objective 8:** To increase interactions with other global, multilateral energy and environmental programmes.

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Agreement Activities

Executive Committee

- Bi-annual ExCo meetings/management of the IA
- ExCo Workshops
- Annual report, newsletters, website
- Strategic Position Papers
- Technical Coordinator (new initiative)

Tasks

- Coordination of national RD&D programmes, information exchange and joint projects
- Task meetings, study tours and workshops
- Publications, reports, newsletters, websites
- Networking with industrial and other stakeholders

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24 Contracting Parties

- Australia
- Austria
- Belgium
- Brazil
- Canada
- Croatia
- Denmark
- European Commission
- Finland
- France
- Germany
- Ireland
- Italy
- Japan
- Korea
- Netherlands
- New Zealand
- Norway
- South Africa
- Sweden
- Switzerland
- Turkey
- United Kingdom
- United States

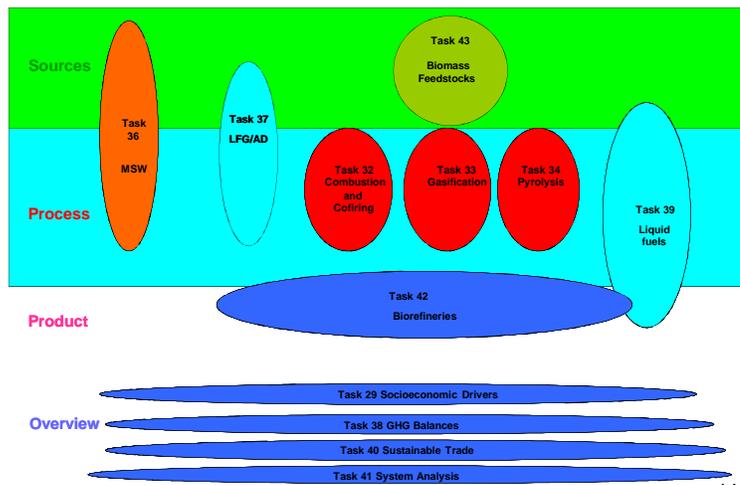
12

Tasks

- **Feedstock**
Forest and agricultural products, MSW and recovered fuels
- **Conversion**
Combustion, gasification, pyrolysis, anaerobic digestion, fermentation, biorefineries
- **Integrating Research Issues**
GHG balances, socioeconomic drivers, international trade, systems analysis

Task Structure

- *12 active Tasks*



Task 38: GHG Balances of Biomass and Bioenergy Systems

Focus on:

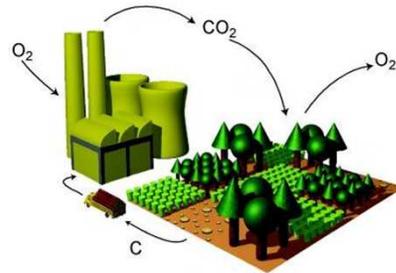
Investigation of all processes involved in the use of biomass and bioenergy systems on a full fuel-cycle basis to establish overall GHG balances.

Aims to:

Improve understanding of bioenergy and GHG issues.

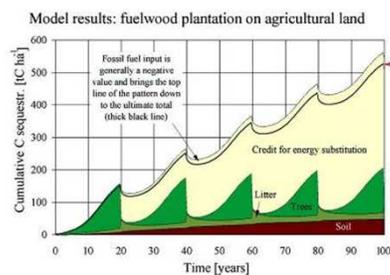
Develop and improve tools for assessing GHG balances.

Disseminate best practice in biomass GHG reduction and aid decision makers in defining optimal mitigation strategies



Task 38: Key Activities and Achievements

- Development of methodologies for optimisation of GHG reduction strategies, e.g. carbon sequestration; and to 'mainstream' GHG benefits of biomass and bioenergy systems with other externalities
- Provide standards for GHG performance in bioenergy policies
- Linking Emission Trading Systems and bioenergy/land-based offset projects
- Case studies on novel biomass and bioenergy systems (e.g. biorefinery)
- Contributions to the work of IPCC/OECD/IEA.



Task 40: Sustainable International Bioenergy Trade

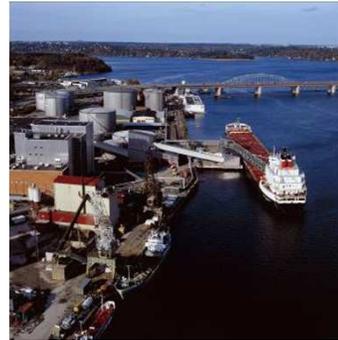
Focus on:
Supporting development of a sustainable international bioenergy trading system while recognising the diversity of resources and applications.

Aims to:
Review the development of biomass markets in various parts of the world and existing trade experiences.

Analyse the effects of existing markets (e.g., pulpwood) on bioenergy trade.

Review the barriers hampering development of a global commodity market and identify strategies to overcome them.

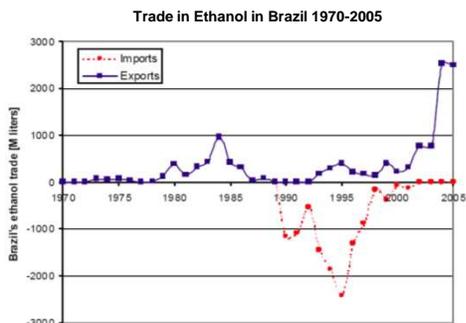
Identify sustainability criteria and their local influence on the biomass market.



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Task 40: Key Activities and Achievements

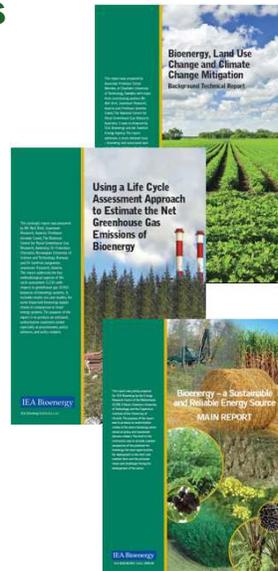
- Analysis of trade, markets and market experience, e.g., ethanol.
- Case studies of biomass production and supply chains.
- Modelling and scenario analysis.
- Studies of sustainability quality and certification/standardisation.
- Development of best practice guidelines.



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Strategic Position Papers

- Using a LCA Approach to Estimate the Net GHG Emissions of Bioenergy
- Bioenergy Land Use Change and Climate Change Mitigation
- Bioenergy - a sustainable and reliable energy source. A review of status and prospects
- Sustainable Production of Woody Biomass for Energy
- Municipal Solid Waste and Its Role in Sustainability
- Benefits of Bioenergy
- Potential Contribution of Bioenergy to Future World Energy Needs
- Synergies and Competition in Bioenergy Systems
- Gaps in the Research of 2nd Generation Transportation Biofuels



Workshops

- held in conjunction with Executive Committee Meetings.....

- Thermal pre-treatment of biomass for large-scale applications
- Developing sustainable trade in bioenergy
- Algae - the future for bioenergy
- Indirect land use change
- Biofuels for transport
- Innovation in bioenergy business development
- The biorefinery concept
- Availability of biomass resources
- Energy from waste
- Co-utilisation of biomass with fossil fuels
- Liquid biofuels from black liquor



Annual Reports and Newsletters

- The Annual Report (142 pp) contains a report from the Executive Committee and a detailed progress report on each of the Tasks. It also includes key information such as Task participation, Contracting Parties, budget tables, and the reports and papers produced by the Implementing Agreement. A feature article based on the work of a Task is also included.
- IEA Bioenergy News covers the most recent ExCo meeting and workshop. It also features an editorial from a Member Country, news from the Tasks recent publications and upcoming events.



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Status Reports to the REWP

Following each ExCo meeting a comprehensive Status Report is provided to the REWP by the Secretary with the following content.

- Significant outcomes from the ExCo meeting
- New applications for membership
- Important issues
- Strategic publications
- A summary of the ExCo workshop, and study tour
- Upcoming ExCo meetings
- Updated lists of the CP, ExCo Members, Task Leaders and Operating Agents
- Task participation and budget information

**We would welcome some feedback
from the REWP on these reports**

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