Background

IEA Bioenergy is one of a number of Implementing Agreements established by the International Energy Agency (IEA) Secretariat and its Committee on Energy Research and Technology (CERT), through its Working Parties. The Implementing Agreements operate within an institutional structure comprising Implementing Agreement Executive Committees and Tasks, Working Parties, the CERT and the IEA Governing Board. The CERT provides support and overall guidance to the Working Parties. Each Working Party supports and guides the Implementing Agreements in their technology area. The Working Parties have a specific role in reviewing on-going Implementing Agreements before the end of their term to furnish justification for their continuation. The relationship and management interaction between the three bodies, Implementing Agreement, Working Party and CERT, are key in this process. The overall goal is to have Implementing Agreements which are contributing positively to the quality of the IEA energy technology collaboration programme and which add value to the national programmes of the Contracting Parties.

In the past 20 years, IEA Bioenergy has been at the forefront of world efforts to improve the production, harvesting and utilisation of biomass resources and to more efficiently use these and related wastes. Since the 1990s bioenergy has been attracting additional attention as an important element of the energy programmes of most industrialized nations. This renewed interest arises from the predicted climate change resulting from the emission of greenhouse gases and the role that bioenergy can play in alleviating these effects. New waste management strategies and changes in agricultural policies are other elements adding to the renewed interest in bioenergy.

From January 2003 there are 20 Contracting Parties (Member Countries) to IEA Bioenergy. Based on the needs and priorities of the Member Countries, its programme consists of 11 Tasks covering practically all aspects of Bioenergy:

- Short Rotation Crops for Bioenergy Systems
- Conventional Forestry Systems for Sustainable Production of Bioenergy
- Biomass Combustion and Co-firing
- Thermal Gasification of Biomass
- Pyrolysis of Biomass
- Techno-economic Assessments for Bioenergy Applications
- Energy from Integrated Solid Waste Management Systems
- Energy from Biogas and Landfill Gas
- Greenhouse Gas Balances of Biomass and Bioenergy Systems
- Liquid Biofuels
- Socio-economic Drivers in Implementing Bioenergy Community Projects

In IEA Bioenergy, national experts from research, government, industry and other stakeholders work together with experts from other Member Countries. This co-operation offers many benefits:

For research - to exchange information on recent developments in R&D, through meetings or state-of-the-art seminars; to provide opportunities for collaborative R&D.

For industry - to be informed of technological progress as well as new projects; to work together to develop handbooks or models; to offer early participation of industrial partners in RD&D work.

For policy-makers and decision-makers - to gain an international perspective on progress in bioenergy; to compile guidelines and standards and develop appropriate policy support and strategies.

For all market participants and especially the private sector - to identify and help remove technical and non-technical barriers to accelerated deployment of bioenergy technologies.

IEA Bioenergy published its first Strategic Plan in 1995. That was seen as a "living document" which would be amended to reflect the changing needs and aspirations of IEA Bioenergy and its Members. Accordingly, the 1998-2002 plan was developed in response to changing circumstances. Now a third version of the Strategic Plan has been produced. This was done in recognition of the valued contribution that the ongoing Task programmes are making towards the Member Countries' energy strategies, e.g., environmental objectives, reduced dependence on fossil fuels and security of energy supply. Other drivers included the following:

- The need to increase the strategic role of IEA Bioenergy
- The need to support and promote the strategy of the Renewable Energy Working Party
- The need for large-scale development of new or improved bioenergy technologies
- The increased support for greenhouse gas mitigation through the use of bioenergy technologies by Member Countries

For More Information

If you are interested in finding out more about IEA Bioenergy, please visit the website www.ieabioenergy.com or contact the Executive Committee Secretary Mr John Tustin, Email: jrtustin@xtra.co.nz

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IEA Bioenergy

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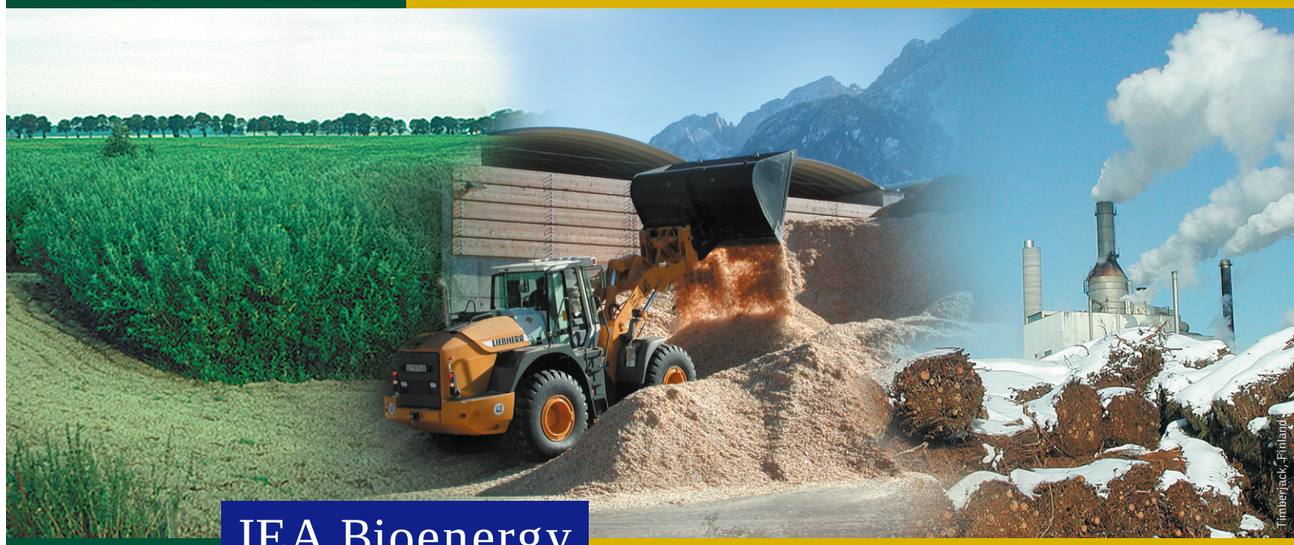

IEA Bioenergy

Strategic Plan 2003-2006

IEA Bioenergy aims to accelerate the use of environmentally sound, and cost-competitive bioenergy on a sustainable basis, to provide increased security of supply and a substantial contribution to future energy demands.

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IEA Bioenergy Vision, Mission and Strategy

Biomass is material originally produced by photosynthesis, such as wood or plants, and consists of forestry and agricultural residues, energy crops and related municipal wastes. Bioenergy technologies use these resources to produce heat, electricity or solid, liquid and gaseous biofuels which substitute for fossil-based fuels. Currently commercial and non-commercial uses of biomass provide approximately 11% of the world's primary energy supplies. For the future, modern use of bioenergy offers cost-effective and sustainable opportunities that have the potential to meet a significant proportion of world energy demands during the next century and at the same time meet the requirement of reducing carbon emissions from fossil fuels. Bioenergy applications are also linked to the local and global forestry and food industries; the raw materials, harvesting technologies and business opportunities are a common interest.

The vision and mission statements for IEA Bioenergy focus on overcoming the environmental, institutional, technological, market and financial barriers to the near- and long-term deployment of bioenergy technologies.

Vision: To accelerate the use of environmentally sound and cost-competitive bioenergy on a sustainable basis, to provide increased security of supply and a substantial contribution to future energy demands.

Mission: To facilitate commercialisation and market deployment of environmentally sound, sustainable and cost-competitive bioenergy technologies.

Strategy: To provide platforms for international collaboration and information exchange in bioenergy research, development and demonstration. This includes the development of networks, dissemination of information, involvement of industry and encouragement of membership by countries with a strong bioenergy infrastructure.

Objectives and Actions

The Strategy of IEA Bioenergy will be accomplished through carrying out the following actions to meet the objectives listed below.


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Objective 1: *To promote the market deployment of technologies and systems for sustainable energy production from biomass*

Actions:

- Identify and characterise the R&D priorities for bioenergy, including the innovations needed for new and growing markets.
- Identify those technologies that are ready for market deployment in the short, medium and longer term time horizons; and prepare RD&D strategies for their support.
- Promote the deployment of technologies with important local, regional and global environmental benefits. For example technologies which can reduce or avoid emissions of greenhouse gases to the atmosphere.
- Identify technologies with local or regional socio-economic benefits which contribute to a secure energy supply and job creation.
- Examine the opportunities for embedded generation and the role of utilities in deployment of bioenergy.
- Investigate barriers to the market deployment of sustainable and cost-effective bioenergy technologies.
- Encourage deployment of bioenergy technologies and applications in developing countries through collaboration with FAO and others.
- Promote the concept of solid, liquid and gaseous "biofuels" for direct use by the household consumer.


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Objective 2: *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*

Actions:

- Encourage and facilitate collaborative research, development and demonstration through an effective programme of Tasks.
- Conduct co-operative technology demonstration projects and share the information gained.
- Provide reliable information to policy and decision makers. e.g., position papers.
- Identify strategies that encourage existing Contracting Parties to expand their Task participation.
- Support education on the basis of the information collected.
- Increase the use of the Internet to exchange information.
- Archive published reports and documents with IEA Bioenergy and the IEA Energy Technology Data Exchange (ETDE).

Objective 3: *To increase the involvement of industry in IEA Bioenergy*

Actions:

- Define the appropriate role of industry in IEA Bioenergy.
- Develop strategies to increase the involvement of industry in the Tasks.
- Develop Tasks specially designed to allow co-operation with industry.
- Transfer technology to industry through focused reports, case studies, industry days, seminars and workshops and the Internet.
- Identify and expand the involvement of supportive trade-groups and industry associations where appropriate.
- Provide information to the local and global industry in a form that is meaningful to them.


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Objective 4: *To increase membership with emphasis on countries with a significant bioenergy RD&D infrastructure*

Actions:

- Identify potential new Member Countries and develop networks with appropriate representatives.
- Educate possible participants in the benefits of IEA Bioenergy participation through invitations to observe Executive Committee meetings and Task events such as workshops, study tours and seminars.
- Present IEA Bioenergy and its results at national and international meetings.
- Promote advanced technologies and processes through the use of dedicated brochures, papers and presentations at appropriate fora.

Objective 5: *To increase interactions with other global, multilateral energy and environmental programmes*

Actions:

- Increase interaction within the IEA, particularly with the Renewable Energy Working Party (REWP) and other Implementing Agreements.
- Promote joint research, information exchange and technology transfer by international collaboration with other agencies such as FAO, World Bank and UN programmes such as the International Intergovernmental Panel on Climate Change (IPCC).
- Identify appropriate collaboration opportunities at both the Executive Committee and Task level.
- Provide invitations to appropriate IEA Bioenergy meetings and events, e.g., study tours, workshops and seminars.

Objective 6: *To collaborate with the Renewable Energy Working Party (REWP)*

Actions:

- Add value to national R&D programmes through international collaboration.
- Promote the REWP R&D strategy for developing a new generation of renewable energy technologies.
- Contribute to the Strategic Agenda for Renewable Energy Market Facilitation.