

ANNEX 29
(As approved at ExCo45)

SOCIO-ECONOMIC ASPECTS OF BIOENERGY SYSTEMS

1. Definitions and Objectives

(a) Definitions

"Social aspects of bioenergy systems" means any impact or contribution of biomass production and use for energy production to employment, education, health and other social factors.

"Economic aspects of bioenergy" means any contribution or benefit of biomass production and use for energy production for financial benefits, local industry creation, infrastructure developments and other economic factors.

"Bioenergy and bioenergy systems" mean all processes in biomass utilisation for energy production from biomass resources (conventional and short rotation forestry, agricultural residues, municipal solid wastes, oil and alcohol-bearing plants), their collection, transport and conversion to end products (transportation fuels e.g. ethanol, biodiesel, heat, electric power, co-generation and solid fuels)

(b) Objectives. The objectives of this Task are to:

- (1) Determine the economic contribution (e.g. financial, local industry creation, infrastructure developments) resulting from the deployment of bioenergy systems;
- (2) Determine the social impact (e.g. employment, education, health) resulting from the deployment of bioenergy systems;
- (3) Encourage the exchange of information and Task results between participants and also with countries in transition.

In order to achieve these headline objectives the Task will:

- (4) Coordinate and evaluate efforts for designing and developing easy-to-use tools for (i) the estimation of the true costs and socio-economic benefits of bioenergy use; and (ii) the illustration of optimised solutions and applications in the participating countries;
- (5) Consider planning methods and economic instruments based on social preferences and commitments (e.g. public choice, green pricing, local participation and ownership, co-operative projects, etc.);
- (6) Take into account policies and policy measures that promote active participation by companies, groups, local communities, and individuals in the support for and implementation of bioenergy projects.

- (7) The overall aim of the Task is to promote the use of biomass for energy over fossil based competitor fuels in the participating countries through achieving a better understanding of the social and economic impacts of bioenergy systems at the local, regional, national and international level. The task will appreciate the fact that the promotion and implementation of bioenergy projects can be efficiently performed by supporting and mobilising dedicated groups (environmental and others), local communities, individuals, etc.
- (8) Although the Task will be focussed at the local/regional level, full account will be taken of the overall national and international framework, which the region must work within. This will have particular relevance when considering such issues as tariffs, taxes, government incentives, regulations, organisational structures, and similar matters.

2. *Scope of the Task*

- (a) The Participants will have R&DD programmes within their countries in order to meet the above objectives;
- (b) The Participants will carry out co-operative research and demonstration work towards reaching the objectives described in paragraph 1(b) above, based on the national R&DD programmes referred to in sub-paragraph (a) above and the work programme of the Task.
- (c) In the programme of work of the Task, production and use of energy will be dealt with in an integrated manner with biomass production and overall management. The key priority will be the analysis of the economical and social aspects and the net overall benefits of bioenergy use, and the development and promotion of tools and guidelines for their determination. Equally important is the biomass contribution to rural and remote areas in which biomass production for energy often takes place. Since bioenergy production and use can improve the quality of life for people living in such areas, the Task will actively incorporate such considerations.
- (d) Milestones and activities planned:
- (1) 2000 - detailed planning session
 - identification of issues and themes
 - selection and commissioning of scientific experts
 - identification of regions for the study
 - data gathering and collation to the previously agreed format
 - workshop in UK (focus on issues and data) with invitations to targeted non-participating countries to attend (including transition countries)
 - establishment an official Task web site
 - distribution/sharing of information of known models of relevance to the Task
 - (2) 2001 - publication of 1st workshop proceedings
 - work by scientific experts on issues

- review of existing tools
 - selection (and if necessary development) of optimised tools
 - application to regions and generation of first results
 - mid-Task assessment and, if necessary, re-orientation
 - workshop in Canada (focus on tools, guidelines and their application)
 - promotion planning
 - Internet conference
- (3) 2002
- publication of 2nd workshop proceedings
 - final work by scientific experts on issues
 - presentation of tools and guidelines developed
 - workshop in Croatia (focus on the benefits of bioenergy systems to the community)
 - participation in the major linked event with major promotion effort
 - publication of 3rd workshop proceedings
 - summary document, final Task report
 - planning of Task continuation (if appropriate)
- (e) Regions for study will be chosen so that they are complementary in nature and have a particular broad socio-economic challenge or focus. Bias will be strongly toward rural areas however contrasted with urban centres.
- (f) Special attention will be given and linkage will be made to ongoing and planned projects and programmes which relate closely to the work proposed here, such as those projects identified by the European Commission, IPCC, UNDP, World Bank, etc. Such linkage will benefit the Task participants by drawing in additional expertise and experiences "gearing up" the efforts further whilst ensuring that there is no unintentional duplication of activities.

3. *Responsibilities of the Participants*

Each Participant shall appoint an expert to the Annex who will act as a National Team Leader and a key-person for contacts and information exchange. In order to support the work under the Annex, each Participant shall provide the Task Leader with Task-relevant information from its National R&D programme, subject to Article 7 of the Agreement.

4. *Task Leader*

The Task Leader shall co-ordinate the work performed under the Annex. The Task Leader shall have substantial involvement in the field of the Task and should be appointed by the Operating Agent in agreement with the Participants, acting by unanimity.

On behalf of the Operating Agent, the Task Leader shall be responsible for the overall management of the work under this Annex and for implementing the decisions of the Executive Committee. To that end, the Task Leader shall:

- (a) In consultation with the Participants, prepare and submit for approval to the Executive Committee not later than three months after the adoption of this Annex

and thereafter not later than three months before the following and each successive calendar year a detailed programme of work and budget, structured as specified by the Executive Committee;

- (b) Report in writing to the Executive Committee on the results and progress of the work under this Annex, at least semi-annually;
- (c) Provide material for the IEA Bioenergy annual report each year;
- (d) Facilitate the exchange of scientific and technical information required for the Task between the Participants;
- (e) Upon the completion of the Annex Activities, compile and disseminate to all Participants the final reports and other documentation;
- (f) Insert IEA Bioenergy report numbers on all relevant reports from the Task before printing, and deliver copies to the Executive Committee Secretary and to the Newsletter Editor/Webmaster.

An Associate Leader shall work in close co-operation with the Task Leader and National Team Leaders and be a participant who provides to the Task high academic or industrial level expertise. The Associate Leader shall be appointed by the Operating Agent in agreement with the Participants.

5. *Means*

The Participants shall share the co-ordinated work necessary to carry out this Task. Cooperation between the Participants shall include the following elements.

- (a) The primary means to achieve the overall Task objectives is a series of annual workshops, e-mail conferences and Internet presentations. Invited and volunteer scientific and other experts will present papers and contribute to assessments and discussions. The intention is that some of the workshops and other events will be organised in interested non-member countries in transition (countries in central, eastern and southern Europe which changed their political and economic systems in the 1990's towards a market oriented democracy) with significant biomass resources and/or bioenergy use.
- (b) Task collaborators will collect, collate and synthesise information to fulfil given objectives. In particular they will design and develop easy-to-use tools and guidelines needed to estimate real and complete characteristics and consequences of using biomass instead of fossil fuels for energy. Given the limitations of budget, time and the voluntarily nature of country participation in the Task, the work will draw on and build upon existing scientific and technical knowledge, information, tools and expertise.
- (c) The Task will promulgate its findings and conclusions by means of publications (workshop proceedings, reports and studies) for wide international distribution and will make innovative use of the Internet (downloadable publications and tools, overviews and other communications to be made readily available in electronic

form). Industrial involvement will be particularly valued in relation to the acceptance and implementation of systems and guidelines for environmentally sustainable and economically viable use of biomass. A key aim will be to have a significant impact on research and development practice in participating countries in order to achieve the goals of IEA Bioenergy and to also support other connected international initiatives on sustainable development.

6. *Specific Responsibilities of the Operating Agent*

The Operating Agent shall:

- (a) Provide the link between the Executive Committee and the Task.
- (b) Be prepared to answer questions in connection with reports from the Task to the Executive Committee;
- (c) Scrutinise and approve invoices from the Task.

7. *Results*

The outputs of the Task shall be:

- (a) Country specific, progress and final reports with linking Task wide analysis;
- (b) Tools for the estimation of real cost and benefits of bioenergy use at the local level;
- (c) Status reports on socio-economic aspects of bioenergy systems in the participating countries;
- (d) A procedure and guidelines developed for the estimation and optimisation of socio-economic aspects of bioenergy systems and success indicators;
- (e) Workshops and workshop proceedings;
- (f) Website pages;
- (g) Internet conference and proceedings;
- (h) Information and data at a regional level;
- (i) Community networks and community direct involvement.

8. *Time Schedule*

This Annex will enter into force on 1 January 2000, and will remain in force for a period of three years. Within the limits of the term of the Agreement, this Annex may be extended by two or more Participants, acting in the Executive Committee and shall thereafter only apply to those Participants.

9. Funding

(a) Common Financial Obligations

- (1) The Participants agree to establish a common fund to finance the work to be performed under this Task and the research work of the Participants performed by request of the Task Leader under this Annex.
- (2) The expenditures covered by the common fund shall be borne by the Participants in equal shares and shall not, for the three-year initial period of operation of the Annex, exceed USD216,000 at current prices. The Executive Committee, acting by unanimity, may agree to increase the level of expenditure.
- (3) If significant changes occur, the Executive Committee, acting by unanimity, shall decide whether to adjust the Programme of Work and Budget.

(b) Individual Financial Obligations

Each Participant shall bear directly all costs not covered by the common fund pursuant to sub-paragraph (a) above, including the costs of travel and other per diem expenses incurred in connection with the work carried out.

10. Operating Agent

The Energy Institute "Hrvoje Pozar", Croatia.

11. Participants

The Contracting Parties which are Participants in this Task are the following:

The Republic of Austria
The Department of Natural Resources (Canada)
The Energy Institute "Hrvoje Pozar" (Croatia)
The New Energy and Industrial Technology Development Organization (NEDO) (Japan)
The Swedish National Energy Administration (Sweden)
The Department of Trade and Industry (United Kingdom)