

## Non-comprehensive list of ongoing activities related with financing, capacity-building and technology cooperation for sustainable bioenergy

Organization / Initiative	
<b>Asia-Pacific Partnership on Clean Development and Climate</b>	The Asia-Pacific Partnership on Clean Development and Climate aims to expand investment and trade in cleaner energy technologies, goods, and services in key market sectors; Task Force on renewable energy focuses on most promising technologies and applications, particularly those in rural, remote, or peri-urban (periphery of urban) areas. Members are Australia, Canada, China, India, Japan, Korea, and the United States.
<b>COMPETE</b>	<p>The Competence Platform on Energy Crop and Agroforestry Systems for Arid and Semi-arid Ecosystems – Africa (COMPETE) aims to create a platform for discussion, knowledge exchange, policy and methodology development in order to provide strategic and practical guidance and tools on the provision of modern bioenergy for the sustainable and optimal usage of these special ecosystems.</p> <p>The main objective of COMPETE is to identify pathways for the provision of bioenergy, which will:</p> <ul style="list-style-type: none"> <li>• improve the quality of life for the inhabitants e.g. poverty alleviation, value added activities, alternative means of income generation and providing options to reduce vulnerability whilst, in parallel;</li> <li>• aid the preservation of the critical functions of arid and semi-arid regions in Africa as intact ecosystems e.g. maintaining biodiversity and providing ecosystem services, and;</li> <li>• enhance the equitable exchange of knowledge between EU and developing countries in this critical area of activity.</li> </ul>
<b>DUTCH/GERMAN PARTNERSHIP</b>	<p>Energyising Development is the implementation of a Dutch-German partnership on access to energy. Its goal is to actively promote and realise sustainable access to modern energy services for 5 million people in developing countries. It is implemented by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH in co-operation with the Dutch agency for sustainability and innovation, SenterNovem.</p> <p>Energyising Development will focus on significantly expanding energy access in the following four areas: energy for cooking; energy for lighting/household applications; energy for social infrastructure; energy for productive use/income generation.</p> <p>The programme started in January 2005. Meanwhile 23 projects have been started in 20 countries. In its first phase, the programme will use the project concepts that have been developed by GTZ and proven successful over the years.</p>
<b>EUEI</b>	<p>The EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI) participates in the energy and development dialogue within the UN Commission for Sustainable Development (CSD) and other global forums; contributes to providing access to energy necessary for the achievement of the Millennium Development Goals; promotes role of energy to alleviate poverty.</p> <p>It's participated by EU member states and has ongoing dialogue with other international energy initiatives. It created the Africa-EU Energy Partnership.</p>
<b>FAO</b>	<p>Bioenergy technologies / analytical tools:</p> <ul style="list-style-type: none"> <li>▪ Study on the livelihood impacts of small scale bioenergy systems in Africa, Asia and Latin America (completed)</li> <li>▪ Guidelines on Sustainable Bioenergy “Planning Strategically and Managing Risks in Investment Choices” (under development). This work, undertaken under the UN-Energy umbrella and co-led by FAO and UNEP, is contributing to the development of a decision support (DST) tool to assist decision-makers in developing countries at national and local level in planning bioenergy programmes and assessing investment options. The document complements the Framework document prepared by UN Energy in 2007 with additional analysis and practical guidance.</li> <li>▪ Module two of the Bioenergy and Food Security (BEFS) project provides a cost analysis for the bioenergy production chain. The module assesses the production costs (feedstock, processing and handling) of biofuels taking into consideration the technological implications for the conversion of the biomass to bioenergy and the adaptability of technology production configurations within the context of the project's partner countries. The basis for the module is a techno-economic analysis prepared by the National University of Colombia Manizales under the guidance of the BEFS technical advisor.</li> <li>▪ BEFSCI project which is currently developing principles, criteria, indicators and good practices on sustainable bioenergy production that safeguards and, if possible, fosters food security</li> <li>▪ Integration of crop suitability assessment and mapping facility into EcoCrop database for bioenergy crops (AGP/NRCE)</li> <li>▪ Expanding information on genetic resources of selected bioenergy crop to be integrated into EcoPort and GIPB databases</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Proceedings on jatropha and sweet sorghum consultations, which organized by IFAD, FAO and UN Foundation</li> <li>▪ Case studies on biofuel production from rice residues in Asia (China, India, Thailand and Viet Nam) to draw lessons than can guide policy makers in developing countries</li> <li>▪ Study on small scale bio-diesel production as an agroindustrial diversification alternative (Chile, Bolivia, Brasil and Guatemala)</li> <li>▪ Case studies on biofuel policies: Market regulation and improvement of labor conditions (Argentina, Colombia and Paraguay)</li> <li>▪ Productive and institutional assessment of biofuel production in Central America</li> <li>▪ Land use assessment for energy crops, using ALES (Automated Land Evaluation System) methodology (México, Colombia and Argentina)</li> <li>▪ E-Conference on Bioenergy and Biotechnology (November to 14 December 2008, <a href="http://www.fao.org/biotech/Conf15.htm">http://www.fao.org/biotech/Conf15.htm</a>) and Bioenergy and Biotechnology Seminar 2007 (<a href="http://www.fao.org/biotech/seminaroct2007.htm">http://www.fao.org/biotech/seminaroct2007.htm</a>)</li> <li>▪ Planted Forests and Second Generation Biofuels, Planted Forests and Trees Working Paper</li> <li>▪ Woodfuels integrated supply/demand overview mapping – WISDOM</li> </ul> <p>Technology cooperation:</p> <ul style="list-style-type: none"> <li>▪ Conservation agriculture programme - experience in TTA</li> <li>▪ Organic agriculture production and value chain system experiences (research, verification, value chain development, harmonization)</li> <li>▪ Bioenergy impact assessment tools – framework, GEF study and other decision making tools under development</li> <li>▪ TECA – proven technologies and good practices for smallholders – information system to share proven technologies for agriculture focused on smallholders, standardized documentation system, so far more than 800 proven technologies and good practices are published and available for on-line consultation (<a href="http://www.fao.org/sd/teca">www.fao.org/sd/teca</a>).</li> <li>▪ Experience and lessons from outgrower schemes in agriculture and forestry</li> </ul>
IDB	<p>The Inter-American Development Bank (IDB) works on biofuel development according to Priority Lines of Action within the Sustainable Energy and Climate Change Initiative (SECCI):</p> <ul style="list-style-type: none"> <li>▪ Assess the economic viability of fostering biofuels. Analyze the feedstock availability and costs of production; assess the potential for developing domestic or regional biofuel markets, taking full consideration of environmental and social benefits and risks.</li> <li>▪ Provide country-level policy assistance in support of biofuel development. Help to remove barriers and introduce policies and financial instruments that facilitate the development of domestic markets, promote access to international markets, and mitigate adverse social and environmental impacts.</li> <li>▪ Finance biofuel programs. Provide lending for feedstock development, biofuel production facilities, and related infrastructure.</li> <li>▪ Finance the adaptation of new and emerging biofuel technologies. Develop financial instruments to test and demonstrate the efficacy of new technologies, including loans to pilot programs, and the commercialization of new technologies and innovations. Provide support to networks or centers of knowledge.</li> </ul>
IEA	<p>The International Energy Agency (IEA) seeks to facilitate deployment of renewable energy and related economic, market and regulatory instruments. The diffusion and deployment of newly developed renewable energy (and bioenergy) technologies into markets are particularly important. The agency works on global strategies for accelerating the market penetration and diffusion of renewable energies with the engagement of both developed and developing countries.</p> <p>The IEA provides support for over 42 international co-operation and collaboration agreements in energy technology R&amp;D, deployment and information dissemination. OECD Member countries, non-Member countries and international organizations may participate.</p> <p>The IEA is currently developing a road map for sustainable biofuels that would be complete by end of 2010, and would address risks of deforestation and food vs. fuel.</p>
IEA Bioenergy	<p>IEA Bioenergy is an organisation set up in 1978 by the International Energy Agency (IEA) with the aim of improving cooperation and information exchange between countries that have national programmes in bioenergy research, development and deployment. It provides an umbrella organisation and structure for a collective effort where national experts from research, government and industry work together with experts from other member countries.</p> <p>In particular IEA Bioenergy has a number of ongoing projects (Tasks) that are addressing bioenergy technology on specific aspects. This includes:</p> <p><b>- Task 29. Socio-Economic Drivers in Implementing Bioenergy Projects</b></p> <p>The objectives of Task 29 are to: - achieve a better understanding of the social and economic impacts and opportunities of bioenergy systems to communities at the local, regional and international level; - synthesise and transfer important knowledge and new information in order to foster multi-disciplinary partnerships of key stakeholders in forest biomass production and utilization research, planning and operations; - improve the assessment of the impacts of biomass production and utilisation in order to increase the uptake of bioenergy; and - provide guidance to policy makers. These objectives will be met through the results obtained in the previous Task period and also through the international state-of-the-art socio-economic evaluation of bioenergy programmes. Activities will be expanded to include developing countries through the FAO and similar organisations. This will include the sharing of research results, stimulation of new research directions in national, regional and local programmes of participating countries and technology transfer from science to resource managers, planners and industry.</p> <p><b>- Task 30. Short Rotation Crops for Bioenergy Systems</b></p> <p>The objective of Task 30 is to acquire, synthesise and transfer theoretical and practical knowledge of sustainable short rotation biomass production systems and thereby to enhance market development and large-scale implementation in collaboration with the various sectors involved. The Task also aims to improve the awareness of biomass production potential and to promote the use of biomass for energy in participating countries. The Task is confined to short rotation crops that entirely or by means of residuals may provide biomass to the energy</p>

market, and comprises lignocellulosic crops in farming systems and plantation forests grown on short rotations. The latter category includes coppice systems and also fast-growing single-stem plantations (rotation period 6 to 12 years). These short rotation systems usually employ willow, hybrid poplar and Eucalyptus species and produce large quantities of biomass suitable for energy purposes. In many instances, they form an important component of nutrient cycling and thus may play an important role in environmental management. Pest and disease problems associated with short rotation crop systems and ways to mitigate them are an integral part of this work.

#### **- Task 31. Biomass Production for Energy from Sustainable Forestry**

The objective of the Task is to develop an integrative framework for information related to biomass production for energy from sustainable forestry, based on leading-edge science and technology, and to share and promote the use of such an information framework with advanced information technology and a high level of collaboration. The Task encompasses natural forestry systems and single-stem plantation systems, which can provide a source of biomass for energy. The scope is worldwide. Efforts are made to expand activities to include countries with economies in transition. The work includes sharing of research results, stimulation of new research directions in national programmes of participating countries, and technology transfer from science to resource managers, planners and industry. The emphasis is on an integrated approach to biological, economic, environmental, and social components of forestry systems. Multi-disciplinary partnerships of key stakeholders in forest biomass production research, planning, and operations are fostered. The primary end users for Task outputs are forest managers, researchers and bioenergy planners, but Task outputs will also be useful to policy makers, NGOs and the interested public.

#### **- Task 32. Biomass Combustion and Co-firing**

The objective of the Task is to stimulate expansion of biomass combustion and co-firing for the production of heat and power on a broad scale. The widespread interest in the work of the Task illustrates the relevance of biomass combustion and co-firing in society. The emphases of the activities in the Task are currently: market introduction to expand the use of biomass combustion in the short term; and optimisation of biomass combustion technology in the longer term so that it remains competitive. Technical issues addressed by the Task are: increasing fuel flexibility, including contaminated biomass and biomass pellets; advanced process control and sensor development; corrosion and deposit formation mechanisms; formation and emission of particulates (aerosols) and primary measures for NO<sub>x</sub> reduction; and the improvement of existing systems and development of new concepts.

#### **- Task 33. Thermal Gasification of Biomass**

The objectives of Task 33 are to review and exchange information on biomass gasification research, development and demonstration (RD&D), seek continuing involvement with bioenergy industries and to promote co-operation among the participating countries to eliminate technological impediments to the advancement of thermal gasification of biomass. The ultimate objective is to promote commercialisation of efficient, economical and environmentally preferable biomass gasification processes, for the production of electricity, heat and steam, for the production of synthesis gas for subsequent conversion to chemicals, fertilisers, hydrogen and transportation fuels and also for co-production of these products.

#### **- Task 34. Pyrolysis of Biomass**

Task 34 started in January 2004 and will finish in December 2007. By agreement between the European Commission (EC) and IEA Bioenergy, it is integrated with the EC Pyrolysis Network, which is part of the new ThermalNet project that started in January 2005 and will finish in December 2007. Thus the two activities are properly synchronised. The technical focus of PyNe is through a set of tasks that are firmly integrated with the other two complementary networks on biomass gasification (GasNet) and combustion (CombNet). This is shown in the figure below. An interesting feature of these tasks is the close interactions and complementarity between the three technology areas that will encourage a high level of interaction in areas of mutual interest. The main activities of the Task will continue to focus on resolution of technical issues to aid commercial implementation of fast pyrolysis, information exchange and dissemination by: dedicated and focused regular meetings centred on Technologies and tasks that will advance the state-of-the-art through critical reviews and commissioning of specialist material; and collation and dissemination of relevant information through the regular PyNe newsletter, the PyNe website, and direct contact between Task members and invited guests through the planned programme of meetings, workshops, and conferences.

#### **- Task 36. Energy Recovery from Municipal Solid Waste**

The objective of Task 36 is to maintain a network of participating countries as a forum for information exchange and dissemination. The waste and energy sector worldwide is currently undergoing a period of intense legislative and institutional change. Keeping abreast of both policy and technology developments is a prime aim of the Task. The sharing of good practice and/or new technology and techniques is also a major goal. The Task participants have chosen a number of key Topic Areas for inclusion in the work programme. Over the last few years some significant European led changes have occurred in solid waste management. These include the adoption by the EU of the landfill directive, the agreement on a common position on harmonising MSW and hazardous waste incineration and the increasing application of best practice or life-cycle-based analysis to the determination of waste management policy. These changes will have a profound impact on the way in which solid waste is dealt with, and consequently on the role, and potential for, energy recovery within this. Whilst this impact will be most acute in Europe, other countries will have an interest in developments in Europe and may also follow EU practice. The pressure to divert biodegradable and combustible waste from landfill is driven by a combination of legislative changes and economics - increasingly there is a shortage of suitable landfill void and its cost base is increasing. These drivers provide an opportunity for the development and deployment of cost-effective energy recovery systems. The deployment of these systems depends on improved efficiency (where the systems are already in place) and a legislative framework that encourages their development. In the latter case information on environmental impacts and costs is of prime importance for decision-makers. The work programme for this Task aims to provide such information in a form that is readily accessible.

#### **- Task 37. Energy from Biogas and Landfill Gas**

The overall objectives of Task 37 are to review and exchange on anaerobic digestion (AD) to produce, upgrade and utilise biogas as an energy source, digestate (compost) as an organic fertiliser and the anaerobic degradation process as a link in the chain of waste (water) treatment. The scope of the work focuses on adoption of appropriate waste management practices, promotion of the commercialisation of biogas installations, improvement of the quality of the products and improving environmental standards. Through the work of the Task, communication between RD&D programmes, the industry and governmental bodies is encouraged and stimulated. To achieve the objectives, the Task maintains strong relationships with the governments of Member Countries, R&D institutions and industry. Partners are plant and equipment providers, actual and future operators and potential clients interested in the

	<p>products of anaerobic digestion, i.e. fertiliser (digestate) and biogas.</p> <p><b>- Task 41. Bioenergy Systems Analysis</b></p> <p>“Systems Analysis” means the study and analysis of the interaction between different parts of the energy system (eg. consumers, producers, fuel production) as well as the interaction of the energy system with other parts of society. The aim is to get a meta analysis of the larger context to facilitate the drawing of conclusions on priorities, decision making, policy effectiveness etc. The objective of this Annex is to supply decision makers with scientifically sound and politically unbiased analyses and conclusions needed for strategic decisions related to research or policy issues. The target groups are particularly decision makers in Ministries, national or local administrations, deploying agencies/organisations, etc. Depending on the character of the various projects some deliverables are also expected to be of direct interest to industry. Decision makers, both public and private, have to consider a whole range of aspects in their planning and deliberations. Hence the Task will cover technical, economic and environmental data in its work. Because of its special character in terms of participation, financing and cross cutting orientation, the Task is expected to be a valuable resource and instrument for the Executive Committee (ExCo). The Task will provide the ExCo with a highly qualified team of generalists with the capability and resources to carry out projects involving several parties (e.g. other Tasks and other organisations) as requested by the ExCo. It is expected to collaborate, by mutual agreement, with existing Tasks when they are relevant to a current project. Due to the character of the Task and its close contact with the other Tasks, the Task is expected to develop into a platform for joint Task work and to be a catalyst for proposals from the other Tasks to the ExCo. All deliverables from the Task’s programme of work will be made available to all Members of IEA Bioenergy whether or not they are participants in the Task.</p> <p><b>- Task 42. Biorefineries: Co-production of Fuels, Chemicals, Power and Materials from Biomass</b></p> <p>The major objective of the Task is to assess the worldwide position and potential of the biorefinery concept and to gather new insights that will indicate the possibilities for new competitive, sustainable, safe and eco-efficient processing routes for the simultaneous manufacture of transportation fuels, added-value chemicals, (CH) power, and materials. The following activities have been identified and agreed by the participants: - Prepare a common definition of biorefineries, including a clear and widely accepted classification system; - Gain better insights into the processing potential of existing biorefineries in the participating countries; - Assess biorefinery-related RD&amp;D programmes in participating countries to help national governments define their national biorefinery policy goals and related programmes; - Prove the advantages of biorefinery concepts over more conventional single product processes by assessing and comparing their financial, economic, and ecological characteristics; - Bring together key stakeholders normally operating in different market sectors (eg. transportation fuels, chemicals, energy, etc.) in multi-disciplinary partnerships to discuss common biorefinery-related topics, to foster necessary RD&amp;D trajectories, and to accelerate the deployment of developed technologies; - Identify the most promising added-value chemicals, eg., functionalised chemicals and platform chemicals (building blocks), to be co-produced with energy, to optimise overall process economics and minimise the overall environmental impact; - Co-operate with ongoing national and international activities and programmes, eg. other Tasks, Implementing Agreements, and EU Technology Platforms; - Disseminate knowledge, including teaching material to make students familiar with the integral concept-thinking of biorefineries.</p>
IISD	<p>IISD is a Canadian-based not-for-profit organization. It’s a policy research institute dedicated to effective communication of our findings, that aims to engage decision-makers in government, business, NGOs and other sectors in the development and implementation of policies that are simultaneously beneficial to the global economy, the global environment and to social well-being. Research on biofuels and sustainable agriculture is part of their activities.</p> <p>IISD has recently completed a set of studies on subsidies to the biofuel industry.</p>
IRENA	<p>The 2010 Work Programme of the International Renewable Energy Agency (IRENA), under the work area “Innovation and Technology”, will focus on development of roadmaps on RE technologies.</p> <p>Existing technology roadmaps for RE will be studied and reviewed to identify gaps and scope for improvement. This work will be closely linked to IRENA’s work on policy advice as the institutional framework is the precondition to put the technology in place. In 2010 the activities will involve:</p> <ul style="list-style-type: none"> <li>- Stocktaking existing technology roadmaps in cooperation with the IEA and its Implementing Agreements, the Working Group 3 of the IPCC, the MEF and other organisations and institutions involved in technology roadmaps.</li> <li>- Identifying gaps in existing roadmap development (i.e. in specific technology areas such as small hydropower, small scale biogas, solar home systems, etc., on a regional/country basis)</li> <li>- Considering the establishment of global technology platforms, which enable relevant experts (researchers, companies, policy makers, etc.) to exchange views and explore ways forward in specific technology areas where there are gaps (e.g. the integration of RE into electricity grids and smart solutions).</li> </ul> <p>Financial resources have already been allocated to contribute to the MEF Technology Action Plans for wind, solar and <i>bioenergy</i>.</p>
IUCN	<p>The aim of IUCN’s work on energy is to accelerate society’s transition to energy systems that are ecologically sustainable, socially equitable and economically viable. To this end, IUCN is:</p> <ul style="list-style-type: none"> <li>• Working to fill knowledge gaps and support governments and industry in making well informed decisions and policies.</li> <li>• Strongly engaged with biofuel standards and criteria setting processes and provides significant expertise and knowledge on ecosystem restoration and management; establishing robust governance frameworks; and managing invasive species risks, ensuring right to land tenure and access. IUCN is a member on the Steering Board of the Roundtable on Sustainable Biofuels (RSB) and heads the environmental working group.</li> <li>• Providing a balanced platform for informed discussion about biofuels at national, regional and global levels.</li> </ul>

<b>MEDREP</b>	The Mediterranean Renewable Energy Programme (MEDREP) conducts pilot projects to promote renewable energy options, encourage technology transfer, and establish best practices for renewable energy. It has a wide range of partners: Italy, French Agency for Environment and Energy Management (ADEME), IEA, Mediterranean Association of the National Agencies for Energy Conservation (MEDENER), REEEP, UNEP, World Bank, and others.
<b>MEF</b>	In July of 2009, the Leaders of the Major Economies Forum on Energy and Climate (MEF), representing the 17 largest economies of the world, launched the Global Partnership for low-carbon and climate-friendly technologies. As an initial step, they requested a suite of plans, which now span ten climate-related technologies that together address more than 80% of the energy sector carbon dioxide (CO2) emissions reduction potential identified by the IEA. Plans were created to stimulate efforts among interested countries to advance actions on technologies including advanced vehicles; bioenergy; carbon capture, use, and storage; buildings sector energy efficiency; industrial sector energy efficiency; high-efficiency, low-emissions coal; marine energy; smart grids; solar energy; and wind energy. These plans include a menu of opportunities for individual and collective action that may be undertaken voluntarily by interested countries, in accordance with national circumstances. Further actions may be identified in support of these plans in the future. In December 2009 Brazil and Italy prepared the Technology Action Plan for bioenergy in consultation with MEF Partners.
<b>MERCOSUR</b>	Developed Biofuels Action Plan to help harmonize the regulatory benchmark on biofuels in member countries. Other work includes: enhancing dialogue on sustainability of biofuels, analyzing and fostering the convergence of technical standards, and stimulating biofuels production and use. Customs union among Argentina, Brazil, Paraguay, Venezuela, and Uruguay. Comprising an area of slightly less than 12 million square kilometers, represents potential market of 200 million people and a joint GDP of more than US\$1 trillion.
<b>REEEP</b>	A key activity of REEEP is the support and augmentation of the needs of its Partners and Donors in the renewable energy and energy efficiency sectors through financial funding. Since its establishment as an NGO in 2004, REEEP has supported more than 100 projects. Further, as a partnership focused on the promotion of policies, regulations and finance for sustainable energy and energy efficiency, REEEP ensures that all project work follows the principles of corporate social responsibility. The core activities include reeple - an information gateway for renewable energy. On the top of that, REEEP's Voluntary Carbon Offsetting scheme is a mechanism by which governments (both local, regional and national), companies and other institutions can outsource the purchase of CDM or Gold Standard Verified Emissions Reductions (VERs) to REEEP as part of a carbon reduction strategy. REEEP has within its partnership thirty-nine national governments as members, plus the European Union. It is supported by governments of Australia, Austria, Canada, the EU, Germany, Ireland, Italy, Netherlands, New Zealand, Norway, Spain, the United States, and the United Kingdom, and by contributions from the private sector.
<b>REN21</b>	The Renewable Energy Policy Network for the 21st Century (REN21) is a global policy network that provides a forum for international leadership on renewable energy. It connects governments, international institutions, non-governmental organizations, industry associations, and other partnerships and initiatives.
<b>UN-ENERGY</b>	The UN Energy cluster on Renewable Energy jointly led by FAO and UNEP is preparing a decision support tool to assist decision-makers in developing countries in following transparent processes to consider bioenergy development options, assess related risks and identify possible risk mitigation strategies. The tool will propose decision trees for national level planning and project specific appraisal processes. It will also highlight existing tools, guidelines and other resources that can be drawn upon to analyse specific risks and to identify appropriate mitigation options.
<b>UNCTAD</b>	UNCTAD conceived the BioFuels Initiative in 2005 to offer a facilitating hub for programmes already underway in a number of institutions. While several initiatives already exist among UN and non-UN bodies, it was felt that a "meeting point" was necessary to share experience and provide support to developing countries. The Initiative, with its partners, seeks to add value by providing interested countries with access to sound economic and trade policy analysis, capacity building activities and consensus building tools. The Initiative tailors national strategies according to specific national circumstances and needs. It shares lessons from success, as well as to illustrating problems encountered by developed and developing countries alike in dealing with the technical, political and economic aspects of biofuels.
<b>UNDP</b>	The United Nations Development Programme (UNDP) promotes environment and policies needed to support energy options for sustainable development addressing economic, social, and environmental goals simultaneously. Downstream activities concentrate on integrated energy solutions addressing social, economic, and environmental objectives to address poverty and promote sustainable development. It has a broad reach in developing countries.
<b>UNEP</b>	UNEP as lead agency, together with FAO and UNIDO as co-executing agencies, is currently working on a GEF targeted research project: "Assessments and Guidelines for Sustainable Liquid Biofuels Production in Developing Countries". This project is organized in distinct research modules. Two of them –at least- could present a good opportunity for collaboration with GBEP in the technology area: "2nd Generation" and "Scale up and Integration". UNEP has a specialized Technology Unit UNEP DTIE Energy Branch that deals with sustainable bioenergy technology among others. Under the UN-Energy umbrella, UNEP is co-leading (together with FAO) the development of a decision support (DST) tool to assist decision-makers in developing countries at national

	and local level in planning bioenergy programmes and assessing investment options.
UNF	<p>The UN Foundation implements the <i>UN Biofuel Initiative</i> as a public charity together with the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Fund for International Partnerships (UNFIP).</p> <p>The Initiative promotes the sustainable production and use of biofuels in developing countries, under conditions that can attract foreign and domestic investment, such as the Clean Development Mechanism (CDM). Launched in June of 2005, the Biofuels Initiative seeks to provide technical analysis of issues related to biofuels production and trade that will impact member countries, especially with the objective of sharing experience and providing support to developing countries. The programme will coordinate economic and trade policy analysis, capacity building activities and consensus building efforts towards the ultimate goal of increasing production, domestic use and trade in biofuels. This will be implemented in Brazil, India, Mozambique, the Philippines and Uganda.</p> <p>The initiative is also forming an International Advisory Expert Group (IAEG) to provide guidance on technical issues related to biofuels production and international trade. Members of the IAEG will facilitate partnerships and advise governments on feedstock potential, technology applications, international trade opportunities, finance, natural resource management, rural development, and potential CDM baseline analysis.</p>
UNFCCC	<p>Much work has been undertaken to promote technology transfer within the UNFCCC regime, including the adoption of a framework on the transfer of technology, the establishment of an Expert Group on Technology Transfer (EGTT) that aims to enhance the technology transfer goals of the UNFCCC and the establishment of the Special Climate Change Fund (SCCF) that is intended to support activities in the areas of, inter alia, adaptation and the transfer of technologies.</p>
UNIDO	<p>UNIDO is currently working on a number of initiatives that aim to strengthen cooperation on technology-related aspects in the field of bioenergy.</p> <p>Among these, the <i>Guidebook on Modern Bioenergy Conversion Technologies in Africa</i> which will provide comprehensive information on priority modern bioenergy conversion technologies currently in use in Africa. Some of the technology related issues to be discussed include applicable feedstock, economics, applications and environmental impacts and lessons learnt from selected case studies. The guidebook seeks to address knowledge gaps about modern bioenergy conversion technologies across Africa and will provide all key stakeholders with adequate information to support informed decision-making on technology related issues.</p> <p>The <i>Bioenergy Interregional Network</i>, whose objective of the proposed inter-regional bioenergy network is to strengthen cooperation between regions, and assist developing countries and economies in transition in promoting bioenergy related research activities, transfer of appropriate conversion technologies and mobilising investments. The proposed network would play a catalyst role in mapping the potential for and operational modalities of dovetailing the activities of various actors involved in the exploitation of bioenergy with a particular focus on promoting sustainable use of bioenergy for productive uses. The essence of such cooperation is that the wealth of knowledge and capacity across countries and sub-regions, when systematically mobilized and shared, can facilitate the effective participation of the countries in Africa in using bioenergy as a source of energy for industrialisation and poverty reduction efforts. Among other things, the network will promote dialogue among stakeholders on sustainability issues and develop decisions support tools and mechanisms of integrating sustainability aspects into bioenergy value chains.</p> <p>The <i>Regional Initiative for the Promotion of Bioenergy in the Framework of the Carpathian Convention</i> is also of relevance. This collaborative initiative between UNIDO, UNEP, FAO and the Carpathian Convention aims at establishing a viable network between EU and non-EU Countries of the Carpathian region to promote bioenergy development in the region. Following the initiating workshop, UNIDO is currently preparing a baseline report on renewable energy (bioenergy in particular) policies and financial instruments in the EU and non- EU member countries of the Carpathian Convention.</p>

In the table below a number of Organizations/Initiatives engaged in financing, capacity-building and technology cooperation for sustainable bioenergy have been identified together with the main focus activities where GBEP might seek cooperation under the proposed new Task Force:

	Task 1	Task 2		Task 3	
	Financing	Capacity building services	Sustainable policy support	Coordination of technology RD&D	Enabling environment for sustainable tech development
<b>Asia-Pacific Partnership</b>					
<b>COMPETE</b>					
<b>Dutch/German Partnership</b>					
<b>EUEI</b>					
<b>FAO</b>					
<b>IDB</b>					
<b>IEA</b>					
<b>IEA BIOENERGY</b>					
<b>IISD</b>					
<b>IRENA</b>					
<b>IUCN</b>					
<b>MEDREP</b>					
<b>MEF</b>					
<b>MERCOSUR</b>					
<b>REEEP</b>					
<b>REN21</b>					
<b>UN-ENERGY</b>					
<b>UNCTAD</b>					
<b>UNDP</b>					
<b>UNEP</b>					
<b>UNF</b>					
<b>UNFCCC</b>					
<b>UNIDO</b>					