



Global Assessment of Biomass and Bioproduct Impacts on Socio-economics and Sustainability

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Global-Bio-Pact consortium at the 5th Progress Meeting in London

Global-Bio-Pact Meeting on Sustainability Indicators

Dominik Rutz and Rainer Janssen, WIP – Renewable Energies, Germany

The 4th Global-Bio-Pact Progress Meeting was organised by Imperial College London and WIP Renewable Energies on 15-17 February 2012 in London, UK. This was an internal meeting for participants of the Global-Bio-Pact consortium.

A first draft of the “Global-Bio-Pact set of socio-economic sustainability impact indicators” was presented and discussed. The draft set consists of more than 50 indicators. Socio-economic indicators are classified into the following categories:

- Contribution to local economy
- Working conditions and rights
- Compliance with legislation
- Certification
- Sectorial associations
- Conflicts and land tenure
- Health and safety
- Gender
- Food security

Since also the link between socio-economic impacts and environmental impacts are assessed, indicators on ecosystem services are furthermore classified into the following categories:

- Air quality
- Biodiversity
- Soil
- Water

The indicators are currently being field tested in cooperation with the Global-Bio-Pact Case Study partners in Brazil and Argentina. Results of the field tests are presented at the next meeting and workshop on 17-19 September 2012 in Buenos Aires, Argentina.

Progress of sustainability certification in Argentina

Lucia Muñoz and Jorge Hilbert, INTA, Argentina

Introduction

The publication of the European Renewable Energy Directive (RED 2009/28/EC), and its progressive implementation by the Member states of the European Union has largely influenced the developments in sustainability certification in Argentina. The RED set forth minimum requirements to consider biomass and biofuels as sustainable. Later on, those requirements were adopted, and in some cases, complemented by different independent verification systems. Once those schemes were officially recognized by the European Commission, there was no doubt that companies had to certify the sustainability of their production if they wanted to keep the European Union as a market. A specific study was done by INTA analyzing the developments during 2011 and 2012 with respect to sustainability certification in Argentina.

The Argentine biodiesel market

The country's biodiesel industry is now established for around five years. The first commercial biodiesel plants were officially inaugurated in 2007. Today, there are 28 operating plants with an installed capacity of nearly 3 million metric tons per year. Further, according to the Argentine Chamber of Biofuels (CARBIO), the production is expected to increase up to almost 4 million metric tons per year by 2013.

Multinational companies like Bunge, Cargill, Louis Dreyfus and Glencore have all invested in biodiesel plants, as well as a number of local companies like Aceitera General Deheza (AGD), Molinos Rio de la Plata and Vicentin. All these companies, either jointly or independently, have integrated their biodiesel production with already existing soybean crushing mills. They took advantage of an efficient industrial complex, with big production plants, access to water transport and a soybean production of

nearly 50 million tones which provided more than sufficient raw material.

Applied certification schemes in Argentina

The European Commission officially recognized seven sustainability certification schemes in July 2011. Those schemes were considered to comply completely, or at least partially, with the requirements set forth in the RED.

However, not all approved schemes are suitable for the Argentine market. Only four sustainability certification schemes seem to be suitable at the moment: RSB (Roundtable for Sustainable Biofuels), RTRS (Roundtable for Responsible Soybean), 2BSvs (Biomass Biofuels Voluntary Scheme) and ISCC (International Sustainability and Carbon Certification).

From an initial analysis, it can be stated that, despite big or small differences in criteria, most of these verification systems have been adopted by the Argentine market. Argentine producers, be it farmers, oil mills or biodiesel plants, have advanced on obtaining a certificate for the currently recognized schemes. In some cases they even certified more than one scheme at a time.

Even though an initial pilot audit was performed with a big farmer, no official certificates were issued, nor were results published under the **RSB** verification system.

As of April 2012, **RTRS** has issued 16 certificates at a global level. Specifically in Argentina, 9 certificates have been issued between 2011 and 2012. However, it needs to be considered that the RTRS has different verification "Modules". A soybean farmer can certify his production, but it might not necessarily be taken into account for the production of biodiesel.

In most cases, agricultural producers have certified their soybean production using the "book & claim"

module. This procedure means that the producer will receive “credits” for the volume of certified soy which can later on be traded independently from the beans. This technique has not been approved by the RED. This is why the European Commission has only recognized the RED Module. So far, one of the main drivers behind the success of RTRS has been soy meal buyers in Europe, especially The Netherlands. They support the implementation and certification process and later on buy “credits” from them, without any physical transfer of the product.

On the other hand, there are companies that certified their chain of custody in accordance with the RED Module in Argentina. Both Molinos Rio de la Plata and AGD have certified all their production facilities (including Terminal 6, a joint venture between AGD and Bunge).

As of April 2012, **ISCC** issued 1,138 certificates at a global level. Specifically, 12 of those belong to companies in Argentina. It is expected that at least 7 new certificates will be issued in the next month, as successful audits were performed recently at different conversion units. Moreover, as it was mentioned before, certificates under ISCC are valid for a period of 1 year. Thus, unless there is a big change in trends, this number might duplicate by next year, as all companies will be renewing their certificates.

It should be noted that ISCC has a certain advantage over other certification systems due to the fact that it has been under operation for a longer period (it was officially approved by the German Government in January 2010), it was created to cover all types of biomass and biofuels (expanding its market to PME, SME, RME, sugar cane ethanol, etc.) and, more recently, it officially recognizes certificates from other schemes approved by the European Commission. This means that, for example, an oil mill may receive sustainable soybeans certified under RTRS or 2BSvs.

The **2BSvs** scheme, developed by a French consortium, has issued 471 certificates up to date; of which, 7 certificates belong to companies from Argentina.

Most companies in Argentina obtain a certificate as a First Gathering Plant (FGP). Since this system does not necessarily require farm site audits for the time being, companies can demonstrate compliance with the sustainability requirements through carefully gathered documentation, satellite images, etc. In a way, this issue greatly facilitates the process of obtaining sustainable raw material. As it will be further explained, one of the main challenges for biodiesel producers, and even oil mills, is to obtain certified sustainable raw material. The scheme classifies certificates in accordance to the specific standard use. Standard 01 (Std 01) is used for the verification of biomass production, while Standard

02 (Std 02) is used for the mass balance system (conversion units, traders, gathering plants outside the FGP).

Once again, it is not possible to determine with this information, the volume of certified soybeans. Any company that obtained a 2BSvs certificate under Std. 01 may keep increasing the number of producers considered sustainable after the audit. The certificate acts as an “umbrella” and the audit consist of demonstration that the procedure outlined to include farmers and to assign them a risk factor is in compliance with the requirements of the scheme. After this has been demonstrated, the FGP may continue to add new farmers to the group, always following the appropriate procedures.

Experiences with certification and audits

Hence, experiences can be classified as to whether the focus of the audit is: (i) sustainability (required for farmers); (ii) traceability and mass balance (other elements of the supply chain); or (iii) greenhouse gas emissions calculations (relevant for all elements of the supply chain).

From experience acquired with the implementation of all of the certification schemes in Argentina, it can be concluded that the task of obtaining a sustainability certificate brings along a number of challenges and benefits for the company involved. Considering the initial stages of this process, challenges tend to be more numerous than foreseeable benefits at this point. But, there is confidence that, as in like any other process, things will begin to ease up while experience is gained.

Challenges of audits

The challenges depend on the element of the supply chain that is aiming at obtaining a certificate and can be summarized as follows:

- Due to the way the biodiesel industry is designed in Argentina, the main challenge for a biodiesel producer or even an oil mill is to motivate farmers to certify their soybean production. Farmers tend to sell their soy to the best buyer, the one that offers the best price and asks for less in exchange. They have no connection to the production of biodiesel. Therefore, the first step is to convince farmers about benefits of sustainability certification.
- For any company wishing to certify, it will have to start the implementation process. Each scheme has its own specific requirements, so the challenge is to be well informed or to have a trained and experience consultant to help them with the implementation. Most concepts are new and innovative, so this step is the secret to a successful audit.

- Not all schemes have all documents available in Spanish. Considering that those documents have to be used by people who don't always speak English, this represents a challenge. Companies have to either send out the documents for a professional translation or attempt to have them interpreted in-house.
- One of the main challenges for a company looking to certify is finding the right person to handle and manage the requirements of the scheme. Since the subject is relatively new, there are not many people specialized on relevant issues. Employees with other tasks end-up being trained from zero and have to share their time between previously assigned tasks and new issues related to sustainability certification.
- In the case of conversion units and storage plants, personnel working at the reception have to be especially trained to identify when a delivery comes in as sustainable. In some cases, this process can be improved with technology, but it depends on the size of the company. Smaller facilities have generally larger problems.
- Specifically in the case of farmers, main challenges with the implementation revolve around the use, storage and application of agrochemicals, lack of record keeping, management and disposal of waste and residues at farm level, training of personnel and lack of signs in the farm.
- The GHG calculation presents its own challenges, as the calculation methodology is not always clear. People performing the calculation have to be trained for that purpose, by following the RED methodology. In some cases there is lack of reliable data bases for emission factors.
- The experience and knowledge of the auditor is always relevant to the certification process. Training of auditors varies between schemes and even if the training course is appropriate, there is always a subjective issues involved.

Despite the long list of challenges, there is no doubt that they will start to decrease as time goes by and more experience is acquired.

Benefits of audits

Not everything is so difficult when speaking of sustainability certification. Actually, there are a number of benefits in obtaining a certificate:

- Argentina is starting to consider concepts related to sustainability and sustainable production. Considering the industry has still a space to grow, it is a good thing that these issues arise when there is still time to improve with less effort.
- Due to the fact that producers will have to buy their raw material from other certified producers,

there will be an increasing trend to stabilize the supply chain and bringing longer standing relationships between sellers and buyers.

- Sustainability requirements in different fields help to improve a company's management system, as record keeping is emphasized and as training of relevant personnel is increased. It brings security to the processes.
- As long as the default value for soybean biodiesel set forth in the RED does not comply with the required savings of 35%, companies have been forced to calculate their own greenhouse emissions related to their production processes. This help shows that Argentina's soybean biodiesel has even better savings than expected. Most certified companies, have GHG savings of between 40-55% when compared with fossil fuels.
- The opportunity remains to maintain the European Union as a main market for Argentine biodiesel.
- Argentina's agro-industrial sector is further developed and valorised by demonstrating its sustainability through internationally recognized certification schemes.
- A premium over the market price for certified products may be obtained. Although this subject is always a bit controversial, it is true that the market has been offering a premium. However, following free market rules, it is likely to disappear as more sustainable products are being offered.

Conclusions

Considering that in 2010 there were no companies certified as sustainable in Argentina and that in the last 16 months a total of almost 30 certificates have been issued, with more to come, it can be stated that sustainability certification is rapidly increasing and has a good future.

During 2011, approximately 50,000 t of sustainable biodiesel were exported to the EU. It is expected that during 2012, this amount will multiply by four.

As already stated, one of the main drivers for this growth has been mandatory requirements being enforced in different European countries. It is true that Germany was the first to promote sustainability certification for its blending targets, but other countries are starting to follow. It is expected that by 2013 this will spread through all of the European Union, making it a sine qua non requirement for the use of biodiesel.

Besides, there is a tendency to spread these requirements to other markets than biofuels. Verification schemes like RTRS and ISCC Plus, take into account more than what is strictly mandated by the

European Directive. Also sustainability of the food and feed markets, where sustainable processes will be demanded, will be requested soon by consumers.

However, this situation might be affected by changing rules. The introduction of indirect land use change effects or changes in GHG calculation methodology might greatly affect the current course of sustainability certification.

Also, it is possible that the introduction of new certification schemes and pending EC approvals modify the current status of certificates. More schemes mean more possibilities to choose from, but consumer and market acceptance will always be a strong factor.

Reference: Lucia Muñoz, Jorge Hilbert (2012) Progress of sustainability certification in Argentina. - Report available at: http://www.globalbiopact.eu/index.php?option=com_content&view=article&id=62&Itemid=74

First experiences from test auditing Global-Bio-Pact indicators

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Introduction

The EU funded Global-Bio-Pact project main aim is “the development and harmonisation of global sustainability certification systems for biomass production, conversion systems and trade in order to prevent negative socio-economic impacts”. This means that the project looks at the interrelationship of global sustainability certification systems with the international trade of biomass and bioproducts as well as with the public perception of biomass production for industrial uses.

Therefore, the purpose is not to create a new standard or scheme for bioenergy production, but to develop a set of socio-economic sustainability criteria and indicators for biomass production and conversion which will be audit-field-tested. In addition, recommendations on policies and harmonization of available standards will be proposed in order to provide another insight into the current practice of sustainability assessment for bioenergy crops.

For this purpose a series of activities have been conducted to arrive to these indicators. Figure 1 shows a summary of the activities.

The reports of the cases studies, the review of socio-economic indicators, as well as the review of current standards with focus on socio-economic and environmental criteria can be found on the website of the Global-Bio-Pact project.

Indicators

Indicators and indices are useful to monitor and to examine trends, to determine rises and falls of a particular condition. International and national institutions have been using indicators to assess the regional and national performance and develop-

ment: income, education, health and welfare (Diaz-Chavez, 2004)

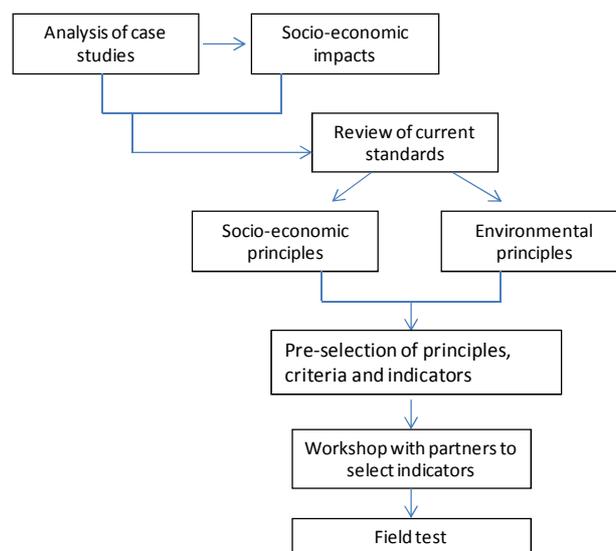


Figure 1: Process for selection of indicators

Socioeconomic indicators can be used for statistics to analyze a particular social field or for society as whole. Indicators can be used to:

- monitor a period of time (against a baseline)
- be used along a standard or certification scheme
- examine qualitative or quantitative data
- gather data along a supply chain (feedstock production and conversion)
- monitor impacts of certification schemes

The indicators selected for the Global-Bio-Pact project include three main topics:

1. Basic Information: These data provide background information from the selected case study.
2. Socio-economic indicators: These include the impacts caused by bioenergy crops production and the different stages of the supply chain to produce biofuels.
3. Environmental indicators: In the project's context they refer to the environmental impacts that affect the socio-economic characteristics of the communities.

Table 1 presents the main topics and impacts selected. The impacts and indicators were selected through the process mentioned in Figure 1. The indicators present a measure, monitoring process or unit depending of its nature. For instance, the "Average yield of the feedstock" is measured in t/ha/yr.

The final list also includes guidance on how to measure or monitor the indicator. It also shows the addressed parties: mill or plantation, Government, Community or Non-Governmental Organizations (NGO).

Preliminary results of the field test

The set of indicators is expected to be final but it may have adaptations according to the characteristics of the case study.

For the purposes of field testing two case studies from the Global-Bio-Pact Project were selected: Brazil (sugar cane) and Argentina (soy). The field test in Brazil was implemented in June 2012, the field test in Argentina will be implemented in September 2012.

The partners involved in the field test were Imperial College, Pro-Forest and University of Campinas (Figure 2). The three days field visit included the following steps:

1. Working plan
2. Pre-visit information questionnaire
3. Checklist for the mill/plantation/process plant
4. Questionnaire for the community, workers at mill/plantation/process/plant, producers (out-growers)
5. Comments of the mill/plantation/process plant on the questionnaires and checklists
6. An additional questionnaire was prepared in order to gather information of the impacts of certification if available at the case study.

Table 1: Impacts and examples of indicators

Impact	Examples of indicators
Basic information	
Yields	Location, average yield
Socio-Economic	
Contribution to local economy	Value added, employment
Working conditions and rights	Employment benefits
Health and safety	Work related accidents
Gender	Benefits to women
Land rights	Land rights and conflicts
Food security	Land converted from staple crops
Environmental	
Air	Open burning
Soil	Soil erosion
Water	Availability of water
Biodiversity	Conservation measures
Ecosystem Services	Access to ecosystem services



Figure 2: Map of Cerquillo (Source Wikipedia, 2012)

The first field case study has been applied in Cerquillo, São Paulo, Brazil (Figure 3). This is a municipality with a population in average of 35,000 inhabitants and an area of 128.86 km². It has three

small distilleries producers of Cachaça and one mill producing sugar and ethanol.

The analysis of the indicators will include not just the assessment of the socio-economic impacts in the locality as a result of the production of a bioenergy crop and the transformation process into biofuel. The assessment will also include the indicators characteristics including:

- Measurability
- Easiness to gather the data
- Usefulness for assessing socio-economic impacts
- Temporality

The results of the field test of the indicators will be presented in a report from Global-Bio-Pact including both case studies.

References:

Diaz-Chavez, R.A. 2006. *Measuring sustainability in peri-urban*

areas. In: McGregor, D, Simon, D and Thompson, D (Eds.) The Peri-Urban Interface in Developing Areas: approaches to sustainable natural and human resource use". Earthscan, .London pages: 246-265.

Wikipedia. 2012. Map of Cerquilha. <http://en.wikipedia.org/>



Figure 3: Global-Bio-Pact partners at the field test: harvest of sugar cane

Selected Events on Bioenergy and Bioproducts

Upcoming: 5th Global-Bio-Pact Progress Meeting in Buenos Aires, Argentina

The next internal Global-Bio-Pact meeting will be organised on **17-18 September 2012** in Buenos Aires, Argentina. The meeting will be hosted by INTA. This meeting is an internal meeting for the Global-Bio-Pact consortium in order to present the progress of the project.

Upcoming: Global-Bio-Pact Workshop in Buenos Aires, Argentina

A public international workshop on "Social and environmental impacts of biofuel production in Argentina" will be organised by INTA on **19 September 2012** in Buenos Aires, Argentina. Presentations will be given by various important stakeholders from Argentina as well as from international organisations:

- INTA - Instituto Nacional de Tecnología Agropecuaria, Argentina
- Ministerio de Agricultura Ganadería y Pesca, Argentina
- Instituto de Suelos IPCC, Argentina
- Ministerio de planificación, Argentina

- AAPRESID, Argentina
- WIP Renewable Energies, Germany
- Roundtable for Sustainable Development
- PROFOREST, UK
- Imperial College London, UK
- IFEU Institute, Germany

More information on the workshop is available at the Global-Bio-Pact website or contact hilbert@cni.inta.gov.ar

Upcoming: Global-Bio-Pact Study Tour in Argentina

A study tour to soy cultivation areas and to a biodiesel plant will be organised on **20 September 2012** in Argentina. The study tour is organised by INTA in cooperation with AAPRESID and CARBIO.

The visits will include a typical soybean farm of the main Santa Fe production area, the biodiesel plant at the Parana river (Terminal 6i), as well as the Dreyfus soybean complex in Lagos.

For more details, please contact:
hilbert@cni.inta.gov.ar

Upcoming: Final Global-Bio-Pact Conference

Global-Bio-Pact will present its results and recommendations to European and international

stakeholders active in the field of certification of biofuels and bio-products. The conference will be organised in January 2013 in Europe.

More information: www.globalbiopact.eu

Upcoming: IEA Bioenergy Conference 2012

The IEA Bioenergy Conference 2012 (13-15 November 2012 in Vienna, Austria) will provide to **IEA Bioenergy** stakeholders in R & D, industry and policy an insight into the recent research and market developments in bioenergy. The conference includes all topics dealt with by IEA Bioenergy as well as by partner organizations like FAO, GBEP and UNDP.

Presentations will address all stages in bioenergy systems: from growth of biomass, to conversion to energy carriers and, to use for energy services. Cross cutting topics like sustainability (GHG emissions), socio-economy and trade will also be discussed. Policy makers will benefit from the latest conclusions on policy recommendations based on a global scientific energy technology network.

Participants will be presented the latest information on promising bioenergy technologies in the stimulating and enjoyable surroundings of the Vienna

University of Technology. A pleasant social programme also provides opportunities for relaxation and networking. Global-Bio-Pact will be presented at this conference.

More information: <http://www.ieabioenergy2012.org>

Upcoming: Fuels of the Future 2013 10th International Conference on Biofuels

The German BioEnergy Association (BBE) and the Union for the Promotion of Oilseeds and Protein Plants (UFOP) organise the 10th international Conference on Biofuels "Fuels of the Future 2013" that will be held during 21 - 22 January 2013 in Berlin.

The strength of the conference is that it actively involves all the relevant market participants with the aim to directly address the key topics and the needs of the industry - a conference by the industry for the industry. With over 500 participants on average, the conference is also a platform for national and European policy-makers to discuss the funding framework.

The conference languages will be English and German. Global-Bio-Pact will be presented at this conference.

More information: <http://event.bioenergie.de>

Other News

The Roundtable on Sustainable Biofuels recognizes Rainforest Alliance Certified farms

Lausanne, 26 June 2012 – The Roundtable on Sustainable Biofuels (RSB) is pleased to announce its decision to recognize the standard of the Sustainable Agriculture Network (SAN), which is implemented by the Rainforest Alliance, to certify compliant farm operations.

This recognition builds upon a benchmarking process conducted by RSB and SAN, with technical support from The Proforest Initiative to compare the respective requirements of the RSB Principles & Criteria (RSB-STD-01-001; Version 2) and SAN Sustainable Agriculture Standard (July 2010; Version 2).

The comparison of the respective sustainability requirements, which started in 2011, revealed that Rainforest Alliance Certified™ farms could be de facto considered compliant with all 12 RSB Principles & Criteria, with the exception of RSB Principle

3 (Greenhouse Gas) and RSB Principle 6 (Food Security).

"From the beginning, the RSB has been committed to collaborating with other credible standards, looking for equivalences between systems and making the life of certified operators easier. Today, we have turned this pledge into reality through this exciting and novel collaboration with SAN," said Sébastien Haye, Executive Secretary (Acting) of the Roundtable on Sustainable Biofuels.

"By aligning these two leading standards, we emphasize the best of both. Together, we will be able to bring the benefits of certification to more farmers, farm-workers, companies, consumers and ecosystems," said Oliver Bach, Director of Standards and Policy for the Sustainable Agriculture Network.

The Roundtable on Sustainable Biofuels and the Sustainable Agriculture Network will keep working together over the next few months to develop the interface between the two systems with regards to assurance and chain of custody aspects.

Upon completion of this process, Rainforest Alliance Certified™ farms will be able to access biofuel supply chains by receiving RSB certification through a simplified audit process restricted to compliance with RSB Principle 3 and RSB Principle 6, therefore saving costs.

In the future, the RSB is planning to recognize other credible standards and certification systems through similar benchmarking processes.

The Roundtable on Sustainable Biofuels has developed a global sustainability standard and certification system for biofuel production. The RSB sustainability standard represents a global consensus of over 100 organizations including farmers, refiners, regulators and NGOs, and was designed to ensure the sustainability of biofuels production while streamlining compliance for industry. More information: www.rsb.org

The Sustainable Agriculture Network (SAN) promotes efficient and productive agriculture, biodiversity conservation and sustainable community development by creating social and environmental standards. The SAN is a coalition of leading conservation groups that links responsible farmers with conscientious consumers by means of the Rainforest Alliance Certified™ seal of approval. www.sanstandards.org

RSB and SAN are both members of the ISEAL Alliance, which defines codes of good practices for standard-setting organisations.

Available at: <http://rsb.epfl.ch/>

Expert consultation on sustainability of sweet sorghum as energy crop



The energy crop sweet sorghum (*Sorghum bicolor* L. Moench) is raising considerable interest as a source of either fermentable free sugars or lignocellulose feedstock with the potential to produce fuel, food, feed and a variety of other products. Sweet sorghum is a C4 plant with many potential advantages, including high water, nitrogen and radiation use efficiency, broad agro-ecological adaptation as well as a rich genetic diversity for useful traits. For developing countries sweet sorghum provides opportunities for the simultaneous production of food and bioenergy (e.g. bio-ethanol), thereby contributing to improved food security as well as increased access to affordable and renewable energy sources. In temperate regions (e.g. in Europe) sweet sorghum is seen as promising crop for the production of raw material for 2nd generation bio-ethanol.

The project SWEETFUEL (Sweet Sorghum: An alternative energy crop) is supported by the European Commission in the 7th Framework Programme to exploit the advantages of sweet sorghum as potential energy crop for bio-ethanol production. Thereby, the main objective of SWEETFUEL is to optimize yields in temperate and semi-arid regions by genetic enhancement and the improvement of cultural and harvest practices.

In order to get an overview of advantages and disadvantages of different sweet sorghum value chains a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted in the framework of the project. Thereby, the analysis investigated several sweet sorghum value chains under different framework conditions: subtropical, tropical and temperate climate. The value chains include the cultivation of sweet sorghum, conversion to different products and end use of the products. A main focus of the SWOT analysis is on sweet sorghum in developing and emerging countries.

In the framework of the elaboration of the SWOT analysis, an expert consultation is made. Input is requested on the following questions:

- What are the general strength/opportunities of SS as energy crop?
- What are the general weakness/threats of SS as energy crop?
- What are the main socio-economic advantages of sweet sorghum cultivation and use in developing countries?
- What are the main socio-economic problems of sweet sorghum cultivation and use in developing countries?
- What are the main environmental advantages of sweet sorghum cultivation and use in developing countries?
- What are the main environmental problems of sweet sorghum cultivation and use in developing countries?
- What are the most important products of sweet sorghum in developing countries?
- Should sweet sorghum as energy crop (for ethanol production) be promoted in developing countries, and why?
- Do you have any other comments/suggestions which should be included in the SWOT analysis on sweet sorghum?

If you have comments on these questions, please send them to Dominik.rutz@wip-munich.de or Rainer.janssen@wip-munich.de. If you are interested in more details, you can also receive a copy of the draft SWOT report.

More information: <http://www.sweetfuel-project.eu/>

IEA Bioenergy Study – Monitoring Sustainability Certification of Bioenergy

At present numerous biomass and biofuel sustainability certification schemes are being developed or implemented by a variety of private and public organizations. Schemes are applicable to different feedstock production sectors (forests, agricultural crops), different bioenergy products (wood chips, pellets, ethanol, biodiesel, electricity), and whole or segments of supply chains. This wide range of schemes, developed largely without coordination among the organizations involved, may create confusion among the actors, depression of markets, and unnecessary cost burdens and restrictions on sustainable trade.

Within IEA Bioenergy a strategic study was initiated among Tasks 40, 43 and 38 to monitor the actual implementation process of sustainability certification of bioenergy, evaluate how stakeholders are affected by certification initiatives, quantify the anticipated impact on worldwide bioenergy trade, assess the level of coordination among schemes, and make recommendations to remove barriers which may depress markets and reduce sustainable trade.

The study was started in January 2012 and will be concluded by the end of the year. In May 2012 a survey was distributed to stakeholders in all regions of the world. The survey specifically investigates the operational experiences of people actively involved with any aspects of bioenergy production systems.

More detailed information and a first statistical analysis of the responses is available at:
<http://www.bioenergytrade.org/ongoing-work/monitoring-sustainability-certification-of-bioenergy.html>

AfriCAN Climate - the portal for disseminating climate change research is launched!

In Africa, extreme weather events and greater unpredictability in weather patterns are having serious consequences for people who rely on land, lakes and seas to feed themselves and earn a living. Better data on the likely outcomes of continued climate change and on sustainable solutions to it is needed. Building on the wealth of information generated by a number of EU-funded projects and other initiatives, the AfriCAN Climate project, supported by the 7th Framework Programme of the European Union, is filling this knowledge gap through its network of research partners in Europe and Africa, using web and communication tools, technical exchanges and its growing database.

The project's aim is to provide access to relevant stakeholders to climate change adaptation and mitigation knowledge, including water and food security, natural resource management, health,



renewable energy and transport. Through the AfriCAN Climate portal, knowledge on climate change research & policies, indigenous knowledge and good practice cases in Africa, generated by African-EU research initiatives, is disseminated widely.

The portal has been published in English, Arabic, French and Portuguese, which allows for large linguistic and geographical coverage, including the countries of Western, Eastern and Northern African region.

The AfriCAN Climate community is open to researchers, students, practitioners, NGOs, policy makers, water management and climate change experts from all relevant fields relating to the water scarcity challenge, including water management, agriculture, food and health. On the portal registered users can share their knowledge about research topics of their interest, highlight relevant publications, projects and events.

Thematic interest online groups are set up and maintained in order to enable active participation of external web users, targeted discussions and knowledge sharing.

More information: <http://africanclimate.net>

If you want to join us, you can set up your personal account here: <http://www.africanclimate.net/en/user/register>



Green Social Bioethanol

Green Social Bioethanol is a recently established Brazilian company with worldwide presence, which is devoted to answering the energy access challenge. To that end, the company implements projects based on the Social Bioethanol concept.

The concept of Social Bioethanol is seen as a viable solution to energy poverty. It is comprised of a closed loop cycle of sustainable alternatives aimed at empowering communities, giving them autonomy and raising their awareness to energy as a basic right and its multiple positive unfoldings.

By cultivating energetically sustainable crops, food security and energy access are guaranteed. Surplus and non-food grade feedstock feeds a micro-distillery to produce bioethanol. High aggregated

value co-products from the micro-distillery, vinasse and bagasse, can be used to fertilize crops, feed animal and supply the boiler.

In farming, electric irrigation and ethanol-powered machinery are main transforming factors, as they bring higher productivity levels, create jobs, generate income, and other autonomy-stimulating results.

Ethanol-powered generators can provide rural communities with electricity for lighting as well as with access to information and knowledge via the internet. Furthermore, the implementation of easy-to-use, non-polluting, highly efficient ethanol cook stoves can help avoiding harmful smokes of cooking with solid fuels and the hard labor of collecting and carrying firewood.

More information: www.green-social.com

The SAHYOG project: Strengthening Networking on Biomass Research and Bio-waste Conversion – Biotechnology for Europe India Integration

The main aim of the project SAHYOG is to bring together leading organisations in the field of biomass production and bio-waste conversion research carried out within EU research programmes and related programmes by Indian national institutions.



Inventories of biomass and bio-waste potentials and research projects/programs elaborated and analysed within SAHYOG are the basis for the joint Strategic Research Agenda (SRA) finally leading to a Roadmap for policymakers and researchers.

SAHYOG ensures wide-range networking of relevant industries and scientific communities and establishes linkages between on-going research and innovation projects from EU and India.

Main activities of the SAHYOG project include:

- Elaboration of inventories on important research themes, as well as on research programmes and projects in the area of biomass and bio-waste.
- Elaboration of a Strategic Research Agenda (SRA) to facilitate concerted planning of future EU-India research initiatives in the area of biomass and bio-waste.
- Definition of a Roadmap identifying key targets to scale up EU-India collaborations.
- Twinning of projects from India and Europe in order to ensure exchange of information, data, materials and methods.
- Short-term exchanges of junior and senior researchers based on transparent calls for pro-

posals for young talents and senior experts from India and Europe.

- Organisation of summer schools in Europe and India involving renowned international lecturers.
- Organisation of several stakeholder workshops and a final SAHYOG conference to ensure widespread communication of project activities and results.

SAHYOG is co-funded by the European Commission in the 7th Framework Programme (Project No. FP7-289615) and by the Department of Biotechnology (DBT) of the Indian Ministry of Science and Technology. Activities of this 3-year project were launched in January 2012 with the SAHYOG kick-off meeting at the ENEA – EU Liaison Office in Brussels.

More information: www.sahyog-europa-india.eu

GBEP indicators applied in the Netherlands

For the first time, the sustainability indicators for bioenergy developed within the framework of the Global Bioenergy Partnership (GBEP) have been tested and applied in the Netherlands. Commissioned by NL Agency and the Dutch Ministry of Infrastructure and the Environment, SQ Consult has studied how the indicators apply to the Dutch situation. The assessment of these indicators makes possible gaining insight into the practical applicability of GBEP indicators and the applicability of the methodology description in the Netherlands.

The 24 GBEP indicators (see Global-Bio-Pact Newsletter Issue 3 – July 2011) are evenly distributed between 3 pillars: environmental, social and economic. In total, eighteen out of the twenty-four GBEP indicators are assessed in this study. This selection is based on the relevance of the indicators for the Dutch situation. The pilot provides insight into the sustainability of the sector, such as the scale of land use and energy consumption for bio-energy production, the organic matter content of the soil, water use, and greenhouse gas emissions. Social and economic aspects include employment in the sector, and the contribution to the Gross Domestic Product.

Besides in the Netherlands, the indicators will also be tested in other countries, including Germany, Ghana, Indonesia and Colombia. Using these pilots, the GBEP indicators will be tested in the field, and recommendations for improvements can be made.

The results of the pilot can be found in the report 'Using the GBEP indicators in the Netherlands: The Outcomes of a desk study. For more information please contact Bregje van Keulen NL Agency (bregje.vankeulen@agentschapnl.nl).

Source: GAVE news, 5 June 2012
<http://gave.novem.nl/gave/index.asp?id=25&lan=en&detail=4298>

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Global-Bio-Pact is co-funded by the European Commission in the 7th Framework Programme (Project No. FP7-245085).

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Published and edited by WIP – Renewable Energies, Munich, Germany, 2012

