

Annual report 2010



ANNUAL REPORT FOR THE FINANCIAL YEAR 2010

The Board presents the following annual report.

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World Bioenergy Association

Torsgatan 12, SE 111 23 Stockholm, Sweden Tel: +46 8 441 70 80, Fax: +46 8 441 70 89

Web: www.worldbioenergy.org E-mail: info@worldbioenergy.org

Corporate Identity Number 802444-7958

ADMINISTRATION REPORT

Letter from the President

Dear WBA members,

THE WORLD BIOENERGY ASSOCIATION (WBA) is now entering its 3rd year as one of five global organisations representing sustainable energy sources in the International Renewable Energy (REN) Alliance. Beside biomass there are geothermal, hydropower, solar and wind.

Although WBA is still in its initial start up phase, we have continued to receive an overwhelming response to our second position paper: "Certification Criteria for Sustainable Biomass for Energy", which was launched at a press conference at the COP 16 climate negotiations in Cancun, December 2010.

The purpose of WBA is to promote the increasing utilisation of bioenergy globally in an efficient, sustainable, economic and environmentally friendly way. Certification Criteria for Sustainable Biomass for Energy is necessary to create a global market, as it will make it easier for both buyers and sellers to make business on a bioenergy market, both internationally and domestically.

The WBA project on bioenergy potential, certification criteria and biomass for energy versus food and feed, land-use, and water supply has come to an end but it is possible to download these reports from our website www.worldbioenergy.org. The reports authored by the Swedish University of Agricultural Sciences, cover the scientific reports published globally during the last decade regarding the utilisation of biomass for energy. The Swedish Board of Agriculture has financed the project.

At the COP16 meeting WBA as a newly admitted official observer organization to COP (conference of the parties on climate change) was able to send a letter to the President of the COP 16 meeting, Her Excellency Ms. Patricia Espinosa, to propose the importance of speeding up deployment of all forms of renewable energy, stop deforestation and stop all kinds of subsidies to fossil fuels. See full version on www.worldbioenergy.org.

The main results of the COP16 conference in Cancun are summarized in the "Cancun agreement". In this paper it is said: "Governments agreed to work to stay below a two degree temperature rise". This target can only be attained, if the Greenhouse Gas (GHG) emissions are reduced by 50% in the decades to come. That means a rapid growth of all renewable energy sectors especially of biomass, as the most important renewable energy source, to replace fossil fuels as the main cause of GHG. Negotiations in Cancun also resulted in an establishment of a framework for implementing the new conditions, depending on how the climate change and a green fund is going to finance the adoption and emission reduction in developing countries. The reporting of emission reductions made in developing countries will also come in place.

As very strong forces tried to kill the Kyoto agreement, we must consider its survival as a "victory". These marginal steps forward are not the main reason to promote global collaboration on sustainable development but the global challenge in the years to come.

WBA has a very competent board, representing a number of different geographical areas as well as a wide array of specialities within the global bioenergy industry. We have also been able to involve a South American board member this year. Through its board members, WBA has gained recognition and approval around the world.

WBA's message to COP 16:

Certification Criteria for Sustainable Biomass for Energy – Necessary to Create a Global Market



"The purpose of the WBA is to increase the use of bioenergy worldwide in a sustainable way"

Our collaboration with the REN Alliance has also led to a very promising relationship with the International Renewable Energy Agency (IRENA), an intergovernmental organisation with 148 member states. REN Alliance and IRENA have made a cooperation agreement in order to speed up the utilisation of renewable energy sources worldwide.

The purpose of the WBA is, among other things, to increase the use of bioenergy world-wide in a sustainable way, to replace fossil fuels step-by-step, and to improve the security of energy supply and of the living conditions in rural areas. In June the WBA had a fact-finding mission to Zambia. Based on this mission and the gathered information five conclusions can be drawn:

- » Deforestation. A country like Zambia needs a dramatic change in the way the use of trees and forest is handled.
- » Biogas. The use of waste-to-energy and use of the biogas production technology offer great opportunities.
- » International trade. Measures for improving international trade in biomass (solid biomass as chips, pellets and liquid bio-fuels) must be developed.
- » Biofuels demonstration project. WBA proposes to realize an integrated biofuels demonstration project based on Jatropha.
- » Zambia, a bioenergy implementation model. Zambia is proposed as a country that can serve as a model for increased production and use of sustainable biomass for energy.

This is a pre-feasibility study on how Bioenergy can benefit farmers in Zambia and is open for funding to feasibility status. The report can be found at www.worldbioenergy.org.

Looking ahead to the remainder of 2011 and beyond, WBA also plans to devote more energy to building up its membership base, something that is vital to the organisation's future.

Today we have 50 members, which is a good start indeed, but a number we hope to see grow substantially in the near future. In addition to extending our reach by adding individual organisations and associations to our ranks, WBA also hopes to add more transnational members, similar to early supporter and current member AEBIOM, the European Bioenergy Association, which indirectly brings roughly 4,000 members into the WBA network.

As we continue to intensify our work in the coming years, we are confident that more organisations and enterprises will come to see the benefits of the WBA network and its potential to affect policy and facilitate commercial opportunities for its members.

WBA's message to COP 15:

Global Potential for Bioenergy Sufficient to meet Global Energy Demand



"The WBA is now entering its 3rd year as one of five global organisations representing sustainable energy sources in the REN Alliance"

WBA also plans to work harder to help create new national bioenergy organisations around the world, which we expect will play important roles as umbrella organisations in their respective countries similar to the way that WBA does on a global scale. During the year initiatives and discussions have started to build bioenergy associations in India, China and in many African nations as Uganda, Nigeria, Namibia and Tanzania.

In addition, WBA will continue to make progress on the accepted Action Plan.

It is also very important to get started on the already-developed BioenergyConnect, a Business and Research Platform, which will function as a global marketplace and networking centre for trading and manufacturing companies, researchers and others.

The platform, which will function primarily as a part of the WBA's website, will serve as an important tool for helping businesses collaborate with one another. As such, it must be made to function globally as a compliment to WBA's other activities, facilitating the creation of networks between relevant stakeholders on the bioenergy market.

Besides this virtual platform WBA has supported two successful business-to-business meetings: one in Beijing, China and a follow up in Vancouver, Canada. With 95 investors attending the meeting in China with some 30 bioenergy companies from Canada, Australia and China. This was in collaboration with Canbio and DP Cleantech Ltd.

The fully-equipped WBA website could serve as model for other bioenergy associations looking to mirror WBA's approach to strengthening its member network.

The results of WBA's work have been spread to members and subscribers through our newsletter and website but also via our attendance at major conferences and exhibitions.

WBA has attracted attention in the international media, for instance in launching the World Bioenergy Award 2010 in collaboration with the organisers of World Bioenergy 2010, Elmia and Svebio. WBA was also a centre stage in March 2010 "Energitinget" a yearly gathering of the energy stakeholders organized of the Swedish Energy Agency where we collaborated on a Work-Shop on Global Sustainable Biomass for Energy.

WBA has spread its message further through the publication of issues of our Bioenergy magazine as well as our two new reports "Certification Criteria for Sustainable Biomass for Energy" and "Biomass for Energy versus Food and Feed, Land Use Analysis and Water Supply". The first report is further publicised at speeches and as a poster.

We look forward to what we expect will be a successful 2011, filled with more exciting developments for WBA in terms of expanding and strengthening our network, as well as raising our profile on the international stage.

We thank those who serve in our Board and Secretariat. We thank you our members for your support.



Kent Nyström, President WBA

WBA Summary of Achievements

The World Bioenergy Association (WBA) is the global organisation dedicated to supporting and representing the wide range of actors in the bioenergy sector. Its members include national and regional bioenergy organisations, institutions, companies and individuals.

The purpose of the World Bioenergy Association (WBA) is to promote the increasing utilisation of bioenergy globally in an efficient, sustainable, economic and environmentally friendly way.

Since its foundation in May 2008, the WBA has been working to address a number of pressing issues including certification, sustainability, standardisation, bioenergy promotion, and the debates about bioenergy's impact on food, land-use and water supply.

The WBA's vision is to:

- » Ensure a fair distribution of the world's sustainably produced biomass for energy resources
- » Drive initiatives that encourage environmentally friendly and sustainable bioenergy production
- » Demonstrate the potential of bioenergy as a strategic renewable resource

WBA is expected to be a self-financed body in 2012. The income will then come from member fees from national and regional bioenergy associations, organisations, and companies around the world. Since its foundation WBA has been supported by the Swedish Energy Agency, the Swedish Agency for Economic and Regional Growth, and the Swedish Board of Agriculture.

The results of the work completed through 31 December 2010 can be summarised as follows:

- » In February, WBA held its first General Assembly and Steering Committee meetings in Washington, DC. At the meetings, WBA's interim appointed board transitioned to an elected board. Kent Nyström, who was the main driving force in WBA's early stages, was elected WBA President.
- » To get consistency of the secretariat in Stockholm, Sweden WBA employed Karin Haara as the Executive Director in February 2010. WBA has also introduced a trainee position including a short-term student placement.
- » In June WBA welcomed our 11th board member, Dr Laercio Couto from Brazil, giving WBA representation in South America.

- » The research on the WBA initiative of two projects called "Certification Criteria for Sustainable Biomass for Energy" and "Biomass for Energy versus Food and Feed, Land Use Analyses and Water Supply" has been ongoing during the year and is the base for the second WBA position paper. The reports are published on our website.
- » The second WBA Position Paper: "Certification Criteria for Sustainable Biomass for Energy" was released and followed up at a press conference at the COP 16 climate negotiations in Cancun, Mexico in December 2010.
- » The first WBA Position Paper: "Global Potential of Sustainable Biomass for Energy" was released at the COP 15 climate negotiations in Copenhagen December 2009. This paper has subsequently been presented at several international conferences, workshops, as a poster and has been discussed in various contexts worldwide including through our website.
- » The board and secretariat produced a report on Bioenergy in Zambia as a result of a study-tour and conference in Zambia. This gives us new ideas in the ongoing discussions on how Bioenergy can best benefit developing countries.
- » The World Bioenergy Award in cooperation with World Bioenergy 2010 Conference & Exhibition was executed successfully in cooperation between WBA Board and Elmia, the organiser of the event.
- » The accumulation of 50 WBA members.
- » The launch of a new version of a business and communication platform, BioenergyConnect, was achieved during World Bioenergy 2010 and on the website, which will be further developed when additional financing becomes available. This will require 50 company applications before it can begin operating.
- » A successful Business and Technology Mission to Beijing, China, was supported by WBA. It was an initiative from the Canadian Bioenergy Association together with DP Cleantech and Australian support. Some 95 Chinese investors were presented over 30 bioenergy projects. The much anticipated follow-up in Vancouver Canada was also supported by WBA.

- » A WBA Bioenergy Workshop was held in conjunction with DIREC 2010, New Delhi, India under the title "Possibilities to Increase the Supply of Sustainable Biomass for Energy". We had some 60 delegates on the workshop and the meeting opened up a discussion on the possibility of starting an Indian Bioenergy Association.
- » WBA was chosen as the organization representing the bioenergy sector as a member of the International Renewable Energy Alliance (REN Alliance). This membership has led WBA to play an important role in several important gatherings including IRENA meetings, DI-REC 2010, and COP16, as well as with several projects in the scope of our agreements. We are also working with an ongoing project on Optimization of Renewable Energy systems, and a study on renewable technology skills for ILO and EU.
- WBA was represented at the COP 16 meeting in December 2010 in Cancun, Mexico. Our mission was to launch not only the position paper on Certification Criteria on Sustainable Biomass for Energy but also make WBA better known on a global level, as well as to develop our network.
 - WBA was recognised with an Official Observer status on the first day of the negotiations of the parties.
 - WBA got its own stand for 2 weeks in competition with many others
 - WBA held a press conference slot also in competition with many others
 - WBA posted a letter to the President for COP16, H.E. Ms Patricia Espinosa
 - WBA together with the REN Alliance partners gave a workshop in cooperation with Deutsche Bank, Greenpeace and UN DESA.
 - Our workshop had the headline "Towards Global Feed-In Tariff Funds: Leading Proposals & Recommendations for Implementation".

Build a strong future for modern sustainable bioenergy by joining WBA!

The importance of modern bioenergy and the huge unexploited amounts of sustainable biomass for energy available must be communicated to politicians and other decision makers, investors and the public. World Bioenergy Association is working to spread knowledge about the benefits that efficient use of sustainable biomass for energy gives all over the world.

worldbioenergy.org >>

Membership Report

WBA brings together 14 national/regional associations (as per December 2010) from all over the world ranging from the recently formed Zambia Bioenergy Association (ZBA), to the older and more developed European Bioenergy Association, AEBIOM. More than 30 companies and individuals have also joined WBA and many more are on their way. Members have joined to create a forum across all bioenergy sectors, to develop a better understanding about bioenergy issues, and to initiate global outreach communicating the benefits of putting sustainable bioenergy to greater use worldwide.

WBA welcomes Associations, Companies and Individuals as members. WBA offers three types of membership:

- » Full Members: national or regional associations.
- » Associated Members: companies, researchers, organisations or any other kind of bodies not covered by full members.
- » Individual Members

Why become a member of WBA?

Because WBA will:

- » Bring together buyers, sellers, prospective partners and investors that deal internationally, using a business platform that includes events and web-based communication methods
- » Promote increased international trade in bioenergy technology and equipment by harmonizing standards and certification systems where they could otherwise potentially form a barrier to business
- » Contribute to the development of simple, useful international sustainability criteria for biomass; necessary for meaningful trade
- » Develop fact sheets, position papers and press releases to educate, and correct misinformation on bioenergy
- » Support the development of a world-wide bioenergy investment fund to finance bioenergy projects by spreading and minimizing project risks and improving project returns
- » Spread the understanding that, more than any other renewable energy, bioenergy is about livelihood as well as about improving the environment, contributing meaningfully to the socioeconomic fibre of farmers, landowners, forest workers, and communities
- » Continually expose and inventory new biomass sources world-wide
- » Promote bioenergy development; partly by bestowing a "WBA Bioenergy Award"
- » Act as a centre of key information that cannot easily

- be garnered by simply surfing the Internet, including markets, bioenergy conditions and business partners in individual countries.
- » Form alliances with renewable energy groups internationally, encourage forming of national bioenergy bodies, and identify technology solutions to grow bioenergy in developing nations.
- » Initiate a project identifying "Global Potential of Sustainable Biomass for Energy" and use that as a basis for aiding decision makers form a framework to promote the increased utilization of bioenergy.

Meetings WBA has been participating in during 2010

We have been involved as speakers, participating in workshops, collaborations, posters, exhibitions, panels, business matchmakings, sponsors etc. At all of these meetings WBA continues to extend its invaluable network.

- » January, World Future Energy Summit and IRENA Meeting, Abu Dhabi, UAE
- » February, General Assembly and Steering Committee at RETECH, Washington, USA
- » March, World Sustainable Energy Day's, Wels, Austria
- » March, Energitinget, Stockholm, Sweden
- » April, SVEBIO, Swedish Bioenergy Association Conference, Stockholm, Sweden
- » April, International Geothermal Conference, Bali, Indonesia
- » May, 18th European Biomass Conference and Exhibition, Lyon, France
- » May, World Bioenergy 2010, Jönköping, Sweden,
- » May, Canadian/Australian bioenergy trade mission, Beijing, China
- » June, ZBA, Zambian Bioenergy Association mission, Lusaka, Zambia
- » June, World Wind Energy Conference, Istanbul, Turkey
- » June, AEBIOM, European Bioenergy Association Conference, Brussels, Belgium
- » June, Eubionet meeting, Brussels, Belgium
- » September, Canbio, Canadian Bioenergy Association Conference, Vancouver, Canada
- » October, Independent Energy- Conference, Vilnius, Lithuania
- » October, DIREC, New Delhi, India
- » November, AEBIOM Conference, Brussels, Belgium
- » December, COP 16, Cancún, Mexico

Communication and Networking

A secretariat is now established in Stockholm, to provide basic administrative functions. WBA is undergoing rapid expansion and as a result 2010 was a very hectic yet productive year.

However, the association requires more human and financial resources. We consider that the process of recruiting members requires more proactive efforts in order to keep growing. Thus, the board keeps working to achieve all planned activities.

Until now, the WBA has a board, a president and an employed executive director. The President works half time and the executive director full time, the board works on behalf of their organisations.

Website

We have a website up and running for news from the WBA and reports to members exclusively.

The WBA has launched the website www.worldbioenergy.org which records how many people have visited it and where in the world they were connected. Since its start the website has counted more than 130,000 visits from about 100 different countries. This shows the importance of keeping this medium constantly updated.

Bioenergy Magazine and Newsletters

WBA sends newsletters and has published the third 16 page Bioenergy Magazine with information of interest to members during 2010, to be distributed at different events. It is possible to download an electronic version of the Magazine from our website. The magazine is also distributed through the network we have developed and at the activities that the WBA has been engaged in.

BioenergyConnect (BC) – a virtual platform for business and research

This meeting platform is available on our website and is a development from the first version that was launched at the World Bioenergy 2010 Conference and exhibition in Jönköping. This platform allows the possibility to connect with manufacturers of equipment, producers/sellers and users/buyers of biomass, investors and researchers. We believe that this is going to be the tool that really makes a change, as we need to build good networks between bioenergy businesses and the research field as soon as possible. The financing has not been easy to bring about as there is a need of both funding for the start package, and for human resources to do the marketing of the platform. During 2010 we got the platform and during 2011 we will make it work.

Bioenergy workshop May 2010 with over 100 participants in Beijing

In May a bioenergy mission was arranged in collaboration between Canbio, Australian stakeholders, DP Cleantech Ltd and WBA. The forum was a successful meeting between companies with bioenergy projects and Chinese investors. The follow up was in Vancouver, Canada in September 2010 with WBA attending as an official sponsor.

Poster at the 18th European Biomass Conference and Exhibition in Lyon, May 2010

The WBA had a poster presentation at the conference on Global Potential on Sustainable Biomass for Energy. The WBA is published in the documentation.

WBA activities during the World Bioenergy 2010 Conference (WB10) in Jonkoping

- » Stand (Position paper, magazine, BC)
- » Networking reception with presentations given by the final nominated candidates to the World Bioenergy Award
- » Match-making
- » Inaugural ceremony, World Bioenergy Award
- » Closing ceremony

Bioenergy Award 2010

The jury for this competition was the WBA board and the organiser of WB10. In total there were 95 persons nominated and from them we got 7 final candidates. This has been viewed on our website and of the finalists one was chosen as the eventual winner: Congratulations to Laercio Couto who received the most votes to become the winner of the first World Bioenergy Award.

Bioenergy workshop in New Delhi during the DIREC 2010 conference & exhibition in India

Besides activities with REN Alliance partners WBA held its own Workshop on Global Sustainable Biomass for Energy with representatives from the Indian Ministry for New and Renewable Energy (MNRE) in attendance at the workshop. In the mission to India an issue on how to get an Indian Bioenergy Association launched was included in the discussion. There were forward thinking representatives interested in starting an association and we are expecting good news during 2011.

Board meetings: face-to-face and telephone meetings

The WBA has held 5 meetings during 2010.

- » February, Washington, USA, in connection to GA and SC and RETECH.
- » April, telephone meeting as the jury of World Bioenergy Award
- » June, Lusaka, Zambia, in connection to Zambian
- » Bioenergy Conference
- » August, telephone meeting
- » October, New Delhi in connection to DIREC

COP16 in Cancun, Mexico

The COP meeting decided to give the WBA an official observer status. WBA got many new contacts and we were able to broaden our networks with intergovernmental and nongovernmental organisations, companies and parties important for us to collaborate with in the near future. The WBA

was able to attract numerous people to its press conference, stand and side-event. There were plenty of side events and networking possibilities.

The WBA authored a letter to explain its position, which was addressed and delivered to the president of the COP16 (see www.worldbioenergy.org).

Start up of Bioenergy Associations

WBA has on the web site instructions on what you could do to start a national or regional bioenergy association. Those who want to start can use statutes and other start up tools and also get support from the secretariat.

One result of this work is how WBA inspired Zambia Bioenergy Association to start up. They have had their first conference in Lusaka in the beginning of June 2010 together with the WBA. The WBA has also made a pre-feasibility study for Zambia as a case study for other countries to follow on how bioenergy can benefit them. We are counting on followers from India, South America, China and several countries from Africa, including Nigeria, Namibia, Uganda and Tanzania.

Not a member yet?

Join the INTERNATIONAL VOICE OF BIOENERGY!

World Bioenergy Association offers to:

- Look after your interests as a bioenergy actor.
- Develop and promote certification and standardization programmes for Bioenergy.
- Demonstrate the potential and benefits of bioenergy.
- Create a business and research platform for communication and meetings.
- Take an active role in the international policy making on bioenergy.
- Highlight the socio-economic benefits when exploiting biomass for energy.
 Membership forms:

worldbioenergy.org >>

Research, Policy & Analysis

Certification Criteria for Sustainable Biomass for Energy, which is necessary to create a global market

The World Bioenergy Association has shown that there is a potential to mobilise biomass for energy worldwide in quantities sufficient to meet global energy demand. Biomass can be used for electricity, heating and cooling and transport fuels. A strong development of the bioenergy sector will require trade in biomass (including pellets) and in liquid and gas biofuels.

In the position paper launched December 2010, WBA presents a minimum universal certification criteria for sustainable biomass for energy. These criteria are based on scientific research carried out by Swedish University of Agricultural Sciences.

The criteria cover all areas of sustainability – environmental, social and economic. They can be applied to all types of biomass for energy – from forestry, agriculture, waste and others.

Global Potentials 2050. Lots of biomass available.



Source: IEA Bioenergy Task 40.

WBA Position papers and reports

To help provide a clear frame of reference on which to base its activities the WBA has commissioned production of reports on a number of key aspects of biomass to energy within a global perspective. The research partner is the Swedish University of Agricultural Sciences. The Swedish Board of Agriculture has funded the research project.

The project has produced three reports and finalized 2 of them during 2010:

1. Global Potential of Sustainable Biomass for Energy (Report 013, ISSN 1654-9406, Swedish University of Agricultural Sciences). The WBA has produced the first position paper with the same title based on this report. This position paper was launched at COP15 in December 2009 in Copenhagen.

- 2. Certification Criteria for Sustainable Biomass for Energy (Report 026, ISSN 1654-9406, Swedish University of Agricultural Sciences)
- 3. Biomass for Energy versus Food and Feed, Land Use Analyses and Water Supply (Report 022, ISSN 1654-9406, Swedish University of Agricultural Sciences)

The second WBA Position Paper is based on reports 2 & 3. Both of these draw on the numerous research papers published across the subjects of the reports, and analyse and summarise the overall conclusions. The certification criteria should be used as a guide for accrediting the sustainability of Biomass for Energy. After checking that the criteria are met, the cargo will get a document of the WBA sustainability accreditation. This position paper was launched at the COP16 meeting in Cancun, Mexico during an official press conference.

The WBA position papers and reports can be downloaded from www.worldbioenergy.org

WBA Labelling System - Certification Criteria for Sustainable biomass for energy

The reports and position paper are the basis for creating a voluntary standard around the world. The role of certification processes in this report is fundamental for creation of a global market for bioenergy and biofuels. The minimum universal criteria consisting of 6 basic principles and 14 selected sustainability criteria were developed after comparing the standards, principles, criteria and indicators developed by the existing and emerging voluntary standards around the world and can be seen as the building blocks for the new labelling system.

The next step for the WBA is to start discussions with partners interested in implementing the WBA Labelling system. The six basic principles:

- » 1. Biomass shall be produced in an environmentally responsible way. (1,5,9,10,12)
- » 2. Good management practices shall be implemented. (I,J)
- 3. Biomass production shall take place in compliance with regional, national and relevant international laws.
 (G)
- » 4. Safe working conditions. (H)
- 5. Biomass production shall be economically viable. (Q)
- » 6. Biomass production shall not violate human rights. (F,M,N,RC)

These principles are consistent with the 14 selected socioeconomical and environmental sustainability criteria, see Figure 1, next page.

Figure 1. Certification criteria for sustainable biomass for energy

Principles	Selected socio-economical and environmental sustainability criteria	Forestry	Agriculture	Waste	Other
3	The use of chemicals (G)	+	+	+	+
2	Forest/land management planning (I)	+	?	-	?
2	Forest/land monitoring (J)	+	+	+	?
4	Protecting the health and safety of employees (H)	+	+	+	+
6	Provision of information to increase public awareness of management, planning, operations, and/or outcomes (M)	+	+	+	+
6	Protection of areas of particular historic, cultural or spiritual value (N)	+	+	+	+
5	Maintenance or enhancement of the economic viability of operations (Q)	+	+	+	+
1	Maintenance of biological diversity (1)	+	+	-	?
1	Protection of areas of high ecological value (5)	+	+	+	?
1	Protection of the soil and prevention of erosion (9)	+	+	-	?
1	Protection or enhancement of water quality (10)	+	+	+	?
1	Regeneration following harvesting (12)	+	+	-	?
6	The Rights of Children (RC)	+	+	+	+
6	Recognition and respect for the customary and traditional rights of indigenous/local people (F)	+	+	+	+

Bioenergy in Zambia

WBA mission to Zambia, June 2010

The mission was carried out by board members of the WBA in collaboration with the members and board of the Zambian Bioenergy Association (ZBA). The overall objective of the mission was to share knowledge and experience, and collect information on bioenergy to find out if Zambia could be established as a model for sustainable bioenergy development in the African region. The aim is to support an equitable and sustainable development of bioenergy in Zambia. A specific objective was to learn about the detailed conditions of Zambian farmers for a broader understanding of how bioenergy will ultimately benefit them. The initiative for the WBA mission came from Jennipher Handoondo, board member of the WBA and the ZBA.

WBA had many different meetings/visits in Zambia, and in total met with around 60 persons: farmers, farmer's representatives, companies and specialists. The bioenergy conference/workshop gave good opportunities for fruitful discussions with delegates, mainly small-scale farmers with different specialities and experience.

The focus for the mission was on bioenergy development in general, technological development, policy, incentives, barriers and market development. Many of the people we met had a strong focus on liquid biofuels - mainly Jatrophabased, but also multipurpose trees as the Moringa and the



Participants at the Zambian bioenergy conference.

Neem tree were discussed and reported on.

The meetings gave a broad insight into the current situation of bioenergy in Zambia and the central issues as seen by the WBA members are deforestation, land availability and Jatropha initiatives.

WBA's mission is to increase the use of bioenergy world-wide in a sustainable way, to replace fossil fuels step-by-step, and to improve the security of energy supply and of the living conditions in rural areas worldwide. Based on this mission and the gathered information five conclusions can be drawn:

1) Deforestation

A country like Zambia needs a dramatic change in the way the use of trees and forest is handled. The rate of deforestation is huge, between 300,000 – 500,000 ha per year. At this rate in less than 100 years all forest would be gone if no action is taken soon. A proposal for a solution is beyond the frame of this report; however a few ideas include to create a public movement with goal to annually plant a few million new trees, develop alternative options of cooking including ethanol-fuelled high efficiency stoves or by biogas produced from putrescible wastes and agricultural residues, extend the electricity grid in rural areas, and produce electricity with renewable energy.

2) Biogas

The use of waste-to-energy and use of the biogas production technology offer great opportunities. A detailed project study should be made to show the ways to tap this energy source in the country, and its potential.

3) International trade

Measures for improving international trade in biomass (solid biomass as chips and pellets, and liquid bio-fuels) must be developed. The European Union and the big international associations such as IEA, OECD, FAO, other UN organizations etc., need to re-examine the concept of sustainability and trade policies concerning international biomass trading. In Zambia there is a great potential of biomass-to-energy to use domestically and internationally. The trading must however only be done with sustainably produced biomass. The newly launched "WBA Certification Criteria for Sustainable Biomass for Energy" will be the approach for improving trade in biomass.

4) Biofuels demonstration project

WBA proposes to realize an integrated bio-fuels demonstration project based on Jatropha. Such a project is described more in detail in the report.

5) Zambia, a bioenergy implementation model

Zambia is proposed as a country that can serve as a model for increased production and use of sustainable biomass for energy, to the point of realisation.

Collaboration within the REN Alliance has strengthened the position for Bioenergy

The International Renewable Energy Alliance (REN Alliance) consists of the International Geothermal Association (IGA), the International Hydropower Association (IHA), the International Solar Energy Society (ISES), the World Bioenergy Association (WBA) and the World Wind Energy Association (WWEA).

The results of collaboration with the REN Alliance partners have strengthened the position of WBA as one of the 5

global associations for renewable energy. We participate in each other's main conferences to strengthen the message of the importance of renewable energy. We also collaborate on important global meetings including UN conferences and IRENA meetings with focus on development of renewables.

Another result of our collaboration is the work on the Strategic Plan: 2010-2012

Accelerating the Deployment of Renewable Energy, including 5 areas:

- » 1. Interpretation of renewable energy potentials
- » 2. Refinement of future deployment scenarios
- » 3. Definition and guidance on sustainability criteria
- » 4. Review and recommendations on financing renewables
- » 5. Optimizing renewable energy systems

WBA is responsible for Point 3 but as of yet we have not been able to start the work because of lack of funding. WBA is involved at the moment on working on Point 5, which has been financed by Alstom.

We are working on the funding in discussions with the Masdar Inititative and IRENA.

Another result of our collaboration is the work on "Skills needed in the Renewable Sector" financed by ILO and EU to the REN Alliance Partners. This is a new project started in November 2010.

We also have a website together and that is another entrance to the WBA.

Meetings and workshops in the REN Alliance:

- » January 2010, the WBA officials travelled to Abu Dhabi to represent our association as an Observer Organisation to the International Renewable Energy Agency (IRENA) at its 3rd Preparatory Meeting and to participate in the "World Future Energy Summit" as a member of the REN Alliance.
- » April 2010, IGA World Geothermal Congress in Bali, Indonesia,
- » May 2010, World Bioenergy 2010, Jönköping, Sweden.
- » June 2010, World Wind Energy Conference 2010 in Istanbul, Turkey.
- » October 2010, DIREC, and meeting with TERI Institute, New Delhi, India
- » December 2010, COP 16, Cancun, Mexico. The Alliance partners each had their own stands at the venue in the same line. - WBA hosted a side event with REN Alliance and our workshop was under held under the

headline "Towards Global Feed-In Tariff Funds: Leading Proposals & Recommendations for Implementation". Deutsche Bank, Greenpeace, & UN DESA discussed their leading proposals for decarbonising the economy through global feed-in tariff funds tested by REN Alliance against the realities of each renewable energy technology with recommendations made for implementation. The workshop was well patronised with 50-60 individuals in the audience.

» Several telephone meetings have been held during 2010 to discuss, understand and develop our common positions.

Collaboration with IRENA is mainly through our activities with REN Alliance

The result from a meeting in Stockholm between IRENA and REN Alliance is the agreement that deals with

- » Carbon funds for renewable energy
- » Sustainability assessment
- » Potentials for renewables
- » Renewable energy scenarios

This agreement is further presented in the 'Strategic Plan: 2010-12 Accelerating the Deployment of Renewable Energy' that we discussed during the meeting in January 2010 in Abu Dhabi with IRENA. This discussion is ongoing and has not developed into a concrete plan. It is very much dependent on IRENA and the volatility that has been surrounding the organisation. New discussions are running now with the new interim director Adnan Amin.

REN Alliance is the partner to IRENA that delivers the industry organisation's views, which are the most important development as a result of the collaboration with IRENA. The membership of the REN Alliance has helped WBA to gain its position as the voice of the bioenergy industry.

The Board and the Executive Director

Today the board consists of 11 persons. The board was appointed based on 2 main criteria: geographical spread and different fields of speciality or competence. Collectively the board have a large amount of knowledge and experience and is comprised of the following persons:

- **1. Kent Nyström,** President of WBA, former MD of the Swedish Bioenergy Association (Svebio),
- **2. Sribas C. Bhattacharya,** International Energy Initiative NGO. India.
- **3. Douglas R. Bradley,** Climate Change Solutions and CEO of the Canadian Bioenergy Association NGO,
- **4. Heinz Kopetz,** European Biomass Association. Representing 32 national biomass organisations in Europe,
- **5. William Holmberg,** ACORE, American Council of Renewable Energy Non-profit organization based in Washington, D.C,
- **6. Tetsunari Iida,** ISEP, Institution for Sustainable Energy Policies. ISEP is an independent, non-profit research organization in Japan,
- **7. Judi W. Wakhungu**, African Centre for Technology Studies (ACTS). ACTS is a Nairobi-based international intergovernmental science, technology and environmental policy think -tank.
- **8. Jennipher Handoondo,** Zambia National Farmers Union's Oil Seed Commodity Unit. Promoting Jatropha on farm level in Zambia,
- 9. Andrew Lang, Chairman, SMARTimbers Cooperative, Australia,
- 10. Kai Johan Jiang, Dragon Power Group, Co., Ltd. Chairman of Dragon Power Group Co., Ltd, and National Bio Energy Group Co., Ltd and the economic advisor to Shandong provincial government,
- **11. Laercio Couto,** President Renabio, Brazilian Biomass Association

Secretariat

Karin Haara, Executive Director of WBA and has 25 years of experience within the bioenergy field.

Members

Full Members

Avebiom, Spain

Svebio, Sweden

Aebiom, Belgium

Canbio, Canada

proPellets, Austria

Acore - Biomass Coordinating Council, US

O&D Quality International Farms, Ghana

Zambian Bioenergy Association, ZBA, Zambia

Village Vision, India

The Wood Energy Group, Australia

Energigården – Center for Bioenergy, Norway

Czech Bionergy Association, Czech Republic

Climate Change Network, Nigeria

Eurosolar, Turkey

Associated Members

First Bioenergy, Sweden

Elmia AB, Sweden

EFO, Sweden

Rindi Energi AB, Sweden

Silvex Energy AB, Sweden

Bandit Industries, INC, US

United Loggers Ltd, Estonia

DP Cleantech Co, Ltd, China

Dep of Science & Technology, State forest Admin P.R. China

North China Electric Power University, China

Bio Camelina sdn bhd, Malaysia

AKATA Commodity Trading ApS, Denmark

MHG Systems Oy Ltd, Finland

Log Max, Australia

Individual Members

Ohene Kwadwo Akoto, Ghana

Bothwell Batidzirai, Chinhoyi Univ, Zimbabwe

Joseph Kingue, Cameroun

Dirk Volkmann, Germany

Anders Rydåker, USA

Laercio Couto, Brasil

MNA Bhuiyan, Japan

Mukesh Tulsidas Pandya, India

Keshinro Michael Tanimola, Nigeria

Nana Sarfo Agyemang Derkyi, Ghana

John Sandersson, Australia

Bruce A. Brewer, Namibia

Cicero Bley Jr, Brasil

Davide Ottolia, Italy

Manny Deol, Canada

Celso Marcelo de Oliveira, Brazil

Franco Gotana, Italy

Rajesh Chintala, USA

Kes McCormick, Australia/Sweden

Farhad Mirzaei, Iran

Ian Dixon, Australia

Funding

World Bioenergy Association would like to gratefully acknowledge financing for the WBA from the Swedish Energy Agency. This funding was until 2010-06-30.

After 1 July 2010 the funding to the WBA is under negotiation with the Swedish Energy Agency, which is not yet completed. Before we are able to get funding, the WBA needs to show how we are going to be self-financed after 2011 and further through members, BioenergyConnect and a WBA sustainability label. Arranging conferences is also under discussion.

The Income Statement, Balance Sheet and notes to the accounts are available on request.

Stockholm 2010-02-16

Board members below have signed the Annual Report 2011.

Kent Nyström, Sribas C. Bhattacharya President

Douglas R. Bradley Heinz Kopetz

William Holmberg Tetsunari Iida

Judi W. Wakhungu Jennipher Handoondo

Andrew Lang Kai Johan Jiang

Laércio Couto

My audit report has been submitted and signed 2010-02-25.

Heléne Ragnarsson,

Authorized public accountant

WBA'S MAIN PURPOSES:

- 1. Spread information about the possibilities being available by utilization of the great amount of biomass resources. Visualise how these possibilities could be realized by showing different models suitable for different growing conditions and different socio economic conditions, etc.
- 2. Develop sustainability criteria that guarantee that bioenergy could be supplied without threatening food and feed supply, water supply, rainforest and biodiversity and economic growth.
- 3. Spread knowledge and technology

Capacity building and technology transfer by BioenergyConnect a web-based communication and business platform.

To learn more and apply for membership, please visit:

worldbioenergy.org >>



The bioenergy industry's **VOICE** on the international stage:

World Bioenergy Association

We invite all interested national and regional organisations, institutions and companies to join!

Whether you are looking for the latest industry developments or searching for the perfect partner, World Bioenergy Association should be your preferred destination.

To learn more and apply for membership, please visit us at: www.worldbioenergy.org

And stay tuned for more exciting developments as we prepare to launch BioenergyConnect soon...



