

WORLD BIOENERGY ASSOCIATION

## Annual report 2015



www.worldbioenergy.org

## ANNUAL REPORT FOR THE FINANCIAL YEAR 2015

The Board presents the following annual report.

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#### World Bioenergy Association

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## ADMINISTRATION REPORT

## **1. INTRODUCTION BY THE PRESIDENT**

**WBA WELCOMES THE NEW YEAR WITH THE ANNUAL REPORT 2015.** It is a pleasure for me to present you this annual report about WBA activities in favour of bioenergy.

The global statistical report on bioenergy published in June 2015 was one of our key activities. With this statistical report we try to make bioenergy more visible on the global level. Bioenergy is by far the most important renewable energy source; its importance is growing in all continents. As our report shows countries with a high share of renewable energy like Sweden (above 50%) and Brazil (around 40%) all have a high share of bioenergy.

WBA also represented bioenergy during COP21 in Paris with a side event together with REN Alliance, a press conference and a stand, where we distributed information material about bioenergy to participants.

In 2015 bioenergy was faced with controversial developments. The declining oil price is becoming a threat for parts of the bioenergy industry; on the other side, the ambitious targets of COP21 will increase the demand for bioenergy as soon as countries start to implement policies in line with COP21.

At the end of 2015 WBA sees new initiatives concerning the pricing of carbon by introducing carbon taxes as essential for the further development of the sector.

It is with great sadness we inform our members that in the beginning of 2016 on the 29th of January we lost our friend and colleague Prof. Sribas C. Bhattacharya. As a Board Member and Vice President, he assisted WBA in many of our activities and was instrumental in the success of the organisation.

As President of WBA I would also like to thank all our members and sponsors for their support as well as our staff for their engaged work for bioenergy.

Heinz Kopetz, President, World Bioenergy Association



Toputz

Heinz Kopetz, President, World Bioenergy Association

"Mission: To promote the use of sustainable biomass globally and to support the business environment for bioenergy"

## 2. SUMMARY OF ACTIVITIES

The World Bioenergy Association (WBA) is the global organization dedicated to supporting and representing the wide range of actors in the bioenergy sector. Our members include bioenergy organizations, institutions, companies and individuals. Since its foundation in 2008, WBA has been working to address a number of pressing issues including certification, sustainability criteria, bioenergy promotion, and the debates about bioenergy s impact on food, landuse and water supply.

Mission: Promote the increasing utilization of bioenergy globally in an efficient and sustainable way and to support the business environment for the bioenergy companies.

A brief review of our activities in 2015 are summarized: » WBA increased its membership to 182 members

- Full members: 22
- Associated members: 58
- Individual members: 102
- » WBA published six bi monthly newsletters to provide up to date information on bioenergy developments globally to our members
- » WBA started a new technology transfer initiative 'Bioenergy Equipment Directory'
- » WBA published two factsheets
  - Advanced Biofuels
  - Thermochemical gasification of biomass
  - Improved cookstoves (Working paper)
  - Bioenergy potential (Working paper)
- » WBA Global Bioenergy Statistics report was published in June 2015
- » WBA conducted a survey on oil price drop and its role in the bioenergy sector
- » We welcomed two more vice presidents: Dr. Benard Muok (Kenya) and Dr. Tanay Sidki Uyar (Turkey)
- » WBA co-organized a webinar with REN Alliance on synergies among renewables working together to achieve 100% renewable energy society
- » WBA submitted a declaration from the biofuels industry to leaders at COP21

- » WBA sent out a call to COP21 delegates to show that renewables are the future
- » WBA participated at COP 21: with a workshop together with REN Alliance partners, with a press conference on bioenergy and the role of carbon taxes, with an information stand, to distribute material to COP 21 participants
- » WBA and Svebio co-authored a paper on carbon tax as a key instrument in the future energy transition
- » WBA signed a Memorandum of Understanding with Government of Sudan on efficient utilization of wastes and residues in Khartoum
- » WBA was accepted as official observer organization to Green Climate Fund

## 3. ADMINISTRATIVE REPORT

WBA had a busy year in 2015.

The permanent work of the WBA staff included service to our members, solving requests concerning bioenergy, contact with international organizations to continue collaboration as well as exploring new partnerships, handling member information, participation in projects, attendance in conferences, publishing articles, newsletters, press releases, reports etc., preparation for meetings, and other discussions related to bioenergy. We published fact-based material via our factsheets and global bioenergy statistics. We started a new technology transfer initiative via our online bioenergy equipment directory. Following is a brief overview of various WBA activities:

- » Global bioenergy statistics
- » Bioenergy equipment directory
- » Sustainability label
- » Factsheets
- » Bimonthly newsletters
- » Grant applications
- » Handbook of biomass associations
- » Bioenergy Connect
- » Collaborative activities
- » Organizing and attending conferences and workshops
- » Authoring and reviewing reports
- Communication activities
   mailing, website and social media

#### 3.1 Membership and supporters

WBA ended the year 2015 with 182 members in our network. We welcomed 32 new members to our association. The membership included 22 full members, 58 associated members and 102 individual members.

Table 1. WBA membership in 2015					
	Full members	Associated members	Individual members	Total	
Africa	3	2	18	23	
America	2	5	13	20	
Asia	2	1	26	29	
Europe	14	49	42	105	
Oceania	1	1	3	182	

We have been increasing our membership base outside Europe with various activities. It is clear for our members on the various benefits of being part of WBA. Apart from communication via mails, our members are also active in social media leading to interesting discussions on bioenergy developments globally.

In 2015, WBA is thankful for continued support of AN-DRITZ as official supporter and Agrana as our silver supporter.

Discussions are on going to increase our membership and supporter base.

#### Why should you become a member?

WBA values your membership as it can help us achieve our mission. We are the leading bioenergy expert in the international level consisting of professionals from various countries, specializations and level of experience. We aim to promote bioenergy as a crucial sector in achieving the renewable energy goals. As we grow, so does our influence.

Becoming a member would enable you to have exclusive access to information about bioenergy from leading experts worldwide. It opens up opportunities for possible cooperating among projects and working groups.

Add your voice to the global bioenergy movement!

#### 3.2 Communication and activities

#### Secretariat

The secretariat of WBA is located in Stockholm. The office space also includes Svebio and other leading bioenergy organizations. We are still in the lookout for human and financial resources to keep improving our work. Currently, WBA has a Board, a Nominating Committee, a President, an employed Executive Director and Project Officer along with a Project Advisor and Project Assistant.

#### Website

WBA has an official website – www.worldbioenergy.org. The website includes details about the association and its origins, a separate member exclusive section, and recent news and developments. WBA factsheets, reports, statistics, latest events etc. are regularly updated in the website.

We have increased the traffic to our website which shows growing interest in our activities. In the year 2015, we had 15 203 sessions in comparison to 13 479 in 2014, an increase of 12.8%. 62.3% of the visitors to the website were new and most of them were from USA, Russia, Germany, UK, and Sweden.

#### Social media

WBA is active in social media via our accounts in Facebook, Twitter and LinkedIn. We crossed the 1000 likes mark in Facebook and currently have 1 553. In our LinkedIn page, active discussions occur among 1041 members and our recently opened twitter account has increased the follower base to 200.

**Facebook:** https://www.facebook.com/World-Bioenergy-Association-102103226497174/

LinkedIn: https://se.linkedin.com/grps/World-Bioenergy-Association-4154386 Twitter: https://twitter.com/World\_Bioenergy

#### Member letters

WBA published 6 bi monthly newsletters to our members, which included recent developments in bioenergy, membership details, WBA activities and a list of conferences on bioenergy supported by WBA.

#### Press release

## $27^{\mbox{\tiny th}}$ January: Oil price drop as tool to fight fossil carbon emissions

WBA and AEBIOM (European Biomass Association) called upon the governments to seize the opportunity presented by the oil price drop to act against fossil emissions. There has rarely been such an opportunity for the global community to take action against fossil carbon emissions and global warming as there is now.

#### 16th February: Advanced biofuels factsheet launched

The World Bioenergy Association (WBA released the factsheet 'Advanced Biofuels' – the seventh in the series of publications. The WBA factsheet aims to provide better understanding of the advanced biofuels sector. This document is a continuation of our presentation of biofuels in the transport sector that started with the factsheet on biofuels for transport in March 2013. Details of technologies, feedstock and products that make up the advanced biofuels sector are presented along with the current status of commercial production units.

#### 22<sup>nd</sup> May: Abengoa World Bioenergy Forum 2015

During May 20-21, 2015 more than 100 representatives of the biofuel industry and bioenergy experts gathered in Seville at the ABENGOA - WORLD BIOENERGY LEADER-SHIP FORUM to discuss the future of biofuels – in particular bioethanol. Our President Dr. Heinz Kopetz represented WBA.

#### 10th June: WBA elects two new vice presidents

WBA had its annual steering committee meeting, general assembly and board meeting in Nairobi, Kenya on 9th June 2015. During the meeting, Dr Benard Muok, Director of Program, ACTS (African Centre for Technology Studies), Kenya and Dr Tanay Sidki Uyar, Professor, Marmara University, Turkey were elected for one year as new vice presidents of WBA. They join the team of Douglas Bradley (Canada), Andrew Lang (Australia) and Sribas Bhattacharya (India) as reelected Vice-presidents of WBA.

#### 16th June: G7 summit

The WBA board, during its meeting in Nairobi, discussed the results of the G7 summit on the future of renewable energy. The target towards a fossil free economy in this century gives an important signal to the renewable energy industry like bioenergy. Now a global road map is needed toward this target with clear milestones that correspond to the IPCC findings on climate mitigation.

## $25^{\mbox{\tiny th}}$ Jan: New factsheet: Thermochemical gasification of biomass

The World Bioenergy Association (WBA) released the factsheet 'Thermochemical Gasification of Biomass' – the eight in the series of publications. This factsheet provides a concise overview of the technology, basics of gasification, feedstock and current global use.

#### 30th June: WBA Global Bioenergy Statistics 2015

The World Bioenergy Association is pleased to launch the 2nd version of the Global Bioenergy Statistics report. A key message is that renewable energy sources are growing at a rapid pace, and so is bioenergy!

## $16^{\mbox{\tiny th}}$ November: Declaration from biofuels sector to leaders at COP21

Biofuels mitigate emissions from the transport industry and now is the time to act! The declaration was released during the Advanced Biofuels Conference in Stockholm during September 2015. WBA distributed the declaration at the COP21 climate conference in Paris.

#### 30th November: WBA call to COP21

Proven technology, economical viability and social acceptance show renewables are the future! The World Bioenergy Association (WBA) called upon the world leaders to show the political willingness to act now!!

## $2^{\text{nd}}$ December: Carbon tax - key instrument for energy transition!

Global warming is the most challenging problem facing humanity today due to the excessive use of fossil fuels. Carbon tax (carbon dioxide tax) is a simple and efficient way to reduce the use of fossil fuels, improve energy efficiency, and make renewables more competitive. WBA and Svebio jointly prepared the document

## $10^{\mbox{\tiny th}}$ December: Technology solutions are in place for 100% renewable future

International renewable energy organizations came together at COP21 in Paris to demonstrate that reliable 100% renewable energy is not only possible, but that systems already exist today with significant potential for expansion. The side event, organized by the REN Alliance demonstrated the realities of 100% renewables at all scales.

#### 12th December: The Paris Agreement is adopted

The Paris Agreement aiming to limit global warming to less than 2 degrees compared to pre industrial levels has been adopted unanimously at COP21 conference in Paris, France on 12th December 2015. The occasion was historic as all 195 countries came together to agree on limiting the use of fossil fuels and shifting to a low carbon economy.

#### 14th December: WBA signs a MoU with Sudan

WBA has signed a Memorandum of Understanding (MoU) with the Higher Council of Environment, Urban and Rural Promotion of Khartoum State. The MoU was signed at COP21 in the WBA exhibition stand. The purpose of the MoU is to support the role of Higher Council in managing wastes and residues that are presently a management and environmental problem.

#### Factsheets

WBA publishes factsheets to support companies, educate and inform policy makers and investors in a simple and concise manner. The factsheet is distributed on a global scale to more than +100 000 along with distribution at conferences worldwide and via official media partners and 3rd party news organizations globally.

In 2015, WBA published two factsheets: advanced biofuels and biomass gasification. We also drafted two more factsheets on improved cookstoves and potential of biomass as working papers. They will be published in 2016.

#### Advanced Biofuels

Biofuels are a green alternative to replacing fossil fuels in the transportation sector. Along with satisfying basic energy needs, they reduce greenhouse gas emissions, provide energy security and support regional development. Conventional biofuels (also referred to as 1st generation biofuels) are being produced globally with a current production volume of more than 100 billion litres annually. To complement the conventional biofuels, recent advances are focused on the next generation of biofuels. Advanced biofuels - generally referred to as 2nd or 3rd generation biofuels - represent an important step forward as the world advances towards a sustainable bio - economy. These fuels are produced from a broad spectrum of predominantly non-edible biomass feedstocks. These include lignocellulose based ethanol, methanol, dimethyl ether - DME, bioSNG, synthetic diesel, hydrogenated vegetable oil - HVO, algae based bio- fuels and biogas. Some of these are "drop-in" biofuels that can be applied in existing distribution infrastructure and engine platforms. By-products of advanced biofuel production include bioelectricity, bioheat, biochemicals and protein based feed.

While commercial-scale production of advanced biofuels has been limited compared to conventional biofuels, several facilities have begun operation in the past decade. Neste Oil started producing renewable diesel in Finland since 2007 while Beta Renewables plant in Italy started production of ethanol from cellulosic feedstock in October 2013 (1; 2). The production capacity of all advanced biofuels plants stood at 4.5 billion litres by end of 2012 (3). However, due to uncertainty in biofuel and fossil oil markets, and in policy domains, a number of large-scale facilities are reportedly idle at the current time.

Although these technologies are developing rapidly despite the technical challenges associated with scale up from demonstration to commercial scale, the industry also faces substantial challenges. These include regulatory hurdles, inconsistent government policies, and a playing field tilted towards the incumbent fossil fuel producers, all of which continue to present challenges to develop commercial production facilities.

#### Thermochemical gasification of biomass

Thermochemical Biomass Gasification is a high temperature process that produces a fuel gas, which after cleaning can provide a good environmental performance and high flexibility in applications. The process is used to convert biomass (solid biomass, wastes) into a a combustible gas that can be used for different purposes. Typical feedstock for gasification is cellulosic biomass such as wood chips, pellets or wood powder, or agricultural byproducts like straw or husks. The produced gas is called producer gas or synthesis gas (syngas). The gasification of the feedstock takes place at 700° – 1600°C in the presence of a gasification medium. The gasification media used are air, oxygen, steam or a mixture of these. Gasifiers are available between just a few kW and up to couple of hundred MW. Gasification of biomass offers several advantages such as:

- » The syngas can be used for heat and electricity generation including high temperature heat for cement kilns and brick and ceramic firing, for mechanical energy, as transport fuel, as raw material for chemicals and when cleaned and upgraded to near pure methane can be injected into gas grids.
- » The electrical efficiency is higher than when using technologies based on combustion.
- » The gas is well suited for cogeneration units, especially small-scale gasifiers.

Small-scale biomass gasification is found worldwide, especially in India to supply electricity in rural areas. In Europe, small-scale gasification is becoming available alongside cogeneration units. Gasifier designs, resulting in practically tar-free gas, have hit the Euro- pean and American market in recent years. A few large-scale biomass gasification plants have come online during the same period. Integrated gasification combined cycle, in which the gas is first used to run a gas turbine and the exhaust from the gas turbine is used for steam generation for running a steam turbine system has also been demonstrated.

#### **Global Bioenergy Statistics**

WBA released the Global Bioenergy Statistics 2015 report. This is the 2nd version of the key publication that aims to improve the current data on bioenergy.

Renewable energy sources are growing and so is bioenergy! The biomass supply globally was 56.2 EJ. During 2010 – 2012, the biomass supply increased by 2.3 EJ – highest among all renewables (solar – 0.23EJ, wind – 0.65EJ). Leading countries in renewables like Brazil, India, Sweden and China have high biomass share.

In agriculture sector, the high potential of residues is estimated at 123 EJ. Also, increasing productivity in cultivating maize, rice and wheat reduced land use by 120 million ha in 12 years.

In 2012, the electricity production from biomass was 439 TWh; heat from biomass was 44.7 EJ while biofuel production reached 105 billion litres. Protein production is crucial and 45% of land used for biofuels went for producing protein.

Pellets sector is growing rapidly with production increasing to 27 million tonnes. Biogas production reached 56-million m3 and charcoal production increased to 52 million tonnes.

More efforts are needed to improve the statistics, as there is still a serious lack of accurate data.

The report is available here: www.worldbioenergy.org/ content/wba-gbs

#### **Bioenergy Equipment Directory**

World Bioenergy Association (WBA) recently started a new initiative – Bioenergy Equipment Directory.

The objective is to facilitate technology transfer between companies manufacturing biomass equipment to clients looking for technology for their energy needs. WBA gets requests for technology from clients all over the world and to solve this need, we created a structured database. This will assist companies to gain access to a global market, facilitated by WBA.

The directory is a database of companies manufacturing equipment for converting biomass to bioenergy. Since the launch of the initiative in October 2015, 19 companies have joined the database and many more have shown interest. The participation is free of cost during the trial period till March 31st 2016. After the trial period, the companies are offered the opportunity to either stay in the directory for a fee or leave at no additional cost.

The directory is hosted on the WBA website (http://bit. ly/1MUSQCY) for free. The companies are classified according to the sector, geography and the size of the equipment. Sectors include: Supply chain (forestry, agriculture, waste), biomass combustion (cookstoves, pellet stoves, boilers), biomass gasifiers, biomass to pellets, biomass to liquid biofuels (ethanol, biodiesel, advanced biofuels), biomass to biogas, biomass to other solid biofuels, gas cleaning, IT, safety and monitoring, consultancy and others. The classification in geography is based on continents: Africa, North America, Central and South America, Asia, Europe, Oceania. The equipment size varies from less than 100 kW to more than 10 MW.

#### 3.3 Reports, workshops and initiatives

#### Vojvodina project

During the years 2014 and 2015 WBA worked on the project "Biomass Action Plan for Vojvodina". In 2015, as part of the project WBA organized a workshop and study tour for experts from Vojvodina to demonstrate the development of bioenergy in Styria, a province in the South East of Austria. During this two days the visitors could see how a cooperation of government programs, private initiatives and forest owners lead to the construction of many district heating plants in rural areas, thus creating new job and replacing fossil fuels by domestic bioenergy.

#### COP21

About 40 000 people met at COP 21 in Paris including delegations of 193 governments, some of them with 30 and more experts in the delegation, many NGOs, business leaders, scientists, representatives of global institutions the International Monetary Fund, the World Bank, different UN organizations like UNEP, IRENA etc. In several side eventsm leading experts gave lectures on different issues such as climate change, economic questions, ethical challenges. WBA represented the bioenergy industry by a couple of activities:

- » WBA gave a press conference with Heinz Kopetz, Karin Haara, Gustav Melin and as moderator Jean Marc Jossart. Main message: the leading role of bioenergy in the transition of the energy system and the need for a carbon tax. Link here
- » WBA exhibition stand: WBA had a stand in combination with wind and geothermal. Here, we presented folders about the role of bioenergy in the global system and several flyers about potential, bioenergy for cities, the Bioenergy Equipment Directory, a carbon tax to mention a few. At the booth, we had contacts to representatives of many governments and could inform them about bioenergy and especially about biogas
- » Side event renewable working together: Within REN Alliance, WBA participated at a side event; Heinz Kopetz spoke about the leading role of bioenergy in countries with a high share of renewables like Brazil, Sweden or Kenya as examples.

» In addition, WBA participated at a meeting of REN Alliance and signed Memorandum of Cooperation with representatives of the government of Sudan.

10 representatives of WBA were present during two weeks at COP 21. A more detailed analysis of the outcome will follow in the next newsletter. WBA was over two weeks with 5 persons present many side events, we will report on this in the coming weeks

COP 21 was a very important meeting place to raise awareness about biomass. This is necessary because many speakers talking about renewables only mention wind and solar although biomass is the biggest renewable energy source.

## WBA Summary report on the oil price questionnaire

The global oil prices have dropped by 60% since summer of 2014. This current oil price drop can have major impacts on the bioenergy industry. To assist policy makers in taking appropriate action to protect the interests of the bioenergy sector, WBA prepared a questionnaire to know the effect of the current situation on the bioenergy industry.

WBA received answers from 25 countries (see map below) during January 2015. Based on the responses received, the majority of the bioenergy producers are struggling with lower investments, lower profit margins and less financial resources available for bioenergy development. To access the complete summary, click here.

#### WBA heat position paper

The heat sector is often overlooked in the policies for renewables. WBA wrote a position paper on the potential biomass offers to replace fossil fuels by renewable energy in the heating sector.

#### The role of Bioenergy in European cities

Cities play a decisive role in the penetration of renewables and in CO<sub>2</sub> mitigation. Bioenergy offers important possibilities especially in the transport and heat sector of cities to replace fossil fuels by renewables. In a position paper WBA explained the role of bioenergy in cities describing different examples. The paper highlights how cities can integrate bioenergy in the energy matrix.

#### Collaborations

Our list of collaborations increases every year. WBA is partnering with multiple organizations in promoting the role of renewables in the future energy society. Our collaborators network includes IRENA, REN Alliance, REN21, ISO, and G0100% renewables, FutureIsClean campaign and in media, we collaborate with Bioenergy Insight, Bioenergy international and recently with Energy Business Review. Following are some of the important activities we performed with our network:

#### **REN** Alliance

WBA participated in the REN Alliance webinar on 'Renewables working together: Strengths and Synergies' with President Dr. Heinz Kopetz as a speaker for the biomass section. Joanna Costello (Communication and Outreach Officer, ISES) started the webinar. Other speakers included Dave Renne (Solar), Stefan Gsanger (Wind), Marietta Sander (Geothermal), and Tracy Lane (Hydro).

#### Energy Business Review

WBA started a partnership with Energy Business Review (EBR). The EBR portal has over 80.000 visitors a month, close to one million in a year. They cover the entire Energy Sector from Oil & Gas, Power, Mining and a separate Clean-Tech portal, too. They have seen a massive increase in searches and requests for information on all sorts of Bioenergy, and thus wanted to link up with a reputable organization where visitors can get any more detailed information such as WBA.

#### Green Climate Fund

WBA is pleased to report that the Green Climate Fund's Board has approved our accreditation. As an accredited observer organization to the Green Climate Fund, WBA is eligible to register participants to attend as observers at upcoming meetings of the Board. The list of accredited observer organizations on the Fund's website will be updated shortly. Green Climate Fund is a fund within the framework of UNFCC founded as a mechanism to assist developing countries in adaptation and mitigation practices to counter climate change.

#### World Energy Council

WBA is pleased to be the lead author for the World Energy Resources publication – a report published every three years by the World Energy Council. The 2016 report will be published at the World Energy Congress in Istanbul, Turkey during October 2016. WBA is in charge of drafting the bioenergy chapter of the report.

#### Global 100%RE

WBA is co fonder of the global initiative Global 100%RE. After COP 21 in Paris this initiative has a specific importance; it makes clear where the energy system should be heading for. Awareness building is the first step to reach this target. The campaign "Global 100%RE" supports the global awareness for 100% renewable worldwide.

#### 3.4 Organization

#### WBA meetings

In 2015, WBA held 4 board meetings – three via telephone and one in Kenya in June. WBA and its members also attended numerous conferences, workshops, seminars etc. to promote the role of bioenergy globally.

#### Board meetings

- » 11.02: Board meeting over telephone
- » 09.06: General Assembly, Steering Committee, and Board meeting in Nairobi, Kenya
- » 18.09: Board meeting over telephone
- » 17.12: Board meeting over telephone

#### Conference attendance

#### January

- » 19.01 20.01: Fuels of the Future. 13th Conference on Biofuels, Berlin, Germany
- » 28.01: Agriculture conference, Vienna, Austria
- » 29.01 30.01: Short rotation forests conference, Wieselburg, Austria

#### February

» 25.02: European Pellet Conference, Wels, Austria

#### March

» 19.03 – 20.03: Conference on European Energy Union without nuclear, Vienna, Austria

#### April

- » 15.04- 18.04: Intensive Biogas Course SNV/Oldenburg University
- » 22.04- 23.04: International Geothermal Congress, Melbourne Australia
- » 29.04- 30.04: Forest and Timber Conference Melbourne Australia
- » 27.04 30.04: IRENA Bioenergy statistics workshop, Abu Dhabi, UAE

#### May

- » 04.05 05.05: AEBIOM European Bioenergy Conference, Brussels, Belgium
- » 12.05: LIGNA conference, Hannover, Germany
- » 19.05 21.05: Leadership Forum Bioenergy, Seville, Spain
- » 27.05 29.05: IRENEC, Istanbul, Turkey

#### June

- » 03.06 04.06: Biotrade conference, Vienna, Austria
- » 10.06 12.06: Low Carbon Development in Africa workshop, Nairobi, Kenya
- » 18.06-19.06: Gippsland Bioenergy Seminar, Victoria Australia

#### July

» 06.07: Biotrade conference, Liezen, Austria

#### August

» 18.08 – 20.08: 4th China International Biomass Energy Exhibition 2015, Guangzhou, China

#### September

- » 02.09 03.09: Bioenergy 2015, Jyväskylä, Finland
- » 16.09 17.09: European Biomass to Power 2015, Berlin, Germany
- » 16.09 17.09: Advanced Biofuels Conference, Stockholm, Sweden
- » 24.09 26.09: World Conference of Bioenergy, Xi'an, China

#### October

- » 01.10- 03.10: Smart Future Cities conference, Newcastle, Australia
- » 03.10 09.10: SAIREC, Cape Town, South Africa
- » 07.10 08.10: All-Energy Conference, Melbourne Australia
- » 25.10 27.10: Global Wind Energy Conference, Jerusalem, Israel
- » 28.10: Austrian Biomass Conference, Styria, Austria

#### November

- » 03.11: COP21 seminar, Vienna, Austria
- » 09.11: IVA conference on biomass potentials, Stockholm, Sweden
- » 11.11: World Energy Council report on roadmap to COP21, Stockholm, Sweden
- » 17.11: BioDriv conference, Stockholm, Sweden
- » 23.11: IEA World Energy Outlook release, Stockholm, Sweden
- » 29.11 12.12: COP21, Paris, France
- »

#### December

- » 10.12: Conference on biodiesel certification, Brussels, Belgium
- » 29.11 12.12: COP21, Paris, France

#### Board members

**1. Sribas C. Bhattacharya,** International Energy Initiative, IEI, India \*

2. Douglas Bradley, Climate Change Solutions, Canada
3. Laercio Couto, Brazilian Network of Biomass for Energy, RENABIO, Brazil

**4. Heinz Kopetz,** World Bioenergy Association, WBA, Austria

5. Andrew Lang, SMARTimbers, Australia

6. Michael J McAdams, Advanced Biofuels Association, USA

7. Tanay Sidki Uyar, Eurosolar, Turkey

8. Wan Asma Ibrahim, Forest Research Inst. FRIM, Malaysia

**9. Benard Muok,** African Centre for Technology Studies ACTS, Kenya

10. Hisashi Kajiyama, Bioenergy Research and Investment Inc., Japan

11. Hong Hao, Great Resources Co. Ltd., China

**12. Albert Binger,** Caribbean Community Climate Change Centre, Jamaica

**13. Hazir Farouk,** Sudan University of Science and Technology, Sudan

14. Jörgen Sandström, Addax Bioenergy, Switzerland

15. William Strauss, FutureMetrics, USA

16. Kes McCormick, Lund University, Sweden

**17. Jean-Marc Jossart,** European Biomass Association, Belgium

**18. Philip Peck,** Lund University, Sweden

**19. Kai Johan Jiang,** National Modern Energy Holdings Ltd., China

\* In Memory of Professor Sribas C. Bhattacharya WBA has planted trees in an agroforestry project in Africa. He will be forever remembered as a true professional, an exceptional colleague and a friend.

#### Nominating Committee

- » Gustav Melin, Svebio, Sweden (Convenor)
- » Jessie C. Elauria, University of Philippines Los Baños, Philippines
- » Ralph Sims, Massey University, New Zealand
- » Kent Nyström, Former President of WBA, Sweden

#### Secretariat

- » Heinz Kopetz, President, Austria
- » Karin Haara, Executive Director, Sweden
- » Bharadwaj Kummamuru, Project Officer, Sweden/ India
- » Remigijus Lapinskas, Project Advisor, Lithuania
- » Viktorija Kazlauskaite, Project Assistant, Lithuania
- » Erika Johnels, Project Intern, Sweden

#### Members of Honour

» Kent Nyström, Sweden

#### Full members

Spanish Bioenergy Association, Swedish Bioenergy Association, European Biomass Association, Canadian Bioenergy Association, proPellets, Zambian Bioenergy Association, Energigården - Senter för Bioenergi, CZ Biom - Czech Bioenergy Association, Climate Change Network Nigeria, Eurosolar Turkey, German BioEnergy Association, SSS-National Institute of Renewable Energy, African Bioenergy Association, Austrian Biomass Association, Norsk Bioenergiföreningen, Fachverband Biogas e.V, Bioenergy Association of New Zealand, New World Hope, Advanced Biofuels Association, Bioenergy Association of Turkey, Lithuanian biomass energy association, Swedish Peat Producers Association

#### Associated members

First Bioenergy, Elmia AB, EFO AB, Silvex Energy AB, Bandit Industries, INC, United Loggers Ltd, AKATA Commodity Trading ApS, MHG Systems Oy Ltd, Scandinavvian Forestry & Engineering, COVAERSA s.a.u. (Briec), SIB-CONGO, Firefly AB, CPM Europe BV, Groupe Anderson Inc./Anderson Group co., C.F. Nielsen A/S, W.Kunz Dry Tec AG (Swiss Combi), Viking Heat Engines AS, FM BioEnergy, Jeffrey Rader Corporation, SAMSON /B&W Mechanical Handling Ltd, Energy commission of Nigeria, Andritz Group AG, Chemec Oy, Vermeer Corporation, KWB, Ekman & Co AB, Bronswerk Heat Transfer BV, National Center for Biotechnology, Valliluoto Group, Herz Energietechnik GmbH, Energie Steiermark AG, Agrana, EUROTEC WTT s.r.l, Promill Stolz SAS, Pilum AB, Ingenieurbüro Riebenbauer, Forstbetrieb Regnier-Helenkow, Addax Bioenergy Management S.A, BDI - BioEnergy International AG, Konrad Forsttechnik GmbH, Scheuch GmbH, Sveaskog Förvaltnings AB, ÖkoFEN Forschungs- und EntwicklungsgesmbH, Lund University Biofuels, Westtech Maschinenbau GmbH, Bioenergie Wärmeservice GmbH, Södra Skogsägarna ek. för., Probstdorfer Saatzucht GmbH & Co Kg, nahwaerme. at Energiecontracting GmbH, nahwaerme.at Energiecontracting GmbH, nahwaerme.at Energiecontracting GmbH, HSH Nahwärme & Photovoltaik GmbH, Bioenergie Tirol Nahwärme GmbH, TB Harald Kaufmann GmbH, Anaerobe Systems, Meva Energy, MAB Powertec Oy, Bioenergy Recycling Sweden AB

#### Individual members

Ohene Kwadwo Akoto, Dirk Volkmann, Anders Rydåker, Laercio Couto, Bruce A. Brewer, Manny Deol, Franco Gotana, Rajesh Chintala, Kes McCormick, Farhad Mirzaei, Jean-Marc Jossart, Krister Rosenqvist-Packalén, Dan Asplund, Padmavati Manchikanti, Ales Bulc, Praveen Pyata, Hermann Schaller, Kulluru Krishan, Abolarin Kehinde Adeniran, Martina Sumenjak Sabol, H.E. Martina Martinez, Evandro Carrera, Lucy Kabura Wangai, Niklas Berge, Niels Madsen, Heinz Kopetz, Benard Muok, Judi W. Wakhungu, Karin Haara, Nicolas Gatenby, Koike Koichiro, Ernst Scheiber, Kaisu Annala, Ikeme Chinwe Hope, Abdulazeez Olarewaju Tajudeen, Douglas Bradley, Hubert Grienenberger, Natarajan, Ohno Kosuke, Noel Carrillo Avila, Klemens Unger, Nateq Be-Nazir Ibn Minar, Hans Biffl, Dr Babu Guttappa Sajjan, Pär Oscarsson, Josef Riegler, Arthur Riedacker, Rudolf Strasser, Edwin Ploder, Harry Stokes, Matthias Grill, Lennart Ljungblom, Eddie Johansson, Hermann Wieser, Manoj Jain, Jawed Ahmed Mangi, Tico Cohen, Muhammed Anees, Ali Moharrek, Faiz Ahmed, Hannes Robier, Vijya Kumar Garlapati, Dominik Wiedner, Linus Mofor, Omer Adam Bakheit, Harrison Onome Tighiri, Abdorachid omar elmi, Kendal Bradburn, Elisabeth Smith, Joseph Ambakederimo, Francisco Javier Lozano Chimeno, Adolf Robert Kaswende, Bharadwaj Kummamuru Venkata, Hubert Hausenauer, Björn Vikinge, Nasr Eldin Mohammed Elhussein, Christiane Loidl, Abdelaziz Emad Atabani, P. Abdul Salam, Dr Parag Dhakate, Ntawukuriryayo, Abiodun Agoro, Autilig Cheong, Mwape Chikonkolo Mwewa, Saku Rantanen, Wang Hui, Radhika Singh, Andrew Lang, Elyas Medeiros, Karthik Rajendran, Hironao Matsubara, Elton Fábio Busarello, Hazir Farouk, Christian Eduardo Hernandez Mendoza, Rainer Janssen, Remigijus Lapinskas, Lonard Scofield dos Santos, Mauro Prestipino, Hanisom Abdullah, Dilip Khatiwada, Parlindungan Purba, Teshale Woldeamanuel Habebo

#### Official supporter

» ANDRITZ Group AG

Silver supporter

» AGRANA

### 4. FUNDING

WBA would like to acknowledge the continued support of financing from the Austrian Government and from following supporters:

- » ANDRITZ AG; Graz
- » AGRANA AG, Wien
- » Landesregierung Steiermark, Graz
- » Landwirtschaftskammer Oberösterreich, Linz
- » Landwirtschaftskammer Niederösterreich, St. Pölten
- » Landwirtschaftskammer Tirol, Innsbruck
- » Landwirtschaftskammer Kärnten, Klagenfurt
- » Landeskammer für Land- und Forstwirtschaft Steiermark, Graz
- » Landwirtschaftskammer Österreich, Wien
- » Österreichische Hagelversicherung AG. Wien
- » Chorherrnstift Vorau

It is a continued challenge to build a world organization, especially in the financing. With sustained support from current supporters and the possibilities of new funding partners would enable WBA to be in a stronger position in 2016.

The financial report with figures is available upon request. Kindly send an email to info@worldbioenergy.org with the *Subject: Request for WBA annual report 2015 – Authorized Version* 

#### Stockholm 2016-02-16

Board members below have signed the Annual Report for 2015:

Heinz Kopetz, President	
Albert Binger	Douglas R. Bradley
Laercio Couto	Kai Johan Jiang
Benard Muok	Andrew Lang
Michael J Mc Adams	Tanay Sidki Uyar
Jean Marc Jossart	Philip Peck
Wan Asma Ibrahim	Hisashi Kajiyama
Hazir Farouk	Jörgen Sandström
William Strauss	Kelvin Hong
Kes McCormick	

My audit report has been submitted and signed 2016 - 03 - 10



# World Bioenergy Association - the **GLOBAL VOICE OF BIOENERGY**

Mission: To promote the use of sustainable Bioenergy globally & support the business environment for bioenergy.

#### Together with our members

- We work for an increased use of biomass in the global energy system in the markets for heat, electricity and biofuels
- We follow the principles of sustainable, efficient and economic biomass development
- We influence and inform the public opinion in favor of sustainable biomass solutions worldwide and in individual countries
- We promote bioenergy as an important player in the global climate mitigation policy
- We cooperate with global institutions such as UNEP, UNFCCC, IPCC, IEA, IEA Bioenergy, IRENA, REN Alliance, FAO, REN 21 etc. towards the target of 100% Renewable

#### How we work?

- Office in Stockholm, Sweden
- Our board: 19 members from 5 continents (Africa 2, America 5, Asia 6, Oceania 2, Europe 4)
- Our members: companies, associations, individuals from all over the world
- Main areas: Biomass potential, sustainability of biomass, pellets, small scale heat with biomass, combined heat and power, conventional & advanced biofuels, biogas, carbon neutrality of biomass, bioenergy statistics, bio mass trade, bioenergy policy, traditional biomass
- Main activities: fact sheets, statistics, position papers, policy reports, workshops, press-releases, networking, presentations in conferences & exhibitions

#### What kind of membership is possible?

• Full members

Bioenergy associations on regional, national or international level, (fee between 300 and 5 000 Euro annually, depending on situation and size)

Associated members

Companies, energy agencies, research institutes, consultants working in the field of bioenergy (fee between 300 and 5 000 Euro annually, depending on situation and size)

Individual members

Individuals, interested in the global development of bioenergy as sustainable and renewable energy source (fee 50 Euro annually)

#### Benefits of WBA membership?

- Strengthen of the lobbying in favor of biomass on a global scale
- Exchange of information and experience between the bioenergy sector worldwide
- Possible cooperation in working groups and projects
- Access to new global studies and information about bioenergy

#### We invite you to join WBA on www.worldbioenergy.org!



SILVER SUPPORTER OF WBA:



## **OFFICIAL SUPPORTER OF WBA 2015:**

worldbioenergy.org >>

3. Spread knowledge and technology

conditions and different socio economic conditions, etc.

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

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

2. Develop sustainability criteria that guarantee that bioenergy could be supplied without threatening food and feed supply, water supply, rainforest and

To learn more and apply for membership, please visit:

## WBA'S MAIN PURPOSES:

biodiversity and economic growth.