WORLD BIOENERGY ASSOCIATION

THE INTERNATIONAL VOICE OF BIOENERGY

About Us

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.

Mission: To promote the sustainable development of bioenergy globally and to support the business environment for bioenergy

Activities

Publications

- Global Bioenergy Statistics
- Factsheets
- Mission Reports
- Policy papers

Events

- Study Trips
- General Assembly
- Webinars

Partnerships

- Observer - IRENA, UNFCCC
- Liason - ISO Standards
- Member - Go 100% RE, REN Alliance

Organization

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WBA GLOBAL
BIOENERGY STATISTICS

The Global Bioenergy Statistics (GBS) report is the main annual publication of WBA.

The report focusses on the **global development of biomass to energy** – supply, production and consumption.

The data is presented on different geographical levels – global, continental and regional levels. These reports are published since 2014 and have been downloaded by governments, financial institutions, universities and companies.

WBA FACTSHEETS

WBA factsheets present an **unbiased** overview of bioenergy technologies and are a **guiding tool** for policy makers, researchers and companies.

The objective of drafting and publishing factsheets is to bring **rational arguments in the public discussion** and to **support the development of bioenergy**.

All factsheets are drafted along the same outline: summary, introduction, definitions, basic figures explaining technology, policy and economics, global statistics and a brief opinion of WBA on that subject.

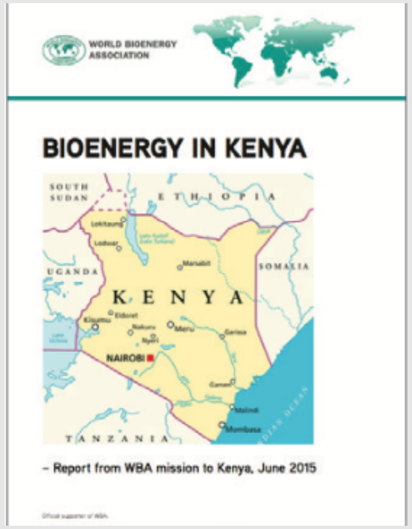
WBA has already published 14 factsheets.

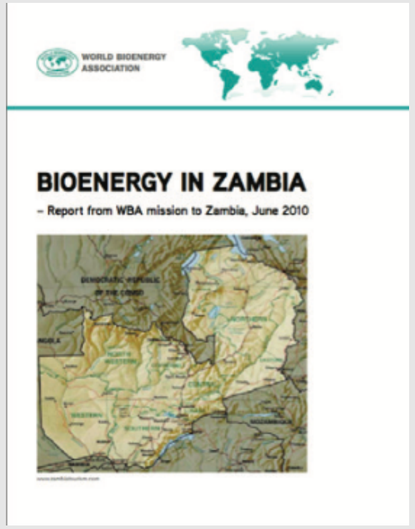
WBA COUNTRY MISSIONS

WBA has been conducting successful country missions to **share knowledge and experience** on bioenergy.

We have had missions to Zambia, Brazil and Kenya, for example, in the past few years. During the trips, WBA contributed with **expertise** by attending conferences, conducting **field trips** and **giving presentations** on the role of biomass in climate change.

These trips have been on the invitation of local country representatives.



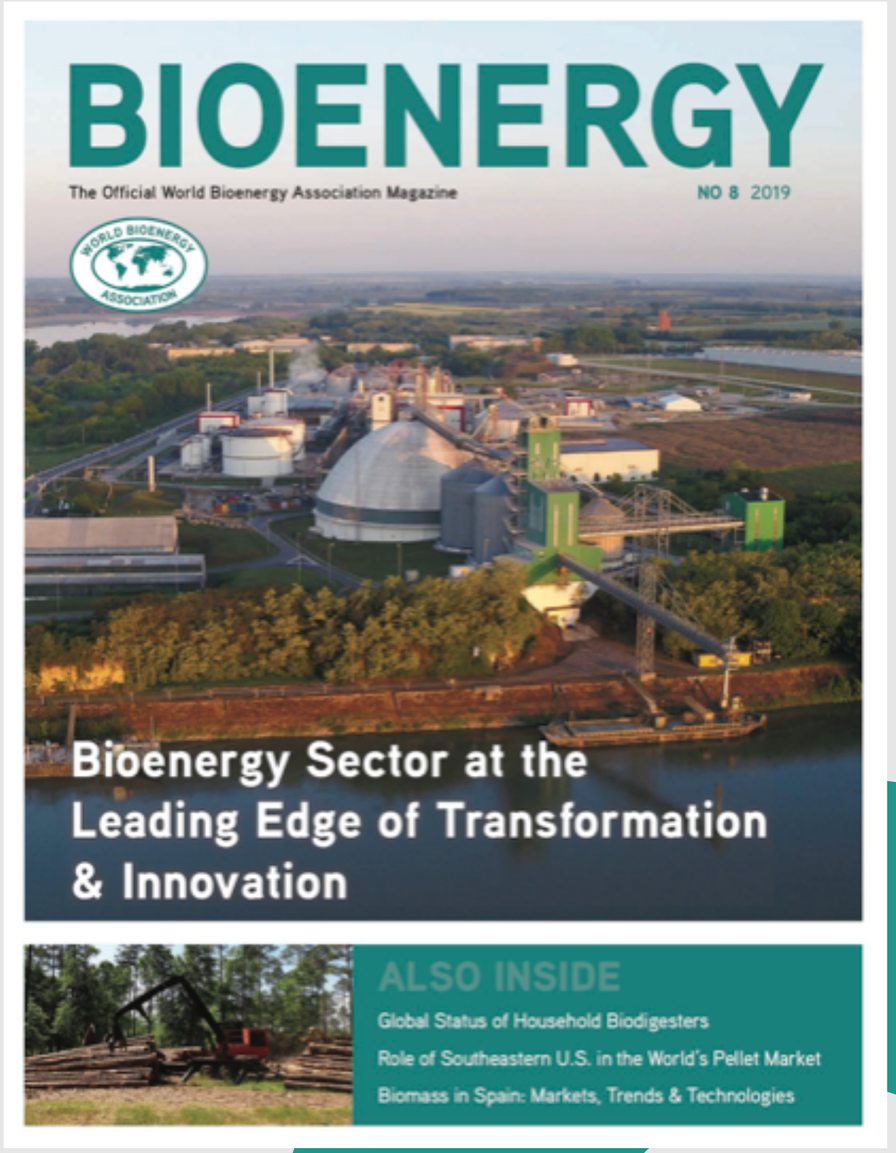


BIOENERGY MAGAZINE

The bioenergy business needs a voice on the international arena. During the launch of the World Bioenergy Association in Jönköping, Sweden at the World Bioenergy Conference, a magazine was released with the objective of **spreading the message on the need for a global association of bioenergy**.

Eight magazines have been released since 2008 **keeping track on the development of WBA** as an organisation along with **developments in the bioenergy field**.

Recently, WBA was pleased to announce a new partnership with Bioenergy International, who became the **official magazine of World Bioenergy Association**.



POSITION PAPERS

WBA frequently issues position papers to **inform the bioenergy and wider energy community** about the opinion of WBA on various technologies, policies and debates surrounding bioenergy.

These are issued either by WBA or jointly with other leading organizations.


RENALLIANCE
renewables working together

Joint statement on Renewables working together
Building Back Better through a Green Recovery

The renewable industries will work together to deliver 100% renewable energy. This can only be achieved through renewable energy integration. Together, the renewable energy technologies are greater than the sum of their parts. A significant increase of investment in renewables will fuel economic growth, create employment and contribute to a climate-safe future. To ensure this, we call for the following:

- **Accelerated deployment across all sectors, especially in heating, cooling and transport sectors, also by connecting the sectors.**
  The uptake of renewables in heating, cooling and transport remains slow, even though these sectors account for over three fourths of total final energy demand. Policy attention in this area is still lacking.
- **Substantial financial incentives for renewables to create competitive advantage for end-users and encourage self-supply.**
  The deployment of renewables in the energy sector still faces multiple barriers. Further policy support is needed to advance the achievement of a 100% renewable energy future. Policies ranging from pricing instruments to financial and fiscal incentives, quotas, and obligations, are needed to support clean, efficient and renewable energy projects.
- **Consider additional benefits and services of renewables when designing market mechanisms, not just lowest price.**
  The socio-economic benefits of the transition to a 100% renewable energy future is of vital importance. Mitigating climate change through the deployment of price competitive renewable energy need to be considered to future-proof our economy and society.
- **Broader policy frameworks devoted to a just and inclusive energy transition.**
  Renewable energy technologies lie at the heart of the energy transformation. This transition should focus on deployment, enabling and integrating policies that attract the full variety of investors, from individuals, communities, SMEs up to larger companies to participate and invest.
- **Development of green skills and renewable jobs offered to communities.**
  Incentives for education and training are needed to match the future skills demand for the energy transition. These incentives should address social and gender equity.
- **Mapping and promotion of health benefits of a green energy-based economy.**
  Replacing fossil fuels with renewable energy technologies is a positive force for climate, health and society.

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WBA POSITION ON COVID19:
IMPACTS AND OUTLOOK FOR BIOENERGY

BIOENERGY AS ESSENTIAL SERVICE. Bioenergy (including solid biomass, liquid biofuels and biogas) has provided clean, on demand energy and its role in meeting end use of electricity, heating and transport fuels should be recognized as essential product and service in times of crisis.

A BIOENERGY FUTURE. Policy makers should assure investors and the wider bioenergy community of their support to bioenergy and its crucial role in reducing fossil fuel use, generating jobs, local economic development and combating climate change.

DIS-INCENTIVIZE FOSSIL FUELS. Low oil prices, low cost of renewable energy sources and the momentum towards a clean energy future provide the opportunity for policy makers to dis-incentivize fossil fuels development by eliminating subsidies, implementing carbon pricing policies and developing fossil fuel exit strategies.

BUILD BACK BETTER WITH BIOENERGY. Recognizing the crucial role of bioenergy in the global energy mix, governments should include support to sustainable bioenergy technologies and pathways as key themes at the centre of economic recovery packages. No more fossil fuel support.

TIME FOR AMBITION AND ACTION. Recognizing that we face a climate urgency, national governments must increase their climate ambition by setting long term, ambitious and stable targets for bioenergy and renewable energy.

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June 2020


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. It can be tax neutral, as reducing other taxes will complement carbon tax implementation. It is a smart move to a more sustainable lifestyle and investment for the future. Therefore, the carbon taxes are an indispensable tool for rapid transition to a climate compatible energy system using less fossil fuel and more renewables.

- **Easy to apply**
  All countries already have some kind of energy taxation and it is administratively easy to introduce the carbon tax in all countries at a low level.
- **Easy to calculate**
  The tax is easy to calculate based on the carbon content of the fuel and the importers or big energy producers can easily estimate and pay the tax.
- **Tax neutral**
  Carbon tax must not lead to higher taxation in general. The Carbon tax can be raised at the same time as other tax is reduced.
- **Economic**
  The Carbon tax will make it more profitable to use fossil fuels efficiently, switch to renewable energy sources or to abstain from using fossil energy altogether. For countries with large fossil fuel imports, the carbon tax can stimulate the internal economy and improve terms of trade.
- **Efficient**
  The purpose of carbon taxation is not to punish people for their life style or technical equipment today, but to help them make the right choices and investments for the future.

Background and theory

Polluter Pays Principle and Carbon Dioxide Tax

Internalising environmental costs: According to Polluter Pays Principle (PPP), emitters of CO_2 should pay a Carbon tax for their emissions and in this way pay for current and future costs caused by the emission. Hence, the environmental costs (external costs) are internalised and made a part of the total cost of the polluting activity.

Carbon content of the fuel as basis: The Carbon tax should be in relation to the emission of CO_2 by the different fossil fuels. This is well known, and in direct relation to the carbon content of each fuel.

Applied to all sectors: The Carbon tax should be introduced in all sectors of society. If cap and trade is used for certain sectors, Carbon taxes should be adopted for other sectors and in the long run, it should replace cap and trade system.

General acceptance needed: Initially, the level of the Carbon tax is not the main issue. More important is to get a general acceptance. Once the tax is introduced, it can be raised gradually to make it possible for companies and individuals to take action to reduce their use of fossil fuels.

A green tax shift: The purpose of the tax is not to increase taxation, but to steer the economy in a sustainable direction. Other taxes can be lowered to compensate for the raised Carbon tax, in a "green tax shift". If the tax shift is not applied, incomes from the Carbon tax can be used for research and development of renewable energy technologies or for adaptation and compensation for people affected by the emissions. »

The Swedish example: Sweden introduced carbon tax in 1991. Since then Sweden has experienced rapid economical growth and decreased carbon emissions. GDP increased by 63 percent in real terms. Greenhouse gas emissions decreased by 25 percent 1990–2014, and the use of bioenergy doubled. The diagram shows changes from 1990 (1990 = 100 percent).

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January 2015

AEBIOM

We call upon governments to take the low price of oil as a window of opportunity to act against fossil carbon 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, in January of 2015. The North Sea Brent oil price has plummeted from 110 USD per barrel last summer to around 50 USD now, a fall of more than half, which will dramatically affect energy markets. All users of oil products at market prices around the world will now perceive their diesel, petrol and fuel oil as cheap.

This gives us a unique opportunity to introduce and raise fees and taxes on carbon dioxide emissions in all countries, keeping it painless for citizens. It represents also a chance to abolish subsidies for fossil fuels in countries with governmentally guaranteed fuel prices. The best strategy would of course be to agree a minimum carbon emission fee in the UN, but it is difficult to reach consensus by negotiation between so many countries. **Therefore every government should consider urgently acting on its own, not waiting for global agreement. There are three types of country that should take action as soon as possible:**

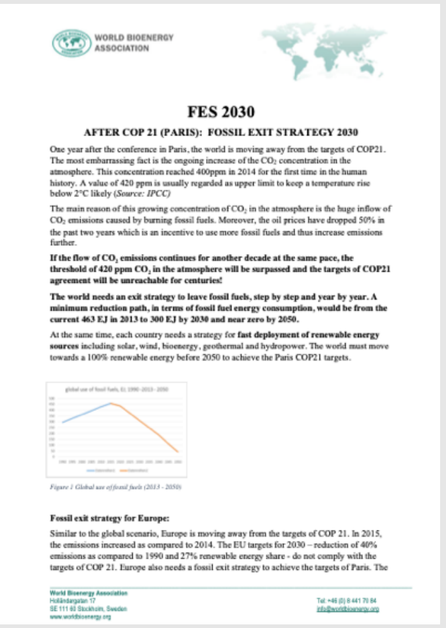
1. Countries that already have carbon fees or taxes should take the opportunity to raise these. As an example, in Sweden, petrol and diesel prices have decreased by over 2 SEK per litre (20 euro cents) and there is a clear opportunity to raise fuel duty by up to half that amount, without much consumer reaction. The situation is similar in all European countries, many urgently need to strengthen their state budgets by increasing revenues. Higher carbon fees, duties or a tax is one way to do it.

2. Countries with no fees or taxes on carbon emissions should introduce such measures now, both on fossil transport fuels and on fossil fuels for heating. They can introduce such taxes at a lower level, but with the current drastic fall in oil prices, even relatively high carbon dioxide fees may be accepted by consumers. The important thing is to act now, before oil prices climb again.

3. Finally, countries with fixed and state-guaranteed prices on fuels, many of which are oil-producing nations, should take away the guarantee. Guaranteed prices vary between country, but total subsidies are very high at the global level. When world market prices for oil were climbing some years ago this resulted in budget problems for many countries. One example is Nigeria, where President Goodluck Jonathan tried to abolish the country's fixed fuel prices, resulting in protests and rioting. Now, these countries have a chance to abolish such policies and even introduce a low carbon fee. When oil prices start to climb again, it will mainly be attributed to market prices.

There is convincing research showing that carbon emission fees are the most efficient general method to combat climate change. The main reasons why carbon fees are so efficient are:

- Carbon dioxide fees raise the price of fossil emissions and thereby penalise fossil fuels for their negative effects on the climate. Consequently carbon dioxide fees also favour renewables and energy efficiency.
- Carbon dioxide fees are fair and logical because they are proportional to the actual emissions. Increased costs on emissions thus help individuals and enterprises to make better decisions for our common future. They can calculate new profitable investments or change behaviour to improve their economy, e.g. buy a more efficient car, insulate the house, take the bike instead of the car, or use public transport. Businesses can develop new products that can be competitive on a market where more efficient products are in demand, etc.


WORLD BIOENERGY ASSOCIATION

FES 2030

AFTER COP 21 (PARIS): FOSSIL EXIT STRATEGY 2030

One year after the conference in Paris, the world is moving away from the targets of COP21. The most embarrassing fact is the ongoing increase of the CO_2 concentration in the atmosphere. This concentration reached 400ppm in 2014 for the first time in the human history. A value of 420 ppm is usually regarded as upper limit to keep a temperature rise below 2°C likely (*Source: IPCC*)

The main reason of this growing concentration of CO_2 in the atmosphere is the huge inflow of CO_2 emissions caused by burning fossil fuels. Moreover, the oil prices have dropped 50% in the past two years which is an incentive to use more fossil fuels and thus increase emissions further.

If the flow of CO_2 emissions continues for another decade at the same pace, the threshold of 420 ppm CO_2 in the atmosphere will be surpassed and the targets of COP21 agreement will be unreachable for centuries!

The world needs an exit strategy to leave fossil fuels, step by step and year by year. A minimum reduction path, in terms of fossil fuel energy consumption, would be from the current 463 EJ in 2013 to 300 EJ by 2030 and near zero by 2050.

At the same time, each country needs a strategy for **fast deployment of renewable energy sources** including solar, wind, bioenergy, geothermal and hydropower. The world must move towards a 100% renewable energy before 2050 to achieve the Paris COP21 targets.

Figure 1 Global use of fossil fuels (2013 - 2050)

Fossil exit strategy for Europe:

Similar to the global scenario, Europe is moving away from the targets of COP 21. In 2015, the emissions increased as compared to 2014. The EU targets for 2030 – reduction of 40% emissions as compared to 1990 and 27% renewable energy share - do not comply with the targets of COP 21. Europe also needs a fossil exit strategy to achieve the targets of Paris. The

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PELLETS.AFRICA

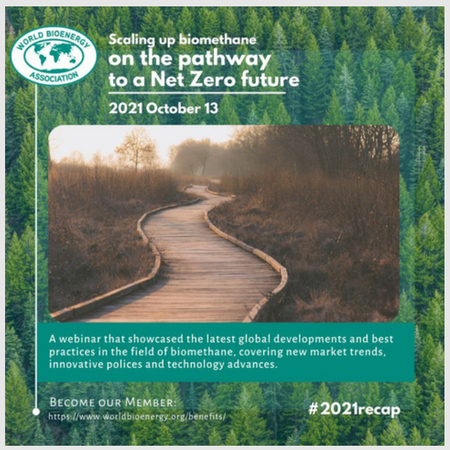
We believe Africa is going to be the next very large market for pellet production and use and we can see rapidly growing numbers of inquiries and projects emerging.

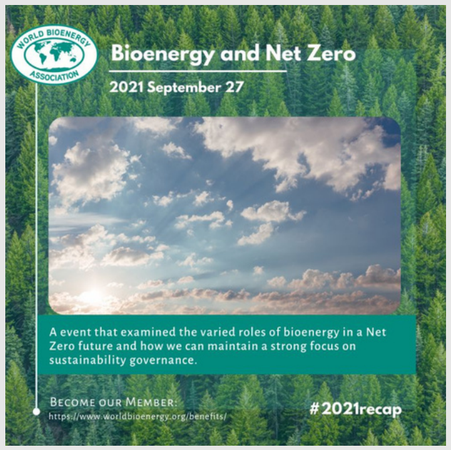
Because of the enormous potential and the relevance of pellet cooking for sustainable development and climate protection the World Bioenergy Association has set up the **website www.pellets.africa** to **support African developers of pellet plants**. This website includes a section that **lists all relevant suppliers**. We have a specific **working group on advanced biomass cooking** that open for all members interested in the subject.

If you are interested in presenting your company in the Pellets.Africa website or in becoming member of the World Bioenergy Association please feel free to contact the Executive director of our organization, Mr. Bhardawaj Kumamuru: bharadwaj.v.kummamuru@worldbioenergy.org

WEBINARS

Since the beginning of the pandemic, WBA started organising multiple webinars on a wide range of fields. For multiple times, representatives of exemplar organizations and associations gathered to discuss pressing subjects and to share experiences about their own line of activity. The recordings are of these events are made available to the public in our website.

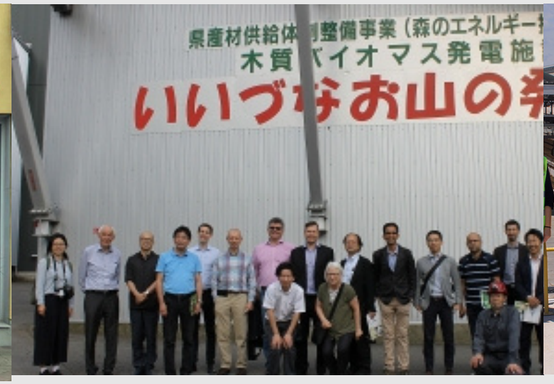




GENERAL ASSEMBLY

The WBA General Assembly is the annual gathering of our members and the wider bioenergy community. It is an opportunity for the stakeholders including private sector, associations, researchers, and civil society to discuss and debate the challenges and opportunities for the growth of the bioenergy sector.

Vienna, 2021 **Stockholm, 2019** **Nagano, 2017** **Istanbul 2016** **Nairobi 2015**



BIOENERGY FOR THE FUTURE

In the face of climate change, providing reliable supplies of renewable energy has become one of the biggest developmental challenges of our time, and bioenergy has a significant role to play in carbon removal and emissions reduction, as well as in the development of bioenergy-based fuel alternatives for fossil fuels.

Thus, WBA has partnered with **ITN Productions Industry News** to make Bioenergy for the Future, a programme, fully available to the public, that looks at the **innovations and developments in the Bioenergy sector**.

COLLABORATIONS

- Observer organization, UNFCCC
- Observer organization, Green Climate Fund
- Liaison, ISO 13065: Sustainability criteria for bioenergy
- Cooperation, IRENA
- Steering Committee member, REN21
- Member, REN Alliance
- Founder, Go100% campaign
- Alliance for Rural Electrification (ARE)
- Bioenergy International Magazine
- Bioenergy Insight
- FutureIsClean campaign
- Energy Business Review (EBR)

JOIN US!

MEMBERSHIP

Benefits:

- **Strengthening lobbying** in favour of bioenergy in a global scale and **influence policy decisions** at national and regional level
- Access to WBA’s network of companies, associations and experts
- Possibilities of **collaboration for obtaining investments** in bioenergy sector
- Invitation to regional conferences and workshops
- Access to information on bioenergy – climate policy reports, factsheets on different bioenergy technologies and issues, news etc
- Possible collaboration in working groups, webinars, projects, conferences etc.

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