



**WORLD BIOENERGY
ASSOCIATION**

Annual report 2022



www.worldbioenergy.org

ANNUAL REPORT FOR THE FINANCIAL YEAR 2022

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Introduction by the President

Dear members of the World Bioenergy Association, supporters, collaborators, and friends,

the year 2022 has seen a dramatic change in the global political situation as well as in the energy markets. Unprecedented volatility of energy prices emerged particularly in Europe, but impacts travelled like waves across the globe.

Energy security as well as social impacts of rising energy prices suddenly replaced the climate crisis as most important issue and led to massive subsidies of fossil fuels – exactly the opposite of what would be needed to accelerate the energy transition.

Significant shortages of pellet supply and stagnant to slow development of other renewables did not increase the confidence in the potential of renewables and reminded us of the fact, that energy markets change only slowly. They involve huge investments and affect well established interests that will not hesitate to jeopardize the development of competitors by influencing politics and spreading misinformation.

Consequently, promoting the use of bioenergy remains an uphill struggle, even though the situation of fossil fuel supply suggests more than ever to increase renewable energy use. The notorious confusion of energy supply with electricity supply leads to a lot of verbal support for PV and wind energy and ignores, that the supply of thermal energy both for domestic use and for industrial use is much larger than the need for electricity. And thermal energy is an important strength of bioenergy as is the supply of transport fuels and biogas both of which can only partly be replaced by electricity.

Summing up, a lot remains to be done and WBA will continue to step up its efforts to make a meaningful contribution to the energy transition with a focus on the global south that is need of modern bioenergy solutions and is suffering most from the effects of climate change.

CHRISTIAN RAKOS
PRESIDENT
WORLD BIOENERGY ASSOCIATION



Christian Rakos

President

World Bioenergy Association

Summary of Activities 2022

The Year 2022 was marked with significant turmoil in Europe and around the world due to the war in Ukraine. Despite the uncertainty in the energy markets, the World Bioenergy Association is pleased to report a positive year in terms of our revenues, membership base and the various activities undertaken throughout the year. The energy crisis shows the immediate need for a rapid transformation of the global energy system towards a clean, renewable, and sustainable future and where bioenergy technologies play a vital role overall. Here is a short recap of our activities in 2022:

Early 2022, we released our Annual Report which showed our significant growth overall. In terms of publications, our flagship publication, the Global Bioenergy Statistics 2022, showed the slow progress of renewables in the energy sector. At the same time, it highlighted the important role of bioenergy in all end use sectors including heat, electricity, and transport fuels. One key publication was the Biomethane Vision Document – a 5-point plan to scale up biomethane globally. It was a collaborative effort with industries, researchers, IGO's etc. contributing with data and knowledge. Finally, with support from our members, we were active on traditional media by publishing sponsored content as well as interviews in various media outlets including Financial Times (FT), Politico and Euractiv.

The previous year was the year of events. We organized 4 webinars on topics related to advanced biomass cooking, pellets production in emerging economies, and biomass replacing coal in Asia. We intensified our advocacy efforts at EU level with a Brussels event on 'Seeing the wood for the trees'. Moreover, our General Assembly tour in India included a 'Indian Bioenergy and Climate Change Forum' conference organized together with CII Marathwada and Ecosense Appliances. Delegates participating in the 1-week tour also had a chance to visit interesting sites including cookstove companies, pellet production, 1G/2G ethanol and biogas production sites. The year ended with our active engagement at the UNFCCC COP27 conference in Sharm El Sheikh, Egypt. Our exhibit stand was well attended, while our side event with REN Alliance, as well as a press conference, were well received.

Finally, our engagement with the wider energy and climate community continued via our participation in various Working Groups of IRENA Coalition for Action, steering committee membership of REN21 and observer status with GBEP. The year also marked our takeover of the Pellets.Africa website which hosts the latest information on pellet production in the region. Our active working group on Advanced Biomass Cooking also addressed a very important issue in the global energy transformation.

We express our sincere gratitude to our long-standing members as well as the new members who joined us in 2022. All our activities are possible only with the support of the members and together, we continue to increase our voice as the global bioenergy community.

Membership

World Bioenergy Association is a member-based organization. Our membership comprises of a wide variety of stakeholders in the biomass to energy sector. Affiliations include national and regional bioenergy associations, companies, research institutions and individuals. Among companies, WBA has members from fuel producers, technology companies, equipment manufacturers, utilities etc. The background of members covers a wide range of sectors including pellets, liquid biofuels, biogas, wood chips etc.

WBA membership 2022

	Associations	Companies	Individual	Total
Africa	4	3	6	13
Americas	3	2	10	15
Asia	3	7	19	29
Europe	16	34	16	66
Oceania	0	0	4	4
Total	26	46	55	127

Following is the current member fee structure:

Membership fee structure 2022 – 2023

Form of membership	Membership category	Fees (Euros/year)
Associations	2% of the membership fee	1 000 – 10 000
Companies *	> 100 million Euros	10 000
	50 – 100 million Euros	7 500
	25 – 50 million Euros	5 000
	5 – 25 million Euros	3 000
	1 – 5 million Euros	2 000
	< 1 million Euros	1 000
Energy agencies, think tanks, universities etc.	2 000	1 000 – 10 000

* Based on turnover of the previous year. 50% reduction for organizations in LDC countries. Individuals interested in supporting the work of WBA can join as individual supporters (Fee 50 Euros).

Organizations can also join as supporter members (Gold/Silver). Please contact secretariat for further information.

Communication

Secretariat

World Bioenergy Association is registered as a Non-Governmental Organization in Sweden. The Secretariat is based in Stockholm, Sweden along with the Swedish Bioenergy Association (Svebio).

Daily activities of WBA are executed by the Executive Director, based at the Secretariat, and supported by the staff, consultants, the board and the President.

The current location of the Secretariat is: World Bioenergy Association, Kammakargatan 22, Floor 6, 111 40, Stockholm, Sweden, +46 8 441 70 84

Office hours are usually from 09.00 – 17.00 and the Secretariat welcomes all members and bioenergy stakeholders to the office to interact and exchange information related to bioenergy development around the world.

Website

The WBA website is hosted at <https://worldbioenergy.org>. Information generated by the Secretariat including news items, event information, publications (factsheets, statistics, mission reports etc.) are posted regularly on the WBA website. It is managed by the Secretariat. Current list of WBA members is regularly updated as well.

The website also hosts a member only section with member exclusive information. It can be accessed by a username and password which is sent to all members upon registering as a member.

Mailing list and GDPR

An active mailing list is crucial for effective communication for NGO's. WBA maintains a mailing list in the platform Mailchimp and regularly sends information about our activities to the subscribers. The subscribers are updated either via the subscribe button on the website or through their participation in our webinars.

WBA takes the issue of data privacy seriously and manages the mailing lists as per EU GDPR regulations. A data policy is also available on our website.

Social media

Apart from the webpage and mailing lists, social media also forms an important part of our communication activities. In the past year, since the employment of a Communication Manager, WBA has changed its focus to LinkedIn and Twitter as the main social media platforms used for the promotion of activities, events and partnerships. Since then, and thanks to a more consistent posting schedule, these platforms have registered a great increase in visibil-

ity, engagement and number of followers. Currently, WBA has the following social media accounts:

- Facebook (2,953 followers): <https://www.facebook.com/WorldBioenergyAssociation/>
- Twitter (2,062 followers): https://twitter.com/World_Bioenergy
- LinkedIn Company (1,547 followers): <https://se.linkedin.com/company/world-bioenergy-association>
- LinkedIn Group (1 732 followers): <https://www.linkedin.com/groups/4154386/>
- YouTube (125 subscribers): <https://www.youtube.com/channel/UCLiobHKWzRYFnV77YPYKdDQ>

News Item

WBA news items are the primary mode of communicating our activities to our community. The news items are posted on the website at regular intervals and include information about our publications, partnerships, events etc.

The information is also shared via our mailing lists. In 2022, WBA issued the following news items:

February

- 10th February: Webinar - *A paradigm shift in meeting basic energy needs*
- 11th February: Leading entrepreneurs discuss developments in use of pellets in gasification cookstoves in Africa and India
- 14th February: Welcome to *Pellets.Africa*

March

- 01st March: WBA statement in response to the situation in Ukraine

April

- 12th April: Webinar - *Pellet plants in developing economies*

June

- 08th June: REN Alliance SB56 Side Event
- 10th June: Launch of the survey *Scaling Up Biomethane: a Five-Point Plan*

August

- 23rd August: Webinar - *Biomass as a substitute for Coal: Opportunities in Asia*

September

- 07th September: Hybrid Conference - *Seeing the wood for the trees*
- 20th September: Indian Bioenergy and Climate Change Forum 2022
- 21st September: Election of New Board

November

- 06th- 18th November: World Bioenergy Association at COP27

December

- 14th December: Global Bioenergy Statistics 2021
- 16th December: Launch of *Biomethane Vision Document*

Publications

Annual Report 2021



WORLD BIOENERGY
ASSOCIATION

Annual report 2021



The year 2021 was particularly successful for the World Bioenergy Association. It started with the signing of a partnership with the leading international bioenergy trade publication Bioenergy International and, thanks to the membership support, we undertook multiple webinars on various topics along the year. Acting on multiple fronts with the right partners, we were able to execute the work plan during 2021. A detailed report of the activities was presented in the Annual Report 2021.

Activities in 2021 include:

- **Publications** – Annual Report 2021, Factsheet - Role of bioenergy in a climate neutral energy system, Global Bioenergy Statistics 2021
- **Events** – EU Africa Business Forum, Annual Meeting (Vienna), Webinars (National experiences on bioenergy development, Latest developments in densification of agricultural residues for energy, The role of sustainable bioenergy in displacing fossil fuels, Bioenergy and Net Zero, Agricultural residues valorisation, Scaling up biomethane on the pathway to a net-zero future, Bridging the Gap: Unlocking the Net Zero through investment in sustainable bioenergy and BECCS)
- **Projects** – Board video about bioenergy plant in East Java, Indonesia
- **Collaborations** – Bioenergy International, REN21, IRENA Coalition for Action, Global Bioenergy Partnership, ITN Productions



GLOBAL BIOENERGY STATISTICS 2022

World Bioenergy Association

Global Bioenergy Statistics 2022

The first global bioenergy report was published by WBA in 2014. The 8th edition of the flagship publication continued the reporting on the latest developments in the bioenergy sector. As with previous reports, the GBS 2022 looked at the global energy system, role of renewables in

electricity, heat and transport, biomass supply, biopower, bioheat, biofuels as well as jobs in the renewable energy.

Summary

Fossil fuels dominate the global energy supply. 80% of the total primary energy supply was from coal, crude oil and natural gas. Renewable energy technologies of solar, wind, hydro, biomass, geothermal etc. had a share of 15% in the primary energy supply in 2020 – a 0.9% increase over the previous year.

Coal is a significant contributor to the global electricity mix. In 2020, 35% of electricity produced globally was from coal-based sources with a total production of 9 452 TWh. In 2020, 26 833 TWh of electricity was generated globally with renewables having a share of 29%, mainly driven by the increasing use of solar and wind as well as significant contribution from hydropower and biomass. In 2020, 7 669 TWh of renewable electricity was produced globally. Hydropower was the largest renewable electricity generating source with a share of 58% followed by wind at 21%. Bioenergy was the 4th largest renewable electricity generating source with 685 TWh of production.

In 2020, 15.7 EJ of heat was produced globally via heat only and combined heat and power plants. Coal and natural gas have a combined share of more than 85% in the global heat production. Renewable energy technologies including biomass, geothermal and solar thermal have doubled their share in the global heat production over the past 20 years. 96% of all renewable heat produced was from biomass with minor contribution from geothermal and solar thermal technologies.

In the transport sector, crude oil and oil products contribute 91% of the energy needs. Liquid biofuels and biogas are a sustainable option for the sector right now.

Gross final energy consumption includes the total final consumption of all energy sources including the electricity and heat consumption at all end use sectors. In 2019, gross final energy consumption of all energy sources was 379 EJ. The share of renewables has remained constant at 17%.

In 2020, domestic supply of biomass was 57.5 EJ globally. 86% of the domestic supply was from solid biomass sources including wood chips, wood pellets and traditional biomass sources. Liquid biofuels accounted for 7%, municipal and industrial waste sectors accounted for 6%, followed by biogas at 2%.

In 2021, 1.9 billion m³ of wood fuel was produced globally. Africa and Asia had the highest share of wood fuel production with a contribution of 37% and 36% respectively. Wood pellets are one of the fastest growing bioenergy sectors worldwide. In 2021, 44.3 million tonnes of pellets

were estimated to be produced globally. In 2021, 54 million tonnes of wood charcoal were produced globally with Africa accounting for 67% of the global production.

Agriculture is a key sector for increased potential for bioenergy utilization in the future. In terms of yields of major crops, there is significant potential to increase the yields in various regions to the global average. This will enable increased production of both food and fuel with the agriculture sector being a key enabler for increased bioenergy use around the world. Energy generation from municipal and industrial waste represents the 3rd feedstock sector after forestry and agriculture. In 2020, domestic supply of energy from municipal and industrial waste was 2.65 EJ with 55% from municipal waste and remaining from industrial waste.

In 2020, 685 TWh of electricity was generated from biomass globally. 69% of all biopower generated was from solid biomass sources followed by 17% from municipal and industrial waste. Asia accounted for 39% of all biopower generated globally with 255 TWh of production in 2019 followed by Europe at 35%. Electricity only plants are designed to produce electricity only. In 2020, 5.3 EJ of biomass was used in electricity only plants for power generation.

CHP (Combined Heat and Power) plants refer to those plants that are designed to produce both heat and electricity. In 2020, 3.4 EJ of biomass was used in CHP plants. Solid biofuels account for 66% of all biopower produced in CHP facilities followed by municipal waste at 17%. In 2020, 1.2 EJ of heat was produced from biomass-based sources – 52% from solid biomass sources and 25% from municipal solid waste. Europe is the world leader in producing heat from biomass in power plants with a share of 88% globally. In 2020, 0.57 EJ of bioheat was produced in heat only plants.

In 2020, 146 billion litres of biofuels were produced globally. This was the first time that the production of biofuels decreased year on year, mainly due to the COVID pandemic. North and South America together produce 70% of all biofuels globally with Europe having a share of 15%. In 2020, 38.1 billion m³ of biogas was produced globally with an equivalent energy content of 1.46 EJ.

View the report here: <https://www.worldbioenergy.org/global-bioenergy-statistics/>

Biomethane Vision Document

Promising biomethane markets are emerging in many European countries and latest data estimates more than 1000 plans operating in the region. Globally, several bright spots for market deployment are emerging including Brazil, India and USA due to significant feedstock potential and new policy incentives. However, nowadays biomethane's potential is severely underutilized.

BIOMETHANE VISION DOCUMENT

A 5 point plan to scale up biomethane globally

INTRODUCTION

There has never been greater interest in biomethane than at the current time. Increased climate ambition, with net zero emissions commitments covering around 85% of global GHG emissions (IEA, 2022c), requires that all viable emissions reduction technologies are harnessed.

A significant scale up in biomethane production represents a "low hanging fruit" solution in this context. Its based on mature technology, provides a renewable fuel that is compatible with existing uses of natural gas in sectors where emissions are hard to abate, and is suitable to replace petroleum products in long haul transport. Wider benefits in aiding waste management, supporting rural development, offering an additional revenue stream for the agricultural sector and the production of co-products, further support expansion of the sector.

For these reasons long term outlooks for a decarbonised energy system project a strong increase in biomethane. For example, by 2050 global consumption grows 40-fold in the IEA's "Net Zero by 2050" scenario (IEA, 2021).

In Europe, given the wide-ranging impacts arising from Russia's invasion of Ukraine, the importance of scaling up biomethane is further underlined by the energy security benefits it can offer as a domestically produced alternative to partially substitute natural gas imports from Russia. The EU's target of producing 35 billion cubic meters (bcm) of biomethane by 2030, represents 9% of its natural gas demand in 2021, a share which will be higher in 2030 given EU efforts to diversify energy supplies in line with the REPowerEU plan.

This publication focuses on biomethane. The WBA recognises that there are various beneficial end use applications for biogas electricity, heat and cogeneration, as well as small-scale biogas digesters to enhance energy access in developing countries. However, these are not covered within this document.

In addition, the outlook of the document and its recommendations are intended to be applicable globally. Although the basis for the recommendations often draws from the most mature markets, currently found in Europe and North America.

Current status: Promising biomethane markets are emerging in various European countries, with over 1000 plants operational in the Europe. Globally, several other bright spots for market development are evident, such as consumption in heavy duty transport in the United States and an emerging market in Brazil underpinned by vast feedstock potential and new policy incentives.

Nevertheless, biomethane output was around 5 billion cubic metres (bcm) globally in 2020 (Cedigas, 2022) utilising only a small fraction of the feedstock available for production. Given current global natural gas consumption of over 4000 bcm, where favourable policies and market conditions are established there will be numerous ready-made opportunities to substitute biomethane into existing natural gas uses and grow demand.

Scaling up biomethane: Harnessing the full potential of biomethane requires the creation of holistic policy frameworks. No one policy will be sufficient to fully realise available feedstock potential and scale up biomethane markets to the extent needed in a low carbon energy system.

Figure: Biogas production technology (Source: Pixabay)

Figure: Global consumption of biomethane in a Net Zero outlook. (Source: IEA (2021))

Notes: EU = ex-ante

Year	Industry	Transport	Buildings	Total
2020	0.5	0.5	0.5	1.5
2030	2.5	1.5	1.5	5.5
2040	4.5	2.5	2.5	9.5
2050	6.5	3.5	3.5	13.5

Harnessing the full potential of biomethane requires the creation of holistic policy frameworks. No one policy will be sufficient to fully realise available feedstock potential and scale up biomethane markets to the extent needed in a low carbon energy system. With that in mind, WBA published a vision document that presents a concrete 5-point plan to scale up the biomethane production globally.

This 'vision document' outlines five key recommendations that should form part of national or regional biomethane strategies:

- Establishment of better waste management frameworks which ensure the segregation and valorisation of sustainable waste and residue feedstocks for biomethane.
- Comprehensive action to reduce methane leakage to the greatest extent possible, comprising a. measurement, reporting and verification practices, and b. best available technology.
- Introduction of Guarantees of Origin (GoO) certificate systems as a prerequisite for tracking and balancing biomethane injected into gas networks and subsequently consumed, as well as enabling trade.
- Inclusion of a biomethane supply support mechanism balanced with demand-pull policy levers within a wider policy framework aimed at stimulating biomethane market development.

nism balanced with demand-pull policy levers within a wider policy framework aimed at stimulating biomethane market development.

- Coordinated actions to reduce the time needed to obtain the necessary permitting approvals for biomethane plants to within pre-defined timescales.

The document highlights considerations including increasing access to sustainable feedstock, driving ongoing technology optimisation, injection of biomethane in gas network, establishing a supportive policy landscape for supply and demand, and regulatory considerations such as streamlined permitting, digestate use, and sustainability criteria.

View the report here: <https://www.worldbioenergy.org/reports/>

Article in news media

This year's presence of WBA in leading media outlets including Euractiv and Politico. was, once again, determinant for the bioenergy community, as arguments for the acceleration of a sustainable use of biomass and the proper exploration of the opportunities for growing the forest bioeconomy were stressed out in multiple contexts.

It's time to press the accelerator on biomass, not slam the brakes

It's time to press the accelerator on biomass, not slam the brakes

Our ability to achieve European climate targets hangs in the balance of negotiations over primary woody biomass. European leaders must reject unnecessary restrictions and ensure bioenergy continues to support energy security.

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- Northern Ireland talks descend into farce as protocols

The Green Deal has led the world in addressing the climate emergency, but with the Russian invasion of Ukraine, it has also become a race to help solve a generational energy crisis.

Breaking the EU's reliance on, often imported, fossil fuels will require, among other interventions, an unprecedented expansion of renewable energy to be completed in record time. As a result, the European Commission's newly proposed 2030 target for renewable energy consumption

has jumped from 40 percent to 45 percent — more than double today's share.

There is no margin for error to meet this aggressive target, and the EU cannot afford policies that would reduce existing renewable energy generation, or needlessly limit its use. Yet this is exactly the intention of proposals from the European Parliament to reduce use of sustainable woody biomass, the EU's leading source of renewable energy. Not only would these proposals have massive and far-reaching negative consequences, they have not been properly assessed by EU institutions, a prerequisite for sound policy making. They also contradict analysis from the European Commission showing the use of bioenergy must increase significantly to meet climate targets.

The use of bioenergy must increase by an average of 69 percent if we are to meet climate targets, particularly for heat and balancing the grid as well as decarbonising the maritime, aviation and industrial sectors.

While biomass as a share of the EU's renewable energy will decrease over time as other sources scale up, all models show its use must still increase to meet the EU's climate targets.

Originally published in Politico: <https://www.politico.eu/sponsored-content/its-time-to-press-the-accelerator-on-biomass-not-slam-the-brakes/>


The backslide on renewables Europe can't afford

POLITICO

SPONSORED CONTENT FROM WORLD BIOENERGY ASSOCIATION

The backslide on renewables Europe can't afford

Woody biomass provides more renewable energy for Europe than wind, solar and hydro combined. Parliament must reject proposals that would reduce its use.



BY CHRISTIAN RANCIU, PRESIDENT, WORLD BIOENERGY ASSOCIATION
AUGUST 24, 2022 | 9:00 AM CEST

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It's been a summer of extremes. Unprecedented drought, wildfire and heatwaves have battered the Continent while record-breaking energy prices have rocked its economies. These calamities are inflicting a human toll, and the hardship is expected to deepen as we head into autumn.

Our dependence on fossil fuels is the main culprit. While there are no quick and easy fixes, the path out of this situation is clear: we must accelerate our transition away from fossil fuels and break their grip on our climate and energy markets.

Biomass is the only renewable technology that is reliable, dispatchable and flexible. This means that supplies can be stepped up and down as needed to meet energy demands, which enables more intermittent renewables like wind and solar to be deployed with confidence. It provides the same grid-balancing service as fossil fuels, but without releasing carbon that has been stored in the Earth for millennia.

It's no surprise that the International Energy Agency (IEA), and the European Climate Foundation have both called for an increase in the use of biomass to help alleviate the current energy crisis. Their latest reports cite biomass as an important tool to address energy security while supporting climate action.

Originally published in Politico: <https://www.politico.eu/sponsored-content/the-backslide-on-renewables-europe-cant-afford/>


Anti-biomass rules threaten energy security and Green Deal

POLITICO

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Anti-biomass rules threaten energy security and Green Deal

The EU can and must increase bioenergy use sustainably to protect European energy security and achieve 2030 and 2050 climate goals. But counterproductive regulations could stand in the way.



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In less than 100 months, the European Union must increase its share of renewable energy consumption from 20 percent to 40 percent, and maybe even 45 percent. This binding target was set by the EU's pioneering Green Deal, which aims to make Europe the first climate-neutral continent.

But this ambition, daunting in the best of circumstances, is under extreme pressure from Europe's acute energy shock, which threatens a relapse towards fossil fuels that will make it even harder to meet climate goals.

"We have to make sure that we use this crisis to move forward and not to have a backsliding on the dirty fossil fuels," said European Commission President Ursula von der Leyen. "It's a fine line and it's not determined whether we are going to take the right turn."

At this pivotal moment when Europe needs every kilowatt of secure and sustainable energy possible, it is alarming that some policymakers want to limit the use of bio-

energy — the EU's largest source of renewable energy, and one that crucially helps address both climate and security imperatives.

It is at the forefront of essential carbon removal efforts, through Bioenergy with Carbon Capture and Storage technology. Its future use would help to decarbonize heavy industries with innovative applications and bring new sustainable aviation fuels to market. And it is the first and only renewable energy source to have specific sustainability criteria enshrined in EU law.

The ability of bioenergy to help decarbonize multiple sectors means even more will be needed to meet upcoming targets. All leading models show that the use of bioenergy must at least double in order to reach climate neutrality by 2050. As stated by the International Energy Agency, maximizing bioenergy use will also be key to reducing Europe's dependence on Russian fossil fuels. This is why the EU must focus on promoting bioenergy rather than looking for ways to block it.

Originally published in Politico: <https://www.politico.eu/sponsored-content/anti-biomass-rules-threaten-energy-security-and-green-deal/>

Bioenergy chief: Still stuck in 'food vs fuel' debate, EU is missing global biofuel trend

The screenshot shows the EURACTIV website layout. At the top is a navigation bar with categories: Agriculture, Economy, Energy & Environment, Global Europe, Health, Politics, Technology, and Transport. Below this is a sub-navigation bar with: The Capitals, The Brief, Ukraine, and Intelligence. The main headline reads: "Bioenergy chief: Still stuck in 'food vs fuel' debate, EU is missing global biofuel trend". Below the headline is a byline: "By Sarantis Michalopoulos | EURACTIV.com | 30 Nov 2022". The article features a large image of a golden field with a small structure in the distance. To the right of the image is a sidebar with "EURACTIV Members" (EHFPA, EU Specialty Food Ingredients, REDOL, UNESDA) and "Popular articles" (Russia makes purchasable maps in breach of 'new territorial realties', Germany, Norway want to tie the knot with new hydrogen pipeline).

Countries around the world such as Brazil or India are scaling up the production of biofuels to decarbonise transport, while the EU is still stuck in the "food versus fuel" debate, the executive director of the World Bioenergy Association told EURACTIV in an interview.

"Other countries recognise the facts and opportunities biofuels provide, whereas the EU is sort of missing the trend, mainly because there's a lot of misinformation sometimes in the EU on biofuels, but also in bioenergy in general," WBA's Executive Director Bharadwaj Kumamuru said on the sidelines of COP27 in Sharm El Sheikh in Egypt.

To counter the "food versus fuel" argument, Kumamuru cited the example of India, where there's an excess production of food.

"In the last national biofuels policy, they also decided to actually use grains, cereals, and excess sugar cane juice for biofuels," he said, adding that the country has already exceeded the E10 target and now aims for E20 by 2025 – which refers to petrol containing up to 20% ethanol.

Kumamuru also said that the countries where food shortages are sometimes reported recognise that the shortage is not because of biofuels.

Kumamuru explained that in order to decarbonise transport, all available technologies should be used and biofuels in particular have an immediate effect.

Originally published in Euractiv: <https://www.euractiv.com/section/agriculture-food/news/bioenergy-chief-still-stuck-to-food-vs-fuel-debate-eu-is-missing-global-biofuel-trend/>

The Primary Concern: How restricting primary woody biomass under RED will limit decarbonisation, EU energy security and sustainable forest management

The screenshot shows the EURACTIV website layout. At the top is a navigation bar with categories: Agriculture, Economy, Energy & Environment, Global Europe, Health, Politics, Technology, and Transport. Below this is a sub-navigation bar with: The Capitals, The Brief, Ukraine, and Intelligence. The main headline reads: "The Primary Concern: How restricting primary woody biomass under RED will limit decarbonisation, EU energy security and sustainable forest management". Below the headline is a byline: "By Christian Rauer | World Bioenergy Association | 24 Aug 2022 (updated 1 Sep 2022)". The article features a large image of a forest with sunlight filtering through the trees. To the right of the image is a sidebar with "EURACTIV Members" (EHFPA, EU Specialty Food Ingredients, REDOL, UNESDA) and "Popular articles" (Russia makes purchasable maps in breach of 'new territorial realties', Germany, Norway want to tie the knot with new hydrogen pipeline).

While the end-point is certain, the journey towards a renewable-based future is less so, with ongoing debates regarding what feedstock should power the energy transition. At present, almost 60% of all renewable energy produced in the EU comes from sustainably sourced biomass, 97% of which is of European origin.

The share of this biomass which comes from the forest – primary biomass – is according to JRC – between 37-51%. The rest comes mainly from processing residues of sawmills and pulp mills. This makes primary woody biomass an essential feedstock for the EU's decarbonisation efforts and a reliable, renewable energy source for European businesses and consumers.

In its Committee Report, the European Parliament has proposed to define primary woody biomass as outside the scope of the Renewable Energy Directive. While well-intentioned, having spoken with data analysts, industry experts and international climate scientists, the World Bioenergy Association is concerned that this clause would prove to be counterproductive if not deleterious for climate protection, healthy forest maintenance and European energy security.

Removing primary woody biomass from the scope of RED III would mean leaving these residues in the forest to decay, releasing the same amount of CO₂ as if they would be used for energy without the benefit of replacing fossil fuels and meeting our renewable energy goals. In Canada harvesting residues are usually burned on the site, to reduce forest fire risks. In the future, this could also become a necessity in Europe. Can we seriously assume it is better to burn off harvesting residues in the forest than using them to replace fossil fuels?

Originally published in Euractiv: <https://www.euractiv.com/section/energy-environment/opinion/the-primary-concern-how-restricting-primary-woody-biomass-under-red-will-limit-decarbonisation-eu-energy-security-and-sustainable-forest-management/>

The new biomass rules Parliament needs



Biomass sits at the heart of European energy needs. It's renewable, reliable, and flexible. The bulk of it comes from within the EU, or longstanding friends and allies in North America, guaranteeing security of supply – an important consideration.

And it's a proven climate solution delivering low-carbon energy at scale. Heating 50 million homes and generating 40 gigawatts of on-demand power, biomass makes a greater contribution to Europe's renewable energy goals than all the continent's wind and solar output combined.

So why is the Parliament considering slashing its use

at a time when the world's most ambitious drive to reach net zero has collided with the greatest energy crisis in a generation? The question has been prompted by amendments passed in committee that must now be reconciled in plenary by the whole Parliament.

This minority position, not backed by the Commission or Council, wants to disqualify 'primary woody biomass' as renewable energy. It's a phrase that might seem like banal legislative jargon. But if implemented, it would have dire consequences as primary woody biomass represents 20 percent of the EU's current renewable energy consumption.

As negotiations continue and advance to a trilogue among the Council, Commission and Parliament to reach a common position next year, the Parliament needs to realize that there is no path to shore up the EU's energy security and achieve climate goals without the full contribution of biomass.

Doubling renewable energy targets this decade while simultaneously eliminating biomass, which provides a fifth of the EU's renewable energy consumption, will create an unbridgeable gap between climate ambition and attainment. Something must give, and it cannot be our pursuit of fossil-free energy.

Originally published in Euractiv: <https://www.euractiv.com/section/biomass/opinion/the-new-biomass-rules-parliament-needs/>

The European Green Deal will unlock the true potential of bioenergy – if we take the right decisions now



Despite the considerable challenge of the Covid-19 pandemic, the European Commission continues to push ahead on the implementation of its ambitious European Green Deal agenda. Its latest proposals include a new 2030 Biodiversity Strategy and, most recently, the ambitious Energy System Integration Strategy. The momentum will continue after the summer break, when the Commission

will present its 2030 Climate Target plan, explaining how it intends to increase ambition and raise 2030 emissions reduction targets.

At the same time, the European Parliament is also working on various reports and resolutions that will set the course for how forests – both within and outside Europe – can be sustainably managed and contribute to the global fight against climate change.

In the new 2030 Biodiversity Strategy, the Commission recognised sustainable bioenergy as an important tool to fight climate change, identifying it as a priority along wind and solar. The Energy System Integration Strategy includes a separate chapter on unlocking the potential of renewable fuels produced from sustainable biomass and acknowledges biomass as an enabler of carbon capture, storage and use that can lead to “deep decarbonization.”

However, we must of course make sure that the bioenergy we use is produced sustainably. In Austria, my home country, 300.000 jobs are related to the forest industry. We use wood firstly for timber production, which allows us to produce sustainable building products that store carbon for many decades. The primary market for lower value wood such as thinnings or chips from sawmills is for pulp and paper production. Anything that is left, alongside wood that has no industrial use such as certain species or residues including tops, branches or sawdust, may be used to provide energy, predominantly for heat and to a lesser degree for power production. The same market patterns also govern the way forests are managed across the Atlantic in the US Southeast, a major global supplier of wood and wood products, where the forest area has grown 40% in the last 25 years.

At the World Bioenergy Association, our members are convinced that deforestation is an important issue to be addressed globally – and responsible biomass producers are acting accordingly. There are, for example, agreements in place to protect sensitive areas and enhance biodiversity, and conservation alliances with leading NGOs. Independent, comprehensive certification schemes, such as the Sustainable Biomass Programme ensure that imported woody biomass only comes from sustainably managed forests. Sectoral EU legislation needs to reflect such best practices.

Originally published in Euractiv: <https://www.euractiv.com/section/biomass/opinion/the-european-green-deal-will-unlock-the-true-potential-of-bioenergy-if-we-take-the-right-decisions-now/>

Prof Michael Obersteiner: No scientific literature that bioenergy is more harmful than fossil energy



Responding to claims that bioenergy is more harmful to the environment than fossil energy per energy unit, Professor Michael Obersteiner of the University of Oxford, a modeller for the IPCC reports on climate change, states that there is no serious scientific paper which supports this claim, and that, as Europe is in net forest gain, this is an impossibility.

Originally published in Euractiv: <https://www.euractiv.com/section/energy-environment/video/prof-michael-obersteiner-no-scientific-literature-that-bioenergy-is-more-harmful-than-fossil-energy/>

Prof Michael Obersteiner: 1.5 degrees is unthinkable without biomass



Speaking at the World Bioenergy Association’s media partnership event with Euractiv, Professor Michael Obersteiner explains that without bioenergy, achieving the 1.5 degree target is unthinkable, both technically, and economically.

Originally published in Euractiv: <https://www.euractiv.com/section/energy-environment/video/prof-michael-obersteiner-1-5-degrees-is-unthinkable-without-biomass/>

Events

February

Webinar - A paradigm shift in meeting basic energy needs



World Bioenergy Association initiated a Working Group on Advanced Biomass Cooking (ABC) bringing together actors from around the world that are engaged in Advanced Biomass Cooking in one way or another. In this regard, WBA organized a new webinar series on advanced biomass cooking which started with a webinar focused on gasification cooking technology. Companies building and marketing gasification cookstoves presented their products and experiences in the market.

April

Webinar - Pellet plants in developing economies



Together with the trade publication Bioenergy International, World Bioenergy Association organised a webinar on 'Pellet plants in developing economies – a prerequisite for advanced biomass cooking'. Project developers from Africa, Asia and Latin America shared their experiences in

planning, building and operating pellet facilities.

August

Webinar - Biomass as a substitute for Coal: Opportunities in Asia



Taking place on August 23, the webinar 'Biomass as a substitute for coal – opportunities in Asia' convened project developers and supply chain experts who shared their experience over the past decade in executing successful bioenergy projects in Asia.

September

Conference - "Seeing the wood for the trees"



Just one week before RED III went to a Plenary vote in Parliament, this Hybrid Conference, hosted by the World Bioenergy Association, supported by Bioenergy Europe and with EURACTIV as Media Partner, looked at the text of RED III, and the amendments proposed by the European Parliament. The event heard views from the forestry, policymaking, academic and analyst communities on the potential impacts RED III could have on the EU biomass- and hence renewable energy markets.

Indian Bioenergy and Climate Change Forum

WBA and Confederation of Indian Industries (CII) jointly organized the 1st ever Indian Bioenergy and Climate Change Forum 2022 on September 20, 2022, at Welcome hotel Rama International in Aurangabad, India. The half day event had speakers presenting the latest developments in bioenergy technology, industrial heat use, clean cooking, financing, solar PV and other renewables.



WBA General Assembly

The GA was part of a 6-day visit to the cities of Aurangabad and Pune. It included site visits to cookstove manufacturing facilities, pellet mills, boiler companies, biogas and ethanol facilities etc. Delegates also had an opportunity to network with high level stakeholders in the bioenergy industry in the country.

COP27, Sharm El Sheikh



WBA is an accredited NGO observer to the UNFCCC (UN Framework Convention on Climate Change). As an organization with a mission for bioenergy advocacy at global level, COP climate conferences are an important platform for us. WBA has attended all the COP events since our inception in 2008.

COP27 was held in Sharm El Sheikh, Egypt during November 6 – 18, 2022.

Side Event (16.11, 16.45 - 18.15 EET)



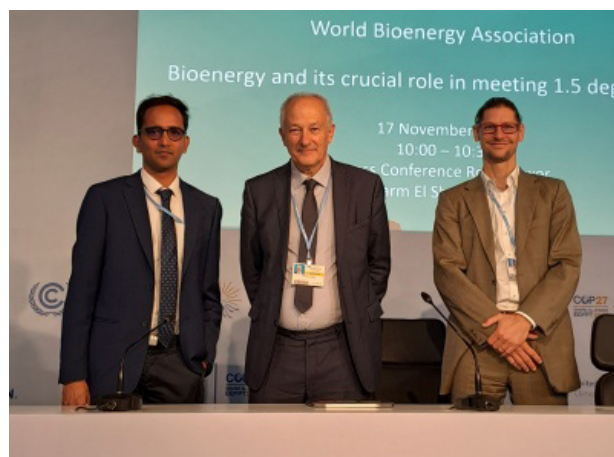
Together with ISES (International Solar Energy Society), WWEA (World Wind Energy Association) and LDES (Long Duration Energy Storage Council) WBA organized an official side event - Stronger Together: Showcasing Success of Renewable Energy Technologies Working For Energy Transition.

International climate change mitigation requires a transition to renewable energies. Renewables energy technologies support commitments to achieve an equitable transformation to a renewable energy future. This event showcased the strengths of renewables and how they can be deployed faster.

Exhibit Stand (16.11 and 17.11)

Right in front of the Egypt Pavilion, WBA had an exhibition booth during the 2nd week where we shared the latest developments in technologies, policies, markets and regulations for bioenergy around the world. We met stakeholders working with pellets, biofuels, cooking, agro residues, power generation and heating solutions from around the world. Special emphasis was laid on opportunities for modern biomass in Africa.

WBA Press Conference (17.11, 10.00 EET)



A press conference to present the crucial role of bioenergy in meeting 1.5 degree C target was organized in Room Luxor, COP27. The event was moderated by Bharadwaj Kummamuru (WBA) and included brief presentations about clean cooking by Christian Rakos (WBA) and Marc Reinhard (Fachverband Biogas).

Bilateral meetings/networking

The WBA delegation had bilateral meetings with numerous organizations including ANADEB (Mali), REN21, Montreal International (Canada), Biofuture campaign, KIS Group (Singapore) etc.

Collaborations

Bioenergy International

Previously, representatives of the WBA and Bioenergy International (BioInt), a leading international English language subscription-based trade publication focusing on biomass to energy value chains, signed a Cooperation Agreement whereby Bioenergy International became the official magazine of World Bioenergy Association. As part of the agreement, both WBA and BioInt agreed to promote individual publications, organize joint activities and strengthen the network of bioenergy stakeholders around the world. In 2022, WBA continued the partnership with contributing articles.

Global Bioenergy Partnership

WBA officially become an observer organization to the Global Bioenergy Partnership (GBEP). As an observer, WBA will participate actively in all GBEP's activities and discussions including the technical and steering committee meetings. Together, WBA and GBEP exchanged information and promoted individual activities.

REN21

WBA is a member of Steering Committee of REN21 and regularly participates in official meetings. WBA also reviews reports including Global Status Report and participates in interviews etc. to inform on the latest developments in bioenergy.

IRENA

WBA is an observer organization to IRENA and is part of the Coalition for Action. As an observer, WBA participates in the General Assembly and provides input to the Work Program while our role in the Coalition for Action involves suggesting case studies for various working groups, reviewing reports and participating in webinars as speakers.

Organization

WBA Board Members 2022 - 2023

1. Alarik Sandrup, Lantmännen (Sweden)
2. Ben Moxham, Cambwerwell Energy (UK)
3. Christian Rakos, Propellets Austria (Austria)
4. Georgiy Geletukha, Bioenergy Association of Ukraine (Ukraine)
5. Glauca Souza, University of Sao Paulo (Brazil)
6. Guangqing Liu, Beijing University of Chemical Technology (China)
7. Hazir Farouk, Sudan University of Science and Technology (Sudan)
8. Hong Hao, Great Resources New Energy (China)
9. Ketaki Kokil, Ecosense Appliances Pvt. Ltd. (India)
10. Larissa Rose, Green Growth Australia (Australia)
11. Mika Ohbayashi, Renewable Energy Institute (Japan)
12. Oscar Espinosa Mijares, Pellet Mexico Bioenergia (Mexico)
13. Pharoah Le Feuvre, Enagas (Spain)
14. Remigijus Lapinskas, Lithuania Biomass Energy Association (Lithuania)
15. Rodrigo O'Ryan, Chilean Biomass Association (Chile)
16. Saku Rantanen, BECIS Commercial and Industrial Solutions (Thailand)
17. Seth Ginter, US Industrial Pellets Association (USA)
18. Werner Sitzmann, Amandus Kahl GmbH & Co. KG (Germany)
19. Zoltan Szabo, Ethanol Europé (Hungary)
20. Zygmunt Gzyra, Polish Chamber of Biofuels (Poland)

Nominating Committee

- Gustav Melin, Svebio, Sweden (Convenor)
- Andrew Lang, WBA, Australia
- Christoph Pfemeter, Austrian Bioenergy Association, Austria

Secretariat

- Bharadwaj Kummamuru, Executive Director (Sweden)
- Karin Haara, Senior Advisor (Sweden)
- Lizia Branco, Communication Manager (Portugal)

Members of Honour

- Kent Nystrom, Stockholm

Full members

Spanish Bioenergy Association, Swedish Bioenergy Association, Bioenergy Europe, Propellets, Energy Farm International, Bundesverband Bioenergie e.V, Austrian Bioenergy Association, Fachverband Biogas, New World Hope, Bioenergy Association of Turkey, LITBIOMA, Bioenergiary, Bioenergy Association of Ukraine, Central Africa Network for Renewable Energies, Namibia Biomass Industry Association, Cluster VALBIOM Maroc, European Renewable Ethanol Association, Croatian Biomass Association, Polish Chamber of Biofuels, Indian Bioenergy Association, Hungarian Bioethanol Association, Power Workers Union, US Industrial Pellets Association, Chilean Biomass Association

Associated members

First Bioenergy AB, Firefly AB, CPM Europe BV, C.F. Nielsen A/S, KWB Kraft und Wärme Aus, Herz Energietechnik GmbH, Energie Steiermark AG, Sunbird Management SL Ltd, Bioenergie Wärmeservice GmbH, Södra Skogsägarna ekonomisk förening, nahwaerme.at Energiecontracting GmbH, nahwaerme.at Energiecontracting GmbH, nahwaerme.at Energiecontracting GmbH, Bioenergie Tirol Nahwärme GmbH, TB Harald Kaufmann GmbH, World Thermal Service AB, Enerstena grupë, UAB, Amandus Kahl GmbH & Co. KG, Syncraft Engineering, Henriksson Salix AB, Mantex AB, Investancia Paraguay SA, Pellet Mexico Bioenergia S.A. DE C.V., Mine Biomass Synergies Pte Ltd, Renewable Energy Institute, Alterna Verde, Lithuanian Energy Institute, Enviva, Aichernig Engineering GmbH, Serge Energy, Pellet Invest LLC, Fröling, SSBE Bioenergy Company Ltd, Justsen Energitechnik A/S, Istanbul Energy, Drax Group

Individual supporters

Individual supporters are not listed.

Silver Supporter Members

Fröling (Austria)

Funding

WBA is grateful for the funding we receive from our membership. The companies, associations and individuals comprising our member base support us immensely. Apart from the core membership, we are also thankful for the support of our supporter members.

- Fröling, Austria

Detailed analysis of WBA financing is available in the authority version and will be available upon request. Please send your request info@worldbioenergy.org

Board members below have signed the Annual Report for 2022

Alarik Sandrup

Mika Ohbayashi

Ben Moxham

Oscar Espinosa Mijares

Christian Rakos (President)

Pharoah Le Feuvre

Georgiy Geletukha

Remigijus Lapinskas

Glaucia Souza

Rodrigo O’Ryan

Guangqing Liu

Saku Rantanen

Hazir Farouk

Hong Hao

Werner Sitzmann

Zoltan Szabo

Ketaki Kokil

Zygmunt Gzyra

Larissa Rose

The WBA Audit Report 2022 has been submitted and signed by:
Öhrlings Pricewaterhousecoopers

SILVER SUPPORTERS OF WBA

