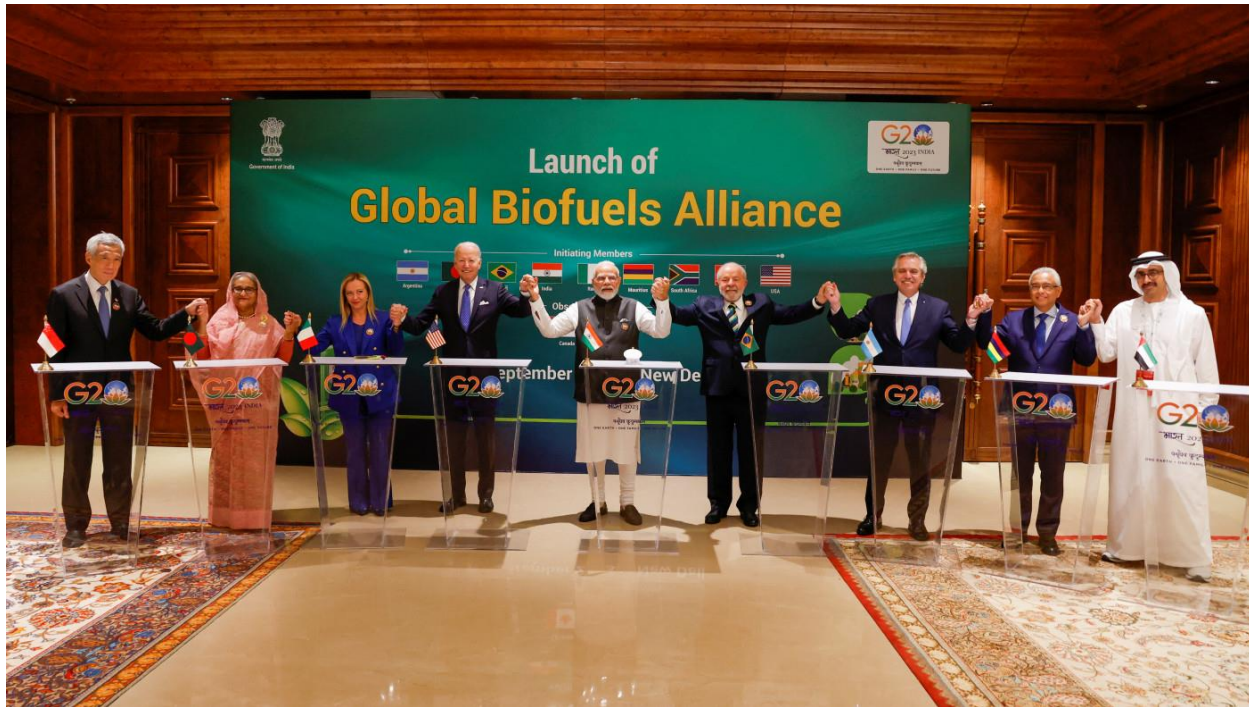


The Launch of Global Biofuel Alliance: Implication for Bangladesh

Kanij Fatima Maisha¹

Introduction



Source: The Business Standard

The Global Biofuel Alliance refers to the sideline initiative taken on the first day of the G20 Leaders' Summit of the year 2023 in New Delhi. The alliance has been launched by Prime Minister Shri Narendra Modi from India along with 8 different countries. The 8 different countries are none other than Singapore, Bangladesh, Italy, the USA, Brazil, Argentina, Mauritius, and the UAE. Canada and Singapore attended this alliance as observer countries.²

These 9 countries aim to facilitate technological advancement to accelerate the global uptake of biofuels. Besides, the alliance will also focus on intensifying the proper utilization of sustainable

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² Star Digital Report, "PM Joins G20 Leaders in Launching Global Biofuels Alliance," The Daily Star, September 9, 2023, <https://www.thedailystar.net/news/bangladesh/diplomacy/news/pm-joins-g20-leaders-launching-global-biofuels-alliance-3414826>.

biofuels, constructing a robust standard setting. All these are possible if there is an adequate certification that expects the participation of a wide spectrum of stakeholders. Moreover, The Global Biofuel Alliance will be acting as the core repository of knowledge as well as the expert hub fostering the adoption of biofuels in a widespread manner.³

The Global Biofuel Alliance: An Overview

The priority of the interested 9 countries in the Global Biofuel Alliance is to speed up the transition to clean energy with a view to combating climate change with a global effort. The Alliance will be working as a partnership to make progress towards getting cleaner, greener fuels around the world. The Alliance focuses on:⁴

- To secure the supply of biofuels.
- To ensure that biofuels remain affordable and sustainably produced.
- To fulfill the decarbonization goals.
- To cut down the dependency on fossil fuels.⁵
- To facilitate cooperation across different sectors, including the transportation one.



Image: Business Outreach Magazine

³ “Launch of the Global Biofuel Alliance (GBA),” accessed September 12, 2023, <https://www.g20.org/pt/media-resources/press-releases/september-2023/gba/>.

⁴ The White House, “Readout of Launch of Global Biofuels Alliance,” The White House, September 9, 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/09/readout-of-launch-of-global-biofuels-alliance/>.

⁵ Report, “PM Joins G20 Leaders in Launching Global Biofuels Alliance.”

Although the initiating members are 9 in number excluding 2 observer countries, around 19 countries with 12 international organizations expressed their interests to the Global Biofuel Alliance. Among the international organizations⁶, there are the

- World Bank,
- World Economic Forum,
- The Asian Development Bank,
- International Energy Forum
- International Renewable Energy Agency and
- International Civil Aviation Organization

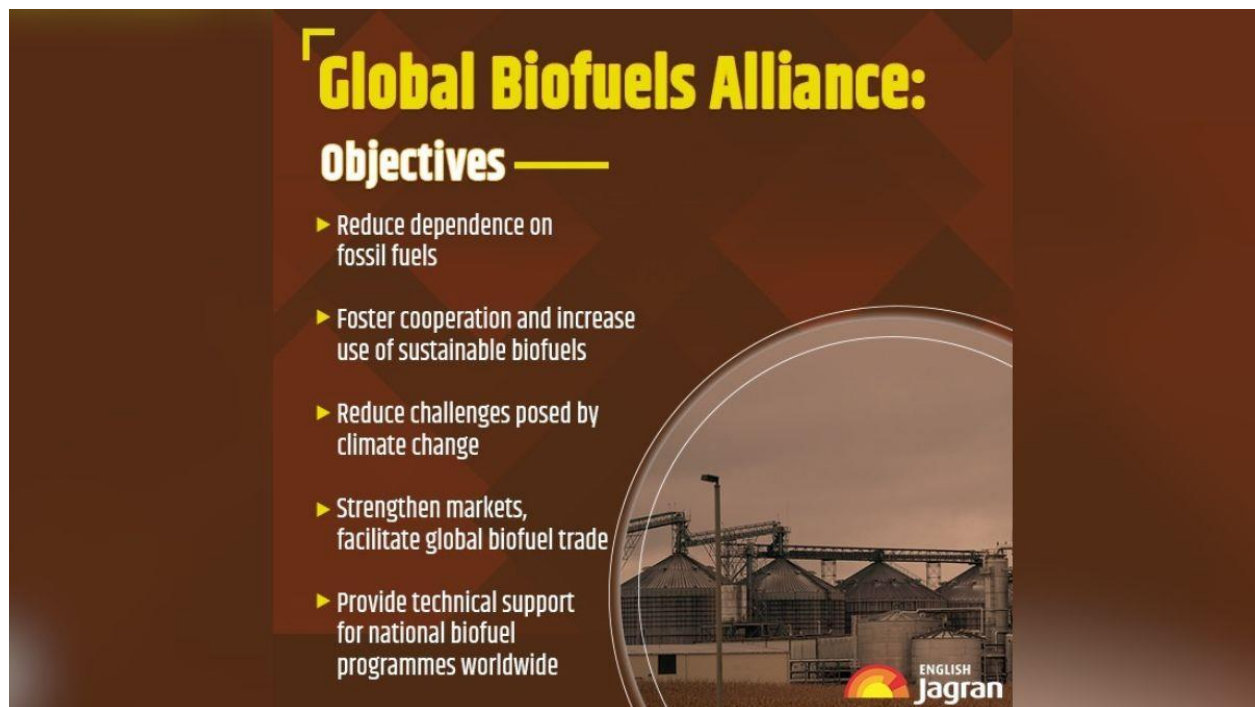


Image: English Jagran

However, biofuel promotion works as a strategic tool addressing two critical goals:

1. To reduce the reliance on energy imports.
2. To mitigate the growing carbon footprint.

⁶ www.ETEnergyworld.com, “Global Biofuel Alliance: G20 Nations Eye \$500 Billion Opportunity in next 3 Years - ET EnergyWorld,” ETEnergyworld.com, accessed September 13, 2023, <https://energy.economictimes.indiatimes.com/news/renewable/global-biofuel-alliance-g20-nations-eye-500-billion-opportunity-in-next-3-years/103565038>.

As per the Global Biofuel Alliance Foundational Document, the alliance will have the structure of a 3-category membership. The structure will bring together the member countries and partnered organizations altogether.⁷

Ingredients of Biofuel

The Global Biofuel Alliance is based on the theme of taking ethanol blending with petrol consumption globally to 20%. The biofuel used in this initiative is Ethyl alcohol or Ethanol (C₂H₅OH). It can be produced in a natural setting by fermenting sugar. Sugarcane is the customary go-to crop and the source of sugarcane can be other food grains.

India has already started the Ethanol Blended Petrol (EBP) program as the country is committed to carbon emission reduction. The aim is to mix Ethanol biofuel with petrol to reduce the overall consumption of fossil fuel. The alliance will be working in the field of Fuel Blending.⁸

Usually, the source of biofuel is biomass: Wood and Straw. By the direct combustion of dry material, biomass is released and converted into liquid fuel. Biofuel includes biodiesel, bioethanol, and bioethanol. Ethanol, a renewable fuel, is made from plant materials like Biomass.⁹

Statistics:

The United States, Brazil, and India, these three countries account for ethanol production of a total of 85%. Whereas the United States alone holds 55% of the share followed by Brazil 27%, and India 3%.¹⁰

⁷ “Bangladesh Considers Joining Global Biofuel Alliance Led by India, USA,” The Business Standard, September 6, 2023, <https://www.tbsnews.net/bangladesh/energy/bangladesh-considers-joining-global-biofuel-alliance-led-india-usa-696130>.

⁸ Report, “PM Joins G20 Leaders in Launching Global Biofuels Alliance.”

⁹ “What Are Biofuels? Why Is It Important? [UPSC Notes],” BYJUS, accessed September 13, 2023, <https://byjus.com/free-ias-prep/international-biofuel-alliance-upsc-notes/>.

¹⁰ “Bangladesh Considers Joining Global Biofuel Alliance Led by India, USA.”

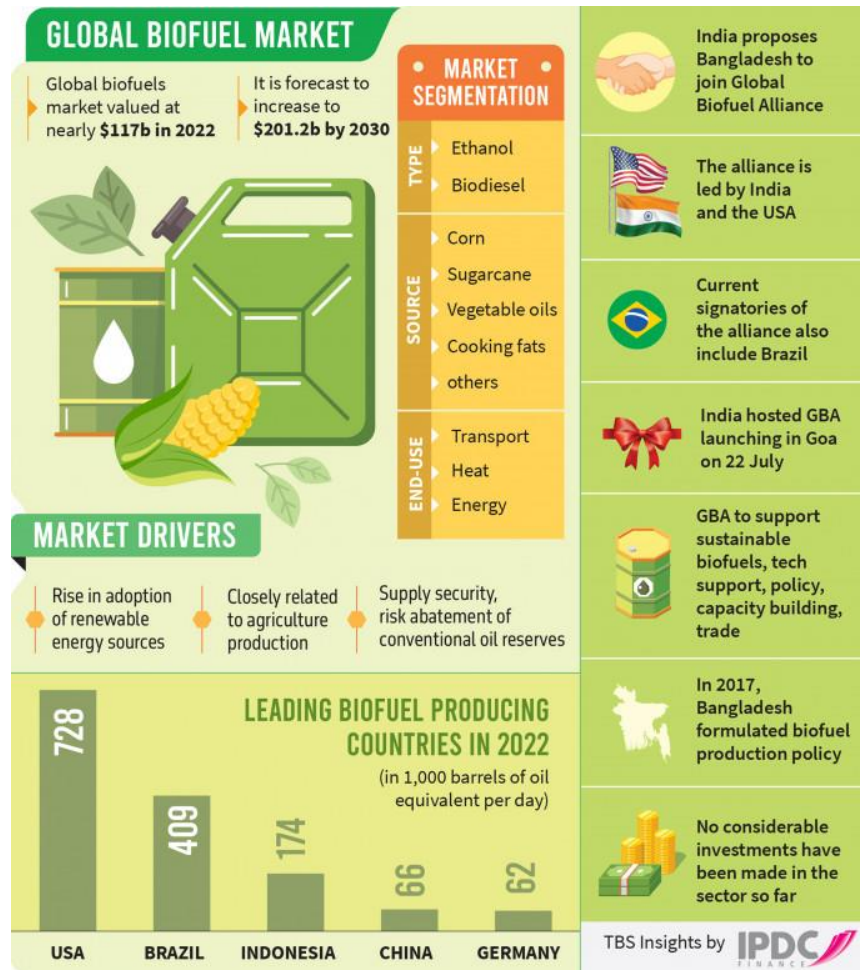


Image: The Business Standard

The Market Size: Statistics¹¹

The Global Biofuel Market has been valued at nearly \$117b in the year 2022. With the help of the Global Biofuel Alliance, the value must be increased to \$201.2 billion by 2030. The leading biofuel-producing countries as per the statistics for the year 2022 are the United States (728 in 1000 barrels of oil equivalent per day), Brazil, Indonesia, China, and Germany. Ethanol and Biodiesel both are the type of Biofuel although the Global Biofuel Alliance focuses on the Ethanol type. The sources of ethanol and biodiesel are corn, sugarcane, vegetable oil, and cooking fats. The end use is in the transport, heat, and energy sectors.

¹¹ “Bangladesh Considers Joining Global Biofuel Alliance Led by India, USA.”

The Significance of Biofuel to Energy Security¹²

There is a reason why biofuel has been chosen to play a pivotal role in the process of decarbonization. In this world of fossil fuels with 80% of the global energy mix, biofuels have emerged as a crucial element in the decarbonization process. This emergence expects fossil fuel dominance to be reduced in a gradual process. Although Biofuel comes to replace the demand for fossil fuel, it fails to replace two important demands by 2050. One is the oil and Gas, and another is the Gasoline Demand. Biofuel, as a renewable energy source, aims to replace fossil fuel in a wide range of applications, for instance: Transportation, Heating, and Electricity Generation.

Biofuels will reduce emissions and balance energy security. However, the main challenge will remain in dealing with the material availability and intermittency. The other 5 key areas of the impact of Biofuel would be:

1. To keep greenhouse gas emissions low.
2. To reduce import dependency.
3. To promote circularity.
4. To enhance energy security
5. To deliver broad socioeconomic benefits.

Implication for Bangladesh¹³

From the Bangladesh side, the Energy Division Officials stated that Bangladesh is now reviewing the proposal of the Global Biofuel Alliance. There is a possibility that a bilateral discussion will take place between the leaders of Bangladesh and India. According to experts, there should be no issue for Bangladesh to be a member of the Global Biofuel Alliance.

Biofuel Policy of 2017: Bangladesh

In the year 2017, the government of Bangladesh adopted a biofuel policy. The entire initiative has been formulated by the Energy and Mineral Resources Division for bio-ethanol production, utilization, and plant establishment. The aim was to blend the bio-ethanol with petrol with an addition, octane at the ratio of 5%. The source raw materials for ethanol production were selected as maize grain, sugarcane bagasse, paddy straw, molasses, corn stalks, old newspapers, tree bark, scraps, vegetable waste, and waste yarn and cotton.

¹² www.ETEnergyworld.com, “Global Biofuel Alliance.”

¹³ “Bangladesh Considers Joining Global Biofuel Alliance Led by India, USA.”

Should Bangladesh Consider Joining the GBA Initiative?

According to Energy Expert M Tamim, there is no obstacle for Bangladesh to join as the Global Alliance for Biofuels already exists. He added that Bangladesh has to contribute based on its capacity. The land matters the most in biofuel production and this production should not compromise the food security of the country.

Challenges for Bangladesh While Joining the Global Biofuel Alliance

For biofuel production, there is a necessity for an ample number of resources as well as capabilities. Typically, biofuel is well derived from corn. As developed countries like Brazil and the United States have the required resources, Bangladesh may face challenges fulfilling the requirement.

So, the challenges would be:

- Land Scarcity
- Limited Agricultural Land.
- Limited Potential to expand biofuel production countrywide.

Bangladesh has previously focused on biodiesel as a type of biofuel. In that case, the sources of biofuel have been Soyabean oil, coconut oil, sesame oil, waste cooking oil, and mosna oil.

Another information that is important to note is that in the middle of the year 2023, Bangladesh expressed its interest in importing ethanol from India. The intention is to blend the product with gasoline and diesel. That means Bangladesh is not manufacturing ethanol commercially. Rather, Bangladesh is getting petrol and diesel through pipeline from Numaligarh, India.¹⁴

Bangladesh's Ethanol Market: Post-COVID-19 Observation¹⁵

Bangladesh offers a few key players in the field of premium-quality ethanol. For instance:

- M.A. Jabbar & Co. Ltd.
- Bashundhara Group
- City Oil Refinery Ltd.

¹⁴ "Bangladesh, Sri Lanka Interested to Import Ethanol from India," The Business Standard, August 30, 2023, <https://www.tbsnews.net/world/global-economy/bangladesh-sri-lanka-interested-import-ethanol-india-691246>.

¹⁵ 6Wresearch, "Bangladesh Ethanol Market (2020-2026) | Trends, Value, Size," accessed September 13, 2023, <https://www.6wresearch.com>.

The above-mentioned organizations have the capability to introduce high-quality ethanol from molasses, and sugarcane. City Oil Refinery Limited has experience in supplying industry-grade ethanol to the domestic and international markets.

Bangladesh's Experience with The Use of Bioethanol

In the year 2018, the Bangladesh government decided to use a mix of bioethanol and petrol as the vehicle fuel at a 5% rate. The mix also includes octane. The initiative is to reduce the use and emission of conventional fuel oil and carbon. Since that decision, Bangladesh has been directed towards setting up bio-ethanol plants to meet the growing development and the needs of the economy throughout. Also, to build up the bio-ethanol plant, biomass will be used as the raw material. On the other hand, the source of biomass is plants and animals, maize trees, molasses, sugarcane waste, and maize grain.¹⁶

The Geopolitical Significance of Bangladesh Joining the Global Biofuel Alliance

Although 9 member countries altogether launched the Global Biofuel Alliance at the G20 Leaders' Summit in 2023, there is a perception that the alliance belongs to both India and the United States. On the other hand, The White House Report sees Bangladesh as an observer country along with the United States.¹⁷ When it comes to the alliance of the United States, global politics comes as a part of playing a role. In the current world, the United States is constantly seeking the ways of possibilities of engagement with BRICS nations using a plethora of approaches in the field of financial and military support. Bangladesh joining the Global Biofuel Alliance will facilitate close interactions with the United States on the journey of common ground, the green energy.

¹⁶ "Government Approves Use of Bio-Ethanol as Vehicle Fuel," Dhaka Tribune, accessed September 13, 2023, <https://www.dhakatribune.com/business/134458/government-approves-use-of-bio-ethanol-as-vehicle>.

¹⁷ House, "Readout of Launch of Global Biofuels Alliance."



Image: Indian Oil Corporation Ltd.

How the Global Biofuel Alliance is a Win for Bangladesh?

The Global Biofuel Alliance can be a win-win situation for Bangladesh in terms of:

- **Employment Opportunity:** If local biofuel production starts, there will be more employment opportunities.
- **Climate Resilience:** The Global Biofuel Alliance allows Bangladesh to achieve net zero targets in a faster mode. Besides, economic resilience is ensured to reduce dependency on fossil fuel imports.
- **Policy Influence:** If Bangladesh facilitates the exchange of cutting-edge technologies for Biofuels in a proper way, the country may become a key player in shaping global biofuel standards.

Conclusion

The importance of biofuel is enormous in nature. Biofuels are important if it is seen from the circular economy perspective. The Global Biofuel Alliance is aimed at helping to focus on alternative fuels to cut the import bill. Bangladesh needs to overcome the challenges of maintaining the adequate need for land to facilitate the production of biofuel. It is expected that Biofuels, being renewable and sustainable energy sources, will replace fossil fuels and their negative aspects in the fields of transportation, heating, and electricity generation. So far, Bangladesh has no obstacle to joining the alliance, but Bangladesh must ensure its capacity and agricultural resources in biofuel production. The alliance has the capacity to reduce the import burden of Bangladesh if the local production starts with the help of established industries.