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# **TODAY'S ANALYSIS**

**(12 September 2023)**

## **TOPICS TO BE COVERED**

- **KEY OUTCOMES OF 18TH G20 SUMMIT.**
  - **GLOBAL BIOFUELS ALLIANCE**
  - **INDIA-MIDDLE EAST-EUROPE ECONOMIC CORRIDOR**



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## GLOBAL BIOFUELS ALLIANCE

Global Biofuels alliance was launched on **9th September 2023**, on the sidelines of **G20 Summit** in New Delhi.

### FOUNDING MEMBERS:

- India
- Brazil
- USA

These countries contribute **85% of global production & 81% consumption**.



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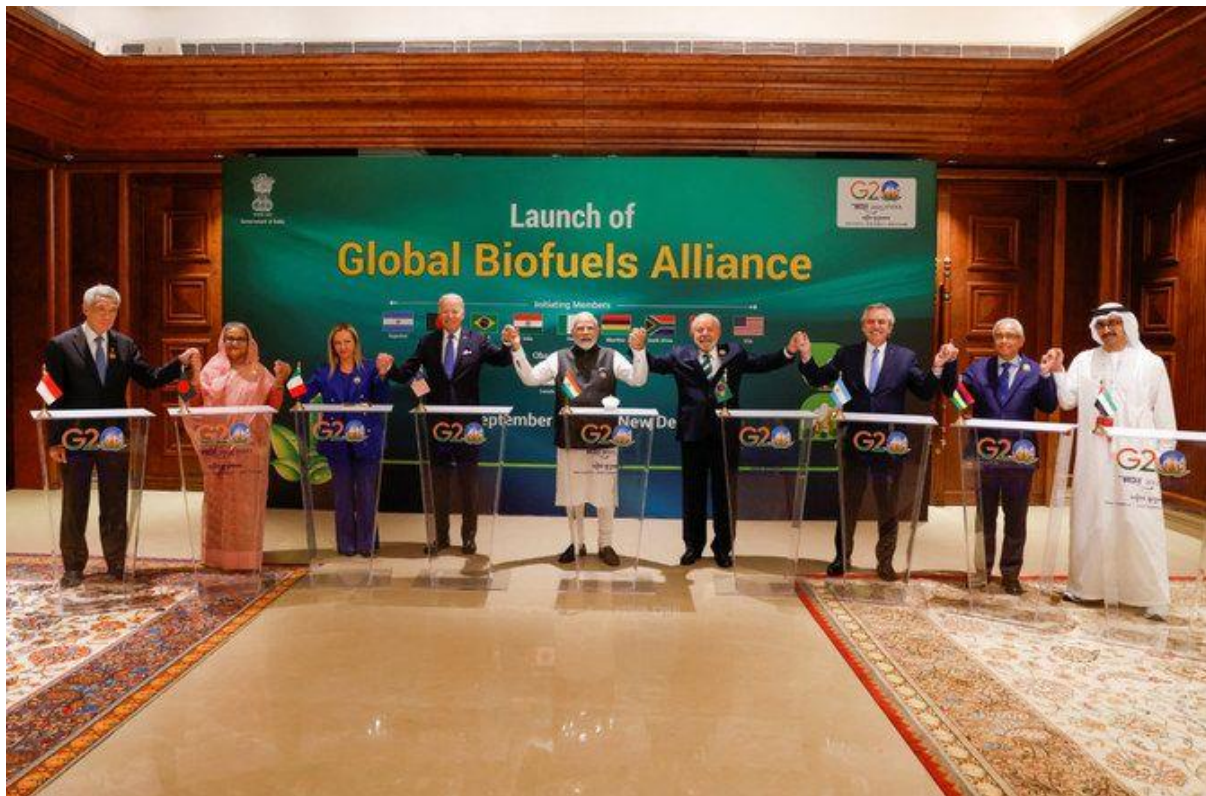
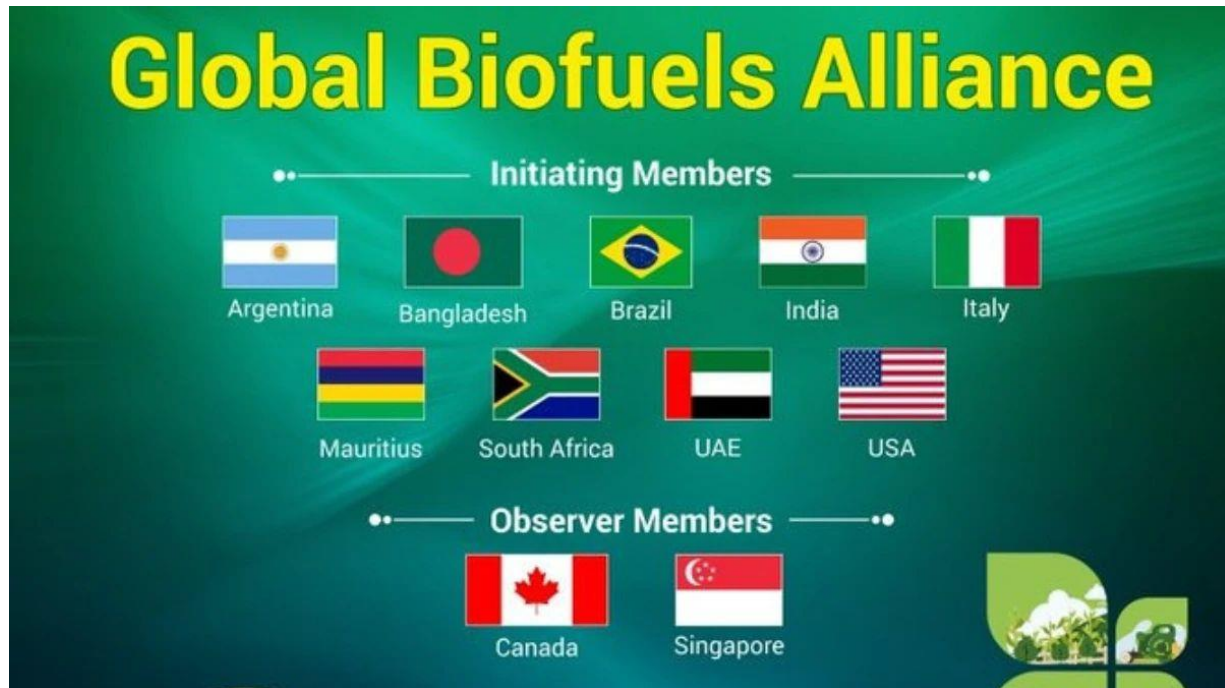


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## TOTAL MEMBERSHIP



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## AIM

The Alliance intends to **expedite the global uptake of biofuels** by:

- **Facilitating technology advancements.**
- **Intensifying the utilization of sustainable biofuels and**
- **Shaping robust standard setting & certification.**

The alliance will also act as a **central repository of knowledge** & an **expert hub**.

## NATIONAL POLICY ON BIOFUELS

The Cabinet in 2022 approved amendments to the **National Policy on Biofuels, 2018** to advance the target of **20% ethanol blending in petrol (E20)** to year **2025-26** from earlier **2030**.

## WHAT ARE BIOFUELS?

Biofuels refers to **liquid transportation fuels**, such as **ethanol and biodiesel**, derived from agricultural produce, forests or any other organic material (feedstock).

## GENERATIONS OF BIOFUELS

Based on the feedstock (raw materials) used to produce biofuels, they are classified into **four generations**.

Presently, first-generation biofuels are the main source of biofuels globally.

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### 1<sup>st</sup> Generation Biofuel

- It has **High Carbon Content.**
- Made from Edible Items. Eg- **Sugar, Corn, Starch** etc.



### 2<sup>nd</sup> Generation Biofuel

- **Greenhouse Gas content less than 1<sup>st</sup> Generation Biofuel**
- Made from leftover of Food Crops. Eg- **Rice Husk, Wood Chips** etc.



### 3<sup>rd</sup> Generation Biofuel

- It is **Carbon Neutral** in. ( $\text{CO}_2$  Emitted =  $\text{CO}_2$  Sequestered)
- Produced using Microorganisms. Eg. **Algae**



### 4<sup>th</sup> Generation Biofuel

- Made from '**Genetically Engineered Crops**'.
- They are **Carbon Negative.**

## SIGNIFICANCE OF ETHANOL BLENDING

- **Reduce dependency on Petroleum:**

By blending ethanol into gasoline, it can reduce the amount of petrol required to run a car, thereby **reducing dependence on imported, expensive, and polluting petroleum.**

Today, India imports 85% of its oil requirements.

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- **Save Money:**

India's net import of petroleum was 185 million tonnes in 2020-21 at a cost of USD 551 billion.

Most of the petroleum products are used in transportation and therefore, the E20 programme can save the country USD 4 billion annually.

- **Less Polluting:**

Ethanol is a less polluting fuel and offers equivalent efficiency at a lower cost than petrol.

## RELATED ISSUES WITH BIOFUELS

- **Risk of Hunger:**

The food grains meant for the impoverished are being sold to distilleries at prices cheaper than what states pay for their public distribution networks.

- **Cost:**

Production of biofuels requires land, this impacts the cost of biofuels as well as that of food crops.

- **Water use:**

Massive quantities of water are required for proper irrigation of biofuel crops as well as to manufacture the fuel, which could strain local and regional water resources.

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## LEARNINGS FROM BRAZIL WRT ETHANOL BLENDING)

Brazil is one country that has successfully integrated biofuels into its fuel economy. It has efficiently leveraged its traditions and dominance in sugarcane production into a biofuel economy without compromising food security. Biofuels are also central to **Brazil's low carbon emission strategy**.

Brazil aimed for a **higher productivity** and **sugar-ethanol balance**.

With a **mandatory blending of 27%** ethanol with gasoline, in **2019 alone Brazil saved about 0.5 million barrels per day of gasoline with a savings of \$13 billion** in imports.

**78% of Brazilian automobiles** today run on **27% of ethanol blend**.

## HOW DID BRAZIL ACHIEVE HIGHER PRODUCTIVITY & SUGAR ETHANOL BALANCE?

Brazil **revolutionised its biomass production** for ethanol and **develop a new variety of sugarcane**.

This is popularly known as '**energy cane**', which is **low on sucrose but high on biomass**.

With productivity up to **350 tonnes of biomass per ha**, against **80 tonnes per ha of traditional sugarcane**, it offered a perfect balance.

Brazil thus took up ethanol production without compromising sugar production. This enabled it to gradually augment its production and blend.

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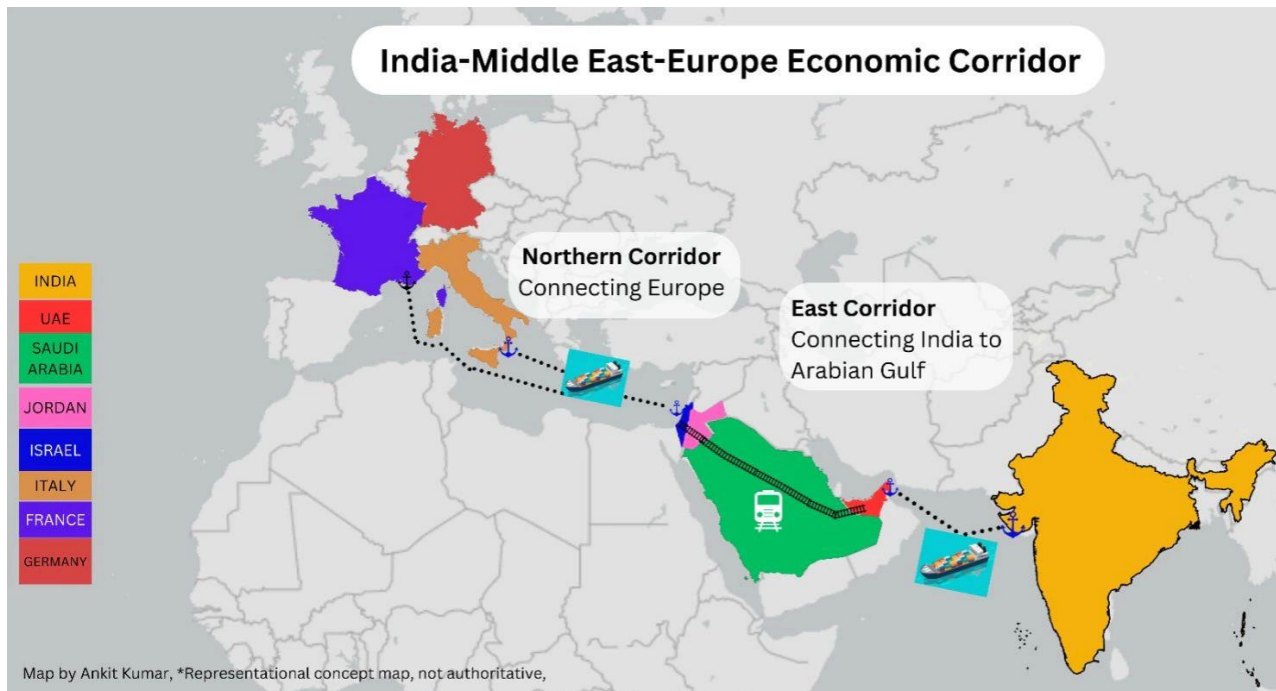


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# INDIA-MIDDLE EAST-EUROPE ECONOMIC CORRIDOR



## THE INITIATIVE

- Prime Minister Shri Narendra Modi and the Prez. of USA Mr. Joe Biden **co-chaired** a special event on **Partnership for Global Infrastructure and Investment (PGII)** and **India-Middle East-Europe Economic Corridor (IMEC)**.
- The event aimed at **unlocking greater investment for infrastructure development** and strengthening connectivity in its various dimensions between India, Middle East and Europe.

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- The IMEC comprises of an **Eastern Corridor** connecting India to the Gulf region and a **Northern Corridor** connecting the Gulf region to Europe. It will include a **railway and ship-rail transit network & road transport routes**.
- Leaders of the **European Union, France, Germany, Italy, Mauritius, UAE and Saudi Arabia**, as also the **World Bank**, participated in the event.

## PARTNERSHIP FOR GLOBAL INFRA & INVESTMENT

The United States aims to raise **\$200 billion over five years** to fund needed infrastructure in developing countries under a **G7 initiative** aimed at **countering China's Belt and Road project**.

The overall investment, including G7 partners and private capital, aims to hit **\$600 billion** over the next five years.

The announcement was an **official launch** and a rebranding of what had been rolled out last year at the G7 in the UK as "**Build Back Better World**" (B3W). The effort is now called the

**Partnership for Global Infrastructure and Investment, or PGII.**

## ABOUT PGII & PGII AS AN ALTERNATIVE TO BRI

It seeks to provide an alternative to China's estimated **\$1 trillion** in hard infrastructure investment around the world in the last decade.

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This G7 initiative is **funding projects in four major categories:**

- Clean energy
- Health systems
- Gender equality
- Information and communications technology.

At the centre of PGII is **a different approach** to financing infrastructure projects: Using **limited government funding to catalyse greater volumes of private capital** (pension funds, private equity funds and insurance funds, among others).

**This stands in contrast to BRI**, which provides financing largely via state-to-state channels creating unsustainable debt levels.

## **WHAT IS BELT & ROAD INITIATIVE (BRI)?**

The BRI initiative was **announced in 2013** by China's President Xi Jinping. The '**Belt**' refers to the '**Silk Road Economic Belt**', which is a series of overland routes reminiscent of the Silk Road of antiquity and the late middle ages, while the '**Road**' refers to the **sea routes**, which is also referred to as the 21st Century Maritime Silk Road.

### **DID YOU KNOW?**

BRI was initially known as **One Belt One Road (OBOR)**. It was in 2016 that the name got changed.

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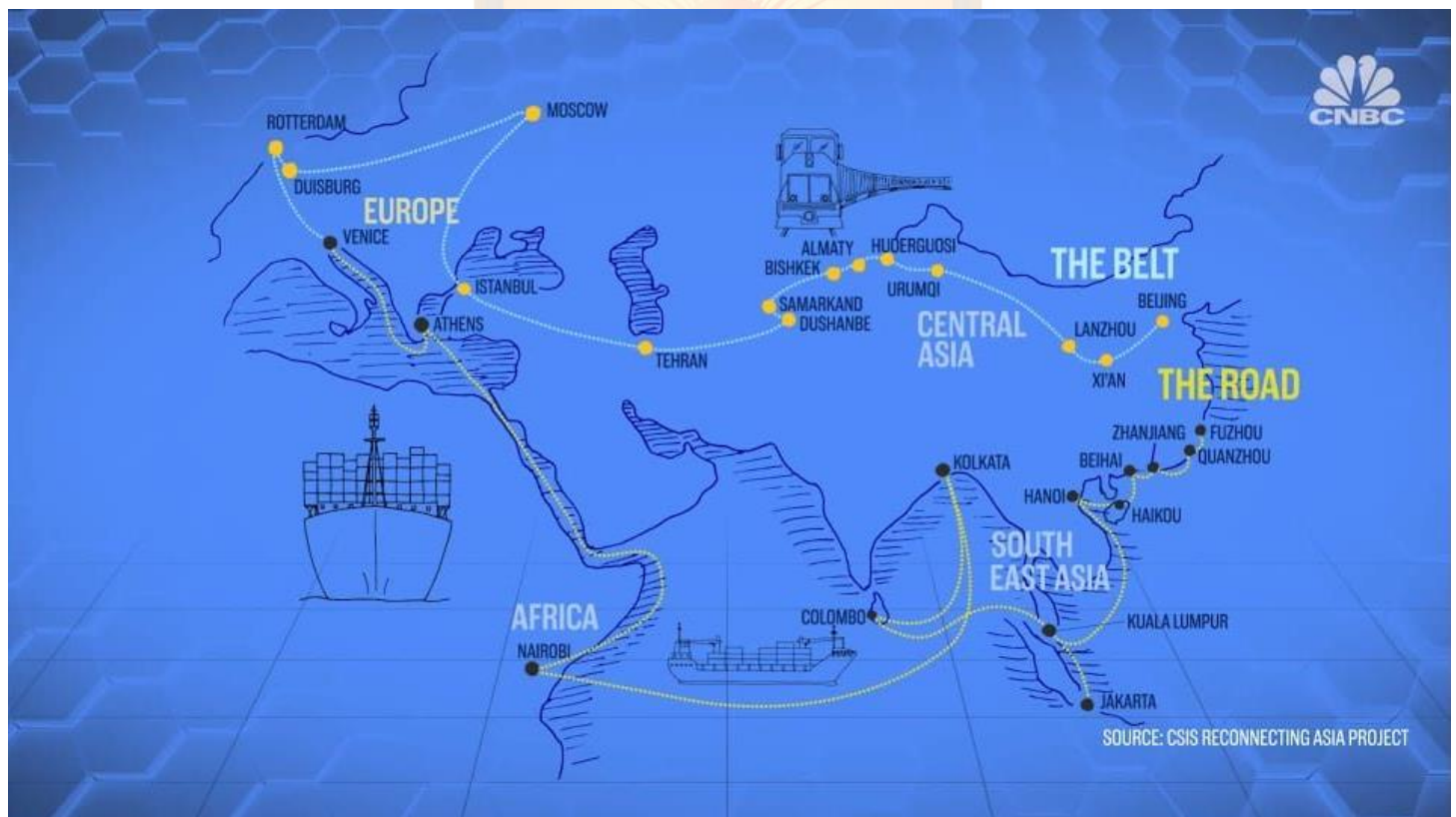
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## Objectives of OBOR/BRI (since 2016)

The objectives of the OBOR/BRI are as follows:

- Creation of a **unified large market** that makes use of both international and domestic markets.
- Facilitate **cultural exchange** and integration
- **Enhance mutual understanding and trust of member nations** that will foster an innovative environment with capital inflows, talent pool and technology database.



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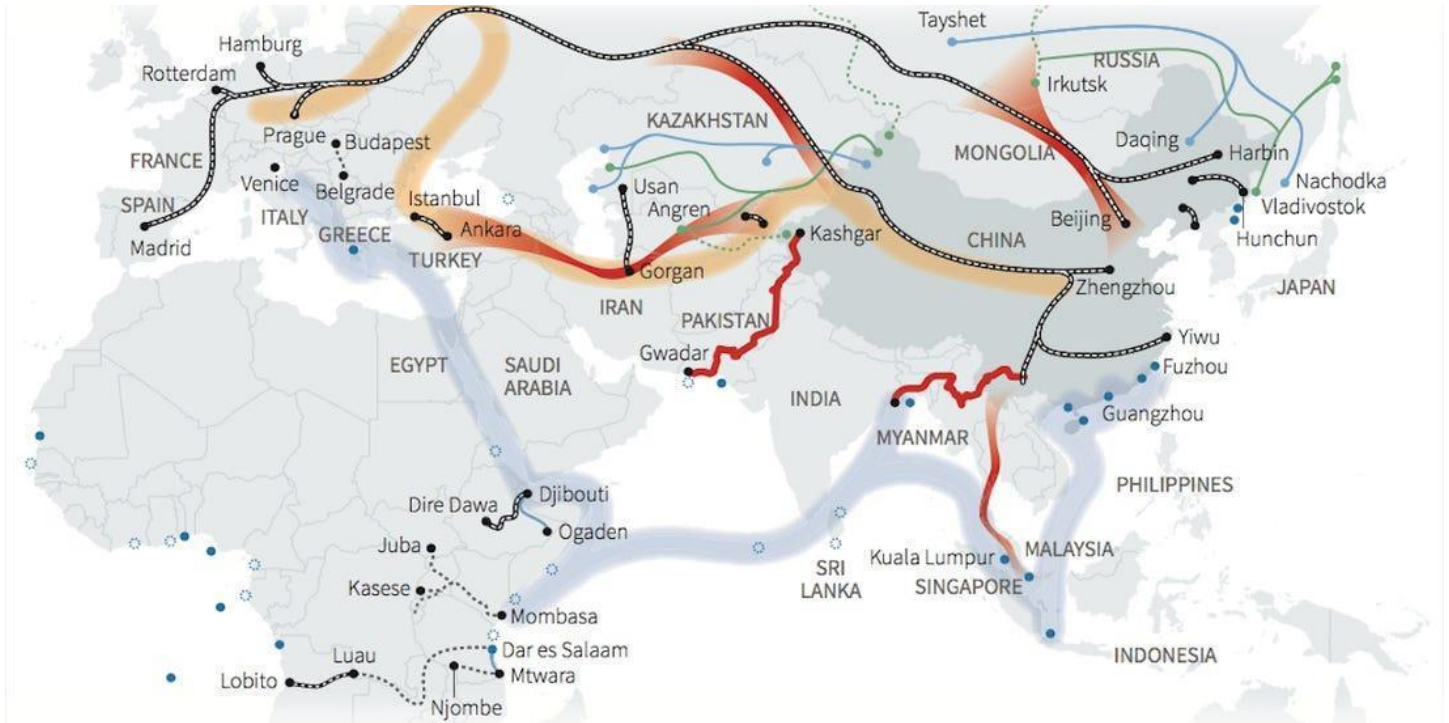


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