



# Indonesia Biodiesel Program for Energy Transition: Addressing Challenges and Overcoming Obstacles

WEBINAR WORLD BIOENERGY ASSOCIATION

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By

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ASOSIASI PRODUSEN  
BIOFUEL INDONESIA

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- **Biodiesel Industry Development**
- Sustainability
- Challenges and Overcoming Obstacles
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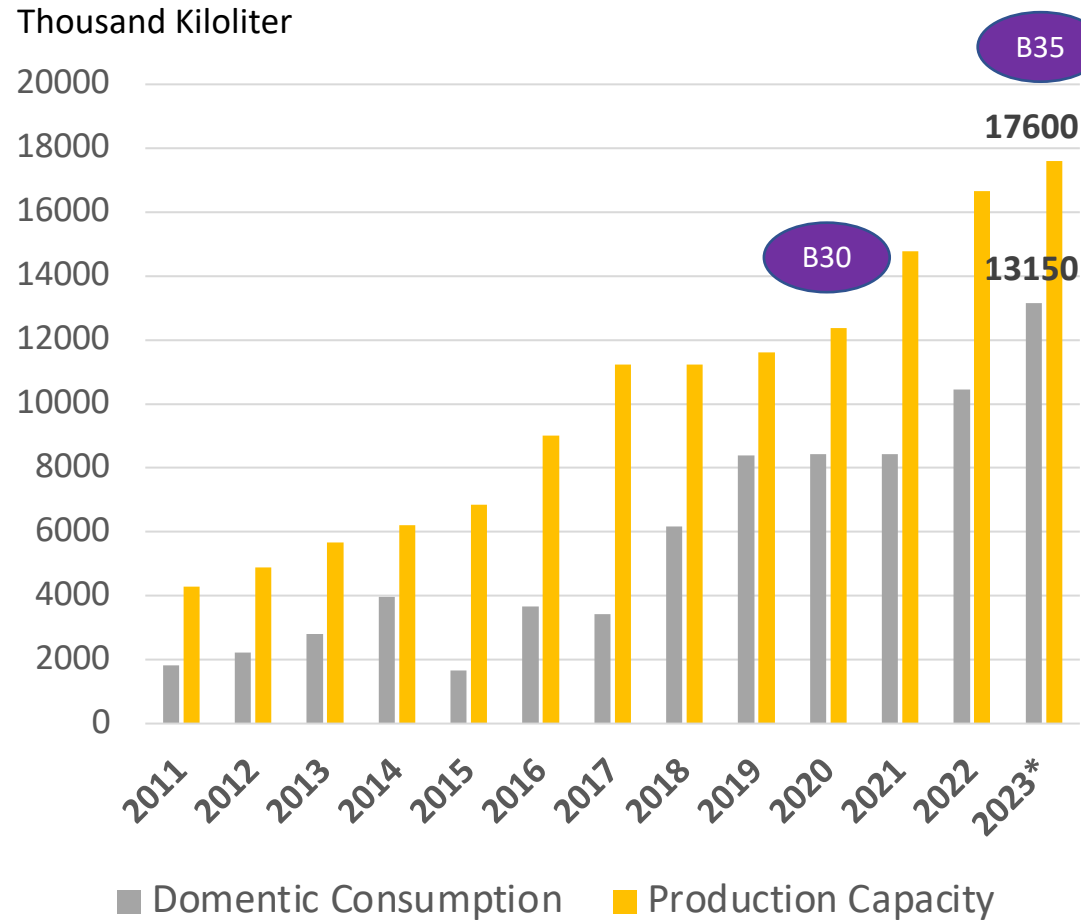


# Asia Pacific & World Biodiesel Production



- The production trend of Biodiesel in Asia Pacific and globally is continuously increasing.
- In Asia Pacific, this trend is fueled by the growing use of Biodiesel in Indonesia.

# Domestic Consumption & Production Capacity



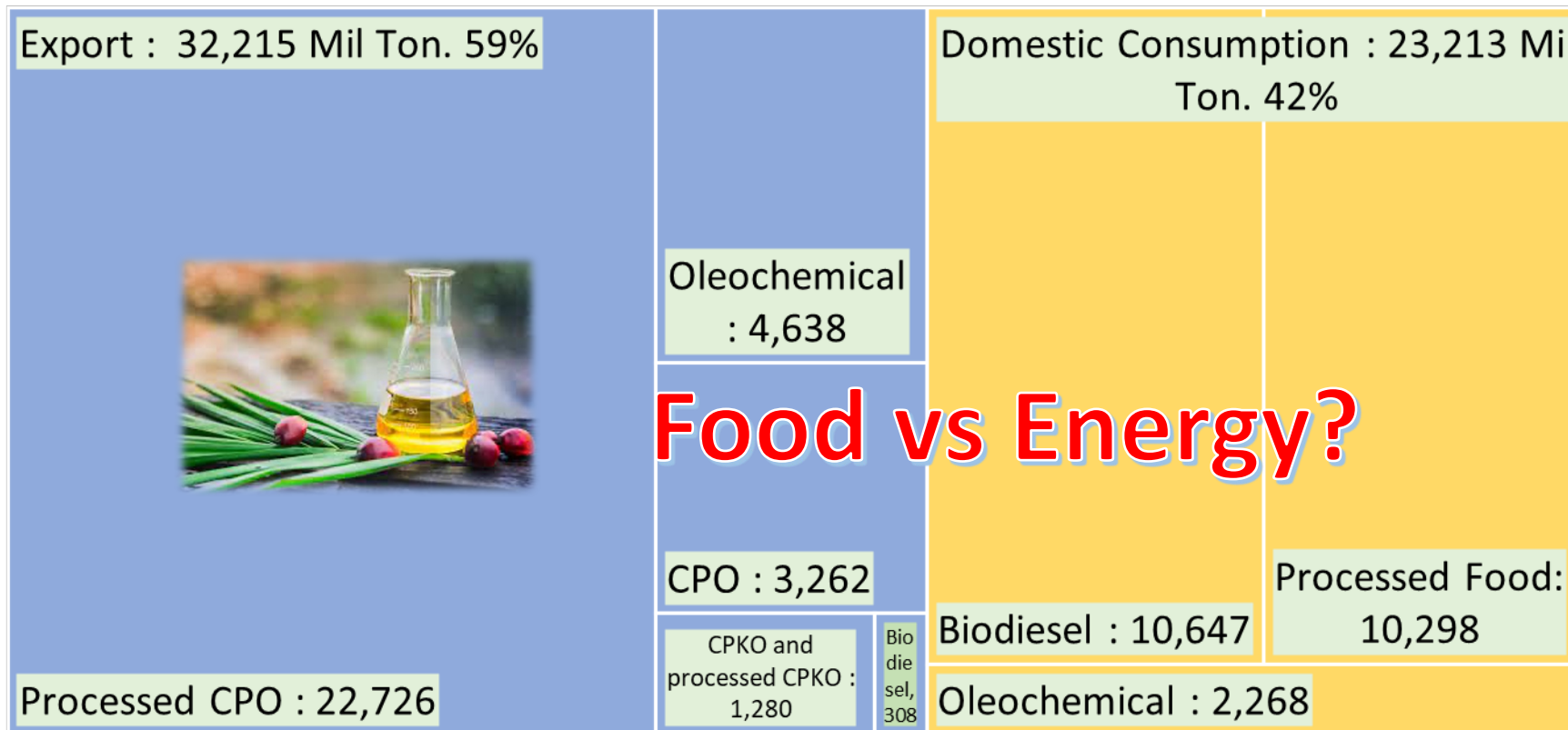
Since 2005, the installed capacity has been continuously increasing and is projected to reach more than 17 million kiloliters in 2023, while the consumption is targeted to be 13.1 (realization 12.2) million kiloliters



# 2023 Palm Oil Production & Distribution Map

**2023 CPO & CPKO Production : 54,844 Mil Ton**

■ Export : 32,215 Mil Ton. 59% ■ Domestic Consumption : 23,213 Mil Ton. 42%



Biodiesel Production for domestic took **17% from the 2022 Palm Oil Production**

Biodiesel Production for domestic took **19% from the 2023 Palm Oil Production**

Source, APROBI, GAPKI, GIMNI, APOLIN 2024

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# Considering to Environment

Indonesia has implemented the moratorium on deforestation for any use since 12 (2011) years ago, and moratorium for new Palm plantation since 2018.

Also, it has formed Peat & Mangrove Restoration Board in 2016

Palm Oil Sustainability Standard RSPO (Roundtable on Sustainable Palm Oil) standard. 51% from Indonesia Plantation, 2,1 million Ha Certified

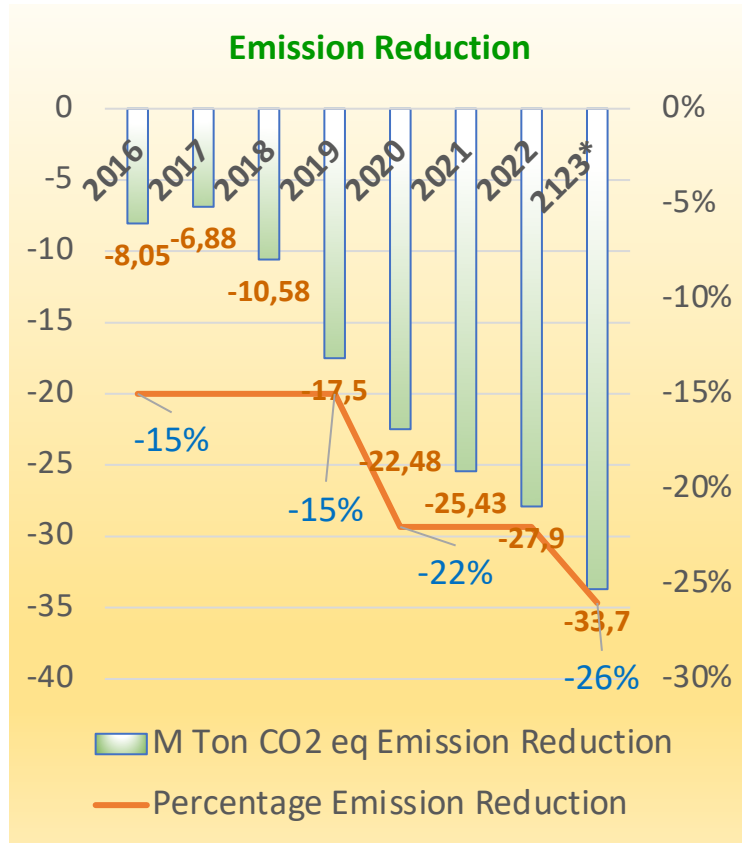
ISPO (Indonesia Sustainable Palm Oil) standard. More than 800 Indonesia plantations, 3.65 million Ha already certified ~22 Million Ton CPO. Soon we have the ISPO Down Stream and Indonesia Bioenergy Standard Indicator,

ISCC (International Sustainability & Carbon Certification), lot of Indonesian Companies certified.

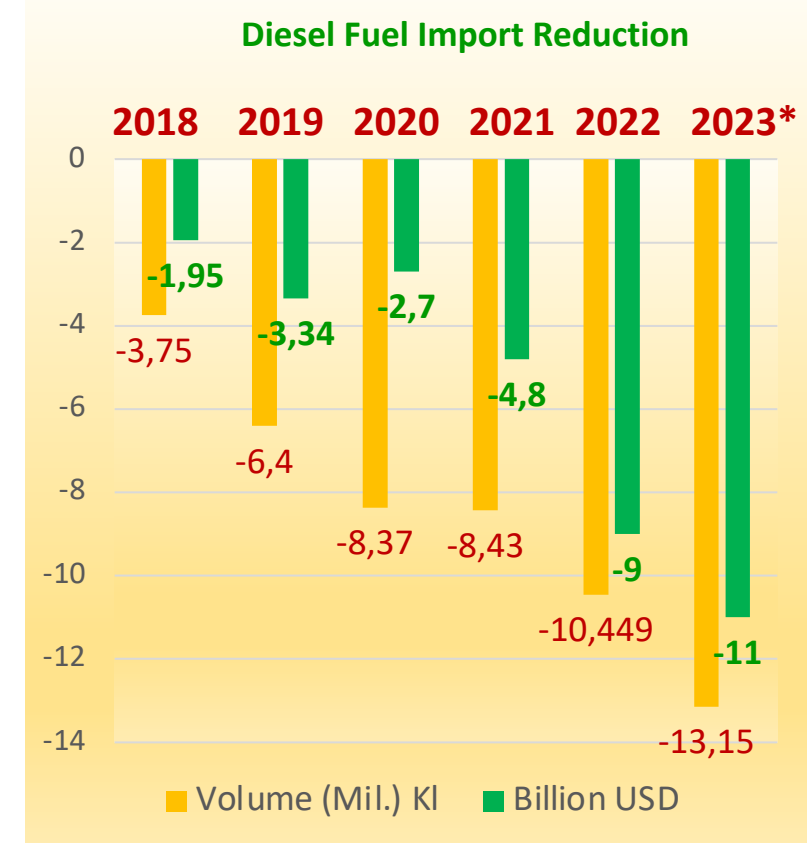
Continue to develop the Biofuel environment friendly processing technology



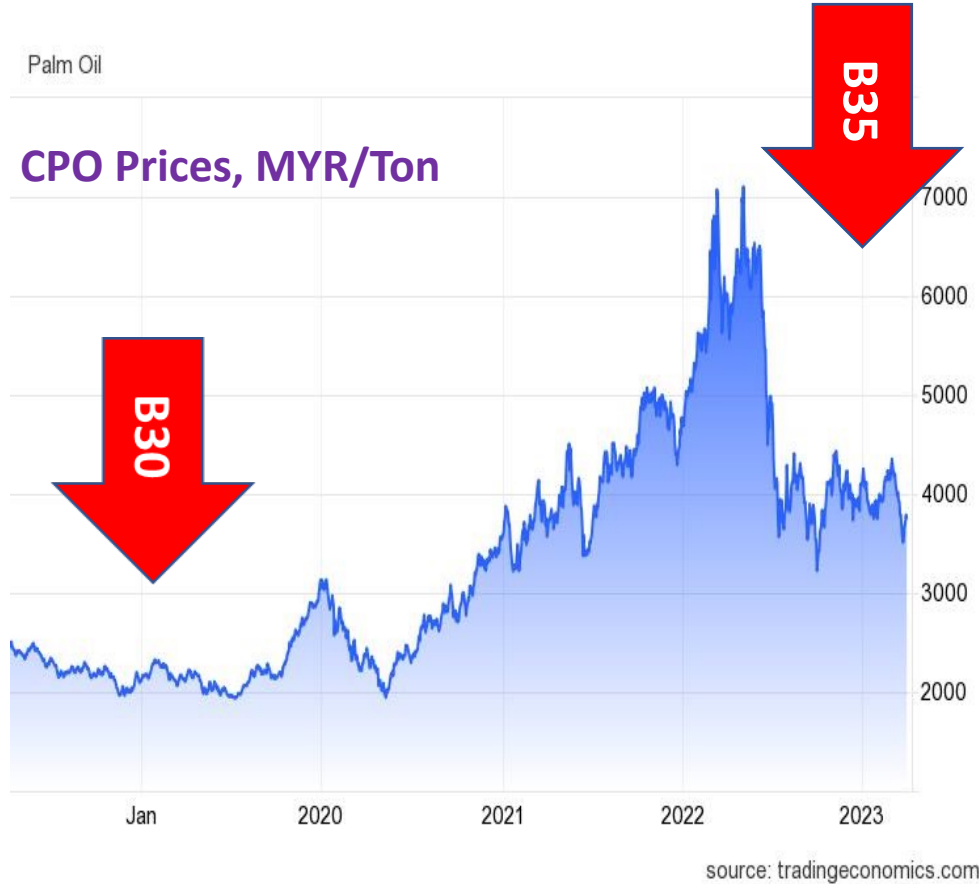
# Emission Reduction & Energy Security



- Last year (2022) emission reduction is about 27.9 Mil. Ton CO<sub>2</sub> eq.
- 2023 projected to contribute 33.7 Mil. Ton CO<sub>2</sub> eq. emission reduction and 9.5% share in Enhance NDC Energy 2030
- Significantly reducing the diesel fuel imports



# Social & Economy Impact



- The effect of the B20 program for PSO and Non PSO on CPO prices in September 2018 shows that there was an increase in price until the end of 2019
- Early to mid-2020, there was a decline in CPO prices due to falling world oil prices and the Covid 19 pandemic
- In May 2020, CPO prices have started to improve due to B35 implementation on February 2023

UPSTREAM WORKERS

1.600.000



Source, Trendingeconomics.com April 2023

## B35 Program, 2024 (Projection)



B35 ~ **13,4** Mil. Kl (**~82.7** Mil.barrel) ~ **129** days,  
Indonesia Oil Production



**22 Producers, 17.6 Mil. Kl** Installed Capacity



~**1.600.000** Upstream Palm Oil Farmers



**Improving Farmer's Income**



Decreasing ~**33.7** Mil. ton CO<sub>2</sub> eq (9.5% from *enhanced*  
NDC energy target 2030)



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# Challenges & Trade Barriers



**Quality.** Producers are required to maintain or even improve the quality of their biodiesel, especially with the plan to increase the biodiesel blend



**Handling and storage.** Learning from past experiences, producers are continuously striving to improve the quality of biodiesel handling and storage. Cooperation with all parties is necessary.



**Price.** Striving to narrow the price difference between Diesel and Biodiesel.



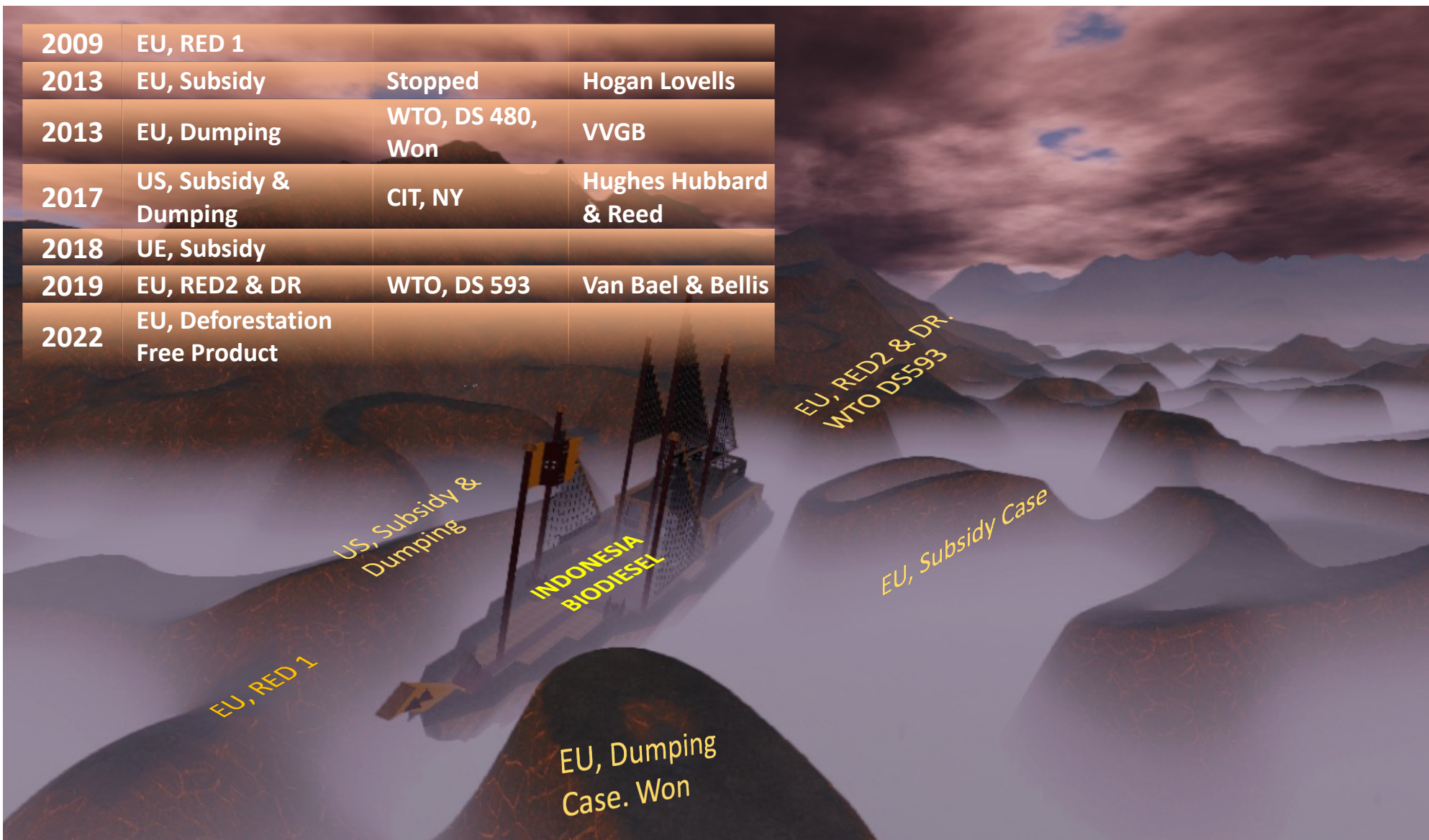
**Further Blend Testing.** Producers continue to support Performance and Road Testing efforts for Biodiesel.



**Facing trade barriers** such as EU CVD Biodiesel Subsidy, EU RED2 & Delegation Regulation, as well as EU Deforestation Free Product.

# Trade Barriers

2009	EU, RED 1		
2013	EU, Subsidy	Stopped	Hogan Lovells
2013	EU, Dumping	WTO, DS 480, Won	VVGB
2017	US, Subsidy & Dumping	CIT, NY	Hughes Hubbard & Reed
2018	UE, Subsidy		
2019	EU, RED2 & DR	WTO, DS 593	Van Bael & Bellis
2022	EU, Deforestation Free Product		



Sources, MOT, APROBI 2023.

# Product Development

## Biodiesel

- **Projection in 2024, ~13.4 M kl and export 1 M kl.**
- **Continuing to test the higher blend of Biodiesel**

## Product Development

- **Bioethanol**
- **Bio-hydrocarbon fuels, HVO**
- **Green Diesel, Green Gasoline,**
- **Bio Avtur,**

## Feedstock

- **Cellulose, hemicellulose, or lignin**
- **Micro algae**
- **Biomass, Crop residue**

## Technology

- **Unique technologies and processes that transform a wide range of plant, waste, and cellulosic molecules into hydrocarbon molecules like those produced at conventional refineries**

- The development of energy from oil palm continued, even heading to Bio-hydrocarbon products such as gasoline, diesel fuel also aviation fuel.
- There are still many challenges in implementing Bioethanol products.
- We are also continuously improving technology process and funding research.

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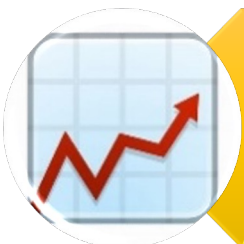
# Conclusions



The biofuels industry in Indonesia continues to strive to overcome technical challenges in applying sustainable principles towards the goal of achieving net-zero emissions, as well as addressing both technical and non-technical barriers in international trade.



Collaboration with all stakeholders, both domestically and internationally, is crucial and one of our main efforts



Last but not least, the main priority is to ensure the well-being of upstream biofuels farmers.





Thankyou  
& have a nice day

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