



MAPLE LEAF

STRATEGIES



**Global Renewable
Fuels Alliance**



Countries with biofuels in INDC submissions following Paris climate accord

- Angola
- Argentina
- Bahamas
- Barbados
- Belize
- Brazil
- Burkina Faso
- Cabo Verde
- China
- Congo
- Dominica
- Fiji
- Grenada
- Guinea
- Guyana
- India
- Kiribati
- Laos
- Liberia
- Macedonia
- Malawi
- Malaysia
- Mali
- Mozambique
- Nigeria
- Niue
- Palau
- Philippines
- Seychelles
- Sierra Leone
- Suriname
- Swaziland
- Togo
- Tonga
- Uruguay
- Zambia
- Zimbabwe



Say What??? – World Organizations

It was claimed that biofuel production would result in land use change, such as cutting forests or draining peat land to produce feedstocks such as oil palm, which would cancel the GHG emission savings “for decades.”
(EU Biofuel Strategy, 2006)

“Food prices may rise directly because of the diversion of grain to biofuels or indirectly because of land conversion away from food when induced by distortionary policies.” **(World Bank, 2008)**

The **United Nations Special Rapporteur on the Right to Food** called biofuels production a “crime against humanity” and a “recipe for disaster”. **(Jean Ziegler, 2008)**

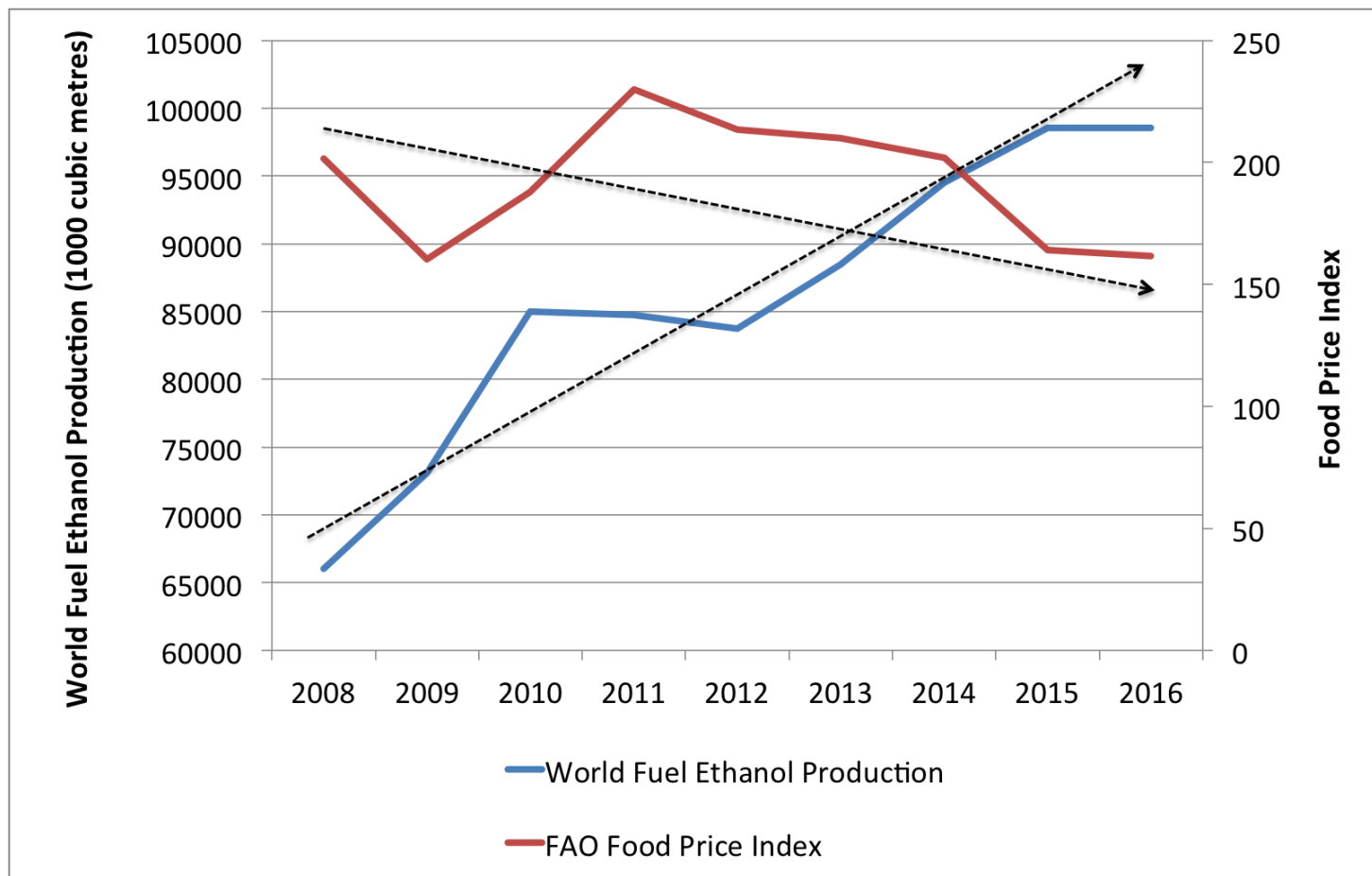
Change In The Face of Real- World Evidence

- Current **EU Science Hub** Statement – “Bioenergy will remain crucial over the next decade in order to reach the renewable energy targets in 2020.”
- As the **World Bank** has pointed out in recent years, food price increases in general are more linked to ups and downs in the crude oil market than the production of biofuels.
- **UN FAO** – “This dichotomy— biofuels or food— oversimplifies a very complex issue. First of all, biofuels are very context- and country-specific..” “The (UNFAO) approach promotes food and energy security and contributes to agricultural and rural development.”

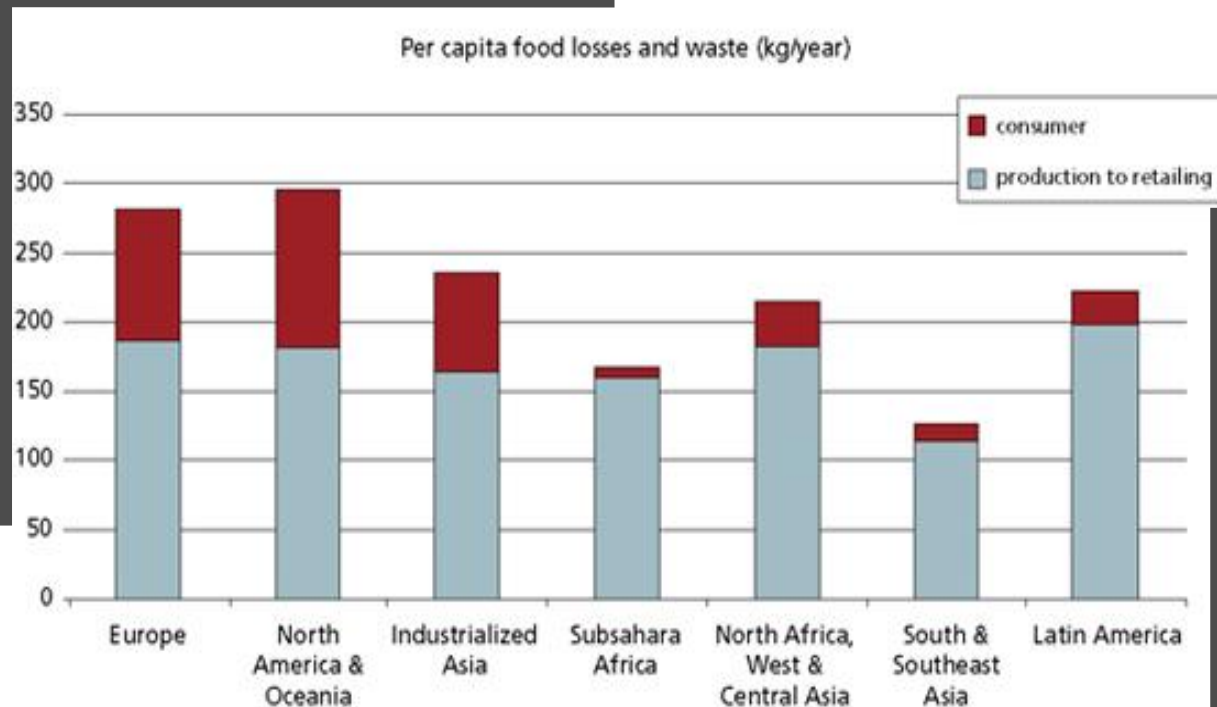
The End of the Food Vs Fuel Debate - The price of oil and energy inputs are the most important drivers of food and commodity prices, not biofuels.



Evidence Clear - Ethanol Production Does Not Drive Food Prices



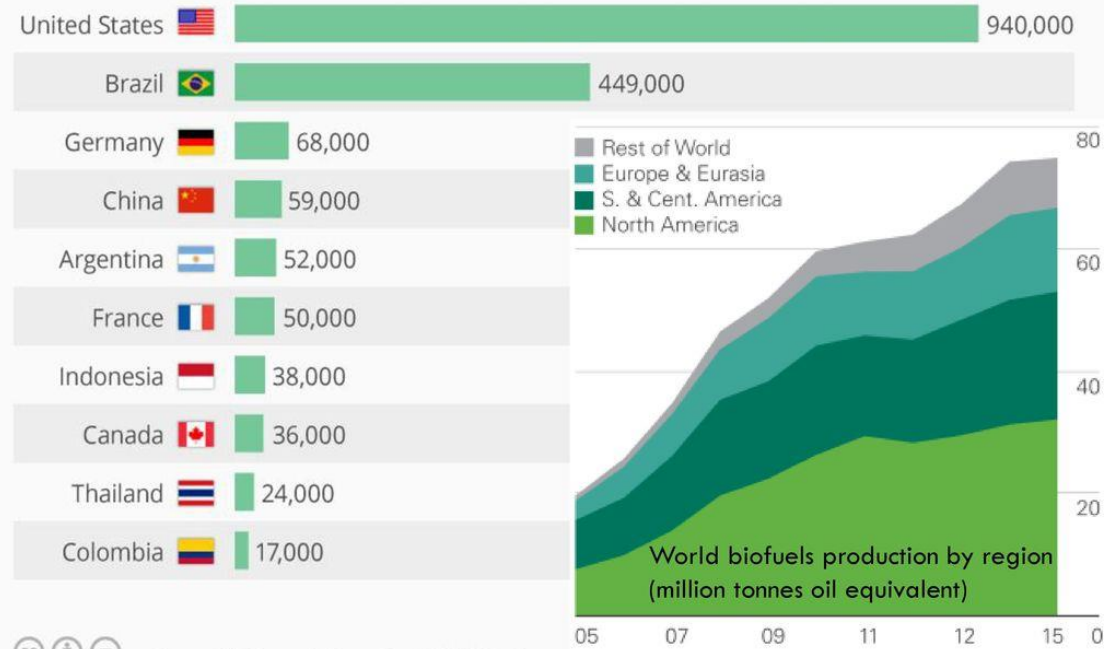
FOOD WASTE



- Roughly one third of the food produced in the world for human consumption every year — approximately 1.3 billion tonnes — gets lost or wasted.
- Food losses and waste amounts to roughly US\$ 680 billion in industrialized countries and US\$ 310 billion in developing countries.
- Industrialized and developing countries dissipate roughly the same quantities of food — respectively 670 and 630 million tonnes.

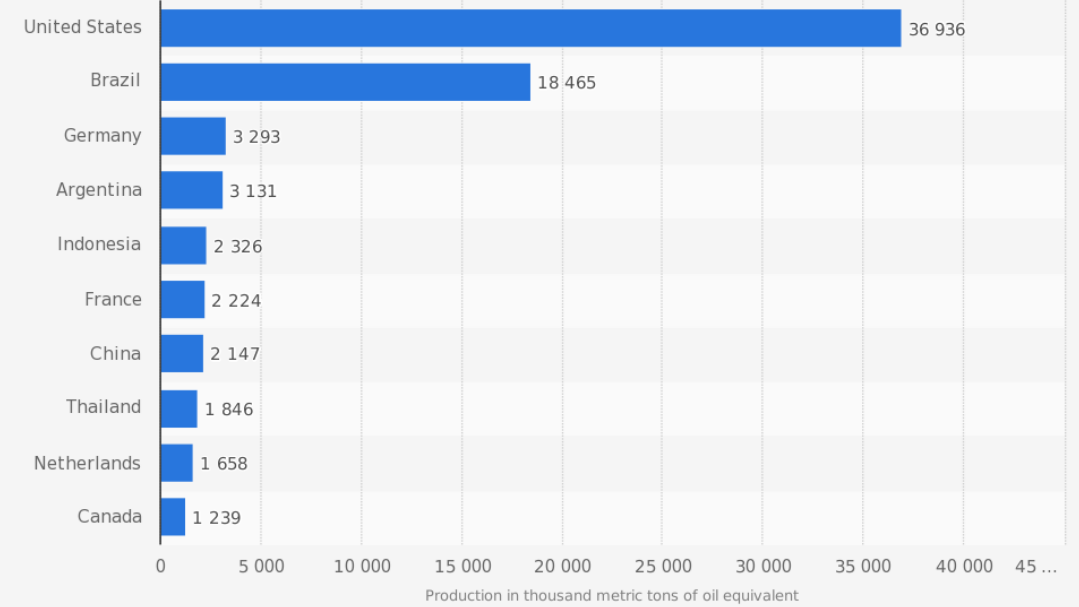
The Countries That Produce The Most Biofuels

Biofuel production worldwide (barrels per day)



Source: US Energy Information Administration

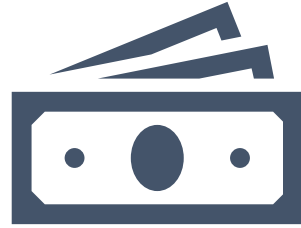
Leading countries based on biofuel production in 2017 (in 1,000 metric tons of oil equivalent)



Sources: BP, EIA; F.O. Licht © Statista 2018

Additional Information: Worldwide

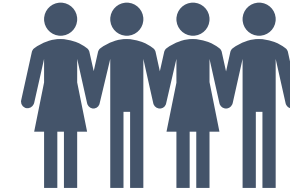
Biofuels Production - World biofuels production increased by 3.5% in 2017, well below the 10-year average of 11.4%, but the fastest for three years.



Canada:

The biofuels industry contributes approximately \$3.5 billion/year to the economy

Creates approximately 14,000 direct and indirect jobs in the country, about 1,000 direct and indirect jobs/year.



United States:

The biofuels industry contributes to America's manufacturing sector, supporting more than 64,000 good paying, clean energy jobs across the country.

Biofuels Fuel The Economy

1

47.9 billion liters of ethanol produced from coarse grains is the equivalent of 10.6% of world coarse grain production = value of \$27 billion (2010 prices).

2

31 billion liters of ethanol from sugar cane and molasses represents about 5% of world production = valued at \$3.6 billion

3

1.7 billion liters of ethanol from beets is equivalent to nearly 8.8% of world production = valued at \$1.6 billion.

4

17.6 billion liters of biodiesel is the equivalent of about 13% of global production of vegetable oil (palm, palm kernel and soybean) = valued at \$19.4 billion.

Biofuels Industry Major Source Of Support For Agricultural Output And Farm Income