

Bioenergy – Global Markets and Policies

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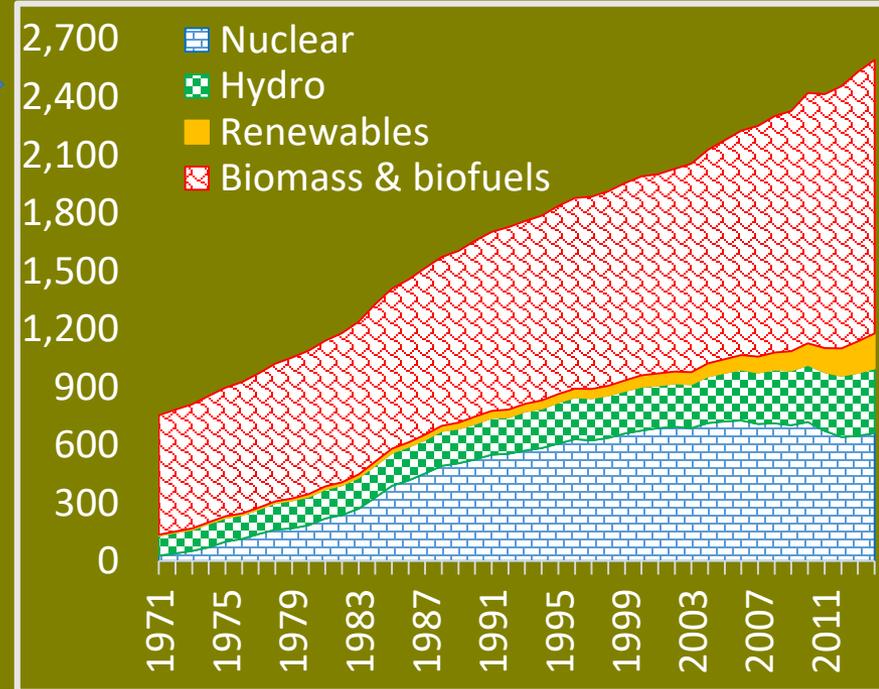
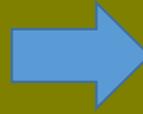
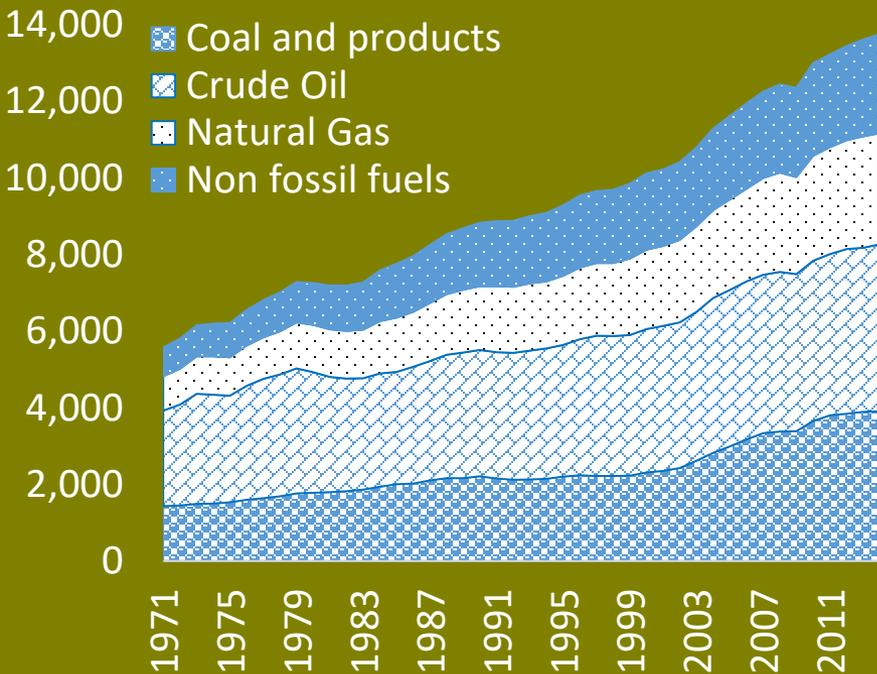
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Bioenergy from Global Perspective

Global energy supply mix (thousand tones of oil equivalent)

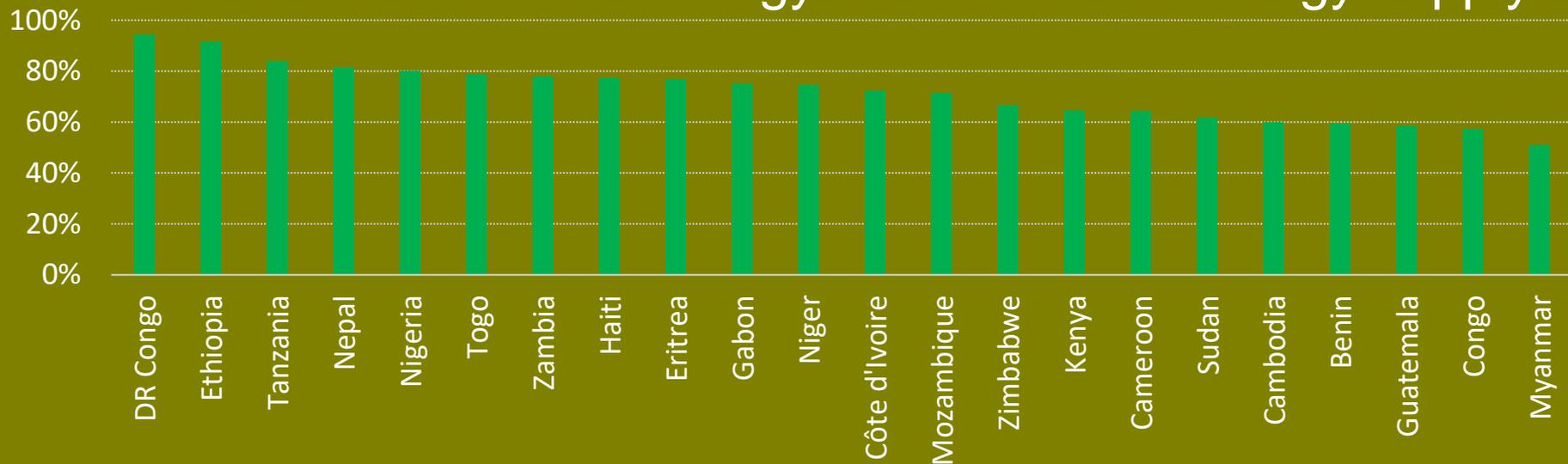


❖ Over the last 45 years, non-fossil fuels accounted for about 20% of the global energy supply mix;

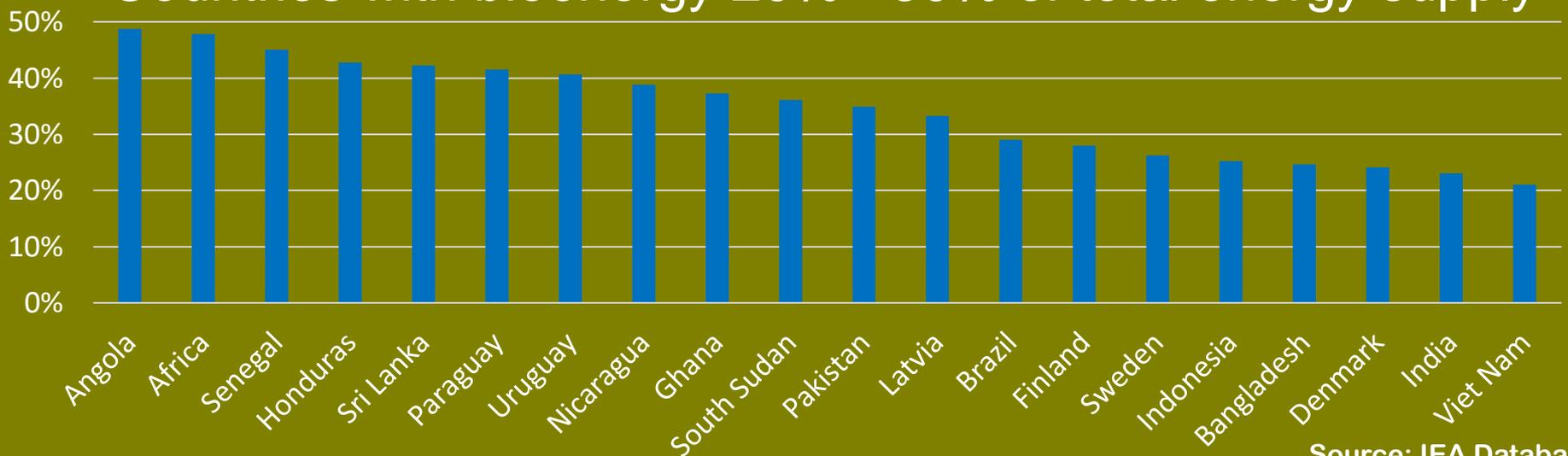
❖ Bioenergy is the main component of this non-fossil fuel group (more than 70% in 70's and still more than 50% now);

Bioenergy from Global Perspective (Cont..)

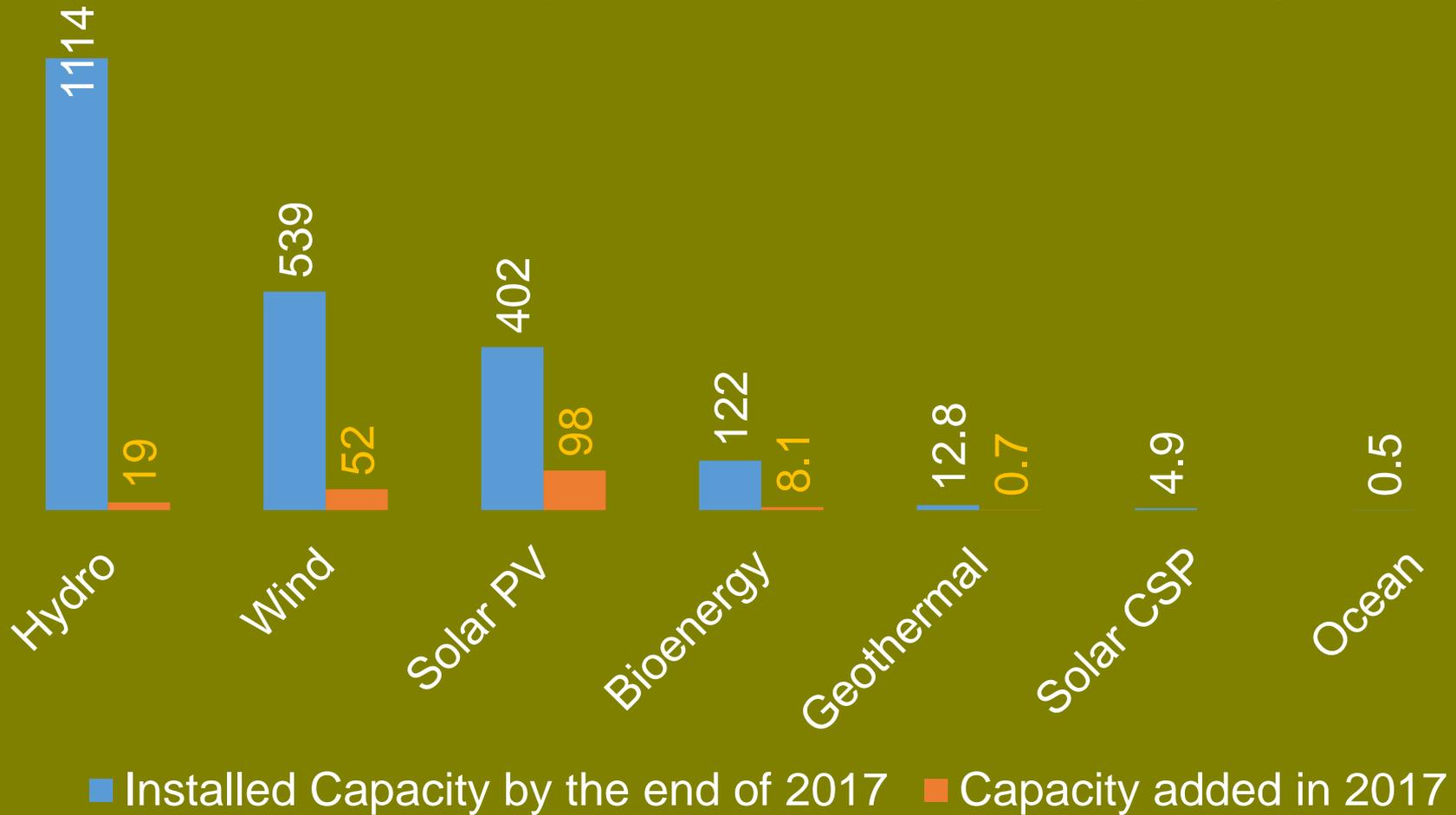
Countries with bioenergy > 50% of total energy supply



Countries with bioenergy 20% - 50% of total energy supply

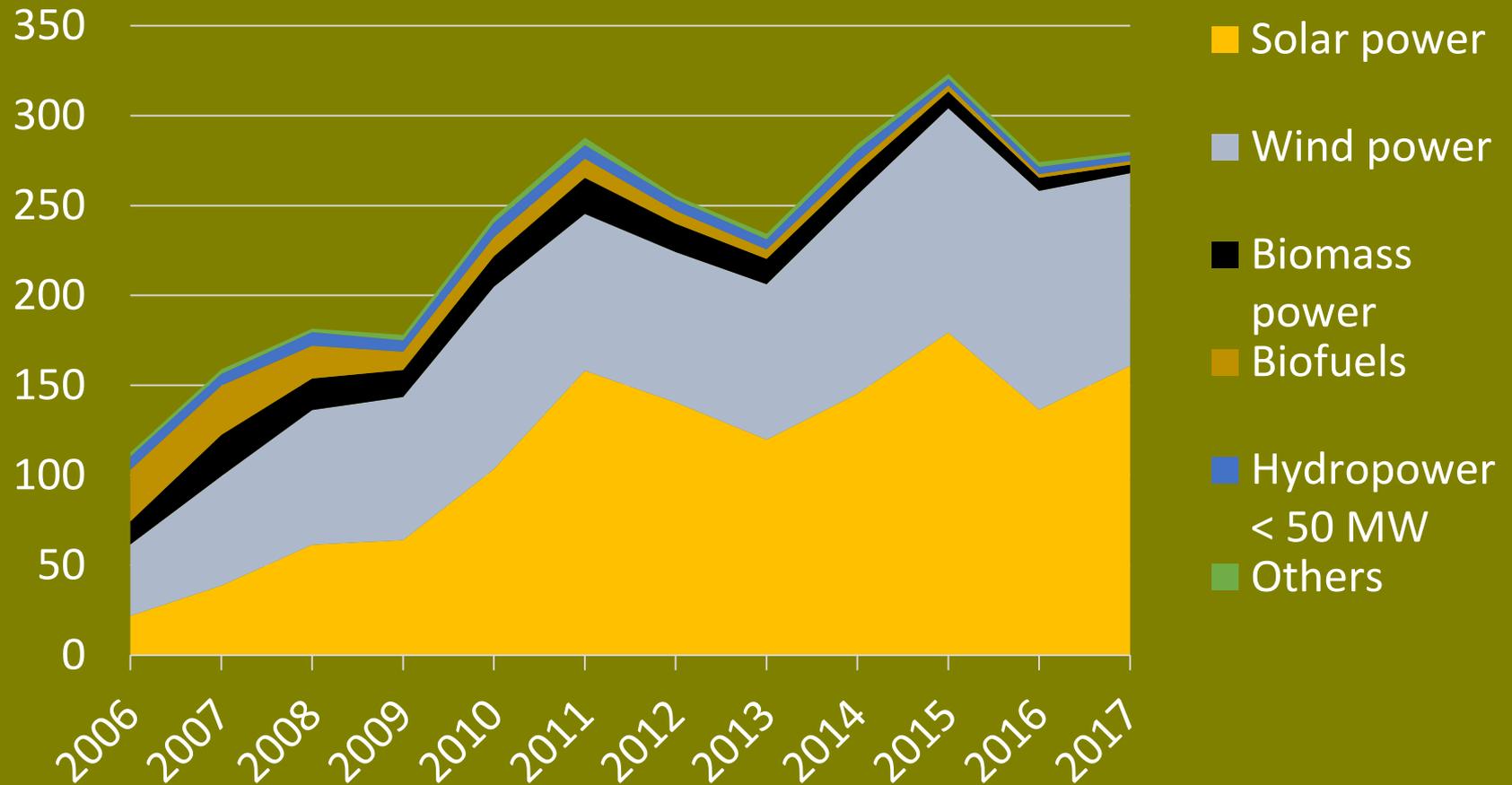


Electricity from Biomass (GW)



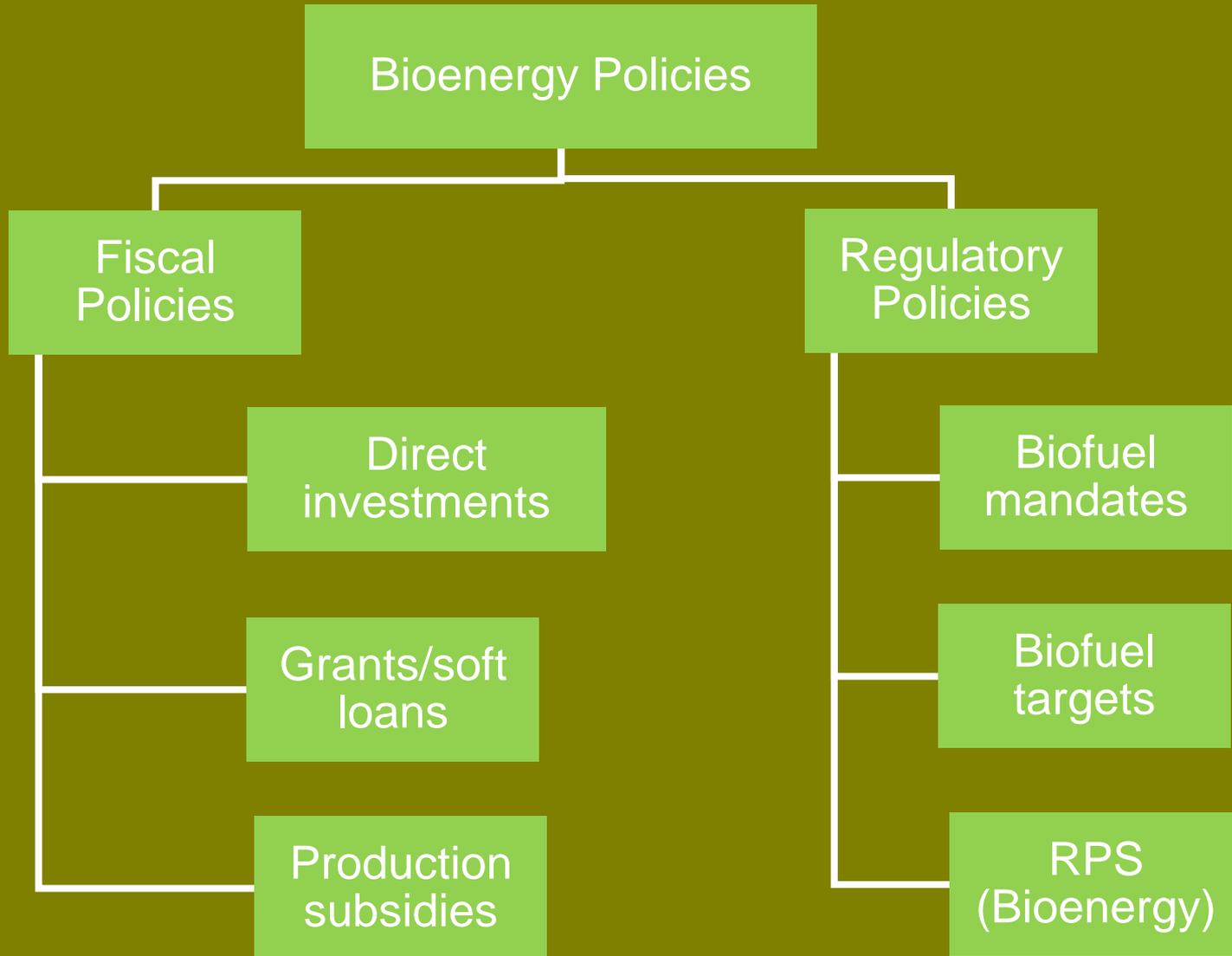
Annual Investment on Renewable Energy

(Billion US\$)



Source: REN 21 – 2018 Status Report

Bioenergy Policies



Bio Power Targets (Examples)

Country	Target
Algeria	1,000 MW by 2030
Bangladesh	47 MW by 2030
Brazil	18,000 MW by 2024
Finland	13,200 MW by 2020
Germany	100 MW/year
Haiti	5.6% of total electricity generation by 2030
India	10,000 MW by 2022
Japan	4.6 % of total electricity generation by 2030
Latvia	8% of total electricity generation by 2016
Nigeria	400 MW by 2025
Philippines	277 MW by 2030
Portugal	828 MW by 2020
Rwanda	300 MW by 2017
Spain	2,000 MW by 2020
Thailand	5,800 MW by 2021

Source: REN21 2018 GSR

Conclusions

- ❖ Bioenergy is the main source of energy in the large number of developing countries, although it is still the traditional form of bioenergy;
- ❖ Modern bioenergy, particularly electricity generation from biomass is increasing smoothly although the growth rate is not as high as that of solar and wind;
- ❖ Liquid bioenergy (i.e., ethanol and biodiesel) has experienced ups and downs in its growth over the last 15 years; while the recent growth is slow but not that slow as anticipated after food crisis in 2007/08;
- ❖ Globally, modern bioenergy growth is driven by government policies rather than market forces; both fiscal and regulatory policies have contributed to this growth.

THANK YOU

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