



Financing of bioenergy projects and programmes through the CDM, NAMAs and climate funds



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Key points

❖ the main requirement to access climate funds is to **demonstrate the GHG reduction potential** of a project to mitigate climate change; for bioenergy projects, **conducting GHG LCA** can show and measure emission reductions effectively

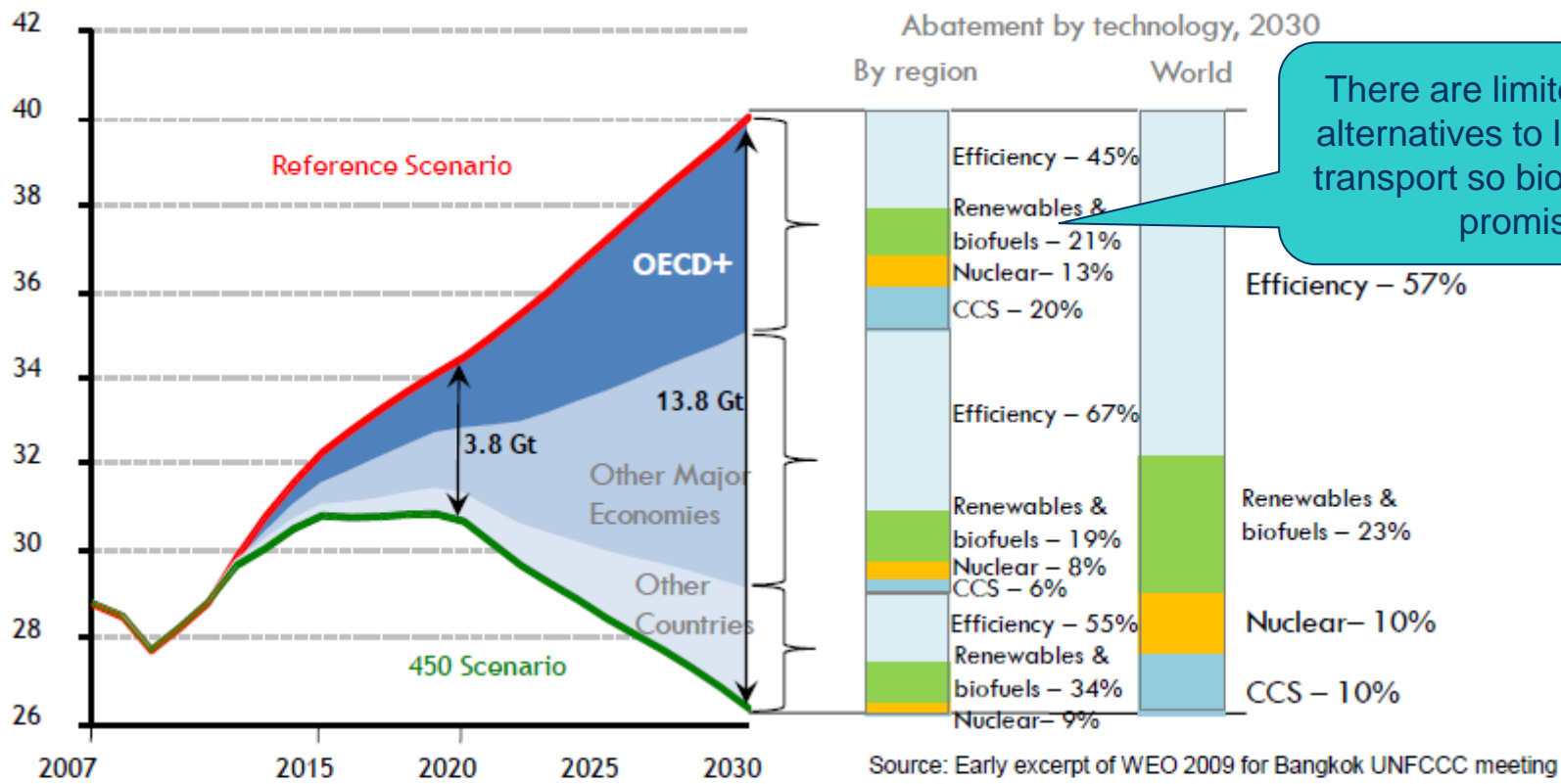
❖ there are many types of bioenergy projects and opportunities along a bioenergy project life cycle to reduce GHG emissions that are **incentivized under CDM or other climate related funding mechanisms**

- ACM006: Electricity and heat generation from biomass residues – 97 reg. projects
- AMS-III.F: Methane avoidance through biological treatment of biomass – 36 reg. projects
- AMS-III.T: Plant oil production for transport applications – 1 reg. project
- ACM0017: Production of biodiesel for use as fuel – 9 projects under validation

Key points

- ❖ even if biofuel projects are few under CDM, **12 out of 48 countries** explicitly mentioned promotion of biofuels in their submitted NAMAs
- ❖ **lessons from CDM** can be valuable in designing biofuel NAMAs (also on how to MRV biofuel NAMAs)
- ❖ many national policies are silent on “how to produce sustainable biofuels”, **CDM methodologies do not replace the need for guidelines on how to use best environmental practices to produce sustainable biofuels**

World energy-related CO₂ emissions and reductions per region and activity in 450 scenario



There are limited available alternatives to liquid fuel for transport so biofuels remain promising

The mitigation challenge is daunting – 3.8 GtCO₂ needed by 2020 in the energy sector alone globally, with much mitigation to take place in emerging economies

Source: World Energy Outlook, IEA 2009

Status of biofuel projects under CDM

❖ 1 registered project – Plant oil production for usage in vehicles (Paraguay) using AMS-III.T

- registered on 17 December 2011; no issued CERs yet
- feedstocks used: castor oil, crambe oil, oilseed radish
- expected average annual ERs: 17,188 tCO₂/year over 7 years crediting period

❖ 7 available CDM methodologies

- ACM0017: Production of biodiesel for use as fuel
- AM0047: Production of waste cooking oil biodiesel for use as fuel
- AM0089: Production of diesel using mixed feedstock of gasoil and vegetable oil
- AMS-I.G: Plant oil production and use for energy generation in stationary applications
- AMS-I.H: Biodiesel production and use for energy generation in stationary applications
- **AMS-III.T: Plant oil Production for transportation applications**
- AMS-III.AK: Biodiesel production and use for transport applications

❖ 11 projects under validation as of Sept. 2011

- 9 projects using ACM0017 (biodiesel from waste oil) ; 7 from China and 2 from India
- 1 project using AM0047 (biodiesel from waste cooking oil); China
- 1 project using AMS-III.AK (biodiesel from jatropha); Vietnam

Challenges under CDM

❖ proving project “additionality”

- the project is not only a compliance to existing biofuel policy/mandate
- project will not be viable without CDM funds
- (small-scale Type III projects with no more than 20 ktCO₂/year are deemed additional)

❖ lack of data and difficulty in data gathering

- project activity emissions are “field to wheel” emissions
- monitoring “captive fleet” for biofuels for transport
- vague pieces of information and evidence required (e.g. how to ensure carbon stocks on the land do not used do not decrease over time)

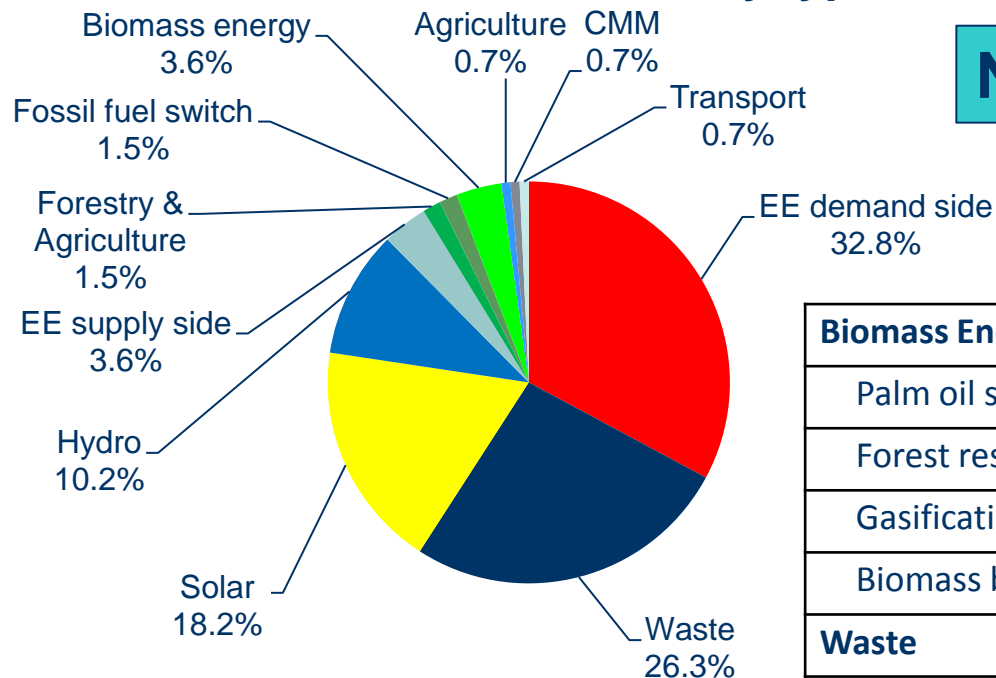
❖ CDM process takes time with high transaction costs

Simplifying CDM

❖ introduction of Programme of Activities (PoAs)

- bundling of similar types of projects into one single CDM activity

PoA distribution by type



No biofuel PoA project yet

Biomass Energy	
Palm oil solid waste	1
Forest residues	1
Gasification of biomass	2
Biomass briquettes	1
Waste	
Methane avoidance from palm oil waste	1

Source: UNEP Risoe. PoA Analysis as of Sept 2011.

Simplifying CDM

- ❖ **Other initiatives to simplify CDM by introducing**
 - standardized baselines
 - use of default values
 - benchmarking
 - positive lists

Pro-active role from the biofuel industry is encouraged to share data and experiences and help DNAs develop standardized baselines, default values, benchmarks and positive lists.

The NAMA Framework

- ❖ **From the Bali Action Plan in 2007**, 1.b.(ii) Nationally appropriate mitigation actions (NAMAs) by developing country Parties supported and enabled by finance, technology and capacity building in a measurable, reportable and verifiable (MRV) manner

- ❖ Several voluntary NAMA communications submitted to UNFCCC following the **Copenhagen Accord**

- ❖ **Cancun Agreements** took note of NAMA pledges and decided on
 - NAMA Registry
 - Green Climate Fund
 - New market based mechanism to be discussed in COP17

Types of NAMAs and funding sources

❖ NAMA types

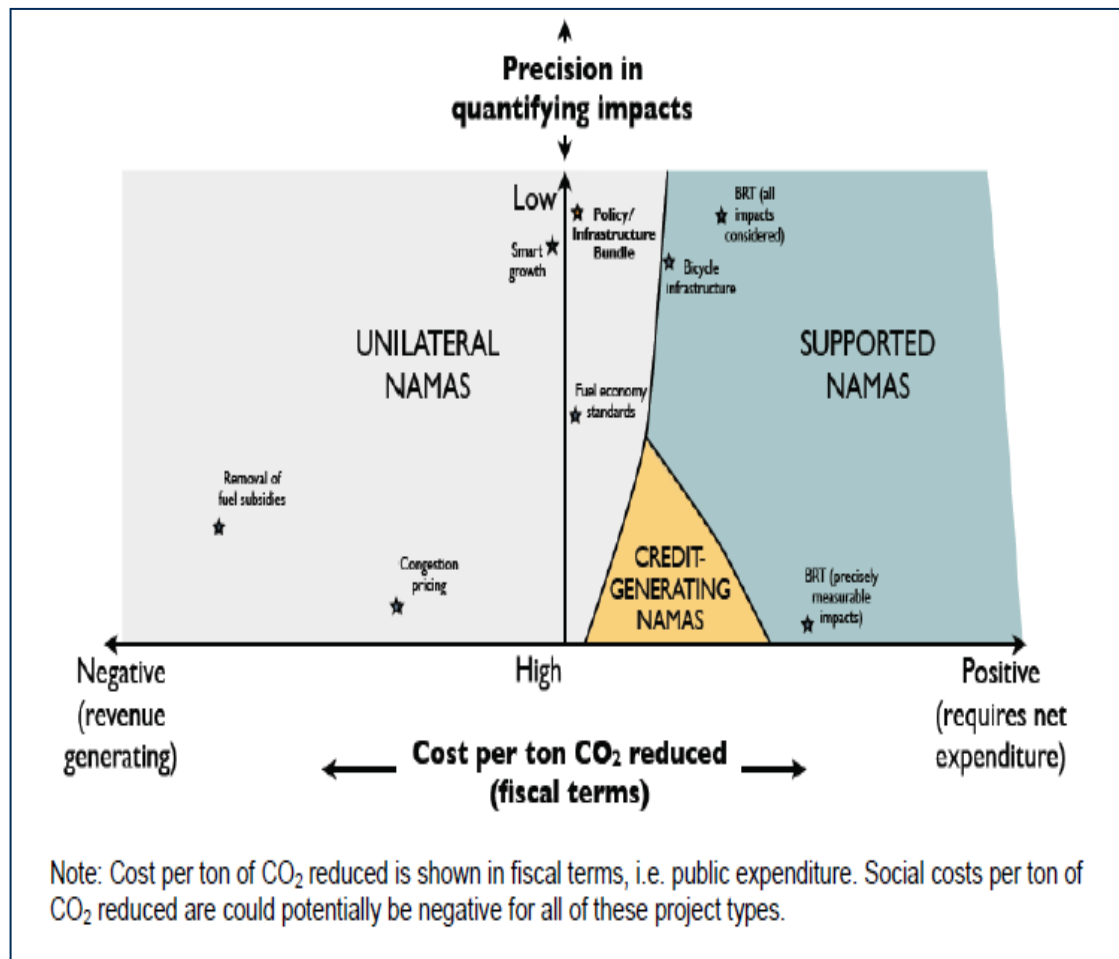
- Projects
- Policies,
- Sector Target
- Intensity Target
- Absolute Target

❖ NAMA funding

- Unilateral
- Supported
- Credited or Market Based

❖ Source of funds

- Domestic
- International support
- Market based
- Green Climate Fund (USD 100 bn p.a. by 2020)



Source: CCAP, 2010.

Way forward: biofuel CDM to NAMAs

- ❖ Financing opportunities are there in NAMAs though it is still conceptual with **no regulatory guidance yet**
- ❖ **Development of biofuel PoAs** could serve as basis to design supported/credited biofuel NAMAs; we need **pilot projects** to gather experience to design NAMA rules and guidelines
- ❖ NAMA MRV can **build on simplified CDM MRV**
- ❖ **Capacity building** on PoA design could be provided by IGES MM Group, ADB Carbon Market Initiative, other organizations

Thank you for your attention.

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