Biobased systems in sustainability transitions

ExCo83 workshop, May 23 – 2019, Utrecht

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Bioenergy & BECCS

- Difficult to keep global warming well below 2°C without bioenergy and BECCS

Source: IPCC AR5
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Total modern bioenergy (EJ/yr)
Other biobased options

- SR-1.5: Transformative systems change in ALL SECTORS
- UN-Environment: Almost half of the urban infrastructure that will be needed in year 2050 has not yet been built
Biomass supply and C storage

- Limited mitigation benefit if biomass supply causes large losses of carbon from the biosphere

Not just a carbon store
Why Task 45?

▪ "Acceleration is urgently needed to ramp up the contribution of bioenergy..."

▪ "...develop and implement internationally recognized sustainability governance systems that cover all bioproducts and which support sustainable best practices and stimulate innovation "
Task 45 work areas

- Metrics, methods, and tools for assessing climate change and sustainability effects of bioenergy
- Sustainability stakeholders and implementation approaches (governance)

Points of departure:

- Bioenergy systems are commonly components in value chains or production processes that also produce other biobased products (including food, feed and fiber)
- A wide range of factors together determine ecosystem’s biodiversity, productivity, regeneration capacity, vitality and potential to fulfil relevant ecological, economic and social functions.
Governing sustainability in biomass supply chains

- Develops over time to fit market dynamics, adapts to new knowledge and to new concerns or priorities
- Based on a holistic perspective that recognizes a multitude of societal objectives
- Promotes options that contribute positively to the implementation of 2030 Agenda & the SDGs
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