

NAMA GUIDELINES FOR LAND-USE AND BIOENERGY

IEA Bioenergy

Task 38

Greenhouse Gas Balances
of Biomass and Bioenergy
Systems

GRAZ GROUP

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PROBLEM

The land use and bioenergy sectors form an integrated system. This system has features that are likely to require approaches distinct from those suitable for other sectors. Thus, although a general framework for NAMAs has been developed, requirements appropriate to specific sectors are needed.

NAMA GUIDELINES FOR LAND-USE AND BIOENERGY

THE GOALS

1. Identify features of the land and bioenergy sectors requiring special consideration
2. Develop appropriate NAMA guidelines based on the special sector characteristics.

Selected examples below illustrate the need to develop NAMA guidelines designed for the land and bioenergy sectors.

Reaching the Goals: At Copenhagen initiate a process to develop NAMA guidelines suited to the special characteristics of the land and bioenergy sectors.

FACT #1: POLICIES DIRECTED AT THE FOREST, AGRICULTURE AND BIOENERGY SECTORS IMPACT OTHER SECTORS

The land base is spatially limited and there are practical limits to productivity and multi-purpose use of biomass. Biomass is required for food, feed, fibre, energy in addition to environmental services, such as carbon sinks, erosion control, water management, and biodiversity. Policies such as REDD+ focused on retaining forests will impact biomass needs other than for environmental services.

Guideline implication: An integrated approach is needed across forests, agriculture and bioenergy.

Possible tools: Land use planning; Requirements for land-use NAMAs to undergo reviews for impacts on other land-uses and bioenergy initiatives.

FACT #2: DEMAND FOR BIOMASS IS GROWING WHILE PRODUCTION CONDITIONS IN MANY DEVELOPING COUNTRIES ARE LIKELY TO DECLINE

Global population continues to grow and per capita caloric intake and fiber demands are rising. Demand for biomass for energy and for retention of carbon in forests is growing while water scarcity and flooding in many developing countries will render biomass production more difficult. At the same time, inefficient production, harvest and use of biomass is prevalent.

Guideline implications: There is an urgent need to improve efficiency of biomass production and use, including ensuring food security in the context of multiple growing demands.

Possible tools: Best available technology approaches; Inclusion of efficiency metrics in target setting and policies (e.g. biomass produced per unit area; energy or GHG emissions per unit of biomass; energy supplied per unit area; energy reaching end use per unit produced)

FACT #3: OTHER INTERNATIONAL CONVENTIONS AND NATIONAL GOALS IMPACT LAND USE

The United Nations Convention to Combat Desertification (UNCCD) and Convention on Biological Diversity (CBD) have direct relevance to land use, emphasizing the need to for policies directed at the land base to address all three challenges with a integrated systems approach rather than independently.

Guideline implication: A range of environmental goals need to be taken into account in NAMAs directed at the land sector;

FACT #4: GHG EMISSION REDUCTIONS ACHIEVED ON THE LAND ARE REVERSIBLE (NON-PERMANENT)

Guideline implication: Ways to address this unique feature of land-sector GHG reductions must be developed (see Paper 1 of this series).

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