The Road Towards Nationally Appropriate Mitigation Actions and Low Carbon Development Strategy in Malawi

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#### Malawi Context and Development Priorities

- Malawi population [about 13 million people]
  - 105 people per sq. km / 171 persons per sq. km of arable land.
  - Population growth rate of about 1.9% per annum
- Forests and woodlands provide 90% of Malawi's energy
- Agriculture accounts for:
  - o 43% of GDP
  - o 85% of the labor force
  - o 90% of export revenues
- Frequent food shortages due to extreme climatic events rural exodus
- Industrial sector remains in its infancy increasing the mining & manufacturing capacity is a key priority now
- Unreliable energy supply: frequent blackouts due to insufficient generation capacity
- Energy demand is projected to double in the next five years as compared to 2000

## Targeted sectors for mitigation & sources in Malawi second National Communication

Sector	Main source(s) of emissions	Some examples of mitigation actions
Energy	Biomass	<ul> <li>Efficient lighting</li> <li>Promote the use of Clay and Rocket firewood stoves instead of the 3-stone open fire stoves</li> <li>Increasing the ethanol to petrol blending ratio</li> <li>Promote biomass briquettes</li> <li>Promote alternative sources of energy</li> </ul>
Industrial Processes and Product Use (IPPU)	cement and lime production	<ul> <li>Rice husk cement production</li> <li>CCS</li> <li>Solvay processing of lime</li> </ul>
Agriculture	field burning of agricultural residues, livestock and manure management	<ul> <li>Fertiliser application</li> <li>Manure management</li> <li>Improved rice cultivation</li> <li>Agro-forestry</li> <li>Improved cultivation methods</li> </ul>
Forestry and Other Land-Use	changes in forest and woody biomass, forest conversion and soil out-gassing	<ul><li>Forestry protection and conservation</li><li>Reforestation and afforestation</li></ul>
Waste Management	solid waste disposal, open burning of waste, wastewater treatment and discharge	<ul> <li>Waste reduction</li> <li>Composting</li> <li>Mechanical- biological treatment</li> <li>Sanitary landfills</li> </ul>

#### Malawi policy context: setting the framework for a LCDS

National Environmental Action Plan 1994 (NEAP, 1994)	
<ul> <li>Recognizes climate change as one of the issue affecting environmental sustainability</li> </ul>	
• Aims to ensure sustainable development as envisioned by the Vision 2020 since 1998	1994
National Environmental Policy (NEP, 1996 revised 2004)	
<ul> <li>Provides a framework for policies related to climate change</li> </ul>	1006 (100)
• The Environmental Management Act - to enforce the NEP	1996 (rev 2004)
• Vision 2020	
<ul> <li>Provides a framework for national development, policies and strategies</li> </ul>	
• Emphasizes sustainable development	
National Sustainable and Renewable Energy Programme (NSREP)	1998
• Aims at promoting the use of RES	
- Malauri Crowth & Davalarment Strategy 2005, 2011 (MCDS), MCDS II, 2014, 2016	
Malawi Growth & Development Strategy 2006 -2011 (MGDS); MGDS II, 2011 - 2016	2006
<ul> <li>Recognizes climate change as a key priority</li> </ul>	
• REDD strategy - under development	
National Climate change investment plan	2012
National Climate change policy development	

#### Key messages for the presentation

- Growing population results in more pressure on natural resources (biomass) and in increased energy demand – it also leads to rural-urban migration
- LULUCF is the greatest contributor to emissions in Malawi mainly because of the use of biomass for energy and the expansion of agricultural lands
- Malawi's context and priorities take into account climate change. Climate change is streamlined in several sectors and environmental policies
- Policies & institutions provide a good framework for the development of NAMAs and LCDS
- Malawi has identified several mitigation options in key sectors in its 2<sup>nd</sup> National Communication according to several indicators (mitigation potential, costs, cobenefits)
- Those mitigation options constitute a great pool of actions for the identification of NAMAs
- The national forum on NAMAs (November, 2011) identified some NAMA ideas and next steps including the approbation of NAMAs by the National Council for the Environment and stakeholder's consultation processes

# Where does Malawi stand: Next steps identified by the national forum on NAMAs

- Climate change national forum held from the 7th to the 9 of November in Malawi
- Identification of 3 NAMA ideas in the energy, forestry and waste sectors on the basis of the mitigation options identified in the 2<sup>nd</sup> National Communication
- Identification of a roadmap:
  - Submission of a NAMA in the waste sector for approval by the National Council for the Environment
  - Launch of a stakeholders' consultation process on NAMAs
  - Build the basis towards a low carbon development strategy

### Thank you

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#### **Extra slides**

### Malawi – Energy Sources



#### Malawi – Institutional Context



#### Malawi – Institutional Context

National Council for the Environment (NCE)

(president & Cabinet, all Ministries, Malawi Chamber of Commerce & Industry) - Advises and recommends the Minister - Endorses projects



#### The waste sector: A promising NAMA option for Malawi?

- Construction of a controlled landfill and a power generation plant
- Tackles several sources of emissions:
  - Direct emissions from the waste sector (methane)
  - Reduced land use change (avoided deforestation due to reduced use of biomass as a source of energy)
  - Reduced emissions from the energy sector (less use of fuels)
- Waste is the sector with the highest increase rate in emissions (24 % between 1995 and 2000)
- 2 components:
  - o Construction of 3 landfills financial & technical support to be confirmed
  - Need for capacity building for the operation of the landfills + MRV system
- According to Malawi 2<sup>nd</sup> National Communication:
  - Up to 15% of the solid waste can be processed for energy
  - Non-climate related benefit: Combustion of refuse produced by a community is sufficient to provide about 20% of the electrical power needs for that community

### GHG emissions (by gas)

#### Share in 2008





Source: Ecofys