Iceland – Economic Analysis of Climate Change Mitigation Potential

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Ministry for the Environment, Iceland

Iceland GHG Emission Profile

• Small population (320,000)



- Specialized trade-dependent economy (fishing, metal smelting)
- Large renewable energy sources (geothermal, hydro) = 72% of energy production
- Degraded land: Great
 potential for carbon removal
- Aspirational goal: 50-75% emissions cuts to 2050
- Committee of experts to
 assess mitigation potential

Share of emissions by key sectors 2006

Mitigation Actions – scale and cost



Net emissions of GHG and possible mitigation efforts according to cost per ton CO₂-equivalent



Iceland's current two-fold target

- "Small-economy syndrome": Single projects can have big effect on emissions and quantified commitments (over 10% of national emissions)
- Was addressed by Decision 14/CP.7, allowing for emissions from single projects to be counted seperately up to 1.6 m tons CO2/year; has been employed by Iceland
- 14/CP.7 allows for significant increase in emissions from 1990 to 2012, these emissions have to be accounted for in 2nd commitment period
- Iceland's current Kyoto commitments are two-fold:

QELRO: +10% (general emissions) + 1.6 m tons CO2/year (qualified emissions according to 14/CP.7 for relatively big single projects using renewable energy, BAT and BEP)

Future target: Possible Presentations

- Present situation: Heavy industry in Iceland will be part of EU Emission Trading System (EU ETS) after 2012
- A big part (40%) of Icelandic emissions will be under EU ETS rules, but maybe also under a special clause in an international agreement (14/CP.7 or a similar arrangement for the 2nd Commitment period); a very complex arrangement
- Iceland has done an economic study that allows for analysis of comparable effort with other parties and the development of a target; however, the question of dealing with the effect of single projects has to be dealt with in deciding on the presentation of Iceland's target
- Possible presentations of target:
 - a) Target for "general emissions" + extension of 14/CP.7 (same as Kyoto)
 - b) One target for all emissions (general+14/CP.7), new reference year (2012)
 - c) Joint commitment with other parties (flexibility, no "single project" problem)
 - d) ETS emissions in EU "bubble"; Iceland's target only for non-ETS emissions

Future target: Possible Formulations

- Submission 1: Extension of 14/CP.7 for Second Commitment Period – would mean continuation of dual target for small countries
- Submission 2: Criteria for Establishing Comparable Effort, including a way to account for emissions for relatively big single projects in small countries – would mean construction of a single target, combining emissions under general target and the allowance under 14/CP.7