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TITLE: ENVIRONMENTAL MODELLING IN THE WIOD PROJECT: AN OVERVIEW

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ABSTRACT:

The objective of the environmental modeling part in the WIOD project is the construction of a prototype CGE model, i.e. a fully integrated inter-industry, international model of global trade and energy use. It is aimed at being completely based on the data developed in the project. Since many CGE models typically use various data sources, a key feature of our model will be its reliance on a single harmonized data set. The integration of industry-specific induced technological change as well as the use of a time series of I-O tables will be further unique characteristics of the model. The inclusion of technological change with special regard to environmental innovations is essential in order to consider options to reduce emissions without excessively diminishing welfare. The provision of a time series of I-O tables facilitates investigations of the robustness of model outcomes to the choice of the calibration year. Along with the modeling work econometric techniques will be applied in order to study the interrelations between economic activities and the environment as well as to examine environmental implications of structural change arising from globalization and trade liberalization.