The role of biomass in a low-carbon and resource efficient Netherlands. Playing the game.

Vincent Linderhof[1*], Nico Polman[1], Trond Selnes[1], Maria Witmer[2], Janez Susnik[3] and Sara Masia[3]

[1] Wageningen Economic Research

[2] *PBL Netherlands Environmental Assessment Agency*

[3] *IHE-Delft*

* Corresponding author: vincent.linderhof@wur.nl

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Half of the renewable energy in The Netherlands is currently generated from biomass. One third of this biomass is organic waste. According to forecasts, biomass will continue to be an important source of renewable energy towards 2035. Biomass for energy is heavily disputed for several reasons:

1. Sustainability: trade-offs to land, landscape, water, biodiversity, soil.
2. Reduction of CO_2 emissions doubtful.
3. Competition with growing food and feed.
4. Conflict with bio-based economy and cascade principle.
5. Conflict with circular economy, waste reduction and resource efficiency.

These contrasting interests are the core of a serious game that simulates different pathways for production and use of biomass in the Netherlands between 2020 and 2050, and effects on land use, water use, agriculture, energy production and use, and emissions of greenhouse gases and nutrients. In this workshop the participants will play the game. The player can choose policy cards, see what complex reactions and trade-offs are generated and how the system changes towards or away from policy goals. The game creates insight into the connections between components of the system. The game is meant to be used for education and facilitating discussions between representatives of different disciplines and policy departments to create a better understanding for each other's interests and viewpoints. It can also stimulate the creation of new interdisciplinary solutions. After the game we will discuss the role of sustainable biomass in the Dutch energy mix and the usefulness of the game to facilitate this discussion.