Impact of bioenergy related land use changes in Central Germany on regional climate

Merja Schlüter, Oleg Panferov, Alexander Knohl

Department of Bioclimatology, Büsgen Institute

Georg-August University Göttingen

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

FZW

Motivation of **BEST** (**B**io**E**nergy regions **ST**rengthening) :

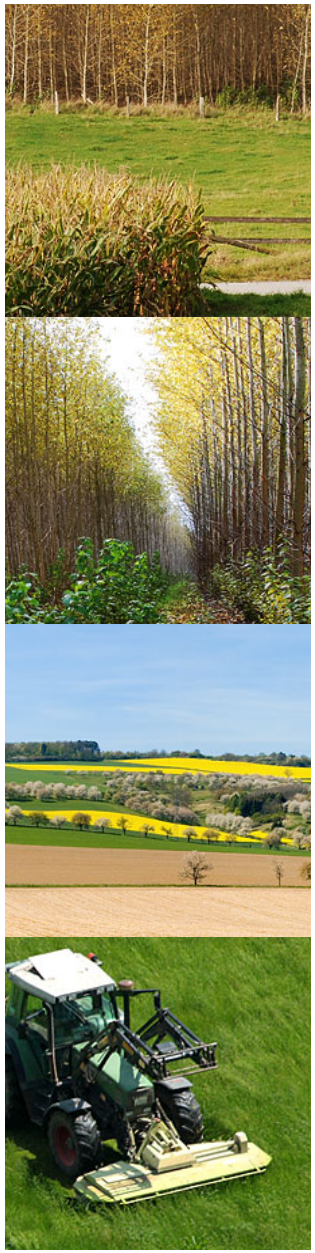
- **Sustainable energy policy** in Germany
  ➔ 40% cut of greenhouse gas emissions by 2020

- **Hypothesis** to reduce greenhouse gas emissions
  ➔ use **renewable energies** and **increase energy efficiency**

Objectives of **BEST**:

- Evaluate **ecological** and **socio-economic effects** of land use changes in respect to **bioenergy production**
- Develop an optimal **adaptation strategy** in respect to current and future climatic conditions
- Identify **risks under future climate**

⟶ To support management and policy strategies



Sub-project within BEST :

Impact of bioenergy related land use changes on regional climate and its feedbacks in central Germany

In order to asses the **impact of bioenergy related land use changes** in central Germany on regional climate and its **feedback** the following activities are planned:

- Installation of **meteorological stations** at selected field sites to quantify land use properties
- **Downscaling** and analysis of existing data from **regional climate scenarios**
- Simulations of **land-atmosphere feedbacks** for present and modified land use types using regional climate and land surface modelling
- Development of **optimised land use strategies** under current and future climatic conditions

GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

FZW

GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN

FZW

Thank you for your attention!