

From Science to Practice

Transdisciplinary approaches for promoting balanced land-use systems in sub-Saharan Africa



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1 BiomassWeb

- Forests are cleared for agriculture and degraded by slash-and-burn practices and charcoal production in many parts of sub-Saharan Africa¹.
- BiomassWeb* aims at contributing to balanced land-use systems and enhanced food security through innovations in the value webs of food and non-food biomass. This will be achieved by research on biomass production, processing, trade, use and governance (Fig. 1). The focus is on four crops (maize, cassava, plantain/enset, bamboo) in Ghana, Nigeria and Ethiopia.
- The outcome will help in preparing Africa's bio-economies for growing global biomass demands².

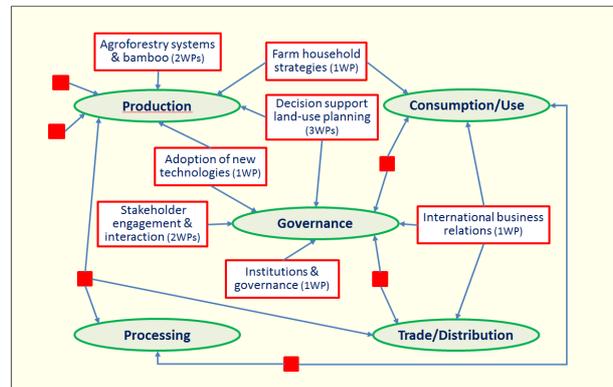


Fig. 1: *BiomassWeb* project structure. 22 work packages (WPs) covering 13 major topics (red boxes) related to five research arenas (green). Seven major topics are shown that involve land-use systems and decision-making.

2 Value webs and land-use

Biomass-based value webs are complex systems of interlinked value chains in which food and non-food biomass is produced, processed and traded³. *BiomassWeb* uses this holistic approach as, for example, choice of production systems at farm level and higher-level land-use planning strategies are related to opportunities for value addition, trade, consumer preferences and national policies (Fig. 1).

3 Transdisciplinary approach

- ✓ 22 work packages from different disciplines cooperating with a broad variety of partners in three African countries.
- ✓ Implementation of project results via networking with stakeholders and civil society actors beyond the *BiomassWeb* project (BiomassNet).
- ✓ Opportunities for additional demand-driven research & development (DDR) activities.



One work package examines if bamboo can be grown in agroforestry systems to provide a source of energy for small-scale farmers (Photo: CS).

4 Example: Relevance to practice

BiomassNet Dgroup (since June 2015, Fig. 2)

- Email-based communication tool for promoting dialogue in international development⁴
 - Moderator facilitates online discussions
- DDR activities (call for proposals until July 2015)
- Small grants for demand-driven projects developed by stakeholders in Ghana, Nigeria and Ethiopia
 - 20 proposals received, evaluation process ongoing

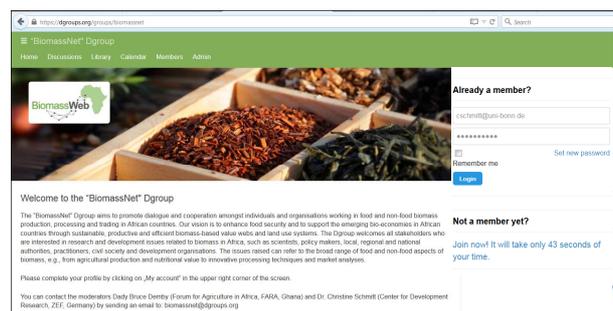


Fig. 2: Web portal: BiomassNet Dgroup: <https://dgroups.org/groups/biomassnet>

5 References

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