

WORKING PAPER

Supporting evidence-based policy and decision-making within an African bioeconomy

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ABSTRACT

In Sub-Saharan Africa, policy and decision making processes related to agricultural research and development are often constrained by the lack of reliable and readily accessible information and data. Moreover, governance challenges continue to hinder effective utilization of the biomass sector, crucial for sustainable economic growth. How can evidence-based policy and decision-making be supported for fostering bioeconomy in biomass rich but economically deprived regions of Sub-Saharan Africa? The paper addresses this central research question with particular reference to five policy fields, namely, (1) productivity enhancement (2) land-use pattern adaptation (3) nutrition support (4) strengthening market linkages, and (5) sectoral development policy. Taking cue from trans-disciplinary research and adopting an array of research methods and techniques, including questionnaire surveys, interviews, focus-group discussions, process ‘net-mapping’, scenario simulation and Computer Generated Equilibrium (CGE) modeling, the paper aims to analyze a range of governance and policy related challenges in the context of biomass-based economic growth in Ghana, Nigeria and Ethiopia.

The results are drawn from empirical research on (i) policy analysis of the development of maize sector in the three project countries; (ii) institutional analysis of the development of cassava sector in Ghana and Nigeria respectively; (iii) bamboo sector development in Ethiopia; (iv) assessment of energy efficiency of maize cultivation at farm as well as regional levels in Ghana; (v) landscape analysis to study the impact of land use policy on the regional balance of biomass-based products; (vi) analysis of nutritional status of the households in select areas of Ghana by Food Frequency Questionnaires and parallel development of a tool called CIMI (Calculator of Inadequate Micronutrient Intake); (vii) comparative study of the (inter-)national demand structure and national production structure with reference to castor-seed and sugarcane in Ethiopia, and plantain residues in Ghana; and (viii) development of a tool for decision-making and systemic strategy development of the biomass sector in project countries on the basis of qualitative and quantitative modeling of biomass-based value webs. Using examples relevant to the aforesaid policy fields, the paper aims to suggest practical solutions to overcome bottlenecks in biomass-based economic growth.