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“Bridging the gap between increasing knowledge and decreasing resources”

Developing Food and Nutrition Security Criteria for Biomass Standards and Certifications

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Abstract

International biomass demand and trade is growing as governments start shifting from petroleum-based to bio-based economies. While bioeconomy strategies prioritise in principle food security over other biomass uses such as bioenergy, questions around the implementation arise. Environmental and social standards are currently developed to ensure that biomass is sustainably produced; yet while a large body of scientific literature exists food security aspects are hardly addressed. Even those standards which include food security indicators do not assess food and nutrition security in practice, usually due to measurement difficulties since practical indicators, verifiers and thresholds lack.

We aim to fill this gap by identifying suitable criteria, operational indicators and verifiers to measure local food security impacts of biomass production which can be applied to all types of biomass independent of its later use (e.g. food, feed, fibre, energy) and farm sizes. In addition, they must be relevant at global and national level, across different sectors and standards.

The research is based on a comprehensive literature review and complemented by stakeholder workshops and expert interviews with certification bodies, standard initiatives, NGOs, ministries and enterprises. Normative values are based on a broad definition of sustainability, e.g. the Brundtland-Commission and the human right to adequate food.

A respective set of indicators and verifiers are identified reflecting all dimensions of food and nutrition security (access, availability, utilisation, stability). In addition to a common set, specific indicators for family farms and large-scale farming are developed which enable family farms to participate and slowly adjust to rising standards and which encourage large-scale farms to contribute to local development. Minimum and advanced requirements are defined which are adjustable to local contexts, reliable and easy to measure.

The increased use of biomass for non-food purposes and hence the rising competition requires regulations that guarantee food security and the realisation of the right to adequate food. The developed food and nutrition security criteria provide guidance for regional and national standard setting as well as for private certification systems. A field test of the criteria is recommended to ensure practicability in developing countries.

Keywords: Bioenergy, biomass, certification, food security, nutrition, right to food, standards