Technology Assessment in the Energy & Agricultural Sectors in Africa

Accelerating Progress in Science, Technology & Innovation

Despite growing interest in leveraging technologies, many African countries struggle to select, adopt, and regulate appropriate technologies—especially in energy and agriculture. This project aims to support evidence-based decision making by strengthening national capacity to carry out technology assessments that are context-sensitive, inclusive, and aligned with sustainable development.

Project Objectives

- Build national and institutional capacity to conduct technology assessments
- Facilitate inclusive stakeholder engagement (including women and marginalized groups)
- Develop standardized methodologies for assessing tech options in energy and agriculture
- Support policy uptake of sustainable technologies

Approach & Methodology

- Review of sectoral positions in national development plans or strategies
- Mapping of existing sectoral technologies and selection of a technology to be assessed
- Stakeholder consultations (national & local)
- Assessments of potential economic, social & environmental impact
- Attention to interests of marginal and vulnerable groups, in particular gender
- Policy recommendations for adoption, scaling-up and regulation of the endorsed technology

Technologies assessed

- Seychelles: Agrivoltaics
- South Africa: Electrolysers for green hydrogen
- Zambia: Biogas

Outcomes achieved

- Evidence-based policy recommendations for consideration by governments
- Increased uptake of agreed sustainable energy and agricultural technologies
- Enhanced capacity in technology assessment and governance
- More inclusive decision-making involving communities, private sectors, civil society, academia and research institutes
- project findings fed into the discussions at the UN Commission on Science and Technology for Development

Workshops and events

Biogas technology assessment in Zambia

Agrivoltaics technology assessment in Seychelles

Electrolysers for green hydrogen production pilot technology assessment in South Africa

Technology assessment in developing countries: An updated proposed methodology

Technology Foresight and Technology Assessment for Sustainable Development

Read more on this project

https://unctad.org/project/technology-assessment-energy-and-agricultural-sectors-africa-accelerate-progress-science

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