Tailoring bioeconomy to ensure food security as a pathway out of poverty

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Four betters and 20 Programme Priority Areas (PPA): FAO’s Strategic Framework supports the transformation to more efficient, inclusive, resilient & sustainable agrifood systems for *better production, better nutrition, a better environment & a better life*, leaving no one behind.

**Bioeconomy:** PPA - to accelerate agrifood systems transformation.
A SUSTAINABLE BIOECONOMY

Definition

The 42\textsuperscript{nd} Session of the FAO Conference in June 2021 approved a draft \textit{resolution} that includes the definition of bioeconomy in the graph, which was agreed by the \textit{International Advisory Council on Global Bioeconomy (2020)}.

Also, a sustainable bioeconomy harnesses the power of \textit{bioscience} to provide food, feed, wood-products and furniture, paper, bio-based textiles, bio-chemicals, bio-plastics, bio-pharmaceuticals and bio-energy for a growing population while preserving our natural resources.
WHY BIOECONOMY?

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EXAMPLES OF BIOINNOVATIONS

- Produce insect protein from waste
- Restore soil with bioremediation innovations
- Use microalgae for wastewater treatment
- Use biologicals to improve plant health
- Consume bio-degradable compostable products
EXAMPLES OF BIOINNOVATIONS

WOMEN SEAWEED FARMERS

When it comes to seaweed, producing value-added products sometimes reaps far greater profits than exporting the raw biomass.

OBTAIN THE MAXIMUM VALUE FROM EVERY PART OF THE FISH

Cluster of producers where waste from traditional fisheries and processing is used for food supplements, fertilizer, etc.

THE MALAYSIAN BIOECONOMY COMMUNITY DEVELOPMENT PROGRAMME

Contract farming mechanism with guaranteed buyback, improves incomes for people in the bottom 40% of the national income bracket.
- **Bioeconomy**: bio-resources focused and systems-oriented approach
- **Growing emphasis**: FAO has been leading efforts to bring a sustainable bioeconomy in agrifood systems

WHAT IS FAO DOING ABOUT THE PROTEIN TRANSITION?

- The FAO Strategic Programme on Bioeconomy.
- FAO’s publications and articles on alternative proteins.
- In November 2021, FAO and WHO submitted a discussion paper (Agenda Item 8.1) on NFPS to the 44th Session of the Codex Alimentarius Commission.
- The FAO Bioeconomy team is currently finalizing a literature review on alternative proteins.
- An example is to produce insects from food waste and use them for feed & fertilizers.
“To ensure that poor communities are not left behind, governments of countries in the global south need to invest in the creation of capacities and expertise to develop and utilize biosciences, and get support for that from development partners” (Scientific Group of the UN Food Systems Summit 2021: von Braun et al., 2021)
FAO Actions in Bioeconomy

1. Support bioeconomy strategies/action plans
2. Improve governance
3. Support innovations
4. Provide evidences

FAO Roles - Poverty Reduction with Initiatives

1. Improve livelihoods and nutrition
2. Promote fair opportunities/equitable access to resources
3. Promote human capital development
4. Improve convergence
   Urban - Rural
Agrifood systems transformation within BCG model

Modernizing traditional food markets/systems

Deploying bio-based innovations, advancing startups and SMEs on circular bioeconomy

Support organic farming systems/agro-ecotourism

Link small-scale farmers to new markets, access to post-harvest technologies

Promote inclusive growth, Public-Social-Private Partnerships

Food loss reduction, e-agriculture

Enhancing incomes from sustainable value chains, local enterprise development
Thank you