



Main Findings according to the BIOEAST Foresight Report - Future challenges in agriculture

Dr. Anikó Juhász
Deputy State Secretary
Hungarian Ministry of Agriculture

BIOEAST Foresight Conference
17.09.2021.

BIOEAST.EU





HISTORY OF THE FORESIGHT REPORT

- In the framework of the BIOEASTsUP Horizon 2020 project a Foresight Expert Group (FEG) of five independent experts was nominated to provide a better understanding of existing trends and to create scenarios of future bioeconomy developments.
- **Aim:**
 - to support the BIOEAST member states in developing their sustainable bioeconomies by giving visions / scenarios in the bioeconomy context.
 - to identify specific macro-regional needs, challenges and opportunities in order to make recommendations to policy and decision makers for the development of a biomass-based economy.
- **Uniqueness:** It focuses exclusively on the opportunities in the BIOEAST region.





HISTORY OF THE FORESIGHT REPORT

The BIOEAST Foresight Exercise introduces scenarios for the bioeconomy to show the possible directions of change in the following areas. **Scenarios:**

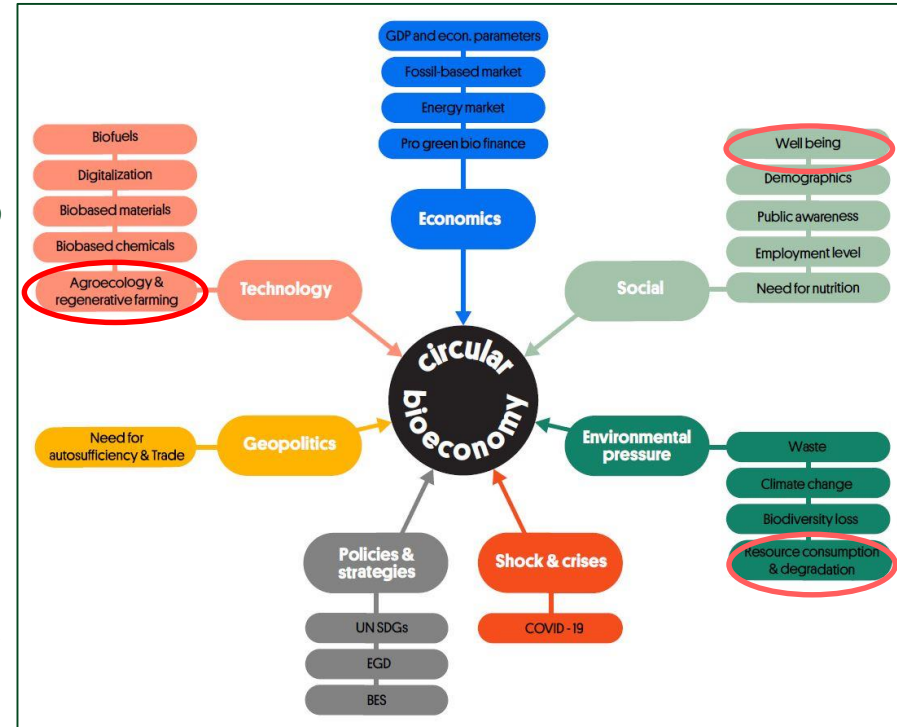
1. **The fully thriving circular bioeconomy** is one of the most desirable scenarios. This is where the sustainable use of natural resources and climate change adaptation take place. It also highlights the importance of developing new business models, circular RDI support, good management of natural resources and collaboration - public governance.
2. **The linear bioeconomy** focuses on competitiveness, neglecting the need for a systemic change. The strength lies in the well-known value chains and there is a lack of flexibility and low innovation.
3. **Business as usual:** The 3rd Scenario is based on the intensive use of natural resources and fossil sources. By exploiting nature, this system is dominated by currently economic models with global supply chains competing in the short term.
4. **Non-profit circular bioeconomy:** The aims of the 4th Scenario are to achieve the circular bioeconomy and maintain the environmental sustainability by strong responsibility towards management of natural resources, innovations, short value chains and education.



BIO AGROECOLOGY AND THE FORESIGHT

east

- The **Circular bioeconomy** as a broader socio-economic system, is affected by different forces of change – economic, social, environmental, geopolitical, technology related, policy-related, and crises-related – only **systemic thinking** can lead to better understanding and management of these complex challenges.
- Through one of the **largest primary biomass** resources, agroecology also plays a significant role in all future scenarios on the **production and environment** side.
- Agroecology is also important in the **social dimension** of circular bioeconomy, as it contributes to wellbeing, public awareness, **employment levels** and the need for nutrients in a complex approach.





AGROECOLOGY AND THE FORESIGHT

- Sustainable agriculture and agri-food systems offer many benefits and opportunities for further development, which should be considered by:
 - Soil protection and improvement
 - Reduced chemical pesticide use: through precision innovation and development
 - Partially replacing pesticides: microbial work as biological crop protection products
- BIOEAST circular bioeconomy has two main bio-resources with high potential – soil-based and water-based resources.
- Soil degradation is not sufficiently monitored, and intensive land management leads to negative impacts on soil biodiversity, which is the key driver of terrestrial ecosystems' carbon and nutrient cycling. Progress in the remediation of polluted soils is slow.
- Through technology and innovation farmers could use natural resources more efficiently. Sustainable land use and management would enable both high yields and biodiversity. This would reduce the pressure to convert more land to farming, helping to preserve natural habitats and their wildlife.
- **BIOEAST countries need to develop their own strategy to protect soil.**



POLICY ORIENTATION QUESTIONS

- The budget allocation of the new CAP for the period 2021-2027 will direct 40% of it to climate change objectives.
- **A key question to drive policies: How are BIOEAST countries preparing for the new CAP?**
- **How the BIOEAST countries are able to integrate the agroecology in the new CAP to contribute to the future targets?**

