

# Substantial Sustainability



## NIBIO – Norwegian Institute of Bioeconomy Research

130 years in the service of Norwegian agriculture, forestry and environment

**FURENESET** 

BERGEN

- 15 locations across Norway
- 5 research divisions

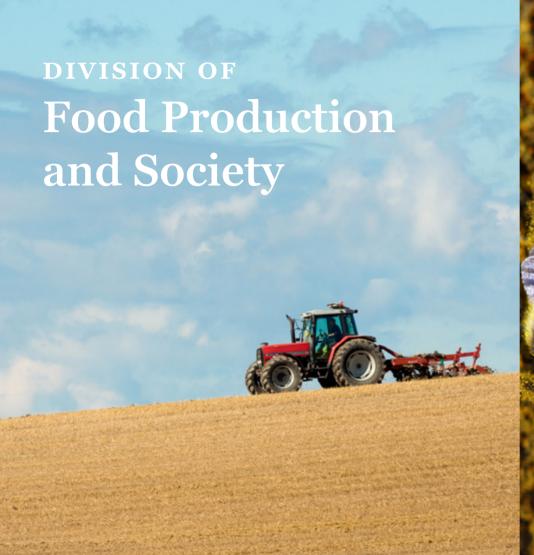


## **OUR APPROACH: Dedicated to solving the Global Grand Challenges**

NIBIO contributes to sustainable, innovative and climate smart solutions by:

- integrating food production, agriculture and forestry with environmental impacts and resource efficiency
- holistic and multidisciplinary approaches
- producing science-based knowledge for wise decision taking and policy making







Food security and sustainable food production, including multifunctional agriculture, are core elements.

- Agricultural technology and system analysis
- Business economics and management
- Economics and society
- Grain and forage seed agronomy
- Grassland and livestock
- Landscape and biodiversity
- Horticulture
- Precision agriculture



Sustainable use and mitigation measures related to soil, water, vegetation and waste resources are core elements.

- Bioresources and recycling technologies
- Soil quality and climate change
- Soil and land use
- Terrestrial ecology
- Water resources
- Water quality
- Ecosystems in the Barents Region



Forestry and forest resources, innovative use of wood materials, ecosystems and rural development are core elements.

- Forest and climate
- Forest genetics and biodiversity
- Forest management and technology
- National forest inventory
- Natural resources and rural development
- Wood technology
- Precision forestry



Plant health, plant protection, food safety and biotechnology are core elements.

- Molecular plant biology
- Pesticides and natural products chemistry
- Invertebrate pests and weeds
- Fungal plant pathology
- Viruses, bacteria and nematodes
- Algae production



Land resource mapping, including soils, vegetation and landscape, geomatics and agricultural economics are core elements.

- Agricultural soil survey
- Farm management economics
- Geomatics
- Land inventory
- Agricultural economics
- Land resource surveys
- Landscape monitoring
- Norwegian Genetic Resource Centre





### CID

# Centre for International Development

NIBIO has a large portfolio of collaborative projects in non-European countries. These typically focus on food security, digital and climate smart agriculture, natural resources management and rural development. NIBIO has an agreement with Norad / The Norwegian Agency for Development Cooperation.

# NIBIO is involved in a multitude of projects worldwide

- Europe
- The Barents Region
- China
- India
- South-East Asia
- Sub-Saharan Africa
- Latin America and the Caribbean

Horizon 2020 and Horizon Europe are important tools in our international collaboration.



## **Monitoring and Surveillance Programmes**

NIBIO has several long-term monitoring and surveillance programmes and also produces tools, maps and statistics. Some examples:

- JOVA The Norwegian Agricultural Environmental Monitoring Programme, monitors water flow and pollutants in 11 agricultural catchments. Established in 1992
- Pesticide monitoring of residues in food and environment
- The Norwegian National Forest Inventory (NFI)
   is the world's oldest nationwide forest inventory
   with data collection from field and by remote
   sensing. Established in 1919

- Land resource survey Provides a detailed national coverage of land resource information with emphasis on agriculture and forest areas
- Soil survey Produces maps of soil type and soil properties on agricultural land
- CORINE Land Cover (CLC) The Norwegian part of the pan-European land covers monitoring organized by the European Environment Agency
- Farm level economic survey An annual sampling survey. Established in 1911

# Other services and research infrastructure

### Examples:

#### Services

- VIPS Online forecast and information service for pests, diseases and weeds in Norway; www.vips-landbruk.no
- Agrometeorology Norway (LMT) Online weather data from Norway's main agricultural regions for use in forecast services and research; lmt.nibio.no

### Field trials

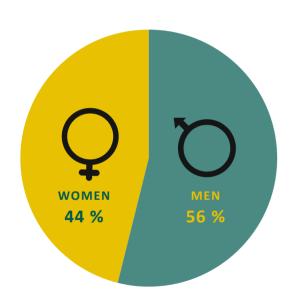
 Field trials at Møystad (established 1922) and Apelsvoll (established 1989) are used to study long term effects of different agricultural practices and technologies on yield, soil properties, and the environment

- Long term forest trial plots: 800 field trials investigating the effects of various silvicultural regimes
- A nationwide network of field trial facilities

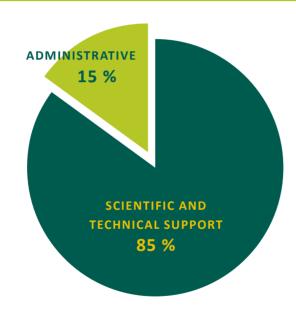
#### Other research infrastructures

- Advanced greenhouse facilities
- Accredited laboratories; organic and inorganic, pesticides and biotechnology
- Svanhovd Arctic Research Station
   Accommodation, laboratories and field facilities

## Facts and Figures



Women vs men in NIBIO 690 employees



Scientific and technical support vs administrative employees in NIBIO
PhD: 214 / Research Professors: 61



Funding (per 31.12.2019) Total budget 2020: 75 million Euro

- Employees from more than 35 countries
- 276 peer reviewed articles in 2019
- 37 500 reports in our DB
- 15 national research stations
- Independent research institute subject to the Ministry of Agriculture and Food



NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH

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