



Bioeconomy in Hungary

*Current state, future challenges, alignment
with the new EU Bioeconomy Strategy*

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Primary biomass production

Biomass processing

Policy activity

Research and Innovation

Outlook



Agriculture

total area ca. **5 million ha** (54%)

arable land 4.1 million ha

main crops:

cereal grains (31%)

maize (22%)

sunflower (16%)

rapeseed (4%)

soyabean (2%)

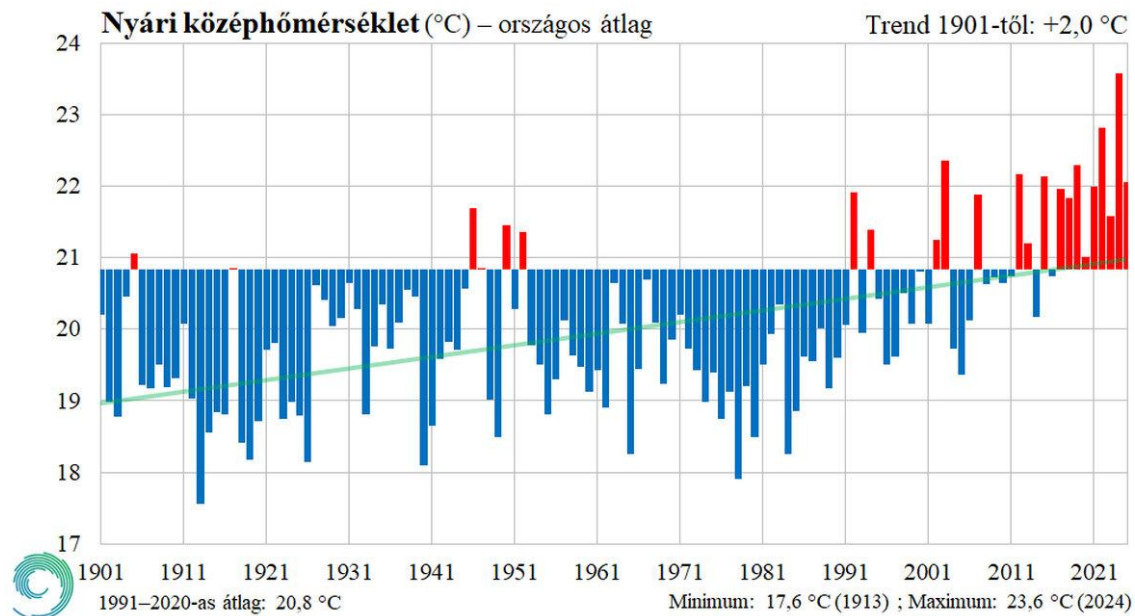
Forestry

total area ca. **2.1 million ha** (22 %)

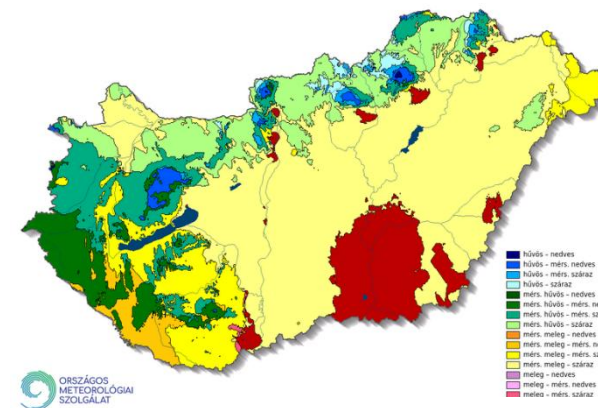
forest area for logging: 1.1 million ha

timber harvested: ca. 7.5 million m³

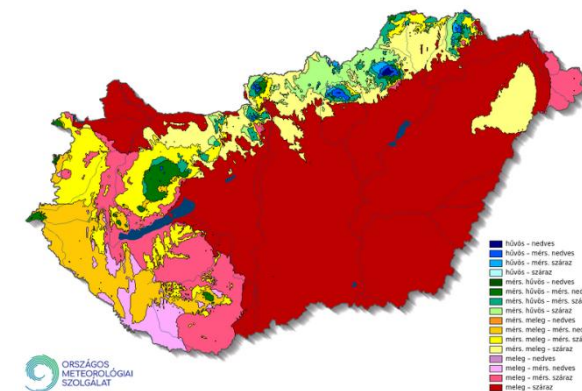
Mean summer temperature



Climate zones 1961-1990

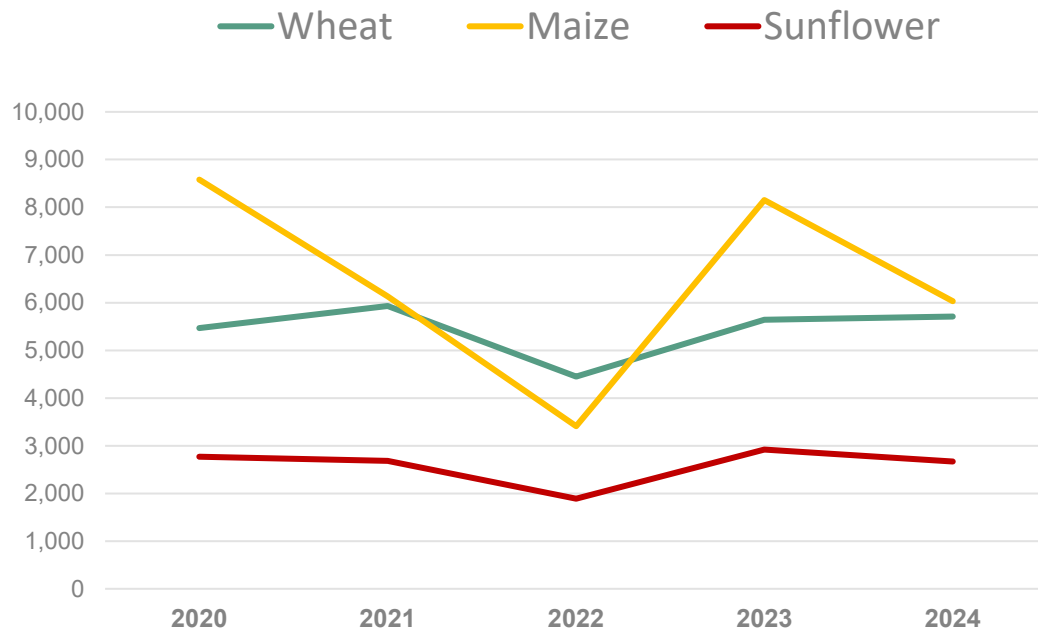


Climate zones 1991-2020



Source: National Meteorological Service

Average yields (t/ha)



High vulnerability, yield security problems

Need for:

New varieties and new species

Improved soil and water management

Innovative technologies



Hungary is the 7th biggest cereal crop producer of the EU

| Category | Year 2020 | Year 2021 | Year 2022 | Year 2023 | Year 2024 |
|------------------------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| Harvested area, ha | 2 337 648 | 2 361 638 | 2 247 100 | 2 405 578 | 2 253 999 |
| Harvested yields, tons | 15 615 549 | 14 018 437 | 9 076 817 | 15 076 201 | 12 720 302 |
| Imports, tons | 484 152 | 814 702 | 2 276 054 | 1 247 379 | 425 184 |
| Industrial use, tons | 4 037 549 | 4 044 509 | 3 914 101 | 3 700 465 | 3 745 304 |
| Animal feed, tons | 4 726 376 | 4 750 643 | 4 694 504 | 4 492 213 | 4 449 818 |
| Seed for sowing, tons | 350 372 | 393 121 | 436 672 | 358 636 | 398 061 |
| Other uses, tons | 1 096 | 1 969 | 1 335 | 1 732 | 3 440 |
| Losses, tons | 101 212 | 81 093 | 135 079 | 73 507 | 62 060 |
| Exports, tons | 8 352 459 | 7 009 896 | 4 760 245 | 5 697 261 | 6 778 427 |
| <i>Exports/Harvested yields, %</i> | 53% | 50% | 52% | 38% | 53% |

Some Characteristics of Biomass Processing

Dominance of use for food purposes

Significant untapped potential of added value

Need for more capacities and diversification

Lack of pilot plants and demonstration facilities

No national strategy and action plan yet

Few platforms for collaboration between ministries

Occasional expert level inter-ministerial dialogues

Recent investment support programs:

- Food processing (Ministry of Agriculture, CAP)
- Biogas production (Ministry of Energy)
- Novel construction materials (hemp, straw, Ministry of Construction and Transport)

Active participation in the BIOEAST initiative

According to preliminary statistical data (2024):

- 1.12 % of those employed in the national economy work in R&I positions;
- 0.84 % of national economic investments are R&I investments;
- 1.31 % of gross domestic product (GDP) is spent on R&I.

Ministry responsible: Ministry of Culture and Innovation

Main funding organization: National Research, Development and Innovation Office

General R&I calls without sectoral specification

CL-6 Food, Bioeconomy Natural Resources, Agriculture and Environment

| | Country | EU Support mill EUR |
|-----------|----------------|---------------------|
| 1 | Spain | 604,3 |
| 2 | Germany | 502,2 |
| 3 | Italy | 456,9 |
| 4 | France | 417,8 |
| 5 | Netherlands | 398,7 |
| | ... | |
| 20 | Hungary | 34,4 |
| 21 | Bulgaria | 24,6 |
| 22 | Slovakia | 23,7 |
| 23 | Lithuania | 23,3 |
| 24 | Latvia | 19,5 |
| 25 | Croatia | 19,3 |
| 26 | Luxembourg | 17,1 |
| 27 | Malta | 6,5 |

HE Pillar II - Global Challenges and European Industrial Competitiveness

| Thematic Priority | EU support mill EUR | |
|--|---------------------|-----------------|
| | HU | EU-27 |
| <i>Total</i> | <i>135,8</i> | <i>26 290,4</i> |
| Food, Bioeconomy Natural Resources, Agriculture and Environment | 34,4 | 4 446,4 |
| Climate, Energy and Mobility | 33,2 | 7 938,0 |
| Digital, Industry and Space | 26,3 | 7 886,8 |
| Health | 20,9 | 4 173,7 |
| Civil Security for Society | 10,9 | 769,7 |
| Culture, creativity and inclusive society | 10,1 | 1 075,9 |

Hungarian bioeconomy is in a 'halfway situation'.
The new EU Bioeconomy Strategy can be an
incentive to take steps towards a stronger
commitment and a more systemic strategic
thinking.



Thank you for your attention!