NATIONAL FEDERATION OF FARMERS

AGRICULTURE FACING CLIMATE CHALLENGES – LET'S ACT FOR A SUSTAINABLE FUTURE!

The situation is alarming!

Climate change is seriously threatening agriculture and livestock, directly impacting food production, and without it, our survival is at risk.

Key Recommendations:

- Elevate the adaptation of agriculture to climate change higher on the national development agenda.
- Develop a national plan for climate change adaptation with a particular focus on agriculture.
- Allocate funding from the state budget to support farmers in implementing adaptation measures.
- Strengthen collaboration among national institutions, local governments, farmers, civil society organizations, and academia.
- Enhance the capacities and awareness of farmers for implementing adaptation measures.
- Rehabilitate and maintain irrigation systems.
- Build inclusive infrastructure in rural areas.
- Establish an inter-sectorial working group on climate change within the Ministry of Agriculture, Forestry, and Water Economy.

These recommendations stem from the **Agricultural Forum on Climate Change** organized by the National Federation of Farmers (NFF) with support from Sweden and the We Effect organization.
The forum presented analyses, relevant statistics, and discussions on the impact of climate change on agriculture and rural communities in North Macedonia.

For Sustainable Agriculture – Together Against Climate Challenges!

Key Challenges:

- Climate change is worsening conditions for agricultural production.
- Reduced yields due to higher temperatures, altered precipitation patterns, and water scarcity.

Policies and Measures:

- Coordinated policies between the Ministry of Environment and Spatial Planning (MEPP) and the Ministry of Agriculture and Spatial Planning (MAFWE) to mitigate climate change.
- Agro-ecological measures to support farmers facing costs and losses.

Implementation Challenges:

- Weakness in enforcing measures.
- A need for a structure within MAFWE to manage the development and application of climate change policies.

Role of Farmers:

- Farmers should lead adaptation and mitigation activities.
- Adequate support is necessary for their role.

Sustainable Irrigation Systems – For Productive Agriculture!

Status of Irrigation Systems:

- **Utilization Issues:**
  - » Out of a total of 135,912 hectares of agricultural land under irrigation, only 25,000 hectares are effectively irrigated.
  - » Over 66,000 hectares that could be rehabilitated are not being used.
  - » Around 45,000 hectares, though constructed, are not functional for irrigation.
- **Reasons for Inefficiency:**
  - » Poor infrastructure condition.
  - » Insufficient institutional coordination.
  - » Lack of modern equipment and technology.

Recommendations for Improvement:

Key Step Forward:

Develop and implement a National Irrigation and Drainage Strategy – a document that will lay the foundation for efficient and rational management of water resources in agriculture.

Rehabilitation and Modernization of Systems:

- Rehabilitation of existing systems and construction of new, efficient ones, with a focus on small systems.
- Invest in inventorying objects and equipment, integrating digital systems (LPIS, SCADA).
- Increase public awareness about the importance of rational water use.

Education and Support for Farmers:

- Provide equipment to optimize water use.
- Offer training on rational and efficient use of water resources.
- Implement volumetric delivery and charging for irrigation.

Why is This Important?

>> Better utilization of irrigated areas will increase the productivity and competitiveness of Macedonian agriculture.

>> Rational use of water resources will ensure the sustainability of agriculture and environmental protection.

>> Improved institutional coordination will enable faster and more effective implementation of measures.

Temperature Changes by the End of the Century

Changes in the annual precipitation total by the end of the century

Changes in the precipitation total during the summer period by the end of the century

Scenario with small changes - RCP 2,6 | Scenario with moderate changes - RCP 4,5 | Scenario with large changes - RCP 8,5

Analysis of the Impact of Climate Change on Agriculture in North Macedonia and Policy Recommendations for Mitigation and Adaptation of Agriculture to Climate Change

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