Results

Four seminars were organised and complemented by field visits.

The project allowed a specialised expert team to be created whose skills are currently used by the ministry of agriculture, advisory services, local administration and farmers.

The research institutions that participated in the project set up a research cooperation based on LCA estimation of low-carbon technologies in agriculture and livestock production.

Participating farmers gained knowledge that will influence their practices through low carbon innovations which in the long term will contribute to the environmental and climate protection.

Summary

Agriculture can have a negative impact on the environment and climate change. In order to minimise these impacts it is necessary to coordinate the actions of advisory services, the administration and farmers for investment into innovative, low-emission technology and production models.

This technical assistance project financed the organisation of four seminars and study visits to explore the possibilities offered by low-emission technological solutions in agriculture.

Lessons & Recommendations

- The success of the project was primarily determined by the leading role of the ministry of agriculture, which invested in actions that reduce the impact of agriculture on the environment and climate change.

- Success was also due to the selection of experts whose knowledge and competences allowed the exchange of experience and multi-faceted discussions with effective communication between the participants during the meetings.

- A challenge to overcome is the complex communication between organisations with different competencies and competitive interests. Each participating stakeholder should experience significant benefits in the project results.

- In order to maintain the dynamic created during such events, it is necessary to plan follow-up tasks in the near future.
Context
Thanks to the European Research and Innovation Programme Horizon 2020, as well as the national research supported by the ministry of agriculture and rural development and the ministry of science and higher education, the impacts of agriculture on the environment and climate change are well defined. Actions are now needed to counteract this pressure.

Methodologies and tools, such as the Life Cycle Assessment (LCA), are indicating the economic dimensions of these impacts, including rising food production costs, reduced competitiveness and risks of food security in the EU area. These factors have triggered the development of new production practices that optimise the economic results in agriculture while minimising environmental costs.

However, such new production models cannot be easily spread due to the lack of cooperation and coordination between public authorities, research institutions, advisory services and farmers.

Objectives
The overall objective of this technical assistance project was to achieve consensus and promote joint action among all relevant stakeholders towards low-emission agriculture.

Activities
The activities of this technical assistance project covered the organisation of four seminars and study visits. Themes covered included plant breeding, fertilisation, cultivation, animal husbandry, animal feeding, practical needs, legal regulations in relation to environmental protection and climate change. Activities carried out included:

- Dissemination of information about the events using a dedicated website, leaflets and personal contacts; recruitment of experts and sending invitations to the relevant institutions and organisations.
- Contacting representatives of research institutes, central administration, advisory services, breeders' associations as well as local government administration, dealing with the specific topics to be covered by the seminars and visits.

- Planning and selecting the places and dates of each of the seminars and identifying of appropriate innovative low-emission installations for the field trip.
- Identifying moderators to manage the plenary sessions and discussion panels in the seminars and leading experts presenting agreed topics.
- Preparing technical documentation for the seminars, on:
  - The state of play of environmental protection and climate change in the agricultural sector;
  - Results of national research work to estimate the impact of actions taken on environmental protection and climate change in agriculture;
  - Identification of complementary and new research areas on environmental protection and climate change in the agriculture;
  - Recording of the most effective methods to reduce the unfavourable impacts of agriculture on the environment and climate change and of how to estimate these effects.
- Preparation of reports summarising the outcomes of each seminar.
- Organisation of field visits on farms applying innovative solutions on each of the topics.
- Promoting and disseminating materials and publications on the seminar topics using various communication channels (internet, printed publications, etc.).
Main Results

- Four seminars were organised and complemented by field visits:
  - Seminar on “National results of research works and measures for impact estimation related to environmental protection and climate change in the agricultural sector”, Balice-Modlnica, 3-4/10/2017.
  - Seminar on “Designation of complementary and new research areas in the field of environmental protection and climate change in the agriculture”, Puławy, 11-12.10.2017.

- The project allowed a specialised expert team to be created whose skills are currently used by the ministry of agriculture, advisory services, local administration and farmers. The team participates in new projects and has been involved in work on relevant legal solutions and good agricultural practice. Team members take part in training organised for farmers and consultancy services.

- The research institutions that participated in the project set up a research cooperation based on LCA estimation of low-carbon technologies in agriculture and livestock production.

- Participating farmers gained knowledge that will influence their practices through low-carbon innovations which in the long term will contribute to the environmental and climate protection.

Key lessons

The success of the project was primarily determined by the leading role of the ministry of agriculture, which invested in actions that reduce the impact of agriculture on the environment and climate change.

Success was also due to the selection of experts whose knowledge and competences allowed for the exchange of experience and multi-faceted discussions with effective communication between the participants during the meetings.

The organisational skills and leading role of the contractor were also important.

When preparing such projects, it is necessary to consider longer implementation periods to avoid problems due to seasonal field work in agriculture and holiday breaks during the summer, and the time needed to prepare the materials for publication.

A limitation to overcome is the complex communication between organisations with different competencies and competitive interests. Each participating stakeholder should experience significant benefits in the project results.

In order to maintain the dynamic created during such events, it is necessary to plan follow-up tasks in the near future.