

# LIFE farming – environmentally sustainable agriculture

## Potential of LIFE programme for Slovenian and EU agriculture Conclusions of the conference

### Workshop: Soil

Moderator: **dr. Borut Vrščaj**, Agricultural Institute of Slovenia

*The key question: Soil management in relation to sustainable agriculture and ecosystem services?*

The group's moderator first mentioned that most of the ecosystem services are directly linked to the ground; therefore we are talking about ecosystem services of the soil.

The themes discussed reflected the composition of the group: mainly agricultural and environmental sector representatives, land use representatives, the introduction of sustainable agricultural technologies and a representative covering soil pollution. The members of the group have determined that much more knowledge and awareness is needed to solve problems relating to sustainable land use: we need to update the education system at all levels. Soil combines the full range of ecosystem services. In Slovenia, the problem with the availability of soil data has been identified. Data needs to be organized and shared. Only in this way will it be possible to obtain key target information from the technical data at the expert level, which could be directly applicable.

It is difficult to use data that we can hardly access, in addition, certain knowledge is needed for proper interpretation. Another problem addressed during the workshop was soil pollution and pollution concerns, such as, in gardens. The group stressed the need to set up demonstration centers / farms. There new technologies of soil treatment could be introduced under surveillance in collaboration with the profession. The usefulness of such technologies is closely related to the properties of the soil.

### Workshop: Nitrates

Moderator: **dr. Jože Verbič**, Agricultural Institute of Slovenia

*The key question: How to solve the problems of excessive amount of animal manure?*

The first step in the workshop was identification of problems. Most of the problems that the group has highlighted are related to the use of inadequate farming technologies. Participants discussed ways to improve stables, storage and usage of livestock manure, and introduction of plants with a higher need for nitrogen on farms with excessive amounts of nitrogen. The group agreed that problem solving should be addressed throughout the entire nitrogen cycle (not only in fertilization and nitrates).

They agreed that trends in Slovenia are in principle favorable: the amount of nitrogen in livestock and mineral fertilizers is decreasing, the quantities of nitrogen in crops are increasing, and the balance is improving. But this does not mean that there are no problems in Slovenia on the level of individual farms, such as poultry breeding or cattle farms.

The group recognized the following ideas for projects:

- what to do with surpluses occurring on farms (to establish a system that will allow the transportation of fertilizers - to determine how much nitrogen the individual agricultural land is capable of accepting),
- experimental calculation of nitrogen balance on individual farms and demonstration of good practices,
- establishment of good conditions for microorganisms in the soil and thus reduce nitrogen leaching into groundwater.



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### Workshop: Climate Change Adaptation

Moderator: **prof. dr. Lučka Kajfež Bogataj**, University of Ljubljana

*The key question: How to make Slovenian/European agriculture more resilient to climate changes?*

The topic of the workshop was climate change adaptation. Most of the participants believe that climate change overtook us and we should start adapting as soon as possible. Thus, one set of solutions proposed by the group is the preparation of projects that will include a change in agro-technical measures. Examples of simple measures, which contribute to better adaptation, are rotation of crops and a change in soil treatment. Therefore the aim of such projects would be to check what can be in relatively cheap and quick way achieved by changing practice of already known methods.

The group also highlighted the problem of extreme weather, which potential solution is improving the insurance policy: How to design projects in order to address the inadequate insurance policies. The group discussion focused on hail and drought, where currently the crop cannot be saved or insured. This can be one set of highly successful adjustments.

Another issue that was addressed in the group was how to determine the vulnerability of individual areas - how to introduce spatial planning in the wider context of locations that will be particularly exposed to climate change in the future. Whether climate change is most pronounced in these areas, or the activities in these areas are sensitive to climate change. Additional question here is how to take this into account in policy development. The group was of the opinion that projects of this type would be very welcome.

Since the group was international, also differences between individual countries in terms of preparing scenarios of data were mentioned: Slovenia has already made a fairly significant step forward; the Austrians are even bigger. This is the basis for such measures to be taken in the future.

### Workshop: Grasslands

Moderator: **mag. Mateja Žvikart**, Institute of the Republic of Slovenia for Nature Conservation

*The key question: How to manage Natura 2000 sites with habitat types, used by farmers (e.g. dry grasslands)?*

The discussion in the group was very fruitful, as five key problems related to the grasslands were identified:

- intensification in all possible forms,
- abandonment of use or overgrowth,
- emigration of young people from the countryside in particular - a social problem,
- lack of knowledge - the need for education on grassland conservation,
- policy issues and measures.

In order to solve these problems appropriately, a wider picture is needed in problem solving process. There is always a spectrum of several factors and environments. It is necessary to cooperate in addressing and solving these problems. Participants agreed that cooperation is already taking place, but it needs to be strengthened and extended to all possible levels.



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### Workshop: Coexistence

Moderator: **mag. Aleksandra Majić Skrbinšek**, University of Ljubljana

*The key question: How to coexist with species, frequently in conflict with humans (e.g. brown bear)?*

The group first highlighted the nature conservation success, which resulted in the return of species whose populations were in decline in the past. With species return also conflicts from the past, which is a problem since we have forgotten how to coexist with these species. So the group first defined which species are involved in present animal – human conflicts. They then listed a number of challenges and problems and put them together in individual themes:

- information,
- stakeholder dialogue,
- trust,
- lack of locally-tailored solutions,
- lack of system solutions,
- social tolerance - acceptance of species,
- proactive action.

The solutions proposed by the group are as follows: building confidence among individual stakeholders (working in local communities, building partnerships, updating of curricula), raising awareness and locally tailored solutions, and at the same time integrating local expertise and experience of individual stakeholders, adapting regulations, where necessary, the establishment of an Ombudsman.

Systemic and economic solutions: we have projects and we are successful in projects, but we also need to ensure the sustainability of the effects and activities. It is necessary to maintain and develop social acceptance. They emphasized the importance of proactive action - in advance, it is necessary to foresee where we can expect problems and, accordingly, proactive action is needed. In the case of beaver and otter, the need for inventory was highlighted.

### **CONCLUSION OF THE CONFERENCE**

The final thoughts of the conference were delivered by **dr. Marija Markeš**, Ministry of the Environment and Spatial Planning:

*»May 9 is the holiday of Europe. It is worth considering how far has Europe come in those years from steel and coal and with cooperation? What did we achieve? Let me remind you that May 9 is a day of victory, and I also feel today's energy as victory energy. I am proud of my country and the European Union, where we are able to give the agriculture and nature the right place. I see the LIFE project as a fascinating project; in every project it is also part of "my problem" and the solution to "my" and "our" problem. If we open up and we will wish to use the LIFE instrument - we have every opportunity to make good progress - to advance on exposed issues and problems and to lead them in the right direction.*

*Finally, I would like to thank everyone who attended the conference. To all of you who participated in the conference with your contribution and also to the workshop organizer, LIFE Capacity Building Slovenia Team. "*



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