

Information, Communication and Knowledge Systems for Sustainable Agriculture in Lithuania

Report of the LAIE/FAO Workshop, Vilnius, Lithuania, 17-18 June 2003

In the context of a global effort to contribute to the improvement of Agricultural Knowledge and Information Systems (AKIS), FAO had commissioned a number of studies on national AKIS in each of its five geographical regions. The AKIS study for Lithuania was completed in 2002 and showed a very rapid development of system elements in the first decade of Lithuania's new independence. As a follow-up to this study and in response to previously requested assistance in higher education programmes for environment related issues in agriculture, a workshop was organized to identify some of the more urgent needs and project options to strengthen the Lithuanian AKIS for sustainable and organic agriculture systems.

The workshop on "Information, Communication and Knowledge Systems for Sustainable Agriculture in Lithuania" (17-18 June 2003), jointly organized by the Lithuanian Institute of Agrarian Economics (LAIE), the FAO Regional Office for Europe and FAO's technical services for Research and Technology Development (SDRR) and Extension, Education and Communication (SDRE) produced clear priorities and a list of desired outputs for the development of an Information and Communication System (ICS) for sustainable agriculture with a major focus on organic agriculture as a model sustainable system (see Annex 1 for the workshop programme). During the follow-up, a draft project proposal for support under FAO's technical cooperation programme (TCP) was prepared for which interest had been expressed by the Ministry of Agriculture and which will start operations by the end of 2004.

BACKGROUND

Lithuania has made enormous progress in the organization of its agriculture and educational system. A recently completed AKIS study has given good evidence of that. Lithuania has also placed considerable emphasis on the development of environment-friendly agricultural practices. The approval by the government in 2002 of the "Action Plan for Organic Agriculture in Lithuania" was an important step in the same direction. Legislative measures and other initiatives have been created to build expertise in support of these practices and markets are slowly developing.

The same AKIS and other local studies however indicate a need for improved information flow and generation, including not only content, but also access and training and organizational adjustments. The workshop's goal was to examine and outline first steps for developing a coherent strategy or approach to improve the information management across the research - education - extension platform, identify some of the most urgent needs and possible project themes. Main emphasis was given to the development of a model national information and communication system that serves those stakeholders involved in the development of cultivation practices based on firm sustainability and agro-ecological principles within an integrated rural development and livelihood context.

WORKSHOP DISCUSSION

Fourteen participants from a wide variety of institutions (see Annex II) presented their own or their institutions' activities and ideas on urgent needs for improvements (summarized in Annex III). Following the participants' presentations, it was agreed to focus on organic agriculture, since all

beneficial information and communication measures would automatically also be beneficial to other sustainable agricultural production methods.

During ensuing discussions a few important points were identified:

1. The need for an organic farming information portal that covers the specific needs of the organic movement in agriculture. That portal must be integrated into the existing agriculture knowledge system.
2. For awareness raising with farmers and consumers it was said to be important that there is efficient vertical networking. The current lack of continuity in processing and distributing information does not lead to any progress in awareness raising. A suggested solution was the creation of a service center for this purpose.
3. Since marketing was considered a bottleneck for organic production increases, special skills for internal (national), and external (export) markets are needed. In addition, specialized expert advisors are necessary in an increasing trend towards specialization requiring training of trainers, researchers and teachers.

For more in-depth analysis, the workshop proceeded with a SWOT analysis for the development of the Information, Communication and Knowledge System for Sustainable Agriculture (ICKSSA) and prioritization of the identified elements (results in Annex IV).

Although the revised workshop programme foresaw only one day of group discussions, the majority of participants spontaneously stayed also for the second day during which specific actions were identified and discussed following the priorities identified on the previous day (see Annex IV). The group further identified a number of potential projects in support of the action required and also outlined a TCP project request for FAO (see Annex V). As part of the follow-up to the workshop, the organizers coordinated the preparation of a TCP project request for the Ministry of Agriculture and other project fiches for at least some of these topics. A small UNDP funded project to develop training material for organic agriculture is already in operation and a TCP project scheduled to start before the end of 2004 can be considered among the direct outcomes of the discussions of this workshop. Parallel in time also an Organic Agriculture and Agri-environment Experts Group has been set up by the government to oversee development in this sector.

EVALUATION

The workshop was held in a very constructive environment and brought together a wide variety of stakeholders, including a representative from the Ministry of Health. Participants were very impressed by the amount of discussions and conclusions they were able to draw in such a short time with the help of appropriate facilitation. Some of the facilitation logic and methods were explained as well. Involvement by the Ministry of Agriculture was also very active and the Secretary of Agriculture viewed the initiative very positive. Results of the workshop were presented to him just an hour before he presented a major speech on support to organic agriculture in the parliament. Workshop results pointed to a set of clear and well defined priorities to improve the ICS in support of sustainable agriculture, i.e. certified ecological farming practices.

ACKNOWLEDGEMENTS

Appreciation and gratitude was expressed to the Lithuanian Institute of Agrarian Economics for hosting and organizing the workshop and particularly to Mr R Zemeckis for his additional hospitality and efforts to accommodate all participants.

ANNEX I



**Lithuanian Institute of Agrarian
Economics**



**Food and Agriculture Organization
of the United Nations**

Information, Communication and Knowledge Systems for Sustainable Agriculture in Lithuania

Workshop agenda

Tuesday 17th July

- Participants: (All invited representatives from different organizations)
- 7.30 – 8.00 Coffee and registration
- 8.00 – 9.00 Introduction, presentation of CONTER project proposal, AKIS study, FAO objectives, Government of Lithuania objectives
- 9.00 – 10.00 Presentations of the different institutions about their activities, involvement and interest in an Information and Communication System for sustainable and organic agriculture. (10-15 min. each)
- 10.00 - 10.20 Coffee
- 10.20 – 12.00 Presentations continued
- 12.00 – 13.00 Lunch
- 13.00 – 15.00 First working session SWOT analysis
- 15.00 - 15.20 Coffee
- 15.20 – 17.20 SWOT continued and prioritization of results
- 17.20 – 17.45 Summary and Conclusions
- 18.00 Dinner
- Transport will be organized to bus and railway stations if requested.

Wednesday 18th June,

- 09.00 – 17.00 Translating prior day results into action for solutions; identification of project themes and working out project fiches; deciding on follow up steps, agreeing on tasks and responsibilities. (This part of the programme was spontaneously changed to a larger group effort due to request by and support from participants.)

ANNEX II
List of workshop participants - Seminario dalyvių sąrašas

No.	Name of Participant - Asmuo	Institution represented - Atstovaujama institucija	Position occupied - Pareigos	Contact information - Kontaktinė informacija
1	Rainer Krell	United Nations, Food and Agriculture Organization	Research Information Management Officer	Viale delle Terme di Caracolla, 00100 Rome, Italy, tel. 39-06-57052419 Rainer.Krell@FAO.ORG
2	Donatas Stanikunas	Lithuanian Institute of Agrarian Economics	Director	tel. 8-5-261-45-25, laei@laei.lt
3	Romualdas Zemeckis	Lithuanian Institute of Agriculture	Secretary for Research	romas@laei.lt
4	Vida Rutkoviene	Institute of Environment, Lithuanian University of Agriculture	Director	tel. 37-752202, ai@nora.lzuu.lt
5	Minvydas Liegus	International Department Lithuanian University of Agriculture	Head	tel. (37) 752398, kontakt@nora.lzuu.lt
6	Regina Girdvainyte	Division of International Projects and Programs, Ministry of Agriculture	Senior Specialist	tel. 2391125, reginag@zum.lt . focal point FAO contacts
7	Sandra Sipaviciute	Public organization “Rural business projects”	Project Coordinator	tel. 2683967, kvp2@takas.lt
8	Linas Putelis	Lithuanian Chamber of Agriculture	Advisor to the Director	tel. (37) 409376, linas@zur.lt .
9	Ina Skurdenienė	Lithuanian Institute of Animal Science	Senior Research Manager	tel.8-422-65383, ineda@freemail.lt
10	Antanas Svirskis	Grassplant Department, Lithuanian Institute of Agriculture	Head	tel. 8-347-37-293, svirskis@lzi.lt
11	Almonas Gutkauskas	Public organisation: “Tatulos” programme	Executive Chairman of Board	tel. 8-5-2621548, gut@takas.lt
12	Almantas Kranauskas	National Nutrition Center Ministry of Health	Vice Director	tel. 2300022, almantas@RMC.lt
13	Linas Stabingis	Public organisation “Centre of Agricultural Information and Rural Business Development”	Senior Specialist	tel. 2391029, linas@zum.lt
14	Kestutis Rudokas	Lithuanian Institute of Agrarian Economics	Researcher	kestas@laei.lt

ANNEX III

Summary of participant contributions (prepared by LAEI)

Donatas Stanikūnas, Director of the Lithuanian Institute of Agrarian Economics (LAEI).

With growing public awareness about influence of conventional food production technologies on environment and health it is time to accelerate Lithuanian agriculture's transition toward using more sustainable production methods. We are thankful to FAO for the initiative, technical and financial support to organize this workshop. It is a privilege to host this event at our Institute.

Minvydas Liegus, Head of International Department at Lithuanian University of Agriculture, NOVA-BOVA information center coordinator.

NOVA-BOVA is a joint, coordinated programme for strengthening cooperation between the Nordic and Baltic veterinary, forestry and agricultural universities. The program is directly linked to the activities of the Nordic NOVA University as one of its priority areas. In September 1996, Baltic Agricultural Universities signed a formal agreement, thereby establishing BOVA (Baltic Veterinary, Forestry and Agricultural Universities).

Through promoting higher education and research NOVA-BOVA aims at better understanding and building expertise in sustainable use of natural resources, food production, rural development, and environmental protection. The cooperation will lead to a more efficient use of both intellectual and financial resources and will benefit all counterparts in areas of academic education and research in agricultural, forestry and veterinary sciences.

The main activity at the time is initiation of thematic networks, organization of intensive courses for M.Sc. and Ph.D. students and also for young teachers and researchers.

Ms. Regina Girdvainyte Sen. Specialist, Project Division, Ministry of Agriculture.

Since joining the FAO in 1991, Lithuania receives support from this organization for several millions of Litas. These projects were of food qualitative control, agriculture and environment law, pesticide use and pest control, agriculture related information network creation and other agriculture branches. Lithuanian libraries receive FAO literature, academic community receives support for international cooperation.

Assoc. Prof. Dr. V. Rutkoviene, Director, Institute of Environment, Lithuanian University of Agriculture.

The Institute of Environment coordinates study programs for B.Sc. and M.Sc. level students of applied ecology, prepares modules of studies related to ecology, environmental science and environmental protection. There is very intensive academic cooperation with Scandinavian universities.

The institute conducts scientific research, environment quality assessments, provides organic agriculture services, organizes seminars, conferences and training for framers and teachers, and prepares publications and public exhibitions on organic agriculture.

A current project on "Organic farming model farms" (co-developed with the Swedish Institute of Organic Farming) is coordinated by Dr. V. Rutkoviene.

Dr. Ina Skurdenienė, Researcher, Department of Animal Hygiene and Ecology, Institute of Animal Science.

Main research focus of the Institute is on animal husbandry; quality and safety of animal products. Research related to environment protection and sustainable farming is gaining more and more importance. Sustainable farming methods and organic agriculture are now under the tutelage of the Department of Animal Hygiene and Ecology.

Linus Putelis, Adviser to the Director, Lithuanian Chamber of Agriculture (LCA).

The chamber is actively running programmes for sustainable agriculture which maintain the countryside and rural lifestyle, responding to concerns and demands of consumers for food quality, safety and environment protection, and market information system. For this purpose LCA aims to empower the rural population and professional and territorial organizations. Future priorities are the creation of an information base on conventional and organic agriculture.

Linus Putelis on behalf of Edmundas Samauskas, President of Lithuanian Association of Ecological Agriculture "Gaja"

The main objective of GAJA is promotion and development of ecological information in Lithuania. Future plans: farmer to farmer training system, promotion system for consumers.

Almantas Gutkauskas, Executive Chairman, "Tatula Programme".

"Tatula" was established in 1993 by Lithuanian Government. It is financially supported also by the Ministry of Agriculture. The main objective is to provide farmers and companies with versatile support in the field of conversion into organic or sustainable farming. This support is provided in a variety of subsidies made available to the members, short and long term interest-free loans and by providing assistance to farmers who are selling their products. One of the activities is to organize trade fairs in Vilnius and other location.

Recently "Tatula" initiated the preparation of a "Regulation for Sustainable Agriculture", introducing a label and planning to have a pilot project to test certification of products produced according to this regulation. This programme's administrative body serves as organic agriculture lobby for the Ministry of Agriculture, the Government and the Parliament.

Dr. Almantas Kranauskas, Vice Director, National Nutrition Center (Ministry of Health).

Main objectives of the Center are improving food quality, nutrition and related health disorder prevention.

He stressed that in Lithuania, life expectancy is considerably lower than in European countries for reasons of poor hygiene habits, use of alcohol and tobacco, unacceptable high use of fats and simple carbohydrates, lack of dietary fiber, fruit and vegetable over consumption, lack of physical activities. Comparing with agro-chemicals these factors are more dangerous. Organic agriculture methods are more expensive and very small percent of such products are available. That is why we should look at

sustainable agriculture as a way to combine public nutrition and health needs with production methods applied.

Dr. Romualdas Zemeckis, Secretary for Research, Lithuanian Institute of Agrarian Economics (LAEI)

The founder and main client of LAEI is the Ministry of Agriculture. Main activities are

- Economic and social studies;
- Agricultural policy
- Marketing of agricultural products, competition in EU studies
- Rural and regional development
- Integrated Agriculture Information System – Farm Accountancy Data Network development
- Development of sustainable agriculture

LAEI had and has activities related with sustainable agriculture and organic agriculture:

- Preparation of the economic background study for the “Tatula” program in 1993
- Together with the Lithuanian University of Agriculture preparation in 2001 of the “Sustainable and Organic Agriculture” programme for implementation of the Agriculture and Rural Development Strategy of the Government
- Research on how much the state should support organic farms this year
- Development “Regulation for Sustainable Agriculture” in 2002. The improvement of this document is still going on
- Ongoing work on developing databases for organic agriculture
- Participation in different working groups

Future plans

- Work on project “Information, Communication and Knowledge Systems for Sustainable Agriculture in Lithuania”
- Market Research
- Business plans

Habl. Dr. Antanas Svirskis, Head of Grass Department, Lithuanian Institute of Agriculture

Was one of the initiators of organic farming movement in Lithuania with “Gaja” organization and “Tatula” program. Institute now tries to convert conventional farming technology to organic. An important field of efforts is training, consulting and visiting farmers in a number of demonstration plots throughout Lithuania. In the winter there are courses organized for agro-economists, plant protection and other agricultural specialists on sustainable farming technology.

ANNEX IV

Prioritized results of the SWOT analysis for the development of the Lithuanian Information, Communication and Knowledge Systems for Sustainable Agriculture (ICKSSA)

Strength

(listed according to ranked priority; min. points for highest priority: 19, for lowest priority: 190 points¹)

Rank	Description	Points
1	Education and Training	50
2	Government financial support	59
3	Existing certification system	70
4	Graduated and enrolled students	78
5	Existing research programme for more than 10 years	81
6	Good research data base for organic agriculture (OA)	83
7	Active producer organizations	93
8	Good operator and product database	96
8	Numerous, good seminars, workshops, fairs for OA	96
9	Existing informal network	98
9	Experienced teachers (some)	98
10	Some manuals and textbooks	109
11	Newsletters (3)	112
12	Network for conventional agriculture	113
13	Media access	118
14	Some limited organic seed production	120
15	A national agro-eco network	135
16	Some agro-eco centers for promotion	138
17	Political support declared by the government	144

Weaknesses

(listed according to ranked priority; min. points for highest priority: 10, for lowest priority: 100 points)

Rank	Description	Points
1	Financial support for research, education, extension, promotion	26
2	Public awareness	42
3	Vertical networking (farmer – extension – research – education)	47
4	Support to knowledge transfer	48
4	Database maintenance	48
5	Financial support to conventional but not organic agriculture (unfair conditions and competition)	61
6	Access to electronic-information (lack of PCs and knowledge base)	62
7	Communication with Ministry of Health	64
8	Communication between stakeholders	67
9	Regional policies	76

¹ Each of ten participants assigned a rank to each element, the sum of the ranks for each element indicates the overall rank, e.g. the highest priority is 1, the lowest priority corresponds to the total number of elements in one group (Strength = 19, Weaknesses = 10)

Opportunities

(listed according to ranked priority; min. points for highest priority: 10, for lowest priority: 70 points)

Rank	Description	Points
1	Access to EU funds	25
2	Increasing demand for information	30
3	Horizontal/informal networking as base for vertical integration	39
3	Political opinion is changing to positive support for OA	39
4	Difficult marketing of conventional products	41
5	Infrastructure available (accessibility expanding)	44
6	Communication with the Ministry of Environment	59

Threats

(listed according to ranked priority; min. points for highest priority: 10, for lowest priority: 50 points)

Rank	Description	Points
1	Reduced direct payments (EU)	25
2	Lobbying of other interests	27
3	Lack of understanding	29
3	Reduction of agricultural labour force (EU policy)	29
4	Lack of goodwill of stakeholders	40

Brainstorming

Following the prioritization of SWOT elements a brainstorming session was to identify the best and most urgent actions or solutions to take advantage of the SWOTs for more rapid development of ICKSSA and organic/sustainable agriculture in Lithuania in general. The exercise resulted in six groups of solutions/actions. The first three listed below were considered of highest priority while the last three lowest in importance. Such results, may very much reflect more the main activities of the present participants than the best overall approach and also must be understood and related to the specific scope of these discussions, i.e. the development of an Information and Communication and Knowledge System for Sustainable Agriculture. The specific question asked to participants was: which three of the identified six activity groups would they consider most important for immediate action and project support.

List of grouped actions (no ranking inside of each group):

1. Education and training:

Dissemination of information on seminars and training courses
Training of trainers (2x)
Developing a training system
Educate farmers
Training farmers
Education of society and training

2. Promotion of Sustainable and Organic Agriculture:

Teach consumers
Inform consumers (2x)
Increasing public awareness

Change consumer habits
Society targeted campaigns
Promotion

3. Informing:

Improving information sharing
Information demand, survey and analysis
Improve access to e-information
Create information portal

4. EU Funding:

Assure best possible use of EU funds
Assure rational use of EU support, (professional assistance to get funds and assure that payments reach farmers)

5. Projects

Research programme projects
Research information database
Projects proposed
Agro – eco projects
Rural business development projects

6. Policy making:

Change agricultural policy (2x)
Organize lobbying of politicians
Request political support from Government
Build communication between rural people and the Ministry of Agriculture
Introducing “Tatula” programme policy model in entire Lithuania

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ANNEX V

Participants identified the following key elements for a potential project under the Technical Cooperation Programme (TCP) under the title (proper formulation and logic editing were to be added as a follow-up to this workshop):

Improving Information, Communication and Knowledge Systems for Sustainable Agriculture in Lithuania

Objectives

To improve sustainable agriculture through better information and communication flow with appropriate knowledge between all stakeholders, including research, education, training, producers and consumers.

In particular:

- A) strengthen critical elements for improving information flow and quality communication;
- B) enhance the usefulness and efficiency of the ICS for support of education and training in sustainable production methods, including organic agriculture;
- C) develop content and systems and train for awareness building with stakeholders, including consumers.

Outputs for A) (strengthen critical elements for improving information flow and quality communication)

- Feedback system/mechanism for interactive information flow
- Multifunctional, user-friendly, sustainable portal for trainers, researchers, extension agents, consumers, health professionals, farmers, decision makers, marketers, processors, environmental groups, agro-eco centers
- Strong and well integrated informal networks of stakeholders
- Existing extension service is providing technical assistance to organic farmers (project makes available training and info resources, info access)
- Alternative communication channels identified (established)
- Evaluation mechanism is established
- Stakeholders are trained in efficient communication and in preparing/presenting material in easy-to-use formats

Outputs for B) (enhance the usefulness and efficiency of the ICS for support of education and training in sustainable production methods, including organic agriculture)

- Better skills of farmers, advisors, researchers, teachers
- Holistic approaches/concepts integrated into training, education and training material
- IC structure that supports holistic approaches
- Training and teaching material supporting holistic approaches for OA
- ICS integrated into training system
- Distant education systems
- Improved demonstration farms (connection, integration, equipment)
- Networks with other national programmes

Outputs for C) (content and system development and training for awareness building with stakeholders, including consumers)

- Well-informed society on OA and its benefits, including consumers, producers, researchers, policy-makers, traders, health specialists, environmental groups
- Diverse promotional materials are available
- Increased demand for OA products
- Increased production of OA products
- Increased interest of media
- More trained graduates with knowledge in OA
- Products available more visible and more widely available
- Specially trained persons in relevant institutions/organizations knowledgeable about OA to be able to promote it within their institutions
- Increased number of promotional campaigns

A list of key issues for consideration in one or several follow up projects were:

- Information systems
- Alternative marketing channels (benefit distribution – fair trade, business structures, value-adding, distribution systems; problems - sanitary regulations)
- Special OA technical school training (conversion/adaptation of existing programmes)
- Introduction of OA and ecol. farming concepts in all school curricula (elementary to University) (quality of training of teachers, quality audit)
- Improving agro-eco centers (materials, training, research, income generation, sourcing of funding)
- Up-scaling of Tatula
- Market information system (proper and efficient collection model) (pilot sustainable implementation)
- Farm income diversification, niche product development
- Establishing traceability systems (training, regulations/rules)
- Research related to promotion, consumer benefit (food quality/safety, crop adaptation/selection)
- Research methodology (participatory, farmer-lead research)
- Research and adaptation on increasing production efficiency (effecting price)
- Research and training on animal healthcare (preventative, non-drug based)
- Organic seed production (local varieties, quality)
- Research on sourcing or substitution of permitted agricultural inputs
- Research on diversification of OA (connecting farmers to agrotourism and other rural business)
- Training on communication improvement
- Credit union establishment for organic farmers (appraisal, feasibility, negotiations)

Platform for Inter-institutional communication/collaboration (Ministries of Education, Health, Environment and Agriculture, universities, chambers of agriculture, others).

Donor options: EU Phare programme, EU SAPARD, Structural EU funds, bilateral cooperation projects, agro-environment support to farmers from Government under EU programmes.