

National Agricultural Research and Extension System in Kosovo

Overview

Agriculture plays an important role in the economy of Kosovo. It accounts for a significant share of economic activities and more than 60 percent of the population are engaged in some form of agriculture. A strategy for sustainable agriculture and rural development in Kosovo (the Kosovo Greenbook, MAFRD 2003) aims at improving the agriculture and rural sector in Kosovo. The strategy also addresses regional and EU market opportunities and developing the food chain from the farm to the final products. In order to improve the performance of the agricultural sector, assistance to farmers in terms of adoption of advanced agricultural practices is crucial and therefore the support to agricultural research and extension has been recognised as one of the main priorities for the Ministry of Agriculture, Forestry and Rural Development (MAFRD).

In this context, MAFRD is currently redefining the role of the Kosovo Institute of Agriculture of Peja (KIA) to transform it into a centre of excellence for technology generation and transfer, training and provision of advisory services. However, the strategy to guide agricultural research and development is still lacking and as well as the staff capacity, in terms of number and skills, and adequate infrastructure, limiting the scope of KIA activities.

The lack of a strategy for agriculture research is a critical gap and therefore the KIA Management Board has made a request to the different donors for technical assistance in the field of “Strengthening of agricultural research in Kosovo” in order to strengthen the KIA capacity for the planning, implementation and management of research programmes with specific emphasis on adaptive research and technology assessment and transfer.

The National Agricultural Research System (NARS) of Kosovo is composed primarily of the Kosovo Institute of Agriculture (KIA) located in Peja, and the Faculty of Agriculture of the University of Prishtina.

Kosovo Institute of Agriculture, Peja (KIA)

The Kosovo Institute of Agriculture (KIA), as a public research institution founded in 1947 with premises in Peja, was transferred to the Ministry of Agriculture, Forestry and Rural Development (MAFRD) from the Ministry of Education, Science and Technology in 2000. KIA is a complex of 12 laboratories clustered in three laboratory facilities (Annex 1, A), 20 offices, garages and warehouses, a research station and two sub-stations (Dukagjini plain and Kosovo plain) of together 170 ha arable land in Peja.

KIA’s main function is focused on applied and adaptive research on:

- Plant production and protection,
- Animal husbandry,
- Seed testing,
- Laboratory analyses of agricultural inputs and products of plant and animal origin; as well as
- Training and advisory services.

KIA is governed by a Management Board, and a Director who works under the general supervision of the Permanent Secretary of the MAFRD.

The Management Board provides guidelines to the director on planning and policy issues while the Director manages the Institute on a day to day basis supported by administrative staff.

KIA has been operating in the last five years on a very limited scale, with 32 staff capacity, comprising of director, agronomists, biochemist, chemical analysts, support staff and administrator.

Due to this, current activities are limited to seed testing, variety trials (wheat, barley, corn, potato) and laboratory analysis of food, soil, fertilizer animal feed and crop products (grain, wine etc.).

Within the government policy framework (Green Book 2003) MAFRD is in process of redefining the role and organization of KIA:

The overall objective is to enhance the role of KIA in support of agricultural and rural development in Kosovo.

The immediate objective is to strengthen the KIA capacity for the planning, implementation and management of research programmes with specific emphasis on adaptive research and technology assessment and transfer.

Short term objectives to reorganize KIA, define a new programme of action, complete the equipping of laboratories and organize a model farm, in order to realize its potential by providing technical and scientific support to MAFRD in areas of crop production, seed testing and laboratory analysis of agricultural inputs, products and food of plant origin, in addition to carrying out basic agricultural research, training and dissemination of technical information.

Long term objective to transform the KIA as a centre of excellence for applied research, food control activities, soil analysis, training and dissemination of information as well as a provider of services to different public and private stakeholders, in close cooperation with the technical departments of MAFRD and other institutions within a regional context (Annex 1, B).

Major development problems faced by KIA

- Lack of strategy to guide agricultural research for development
- Lack of skills in research programming, planning and management
- Lack of critical mass of research and technical staff (number and skills)
- Weak linkages among agricultural research and technology stakeholders
- Weak linkages to outside sources of knowledge and information
- Inadequate research infrastructures (buildings/equipment)
- Inadequate financial resources and cost recovery for services

Faculty of Agriculture, University of Prishtina

The Faculty of Agriculture is the only institution for higher education in agriculture. The Faculty is responsible for teaching, research, transfer of knowledge and extension services.

The Faculty structure has five institutes/chairs:

- Livestock Institute,
- Field crops and vegetable Institute,
- Fruit trees and vineyards Institute,
- Plant Protection Institute, and
- Egroeconomy Institute

The Faculty's curricula follow the Bologna Declaration of 3+2. There are 33 professors, 12 associate and assistant professors, 14 lecturers and 32 technicians.

The Faculty of Agriculture has practical facilities and Laboratories for: feed analyses, chemical and microbial food control, wine testing, seed, flour and bread quality, plant protection, soil science and plant nutrition.

Faculty cooperates with universities in Albania, Germany, Italy, Austria, Norway and in the Balkan region.

Advisory, Knowledge and Information System (AKIS)

The agricultural knowledge system in Kosovo has the following main components:

- Agricultural research including trials and applied research.
- Agricultural education, formal and informal, includes short term retraining of agricultural/rural specialists and farmers.
- Advisory services to farmers and rural population, including market information system, farm accountancy data network and dissemination of information and best practices.

Kosovo has only some parts of this system, has access to some outside of it and those parts are not yet well linked together.

A) Agricultural research

Agricultural research in Kosovo is minimal at present and is likely to remain largely unaffordable for some time. Formally, the research function resided with the Faculty of Agriculture – which has no land – and with the Kosovo Institute of Agriculture at Peja that had mainly done applied research on a self-financing basis from its own farm income. So far research staff from KIA has conducted trials and training with VCU and demonstration plots on different varieties of wheat, barley, maize and potato in combination with particular cultural practices, particularly using different types of fertilizers, efficacy of different rates and types of pesticides, different seed rates, etc.

Adaptive research (trials and demonstration plots and cultivation of new varieties) is actually done by KIA and to some extent by Faculty of Agriculture. Recently MAFRD's Department of Rural Development successfully did on-farm client research. Rural Development officers within MAFRD and municipal Agriculture Departments at present collaborate in carrying out on-farm demonstrations and variety evaluations in wheat and maize. This is satisfactory in promoting improved technical packages to small farmers with the objective of increasing yields and farmers' margins. MAFRD is proceeding to the redefinition of the role of the Kosovo Institute of Agriculture (KIA) in applied research, training and advisory services support in order to better integrate the Institute with programmes of Technical Departments of the Ministry.

MAFRD is on the way to seek technical assistance to examine options for a sustainable research strategy, seeing the possibility to associate the Faculty of Agriculture members with a specific expertise.

This would also include expanding the network of existing links with regional and world research centers. The Kosovo Institute of Agriculture (KIA) needs substantial recurrent funding to sustain for the ongoing adaptive research in the medium term, an Agricultural Research Council should be established.

B) Agricultural education

The formal agricultural education is under the mandate of the Ministry of Education, Science and Technology (MEST) located in Prishtina. The Ministry of Labour and Social Welfare is doing professional technical training for unemployed young people whereas MAFRD's mandate is to do informal agricultural education, on the job training, workshop and dissemination of best practices for farms and other rural activities.

Formal agricultural education starts in Agricultural High Schools of which there are three, in Prishtina, Lipjan and Gjilane, plus two Vocational High Schools with an agriculture section in Ferizaj and Peja, with a total capacity of 1500 students of which 80% are for agriculture and 20% are for veterinarians. The University annual intake for agriculture is about 100, including 20 veterinarians, and the output of agriculturists is about 40 or 50 per year. The dropout rate in the first year is 50%. With the need for agriculture graduates for MAFRD, municipal agriculture offices, agriculture pharmacies and the rest of the farm services industry, banks and agricultural credit organizations, processing and marketing, NGOs, the teaching profession at all levels and the Kosovo Institute of Agriculture (KIA), it has been estimated that the current university output caters for perhaps one fifth of potential demand.

There is a need to:

- Increase the number of graduates,
- Review the curriculum against present needs,
- Achieve international examination standards and recognition by the use of external examiners and make formal linkages with an external university,
- Contract foreign Albanian speaking lecturers for some key subjects under donor assistance, and
- Make agriculture generally attractive to young people.

C) Advisory Services

The development of Agricultural/Rural Advisory Services (RAS), (Annex 2) within MAFRD was an urgent priority for Kosovo. Before the conflict, under the centrally planned economy, technical advice was mainly linked with the Agro-Kombinats and Cooperatives. Now, staff employed in the RAS, Agriculture Departments of the Municipalities and Ministry Field Units (MFUs) is providing advice in response to specific requests. There are also a few agronomists and animal husbandry experts operating privately and informally. A few specialized NGOs are giving support for the establishment of business plans, for specific products or for members of associations by branch of activity. The focus now is on small and medium family farms. The Kosovo Veterinary Services has promoted the delivery of services by private veterinarians and technicians and the setting up of a professional Order of Kosovo Veterinarians.

The Rural advisory service (RAS) of Kosovo is a coordinated and pluralistic service that allows messages be delivered to the rural community and can have a significant and immediate impact on farm's productivity and profitability of farmers and rural communities in Kosovo.

Strategy for Advisory and Support Services

- Assist the MAFRD in identifying the requirements of the advisory and support services,
- Fully utilise the skills and knowledge of municipalities and MAFRD staff,

- Define realistic and sustainable targets to be achieved and,
- Identify appropriate “convening powers” (local partners) to implement capacity building and training activities and to deliver services.

Short-term policy

To increase farm income through increased primary agricultural production, productivity and profitability.

- Modern advisory service techniques (group approaches, self-help groups, field demonstrations, training and visits), to reach the largest number of beneficiaries, using effectively the available resources,
- Provide knowledge to increase crop and livestock production and productivity,
- Provide training, assistance and advice in accessing available rural micro credit,
- Provide training, assistance and advice on activities related to agricultural diversification and enterprise development.

Medium to Long-term policies

To assist farmers to be more closely linked with market, to innovate, diversify and upgrade production and to improve their business skills.

- Assisting farmers in identifying agribusiness opportunities including market surveys, designing and preparation of business plans, credit application,
- Assisting and advising farmers and rural communities in identifying non-farm business opportunities for diversification of economic activities.

Four main functions are foreseen within the context of Advisory Services:

- Training and capacity building of advisers so that quality and standardized advice could be delivered all over Kosovo.
- Providing advice in agriculture and rural community development, including support to design and implementation of some pilot sub-projects and activities.
- Proper management and guidance including monitoring in the field, reiterative reflection of impacts, redesigning and reorienting the Advisory Services.
- Information exchange and networking, which includes collection of relevant information and best practices and disseminating it to users and advisers, within the overall rural development framework in Kosovo.

Rural advisory service (RAS) in future will play a key role in strengthening the linkages between advisory services and research institutions.

Information and communication to support agricultural development

Access to relevant information is crucial for the development of agriculture and rural economy as well as research and extension. The Ministry is developing a strategy for data management and dissemination. Agricultural Households surveys and in a few years an agricultural census, specific surveys on sub-sectors, collection of administrative data, setting up of a Farm Accountancy Data Network, study of market prices and main macro-economic indicators are the main instruments for the elaboration of an agricultural data base to inform policy making.

A breakdown of agricultural information by producers/users, type of information and data support is the basis for a multidirectional agricultural information/communication strategy.

Breakdown of agricultural information by producers/users

1. The main information categories are:

- A. Farm oriented information, extension materials and other information
- B. Information about health, diseases, occurrences and measures
- C. Information to be gathered from farms
- D. Information to be gathered from markets, processing industry, etc.
- E. National and regional policies, strategies, organisation activities, key figures
- F. Environmental data

2. The main information users/producers

- A. Farmers, producers, traders, processors
- B. Ministry and municipal inspectors
- C. Municipalities, NGOs, Statistical Office, Ministry and municipal staff working in agriculture/rural development
- D. Statistical Office, Ministry of Finance and Economy (macroeconomic unit), Customs
- E. Ministry of Environment and Spatial Planning, Municipalities, MAFRD staff responsible for pesticide control etc.

3. The main data support:

- A. Media: radio, television, newspaper, specialized magazines
- B. Website
- C. Intranet of the Ministry
- D. Administrative documents
- E. CD Roms

A multidirectional strategy for agricultural/rural information is being developed. For the internal use of the Ministry, a server and an intranet permit an internal exchange of documentation. A website has been opened for public access. The Ministry organizes regular press conferences on main challenges, priorities and plans of action. A regular magazine "AGMIA" is published by MAFRD where the professional paper can be published while scientific papers covering the data obtained during research mainly are published outside Kosovo, but they can be published also in the Magazine "Research" published by Academy of Science and Arts of Kosovo.

Benefits

Strategic framework to guide national agricultural research in Kosovo for the next decade developed with active participation of research and technology stakeholders. The strategy will provide for:

- Research and technology policy statement,
- Set of research priorities based on farmers needs,
- Research and technology development programme,
- Human, financial, and physical resources requirements,
- Organizational framework for KIA,

- Mechanisms for strengthening linkages of KIA with Faculty of Agriculture, Regional Offices of MAFRD and other stakeholders including private sector
- Arrangements for building partnerships with research institutions and networks in the sub-region.

Major constraints on NARS in Kosovo

- No clear policy or strategy to guide agricultural research in Kosovo,
- KIA capacity had been destroyed as the result of war, many scientists left the country, research facilities were destroyed, the few remaining staff lack training and were cut-off from recent agricultural research and technology developments,
- The limited research carried out in KIA or at the Faculty of Agriculture are aggregates of individual research staff activities,
- Research projects do not respond to farmer's needs and priorities,
- Capacity to undertake applied research is poor,
- Majority of technical staff of KIA and the Faculty of Agriculture lack English,
- Limited access to international scientific developments and information,
- Knowledge and technical skills are outdated,
- Institutional links with other NARS in the region are ad hoc, (although some bilateral agreements exist in education and sciences).

Proposals for regional cooperation

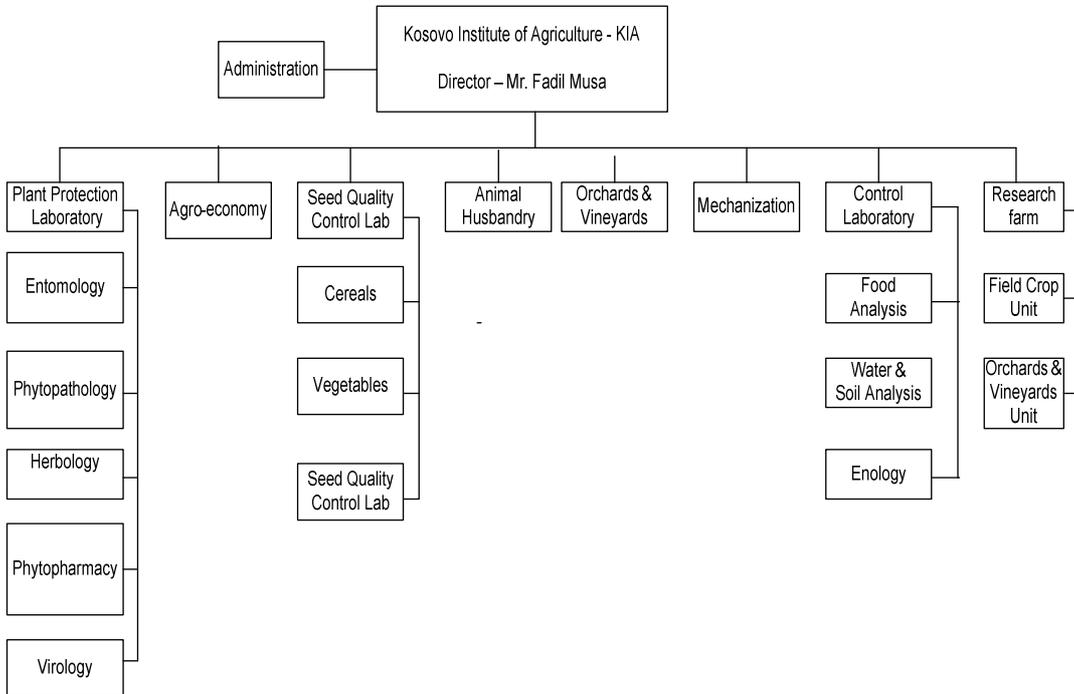
Since countries of the region face similar constraints like absence of coherent policies and strategies to guide agricultural research and extension, research priorities not set based on farmers needs, fragmented and poorly coordinated research; poorly staffed and funded agricultural extension/advisory services with inadequate and ineffective linkages with research institutions and farmers, we propose to:

- Focus research on technology transfer (rather than on technology generation), working with research institutes/universities in other countries,
- Use technology that has been tested and adopted by farmers in neighboring countries, or under similar agricultural conditions,
- Base technology selection on assessment of farmer's needs, emphasizing market-oriented production technologies,
- Strengthen KIA's capacity in food quality control, seed testing and certification, agricultural input analysis and control activities, soil analyses, training and dissemination of information,
- Undertake technology identification, assessment and diffusion cost-effectively within a regional university/research collaborative framework,
- Develop incentives to recruit young national scientists, including post-graduate programmes, as well as regional exchange programmes for existing research staff and on-the-job training for field and laboratory technicians.

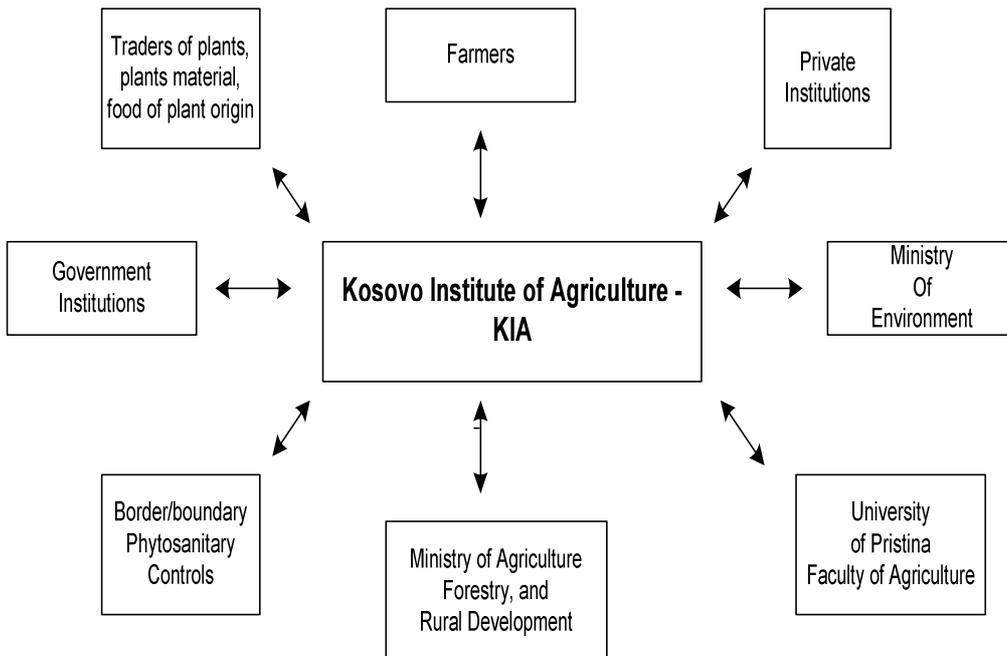
However we think that cooperation among the agricultural research and extension systems of the region will facilitate sharing of experiences and the transfer of agro-technologies and knowledge that will contribute to a better use of limited resources, prevention of duplication of work and faster response to the needs of farmers and existing and potential markets.

Annex 1.

A. Structural organization (Organogram) of KIA



B. Linkages of KIA with other relevant public and privat Institutions



Annex 2.

Structural organization of Rural Development and Advisory service Department (RDASD)

