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Regional Expert advisory Working Group (REAWG) On Agricultural Knowledge and Innovation Systems (AKIS) First Interim Meeting



Federation of Bosnia and Herzegovina AKIS Roadmap

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Introduction remarks

- AKIS is still undeveloped in the Federation of BiH.
- Although there are many actors in this system (farmers, farmers' organizations, cooperatives, advisory services, researchers, faculties and other educational institutions in the field of agriculture, mass media, food processing industry and services, agricultural and rural policy makers, donors, NGOs) among them there is no interaction in which they would participate in the transfer of knowledge and innovation in the agricultural sector and have direct application in practice.
- Draft Strategy of agriculture of Federation of BiH - one of four strategic goals set "Modernization of the agricultural sector by encouraging and exchanging knowledge, innovation and digitalization agriculture and rural areas and promoting their use".
- Advisory services need to step up their activities within AKIS, in particular by stepping up cooperation with research and rural networks.

SWOT – Main strengths

- Existence of scientific research and educational institutions with critical level of knowledge
- There are large, commercial farms with high level of knowledge, innovation and new technologies
- Formalized legal framework for scientific research and innovation

SWOT – Main weaknesses

- Poor organization and dysfunction of agricultural advisory services (in public sector) and insufficient competencies of advisors
- Insufficient interest of farmers in innovation
- Insufficient knowledge and understanding by most of AKIS of (potential) actors
- Lack of formalization of AKIS and the accompanying coordinating body that would connect all important actors
- Weak and insufficient coordination of existing AKIS actors, especially in the public sector
- Insufficient capacity (financial and human) to develop all components of Research Innovation Transfer Technology (RITT)

SWOT – Main opportunities

- Knowledge transfer as a priority in strategic documents for agricultural and rural development (federal and cantonal level)
- Existence of numerous international research and development projects in which the domestic research institutions and individuals can participate (HORIZON, Erasmus)
- Trend of increasing budgetary transfers for the agriculture and rural development sector
- Green economy as a new paradigm is gradually being introduced into all important spheres of science and practice

SWOT – Main threats

- Low level of economic development
- Unstable political situation in the country
- Fragmented administrative structure of the whole of BiH with a low level of coordination in all segments of the RITT system

Diagram of current AKIS in Federation of BiH

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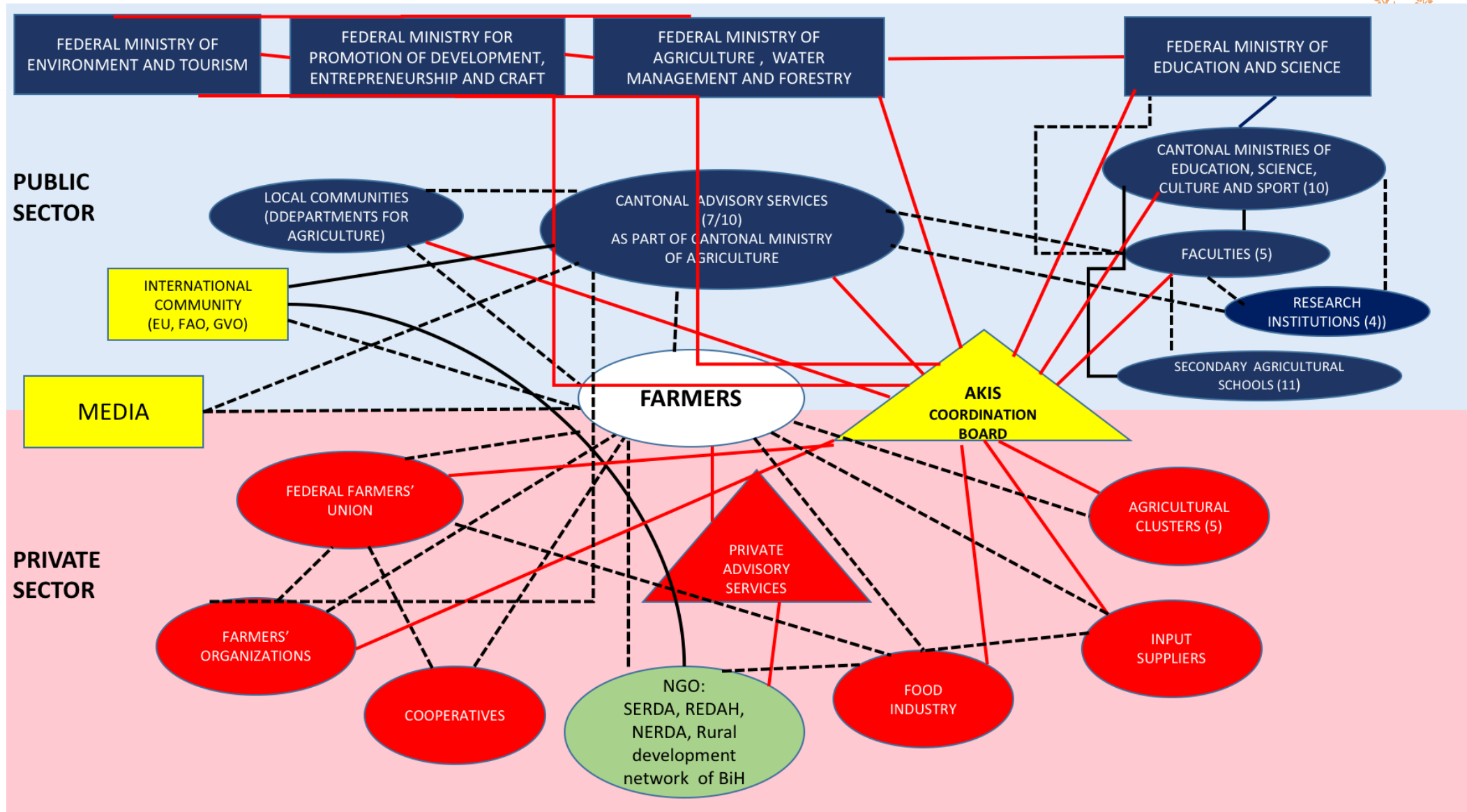


Diagram of current AKIS in Federation of BiH

(Meanings of some shapes, colours and line types)

- By quadrangles are presented existent AKIS players that have sufficient capacity to function properly;
- by circles are presented existent AKIS players that do not have sufficient capacity to function properly;
- by triangles are presented non-existent AKIS players that are critical for the AKIS system to function properly;
- blue colour represents institutions from the public sector;
- red colour represents organizations from the private sector;
- green colour represents stakeholders from NGO sector;
- yellow colour represents other organizations/stakeholders;
- full black line represents a functional relationship between AKIS players;
- dashed black line represents partially functional relationship between AKIS players;
- full red line represents a non-existent, but necessary relationship between AKIS players.

Road Map – Main objectives

1. Formalization of AKIS
2. Establishment of AKIS Coordination Board (CB)
3. Capacity building of the entity and canton (10) level advisory services
4. Increased financial support (for scientific research and development)
5. Internationalization of science and external fundraising
6. Raising farmers' awareness of the importance of knowledge and innovation transfer

Objective 1: Formalization of AKIS

Milestones	Deliverables	Resources needed	Timeline
Identification of key stakeholders in the AKIS system	Formed the list of main AKIS actors	Political support + Financial resources	Short-term
Identification of key priorities for the functionality of AKIS system (through focus groups and round tables)	Reports with recommendations	Support of professional associates and other experts	Short-term
AKIS development strategy planning and set up of objectives for future work	Strategic document adopted	Expert support and financial resources	Short-term
Positioning of AKIS in the legal framework (Law on Agriculture and RD)	Formalization of AKIS in legislation framework	Political decision and support of low/agriculture experts	Short term/Mid-term

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Objective 2: Establishment of AKIS Coordination Board (CB)



Milestones	Deliverables	Resources needed	Timeline
Identification of key stakeholders in the AKIS system and selection of experts (members) for AKIS Coordination Board	Formed Coordination Board	Political and legal support + Financial resources	Short-term



Objective 3: Capacity building of the entity and canton (10) level advisory services

Milestones	Deliverables	Resources needed	Timeline
Employment of professional staff and technically modernized services	Strengthened advisory service at the federal and cantonal levels	Political decision + Financial resources	Long-term
Professional and methodological education of staff	Annual training of counsellors Advisor Licensing Program	Financial resources Partnership Experts	Long-term
International cooperation with advisory services and adoption of good practices	Bilateral consultant exchange programs	Financial resources Partnership	Long-term
Digital connection of cantonal advisory services with the Federal level	Central information system through which the existing advisory services in Federation of BiH are connected	Financial resources	Mid-term
Initiating research through cooperation with farmers and scientific institutions	Practical experiments Demonstration farms	Cooperation between institutions Financial resources for research	Mid-term

Objective 4: Increased financial support for scientific research and development

Milestones	Deliverables	Resources needed	Timeline
Defining of % of GDP allocated for R&D - to determine with the relevant ministries (FMES/FMAWMF)	Higher allocation for R&D	Financial resources	Mid-term
Defining of % of agricultural budget allocated for support to applied scientific research - to determine with the FMAWMF	Higher allocation for applied scientific research in biotechnical scientific field	Financial resources	Mid-term
Defining of % of donor projects supporting R&D - to determinate expectations with the line ministry	Higher allocation for application innovations and new technologies in agricultural sector	Financial resources	Mid-term

Objective 5: Internationalization of science and external fundraising

Milestones	Deliverables	Resources needed	Timeline
Increase (20%) more involvements in international research community	Membership in international scientific consortia and networks	Partnerships	Mid-term
Increased number of projects	Bilateral projects with a scientific background	Partnership	Mid-term

Objective 6: Raising farmers' awareness of the importance of knowledge and innovation transfer

Milestones	Deliverables	Resources needed	Timeline
Activities that will emphasize the importance of knowledge transfer (media and internet promotion)	Increased number of users of advisory services	Staff and equipment of FMAWMMF and Advisory services on cantonal ministries	Long-term
Knowledge transfer through individual counselling and group education (workshops, trainings)	Farmer education	Advisory services + Financial resources	Long-term
Digitization of knowledge	Web page Video material	Financial resources	Long-term