

Training: Basics of the Earth Map

Within the finalization of the “Irrigation and Drainage Program in the Republic of Serbia from 2023 to 2032”, the Ministry of Agriculture, Forestry and Water Management of Serbia in cooperation with the European Bank for Reconstruction and Development (EBRD) and the Food and Agriculture Organization of the United Nations (UN FAO), organized a training on “**Earth Map Basics**”. The training was executed by the Food and Agriculture Organization of the United Nations online on the ZOOM platform, on **November 14 and 15, 2022 at 9 a.m.**

Training participants included representatives of ministries, public water management companies, universities, and the FAO teams. The goal of the training was to introduce the basics of Earth Map, as well as the possibilities of using the spatial data management system in water management.

The Trainer: Mr. Alfonso Sanchez Paus, GIS/Remote Sensing Expert.

Training video link: <https://www.youtube.com/watch?v=Jao1tx4LHVA>



Training for agricultural advisors, benefits of the introduction of irrigation and drainage on the territory of the Republic of Serbia

Within the finalization of the “**Irrigation and Drainage Program in the Republic of Serbia from 2023 to 2032**”, the Ministry of Agriculture, Forestry and Water Management of Serbia in cooperation with the European Bank for Reconstruction and Development (EBRD) and the Food and Agriculture Organization of the United Nations (UN FAO), organized a series of trainings for representatives of Serbian Agricultural Extension and Advisory Services. The trainings will be executed by the **Institute for Science Application in Agriculture** for 150 participants from 34 cities in Serbia, in four days from September 26 to 29, 2022.

The participants of the trainings included advisors in the fields of arable farming, fruit and vegetable production, viticulture, land reclamation, organic production, plant protection, as well as agricultural producers and the private sector, involved in irrigation and drainage. The topics included in the training program are:

- Cost and benefit analysis of the of irrigation
- Selection, design, maintenance and operations of the irrigation systems on the farm
- Irrigation record keeping, analysis and performance improvement
- Typical costs and benefits of irrigation for different crops
- Sources of investments financing in irrigation systems
- Gender aspects of access to agricultural resources in the Republic of Serbia

At the **third meeting of the Working Group**, held in July this year, the draft of the Irrigation and Drainage Program was presented, with a five-year Action Plan. This was the result of two years’ work by experts within thematic working groups. The documents, including 9 technical briefs prepared

within the technical working groups, are available and accessible on the following website: <https://www.navodnjavanje.info/>. The main goal of this Programme is to enhance agricultural production by further improving water usage in irrigation and drainage and identifying and mapping priority investments in the next ten years.

The “**Programme for Irrigation and Drainage of the Republic of Serbia for the period 2023-2032**” provides guidelines for public investment in irrigation and drainage and the adequate management and financing of publicly owned systems. Also, the Program establishes an appropriate legal and institutional framework for the development of individual on-farm irrigation, promotes efficient and profitable irrigation practices on agricultural farms, and ensures that public investments, policies and regulations adequately take into account climate change.

The program is accompanied by a **five-year Action Plan**, which determines specific activities to be undertaken during the period 2023-2027 in relation to legislation, water resources management, irrigation and drainage fees and investment in public irrigation and drainage systems. The action plan includes the responsible unit and budget support needed for investments in farms for irrigation and drainage purposes, as well as other support measures, such as research, extension, monitoring and evaluation. The action plan will create capacities and mechanisms that will enable future investments to be properly selected, financed and monitored.

Training video: <https://youtu.be/IL97Geq0o6g>

July 2022



Programme for irrigation and drainage of the Republic of Serbia

PRESENTED AT THE THIRD MEETING OF THE WORKING GROUP

Belgrade, July 7, 2022 – The Ministry of Agriculture, Forestry and Water Management of Serbia, in cooperation with the European Bank for Reconstruction and Development (EBRD) and the Food and Agriculture Organization of the United Nations (UN FAO), is

finalizing the “Programme for Irrigation and Drainage of the Republic of Serbia for the period 2023-2032”. The main goal of this Programme is to enhance agricultural production by further improving water usage in irrigation and drainage and identifying and mapping priority investments in the next ten years

The Working Group with a mandate to develop the Programme was established in June 2020. It enabled cooperation and interaction between national and international technical experts in the field of irrigation and drainage and comprised FAO experts and representatives of all relevant stakeholders in the Republic of Serbia, namely: the Ministry of Agriculture, Forestry and Water Management, Ministry of Environmental Protection, Ministry of Construction, Transport and Infrastructure, Republic Water Directorate, Provincial Secretariat for Agriculture, Water Management and Forestry, Serbian Chamber of Commerce, Public enterprise “Voda Vojvodina”, Faculty of Agriculture, Institute for the Application of Science in Agriculture and the “Biosense” Institute.

Today, at the third meeting of the Working Group, the draft of the Irrigation and Drainage Program was presented, with a five-year Action Plan. This was the result of two years of work by experts within thematic working groups. The documents, including 9 technical briefs prepared within the technical working groups, are available and accessible on the following website: <https://www.navodnjavanje.info/>.

The meeting was opened by the Head of the department for water management and usage of the Water Directorate of the Ministry of Agriculture, Forestry and Water Management, Aleksandra Savić, who stated: “The Government of the Republic of Serbia is strengthening its management of water resources, with intensive investments in drainage and flood control systems over the past decade. The draft Program that was presented today is the first step in the further planned rehabilitation and modernization of the irrigation system in Serbia. The purpose of this Program is to establish a clear vision of the development of irrigation and drainage in Serbia during the period 2023-2032. Its implementation will allow us to make the most of the benefits of irrigation and drainage, while at the same time protecting the environment and other water users.”

Wafaa ElKhoury, FAO Investment Centre Service Chief, addressed the audience stating: “Enhancing agricultural production and strengthening the resilience of the sector to extreme climatic conditions is a global priority for food security and enhanced livelihoods. I am very happy that FAO experts had this opportunity to contribute to the efforts of the Government of the Republic of Serbia in the development of its water irrigation and drainage strategy which serves this goal. Water availability and use are becoming critical and irrigation in Serbia can support its role as one of the leading cereals and oilseeds producers in the region, it can also reinforce and expand its production of high-value crops”.

The “Programme for Irrigation and Drainage of the Republic of Serbia for the period 2023-2032” provides guidelines for public investment in irrigation and drainage and the adequate management and financing of publicly owned systems. Also, the Program establishes an appropriate legal and institutional framework for the development of individual on-farm irrigation, promotes efficient and profitable irrigation practices on agricultural farms, and ensures that public investments, policies, and regulations adequately take into account climate change.

The program is accompanied by a five-year Action Plan, which determines specific activities to be undertaken during the period 2023-2027 in relation to legislation, water resources management, irrigation and drainage fees, and investment in public irrigation and drainage systems. The action plan includes the responsible unit and budget support needed for investments in farms for irrigation and drainage purposes, as well as other support measures, such as research, extension, monitoring, and evaluation. The action plan will create capacities and mechanisms that will enable future investments to be properly selected, financed, and monitored.

After consideration of all comments received on the analysis and presentation of the strategy document and action plan, the Working Group will adopt the final document “Irrigation and Drainage Program in the Republic of Serbia from 2023 to 2032” and the Ministry of Agriculture will make it available to the public and organize a public discussion.

December 2021



Webinar: “Analytical and legal frameworks for irrigation policy”

There is a general consensus that national strategies as well as legal frameworks and tools for water management must rely on accurate, up-to-date and divisible data. Without data, i.e. their analysis, the agriculture and water sector will remain the most vulnerable to various impacts, especially the impact of climate

change. The webinar was organized within the project “Support to the Development of Irrigation Programs in Serbia” implemented by the Food and Agriculture Organization of the United Nations (UN FAO) and the EBRD.

International experts, who are already assisting various countries in processing and using data necessary for proper water management and developing legal frameworks in this area, introduced the audience to key aspects of water management, based on analytical bases, presenting tools, approaches and best practices. The webinar explored how effective data management has influenced the development of policies and legal frameworks in other countries. UN FAO experts introduced us to the key aspects of water management, based on analytical bases, presenting tools, approaches and best practices.

Answers to all questions and introduction to new platforms and applications for water resources management were provided by representatives of the UN FAO **Jippe Hoogeveen**, Senior Adviser on Land and Water Resources, on “Water Computing”, **Livia Peiser**, Adviser on Land and Water Resources on Transforming Water Use in Agriculture by New Technologies and Innovations” and **Valerie Johnson**, Legal Adviser on “Data and Research-Based Policy and Legal Framework”, together with over 40 participants in the “Analytical and Legal Frameworks for Irrigation Policy” webinar, held 10 December 2021 on the Zoom platform.

Attachments: [Presentation 1](#); [Presentation 2](#); [Presentation 3](#)

October 2021



Workshop: “Impact of Climate Change on Agriculture and the Water Sector in the Republic of Serbia”

The fourth in a series of workshops on the topic “Impact of climate change on agriculture and water resources” was held on October 20, 2021 at 10 a.m., through the “ZOOM” application due to the situation arising as a result of the Coronavirus pandemic. The workshop was held as part of the project “Support for the development of the Irrigation Strategy of the Republic of Serbia

and the Action Plan” implemented by the Food and Agriculture Organization of the United Nations (UN FAO) and the European Bank for Reconstruction and Development (EBRD) together with the Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia. The Moderator of the Workshop was Jacopo Monzini, Project Leader, for FAO, and the speakers were Victoire De Wever, Specialist for Natural Resources and Environmental Management, for FAO, and Thalès de Haulleville, Specialist for Geospatial and Climate Change, for FAO.

The aim of the workshop was to present the increasing impact of climate change on agriculture and water resources in Serbia, through the presentation of the analysis of climate parameters and pointing out the already existing and possible consequences. Historical trends of temperature, precipitation, and other climatic variables are presented and predictions and their development in the coming decades are described, which represents the task of the Atlas of Serbia, which is part of the Irrigation Strategy of the Republic of Serbia. The Acting Director of the Republic Directorate for Water, Nataša Milić, opened this workshop and emphasized the importance of the preparation of the National Irrigation Strategy and the five-year Action Plan and Investment Plan, as well as the cooperation of the Ministry of Agriculture, Forestry and Water Management with the Food and Agriculture Organization of the United Nations (UN FAO) and the European Bank for Reconstruction and Development (EBRD), and after it, the senior banker Tankut Erkan addressed the audience on behalf of the EBRD and emphasized the importance of this project, as well as investments in projects related to climate change resistance. The workshop brought together 72 participants from various organizations:

Food and Agriculture Organization of the United Nations (FAO);
European Bank for Reconstruction and Development (EBRD);

United Nations Development Program (UNDP);
Government representatives;
Team members of the project “Support to the development of irrigation strategy in Serbia”;
Participants from the agricultural and food sector;
Companies engaged in the field of irrigation;
Scientific researchers and students;
Local governments;
Media and the general public is interested in the subject of irrigation.

The video is available on the link: <https://www.youtube.com/watch?v=UCTIDqr7l5k>

July 2021



Workshop: “Irrigation in Serbia – Statistical overview and main methods applied”

It is often said that Serbia is among the last rated European countries in terms of the percentage of irrigated areas, but is that really the case? How much land does Serbia really irrigate? Who are the users of the irrigation systems? Which agricultural crops do they irrigate and what methods do they use?

Answers to these questions were provided by UN FAO representatives Milos Milovanović, PhD, Specialist in Agricultural Policy, Steve Goss, PhD, Specialist in Irrigation Policy, and Zoran Knežević, National Expert for Irrigation, together with over 80 participants in the workshop “Irrigation in Serbia – Statistical overview and main methods applied”, which was held on July 28, 2021, on the Zoom platform.

Attachments: [Presentation 1](#); [Presentation 2](#)

You can watch the video from the workshop on the Youtube channel of the project: <https://www.youtube.com/watch?v=ubSQpqFSaTE>

May 2021



Workshop: “Irrigation Economics”

The workshop on the topic “Irrigation Economics” was held on May 26, 2021, from 10 a.m. to 1 p.m., via the “Zoom” application due to a situation caused by the COVID pandemic. The workshop was held within the project “Support to the Development of the Irrigation Strategy of the Republic of Serbia and the Action Plan” implemented by the Food and Agriculture Organization of the United Nations (UN FAO) and the European Bank for Reconstruction and Development (EBRD) together with the

Ministry of Agriculture, Forestry and Water Management. The moderator of the workshop was Ph.D. Milos Milovanovic, a specialist in agricultural policy, on behalf of the UN FAO-EBRD, and the speakers were Ph.D. Steve Goss, a specialist on irrigation policy, on behalf of UN FAO and Luis Dias Pereira, economist, on behalf of UN FAO.

The workshop was opened by Nataša Milic, acting Director of the Republic Water Directorate. In the mentioned speech, after greeting the attendees, Natasa Milic stated that the workshop on the topic “Economics of Irrigation” is just one in a series of many workshops that are planned within the mentioned project. Erkan Tankut, senior banker, on behalf of the EBRD, also welcomed the

participants. He referred to the speech of Natasa Milic, saying that the EBRD supports the development of infrastructure and strengthening the resilience of Serbian agriculture to climate change.

The workshop aimed to present irrigation as an economic activity through the presentation of the costs and benefits of irrigation. Consideration of the transition to higher value-added crops, the importance of the adoption of irrigation by farmers, and the priorities of investment in irrigation systems.

Ph.D. Steve Goss and Luis Dias Pereira spoke on “Irrigation as an Economic Activity”, “Costs and Benefits of Irrigation”, “Importance of Irrigation Adoption” and “Decision on the Priority of Investing in Irrigation”, where they state that irrigation can enable the transition to higher value-added crops and crops with increased yields (both in newly irrigated areas and in areas where irrigation has improved) with positive effects on the country’s gross agricultural product and exports. Emphasizing that a review of the financial feasibility of irrigation in different contexts and scenarios and the implementation of an agricultural policy addressing identified market inefficiencies will be needed to optimize adoption. They also state that different possible drivers of irrigation adoption will have different roles depending on the context. The conclusion is that the Irrigation Strategy should consider the main investment options (water source and technology), as well as scenarios on the set of agricultural and irrigation conditions for each option.

The workshop gathered almost eighty participants interested in the topic of irrigation. After the presentation, a discussion was opened with the participation of representatives of the Ministry of Agriculture, Forestry and Water Management, the Provincial Secretariat for Agriculture, Forestry and Water Management, JVP “Vode Vojvodine”, JVP “Srbijavode”, Faculty of Agriculture in Belgrade and many relevant institutions.

The video of the Workshop is available on the link: <https://www.youtube.com/watch?v=fss7k-SMcR8>
Presentation from Workshop “Economics of irrigation” can be downloaded [here](#).

April 2021



A survey conducted among water user associations in Serbia

In April 2021, a survey was conducted among water user associations in Serbia. There are seven water user associations in Serbia, which were formed within the “Field Electrification” project implemented by the MAFWM and the World Bank.

[Results of the Survey conducted among Water user associations in Serbia, April 2021](#)

March 2021



Workshop: “Water Management and Water Prices in Serbia”

The workshop was organized within the project “Support to the Development of Irrigation Strategy in Serbia” implemented by the Food and Agriculture Organization of the United Nations (UN FAO) and the European Bank for Reconstruction and Development (EBRD), to support the Government and relevant institutions in developing the Irrigation Strategy and a five-year action plan. The aim of numerous studies and activities within this project

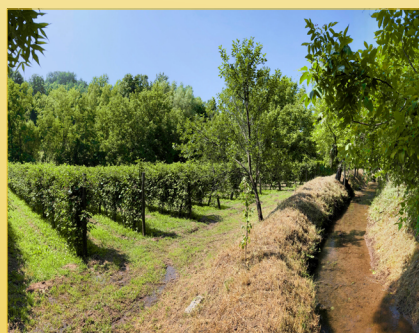
is to identify specific preconditions and investment options that will increase the productivity of agriculture, enable sustainable development and resilience to climate change by improving irrigation infrastructure.

Director of the Republic Water Directorate, Natasa Milic, opened the workshop and stressed the importance of drafting a national Irrigation Strategy, a five-year Action Plan and Investment Plan, as well as cooperation between the Ministry of Agriculture, Forestry and Water Management and the UN FAO and the EBRD. The workshop aimed to present the management structure of irrigation and water management in the country, as well as a description of possible scenarios for optimization and development of irrigation, which would gradually allow the determination of fees at a level that guarantees cost recovery and financial and environmental sustainability in the water sector. Steve Goss, a specialist in irrigation policy and Bojana Tomic, a legal expert, presented “Water Management in the Republic of Serbia,” followed by a presentation of Milos Milovanovic, a specialist in agricultural policy and Zoran Knezevic, a national specialist in irrigation, “Water price in the Republic of Serbia”.

The workshop gathered almost ninety participants interested in irrigation who discussed the topic in detail with lot of questions and comments. This was the first in a series of workshops held within the development process of the Irrigation Strategy of Serbia.

A video of the workshop is available at the link: <https://www.youtube.com/watch?v=FvbKsrk18m0>

February 2021



Survey on the training planned within the project

In February 2021, a Survey was conducted to further define the training conditions planned within the Project. Representatives of the working group and representatives of local self-governments participated in the Survey. The survey was conducted by the Project team.

[Results of The Survey conducted in order to define the training planned within the Project February 2021](#)

January 2021



The Second Meeting of the Working Group for the Development of the Irrigation Strategy

The second meeting of the Working Group for the development of the Irrigation Strategy was held on January 29, 2021, starting at 10 am. The meeting was held online, via the Zoom platform, due to the Covid-19 virus epidemic. The meeting was chaired by Jacopo Monzini from the Food and Agriculture Organization of the United Nations (UN FAO), Team Leader.

Natasa Milic, President of the Working Group, opened the meeting and emphasized the importance of the Irrigation Strategy for the development of agriculture in the Republic of Serbia, pointed out the presentation of the Draft Content as a very important moment in the process of drafting this document.

On behalf of the European Bank for Reconstruction and Development, Meran Lukić, the Senior Banker pointed out the area of irrigation as one of the priority areas in cooperation between the EBRD and UN FAO with the Government of the Republic of Serbia, through the “Climate Change and Irrigation Program in Serbia”.

The main aim of the Second Meeting of the Working Group was to present the Draft Content of the Irrigation Strategy as well as to define the training in order to raise the level of knowledge in the field of irrigation among users and policymakers, which will be organized under the auspices of the project.

Steve Goss, UN FAO consultant, presented the Draft Content of the Irrigation Strategy to the meeting participants. During the presentation, the importance of the activities of the Government of the Republic of Serbia in establishing the legal framework for the regulation of irrigation was emphasized. The importance of drainage was also emphasized, as well as adequate economic and financial analysis in the process of investment planning in the field of irrigation.

October 2020

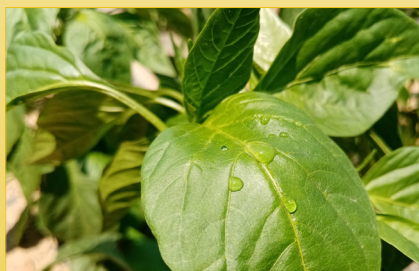


Webinar survey

Belgrade, October 28, 2020 – Webinar topic “Development and management of irrigation systems, based on the experience of Israel, Spain and Portugal” brought together more than 130 participants from around the world.

[Results of Webinar survey, October 2020](#)

October 2020



Serbia's irrigation companies survey

Using Google survey service, an online survey with 19 questions was circulated to Serbia irrigation companies, including companies that plan, supply, and install irrigation in Serbia.

[Serbian Irrigation companies Survey 2020](#)

October 2020



Webinar on “Irrigation Networks Development and Management – Case Studies from Israel, Spain and Portugal”

The webinar “Irrigation Networks Development and Management – Case Studies from Israel, Spain and Portugal” gathered more than 130 participants from all over the world. The webinar was organized in the context of the project “Supporting the

Development of Serbia's Irrigation Strategy” implemented by the Food and Agriculture Organization of the United Nations (FAO) and the European Bank for Reconstruction and Development (EBRD), to support the Serbian Government and the relevant institutions with the drafting of its Irrigation Development Strategy and the five-year Action Plan. The aim of numerous studies and activities within the project is to identify specific preconditions and investment options for increased agricultural productivity, sustainability and climate change resilience via enhanced and newly developed irrigation infrastructure.

The meeting was opened by senior representatives of organizations implementing the project:

Nataša Milić, Acting Director of the Republic Water Management Directorate; Miljan Ždrle, EBRD Regional Head of Agribusiness, Central and South-Eastern Europe; Nabil Gangi, Representative for Serbia, FAO, and Wafaa El Khoury, FAO Investment Centre Service Chief.

“Measures taken by the Serbian Government in the field of improvement, expansion and modernization of irrigation infrastructure, due to the growing sensitivity of the country, caused by the negative impact of climate change but also due to obsolescence and insufficient investment in irrigation systems, are aimed at improving community resilience to climate change and support to the agricultural sector, through higher yields and production growth. The rehabilitation of the existing irrigation system and water infrastructure is expected to also contribute to savings in water and energy consumption,” said Nataša Milić in her introductory speech.

Experts from Israel, Portugal and Spain shared their successful experiences in irrigation system management and the application of advanced irrigation technologies, and especially emphasized the importance of public-private partnerships and continuous cooperation of all actors in this process.

A video of the webinar is available at the link: https://www.youtube.com/watch?v=7Tlc0z-XwZI&t=20s&ab_channel=IrrigationStrategyandActionPlan

[Download Q&A from Webinar](#)

July 2020



The first meeting of the Irrigation Strategy Working Group (ISWG)

The first meeting of the Irrigation Strategy Working Group (ISWG) was held on 24 July 2020. The meeting was held online, i.e. via the Zoom app, due to the COVID 19 outbreak. The meeting was chaired by Nataša Milić, Director, Republic Water Management Directorate, Ministry of Agriculture, Forestry and

Water Management of the Republic of Serbia, who holds the position of ISWG Chair, as well.

On this occasion, she stated: “We are extremely glad that the drafting of the Irrigation Strategy of the Republic of Serbia is starting. In the next two years, we will identify concrete investment priorities, which will increase agricultural productivity and sustainable production while protecting the environment, and climate change resilience via enhanced and newly developed irrigation networks.”

Miljan Ždrle, EBRD Regional Head of Agribusiness, Central and South-Eastern Europe, said: “The project is aimed at enabling the involvement and participation of all relevant institutions, government agencies, scientific institutes, the private sector, farmers and their organizations in addressing one of the largest challenges of the Serbian agriculture – strategic improvement and modernization of irrigation systems, based on the collection and analysis of relevant data.”

According to Emmanuel Hidier, Senior Economist, Food and Agriculture Organization of the United Nations (UN FAO), Project Coordinator, FAO has extensive global experience and expertise in agricultural water management and development of irrigation investment plans, so it will be able to provide adequate technical assistance in the development and implementation of the Irrigation Strategy and Action Plan for Serbia.