



Lomonosov Moscow State University

Eurasian Center for Food Security

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Photo Credit: ECFS

The 4th International Scientific and Practical Conference on Food Security and Soil Science has brought new prospects for collaboration between scientists, representatives of agricultural business and non-profit organizations across food security and soil science.

Moreover in this Newsletter the ECFS Deputy Director Roman Romashkin identifies new areas of cooperation between ECFS and IFPRI on agricultural policy, food and nutrition security research.

In conclusion, you will find the calendar of events 2019–2020!!

World Soil Day in Sochi

By Natalia Gurova

The IV Annual International Scientific and Practical Conference on Food Security and Soil Science took place on December 5-6, at the [Russian Research Institute of Floriculture and Subtropical Crops](#) in Sochi. The event was dedicated to the celebration of World Soil Day. December 5 – 6, 2019, Sochi. [The Eurasian Center for Food Security, World Bank, FAO Liaison Office with the Russian Federation](#) together with partners held this event for the fourth time. This year, the conference brought together 98 participants from Austria, Armenia, the Kyrgyz Republic, Mozambique, Russia, Uzbekistan, Uganda and South Africa.

On the first day of the conference, welcoming remarks were made by: Sergey Shoba ECFS Director, Sharafan Mikhail, Head of the Department of Science and Technology Policy of the Ministry of Education, Science and Youth Policy of the Krasnodar Region, Alexey Ryndin, Director of Russian Research Institute of Floriculture and Subtropical Crops, Artavazd Hakobyan, Senior Agriculture Economist, the World Bank, Aghasi Harutyunyan, FAO Liaison Office with the Russian Federation and Yuxin Tong, Associate Professional Officer of Global Soil Partnership FAO.



Participants of the Food Security, Soils and Climate-Smart Agriculture Conference

Photo credit: ECFS

Photo credit: ECFS

At the plenary meeting, **Pavel Krasilnikov**, ESFC Deputy Director, said that there are diverse answers of mankind to climate change: to mitigate the greenhouse effect by reducing greenhouse gas emissions and fixing them and to adapt to a changing world under the influence of global warming. Experts continued the discussion on climate-smart agriculture. At the end of the panel section, **Simon Leiva**, coordinator of the Global Alliance for Climate-Smart Agriculture, in his online presentation, called on Russian specialists to join the alliance.

land inventories and regional agroecological assessment of the territory, the need for laboratory analysis in land accounting and the interest of government in land inventory. Experts expressed their views on issues laboratory analyzes, assessed the ratio of their quality and cost, discussed agrochemical indicators, priority for decision-making about improving the nutrition of plants, and existing innovative methods of maintaining soil fertility, as well as touched upon the issue of state support of organic agriculture technologies.



Photo Credit: ECFS

Plenary Meeting



Photo Credit: ECFS

Panel Discussion

On Panel Discussion: "Role of soil scientists in food security and SDG achievement" discussed the importance of the soil science profession in addressing global sustainable development challenges, as well as the prospects and growth points of interdisciplinary research. Experts answered the questions "what is the relationship between soil science and food security?", "How to encourage farmers to apply technologies aimed at restoring and maintaining soil fertility?".

Arthur Rykalin, ECFS Researcher, spoke about state support for organic farming technologies for sustainable land management. The expert highlighted the German experience in creating a state organizational and economic infrastructure for the dissemination of technology for organic farmers. Over 50% premium to state subsidies for environmental events and organic certification, international exhibitions, a convenient and affordable system of automated registration of fields and crops, a network of demonstration farms of organic farming, a leading department of organic agriculture farms - these and other tools make it possible to convey the best scientific and practical

On roundtable Session 1: "Technological innovations for sustainable land management" discussed the possibilities of using remote sensing data for

achievements in the field of organic agriculture to many German farmers..



Photo Credit: ECFS

roundtable Session 1: "Technological innovations for sustainable land management"

Round table session 2 "Agroecological problems of erosion, soil degradation and the best available technologies for climate-smart agriculture in Chernozem and black soils" was devoted to key issues of quantitative research, modeling, forecasting and prevention of processes of anthropogenic degradation of chernozems and other variants of black soils against the backdrop of global climate change, economic conditions of land and water use, massively used farming systems and agricultural technologies. Particular attention was paid to a systematic analysis of the agroecological problems of the accelerated development of erosion, to increase the economic efficiency and environmental safety of the use of fertilizers in intensive and organic farming systems. At the second round table, **Alexey Sorokin** from ECFS presented an up-to-date report on an integrated system for assessing and grouping fields according to soil and environmental features. The system includes: a classifier of signs of the soil-ecological state of the fields and a diagnostic table for assessing the quality of elements of agricultural fields. The system is implemented in the form of a GIS "Assessment of the quality of fields under soybeans." With his report, the expert demonstrated what opportunities the developed system provides. For example, cartographic analysis shows that measures to eliminate the merged horizon will allow even in drought conditions to approach crops that are close to those obtained in wet years. Also, the developed system provides the possibility of optimizing the configuration and size of fields and GIS can serve as a tool for optimizing land use based on the applied methodology for assessing soil and environmental risks.

Participants of the round table "Agriculture in the subtropical and tropical zones: is the soil a limiting factor?" Shared their experience of sustainable land management in the tropical and subtropical zones and outlined the prospects for cooperation, including on issues management of nutrient content in soils. Representatives of African countries emphasized that the causes of food insecurity in tropical countries, along with political and economic instability and the lack of effective social policies, are low agricultural productivity, including as a result of soil shortages basic nutrients and adverse physical properties of the soil, as well as a critical lack of specialists and knowledge. So, in Uganda, 6 specialists in the field of soil science and agricultural chemistry are graduated annually. It should be noted that it was the last problem that was dealt with by a detailed study on human capital in soil science in Africa, Central Asia and the South Caucasus, [published](#) by ECFS for World Soil Day 2018.



Photo Credit: ECFS

Olga Yakimenko presentation

ECFS at this round table was also presented by **Olga Yakimenko** with a report on the use of humic preparations in the tropics on the example of the island of Bali. The report discussed the results of field experiments with the introduction of a humic preparation both individually and in combination with a pesticide and a bio-preparation in tropical agriculture on green crops, rice and cabbage. In general, studies have revealed a high potential of humate as a biostimulant for use in the tropics. At the same time, additional research is required to develop optimized schemes for its use in specific soil and climatic conditions.

Summing up the conference, Sergey Shoba, Director of ECFS, emphasized the need for close interaction of experts in the field of theoretical and practical issues of soil science and ag-

rochemistry, agronomy, representatives of agribusiness, food safety and ecology, and the active participation of young specialists.



Matsesta tea plantations field trip

During the conference, participants visited the Matsesta tea plantations, the Friendship Tree Botanical Gardens and the Adler experimental station - Branch of the N. I. Vavilov All-Russian Institute of Plant Genetic Resources (VIR).

The participants and organizers of the conference express their deep gratitude to the hosts - Russian Research Institute of Floriculture and Subtropical Crops for their help in organizing the conference.

We thank all partners and participants who have become part of this significant event!

ECFS and IFPRI expands collaboration on agricultural policy, food and nutrition security research

By Roman Romashkin



Employees of the International Food Policy Research Institute (IFPRI)

During the visit of the ECFS (Eurasian Center for Food Security under Lomonosov Moscow State University) Deputy Director Roman Romashkin to the IFPRI (International Food Policy Research Institute) Headquarters in Washington, D.C. was developed a provisional workplan of joint activities for the period up to 2024 between the ECFS and the IFPRI.

The overall goal of collaboration between ECFS and IFPRI is to improve household welfare, food security, and nutritional outcomes in Central Asia and the South Caucasus. The activities included in the provisional workplan aim to provide evidence-based policy solutions to enhancing agricultural productivity, promote regional integration and trade in agri-food products. There are three strategic areas for collaboration: applied policy research; strengthening the capacity of national research institutes and individual researchers related to agriculture, food and nutrition security; outreach and communication activities.

Applied policy research will focus on food and nutrition security challenges in the Eurasian region, including investigation of alternative pathways for transforming agriculture and achieving the strategic goals of the governments; assessment of alternative scenarios for future food and nutrition security in the region taking into account trends in climate change, land degradation, and growing

competition for land and water resources; examination of the potential impacts of innovative climate-smart soil treatment technologies on smallholder farms productivity; evaluation of emerging innovative agro-industrial clusters and inclusive value chains development; assessment of barriers and hindrances to increase trade of agri-food commodities and develop recommendations for agro-food exports promotion; and analysis of the affordability of nutritious food in various countries of the region.

The proposed policy research activities will utilize modern research methods and models, such as economy-wide modeling, applied econometric analysis, big data analytics and machine learning, GIS and remote sensing, and others as applicable. Gender empowerment and the role of youth in rural and agricultural development will be cross-cutting themes across these research areas. These cross-cutting issues will be incorporated into policy recommendations as well.

Implementation of the national agri-food development strategies and policies require the capacity to collect, analyze, and interpret data in innovative ways. Capacity strengthening will involve conducting collaborative research with institutions and individual researchers in focus countries, offering them specialized training programs in economy wide modeling and applied econometric analysis,

strengthening national information and knowledge systems to address emerging policy challenges more effectively, developing regional information system and databases on food and nutrition security indicators, leveraging the Eurasian food and nutrition security network to promote policy dialogue and share lessons and experiences in agricultural and food policies across countries.



Roman Romashkin (ECFS) u Kamiljon Akramov (IFPRI)

An important area of outreach activity is organization of annual international conferences to present research findings, share ideas and evidence in the field of agricultural development, food and nutrition security, consider priorities of national agri-food policies. In this regard, the Parties will continue to hold annual conferences in the Eurasian region, including the presentation of the IFPRI's Global Food Policy Report. The report has been published since 2011 and is the leading interna-

tional publication on food policy issues and development.

To estimate the impact of regional integration on agro-food trade, it was agreed to intensify the joint efforts on the assessment of trade creation and trade diversion effects of Eurasian Economic Union for its members. The results of this research will be presented at the next International Conference on Agriculture, Food Security and Nutrition in Eurasia featuring IFPRI's Global Food Policy Report 2020.

According to Kamiljon Akramov, the leader of IFPRI's Research Program for Central Asia, the implementation of the provisional workplan will further expand collaboration between IFPRI and ECFS, help to strengthen the network of researchers related to agriculture, nutrition and food security in the region, assist to improve analytical and applied research capacity in the region. This will also help to strengthen evidence-based policymaking to develop sustainable and inclusive food systems, improve food and nutrition security in Eurasia, he concluded.

For information

The International Food Policy Research Institute (IFPRI) provides research-based policy solutions to sustainably reduce poverty, end hunger and malnutrition in developing countries. Established in 1975, IFPRI currently has more than 600 employees working in over 50 countries. It is a research center of a worldwide partnership engaged in agricultural research for development.

Event Calendar 2019–2020

Date	City. Country	Event
January 27-31. 2020	Moscow, Russia	Training for University Professors in the use of the Case Study Methodology in Food and Nutrition Policy teaching programmes
March 5-6. 2020	Halle (Saale), Germany	Workshop “Political economy of agricultural policies and land relations”
March 24-26. 2020	Krasnodar, Russia	International Scientific Ecological Conference "Agricultural Landscapes, Their Sustainability and Features of Development"
May. 2019	Moscow, Russia	International Conference on Agriculture, Food Security And Nutrition In Eurasia Featuring IFPRI's 2019 Global Food Policy Report
March 5-6. 2020	Halle (Saale), Germany	Workshop Political economy of agricultural policies and land relations
January 27-31. 2020	Moscow, Russia	Training for University Professors in the use of the Case Study Methodology in Food and Nutrition Policy teaching programmes
June 16–19. 2020	Montpellier, France	4th International Conference on Global Food Security