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Photo by Oliver Hale on Unsplash

In the July Newsletter, Maria Konyushkova talks about the need to take care of soils to reduce the impacts of global disturbances like the current COVID-19 crisis.

We also discuss results of the interactive online training workshop for the winners of the fifth round of Food Policy Case Studies. During the workshop, the participants had an opportunity to present a detailed case study outline for their topics to the review panel and peers, with received feedback meant to help develop a successful case study.

Upcoming events for 2020 and 2021 are listed in the updated calendar.

“Soil: The Great Connector of Our Lives Now and Beyond COVID-19” Has Now Been Published

By Maria Konyushkova

The Intergovernmental Technical Panel on Soils (ITPS) of the Food and Agriculture Organization of the United Nations (FAO) has published its paper, "Soil: The Great Connector of Our Lives Now and Beyond COVID-19," in the journal *SOIL*. The senior researcher at the Eurasian Center for Food Security (ECFS), **Maria Konyushkova**, actively participated in the discussion and writing of this ITPS conceptual document. The [2020 Global Report on Food Crises](#)

predicted that more people will suffer from hunger and malnutrition as a result of disrupted food production chains during the pandemic than from the coronavirus disease itself. Lack of staffing for harvesting and processing, along with restrictions in transportation and movement of workers due to closed borders and national lockdowns and shortages of production materials (e.g., seeds, fertilizers) will cause severe food shortages.

Even in areas where crop production is not disrupted, many cropping systems are monocultures designed for export; these cannot actually provide a well-rounded diet for local and national populations. Moreover, the disproportionate loss of older people from COVID-19 is a threat to secure food production because, in most parts of the world, the vast majority of farmers and people with experience in understanding soil and agricultural management are over 50 years of age. Thus, the pandemic may result in a considerable dearth of expertise and ability to continue to produce food and manage the soil sustainably everywhere around the globe. Additionally, the pressures of this crisis on food systems will also have a direct impact on soil security. International transport limitations will require a greater emphasis on local and national food production. In places where land suitable for agricultural use is limited, more intensive cultivation of already degraded soils and expansion of agriculture to vulnerable areas could lead to increased soil degradation, if not well managed. Degradation results from the depletion of soil carbon and nutrients, increased erosion, over-fertilization, soil salinization, soil pollution, and—eventually—the loss of soils, which are an unrenowable resource. Soil degradation also results in increased atmospheric CO₂ emissions, which contribute to climate change. The end point of soil degradation is permanent soil loss and its concomitant adverse effects on ecosystems.

In view of the foregoing, the **ITPS recommends five active strategies that will ensure that each region/country has enough productive soil** that can be managed in a sustainable manner to feed its population. These strategies involve access to land, sound land use planning, sustainable soil management, research, and education and extension.

- **Access to land.** It is necessary to revisit national policies on land tenure in order to regulate international land ownership. The access

of local people to land, food, and livelihood must be ensured by avoiding infringement of tenure rights by business enterprises or states. In the same way, it is also critical to revisit the importance of small family farms, which contribute greatly to maintaining healthy soils and to the resilience of local communities in case of crisis.



Photo credit: Matteo Sala

At the heart of the sustainability concept lie connection with the land and respect between generations. Both basic and specialized knowledge about how to care for soil are passed on from generation to generation.

- **Sound land use planning.** The need to preserve and improve local lands with agricultural potential and also to convert or rehabilitate marginal areas when food production is needed, while protecting vital ecosystems, must become a part of land use planning in all urban and rural development schemes. In particular, those soils that have a high value for food production should be protected from land sealing due to urbanization, infrastructure, or industrial activities. This can be done, for example, by producing soil suitability maps for crops using approaches such as the [FAO's Global Agro-Ecological Zone](#).
- **Sustainable soil management.** Site-specific conservation agriculture measures are needed to prevent land degradation and desertification. This will ensure the availability of productive soils for present and future generations. In particular, this requires taking appropriate actions to maintain, and—where needed—to improve soil fertility through integrated fertilization. Fertilization regimens should consider the nutritional requirements of

the crops, the interactions of nutrients with the different soils and their intrinsic fertility, and the development of strategies that minimize soil pollution. In particular, the development of food production in urban areas needs to be approached with caution and include suitable testing to ensure that existing soil pollution does not lead to toxic levels of contaminants in the produced food.

- **Research.** Sustainable and resilient soil systems for food production will require increasing research efforts with new approaches and interdisciplinarity. The threats to sustainable soil management are not new, but research dealing with preserving soil quality for agriculture and reversing soil degradation will be even more important. Much more research is needed on how to increase and maintain soil organic carbon. Research in land sealing should be revisited to learn how to “de-seal” soils to bring them back into sustainable use for agriculture and forestry. The focus on urban and peri-urban soils for food production must not be overlooked.
- **Education and extension.** The inclusion of soils at all levels of education curricula is

necessary to increase awareness of the importance of soils in our lives. The strengthening of extension services, technology transfer, and capacity building programs will support local farmers in applying sustainable practices. The development of mobile soil labs would also help to diagnose problems quickly and solve them locally.

Soils are a finite, non-renewable, multi-systemic source of life, and they are easily overlooked in decision-making acts and policies. A new post-pandemic reality should ensure that soil is recognized as the great connector and service provider that links our lives to all human needs for food, health, and security. Caring for soils is an imperative to reduce the impacts of global disturbances like the current COVID-19 crisis.

The *SOIL* journal provides an interactive public discussion and peer review of its papers. Referees, authors, and other members of the scientific community can post interactive comments alongside the preprint. These comments are fully citable and archived. The full text of the ITPS paper is now accessible and open for interactive public discussion until August 25, 2020, at this [link](#).

Training for Case Studies on Food Policy

By Elena Belova

From June 22 to 26, ECFS and the World Bank conducted an online training on the methodology for preparing case studies (cases) on food policy for the winners of the 2020 application competition. At an interactive online training workshop, the participants studied the case study methodology and its specific use, and applied obtained knowledge toward their projects. The opening remarks were made by **Sergey A. Shoba**, ECFS Director, and **Artavazd Hakobyan**, Senior Agriculture Economist of the World Bank. ECFS Deputy Director **Roman Romashkin** spoke about

ECFS activities. **Jonathan Wadsworth**, Lead Climate Change Specialist of the World Bank, introduced the key requirements of the case study program.

On the first day of the training, the authors of case studies from previous years shared their experiences. **Anatoly Maksimov**, **Darya Ilina**, and **Dilbara Kirbasheva** talked about the difficulties they encountered in preparing cases and how to overcome them, and gave advice on how to organize work on a case.

Derrill Watson, Associate Professor, Tarleton State University, revealed the features of the methodology for preparing case studies. He emphasized that the case study has three key objectives: educational, research, and use as recommendations for decision makers. In addition, case studies formulate issues requiring intervention and propose measures that clearly address these issues. The authors are called upon to propose options, rather than a strictly defined set of measures, and to reveal the possible impact of these measures and the attitude of various stakeholders to them. The final part of the study suggests that the authors offer a short list of measures that would, in their opinion, be appropriate to apply. The variety of interventions, along with the description of stakeholders and their relationship to existing problems and solutions presented in the case studies, allow them to be used for educational purposes, thus developing students' creative and systems approach and their critical thinking abilities. This methodology is also effective for research purposes and the development of recommendations on measures of state regulation.

On the second day of the training, **Pavel Sorokin**, Russian State Agrarian University – Moscow Timiryazev Agricultural Academy, spoke about the most frequent mistakes made in preparing the cases. He drew the participants' attention to the fact that very often the case study authors did not fully understand the details of the methodology for conducting case studies, so difficulties would arise with the interpretation of terms and titles of case study sections.

Then, on the second and third days of training, students participated in interactive work on finished cases under the direction of **Derrill Watson**. Various forms of training were involved, including online group work and oral discussion of the results. This work was to prepare participants for a key part of the training: presentations of their future case studies.

After three training days, case study authors had chance to revise their research before presenting it. Below we discuss only case studies that were selected for publication.

The presentation “School Meal Program in Armenia: Challenges, Measures, and Policies to Mitigate the Consequences of the COVID-19 Pandemic” (**Anatoly Maksimov**) noted that, during the pandemic, school meals were not organized, and in general, the school feeding system in Armenia was unprepared for the crisis caused by a pandemic.

The authors of the presentation “The Impact of the COVID-19 Crisis on Nutrition in Yerevan's Population” (**David Pipoyan, Meline Beglaryan, and Seda Stepanyan**) pointed to problems that need to be addressed such as the lack of evidence-based research on the impact of the pandemic on nutrition and the effects on urban public health, and the lack of a systematic approach to reducing the impact of a pandemic on urban nutrition.

The presentation “The COVID-19 Impact on the Armenian Fruits and Vegetables Sector” (**Naira Harutyunyan and Elena Belova**) showed that the problems associated with the pandemic manifested themselves in lowering household incomes, worsening sales conditions for products and for acquiring resources, and reducing exports, which is the most important agricultural distribution channel in Armenia. Researchers emphasized that the key problems of food systems were the lack of experience, the poor understanding of the impact of the pandemic on the food sector, and the lack of application of necessary measures to overcome the crisis and improve food security and nutrition.

The presentation of the future case “Impact of the COVID-19 Crisis on Livestock Production and Regional Markets in the Kyrgyz Republic in the Face of Climate Change” (**Nurila Ibraeva**) observed that, as a result of the pandemic, in the livestock sector of the Kyrgyz Republic, farmers'

problems have become more acute. Farmers are experiencing difficulties with the supply of resources and with access to markets and financial resources, which leads to increased poverty and problems in the field of food security and nutrition.

The presentation “Urban Food Security and COVID-19 Crisis: The Case of Uzbekistan Cities” (**Etenesh Asfaw, Marina Li, Inna Rudenko, and Fotima Saydullaeva**) noted that, as a result of the pandemic, there have been disruptions in the food supply chain to the cities, a decrease in the purchasing power of the urban population, a decrease in migrant transfers by 25 percent (which accounted for 15 percent of the country’s GDP), a decrease in income caused by the drop in tourism, speculative price increases, a decrease in the diversity of food, and a change in urban residents' consumer behavior.

The presentation “Transformation of the Marketing System for Organic Farm Products Caused by COVID-19 in Russia” (**Natalya Nesterenko and Sergey Meloyan**) highlighted the

problems that have arisen in connection with the pandemic among small-scale producers of organic products, such as a decrease in solvent demand for their products, a narrowing of product sales channels, problems with the supply of packaging for finished products, and rising costs for the development of new product sales channels.

The authors of the case “Tools to Reduce the Price Risks of Wheat Producers in the Russian Market in the Context of the Coronavirus Epidemic” (**Sergey Kiselev and Sanat Seitov**) revealed the problems that arose as a result of the pandemic: a fall in the import of resources for grain production and an increase in their prices, high price volatility, and increased problems with the transportation of products.

Case study authors will propose measures that will help mitigate the negative impact of the pandemic on food security and the agri-food sector in Armenia, the Kyrgyz Republic, Russia, and Uzbekistan. These case studies are expected to be presented by the end of 2020 year.

Event Calendar 2020/21*

Date	City, Country	Event
May 27–August 26	ONLINE every Wednesday	Virtual Seminars on Applied Economics and Policy Analysis in Central Asia
September 15–17	Utrecht, Netherlands	ICOS Science Conference 2020 “Knowledge for Shaping the Future – Understanding the Earth’s Biogeochemical Processes”
September 22	Moscow, Russia	International Scientific and Practical Conference Dedicated to the 200th Anniversary of the Moscow Agricultural Society In Russian only
October 19–20	Moscow, Russia	International Scientific and Practical Conference "Poverty of the Rural Population of Russia: Genesis, Overcoming Ways, Forecast" (website is not available yet, send questions by email: nikonovskie-chtenia@mail.ru)

Date	City, Country	Event
October 20–23	Rome, Italy	4th GLOSOLAN meeting: Global Soil Partnership Event
December 5	Worldwide	World Soil Day (WSD)
December 6–9	Montpellier, France	4th International Conference on Global Food Security “Achieving Local and Global Food Security: At What Costs?”
Second half of 2020	Tashkent, Uzbekistan	FAO Regional Conference for Europe (ERC 32)
February 2–4, 2021	Rome, Italy	FAO Global Symposium on Soil Biodiversity (GSOBI20)
Postponed until 2021	Kraków, Poland	16th International Conference on Soil Micromorphology
Postponed until 2021	Syktyvkar, Russia	VIII Dokuchaev Congress of the Society of Soil Scientists. and the School of Young Scientists on Soil Morphology and Classification (In Russian only).
August 23–27, 2021	Geneva, Switzerland	EUROSOIL 2020
September 13–16, 2021	Tashkent, Uzbekistan	Global Symposium on Salt-Affected Soils: FAO event

* Information is current as of July 21, 2020. Check the event’s website for updates.