Food and Agriculture Organization of the United Nations

FAO COVID-19 Response and Recovery Programme: Europe and Central Asia

Preventing the next zoonotic pandemic
Strengthening and extending the One Health approach to avert pandemics of animal origin in the region

© FAO/Eran Raizman

The issue

SARS-CoV-2, the virus that causes COVID-19, probably originated from an animal source, similar to 60 percent of all human infectious diseases. The pandemic has emphasized the need to prepare for, prevent, detect and respond to diseases at primary spillover level, where a new pandemic is likely to start. Pathogens are most likely to spread in locations where wildlife comes into contact with livestock production, particularly where people earn livelihoods, such as in live animal markets, areas where bushmeat is hunted, traded and consumed, or where growing pressures on natural ecosystems has forced livestock, wildlife and humans into close proximity. As a result, family farmers, especially women and children, are at high risk. Preventing spillover at source and mitigating the emergence and spread of pandemics requires a holistic and participatory One Health approach, involving experts, policymakers and communities in high-risk settings.

The zoonotic nature of the SARS-CoV-2 virus was established long before COVID-19 had evolved into a pandemic. Investigations into potential animal hosts for this and other coronaviruses are pivotal to improve our understanding of COVID-19's epidemiology, as well as to identify (and minimize) sources for human infection. COVID-19 infection in animals sharing the same space as humans comes as no surprise, given the prevalence of environmental contamination in households with the causative virus. There have been evermore reports of various animal species, including cats, dogs, mink and tigers, becoming infected from humans.

This also poses a risk that new zoonotic reservoirs might be established and prolong the current pandemic, or start a new one. For this reason, the 73rd World Health Assembly resolution on COVID-19 response requested strengthening of the tripartite collaboration on One Health – between the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Organisation for Animal Health (OIE) – to prevent new zoonotic reservoirs from taking hold and to propose targeted interventions to address such pandemics in the future.

A number of European and Central Asian middle-income countries are rapidly reinforcing, upgrading and equipping their medical, veterinary and animal production services, particularly in the Western Balkans and, to some extent, in Eastern Europe and the South Caucasus. Across most of the region, however, animal disease control systems are likely to be insufficient to prevent, detect and respond to endemic and emerging zoonotic diseases (such as brucellosis or vector-borne diseases).

The action

Drawing on the comprehensive One Health approach, the programme will assess the risks of emerging zoonotic threats and formulate evidence-based risk-mitigation measures to prevent spillover events at the wildlife-livestock-human interface and enhance preparedness and response across the region.

The programme includes a series of on-site assessments, supported by laboratory testing of collected samples along the livestock value chain.

Budget: USD 2 million

Time frame: 2020–2024

SDGs

Related FAO policy briefs

- One Health legislation. Contributing to pandemic prevention through law
- Integrated agriculture water management and health

Partnerships

To promote the One Health approach in Europe and Central Asia, FAO cooperates extensively with WHO and OIE (as the Tripartite), the European Centre for Disease Prevention and Control (ECDC) and the International Atomic Energy Agency (IAEA), as well as the Russian Federation, Switzerland and the United States of America.
To implement the programme, FAO will continue to build on its existing partnerships with national authorities and international organizations and will seek to engage with new partners in government, bilateral and multilateral agencies, international financial institutions, development banks, the private sector and academia.

It will focus on the production and processing phases, as well as the wildlife-livestock-human interface, to identify potential hotspots that are prone to the emergence, spillover and spread of zoonotic agents with epidemic/pandemic potential. The work will involve the following components:

- **Hot-spot characterization through on-site risk assessments will be carried out** on selected farms in interface areas, in live animal markets, slaughterhouses, meat and dairy processing plants, at border posts and in hunting locations in target countries. The programme will include relevant stakeholders, including farm managers, producers, employees, customers and animal health workers, and will cover various aspects of biosecurity, animal production, processing and hunting practices, as well as presence of animal species, etc.
- **Monitoring, underpinned by laboratory testing, of livestock and wildlife on farms and in livestock markets**, as well as of farm workers and hunters, will be carried out in targeted areas for the presence of specific zoonotic pathogens, including SARS-CoV-2.
- **Enhanced evidence will be generated to support analysis of risk factors for potential pathogen spillover and guide the formulation of mitigation and preparedness measures**.
- **Technical assistance, alongside capacity development at institutional level, following the One Health approach,** will be provided through multi-stakeholder coordination platforms, including regulating authorities and veterinary services, as well as at community level, depending on the needs of farmers, processors and hunters.

Expected results

The programme aims to deliver the following results to assist recipient countries in preventing, responding and controlling outbreaks of zoonotic diseases in humans:

- **Countries will enhance the available evidence-based knowledge on the occurrence of zoonotic pathogens at the wildlife–livestock–human interface**, thanks to the identification of pathogens and risk factors for spillover and transmission to livestock and humans, and the identification and characterization of potential spillover hotspots in the target areas.
- **Enabling regulatory frameworks will be improved based on a foresight approach, to address the identified risk factors at all levels**. Risk-informed and best practice-based mitigation strategies, guidelines, and national and regional risk- prevention and preparedness plans will be developed through participatory processes, tailored to the local context. Analysis will take into account existing production, processing and hunting practices and draw on risk mapping, surveillance and other relevant tools that can be enhanced or adapted.
- **National capacities, including those of national authorities, veterinarians, farmers and other relevant actors to apply the One Health approach to newly developed risk-mitigation and preparedness measures,** will be strengthened the authorities will receive customized training, including on the application of relevant tools and techniques.

Programme links

The programme will be implemented under the framework of the global Tripartite collaboration between FAO, OIE and WHO and within the programmatic scope of FAO's Regional Initiative on Transforming food systems and facilitating market access and integration.

Country focus

The programme takes a cross-border and multi-country approach, initially focusing on the countries of the Western Balkans and Central Asia based on the evolving situation and FAO's ongoing assessments in the context of COVID-19.

Contact

Raimund Jehle
Regional Programme Leader
FAO Regional Office for Europe and Central Asia
REU-RPL@fao.org

Food and Agriculture Organization of the United Nations
Budapest, Hungary

Recommenced citation **FAO**. 2020. *Preventing the next zoonotic pandemic: Strengthening and extending the One Health approach to avert pandemics of animal origin in the region.* FAO COVID-19 Response and Recovery Programme: Europe and Central Asia.Budapest. https://doi.org/10.4060/cb2017en

CB2017EN/1/11.20