

State Institution “Agriculture Entrepreneurship Development”

Project “One Health for Pandemic Prevention, Food Systems Resilience and Ecosystem Health in Central Asia”

TERMS OF REFERENCE

Consultant for the assessment in supporting the digitalization of the data and information management systems of CFS (including LIMS, surveillance systems)

1. INTRODUCTION

The One Health approach is an integrated and unifying concept aimed at achieving optimal health for people, animals, and ecosystems. It recognizes the interdependence of human, animal, plant, and environmental health and brings together multiple sectors and communities to address global challenges, such as pandemic prevention, antimicrobial resistance (AMR), food safety, and environmental sustainability. This approach is essential for promoting public well-being and addressing complex health issues within interconnected systems.

The first phase of the “One Health for Pandemic Prevention, Food Systems Resilience and Ecosystem Health in Central Asia” Program for the Republic of Tajikistan is funded through a grant of USD 31.79 million, of which USD 30 million is provided by the International Development Association (IDA), and an additional USD 1.79 million by the Pandemic Fund. This initiative, implemented under the World Bank’s Multiphase Programmatic Approach (MPA), aims to support five Central Asian countries (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) in addressing critical issues related to zoonotic diseases, AMR, and food safety.

The One Health Program in Tajikistan, implemented as part of Phase 1 under the World Bank’s MPA, aims to strengthen the country’s capacity to prevent, detect, and respond to zoonotic diseases, antimicrobial resistance, and food safety risks. The program supports investments at national and regional levels in One Health coordination, communication and information sharing, regulatory framework development, knowledge and workforce capacity building, risk-based epidemiological surveillance, prevention and response systems, laboratory infrastructure, and data management systems.

The project includes four key components:

1. Strengthening One Health Governance – Establishing a cross-sectoral governance system to enhance coordination and policy alignment.

2. Enhancing One Health Knowledge and Workforce Capacity – Developing and implementing workforce training programs and research initiatives.
3. Improving Prevention, Detection, and Response Systems – Strengthening national and regional laboratory networks, developing risk-based epidemiological surveillance, and supporting digital information systems.
4. Project Management, Monitoring & Evaluation, and Learning – Establishing systems to manage and monitor project implementation, ensure compliance, and facilitate knowledge dissemination.

The One Health Program in Tajikistan is implemented by the State Institute “Agriculture Entrepreneurship Development” (SI AED).

2. OBJECTIVE OF THE ASSIGNMENT

The objective of this assignment is to assess the existing data and information management systems within the Committee for Food Security (CFS), develop a concept for CFS digitalization, prepare technical specifications, and create a roadmap for implementing digitalization and integrating LIMS and surveillance systems.

The Consultant will act as a technical advisor and will support the preparation of procurement documents, technical evaluation of bidders, and initial implementation oversight.

3. SCOPE OF WORK

The Consultant shall:

3.1 Assessment Phase

- Review existing data management systems, including LIMS and surveillance systems
- Assess IT infrastructure and connectivity
- Identify gaps, constraints, and risks
- Review institutional arrangements and data governance framework
- Review data flows and integration between systems

3.2 Definition of the Objective and Scope of the Digitalization Plan

- Identify and map key functional areas within CFS (e.g., administration, animal health surveillance and control, food safety, laboratories, etc.)
- Assess digitalization needs and priorities across these functional areas

- Propose and justify priority areas for digitalization, considering project resource constraints
- Define the overall objective of the digitalization plan aligned with CFS mandate and One Health approach
- Clearly delineate the scope of the digitalization system to be developed under the project (including what will and will not be covered)
- Provide criteria for prioritization and potential phasing of digitalization across different domains

3.3 System Design & Recommendations

- Propose system architecture and interoperability framework
- Recommend appropriate digital solutions (customized, open-source, or commercial)
- Ensure alignment with national regulations and cybersecurity requirements
- Ensure compatibility with relevant ministries and agencies
- Define functional and non-functional requirements

3.4 Technical Specifications & Costing

- Provide cost estimates (software, hardware, training, maintenance)
- Develop a phased implementation plan
- Include interoperability, cybersecurity, and integration requirements

3.5 Sustainability & Capacity Building

- Propose maintenance and support arrangements
- Identify training needs
- Provide recommendations for long-term sustainability

3.6 Procurement Support

- Develop RFP / bidding documents
- Prepare detailed technical specifications for tender (hardware & software)
- Develop evaluation criteria and scoring methodology
- Participate in technical evaluation

3.7 Implementation Support

- Review Inception Report

- Review System Design documents
- Validate Project Implementation Plan
- Provide technical advisory during early implementation

4. REPORTING ARRANGEMENTS AND DELIVERABLES

The Consultant will report to SI AED in close coordination with CFS and relevant stakeholders.

The Consultant shall provide:

1. Review of Inception Report
2. Assessment and Gap Analysis Report
3. System Design and Technical Specifications
4. Costed Implementation and Sustainability Plan
5. Final Consolidated Report
6. Draft RFP / Bidding Documents
7. Technical Evaluation Report of Bidders

All reports shall be submitted in Tajik and English (and Russian language, if required).

5. DURATION OF THE ASSIGNMENT

The period of service provision is **seven (7) months** from the moment of signing the contract.

6. QUALIFICATION REQUIREMENTS OF CONSULTANT

- Bachelor's or Advanced degree in Information Technology, Computer Science, or a related field
- At least 10 years of professional experience in information systems, digitalization, and ICT4D solutions
- Proven experience in design, development, and implementation of digital information systems, including data management platforms and decision-support systems
- Demonstrated experience working with LIMS, early warning systems, GIS, or similar data-driven platforms (experience with agricultural or food systems is an asset)
- Proven experience in developing system concepts, technical requirements, and Terms of Reference (ToRs) for digital solutions
- Hands-on experience in technical evaluation of bids/proposals and participation in procurement processes for IT systems

- Experience working with government institutions and international organizations such as FAO, World Bank–funded projects, UN organization or similar
- Strong experience in data analysis, visualization, and use of digital tools (e.g., Power BI, GIS, Python, SurveyCTO, KoBo Toolbox)
- Experience in stakeholder coordination, training, and capacity building in digital systems
- Strong analytical, communication, and report-writing skills
- Fluency in Tajik and English; knowledge of Russian is an asset