

# PROJECT PROGRESS

Second Reporting Period: October–December 2025 **REPORT**

REDUCTION OF  
ANTIBIOTICS USE IN  
FARMING PRACTICES  
IN EAST AFRICA WITH  
A TECHNOLOGY  
TRANSFER AND PILOT  
PROJECT IN KENYA



## SECOND REPORTING PERIOD: OCTOBER–DECEMBER 2025

### 1 IMPLEMENTATION PROGRESS

#### Overall Status

The project continued to progress during the second reporting period, with activities focused on laboratory processing of bacterial isolates obtained in Kenya, shipment of materials to Slovenia, analytical assessment by the technical partner, transfer of bacteriophage isolation protocols, and a second round of environmental sampling in Kenya. During this period, the University of Nairobi successfully isolated and prepared 148 bacterial isolates, which were shipped to JAFRAL in Slovenia, where they were subsequently analysed.

At the same time, implementation of certain technical activities proceeded more slowly than initially anticipated. This was due first to delays related to shipment coordination and documentation requirements, and later to the laboratory assessment showing that the bacterial isolates received in Slovenia did not include the target bacterial strains required for the continuation of bacteriophage isolation activities. As a result, some planned downstream laboratory activities could not proceed within the reporting period at the originally expected pace.

The reporting period nevertheless provided an important technical basis for the next phase of implementation. In response to the findings of the laboratory assessment, additional environmental sampling was carried out by the University of Nairobi in December 2025, and a joint sampling exercise of the University of Nairobi and JAFRAL teams in Kenya was planned for January 2026 in order to secure appropriate target bacterial strains and enable continuation of the related laboratory work.

### 2 KEY ACTIVITIES IMPLEMENTED

#### Isolation and Shipment of Bacterial Isolates

During the reporting period, the University of Nairobi successfully isolated and prepared 148 bacterial isolates, which were shipped to JAFRAL in Slovenia on 13 November 2025. Receipt of the shipment was confirmed on 18 November 2025. The isolation work and preparation of shipping documentation were carried out in accordance with the protocols provided by JAFRAL and with the participation of the University of Nairobi research team.

#### Laboratory Assessment at JAFRAL

Following receipt of the samples, JAFRAL carried out extensive laboratory processing of the isolates, including preparation of pure cultures and bacterial identification using the MALDI-TOF method. The analysis showed that the received isolates did not include the target bacterial strains representing the most common pathogens affecting tomato production in Kenya. Instead, the samples consisted predominantly of naturally occurring bacteria and bacteria associated with

secondary plant infections. Based on these findings, continuation of the bacteriophage isolation phase was not considered justified at this stage, until suitable target bacterial strains are secured.

### **Transfer of Bacteriophage Isolation Protocols**

During the second reporting period, JAFRAL prepared and transmitted to the University of Nairobi protocols for bacteriophage isolation together with supporting instructions for the handling of environmental samples. These materials were provided on 13 November 2025 and were aligned with the regulatory and logistical constraints identified in relation to sample export from Kenya. Practical implementation of the protocols in the laboratory did not begin during this reporting period, as suitable target bacterial strains had not yet been identified in the samples received.

### **Additional Field Sampling in Kenya**

From 1 to 5 December 2025, the University of Nairobi carried out additional field sampling of soil, water, and tomato plant tissue in Kajiado, Taita Taveta, and Makueni counties. The activity involved members of the University project team, as well as local farmers and county agricultural officers. Laboratory preparation of the collected samples was undertaken between 10 and 24 December 2025 in accordance with JAFRAL protocols. Following feedback from JAFRAL regarding the inadequacy of the previously shipped bacterial isolates, further laboratory processing of these environmental samples was temporarily suspended, pending a joint sampling exercise with JAFRAL experts in the next reporting period.

### **Regulatory and Logistical Procedures**

The project partners continued to address the documentation and logistical procedures linked to the shipment of biological material from Kenya to Slovenia. During the second reporting period, delivery of bacterial isolates to Slovenia was completed successfully. Based on the experience gained, additional clarifications concerning documentation preparation and shipment logistics were developed for use in the subsequent phases of the project.

### **Training Activities**

During the reporting period, training of the University of Nairobi team advanced through the transfer of protocols for bacteriophage screening and associated laboratory guidance. On-site training at the University of Nairobi is planned for January 2026, when the next phase of joint sampling and target strain identification is expected to begin.

### 3 PROGRESS INDICATORS (AS OF 31 DECEMBER 2025)

Isolation of bacterial strains:

148 bacterial isolates were prepared and shipped to Slovenia; laboratory assessment was completed, but the target strains were not identified.

Isolation of bacteriophages: not yet initiated under laboratory conditions, pending identification of appropriate target bacterial strains.

Preparation of bacteriophage mixtures: not yet initiated, pending the isolation of bacteriophages.

Effectiveness testing: not yet initiated, pending the preparation of bacteriophage mixtures.

The findings of the second reporting period represent an important technical validation step within the scientific process of project implementation. The identification of non-target isolates does not constitute a deviation from the approved work plan, but rather clarifies the conditions necessary for the next phase of implementation. A joint sampling exercise and training activities by the project teams of University of Nairobi and JAFRAL are planned for January 2026 as to secure the appropriate bacterial strains and enable continuation of bacteriophage isolation activities.

### 4 FINANCIAL IMPLEMENTATION OVERVIEW

Total approved project budget: EUR 320,000.

During the second reporting period (1 October to 31 December 2025), approximately 4.3% of the total project budget was utilised. Expenditure during this phase reflects the laboratory, logistical, regulatory, and coordination-related nature of the activities implemented during the reporting period.

The level of financial implementation during the second reporting period was lower than initially anticipated. This was linked to delays in the sequencing of technical activities, arising first from shipment coordination and related documentation requirements, and later from the laboratory assessment showing that the bacterial isolates received did not include the target bacterial strains required for the continuation of bacteriophage isolation activities. As a result, certain planned activities could not proceed at the originally expected pace during the reporting period.

The portion of the project budget not utilised during the second reporting period is expected to be utilised in the subsequent reporting period, as implementation advances through the planned joint sampling exercise of the University of Nairobi and JAFRAL teams in Kenya and the continuation of the related laboratory work.

Funds were allocated exclusively to eligible project costs, including:

- research and technical personnel engaged in laboratory and field activities,
- laboratory materials, chemicals, and consumables,
- preparation, handling, shipment, and logistical coordination of biological samples,
- environmental field sampling, transport, and related local implementation support,
- regulatory compliance, permits, and administrative procedures,
- project coordination and technical management.

Expenditure incurred during the reporting period reflected the activities effectively carried out in this phase of implementation. Due to delays in the sequencing of technical activities, part of the budget foreseen for the second reporting period remained unutilised at period end and is intended to be utilised in the subsequent reporting period.