**POST MAINTENANCE REPORT OF KIREHE AND KAYONZA DISTRICTS**

This report summarizes the status of weather stations after the maintenance carried out in Kirehe and Kayonza Districts from 21st to 24th October 2025.

1. **KIREHE AWS**

* **Rain:** from 1/07/2025 to 24/09/2025 records total rainfall of 7.2 mm this is contrary to nearby manual station which records 15.8mm from 1/07/2025 to 31/08/2025.

**Finding:** PL-400 sensor was faulty

**Performed activity:** Replaced by a DQA 220 rain gauge sensor

**Status after maintenance:** Solved (monitoring is still ongoing).

* **Wind Direction:** This is suspected due to data varies between 59 degrees and 274 degrees.

**Finding:** No issue found

**Performed activity:** Checked

**Status after maintenance:** Not solved

1. **RUSUMO AWS**

* **Missing data:** 35 days, 16 hours, 0 minutes; during night hours did not reports

**Finding:** Battery was faulty

**Performed activity:** Replaced battery

**Status after maintenance:** Solved

1. **MAHAMA AWS**

* Rain: from 1/7/2025 to 24/09/2025 records total rainfall of 0mm.

**Finding:** DIN Rail module (connector) was damaged by bees

**Performed activity:** Replaced the module and remove safely bees

**Status after maintenance:** Solved

* **Soil Temperature 50cm:** This is suspected due to data varies between 31.60C degrees and 39.20C.

**Finding:** No issue found

**Performed activity:** Checking all sensors

**Status after maintenance:** Not solved

1. **NASHO\_MPANGA AWS**

* **Wind Direction:** Always records 0 degrees.

**Finding:** Sensor is faulty

**Performed activity:** Nothing, no spare part was in place

**Status after maintenance:** Not solved

* **Soil Temperature 10cm:** the data are not available

**Finding:** One of wires of cable is cut

**Performed activity:** Rejoined the wire

**Status after maintenance:** Solved

1. **Kawangire AWS:**

* **Wind direction:** Vary between 100 and 1350 which is unrealistic.

**Finding:** Sensor wiring was wrong

**Performed activity:** Corrected the wiring

**Status after maintenance:** Solved

* **Ten minutes’ s evaporation:** varies between 12.4 mm and 13.2 mm which is unrealistic.

**Finding:** No issue found

**Performed activity:** Checked algorithm and reported value

**Status after maintenance:** Not solved

* **Soil moisture at 20 Cm:** Change suddenly, has repeating value over fixed hours every day (04:20 to 15:30) while other hours’ values are null.

**Finding: No issue found**

**Performed activity:** Checked the reported value

**Status after maintenance:** Not solved

1. **MUKARANGE AWS**

* **Rainfall**: From 1/07/2025 recorded total rainfall of 0 mm.

**Finding:** The cable for rain gauge was cut during cleaning of garden

**Performed activity:** Replaced the cable

**Status after maintenance:** Solved

* **Soil Temperature 10cm:** Rise gradually up to 430C.

**Finding:** No issue found for 10cm soil sensor, instead soil sensor at 50cm was not recording due to the cable was cutduring cleaning of garden

**Performed activity:** Rejoined the cable

**Status after maintenance:** Solved

1. **Gahara ARG**

* **Not reporting from 22nd June 2025**

**Finding:** Fault in radio modem functionality

**Performed activity:** Rebooting, downloading data and pushing the communication.

**Status after maintenance:** Solved

1. **Musaza ARG**

* **Not reporting from 27th March 2025**

**Finding:** Data logger was off due to a fault in its board

**Performed activity:** Cleaning the board

**Status after maintenance:** Solved

1. **Nyarubuye ARG**

* **Not reporting from 15th April 2025**

**Finding:** Radio modem was faulty

**Performed activity:** Replaced the radio modem

**Status after maintenance:**Solved

Prepared by:

Christian Bikorimana Ntirenganya Desire

Ag.Data Quality Control Officer Instrument Maintenance and Calibration Officer