**DATA COMPARISONS BETWEEN MANNED AND AWS AT NYAGATARE SITE**

**INTRODUCTION**

This report contains a details comparison between the data taken from automatic weather stations and manned stations. The compared data extends from 1, June,2025 to 15, September 2025.

1. **Daily Rainfall**

* AWS recorded 78.6 mm while manned station recorded 97.1 mm.

1. **Maximum temperature**

* Maximum temperature from both station seems to be in harmony all time with correlation coefficient of 0.9875.
* AWS recoded average maximum temperature of 28.00C while Manned recorded 28.50C.
* The difference between them maximum was bellow 10C but exceptional on 18/08/2025 was 1.680C.

1. **Minimum temperature**

* Maximum temperature from both station seems to be in harmony all time with correlation coefficient of 0.9257.
* AWS recoded average minimum temperature of 15.10C while Manned recorded 16.20C.
* The maximum difference observed is 2.120C.

1. **Maximum relative humidity**

* Maximum relative humidity from both station seems to be in harmony all time with correlation coefficient of 0.5386.

1. **Minimum relative humidity**

* Minimum relative humidity from both station seems to be in harmony all time with correlation coefficient of 0.8825.

1. **Daily Air Pressure**

Daily Air pressure at Nyagatare AWS is ranging between 862hpa and 867 hpa which is the normal range of pressure at that location.

1. **Wind speed and direction**

The wind speeds and directions before upgrade (April 2025 up to installation date) and after the upgrade remain within the same range.

 