Weather Impact Seminar

a vast network of weather stations across Africa

Introduction TAHMO

22 March 2018, Impulse, Wageningen
TAHMO’s contribution to the SDG’S & Resilience

Africa is **heavily (70%) an agrarian economy** so TAHMO’s goal is to improve agriculture productivity and make communities more resilient to floods and drought.

Changes in climate and helps access how effective adaptation and mitigation measures have been.

https://sustainabledevelopment.un.org
TAHMO’s objective

Leapfrog: 20,000 TAHMO Stations!
1 station every 30 km
Current TAHMO stations/countries

Countries with offices and more than 35 stations

Participating countries
Data Availability, Assimilation & Use
Sensor Principles

- Robust
- No moving parts
- No cavities
- Cost-effective
- Self calibrating
- Cross calibrating
School 2 School Program

>90% of stations installed in Schools

These data bring up all sorts of great science and math learning opportunities:

- Energy
- Speed
- Humidity
- Geography
- Patterns versus random

• Long term association with **schools**
• **Contextual Science** education package
• Emphasize global equality – same lessons in USA and Africa
• Connect across cultures

[https://school2school.net](https://school2school.net)
Business model Climate Observation

- Met services have little government support
- Many AWS from different providers

- Only few stations reporting
- Manual quality control
- Lack of maintenance
  - calibration, replacement of batteries, sim connections
  - no local spare parts shop

- Lack of structured data storage
- Data use & services not exploited
- Digitizing old records is expensive and hard

- There is no market for data from a single country
- Forecasts requires high tech, best at global scale
Public Private Partnerships – PPP’s

Partners:
- Weather Underground
- IBM
- HNI (Human Network International)
- NMA
- WMO
But how does the reality look like?

MoU with NMA
TAHMO AWS network
Data Provisions NMA and TAHMO
QA/QC + Weather Forecast
Products & Services

Currently the case in 21 countries

Still working on this!!
Our main current funding comes from research projects and collaborations with the private sector (i.e. IBM/Weather Company)

NMA : National Meteorological Agency
AWS : Automatic Weather Station
MoU : Memorandum of Understanding
Farmerline and the Trans-African Hydro-Meteorological Observatory (TAHMO) are working on a project to improve ground-based weather reporting.
A search engine where there is no Internet: via voice
Farmers dial 1-6-1: listen to public service information in the local language, anytime, anywhere, free of charge,
How does the TAHMO initiative contribute to open data?

1. Current weather data freely available through the School2School platform;
2. We support World Meteorological Organization (WMO) Resolutions 40 and 25 by giving free access to raw weather data for scientific research and government use.
Join the TAHMO initiative

Signing of MoU with NiMet (Nigeria)

www.tahmo.org
www.school2school.net