



## **The Trans-African Hydro-Meteorological Observatory: Early results from the crowd sourcing competition**

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The Trans-African Hydro-Meteorological Observatory ([www.tahmo.org](http://www.tahmo.org)) is an international initiative with the objective to develop, build, and operate 20,000 hydro-meteorological measurement stations in sub-Saharan Africa. TAHMO tries to integrate science with education. At the same time, we try to make the initiative financially sustainable by developing and rolling out viable business development. Estimated total costs for establishing the network will be in the order of US\$ 20 million, whereas operational costs will be around US\$ 2 million per year.

The stations need to be designed in accordance to a set of rules that serves easy deployment and operation, such as absence of moving parts and cavities, self- and cross calibration of sensors, and low cost (€ 200-300 per station). There are some promising first results in this respect.

The presentation will focus on recent activities, specifically concerning crowd sourcing activities at African universities. This competition (<http://tahmo.info/sensor-design-competition>) consists of two rounds. The first round is open to any academic or research group in Africa and asks for the design of an innovative robust sensor in line with the TAHMO design criteria. The top twenty teams with the best designs will receive a “Maker Package” that will allow them to build and test the sensors. The final top ten design teams will meet in Nairobi in August 2013 to tinker and collaborate for one week and to integrate the sensors into a standard weather station. The deadline for the first round is 1 March 2013 and the results from this round will be presented.