SUBMISSION GABA FOR Lightning talks AT TNC 18

SHORT TITLE: Promoting the implementation of low cost weather stations

Title: Promoting the implementation of advanced low cost weather monitoring stations for ensuring and sustaining water security and climate resilience

Author name and short biography:

GABA Olayèmi Ursula Charlène

Charlene is a dynamic and highly-motivated woman. She is a Lecturer and Researcher at the National Institute of Water, University of Abomey-Calavi, Benin. She is passionate about climate science and water resources and policy. She is an advocate for the expansion of environmental monitoring networks through low-cost, automated, autonomous, real-time and robust weather and environmental monitoring stations. She is also devoted to empower women in science. She is a junior Associate at the Abdus Salam International Centre for Theoretical Physics (ICTP).

Five keywords: climate change, real-time environmental monitoring, flood early warning system,

A short description of the planned talk:

Benin water resources are affected by climate change. Among these impacts are more frequent floods and water shortages. Those are critical issues because they threaten the populations' security, slow down development and worse aggravate poverty of local populations. Data obtained from observations are very important to support an effective adaptation. I heard about new efficient low cost environmental monitoring technologies that are being used in emerging countries like the Philippines which face similar challenges. We have in project to implement such technologies in Benin in order to ensure and sustain water security and climate resilience. Three main ideas:

1) - to implement low-cost, automated, autonomous, real-time and robust weather and environmental monitoring stations in partnership with national and regional universities as well as national weather agencies;

2) - Establish a SciFabLab (Scientific Fabrication Laboratory) where beninese students will learn how to fabricate the low-cost equipments;

3) - Create new training curricula (at the National Institute of Water) that would take into account the use of IoT (Internet of Things) for environmental monitoring: build the capacity of PhD, master, bachelor students in water and environmental sciences and IoT) through research and training.