ACPC
African Climate Policy Centre

United Nations
Economic Commission for Africa

Climate Information Services innovations

Best ranked CIS innovation proposals – presented at CCDA-VII

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WISER
Weather and Climate Information Services for Africa

1. Dr. Benjamin Gyampoh

Date submitted: Wed, 2018-09-19 17:03
Gender: Male
Constituency: Climate scientist/academics
Organization: Kwame Nkrumah University of Science and Technology
City, nationality: Kumasi, Ghana
Tel.: 2.3326474861e+11
Email: bagyampoh@knust.edu.gh

Need financial assistance: Yes

Second Abstract:
Innovation topic: Innovations in the management and delivery of CIS knowledge
Title: Dr.

Author: Dr Benjamin Apraku Gyampoh

Abstract:
Delivery of Climate Information Services (CIS) through youth Climate Information Centres
Gyampoh Benjamin Apraku and Owusu Daniel Kwaku
Kwame Nkrumah Universty of Science and Technology, Kumasi, Ghana

Abstract
Farmers' inability to access, interpret, use and effectively benefit from available climate data is a major challenge in successfully adapting their farming activities to climate change and climate variability (CC&CV). Two key factors contributing to this challenge is functional literacy level of most farmers and technology. Whereas there is commendable penetration of mobile phones and internet services in rural Ghana, rural farmers in Ghana do not usually use smart phones and hence no access to online climate data which hinders their ability to use climate information services. Moreover, they seek tailor-made information at the lowest scale that can be readily used for their farming. This intervention proposes an innovation in the management and delivery of climate information services by using youth in rural farming communities as intermediaries between farmers and a network of climate and agricultural scientists. The youth are functionally literate, technology-savvy, use smart phones, are able to search for information and interpret them and reside in the same farming communities. The youth can collect the exact weather/climate needs of the farmers, liaise with the network of scientists for tailor-made responses with interpretations and deliver to the farmers. This innovation will run on existing systems in most rural communities such as the local information centres and unit committees. It will also spur entrepreneurship among the youth. With this approach, farmers' accessibility to and use of climate information services will be enhanced which will help them in adaptation to climatic changes and climatic variability.

2. Mr. Joseph Lwannia

Date submitted: Wed, 2018-09-12 11:39
Gender: Male
Constituency: Civil society organizations
Organization: Urafiki Kenya
City, nationality: Kibwezi, Kenya
Tel.: -1515
Email: lwannia.joseph@yahoo.com

Need financial assistance: Yes

Second Abstract:
Innovation topic: Innovations in the management and delivery of CIS knowledge
Title: Mr.

Author: Joseph Lwannia

Abstract:
Karasha is an innovative mobile-phone enabled climate information delivery initiative. Its medium of dissemination is through the mobile phone short message system (SMS). It is aimed at delivering climate information to the poor and vulnerable agro-pastoral community of Syembeni, in Kibwezi-East Sub-County, Makueni County, Kenya. This area lies in the Arid and Semi-Arid Lands of Kenya. This information is downscaled from FEWSNET and the Kenya Meteorological Department and is packaged in form of SMSs and sent to participating community members. The information is disseminated from the Urafiki Kenya Resource Centre based in Syembeni. The members have a helpline number to call back for clarifications. Urafiki Kenya has partnered with Safaricom, a leading mobile phone service provider, in this initiative. The disseminated information range from the actual dates of rainfall, rainfall patterns, rainfall duration, planting and harvesting dates, pesticides advice, types of crops to be grown, quality of soil, post-harvest losses management, Conservation Smart Agriculture advisories, crops value chain systems, market information of harvested crops, livestock husbandry advisories including fodder and vaccine instructions as well as dairy management. Karasha is a unique dissemination system that is designed to mitigate climate change and climate variability in the ASALs.

3. Phd. OUSMANE TRAORE

Date submitted: Fri, 2018-09-07 16:55
Gender: Male
Constituency: Climate scientist/academics
Organization: Anhui University, China
City, nationality: Hefei, Burkina Faso
Tel.: +86 15656587210
Email: ousmantra711@gmail.com

Need financial assistance: Yes

Second Abstract:
Innovation topic: Innovations in the management and delivery of CIS knowledge
Title: Phd.

Author: Ousmane Traore

Abstract:
ABSTRACT
Climate disturbance is the most challenging threats that severely affects smallholder farmer's livelihood in Burkina Faso. Assessing the impacts of climate disturbance requires accurate and improved information. The objectives of the study are to assess household perception of climate disturbance impacts, and also to analyze the change in vegetation coverage in the Sahel region of Burkina Faso over the last 30 years. The field survey was conducted to collect data from 465 household heads through a structured questionnaire in the year 2013. In addition, satellite imageries were collected from the United States Geological Survey to compute the Normalized Difference Vegetation Index and unsupervised classification. About 44.01% of the household heads reported a depletion of the pasture due to climate disturbance over the past 20 years. Satellite imagery results showed a decrease in vegetation cover from 30.76% to 24.75%, and the extent of water surface decrease from 11.01% to 4.23% between December 1986 and 2016.
Keywords: Climate disturbance, household survey, Sahel, satellite imagery, vegetation index

4. Phd. Hyrine Munga

Date submitted: Mon, 2018-08-13 13:36
Gender: Female
Constituency: Climate scientist/academics
Organization: Auckland University
City, nationality: Auckland, Kenya
Tel.: +64 223055091
Email: hmun512@aucklanduni.ac.nz

Need financial assistance: Yes

Second Abstract:
Innovation topic: Gender and youth role in CIS
Title: Phd.

Author: Hyrine Gesare Munga

Abstract:
Sub-Saharan Africa (SSA) countries are the most energy poor globally. Most of these countries' populaces are predominantly rural with very low electrification rates and consequently overdependence on traditional biomass fuels mostly fuelwood, charcoal, crop and animal residues. Collection and use of these traditional biomass fuels had been directly linked to negative

environmental, human health and social impacts. Domestic biogas technology (DBT) is an off-grid household renewable energy technology (RET) that has been promoted in SSA since the 1950s with both climate mitigation potential and socio-economic development. This original research paper explores the discourse of this transferred technology between the developers and the receivers based on the findings of an ongoing original research in rural Kenya. The study reports a mismatch between the broader promotional goals often by donor and aid agencies and the local needs and socio-cultural circumstances of potential adopters, poor rural households. While a vast literature exists that links transfer of household RETs to socio-economic development and climate mitigation in the recipient countries, the reverse is largely unexplored. This paper contributes to this discourse by accounting for the gender injustices and inequalities perpetuated and /or (re)produced by installation of biogas digesters in poor rural households and the false assumptions of greenhouse gas (GHG) emission reductions that are used to calculate carbon credits. This is because seldom is the technology put into full use, due to its compatibility with rural households' socio-cultural arrangements. The paper concludes by arguing that for DBT to serve both macro and micro interests, the socio-cultural contexts of the potential adopters ought to be incorporated in the innovation process.
Climate change, mitigation, domestic biogas, sustainability.

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