

OpenCI Platform - Home

Ussi Mnamengi

Providing access to localized climate information for rural livelihoods

UNDP

About the Resilience and Adaptation workstream of the Climate Summit:

The Resilience and Adaptation track of the Climate Summit will focus on integrating climate risks into public and private sector decision-making to assure sustainability of food, water, and jobs for the future as well as to prevent disasters and to allow a quick recovery after disasters especially for the most vulnerable groups. The track is co-led by the Governments of Egypt and the United Kingdom and is supported by UNDP.

About the Challenge:

Improving climate information and early warning systems across vulnerable countries has the potential to significantly improve lives, build resiliency and support in global efforts to achieve the Sustainable Development Goals, particularly as they relate to rural communities. This is especially true for small holder farmers who need better and more accurate weather forecast in order to plan their agriculture. 70% of Africa and 40% of Asia and south Asia rely on rainfed agriculture. Providing vulnerable farmers with improved localized weather and climate information has the potential to increase farm production, build market stealth and lower risks. With better information on extreme weather events, improved **crop forecasts** and more actionable information on **what to do when bad weather hits**, farmers can protect property and human lives, access risk-management mechanisms like **index-based insurance**, and create **long-term plans** for a future that will be highly dependent on rainfall patterns, droughts, floods and other natural disasters.

However, this highly valuable localized information is usually unavailable to small rural communities. While weather and climate reports are developed by national hydro meteorological services, the information available in them is usually at a national scale and hence of limited use to vulnerable farmers. And while **private weather companies have begun to develop highly localized climate information** services to larger agricultural companies, these feeds are often unavailable to small holder farmers.

With a high smart phone penetration even in rural areas, new technologies, particularly those digitally enabled, have the potential to bridge the last-mile information gap and strengthen the resilience of rural communities. For instance, they can provide a **platform to crowdsource data to help to gather rapid information to share weather alerts at a community level and improve national weather feeds**. In addition, information from satellites can be paired with climate information from existing observation systems and **market information (prices, retail networks, sale points, etc.) for better access to and use of localized information for agricultural planning purposes**.

Can you develop an information systems solution that could serve as a platform to enhance the access of localized climate and market information in a manner that is usable to farmers (in particular, in rural

areas) through the **entire value-chain of climate-risk informed agricultural planning, production, post-production, and marketing?**

This platform would bridge the last mile and the existing information gap to vulnerable rural communities and protect rural agricultural livelihoods while **enabling partnerships with existing information providers** in the public and private sector to develop localized climate information services. It would look to create links with existing information channels to both harness and disseminate localized information.

Solutions could take the form of:

- **Crowd-sourced nowcast** to share weather alerts within a community, attach to social networks where rural communities are the information gatherers, attaching their on-the-ground observations to bigger data.
- **Crowd-Sourced Weather Information.** Local weather measurements to ensure and improve quality control of Met Office forecasts
- **Bundling a climate information pipeline.** How to get information from satellites, Automatic Weather Stations, data streams and other information sources, into a useable form and platform that could then be made accessible to rural agricultural based communities.
- **Packaging localized climate information with agriculture and market information.** This aims to create a **localized agromet advisory** that would include weather information along with ag inputs, market prices, etc.

Deliverables:

- A **systems platform** that enhances the access of reliable localized climate information. The platform should be able to be accessed even with slow internet and present information that can be updated several times in a manner that can be packaged to include weather forecasts, and information relevant for agricultural livelihoods.
- A **video (2 minutes maximum)** presenting your solution. It may include your presentation, images, charts, animations, data visualizations, live footage, etc. It should state potential for partnerships that could be leveraged with the private or information sectors.
- A **brief business plan** that captures the need, market, value-proposition, outreach and customer engagement strategy, financial and operational model, partnerships, sssand strategy for scale-up and replication

Rewards:

- The platform selected will be showcased at the 2019 Climate Summit in the presence of world and subject leaders. 1 person representative of the winning team will be invited to attend the Summit in New York.
- Top 3 solutions will be highlighted in UN's "Unite Ideas Platform" to serve as a best practice for development practitioners.

Timeline:

Launch the challenge: 03 May 2019

Final day for submissions: 30 July 2019

Announcement of winners: 12 August 2019 (International Youth Day)

Presentation at Climate Summit: 22-23 Sept 2019

Challenge contact points:

UNDP, Mr. Benjamin Larroquette Benjamin.larroquette@undp.org

References:

Materials and links related to this topic are listed below.

- Revenue-Generating Opportunities Through Tailored Weather Information Products https://www.adaptation-undp.org/sites/default/files/resources/revenue-generating-opportunities-for-tailored-weather-information-productions-undp-june-2-2016_o.pdf
- The Importance of Weather and Climate Data: A Perspective from an Agricultural Insurance Provider <http://undp-cirda.blogspot.com/search/label/weather%20data>
- Building a Value Proposition for Climate and Weather Services <http://undp-cirda.blogspot.com/search/label/market>
- 2018 Market Assessment on Climate Services in Africa <http://undp-cirda.blogspot.com/2019/03/2018-market-assessment-on-climate.html>
- Let the negotiations begin: How met agencies can share revenues generated by private sector companies <http://undp-cirda.blogspot.com/2016/06/let-negotiations-begin-how-met-agencies.html>
- A New Vision for Weather and Climate Services in Africa <https://www.adaptation-undp.org/resources/communications-products/new-vision-weather-and-climate-services-africa>
- Applying Climate Information to Achieve the Sustainable Development Goals <https://www.adaptation-undp.org/resources/communications-products/applying-climate-information-achieve-sustainable-development-goals>
- UNDP Programme on Climate Information for Resilient Development in Africa (CIRDA) <https://www.adaptation-undp.org/projects/programme-climate-information-resilient-development-africa-cirda>
- Esoko's Digital Farmer Services <https://esoko.com/digital-farmer-services/>
- Ghana: Crowdsourcing Citizen Feedback on Government Service Delivery <http://hni.org/blog/2017/01/06/ghana-crowdsourcing-citizen-feedback-on-government-service-delivery/>

Open Source:

Both, the apps and videos which you submit to this challenge must be licensed by you under a Creative Commons Attribution 4.0 International license (see: <https://creativecommons.org/licenses/by/4.0/legalcode>), which allows for any party to further share, copy, redistribute, adapt, transform, and build upon the material for any purpose, even commercially. You will be asked to accept these and other terms and conditions prior to submitting any content.

Get started!

Click on "Post Idea", register to the Unite Ideas website, and then post your draft or even just the title of your preliminary idea. You will be able to edit your idea until the last day of the submission phase.