

Instituto de Hidrologia, Meteorología y Estudios Ambientales – IDEAM

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NASA Applied Sciences’ Capacity Building Program

Washington DC, United States

**NOAA Hydrology Laboratory, Office of Hydrologic Development National Weather Service**

Silver Springs, Maryland, United States

Pilot for Expansion of Colombia’s “Mi Pronóstico” Application for Forecast and Weather Information Access to Include Flood Early Warning System and Refuge Locations

In the GEOSS Architecture Implementation Pilot –

Phase 7 (AIP-7)

Response Due Date: 7 April 2014

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**(IDEAM and NASA Capacity Building Program) Response to the GEOSS AIP-6 CFP**

# Overview

Expansion of Colombia’s “Mi Pronóstico” Application for

Forecast and Weather Information Access to Include Flood Early Warning System and Refuge Locations

# Proposed Contributions

The proposed contribution is the expansion of capabilities of the web and mobile application “Mi Pronóstico” to include information on the location of safe refuge during flood events in Colombia. The application will be implemented by IDEAM with development enhancement activities provided by NASA’s Applied Sciences’ Capacity Building Program with consultation from NOAA. The initial iteration of the enhanced application would focus on Bogota, with the potential for expansion to the rest of the country following proof of concept.

### Key application support

If you plan to contribute directly to the design and development of a key app listed in the CFP, provide the following information to expand the scenario (app) related to your requirements and contributions:

* Name of the application: Mi Pronóstico
* IDEAM (Leonardo Cárdenas y David Pérez) & NASA (Nancy Searby and Lauren Childs-Gleason) & NOAA (Angelica Gutierrez)
* The SBA supported by the app: **Disasters**
* Names and contact information of end-user(s) who will provide the requirements: IDEAM
* Overview of App functionality (Use case) (New, Existing, **Extension**): **Leonardo Cárdenas**
* Application Development Framework to be used: Deployment: Mobile | browser-based | **both**
* Discussion and list of data sources, standards based interface protocols (OGC), and gaps: WMS, WMS-t, WFS, WFS-t, WPS, C-sw
* Additional service requirements anticipated

### Supporting Technologies

If you plan to contribute supporting technologies such as those listed in the CFP under section 3, please include the following in your response:

* Predictability and reliability through the use of the Service Test Facility.
* IDEAM expects to share this application with end user’s nationwide eventually, using Bogota as a beta-test of the expanded capabilities.

If you plan to contribute or support the refinement of the GEOSS AIP Architecture and Interoperability Arrangements, please include the following in your response:

* Type of contribution (share our information about forecast, weather, warnings, safety refuges, etc)
* Discussion of the use of standards by this solution to provide access to data and products
* As a download from IDEAM Portal

# Description of IDEAM

IDEAM as a focal point of GEO in Colombia, and active member of GEO, can support this app implementation of the new capability through the informatics office team. This team will coordinate with the NASA Applied Sciences’ Capacity Building Program allowing for the development of the enhanced capabilities to be developed by NASA’s DEVELOP National Program during a ten-week rapid proto-type pilot project.

The “Mi Pronostico” App is currently capable of providing information about air temperature and weather, and runs on free software (Android). We expect to test the enhanced application’s usability within the Bogota community, which if successful can then be replicated for the rest of the Colombia. The enhanced application will provide information relating to early warning of flood events and potential safe locations for those seeking refuge during such events.