

## Lack of preparedness prevents effective public-sector drought response

Interdisciplinary research to improve information provision for decision making (CRN 3107)

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<https://ccafs.cgiar.org/es/agroclimas#.XNGf3-hKjIV>

### **Abstract:**

*As part of research supported by the Inter-American Institute for Global Change Research (IAI), two emergency drills for droughts in Guatemala were conducted in order to improve emergency planning for future climate eventualities.*

As the famous proverb preaches, 'Prevention is better than a cure'. The research aims to provide information useful to public decision-makers in facing the frequent droughts that affect the agricultural activities and lifestyles of the residents of Chiquimula, Guatemala, one of the most drought-vulnerable areas.

The project was based on emergency drills, an original and applicable idea even though droughts do not occur overnight, unlike earthquakes, volcanic eruptions or avalanches. Droughts can last for months and have long-term effects. Unfortunately, decision-makers often realize the emergency so late that the rains begin again and the impetus to act on the matter vanishes. This means that the need for a solution to the devastating effects that droughts generate - such as food insecurity - remains unfulfilled.

This is why researchers from different institutions, led by Bioversity International, with the support of the IAI proposed a project that prioritizes proactivity in circumstances that are commonly addressed in a reactive way, such as droughts. Would drills be a good resource to prepare the Ministry of Agriculture, Livestock and Food (MAGA) of Guatemala for swift action in the face of a slowly unfolding natural event?

Chiquimula is a unique case: precipitation ranges from 600 to 1000 millimeters per year. Between 2009 and 2015 it suffered four extreme and unusual drought events, called *canicula*. The region is characterized by a poor rural population, which is very vulnerable to food insecurity.

Jointly with other international institutions and the MAGA, researchers designed two emergency drill protocols for droughts, which took place in 2014 and 2015. These drills aimed to generate useful, precise and timely information so that decision-makers could act with diligence and avoid costly lessons from trial and error.

The researchers used the Institutional Response Plan (PIR, in Spanish), developed by the MAGA in 2012 to reduce the impact of droughts on agricultural infrastructure, crops and human life. PIR's five stages – monitoring in the field, release of an alert statement, an emergency declaration, and actions during and after the drought – are based on information flow between the MAGA and other institutes. In the drills, only the first two stages were undertaken.

Each drill lasted a day and a half. During the full day the drill was performed, and the following half-day was devoted to analysis of the strengths and weaknesses during the process. Some of the highlighted strengths were the empowerment and confidence of public officers who work in the field, as well as the farmers' network, the pertinent steps outlined by the PIR and institutional coordination at a local level.

However, there were more weaknesses than strengths. Among them, the communication problems between the different departments of the MAGA; the absence of an appropriate tailored poll to deliver data, which threatens the reliability of the information because it influences whomever is delivering it; the paucity of available supporting information; the high turnover of employees in the ministry; and poor communication infrastructure i.e. roads and mobile signal.

From the analysis, researchers concluded that drills could be a useful tool for the MAGA since they allow them to assess the drought response and provide information. They also warn that tangible transformations in organizations depend on the context in which they occur.

They gave some recommendations, notably the implementation of a training program on PIR for public officers as well as for farmers in order to standardize evaluation equipment in the field and improve communication infrastructure.