Case study: Climate Change in El Salvador

Developing a multi-hazard approach to support emergency response and planning

Challenge
El Salvador is the smallest and the most densely populated country in Central America. It lies along the Pacific Ring of Fire and is acutely vulnerable to climate variability and extremes, which have had devastating effects on its population, agriculture and economy. Steep topography and short watersheds, combined with severe deforestation and soil erosion have made the landscape vulnerable to landslides and flooding. Moreover, during the last few decades a change has been noticed in the seasonality and in the number of tropical depressions affecting the country. The El Salvador government created the Ministry of the Environment and Natural Resources (MARN) in response to this increase in extreme weather events and to promote the integration of climate change into all areas of national policy.

Solution
In 2014, we successfully worked with MARN to identify ways of improving weather and climate services in El Salvador to increase resilience to climate related events. Requirements for different user groups, as well as common needs, were identified via workshops with Met Office experts, resulting in three main recommendations;

• access to information about the beginning and end of the rainy season and its character, up to one year in advance;
• shared communication protocols to aid the exchange of information between different directorates and ministries;
• a Daily Hazard Assessment (DHA) document issued to all stakeholder ministries and departments, providing a Red-Green-Amber (RAG) hazard status for a list of hazards such as heavy rain, landslides and volcanic eruption with a forecast lead time of 5 days.

Forty-five further products were identified and prioritisation was agreed with MARN based on overall usefulness to the user, difficulty of implementation and quick-wins.

Benefit
Our work will help MARN develop a strategy for improving resilience to climate change that can be implemented quickly. The DHA document is a specific tool that will provide a one-stop shop for stakeholders. It will ensure that there is uniform understanding within the El Salvador Government on the current status of given hazards, and how these might change during a forecast period. It will also demonstrate MARNs authority in providing this type of information.

By sharing communication protocols and concentrating on quick wins, MARN can ensure that progress is visible. This is essential for engagement with users, as it confirms that their input was taken seriously, that progress is being made and that the ambitions of the minister will be realised.

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