

## Protecting Communities from Natural Disasters

Serving vulnerable populations also means working on mitigating natural disasters, phenomena that disproportionately affect people who are already living in precarious situations. For years, SEDI has advanced strategies that have had a real impact on how affected populations respond to natural disasters.

The experience of the Early Warning Systems for Floods (SATIs) in the region has demonstrated that incorporating communities into risk-management work changes attitudes, builds organizational capacity, and ensures a more harmonious process of working with local and national decision makers.

Because of its geographic location, Central America is exposed to extreme natural disasters, including intense rains that cause flooding in many communities. Rivers have been flooding more frequently recently, and that means residents of the watersheds have to leave their homes and find shelter in lower-risk neighboring areas. Through the Risk



Management and Climate Change Adaptation Section (RIESGO-MACC) of the Department of Sustainable Development, the OAS General Secretariat has been working in all of the countries of the Central American isthmus, and the Dominican Republic. With international cooperation, they are helping to develop efforts to implement SATIs in vulnerable communities.

A large part of Belize is less than 300 feet above sea level, and the average annual rainfall is 60 inches. In the north, in the communities on the Río Hondo

riverbanks, the people mark their calendars according to the height of the river. The communities that are the most sensitive to flooding are now operating a SATI.

In El Salvador, 52 communities are implementing a SATI in the lower part of the Río Grande watershed of San Miguel. The communities know their river and it is a life-giving source for them, but when it floods, it can bring death and destruction. It is essential for the communities to learn how rivers behave so they can foresee dangerous events





that can arise in a matter of hours. In Cocosica, for example, people have taken ownership of the SATI because they recognize the importance of forecasting for their community.

In Guatemala, communities located on the mid to lower areas of the Coyolate River Basin have been operating a SATI for more than a decade. In the community of El Naranjo, in Santa Lucía de Cotzumalguapa, individuals maintain ongoing communication with the municipality of Concepción Batres and with the communities downstream. Technical experts from the Executive Secretariat of the National Coordinating Office for Disaster Reduction in Guatemala created an innovative and affordable sensor that is activated by the river and sends information

about the water level to the operator's receiver. This experience is now being duplicated in other parts of Central America.

All the communities are becoming familiar with the color codes that indicate the level of alert for flooding. In Nicaragua, a SATI that benefits both urban and rural sectors of the municipality of Estelí is being implemented with a great deal of community participation in the Estelí River watershed. Certain people have been entrusted with going door to door to give warnings, a task they take on with great willingness.

In the Dominican Republic, organized communities are promoting a SATI in the watersheds of the Mahomita River and the Yaque del Sur River, which flood periodically affecting different communities.

Experience has shown that it is necessary to establish communication protocols and functional decision-making structures for times of flood emergencies. This means a clear distribution of respon-

sibilities—between local authorities who are responsible for making decisions about warnings, and central government authorities who observe and monitor low-pressure centers and analyze information—in order to provide local governments and communities with forecasts and other information.

Being ahead of the flooding is important and, for that, practical low-cost systems are needed. It is also important for benefiting community members to participate directly. By working together, they can ensure timely warnings and responses to prevent the loss of life and property.

### Exchanging Experiences on Educational and Cultural Best Practices

Hemispheric cooperation for integral development in the OAS begins with the premise that all states—regardless of their resources or geopolitical weight—have relevant experiences to share and exchange with their peers.

