

In 2010, the Latin American Observatory of Extraordinary Events (OLE2), following an event held in Quito, contacted RedCLARA and, after a while, acknowledged the Latin American advanced network as a fundamental partner. What is OLE2? How do they use their connection to RedCLARA and what do they use it for? What are extraordinary events? These are the topics covered in the following interview with Ángel G. Muñoz S., Coordinator of the Geosciences Hub at the Centre for Scientific Modelling (CMC) of the University of the Zulia, Venezuela.



OLE2 was created in 2008, although already in early 2007 you began with the efforts for its implementation. What was the original idea or the driving need behind the conception of an observatory of extraordinary events for our region?

We suggested the establishment of the Observatory with the purpose of offering official bodies tools with a sound scientific basis, favourable for decision-making and which could generate early alerts and strengthen risk management, all of this based on the surveillance of different environmental variables of the atmosphere and the ocean. To help those who actually make decisions and design plans or strategies for an environmental event which affects society, not only negatively, but also positively, in the sense that if reliable information about future temperatures or rainfall in a given sector is available, it could be possible to take economic advantage by conducting suitable production activities for these cases.

Something that we like a lot is the gradual incorporation of institutions like Civil Protection in Venezuela, which makes everyday use of our products in order to offer concrete responses to the population. It is an interdisciplinary job, which features a swarm of experts in various areas and every person does his/her job, thus offering a final product that it would not be possible to offer without this infrastructure which we have created together and which we call OLE2.

How would you explain somebody without any knowledge in your field what extraordinary events are?

We call an “extraordinary event” any phenomenon out of the ordinary, since the ‘ordinary’ is the “normal” behaviour of the variables we study. In this sense, the Latin American Observatory has to do, in principle, with any event – climatic, meteorological, hydrological, ecological, seismic- which is out of the ordinary. However, we do not only address extreme events, as it is generally understood, but the whole spectrum.

What is the importance of observing the so-called extraordinary events?

If we maintain a permanent surveillance of certain key variables, it is possible to offer some tools which make it possible to establish early alerts and policies which help protect lives, infrastructure and even the population's psychological integrity. To receive reliable information on extraordinary events from a scientific perspective is important for the agencies in charge of civil protection, in order to make appropriate decisions, avoid tragedies and even, in some cases, to economically take advantage of the opportunities available. The keystone of OLE2 is its constant work; building on this we get to know the weather's behaviour and the risk culture can be promoted among citizens.

How do extraordinary events affect life in Latin America?

With more than 577 million inhabitants, Latin America is highly susceptible to environmental phenomena. Regardless of religion, social class or race, we are all subject to a greater or lesser degree to the weather, for example when we get dressed, eat or move from one place to another. This is sometimes so subtle and obvious that we don't notice its importance. At other times, generally more disastrous ones, Nature reminds us about its permanent influence on our lives through landslides, droughts, floods, hurricanes and earthquakes.

How is OLE2 making use of the connection of the countries involved in the advanced network RedCLARA?

The Observatory makes intensive use of the infrastructures provided by the NRENs in each country in order to be able to communicate instrumental observations, modelling results and to discuss strategies, methodologies and products. From the sharing of data to the actual implementation of models making use of Grid technologies, the Observatory benefits on a daily basis from RedCLARA's advanced network.

Could or can OLE2 operate –and be effective- through commercial internet?

This is not the ideal thing. In some cases, as in Bolivia, we still have problems to fully incorporate them into the whole infrastructure offered by the Observatory in computing terms thanks to RedCLARA, but we have managed to get them to take advantage of our resources through other media which are not as efficient. In our field of work, the speed with which we communicate early alerts and data makes the difference between saving and not saving lives. This is why it is so important to have RedCLARA's support in this regard.

How important is RedCLARA for the development of the activities involved in OLE2?

Our work would not be as efficiently carried out without RedCLARA. The Observatory's key success factor, regardless of the sciences it involves, lies in the institutional and human resource interconnections we have created in these five years. This is priceless and unprecedented at a similar scale in the region. This collaboration network is possible thanks to your infrastructure, and it is the most important asset that we have.

Furthermore, being able to receive almost instantaneously the daily data from the different member Meteorological Services and the daily output of the models carried out throughout Latin America, enable our work to be really effective and allow us to help each other regardless of the physical distances between us.

Why is it important to maintain the continuity of OLE2?

Because it is not the same to study the weather in isolation in each country as studying it systematically and collaboratively, especially considering the lack of computing, instrumental and human resources in the Latin American region. The characteristics of this region are largely similar, this is why we must stay together in order to support each other in our knowledge, taking advantage of the chances offered by information and communication technologies. Staying touch and learning about the reality of extreme events registered in member countries and their possible impact on the others feed our database, our experience and capacity for action in the face of these phenomena.

Should the governments in the region support the work of OLE2? Why?

Of course they should. Our work is oriented so that they implement the appropriate measures which benefit the entire population. Our weather forecasts offer rainfall and temperature tendencies for the next 72 hours, as well as seasonal weather forecasts (3-4 months), flood and fire rates, experimental forecasts of dengue and malaria occurrence, and forecast of extreme events. The Observatory provides the data and their corresponding analysis, carried out by local experts (e.g. the National Meteorological Services in each country). It remains the duty of governments to establish appropriate actions in the face of possible scenarios.

Learn more about OLE2 at:

- OLE2's Wiki: <http://www.cmc.org.ve/mediawiki/index.php?title=Portada>
- Portal OLE2's Portal: <http://www.cmc.org.ve/ole2/index.php>