Virtual Disaster Viewer aids Haiti relief effort

January 27 2010

An innovative web tool that allows earthquake experts worldwide to pool knowledge quickly and effectively is boosting action to help Haiti's earthquake victims.

The Virtual Disaster Viewer (VDV) is being used by relief agencies operating in Haiti to target emergency food and medical supplies, prioritise repairs to infrastructure to allow aid to reach where it's most needed, and to plan reconstruction and recovery.

VDV is the first web portal of its kind, representing a new type of Community Remote Sensing tool that operates in a similar way to social networking sites. Its development was supported by funding from the Engineering and Physical Sciences Research Council (EPSRC).

Hundreds of earthquake scientists and engineers have been working with the VDV to access high-resolution 'before and after' satellite and aerial photos of the disaster zone. These specialists are part of the newly created Global Earth Observation Catastrophe Assessment Network (GEO-CAN).

Each expert is assigned a number of kilometre grids for damage assessment, with an area of over 300 square kilometres covered in all. The satellite and aerial photos show details down to the level of individual buildings, cars, vegetation and even folds in tents in temporary encampments. The experts then submit detailed assessments about the type and extent of damage caused to buildings, roads, bridges and other

key infrastructure, and of where refugees are congregating.

The VDV collates this information and builds up a master map of the damage and dislocation caused across the whole disaster zone. It can also integrate aerial intelligence with detailed ground-based photos as it allows field reconnaissance teams to upload photos in real-time. The data can be accessed through any Internet-connected device.

Dr Tiziana Rossetto, leader of the Earthquake People and Interaction Centre (EPICentre) at University College London, and part of the VDV development team, says: "This is an excellent example of how research can be developed into an end-product capable of delivering tangible humanitarian benefits in a real-life crisis of shocking proportions."

This use of the VDV is being funded by the World Bank and co-ordinated by ImageCat, a US and UK-based R&D company providing advanced technologies for risk and disaster management.

Dr Beverley Adams, ImageCat's UK Director, says: "The VDV enables rapid mobilisation of leading-edge global expertise for rapid and detailed interpretation of earthquake damage. For relief agencies dealing with an appalling tragedy like the Haiti earthquake, speed is of the essence. Working with the World Bank, we're confident that the VDV is making a real difference in helping to bring desperately needed aid to Haiti's shattered community."

More information: The VDV is also suitable for use in disaster situations such as hurricanes, tsunamis and floods. All information collated can be publicly viewed at: www.virtualdisasterviewer.com.

Provided by Engineering and Physical Sciences Research Council