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Spatial Data Infrastructures**

**The Central American Probabilistic Risk Assessment (CAPRA) a
Regional SDI for Disaster Risk Reduction***

* Prepared by Stuart Gill (World Bank), Francis Ghesquiere (World Bank), Edward Anderson (World Bank), Chris Holmes (OpenGeo)

Abstract

Title: The Central American Probabilistic Risk Assessment (CAPRA) a regional SDI for disaster risk reduction

Stuart Gill¹, Francis Ghesquiere², Edward Anderson¹, Chris Holmes³

Disaster Risk Management Consultant, World Bank, 1818 H St. NW, Washington DC, USA,
sgill@worldbank.org, eanderson1@worldbank.org
Lead Urban Specialist, World Bank, 1818 H St. NW, Washington DC, USA, fghesquiere@worldbank.org
President, OpenGeo, 349 West 12th Street, New York NY, USA, cholmes@opengeo.org

Session: Spatial Data Infrastructure (SDI) as a regional public good

The Central American Probabilistic Risk Assessment (CAPRA) is an ongoing initiative that seeks to enhance disaster risk understanding in the region. It provides a Geographic Information System (GIS)-based platform for risk analysis resulting from earthquakes, cyclones, floods, landslides, tsunami and volcanic eruptions. CAPRA applies the principles of probabilistic analysis to evaluate magnitude and likelihood of occurrence of these hazards at each point of the national territory. This information is applied to the exposure of assets and their vulnerability to calculate expected losses. A comprehensive measure of risk is developed by incorporating information for socio-economic indicators of vulnerability and disaster deficit. A central CAPRA product is an online community based SDI for disaster risk reduction at the regional level. This platform provides disaster risk specialists and policy-makers with the necessary information to manage future disaster risk. One of the central challenges for the CAPRA initiative, and many similar efforts in risk assessment, is the availability and collection of information about assets exposed. This presentation will discuss the various roles SDI plays in the reduction of Disaster Risk. From modeling the physical hazard, to providing a context for collecting asset information such as building stock, to communicating risk and providing an intuitive context for informing decision making in risk reduction. As such this presentation will emphasize the necessity to evolve from a static notion of SDI as repository of data, to a more dynamic one of repository of data & tools.

Keywords: Probabilistic Risk Assessment, Spatial Data Infrastructure, Asset database, Exposure, Vulnerability, Remote Sensing.