## Linking International Development Actors to Geophysical Infrastructure: Exploring an IRIS Community Role in Bridging a Communications Gap

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Over the past quarter century, national investments in high-fidelity digital seismograph networks have resulted in a global infrastructure for real-time in situ earthquake monitoring. Many network operators adhere to community-developed standards, with the result that there are few technical impediments to data sharing and real-time information exchange. Two unanswered questions, however, are whether the existing models of international collaboration will ensure the stability and sustainability of global earthquake monitoring, and whether the participating institutions can work with international development agencies and non-governmental organizations in meeting linked development and natural hazard risk reduction goals. Since the 2004 Indian Ocean tsunami, many of these actors are enlarging their commitments to natural hazard risk reduction and building national technical capacities, among broader programs in poverty alleviation and adaptation to environmental stress. Despite this renewed commitment, international development organizations, with notable exceptions, have been relatively passive in discussions of how the existing earthquake monitoring infrastructure could be leveraged to support risk-reduction programs and meet sustainable development goals. At the same time, the international seismological community - comprising universities and government seismological surveys has built research and education initiatives such as EarthScope, AfricaArray, and similar programs in China, Europe and South America, that use innovative instrumentation technologies and deployment strategies to enable new science and applications, and promote education and training in critical sectors. Can these developments be combined?

Recognizing this communication or knowledge gap, the IRIS International Working Group (IWG) explores the link between the activities of IRIS Members using IRIS facilities and the missions of international development agencies, such as US AID, the World Bank, other international development banks, and agencies of the United Nations. Interests of US seismologists are served by encouraging development of modern seismographic systems in countries around the world to collect data that are useful in research as well as hazard mitigation and other national interests. Activities of the IWG to date include communicating the benefits of geophysical infrastructure and training to disaster risk reduction programs within the United Nations and development banks, coordinating an initiative to leverage retired PASSCAL data loggers through long-term loans to network operators in foreign countries, preparing a white paper outlining IRIS capabilities relevant to international development, and conducting a workshop, "Out of Africa", on modernizing geophysical infrastructure in the Americas and Southeast Asia through projects that are closely tied to university education and academic research.