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# Group on Earth Observations (GEO) Global Flood Risk Monitoring (GFRM) Community Activity

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The Group on Earth Observations (GEO) Global Flood Risk Monitoring (GFRM) Community Activity supports and integrates efforts that leverage Earth observations to improve the ability to assess flood risk on a global scale and translate risk information to impacts at the community, national and regional level by supporting risk-informed decision making. Understanding and reducing flood risk is a complex task that can benefit from the unique perspectives offered by Earth observations that shed light on not only individual global processes that contribute to flood risk, but their interactions. Action informed by Earth observations to reduce flood risk can only be taken if credible data can be provided to decision makers, allowing them to correctly assess relevant risk and make subsequently informed decisions. These data must be easily available, understandable and most importantly free.

Flood risk does not recognize traditional boundaries and is too large an issue for any single agency or country; therefore international partnerships are key. Earth observations can assist countries and the international community in monitoring national implementation of agreements such as the Sendai Framework, the United Nations Sustainable Development Goals and the Paris Agreement in a coherent manner. This Community Activity seeks to advocate the importance of Earth observations to flood risk reduction through strategic engagement with stakeholder communities that can provide open data and methodologies, and deliver this information to decision makers who can put them into practice, through the organizational means for collaboration provided by GEO.

GFRM Community Activity Project Example:

Towards a Global Flood and Flash Flood Early Warning Early Action System Driven by NASA Earth Observations and Hydrologic Models:

Floods are one of the most deadly natural disasters, killing millions and displacing many more. But not all floods are the same. Flood research, forecasting and response often concentrates on large-scale river floods at the expense of faster and often deadlier flash flood events. In this project, we take a 4 step approach, centered around decision making related to flash flood risk: Collating observations of flash flood impact, improving flash flood forecast models, tailoring action to forecast thresholds and increased situational awareness.