

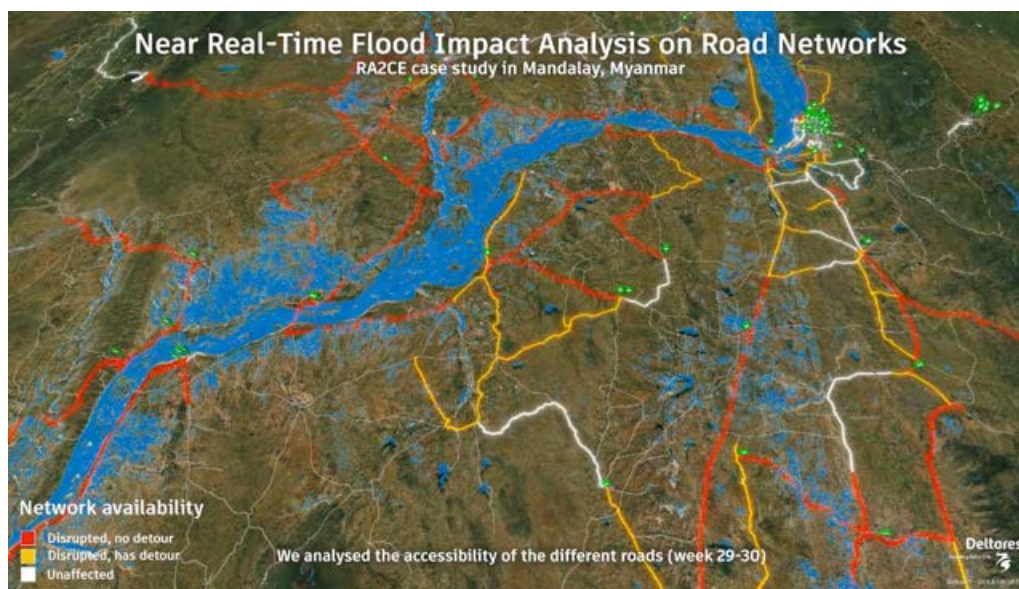
RA2CE

RA2CE - **R**esilience **A**ssessment and **A**daptation for **C**ritical infrastructure **E** helps to quantify resilience of critical infrastructure networks, prioritize interventions and adaptation measures and select the most appropriate action perspective to increase resilience considering future conditions.

The platform supports governments, intergovernmental agencies, IFIs and infrastructure owners to gain insight in long-term cost-beneficial investment strategies with the goal to make their infrastructure network resilient to natural and man-made hazards. RA2CE is globally applicable and has been applied for resilient investment planning in several settings such as the Netherlands, Philippines, Myanmar, Dominican Republic and Albania.



Map with locations where RA2CE has been applied.



Application of RA2CE for near real time impact assessments during floods in Myanmar

Risk prioritization for slides of the embankment on the Dutch highway network based on annual expected operator costs and societal losses.



Development of Climate Resilient Transport Infrastructure in the Dominican Republic, 2019-2021

Client: Inter-American Development Bank

The road network of the Dominican Republic fulfills a central function in the connectivity of the country and decreased performance or failure have serious impacts to the socioeconomic activity of provinces and municipalities. With RA2CE long-term cost-beneficial investments on adaptation could be made, which the government will use for improved efficiency of public spending. This will result in a more climate resilient transportation network.

Near Real Time Flood and Impact assessment in Myanmar, 2020

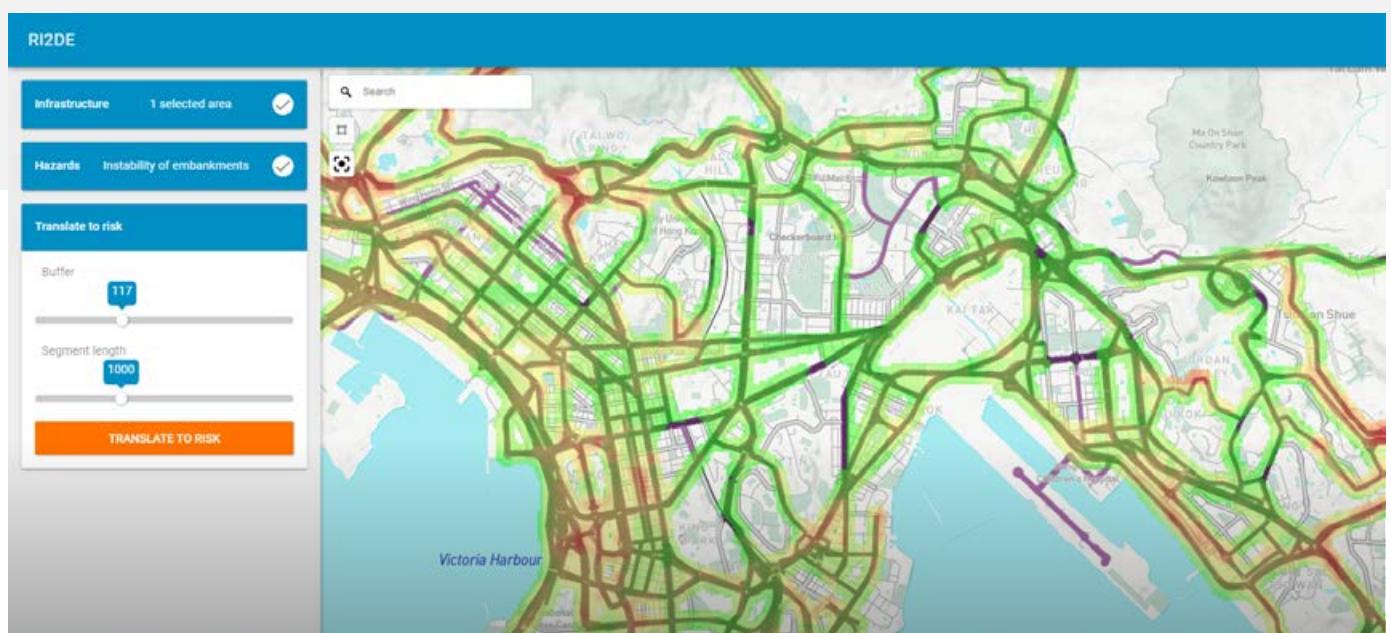
Client: Self-funded

After a natural hazard event, detailed information about the potential impact is crucial for emergency management. The Mandalay region in central Myanmar was severely affected by flooding after heavy monsoon rains during July and August 2019, resulting in large scale evacuations and limited access to health care. During these events, the main transportation network is one of the most crucial parts of emergency response, as it is used for 1) the delivery of goods, 2) evacuation and 3) deployment of emergency hospitals. RA2CE supports a faster emergency response with better informed results on impact on society due to disruption of the road network and describing access to health care and evacuation routes.



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Risk Identification in Data-Scarce Environments



Deltares is an independent institute for applied research in the field of water, subsurface and infrastructure. Throughout the world, we work on smart solutions, innovations and applications for people, environment and society. Deltares is based in Delft and Utrecht.

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