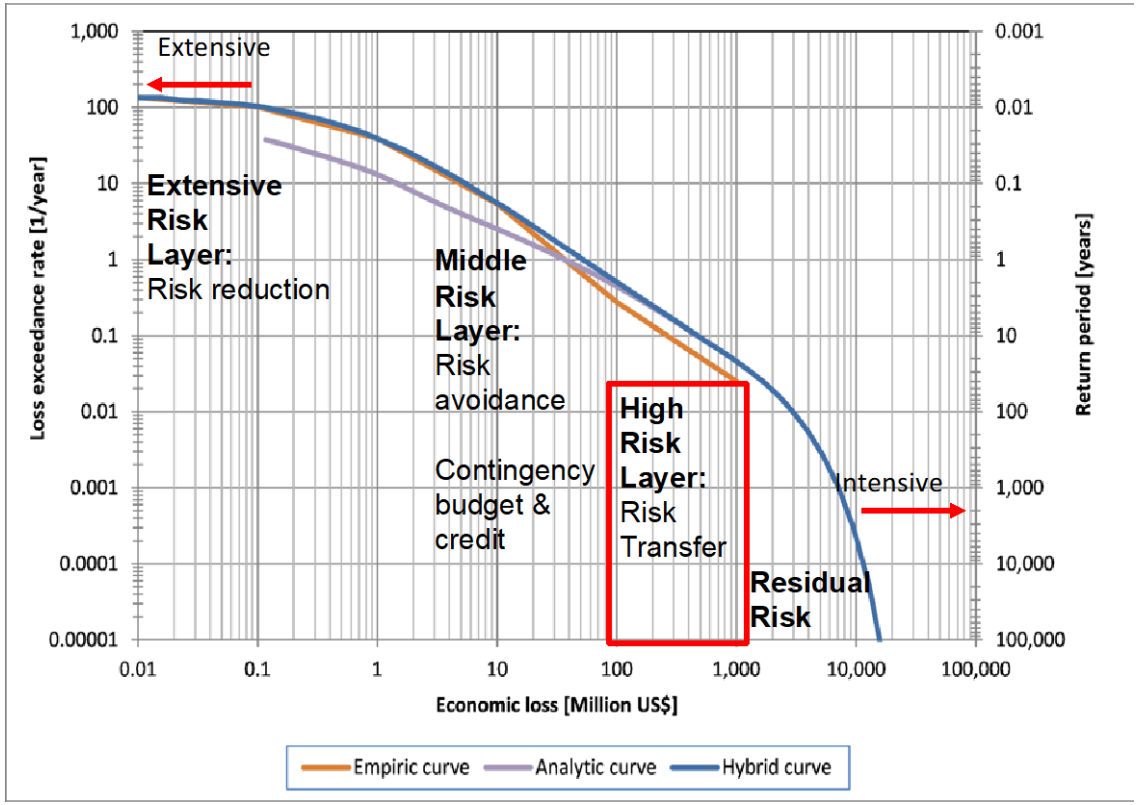
Emerging Tools for Climate Smart Decision making

- Augment our capacity to respond to challenges posed by climate
- Increase Resilience to climate extremes
- Risk transfer tools can be part of the solution

Measuring Risk



Emerging Tools for Climate Smart Decision making

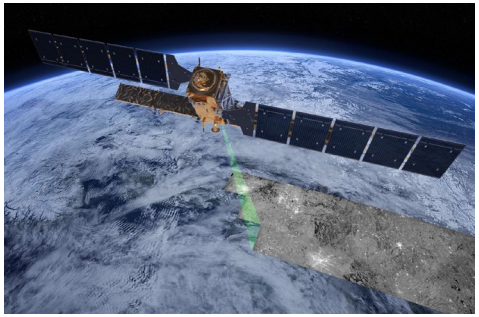
Changing the approach of EO data

- From expensive to Free
- From Reactive to Systematic
- Easy to access processing power
- Automation & Transparency in the data/algorithms
- From Single-satellites to Multi-satellite

Enablers for the use of EO data in DRF applications

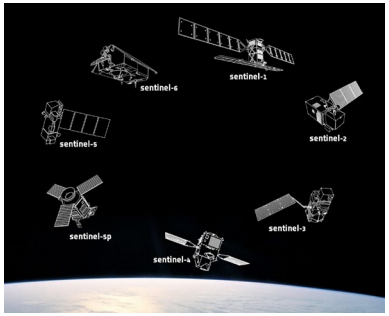
Open Access

Systematic



Computing Power

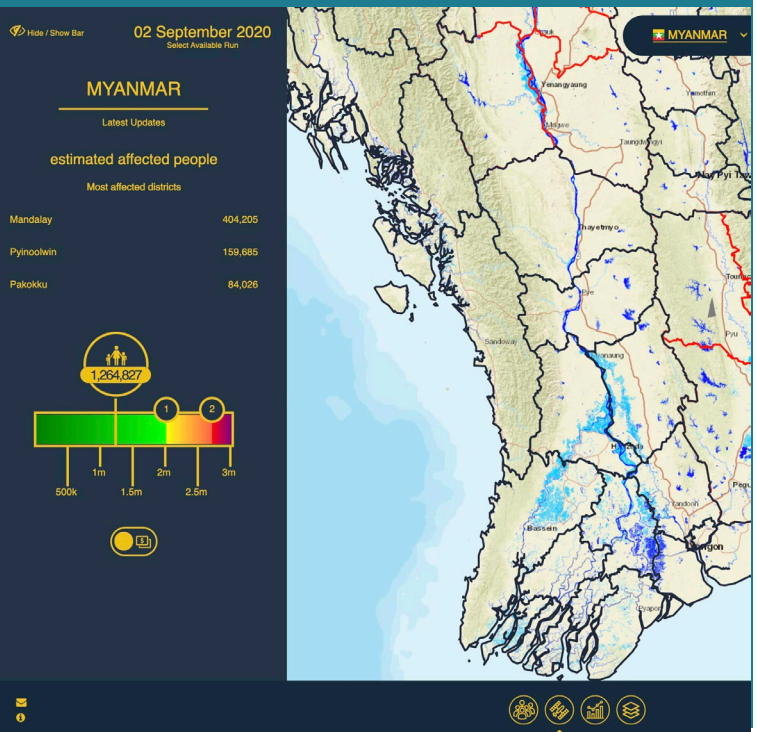
Automation

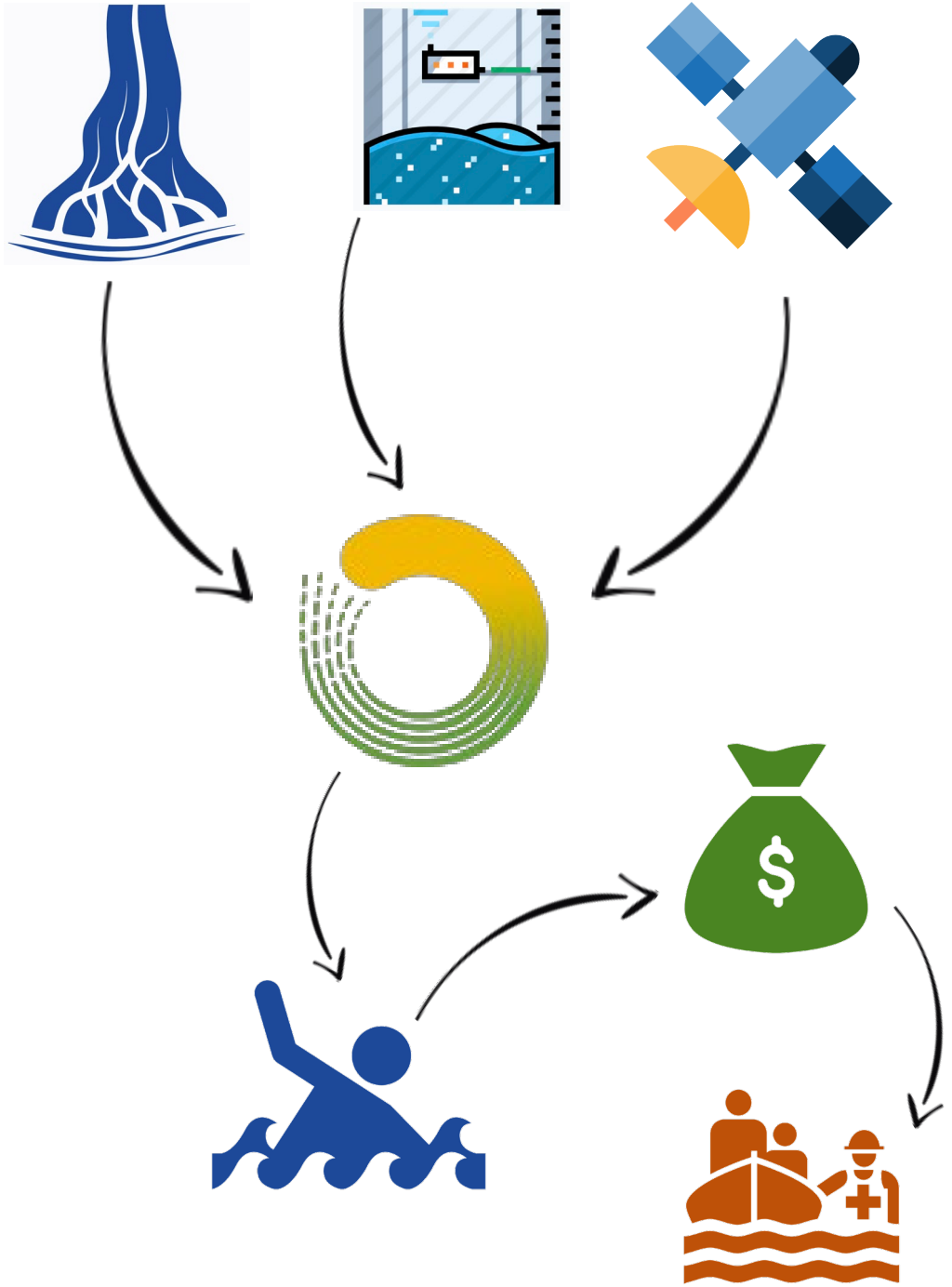


Multilpe constellations

Emerging Tools for Climate Smart Decision making

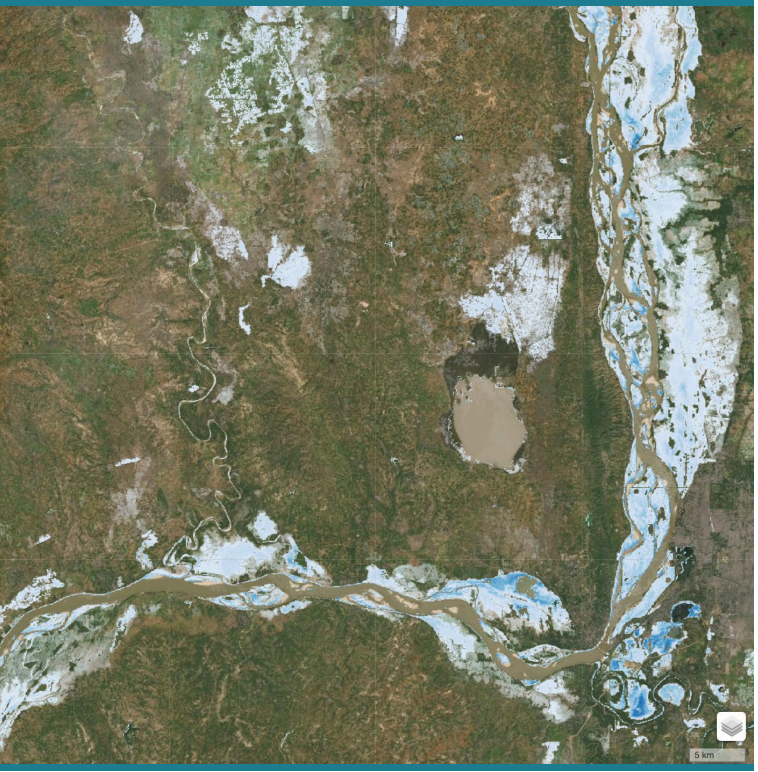
Explore the potential of **combining classical catastrophe modelling, in situ observations and EO data** for a Parametric insurance application

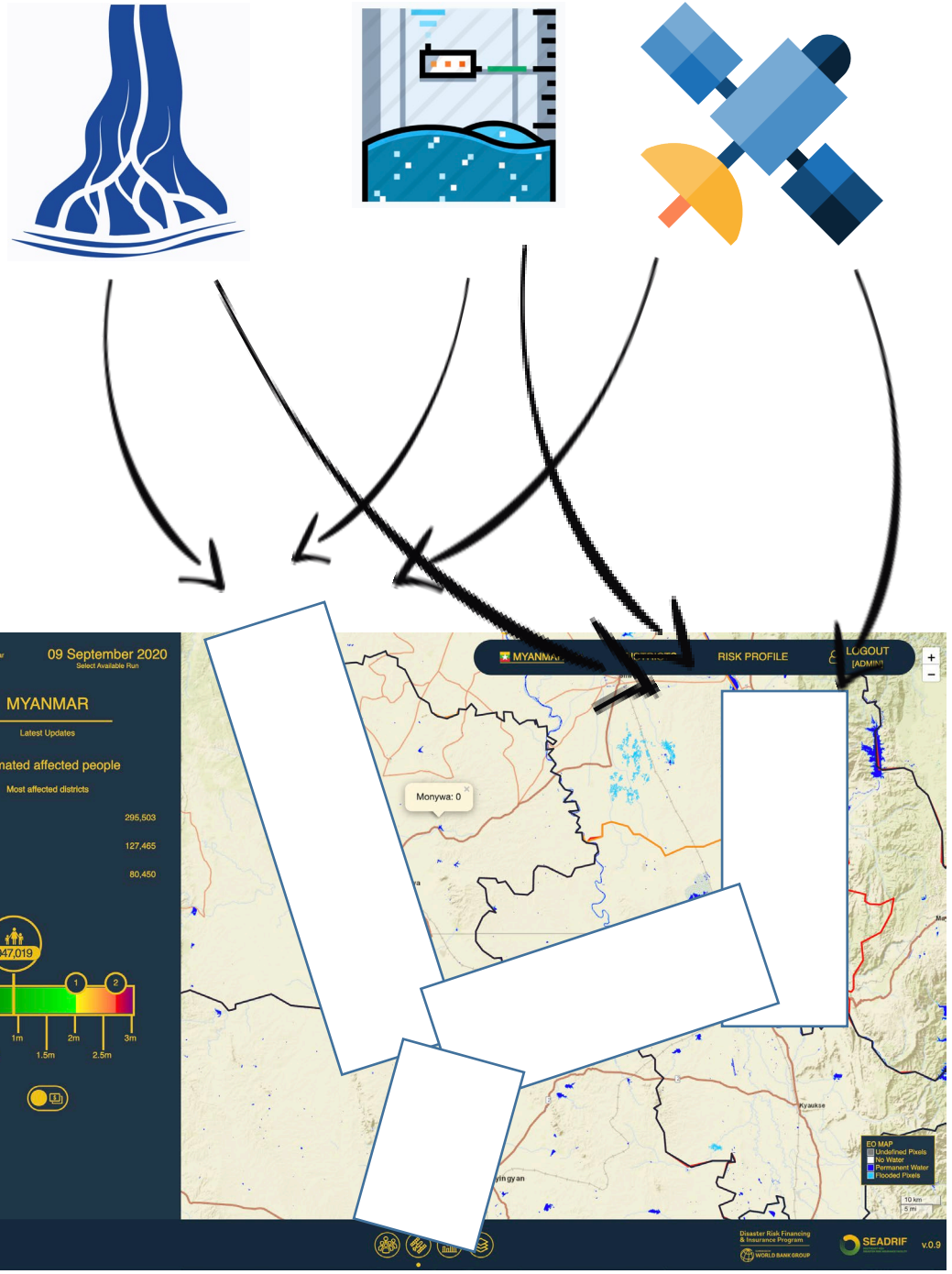




The final Application

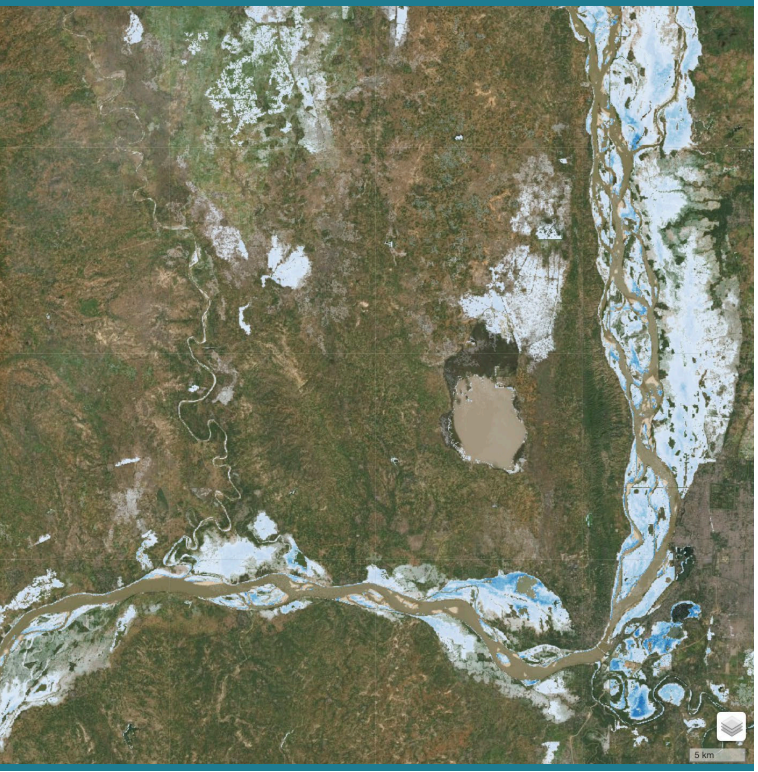
A seamless combination of in-situ data, Eo data and models to produce the most realistic scenario.



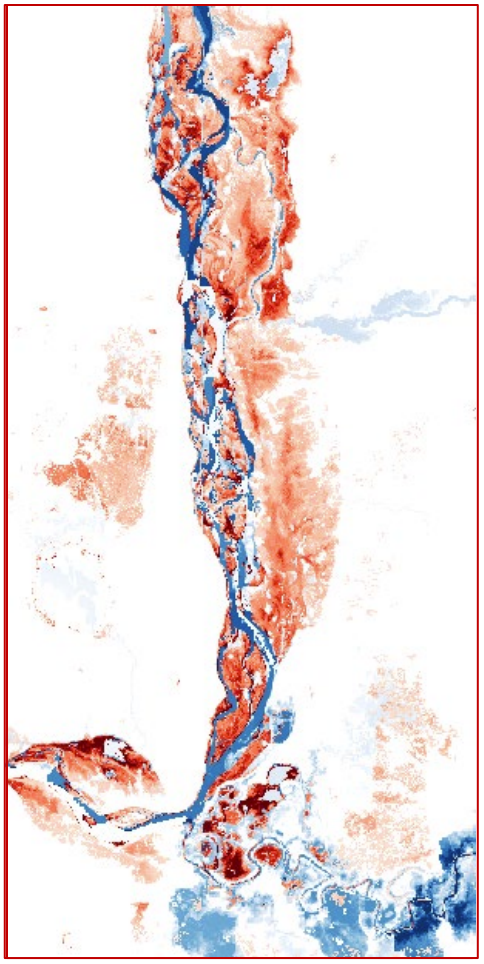


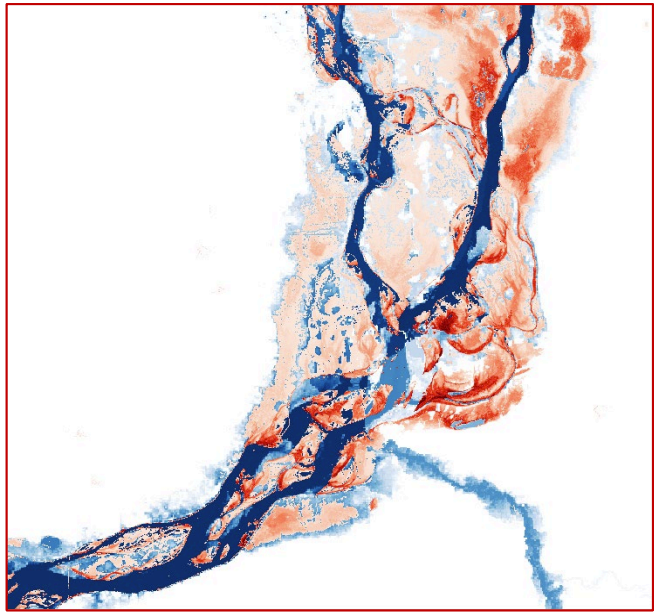
A Unique EO Asset

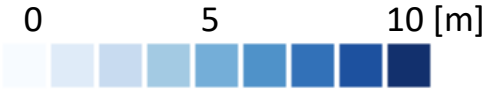
Automation of the Flood Delineation maps production enabled both NRT Flood maps production on vast AOIs (continuously Updated9 and full flood Archives production.



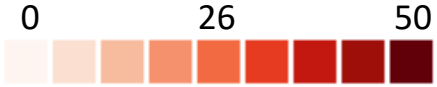
Validation of the Flood Models







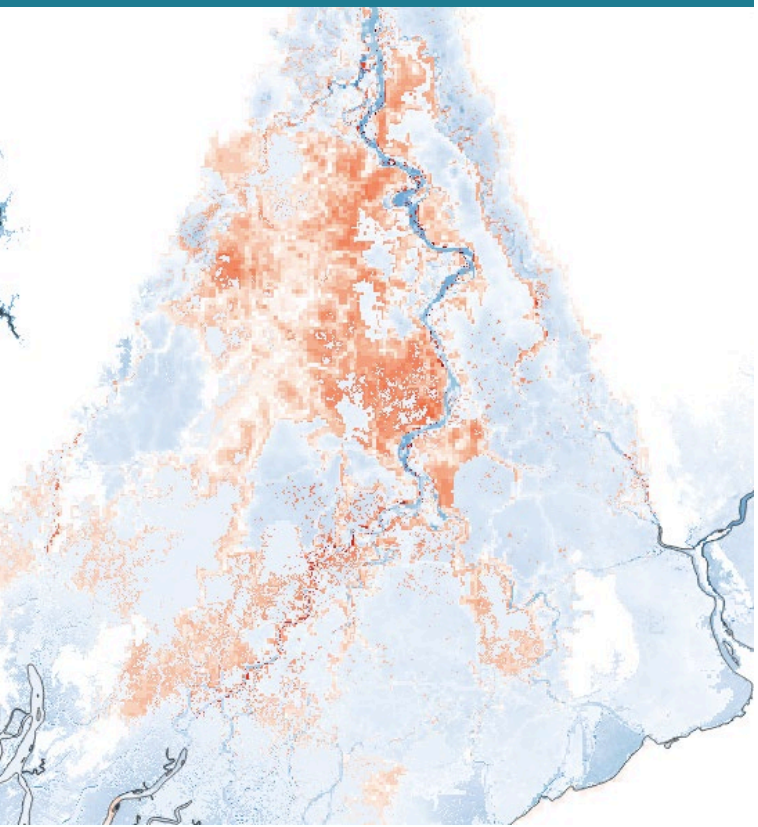
--> Modeled Hazard Map



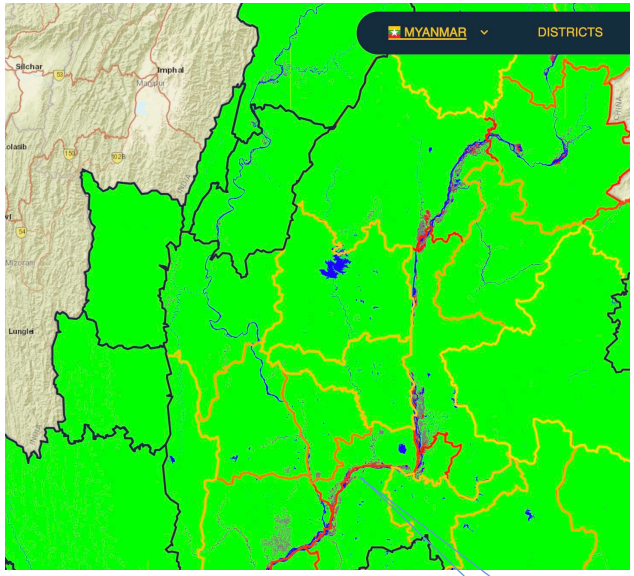
--> S1 Flood Frequency Map

A Unique EO Asset

Automation of the Flood Delineation maps production enabled both NRT Flood maps production on vast AOIs (continuously Updated9 and full flood Archives production.

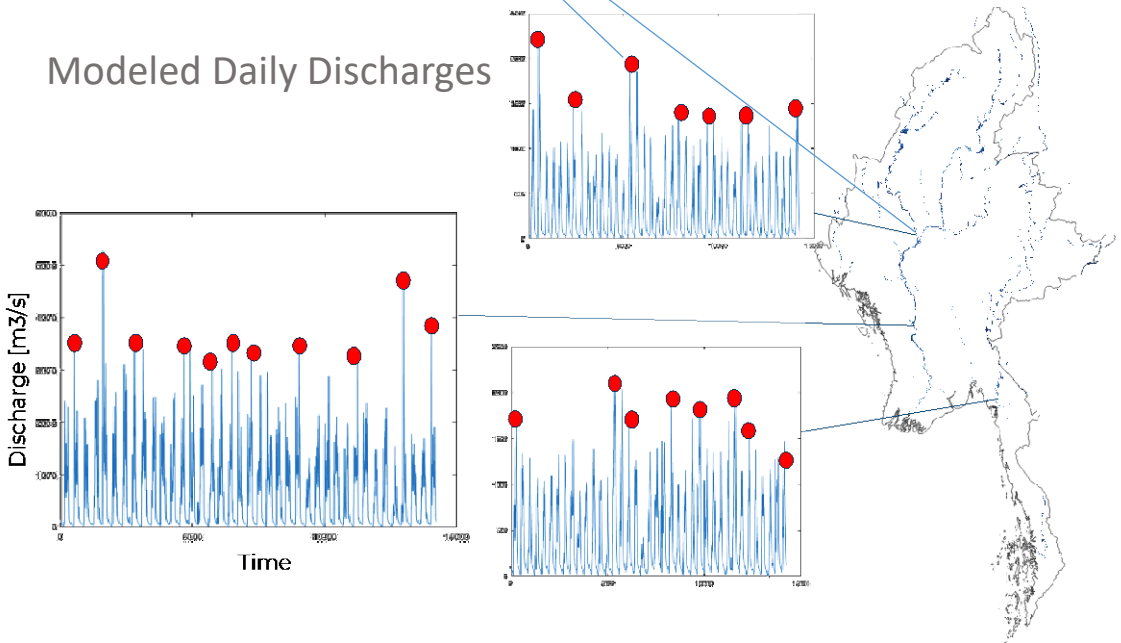


Scenarios spatial pattern derivation



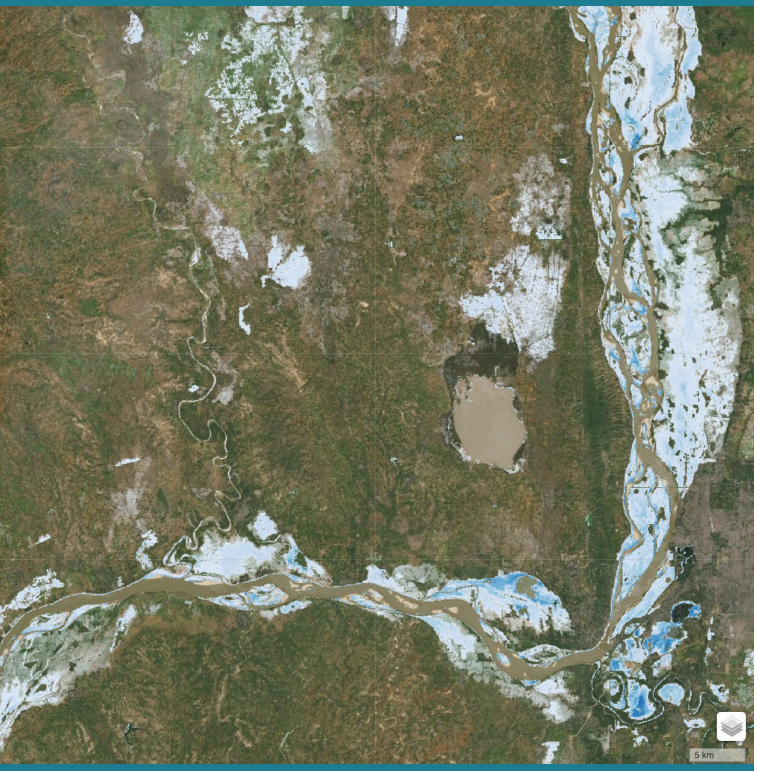
S1 Archive

Modeled Daily Discharges

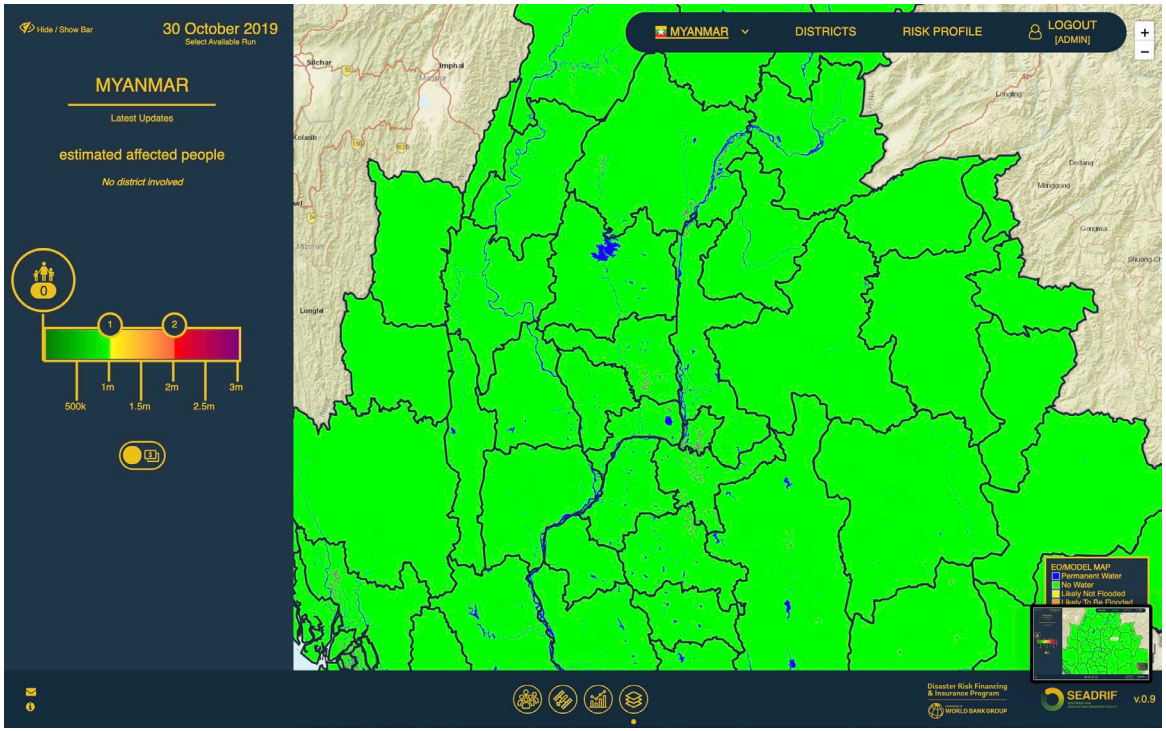


The pre-Operations

The system has run in pre-Operation mode for the 2019 and 2020 monsoon season delivering on a daily basis the estimates of affected people in Myanmar, Laos and Cambodia.



Example of the monsoon season 2019 continuous monitoring



OPERATIONS

The service is in its 2nd year of operations in Laos PDR

SEADRIF
SOUTHEAST ASIA DISASTER RISK INSURANCE FACILITY

The Team:

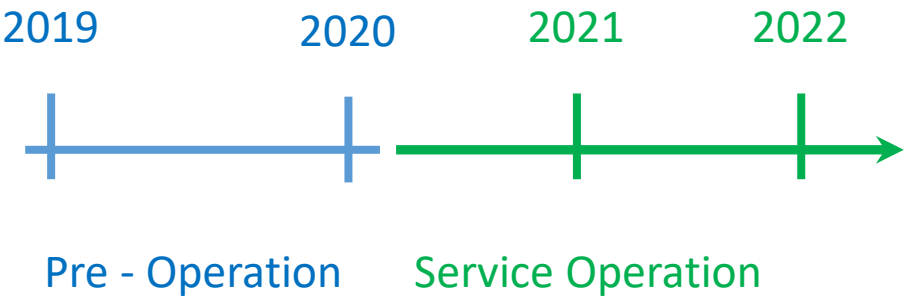
JBA consulting

cima RESEARCH FOUNDATION

Deltares
Enabling Delta Life

WASI CORP

LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY | LIST



FURTHER DEVELOPMENTS

The service is continuously evolving following both operational improvements and applied research

SEADRIF
SOUTHEAST ASIA DISASTER RISK INSURANCE FACILITY

Applied Research	Operations
SAR bare soil	Model based
SAR + Optical	Hybrid **Model** - EO
SAR Bare soil + **SAR Urban** + **Optical** + **Model**	Hybrid Model - **EO**

In collaboration with **WB DRFI** and **ADB**