



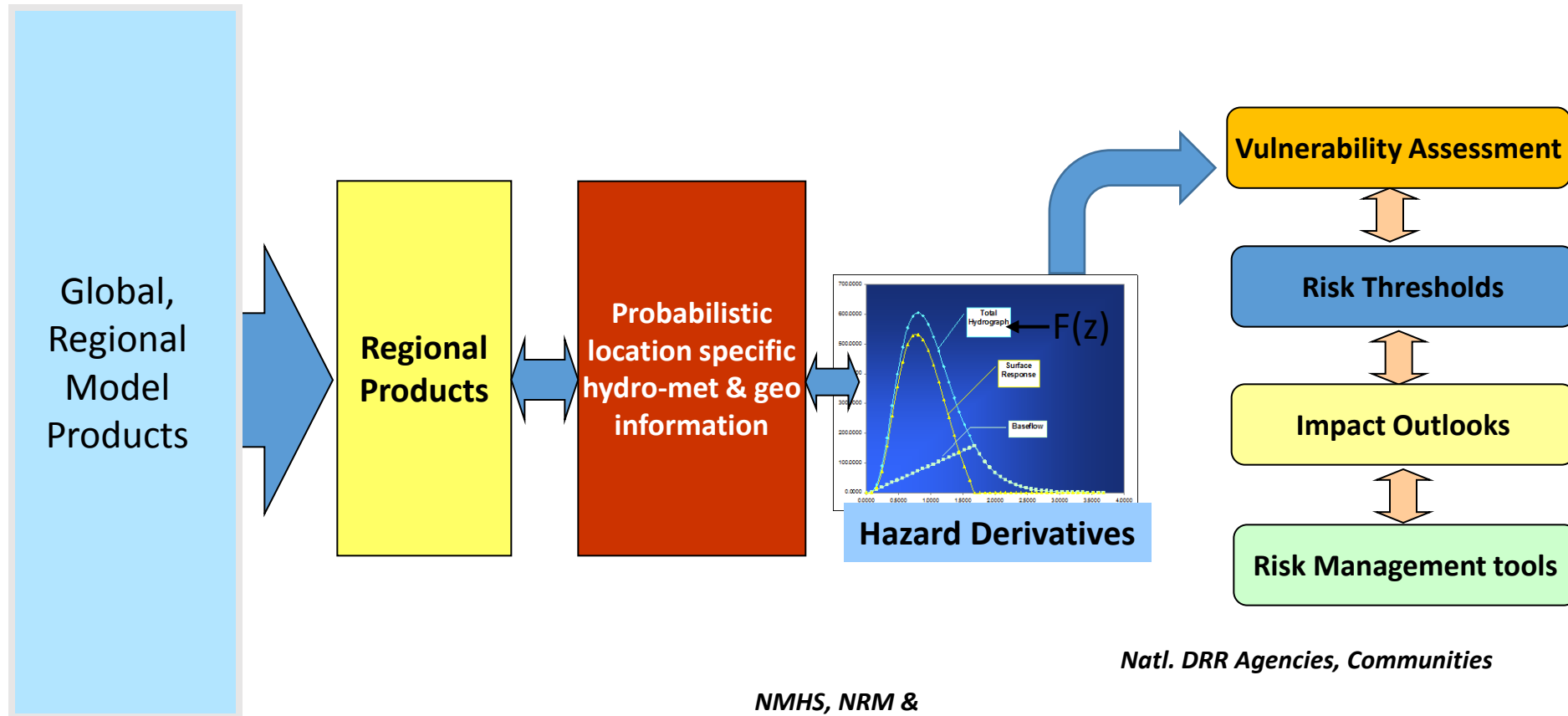
Flagship Projects

Bapon Fakhruddin

16th Science Committee Meeting, Sanya, China

29-30 November 2016

Connecting Science, Institutions and Society for an Integrated DRR

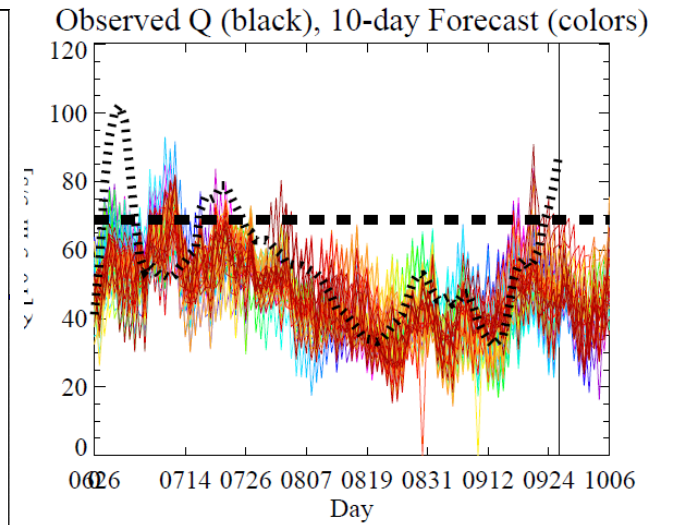
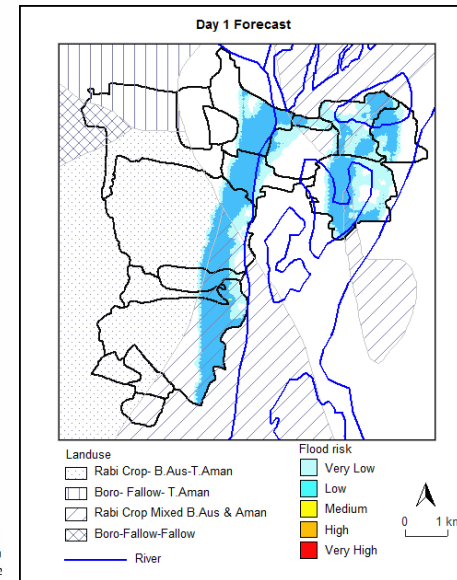
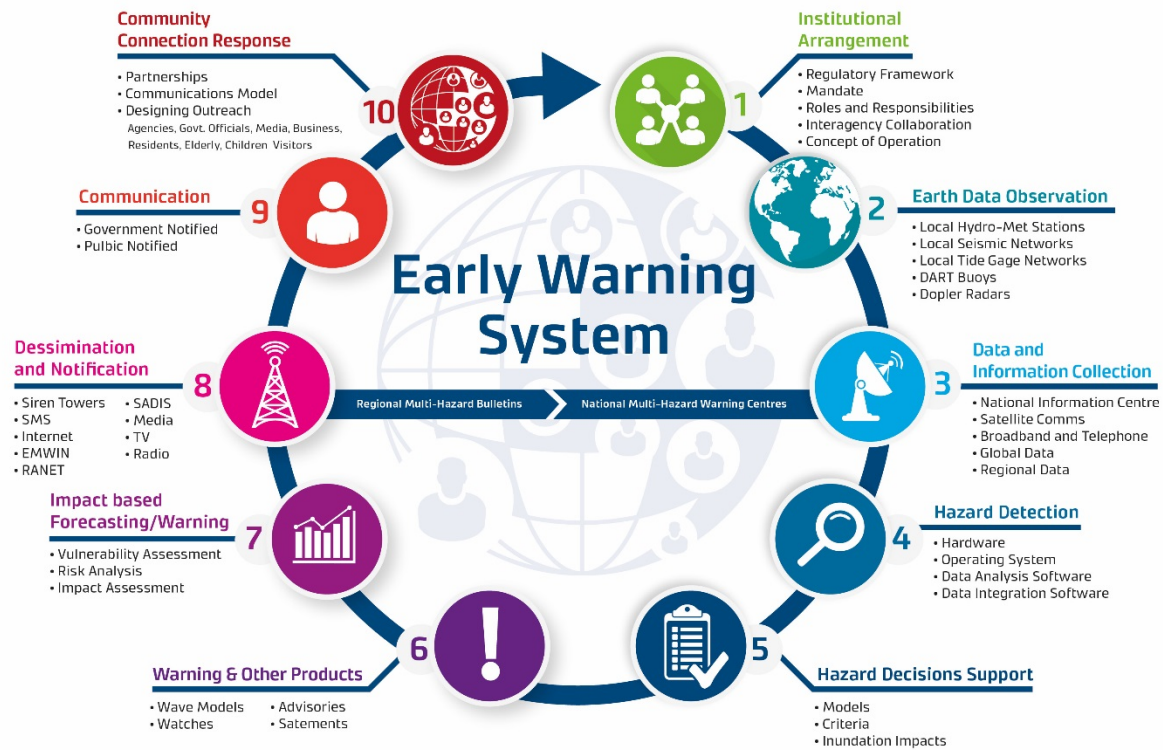


WMO, ECMWF, NCEP, CMA

NMHS, NRM &
other Nat.Depts

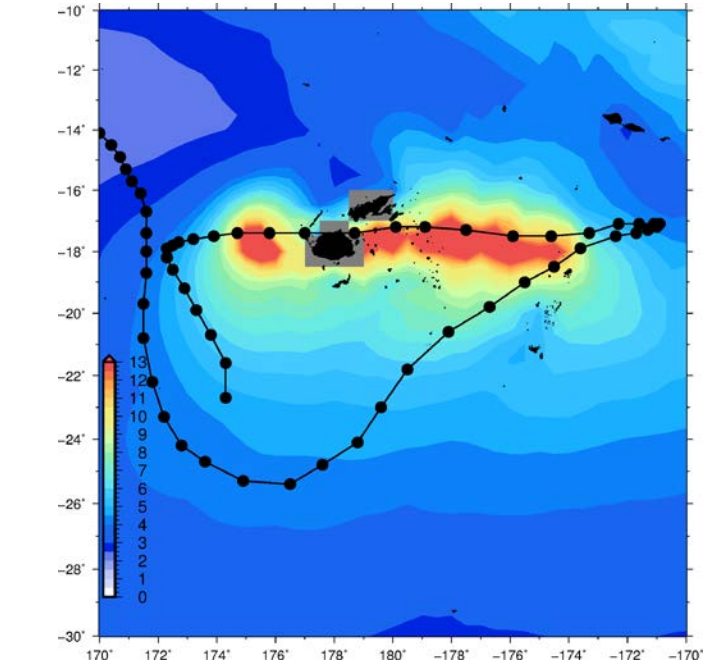
Natl. DRR Agencies, Communities

End-to-End Impact Based Early Warning System

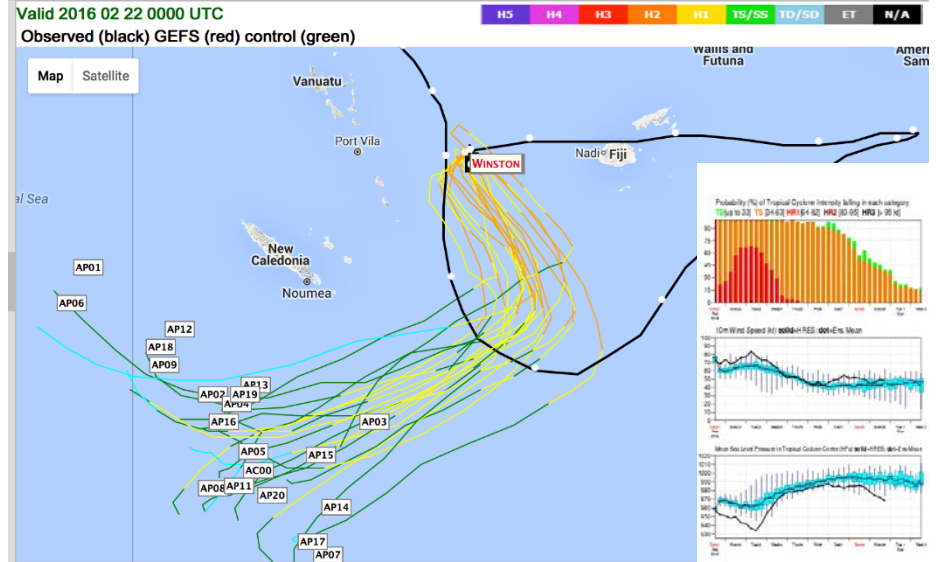
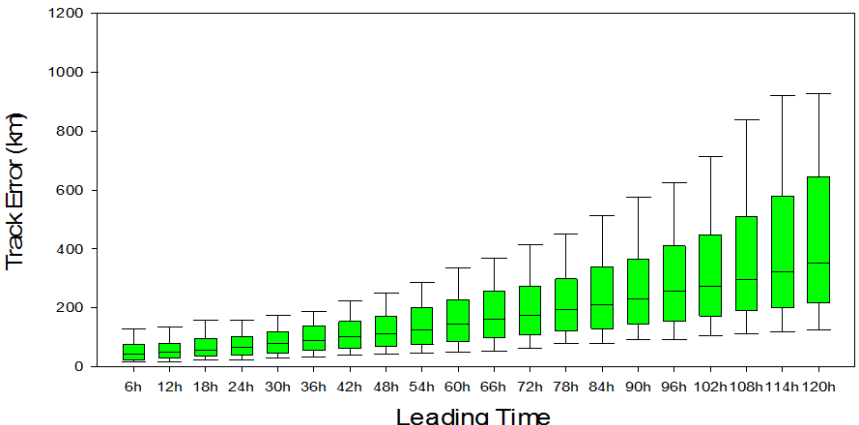


Disasters	Crop	Stages	Season / month	Impacts	Time of flood forecast	Alternative management plan
Early flood	T. Aman	Seeding and Vegetative stage	Kharif II Jun - Jul	Damage seedlings Damage early planted T. Aman Delay planting Soil erosion	Early June	Delayed seedling raising, Gapfilling, skipping
	T. Aus	Harvesting	Kharif I Jun - Jul	Damage to the matured crop	Early June	Advance harvest
	Jute	Near maturity	June - July	Yield loss Poor quality	May end	Early harvest
	S. Vegetables	Harvesting	June - July	Damage yield loss Poor quality	Mar - Apr	Pot culture (homestead) Use resistant variety
High flood	T. Aman	Tillering	Kharif - II July - Aug	Total crop damage	Early June	Late varieties Direct seeding Late planting

End-to-End Impact Based Early Warning System

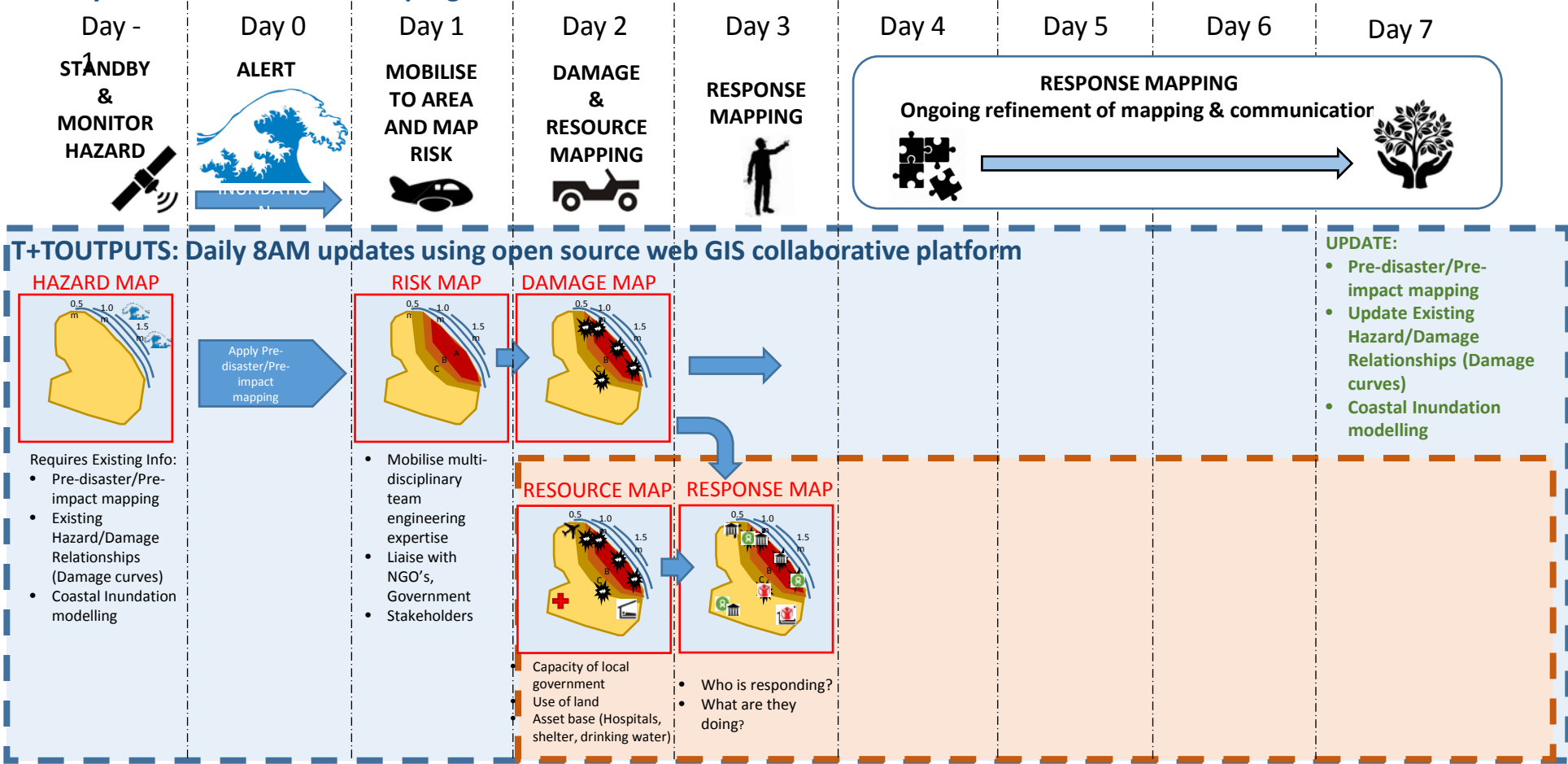


- ENSEMBLE MODEL TRACKS: #Memb**
- 00Z and every 6 hours
 - 00Z and 12Z, only
- GEFS #20
 - GFDL #10
 - UKMO #23
 - ECMWF #50
 - CMC #20
 - FIM #10 [June-Nov]
- 'ADECK' USA, ONLY (slow to load):**
- Late-cycle guidance #10+/-
 - Early-cycle guidance #20+/-
- SINGLE MODEL TRACK OPTIONS**
- EXPERIMENTAL:**
- FIM9 15km
 - FIM8 30km
 - FIM7 60km
 - FIM Chem 60km
- OPERATIONAL:**
- GFS
 - ECMWF

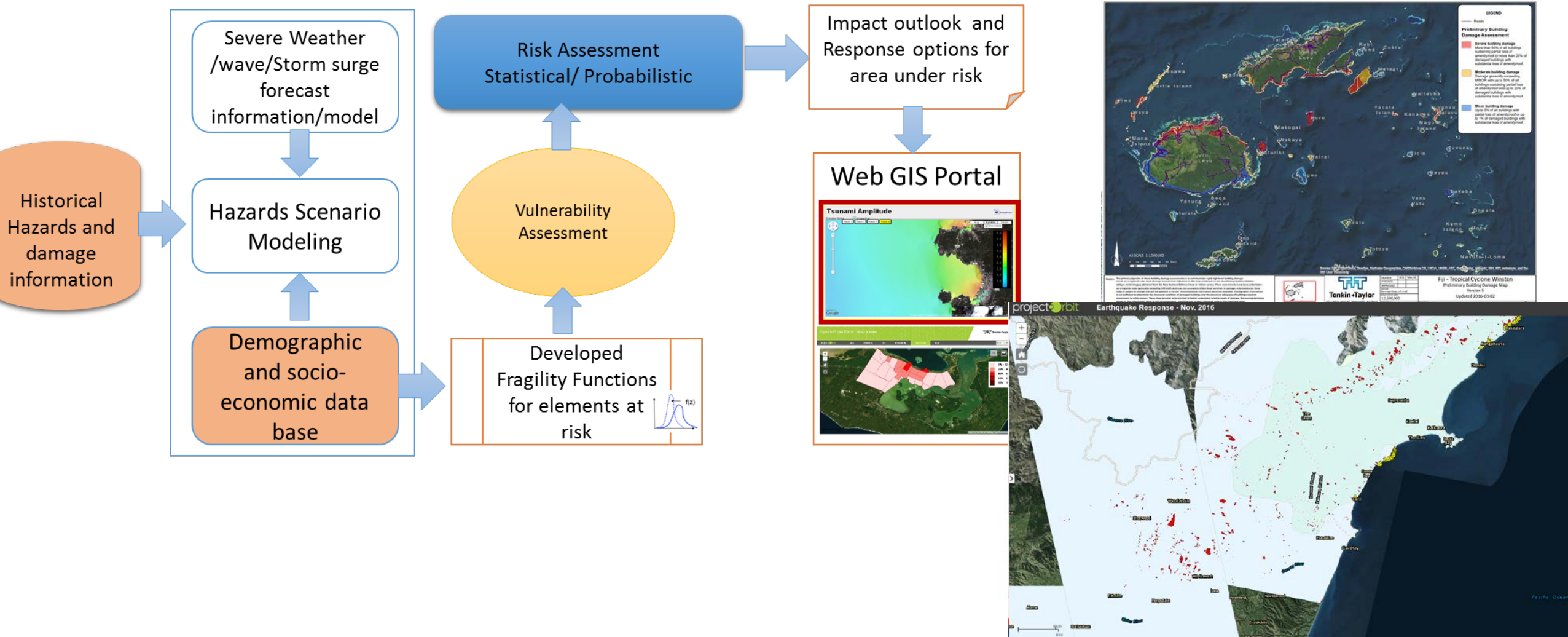


Integrated Pre and Post Damage Mapping System for DRR

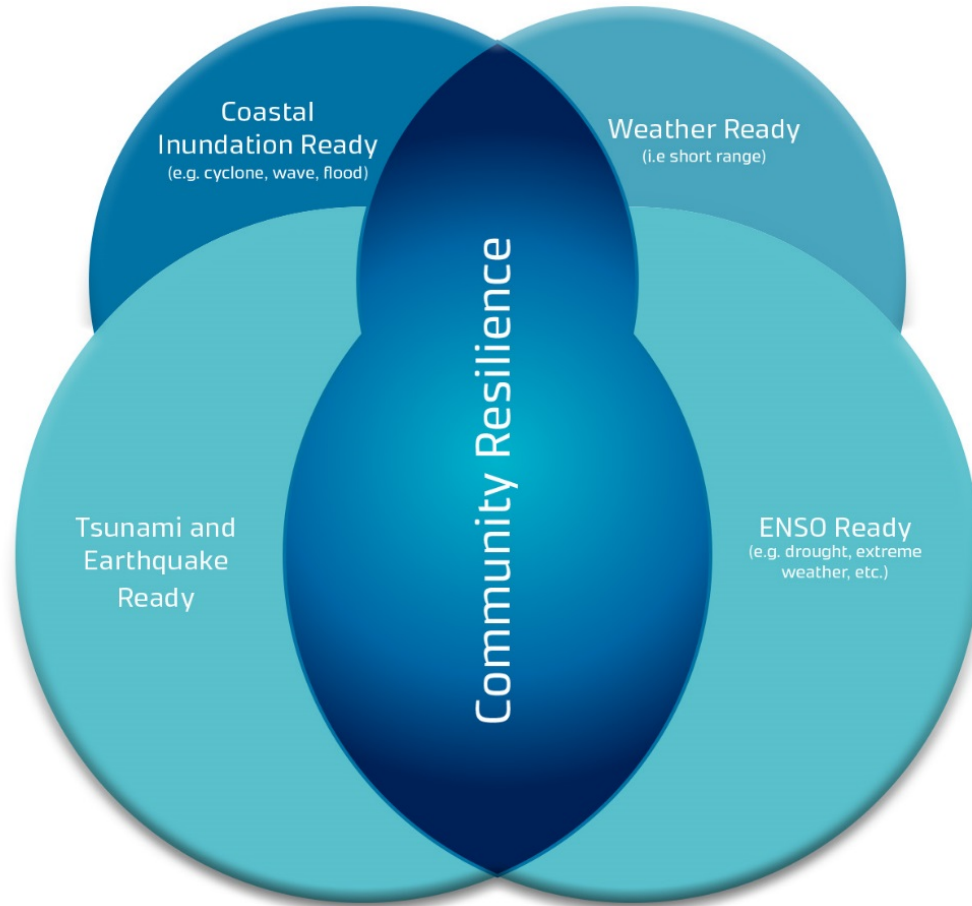
1-7 day disaster reconnaissance program



Application- Pre-Impact and Rapid Mapping (i.e. #TCWinston, # 2016 Kaikoura earthquake)



Coastal Community Resilience Initiatives



Integrated Risk Governance Project (IRGP/IHDP) of
Beijing Normal University
Tonkin +Taylor International
International Global Change Institute, New Zealand

Thank you