

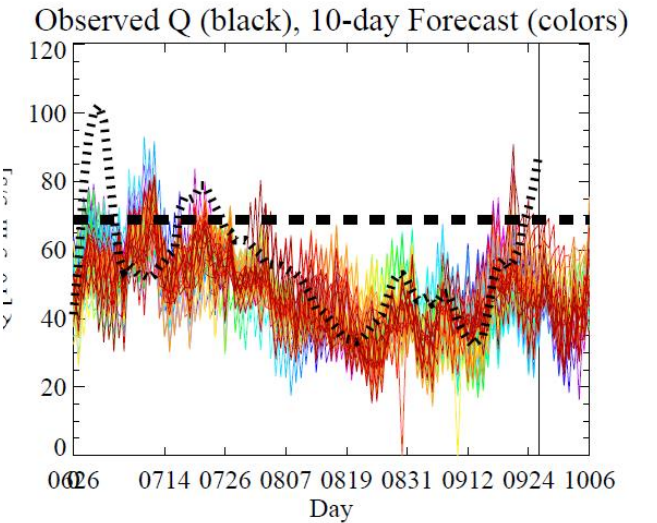
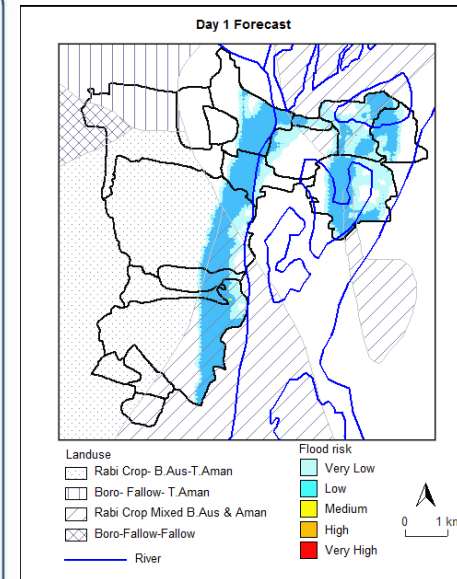
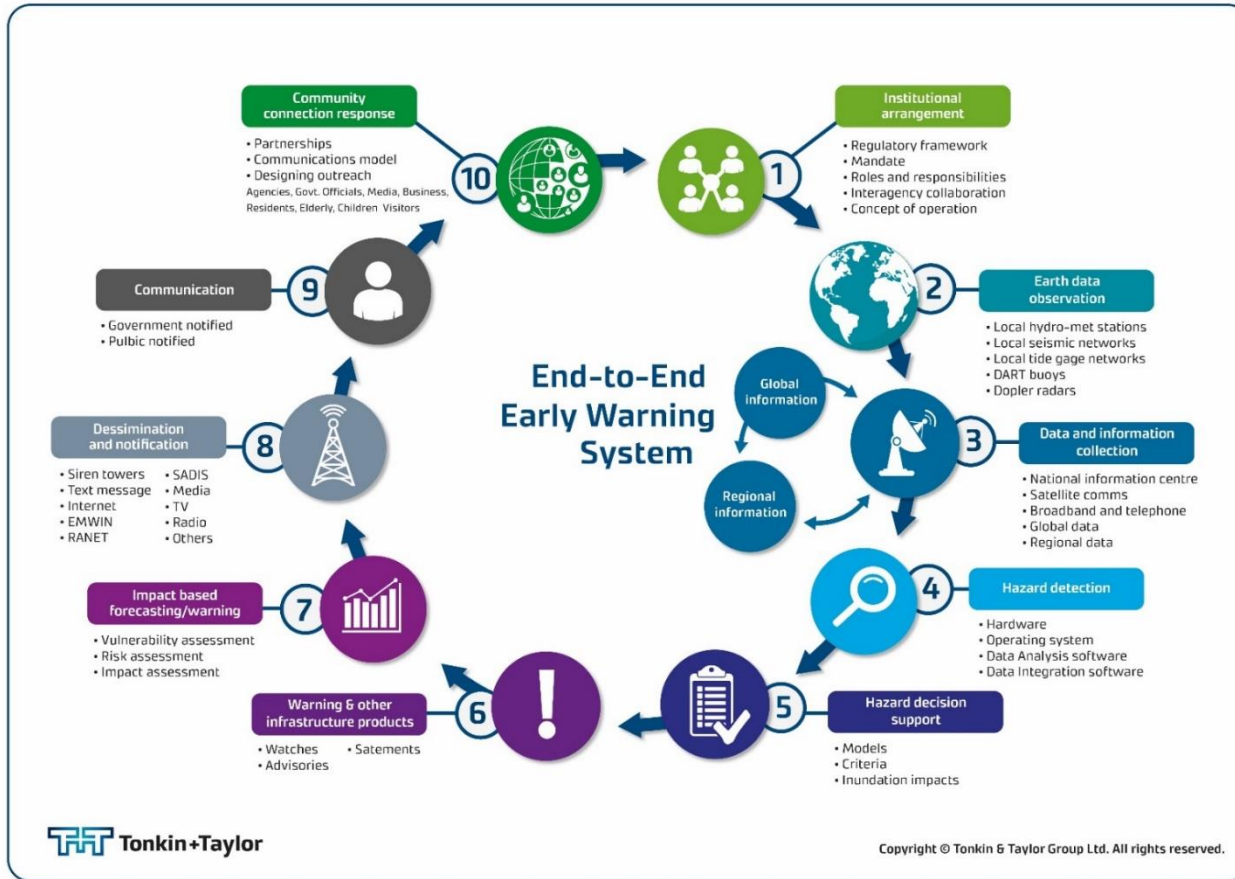


# Flagship Projects- New Zealand

Bapon Fakhruddin

19th Science Committee Meeting

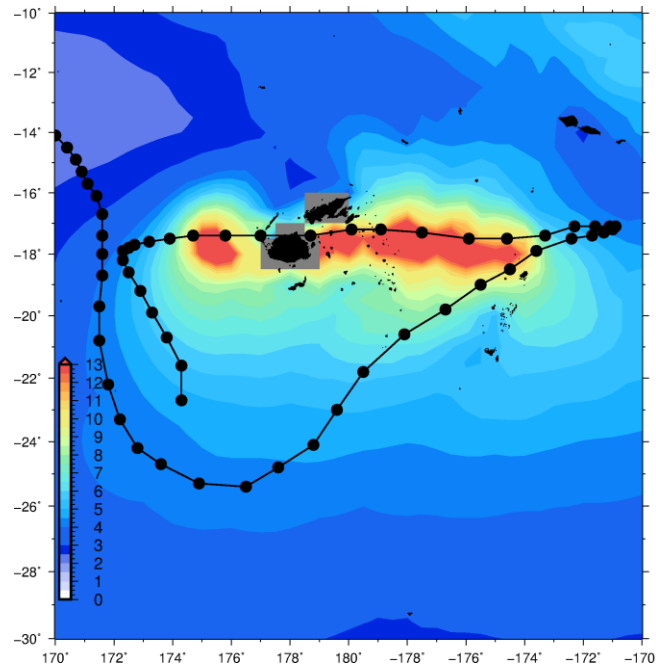
# End-to-End Impact Based Early Warning System



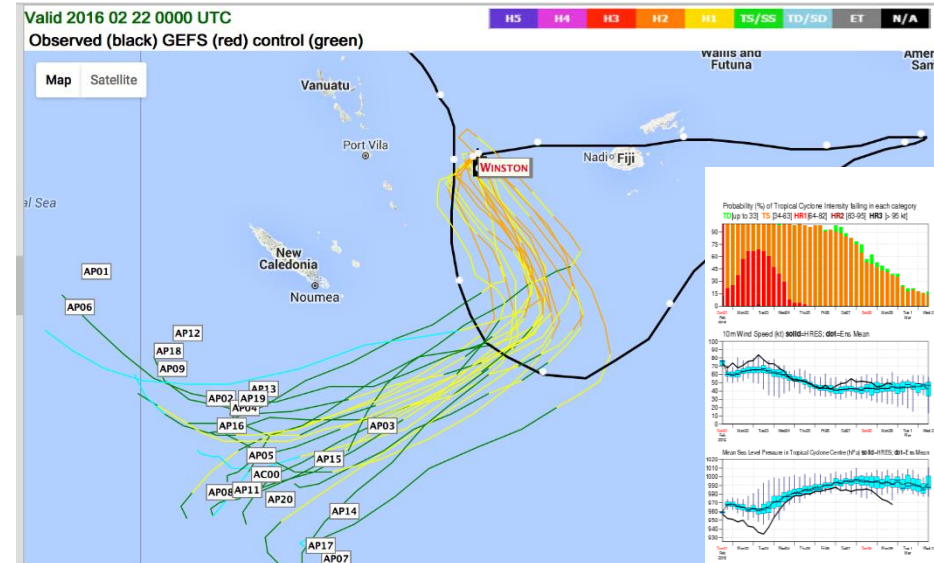
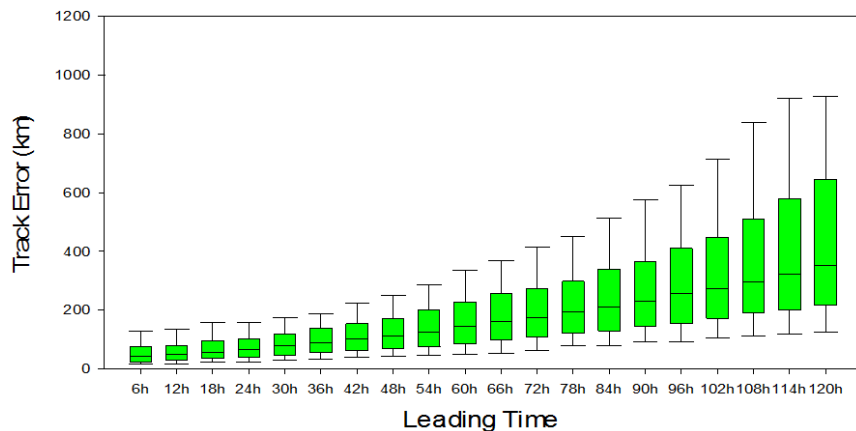
Disasters	Crop	Stages	Season / month	Impacts	Time of flood forecast	Alternative management plan
Early flood	T. Aman	Seedling and Vegetative stage	Kharif II Jun - Jul	Damage seedlings Damage early planted T. Aman Delay planting Soil erosion	Early June	Delayed seedling raising, Gapfilling, skipping
	T. 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

SFDRR Priority Action 1: Understand disaster risk

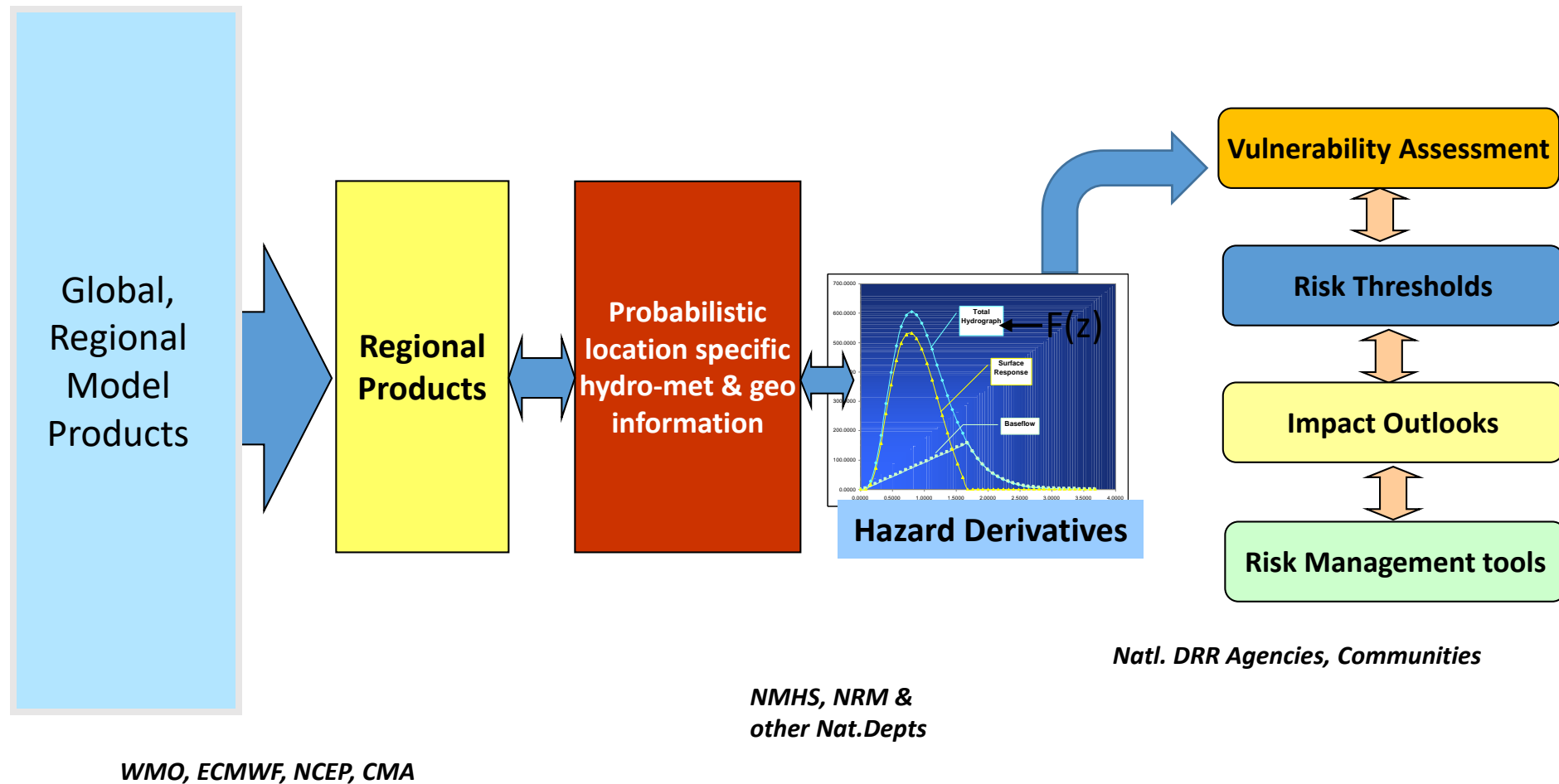
# End-to-End Impact Based Early Warning System



- ENSEMBLE MODEL TRACKS: #Memb**
- 00Z and every 6 hours
  - GEFS #20
  - GFDL #10
  - 00Z and 12Z, only
  - 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

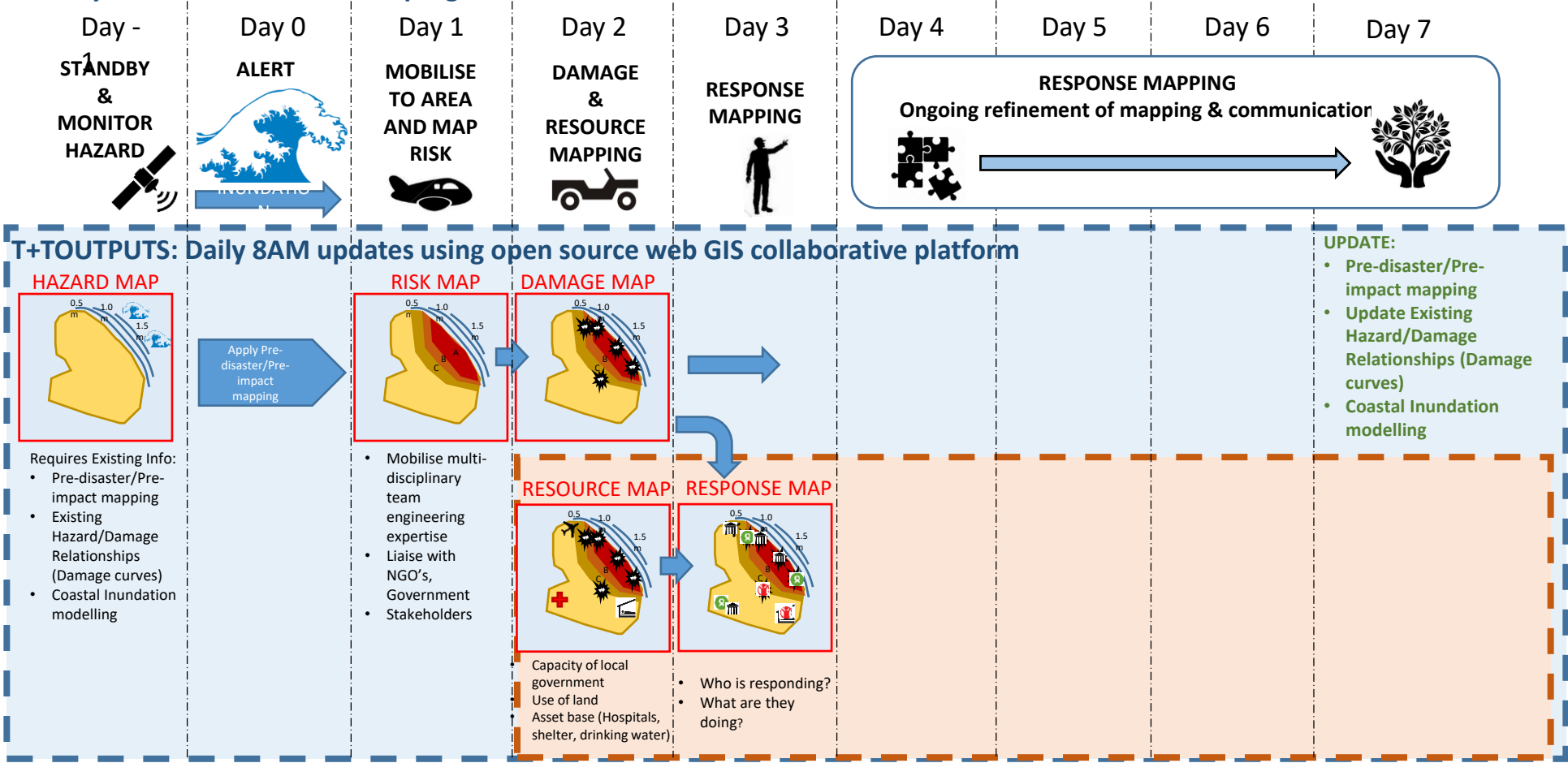


# Connecting Science, Institutions and Society for an Integrated DRR



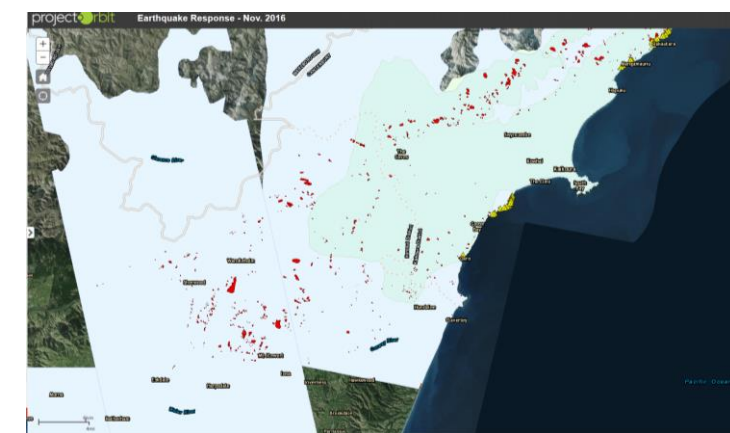
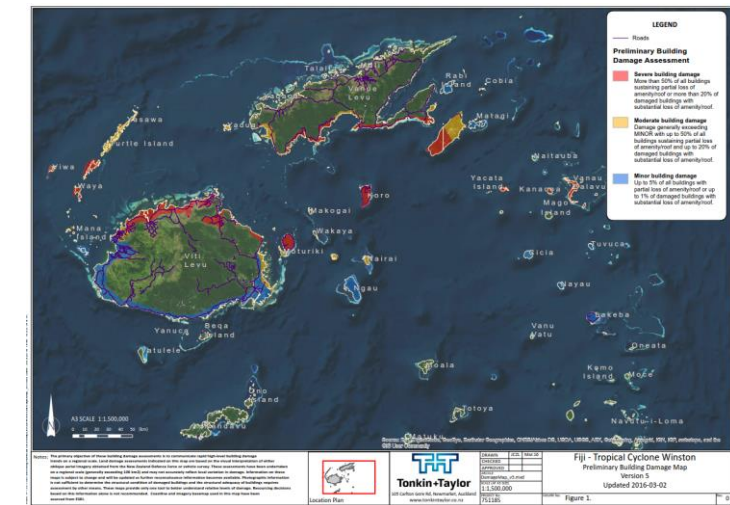
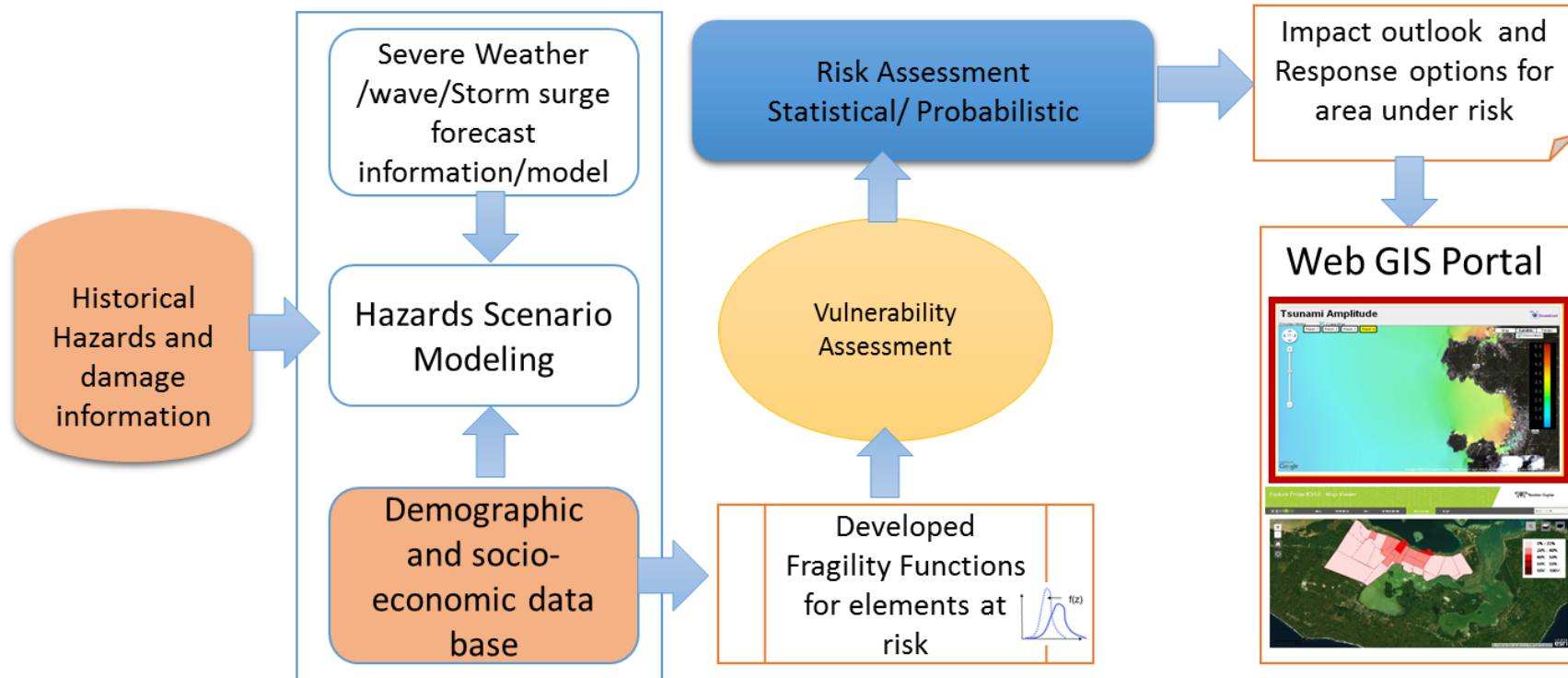
# Integrated Pre and Post Damage Mapping System for DRR

## 1-7 day disaster reconnaissance program

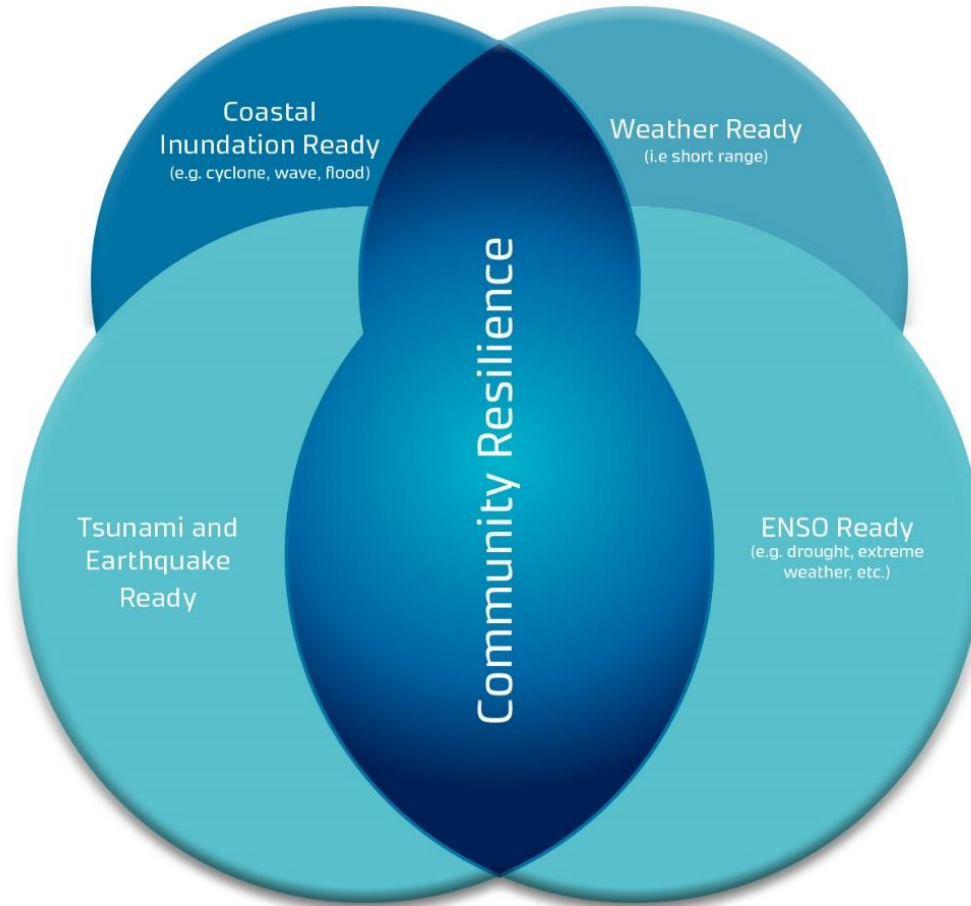


SFDRR Priority Action 4: Effective response....

# 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

SFDRR Priority Action 3: Investing in Disaster Risk  
reduction and resilience

Thank you