

Reviewing Present Structural / Non-structural Measures and Result of Flood Simulation in Quang Binh

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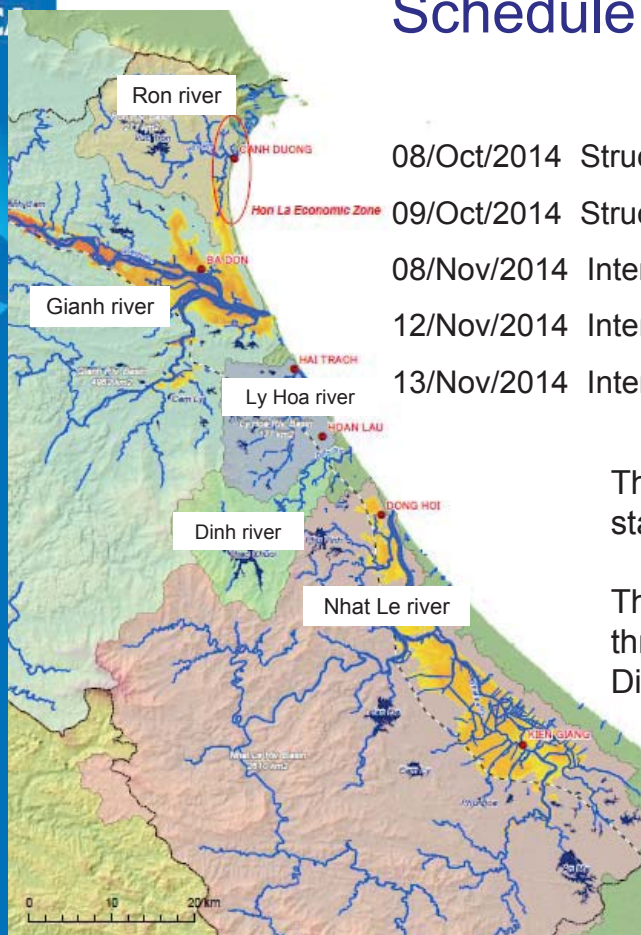
The project for Building Disaster Resilient Societies in Vietnam (Phase 2)



IFMP Target River Basins in Quang Binh Province



Schedule of Survey



08/Oct/2014 Structural Measures (Ron river, Gianh river)

09/Oct/2014 Structural Measures (Nhat Le river)

08/Nov/2014 Interview to Local (Tan Hoa, Thuong Hoa)

12/Nov/2014 Interview to Local (Phu Hoa, Quang Phuc)

13/Nov/2014 Interview to Local (An Thuy, Loc Thuy)

The survey was conducted by DIFSC staff and JICA expert.

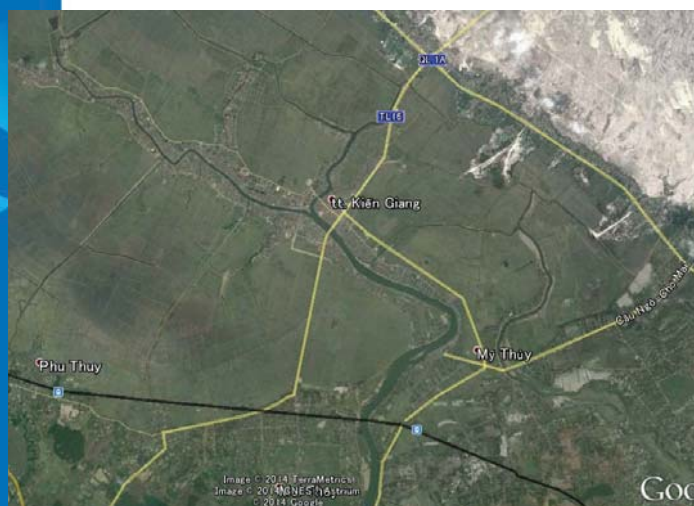
The place of survey was selected through the meeting with DIFSC and District People's Committee.

1. Nhat Le River Basin

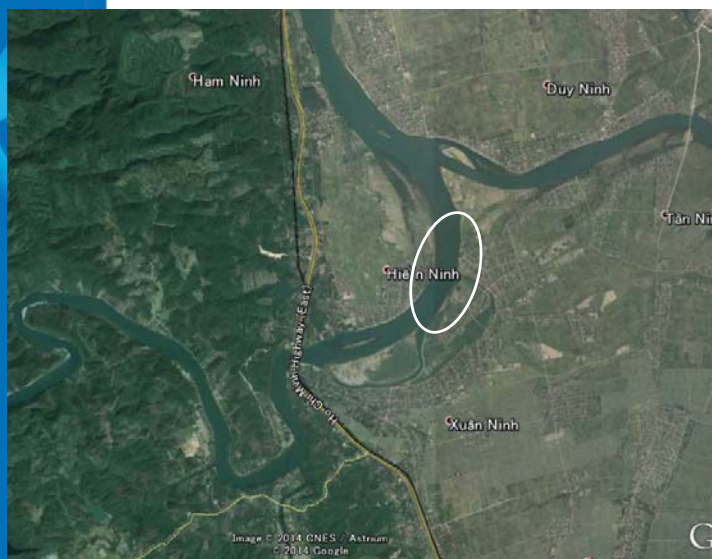
Kien Giang river and Long Dai river



Riverbank erosion in Kien Giang Town



Riverbank erosion in Hien Ninh Commune



There is some erosion that is needed construct riverbank protection works



Aging of the facilities in Nhat Le river



Tidal weir, especially metal gate become old for work.
Rehabilitation and daily maintenace are needed.

Raising of local road in Le Thuy



Some local road is needed to be raised in Le Thuy District.

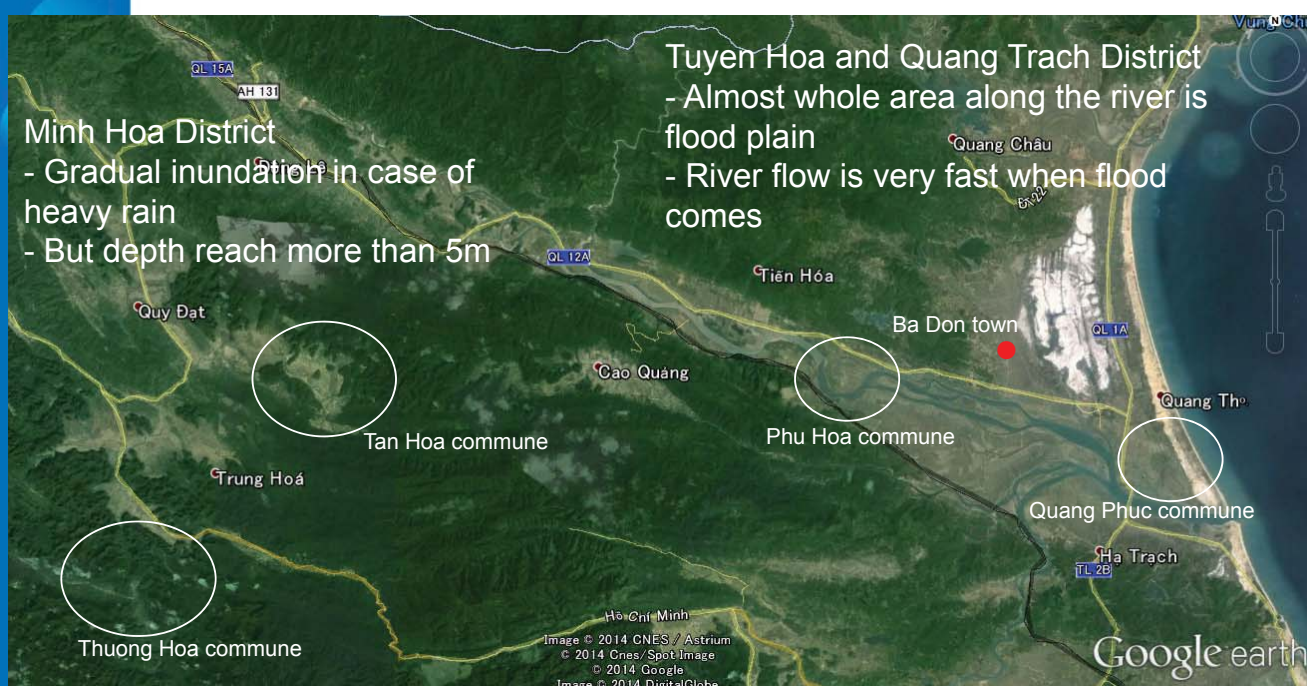
Ensure the flood drainage in Dong Hoi



Some culverts is needed to upgrade for flood drainage in Dong Hoi city.

2. Gianh River Basin

Gianh River Basin



Interview to Local in Minh Hoa District (Upstream Area)



- Poverty rate is high and many vulnerable people live in this area
- Communal Committee for Flood and Storm Control is effectively functioning
- People living here appropriately evacuate in case of heavy rain
- In Tan Hoa and Thuong Hoa commune, there was no death even in historical flood 2010
- They don't feel fear to flood, but they want to protect assets against inundation

Necessary measure in Minh Hoa district

- Construct evacuation shelter for residents
- Establish more floating house for protecting of assets
- Reserve drinking water and power generator in case of inundation
- Implement CBDRM more certainly and effectively

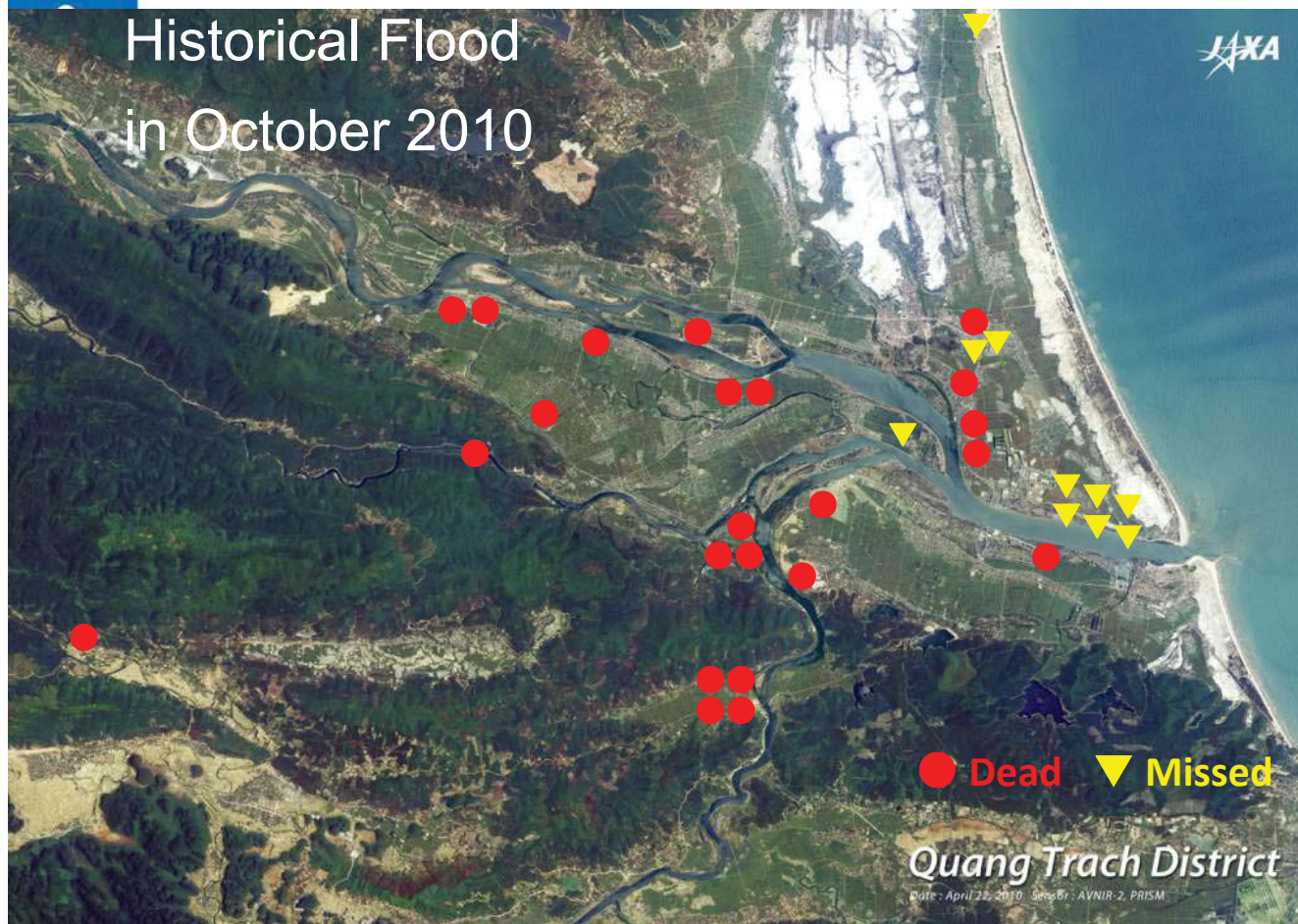


Riverbank erosion in Phu Hoa Commune (Downstream Area)

At the time of flood, river runs straight on Phu Hoa Commune.
Strong flow makes erosion around the commune.



Historical Flood in October 2010



Flood forecasting and evacuation order

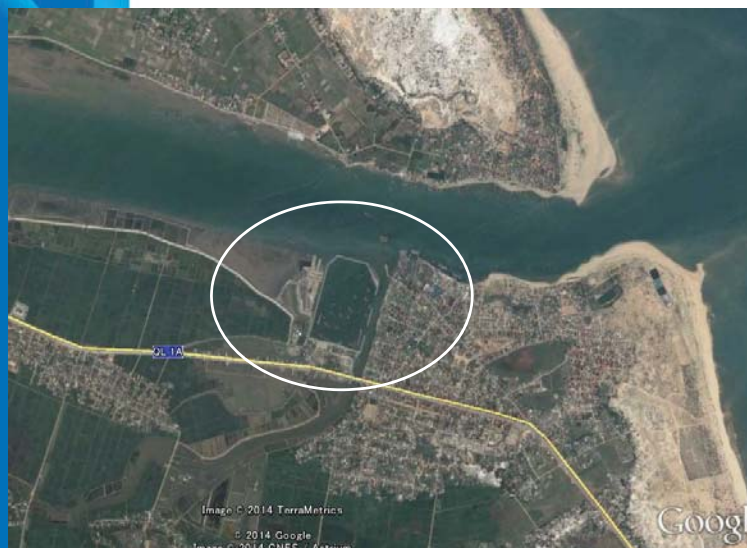
In order to protect human life against flood and storm, it is most important to evacuate to safe place certainly.

Committee for flood and storm control have to make flood forecasting and evacuation order appropriately.



Storm shelter for fishing boats

Storm shelter for fishing boats has already constructed. It should be constructed in Hon La and Nhat Le river next.



Current status and Challenges

Based on Action Plan implementing the National Strategy for Disaster Prevention and Mitigation in QB province, budget for high priority programs have already been allocated and implemented.

But many measures has remain despite of necessity for disaster prevention, especially in poverty and ethnic-minority area.



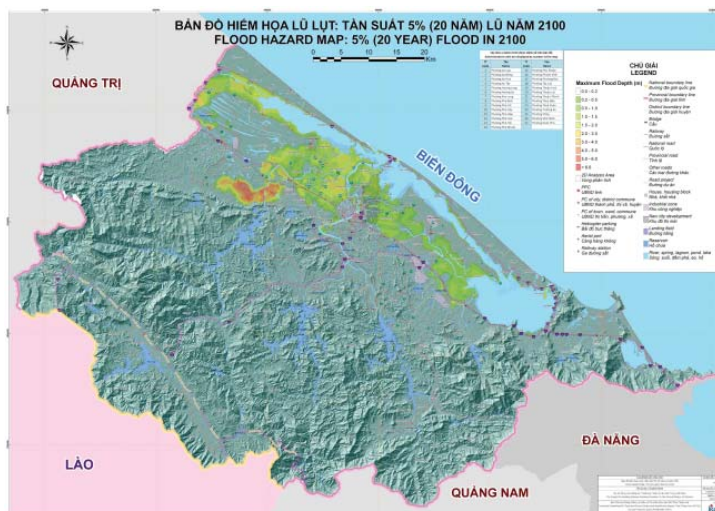
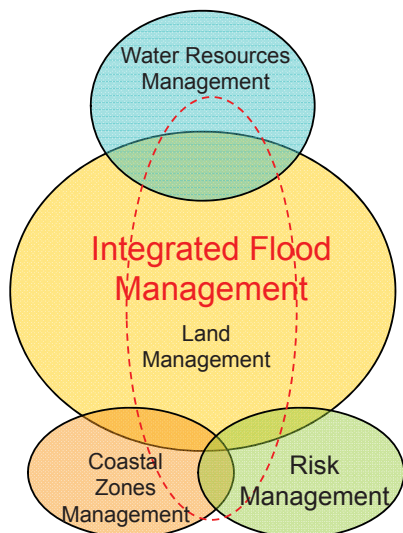
Challenges

- Mapping and visualization where structure measures have done and plan
- To clarify which area and which measure has priority in next 5 years.
- To monitor and maintain the facilities that has already installed

3. Flood Simulation

What's IFMP ?

- ◆ IFM is a process promoting an integrated – rather than traditional fragmented – approach to flood management.
- ◆ To aim at **maximizing the net benefits** from the use of floodplains and **minimizing loss of life** from flooding.
- ◆ Accurate **Flood Risk Assessment** is essential for IFM.



Steps to Formulate IFMP

Site inspection for practical information

Research plans, planning

Flood simulation

Apply GIS for analysis

1. JICA experts
2. PMU
3. Working group including 13 people from relevant departments

Flood simulation

Input data

Digital Elevation Model (DEM)

Geographic Information System (GIS)

Land use map

River cross section

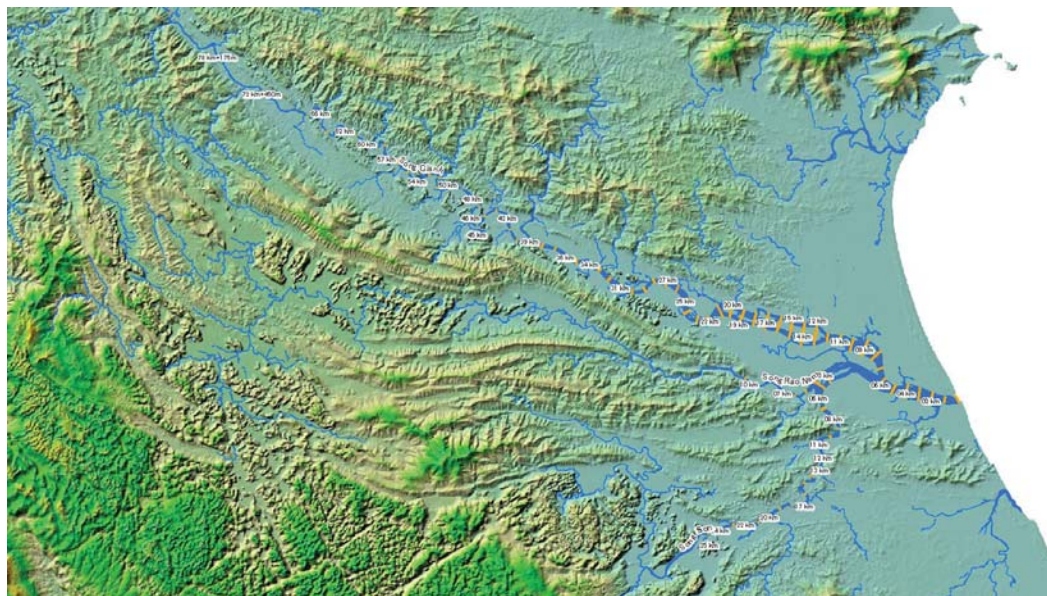
Railway and national road 1A

Tide at river mouth

Hydrology and Meteorology

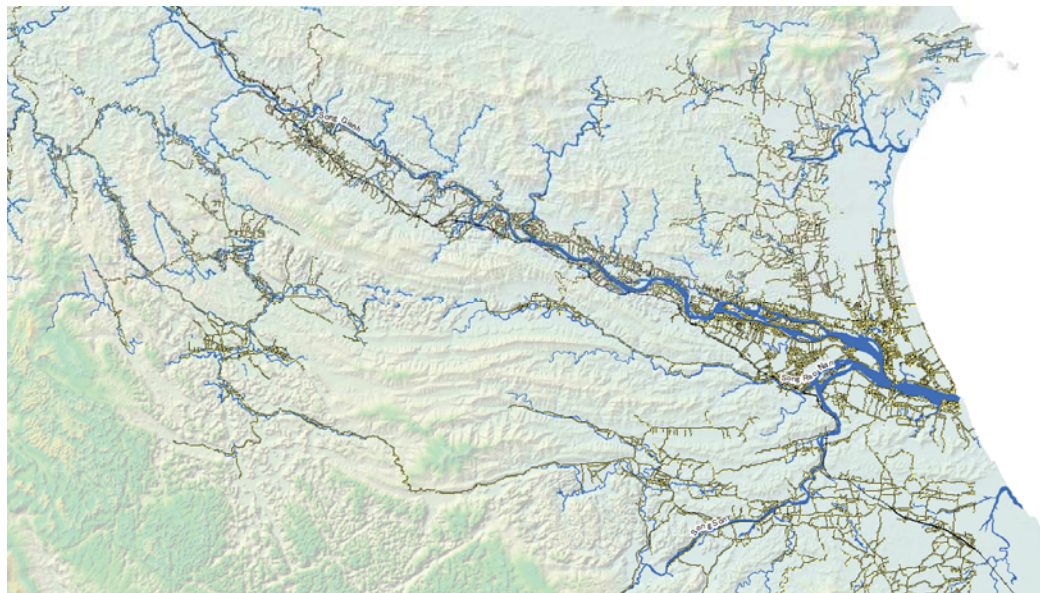
Input DATA

- Accurate DEM and River Cross-section



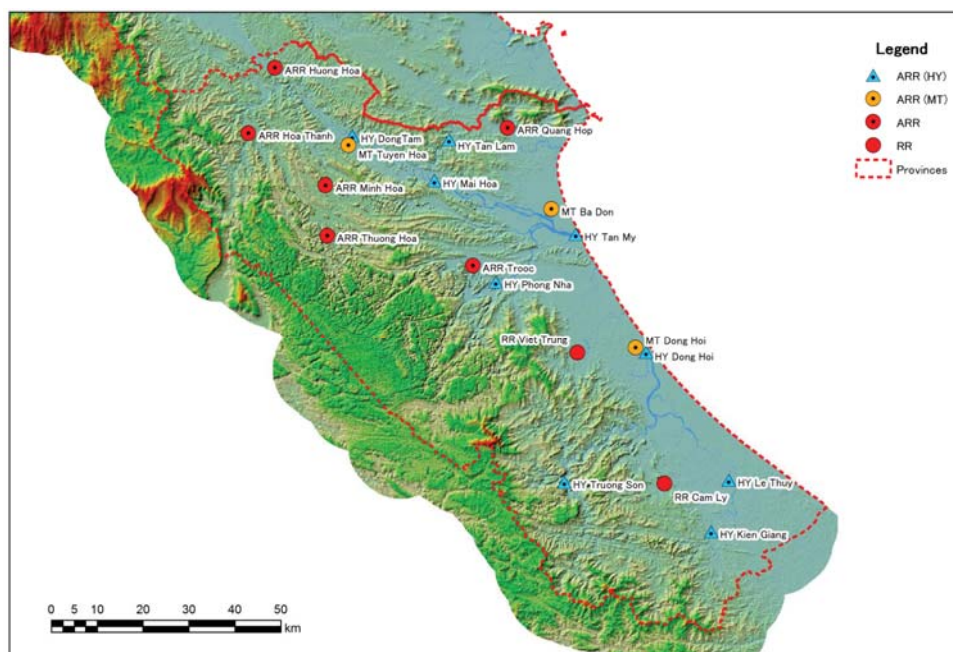
Input DATA

- GIS Data (River network, Transportation...)



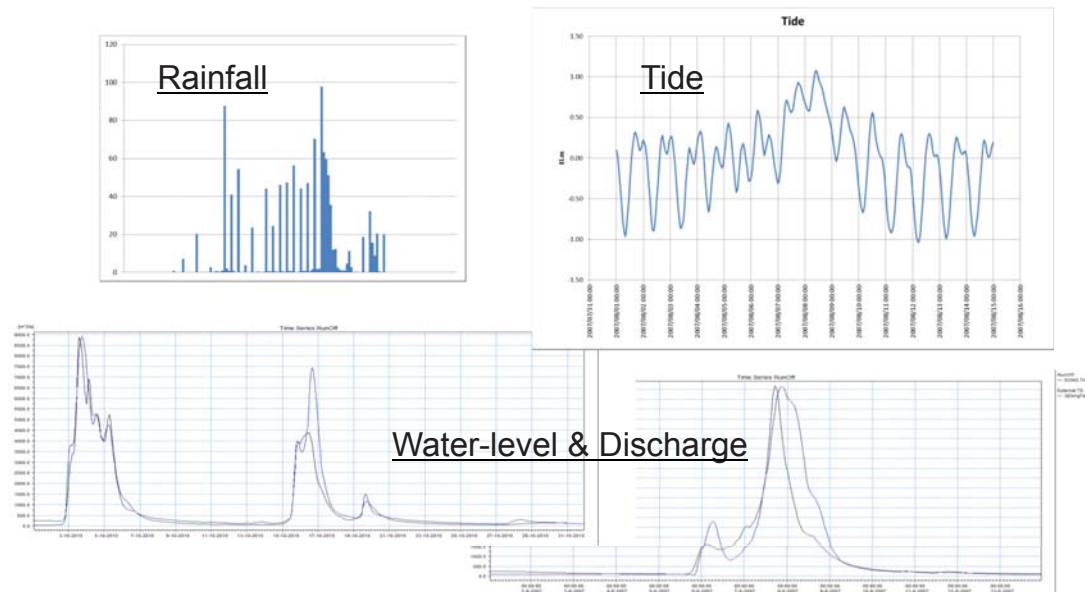
Input DATA

- Hydrological Data (station network)

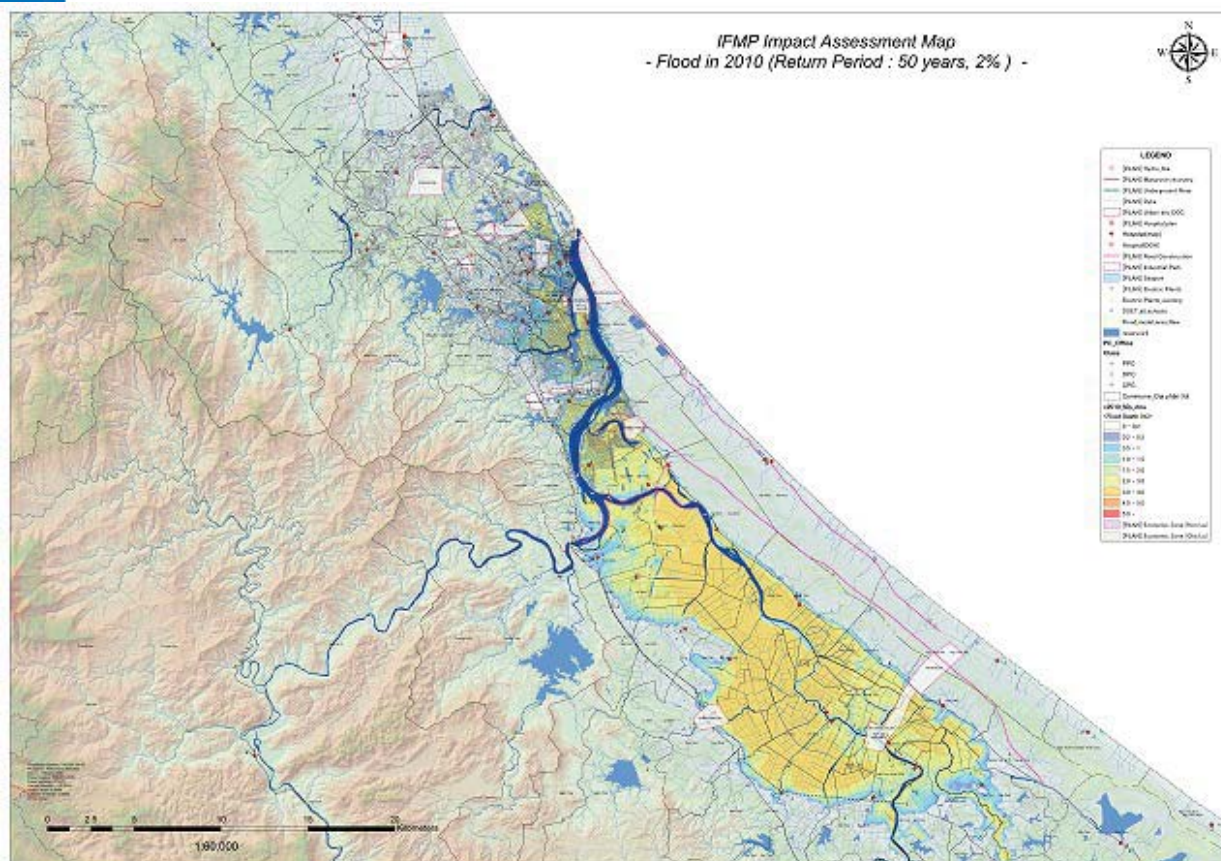


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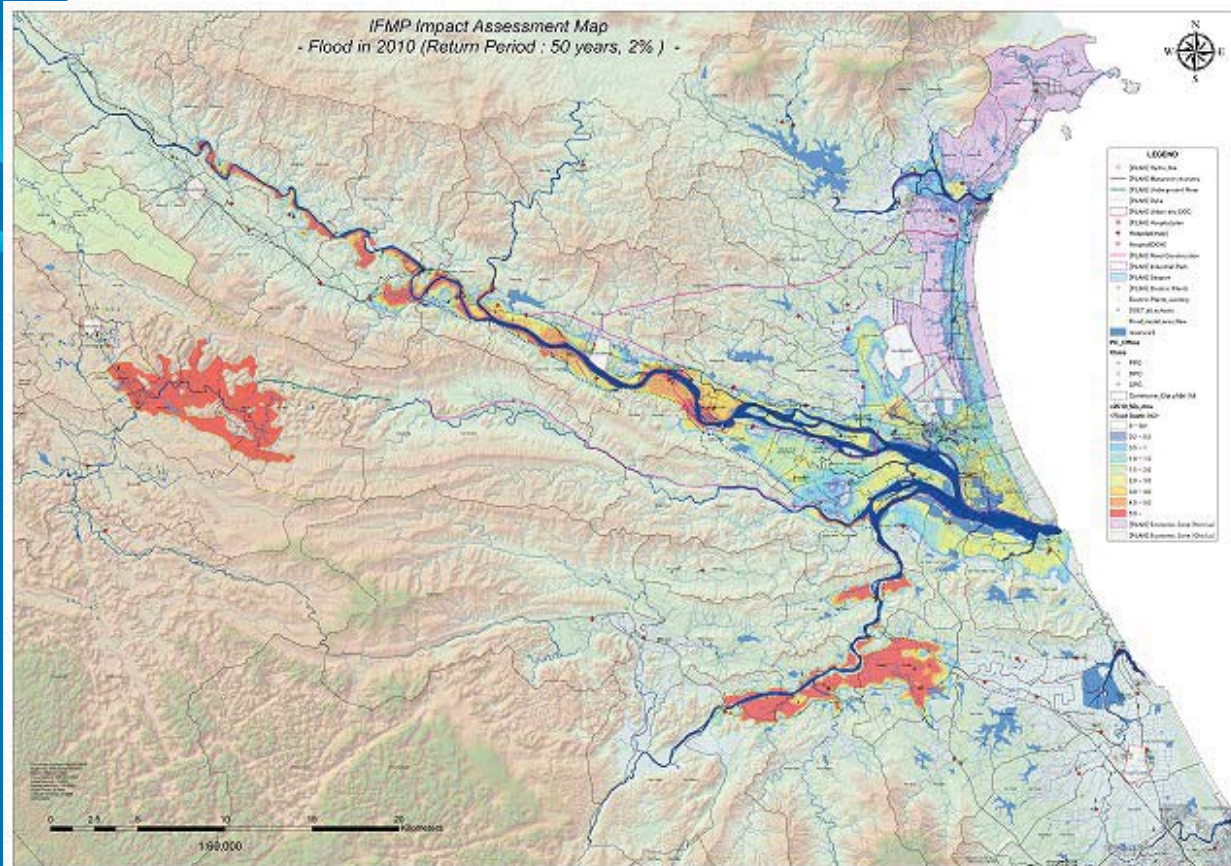
- Hydrological DATA



Hazard Map in Nhat Le River Basin



Hazard Map of Giang River Basin



Thank you !