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KHÍ TƯỢNG THỦY VĂN VÀ BIẾN ĐỔI KHÍ HẬU

Integrating CC adaptation, disaster risk reduction and loss to address emerging challenges due to slow onset processes in Quang Ngai Province, Vietnam

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CLIMATE CHANGE IN VIET NAM

Climate change impact

- 1 of Top 5 countries/nations most vulnerable to climate changes. Sea level rises 1m, **5% land loses**, **11% population affected**, 7% agricultural activities impacted, **10% GDP reduced**.
- Most vulnerable regions: **Red River Delta and Mekong River Delta**
- Most vulnerable sectors: **Agriculture, Water Resources, Transport, Trade, Education...**
- Most vulnerable group: **the poor**, women, children, and ethnic minorities...
- Climate changes in Vietnam: **increase** in strengths and frequencies of **extreme weather, disasters, sea level rise, land erosions and slides**.



Climate change and disaster in Quang Ngai province



- ❖ No. of hot days increased
- ❖ **Extreme rainfall** increase many areas
- ❖ No. of strong and very strong typhoon increase
- ❖ **Extreme drought, heatwave** occurs more frequently
- ❖ Sea water level increase. Salinity intrusion is likely to increase in the future under the climate change





III. The potential loss and damage assessed for the typical sectors

CC and DR have high impact on all sectors in Quang Ngai: Water resources

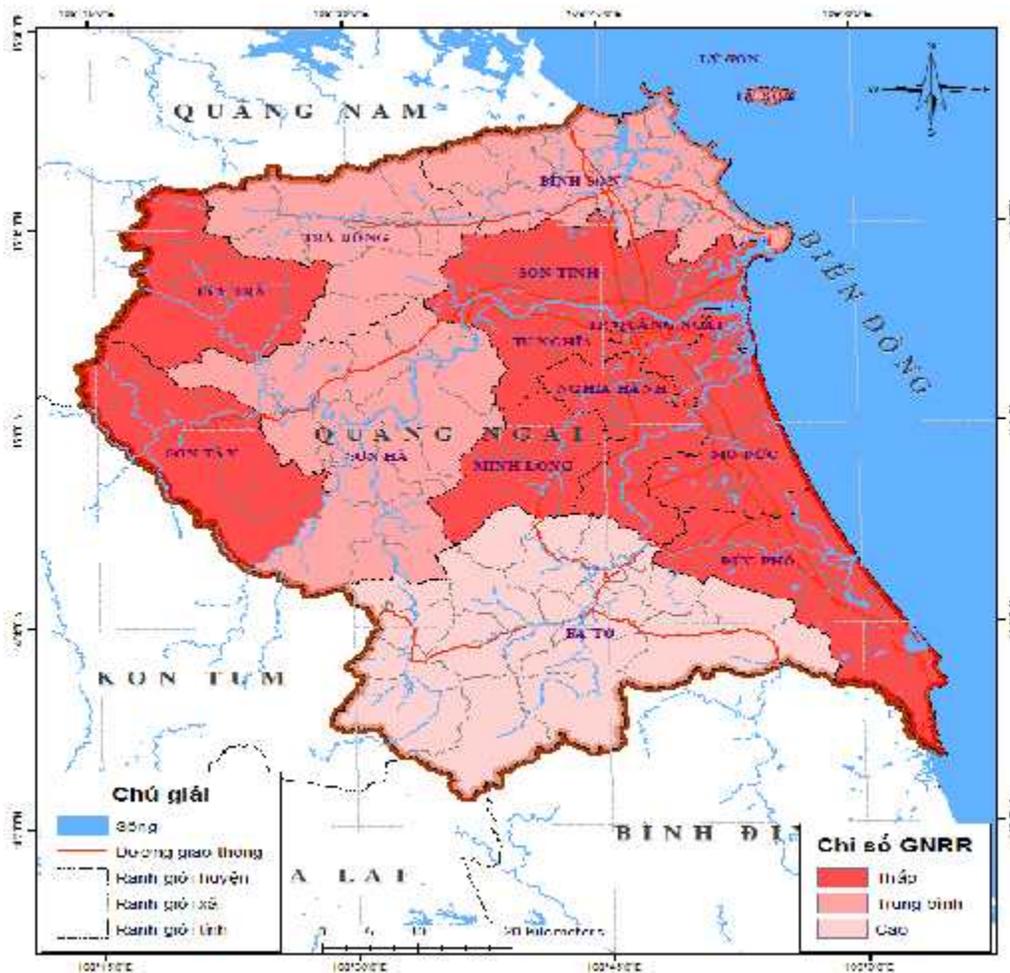
- Losses and damages are most apparent in water resources through **flooding**.
- **December 1999** caused the **biggest flooded area of 59366ha**, above-2m-deep inundated area of 43,407 hectares, above-3-m (34656 ha), above-4-m (26030ha), above-5-m (17217ha)

Agriculture

- **Total agricultural area flooded in 1999 was 29132 ha**, of which **26292 ha of paddy land were flooded**, the area of cultivated for **food crops was 2840 ha**.
- Natural disasters and climate change negatively affect crop yields. For spring rice, in deltas and mountainous areas, under the impact of climate change, the grain productivity of the **delta will decrease about 1-11% and in the mountains it would 1-9% decrease**

III. Risks caused by natural disasters and climate change in Quang Ngai

The risks caused by natural disasters and climate change in Quang Ngai



- Low: Tay Tra, Son Tay, Minh Long, Mo Duc, Duc Pho, Nghia Hanh, Tu Nghia, TP. Quang Ngai, Son Tinh, Ly Son (71.43%)**
- Medium: Son Ha, Tra Dong, Binh Son (21.43%).**
- High : Ba To (7.14%).**

Map of Risk reduction in Quang Ngai Province



IV. Strategic plans for disaster risk reduction and CC adaptation

1. Mapping various climate risks
2. Mapping exposure, vulnerabilities and adaptation measures
3. Improving forecasting capacities and early warning systems
4. Poverty reduction programmes
5. Strengthen social protection and social care networks to reach vulnerable groups
6. Integrate disaster risk reduction and climate change adaptation in urban & land use planning
7. Develop integrated plans for water resource management in river basins and key areas
8. Improve practices for water saving, water demand management, and rainwater and groundwater harvesting and storage systems.
9. Upgrade irrigation and drinking water systems, also drainage.
10. Develop policies and management mechanisms associated multi-purpose reservoirs, especially hydroelectric works.



CHALLENGES

1. Lacking of Finance
2. Lack of Information sharing due to no database for DRR and CCA in the whole nation yet
3. Lack of experience staffs at provincial level
4. Lack of awareness of community on CCA
5. Lack of **experience on integration DRM into CCA or integration both into socio-economy plans**
6. Lack of equipment for climate forecast, projections
7. Need to improve early warning system
8. Disaster risk reduction measures are still focused on agriculture and flood and storm control. The role to deal with climate change is assigned to MoNRE while DRR and CCA is an interrelated issue that needs a coherent approach





Is disaster risk taken into account in policies and plans in Viet Nam?

Key documents:

1. Natural Disaster Preparedness and Prevention (2013).
2. The National Target Program to Respond to Climate Change (2007) [NTP-RCC]
3. The National Strategy on Climate Change (2011)
4. Law on Natural Disaster Prevention and Control (2013)
5. Decision 46/2014/QDD-TTg to regulate the forecast, warning and information transmission of disasters
6. Decision 44/2014/QDD-TTg to regulate the level of disaster risk
7. Community Based Disaster Risk Management Programme (2009).
8. National Strategy for Natural Disaster Prevention, Response and Mitigation toward 2020 (2007).
9. Master Plan on Searching and Rescue till 2015, vision to 2020 (Decision No. 46/2006/QĐ-TTg) approved by Prime Minister.
10. Environment Protection Law (2013)
- 11.....

In recent years, a lot of important legal documents, strategies, and plans addressing DRR and climate change adaptation (CCA) have been issued



Is disaster risk taken into account in policies and plans in Viet Nam?

- ❖ In Vietnam, the Ministry of Planning and Investment has issued Circular 05/2016/TT-BKH which guides to mainstream the content of prevention of natural disasters into the sector and social-economic development plans
- ❖ All 63 provinces have developed action plans to implement the National DRM Strategy as well as Provincial Committees for Climate Change. Most ministries and sectors represented in the CCFSC have developed action plans for the mainstreaming of DRR in their sectors. DRM action plans are already being implemented in many the provinces and sectors (e.g. dyke construction, relocation, embankments, training, awareness-raising, risk mapping, etc.).
- ❖ Gender mainstreaming into DRR has been a key element of this approach to promote women's roles before, during and after the disasters occur. In 2013, the CCFSC also accepted the Vietnam Women's Union as an official member through the Decision 216/QD-PCLBTW