

Forest-based Natural Disaster Mitigation in Vietnam: The State and Challenges

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- Forestry sector
- Climate change scenarios
- Climate change impacts and natural disasters
- Related policies and forest management
- Key challenges

VIETNAM'S FORESTRY: 2022 KEY STATISTICS



14.7 Mha – 42% cover

70% is natural forest (4% is primary forests)

30% is planted forests

1% is mangrove forests



15% (2.2 Mha) special use forests

32% (4.6 Mha) protection forests

53% (7.8 Mha) production forests



20 M m³ timbers harvested from planted forests

17 B USD woods & wood-based products export value



150 M USD from Annual Ecosystem services payment

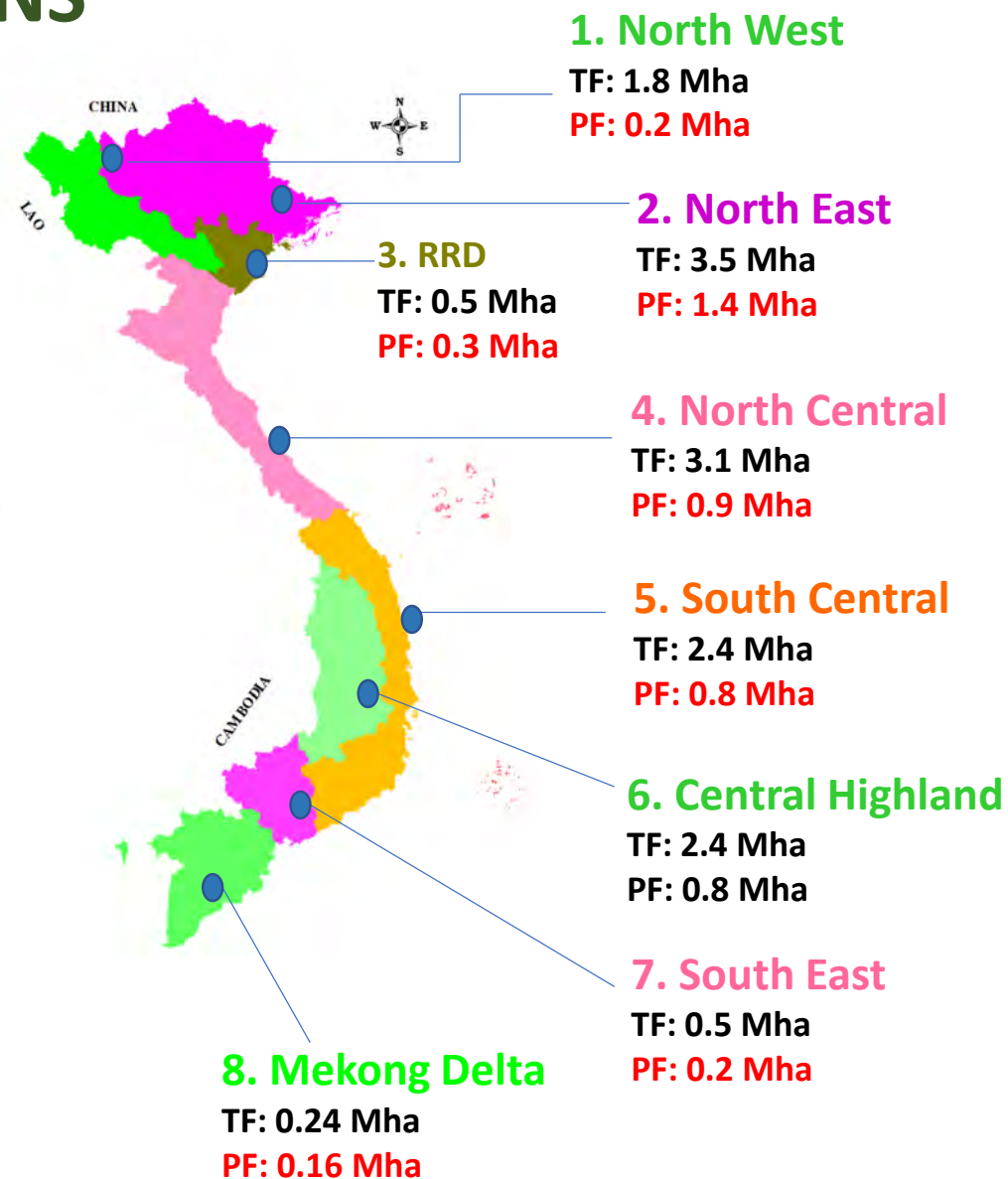
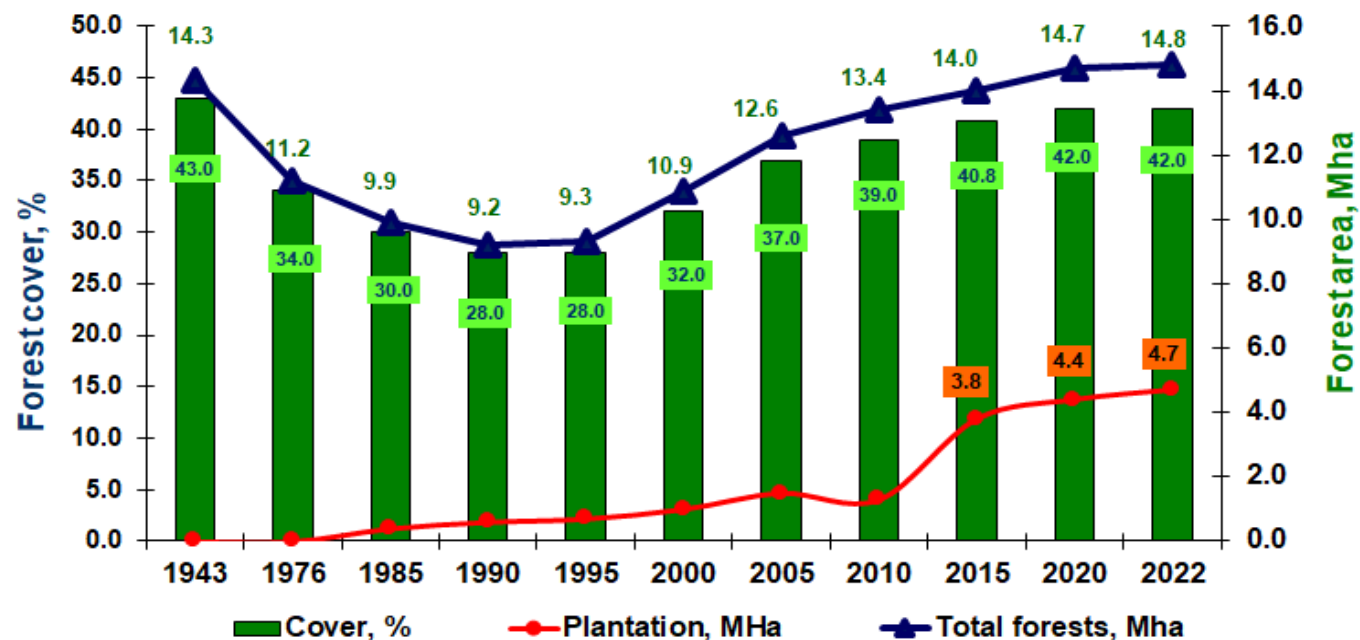
662 Mt C stored in the forests, 80% in natural forests

25 million people dependent on forests



Source: VNFOREST 2023

FOREST AREA CHANGE & CURENT DISTRIBUTION BY ECO-REGIONS



CLIMATE CHANGE IN VIETNAM: FACTS & FUTURE

Observed Data, 1958-2018



Increased 0.89°C , averaged increase of **0.15°C per every 10 years**



Increased 2.1% over 60 years, but showed decreasing trend in the North & West of Central Highland; and increasing trend in the South, especially South Central Coast



12-13 typhoons per year and no clear trend of change; but appears strong & abnormal typhoons



Sea level rise about **2.7 mm/year**



Future Projection Towards 2100

RCP4.5: Increase **$1.9\text{-}2.4^{\circ}\text{C}$** in the North, **$1.4\text{-}1.9^{\circ}\text{C}$** in the South

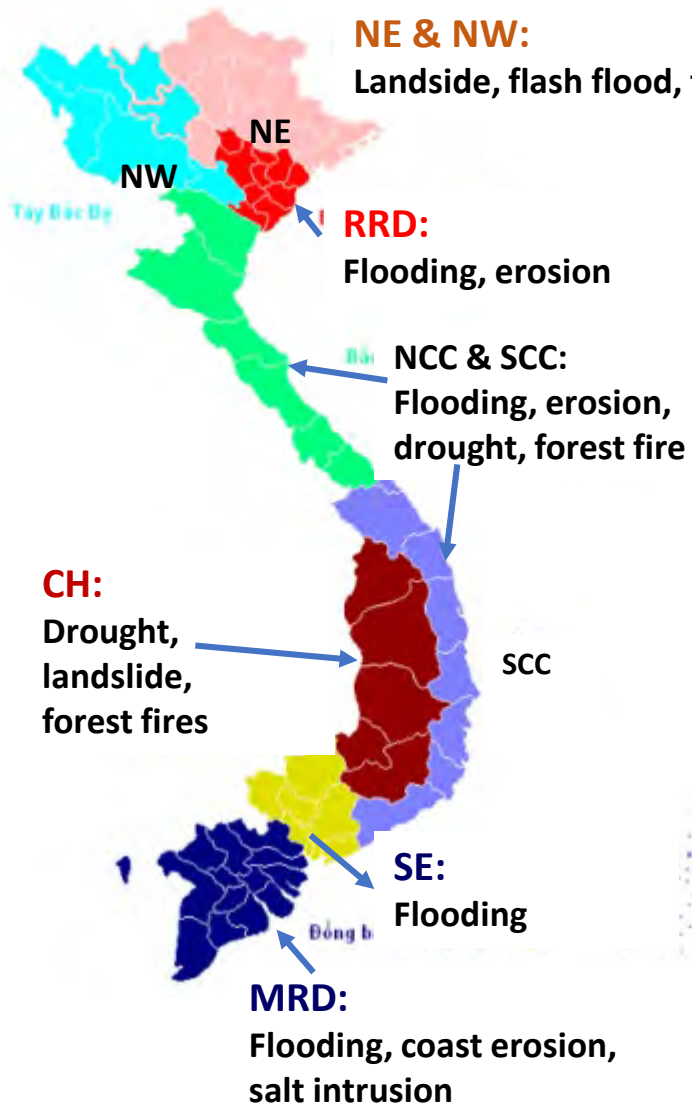
RCP8.5: Increase **$3.5\text{-}4.2^{\circ}\text{C}$** in the North and **$3.0\text{-}3.5^{\circ}\text{C}$** in the South

RCP4.5: Increase **10-20%**, mainly in the North; and **RCP8.5:** Likely to increase **40%** in the northern part

Strong & extremely strong typhoons appear to be increased

RCP4.5: Possible to increase by **55 mm** (**$34\text{-}100 \text{ mm}$**) in the eastern sea area

CLIMATE CHANGE IMPACTS & NATURAL RISKS



Flooding in low land area



Flash flood in mountain area



Coastline erosion



Land slide



Drought

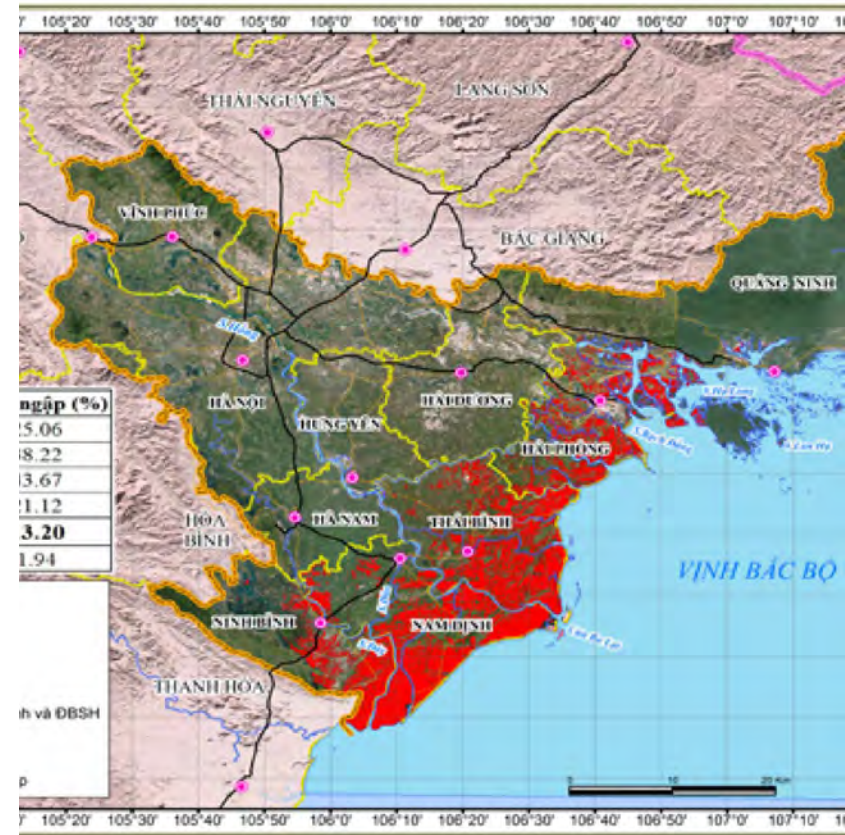
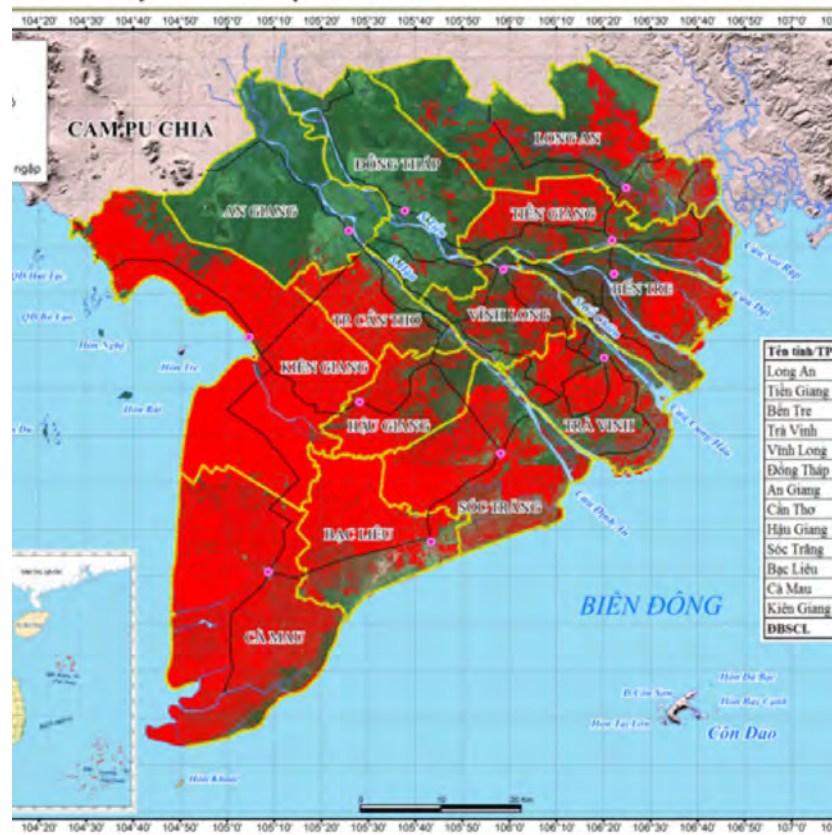


Frost

KỊCH BẢN BIẾN ĐỔI KHÍ HẬU

(BẢN TÓM TẮT)

2020 CLIMATE CHANGE SCENARIO



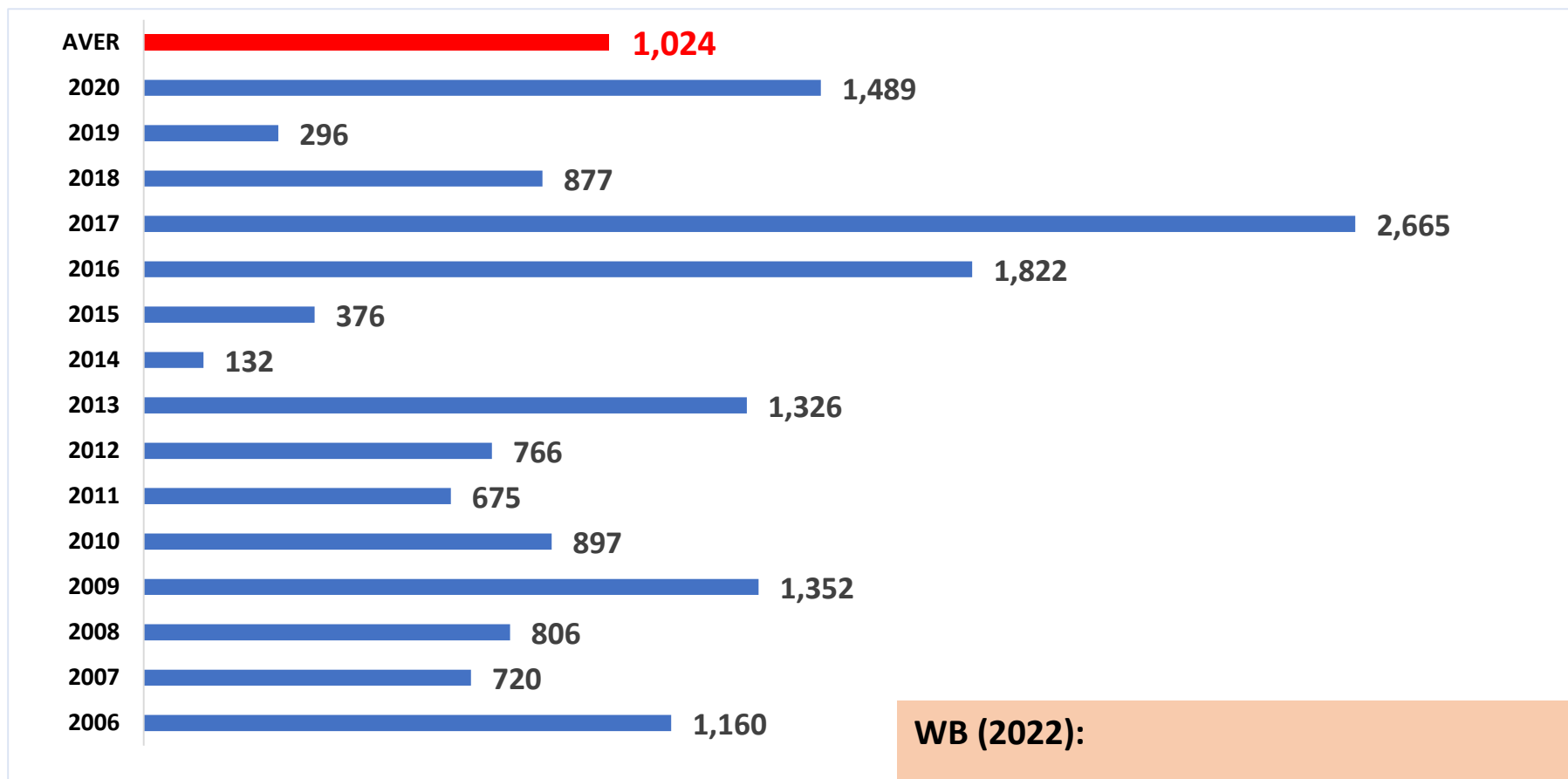
Flooding risks as Sea
Level Rise

The worse scenario, SLR 100 cm:

- Red River Delta: 13%
- Mekong River Delta: 47%
- Ho Chi Minh City: 17%

NATURAL DISASTERS LOSSES 2006-2020

2006-2020, M\$



Sources: VDMA 2020; WB 2022

WB (2022):

“If there are no appropriate GHG mitigation and adaptation, Viet Nam may lose 12-14.5% GDP every year by 2050”



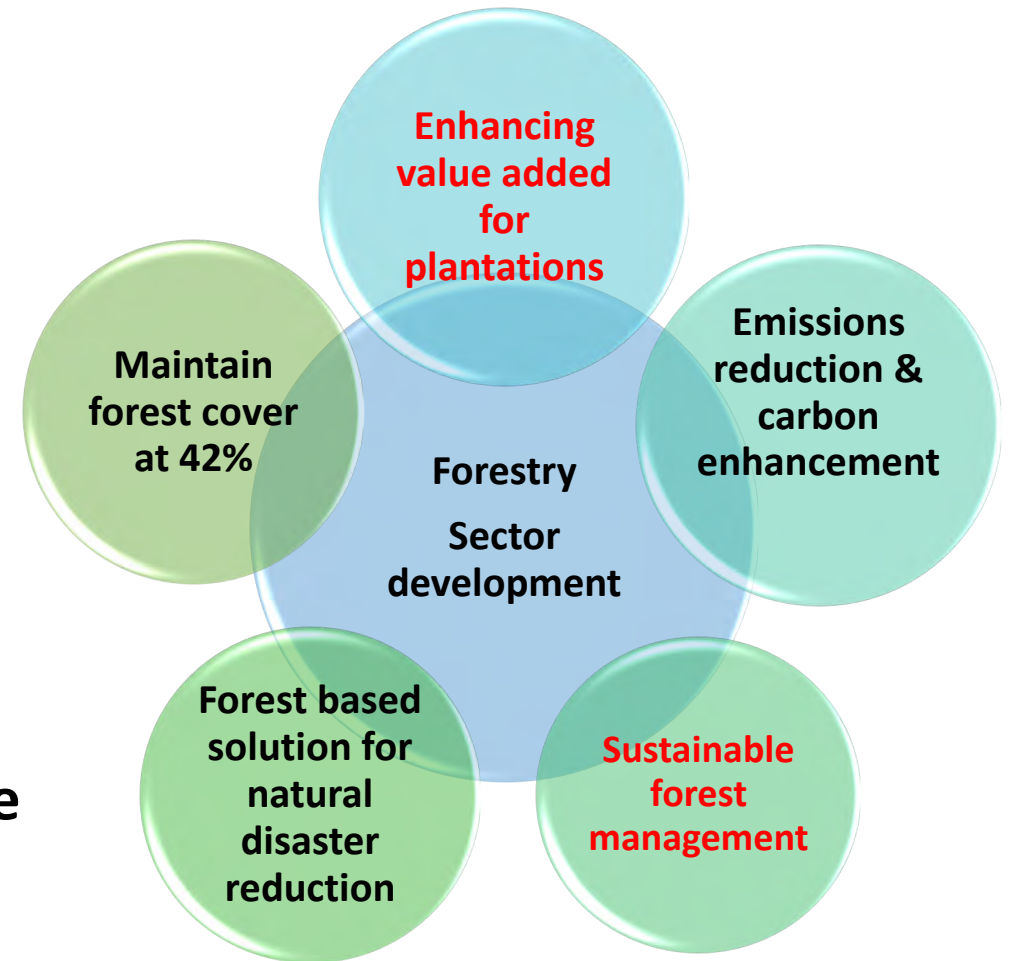
POLICIES ON CC AND NATURAL DISASTER REDUCTION

Key policies:

- Environment Protection Law 2020
- PM Decision 896/QD-TTg - National Strategy on Climate Change Towards 2050
- Forestry Law 2017 and policies

The policy goals:

- **Mitigation:** NZ Emission Target by 2050
- **Adaptation:** Enhancing resilience and adaptative capacity to reduce impacts of climate change and natural disaster reduction



FOREST MANAGEMENT FOR CC AND NATURAL DISASTER REDUCTION

- Protection of existing natural forests and ecosystems
- Enhancing protection functions of the forests, especially watershed & coastal protection forests
- Restoration of forests & degraded ecosystems
- Application of sustainable forest management
- Proper land use management and replication of agroforestry practices on sloping land areas
- Tree breeding and improvement for CC adaption and natural disaster mitigation



KEY CHALLENGES.....

- **Inconsistencies and overlapped policies regarding forest and land management causing unclear responsibilities among the management agencies**
- **High opportunity costs for other land uses than protecting forests, causing pressures on forest conversion**
- **Lack of understanding on interaction between forests and natural disasters mitigation (species, forest area, distribution etc.) for policy options and designing forest-based measures for natural disaster mitigation**
- **Lack of environmental protection code/regulations for agricultural land use practices and construction in the watershed areas**
- **Ineffective cross-sector collaboration for natural disasters reduction in processes of land use planning, implementation and monitoring**



Thank you!



Promoting Sustainable Forest Management Nationally and Globally

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