



BALANCING FOOD SECURITY AND ENVIRONMENTAL CONSERVATION IN NORTHERN MOUNTAINOUS REGION (NMR) OF VIETNAM

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Landscape overview

**Bare
hill**

**Slopping
land**

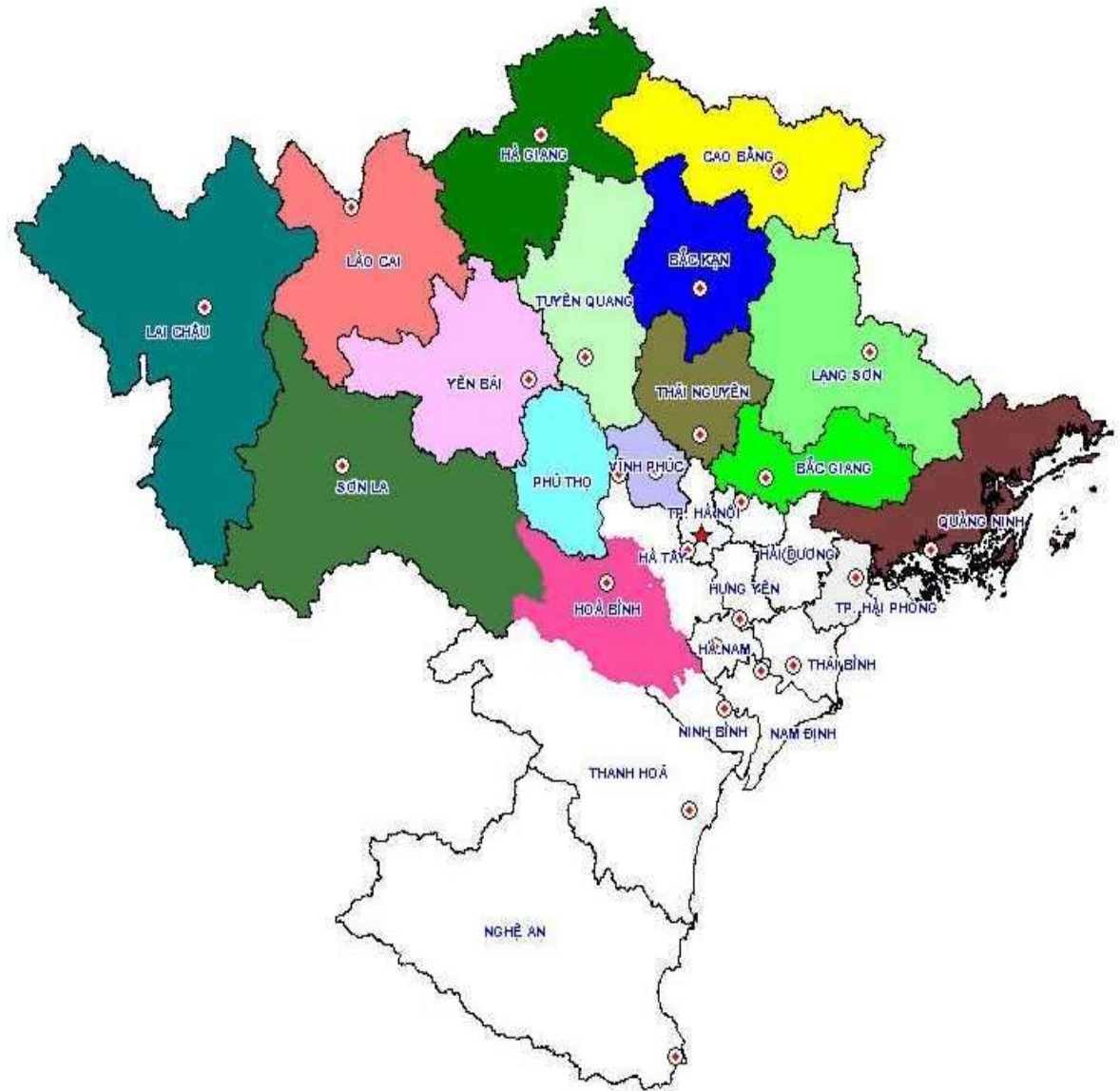
**One season
crop**

**Habitats
land**

**Two season
crop**

Background of Northern Mountainous Region

- There are 15 provinces with 102,000 km² and 12.23 million citizens belonging to 30 ethnic groups
- Almost all 80 % of land area has 25° of the steepness and only 3.6% of flat level
- Serious soil erosion and rapidly decreased crop yields
- Shifting cultivation with a shortened fallow period
- living standards is low and unstable.



CONSTRAINTS AND DEVELOPMENT POTENTIALS

Destruction of upper watershed forests



Severe soil erosion & land degradation



Scared & scattered flat
lands (terraces & valleys)
low rate of Agr. lands



Sloping lands: 85%
(over 22° slope: 62%)
Large area of bare hills/lands



Poor soil quality



Calamities

**Severe soil erosion
& land degradation**



Unsustainable practices



LOW AND FAST DECREASED YIELD OF UPLAND RICE

Case study of Mu Cang Chai

Household	Upland rice yield (T/ha)	
	Year 1	Year 3
1	1.2	0.80
2	1.0	0.75
3	1.1	0.80
4	1.0	0.80
5	1.2	0.75
Average	1.1	0.78

Unsustainable cultivation
– Low and fast decreased crop yield

