



“Barren hills” in Vietnamese science and legislation: a synthesis

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Origin

“Barren hills” (*Doi Nui Troc*, Fig. 1), keyword for land degradation in the uplands, have been created on formerly forested slopes by a complex interplay of political, economical and ecological factors (Table 1).



Fig. 1: Barren hills, common on strategic environmental positions, have inadequate road, market and extension infrastructure, and complex customary land use arrangements of local ethnic minorities.

Table 1: Major causes (%) of forest loss in Vietnam.

Region	Timber logging	Migrations		Upland agriculture	War
		State-led	Free		
Northern Mountains	19	32	9	12	6
Red River Delta	12	-	41	17	9
North Central Coast	27	24	7	15	10
South Central Coast	28	17	9	11	29
Central Highlands	31	24	5	14	17
Southeast	29	15	9	13	24
Mekong Delta	19	4	21	19	31

Trend

Though agricultural and forestry projects have been implemented, there is no particular programme on barren hills reclamation and utilization in Vietnam at present. The major national "Programme 327" achieved only limited success in land reclamation (0.9% of the plan, 1993-1998). However, short-term censuses show a constant decrease of barren hills areas (e.g. by 13% during 1995-2000).

Assessment

Currently, barren hills occupy 23.4% of the country (Fig. 2). However, the Land Law provides **no framework** for assessment of **type and severity** of degradation.

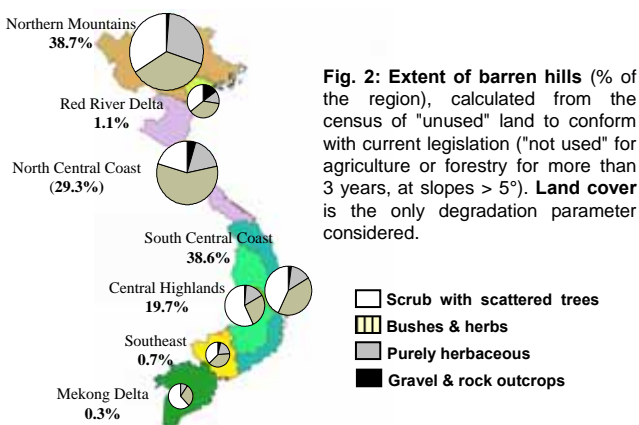


Fig. 2: Extent of barren hills (% of the region), calculated from the census of "unused" land to conform with current legislation ("not used" for agriculture or forestry for more than 3 years, at slopes > 5°). **Land cover** is the only degradation parameter considered.

Lumping all the areas that fail to conform to the State's vision of that land (non-forested, degraded, fallow, uncultivated, etc.) into the "unused" category, contrasts with the flexible local multipurpose land use patterns. Still important **shifting cultivation** land (on at least 40% of the uplands) is not officially recognised and does not appear in the statistics, so the available barren hills dynamics data should be interpreted cautiously.

Utilization planning

Utilization of this land, centrally planned after a land census every 5 years, foresees future expansion of agriculture and forestry by 21% (Fig. 3a). Scientifically, the potential of barren hills is decided upon soil characteristics, topography, irrigation possibilities, road access and population density. Degraded plots are, however, often smaller than 200 m²; thus the commonly used soil map of 2-ha resolution is inadequate. Suitability standards commonly applied are not adapted to the prevailing poor soils.

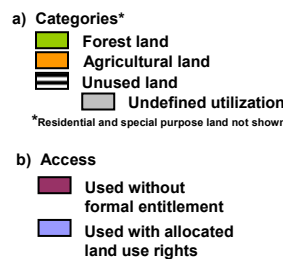


Fig. 3: Land use situation (1995-2000).

Implementing rehabilitation

Allocation of user rights to households, the major policy instrument to motivate local farmers to rehabilitate barren hills, has been slow (Fig. 3b).

- Tenural and usufruct insecurity created by unclear legislation, and numerous documents about land classification and allocation that are ambiguous both in policy and in practice, provoke reluctance towards acceptance of allocation contracts.
- Inability to reclaim the allocated land (rural poverty, inadequate extension and other governmental support): Common low-input reclamation often lasts long, and allocation contracts (20 years for agricultural and up to 50 years for forest land) are hardly sufficient. Also, often arbitrary allocation for agricultural or forestry use at local level makes the compliance with conditions of allocation impossible.
- Exacerbation of social inequalities: Better-off farmers tend to opt for forestry land, which, in the long run, secures them further economic benefits; poor farmers, in need of more land for food security, are not in the position to accept the allocation because they can not comply with contract requirements. Non-compliance penalties include taxes and contract nullification (e.g. if the land is still fallow 3 years upon the allocation).

Suggested actions

- Policies that create new opportunities in rural areas to reduce the pressure on land.
- Clarifications of utilization rights; improved land classifications to reconcile the rights and needs of the local population with the urge to protect the environment.
- Development of operative land evaluation standards, applicable for field surveys, as a basis for profitability assessment of rehabilitation investments.

Acknowledgements

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Reference

Mai Van, P. 2005. Characterization of barren hills and perspective for rehabilitation in Northern Vietnam. PhD thesis. Grauer Verlag, Stuttgart, Germany.