



*Placing Canadian Case Studies in  
an International Context*

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*Policy Envy*

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*Context for my view*

1. Large-scale restoration with little money;
2. Severely damaged;
3. No traditional reference sites;
4. Significant improvement may require many decades; and
5. Human impact will continue to be significant factor.






*Canadian experience  
a visitor's partially informed view*

1. Historical context known
2. Traditional ecological knowledge available
3. Human population not high enough to eliminate opportunities for protected, natural areas
4. Society that values natural and cultural history



### *A View from the Rest of the World*

1. Historical reference sites rare or absent
2. Traditional ecological knowledge seldom available
3. Human population has huge requirement for food, fiber, and wood
4. Most ecosystem services degraded
5. Society places little value on natural ecosystems



Biophysical changes make former conditions unobtainable and irrelevant.

No reference sites for targets (quantitative endpoints).

Should set general goals and quantifiable metrics (directional rather than endpoints).





“The last tree in the Sahara”

National Zoo  
Niamey, Niger

A photograph of a dead, gnarled tree trunk inside a building. The tree is brown and has no leaves. It is positioned in front of a window, and the background shows a white wall and a window frame. The lighting is somewhat dim, and the overall tone is somber.



Need for ecosystem services & goods will increasingly define “restoration” goals.



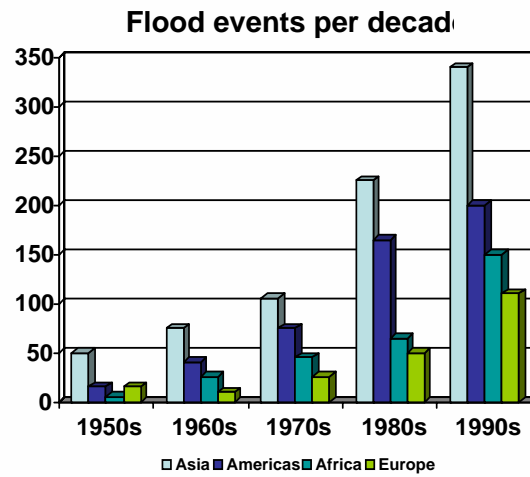
Is that bad?





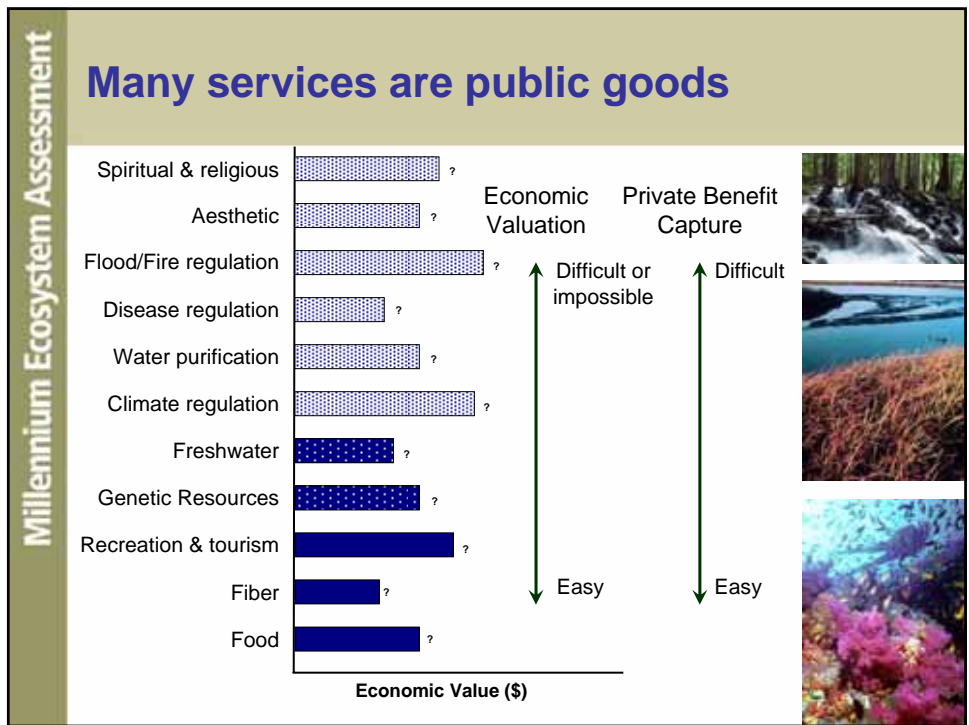
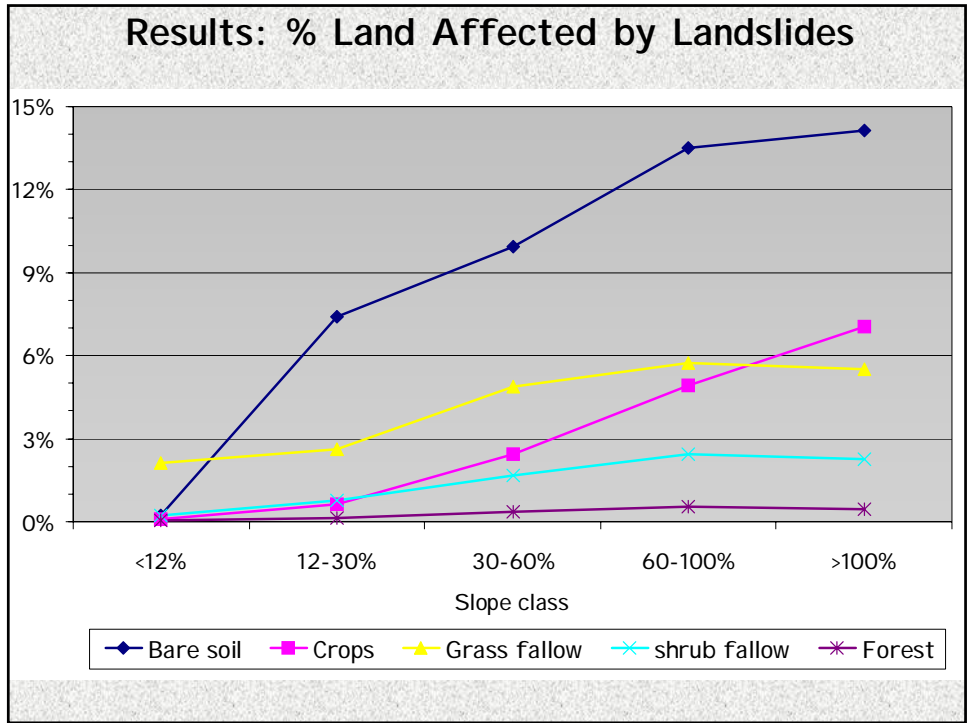
## Natural Hazard Regulation

Status:  
Degraded



Source: Millennium Ecosystem Assessment





## Costa Rica Payments for Ecosystem Services

Program established 1997

By 2001: 280,000 ha enrolled at cost of \$30 million

Typical payments: \$35 to \$45 per hectare



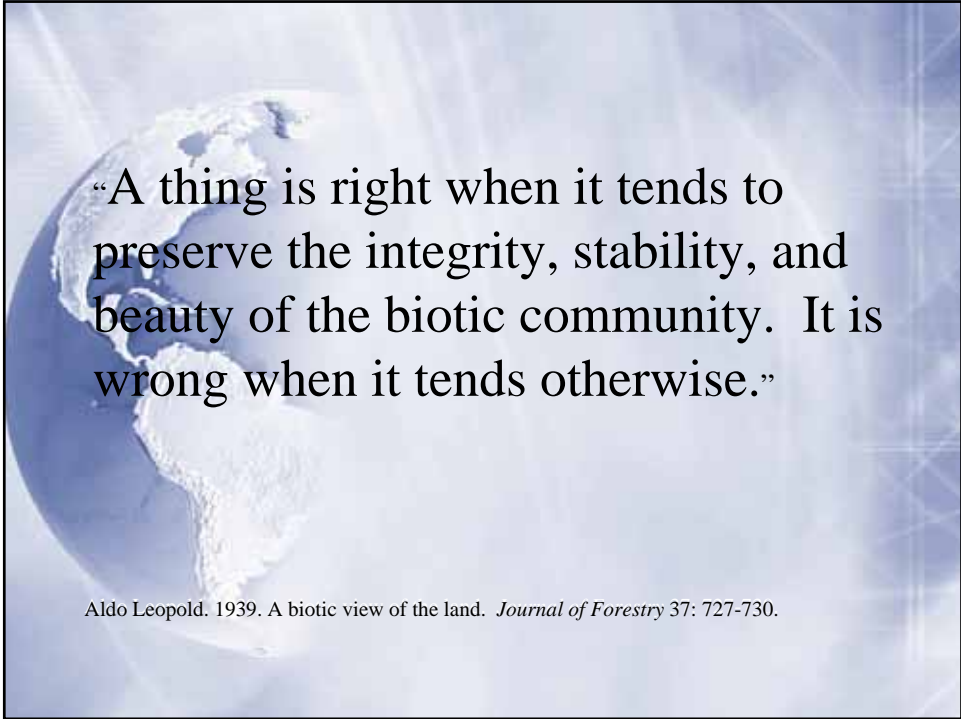


Six Year Rest



11 Years Rest





“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”

Aldo Leopold. 1939. A biotic view of the land. *Journal of Forestry* 37: 727-730.