

**Session 12:
Statistics of
Land
Degradation**

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DEFINITIONS

- **Soil erosion**: Wind and water erosion (sheet, rill and gully) of soil can be measured as net loss and applied to one of four categories: light; moderate; strong; and extreme. Alternatively, erosion can be measured visually or derived on the basis of reduced productivity.
- **Salinization**: The net increase in salt concentration in the top soil leading to declining productivity or biodiversity. Salinization can be a result of the clearing of native vegetation, the overuse of irrigation, or the evaporation of saline groundwater.
- **Desertification**: The process of land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors including climatic variations (e.g. drought) as well as direct and indirect human activities (e.g. overgrazing, intensive agricultural cultivation).

TABLE L 2

AREA AFFECTED BY SOIL EROSION

Priority	Category	Unit	1980*	1990*	2000*	2002*
	Light erosion (1)	km ²				
	Moderate erosion (2)	km ²				
	Strong erosion (3)	km ²				
	Extreme erosion (4)	km ²				
!	Total area affected by soil erosion (5) = (1)+(2)+(3)+(4)	km ²				
	<i>of which:</i> Agricultural land	km ²				
	Forest and other wooded land	km ²				
	Dry open land with special vegetation cover	km ²				
	Open land without, or with insignificant, vegetation cover	km ²				



5 -TOTAL AREA AFFECTED BY SOIL EROSION

$$(5) = (1) + (2) + (3) + (4)$$

Sum over all four categories

- ➡ 1 ~ Light erosion
- ➡ 2 ~ Moderate erosion
- ➡ 3 ~ Strong erosion
- ➡ 4 ~ Extreme erosion

OF WHICH:

L-1 (1) Agricultural land

L-1 (6) Forest and other wooded land

L-1 (11) Dry open land with special vegetation cover

L-1 (12) Open land without, or with insignificant, vegetation cover



TABLE L 3 (1) TOTAL AREA AFFECTED BY SALINIZATION

$$(1) = (2) + (3) + (4) + (5)$$

Sum over all four categories

- ➔ 2 ~ Agricultural land
- ➔ 3 ~ Forest and other wooded land
- ➔ 4 ~ Dry open land with special vegetation cover
- ➔ 5 ~ Open land without, or with insignificant, vegetation cover

Priority	Category	Unit	1980*	1990*	2000*	2002*
!	Total area affected (1) = (2)+(3)+(4)+(5)	km ²				
	Agricultural land (2)	km ²				
	Forest and other wooded land (3)	km ²				
	Dry open land with special vegetation cover (4)	km ²				
	Open land without, or with insignificant, vegetation cover (5)	km ²				



TABLE L 4 (1) TOTAL AREA AFFECTED BY DESERTIFICATION

$$(1) = (2) + (3) + (4)$$

Sum over all three categories.

- ➡ 2 ~ Dry sub-humid areas
- ➡ 3 ~ Semi-arid areas
- ➡ 4 ~ Arid areas

Category	Unit	1980*	1990*	2000*	2002*
Total area affected (1) = (2) + (3) + (4)	km ²				
Dry sub-humid areas (2)	km ²				
Semi-arid areas (3)	km ²				
Arid areas (4)	km ²				