

LAND DEGRADATION		
Land	Land use and status	

1. INDICATOR

- (a) **Name:** Land degradation.
- (b) **Brief Definition:** The indicator intends to measure the amount of land affected by degradation and its proportion of national territory.
- (c) **Unit of Measurement:** Area (Km²) and % of land area affected.
- (d) **Placement in the CSD Indicator Set:** Land/Land use and status.

2. POLICY RELEVANCE

- (a) **Purpose:** The indicator will measure the extent and severity of land degradation at the national level. It also measures the implementation of agreements and programmes to address causes of land degradation and to reclaim degraded lands.
- (b) **Relevance to Sustainable/Unsustainable Development (theme/sub-theme):** Land degradation is an impediment to sustainable development in general, and to sustainable agriculture in particular. Land degradation and soil loss threaten the livelihood of millions of people and future food security, with implications for water resources and the conservation of biodiversity.
- (c) **International Conventions and Agreements:** The two most significant agreements are: Agenda 21 of the 1992 UN Conference on Environment and Development; and the UN Convention to Combat Desertification, 1994.
- (d) **International Targets/Recommended Standards:** None
- (e) **Linkages to Other Indicators:** This indicator is linked to indicators on land use change, agricultural land, forest area, agricultural productivity, water use, water quality, abundance of species, poverty, population growth.

3. METHODOLOGICAL DESCRIPTION

- (a) **Underlying Definitions and Concepts:** The methodology for this indicator is currently under development, in relation to the Land degradation assessment in drylands (LADA) project executed by the Food and Agricultural Organization (FAO). *Land degradation* means reduction or loss of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns, such as: (i) soil erosion caused by wind and/or water; (ii) deterioration of the physical, chemical

and biological or economic properties of soil; and, (iii) long-term loss of natural vegetation. Land degradation, therefore, includes processes which lead to surface salt accumulation and waterlogging associated with salt-affected areas.

(b) Measurement Methods: A variety of assessment tools for measuring land degradation is investigated for the LADA project, including expert opinions, remote sensing, field monitoring, land productivity, participatory surveys (such as farmers' opinion). The Global Assessment of the Status of Human-Induced Soil Degradation (GLASOD) project (1987-1990) was based on expert opinions.

(c) Limitations of the Indicator: Not applicable

(d) Status of the Methodology: Under development

(e) Alternative Definitions/Indicators: Not available.

4. ASSESSMENT OF DATA

(a) Data Needed to Complete the Indicator: The data needed to compile the indicator are the extent and severity of land degradation in the country concerned. The degree of accuracy and reliability of both spatial and statistical data varies considerably and are often poorly documented and/or out of date. For some countries, the data do not yet exist. Benchmark data on desertification is critical to measuring progress.

(b) National and International Data Availability and Sources:

The webpage of the LADA project contains a number of country case studies and a wealth of related information, including references. Information on extent and severity of land degradation based on the Global Assessment of the Status of Human-Induced Soil Degradation (GLASOD) project (1987-1990) is available at the webpage of the World Soil Information (ISRIC).

5. AGENCIES INVOLVED IN THE DEVELOPMENT OF THE INDICATOR

(a) Lead Agency: The lead agency will be the Food and Agricultural Organization (FAO).

(b) Other Contributing Organizations:

6. REFERENCES

(a) Readings: See under 6 b) below

(b) Internet sites:

Food and Agricultural Organization: Land Degradation Assessment in Drylands

<http://lada.virtualcentre.org/>

World Soil Information (ISRIC): <http://www.isric.org/>

GLASOD project

<http://www.isric.org/UK/About+ISRIC/Projects/Track+Record/GLASOD.htm>