"Dryland Biodiversity Indicators"

The objective of this information service is to provide the Convention on Biological Diversity (CBD) with an up-to-date global map on the extent of drylands (dry and sub-humid lands) and their changes between 1992 and 2005.

The project assessed the following dryland-related processes and indicators:

Process	**Indicator**
Land degradation	Changes from any land cover class to barren
	Conversion of agricultural areas (crops) to less productive land cover (grasslands)
Anthropogenic influence	Conversion of shrubs and grassland to agricultural areas (crops)

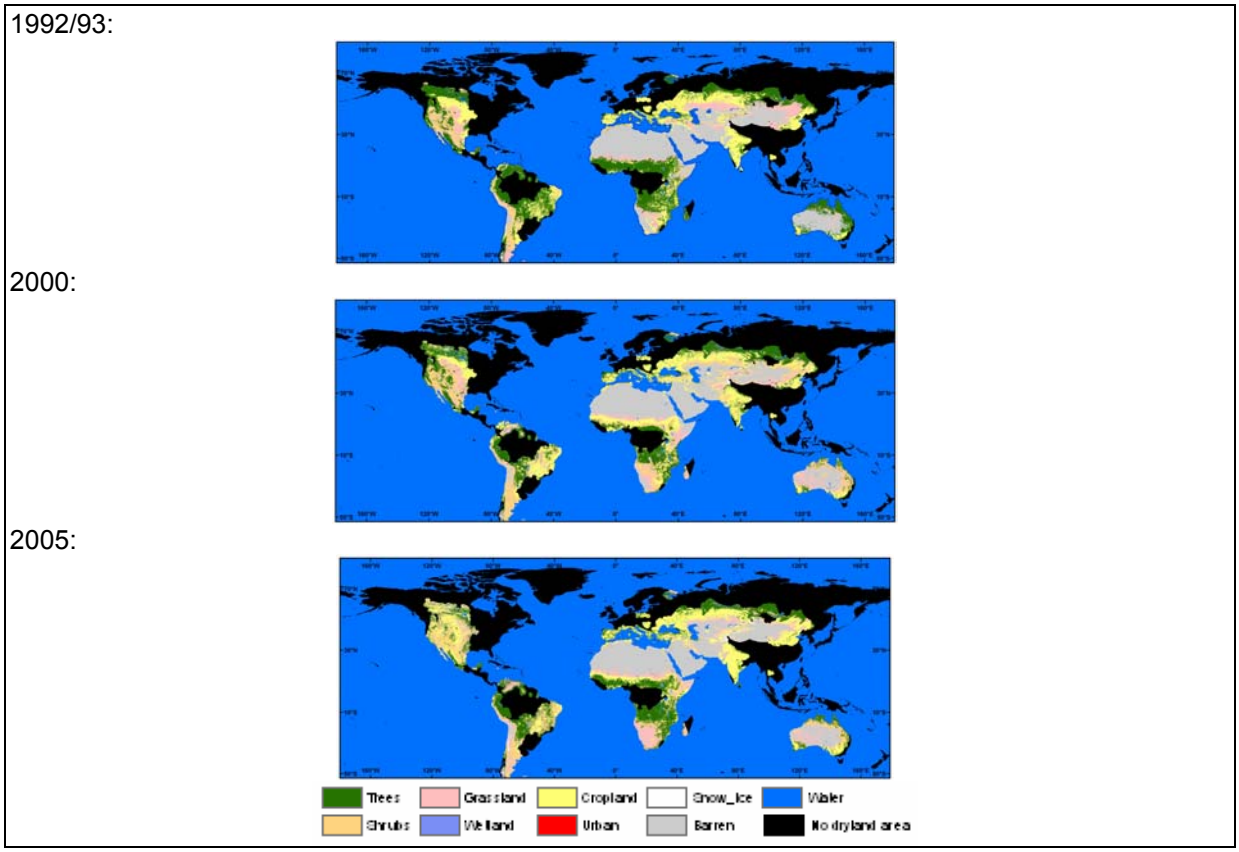

Figure 1: Land cover composition of dry and sub-humid lands 1992/93, 2000, 2005 (drylands are demarcated using UNEP's dryland mask.

The service provides indicators to describe the status and trends of drylands based on time series of already existing global land cover products.

- IGBP DISCover 1992/93

  The DISCover data set is based on monthly composites of Advanced Very High Resolution Radiometer (AVHRR) satellite observations over a 12 month period representing the global land cover in 17 classes for 1992-93

- Global Land Cover (GLC) 2000

  GLC2000 product makes use of satellite data acquired in 2000 by the Vegetation instrument on board of the SPOT4 platform. The land classification follows the FAO Land Cover Classification

System (LCCS) comprising 22 classes and was performed within a worldwide collaboration and coordinated by the European Joint Research Centre.

- Globcover 2005

GlobCover employs ENVISAT-MERIS fine resolution data (300 m) from mid 2005 to mid 2006. The thematic legend of the resulting global land cover map is compatible with the LCCS and provides an overall number of 23 main land cover classes.

The indicators developed within this study yield information on the current and historic global extent and composition of dry and sub-humid lands (see *Figure 1*) as well as their development between 1992 and 2005. The extent and land cover composition of dry and sub-humid lands are described by maps and continental to global statistics over time.

Globally an area of about 3.3 Million square kilometres or 4.1% of the world's surface, excluding the Arctic and Antarctica, (shown in red in *Figure 2*) has been affected by land degradation processes (i.e. changes to barren land and changes from agriculture to less productive land) between 1992 and 2005.

Furthermore, the map comparison shows an additional 5.3 Mio km² or 6.6% (shown in green) that are potentially affected by land degradation processes. The map comparison contains some uncertainties for these areas as the trend in these regions is not linear and the differences between the different land cover databases could also be due to differences in nomenclature and not only due to actual land cover changes.

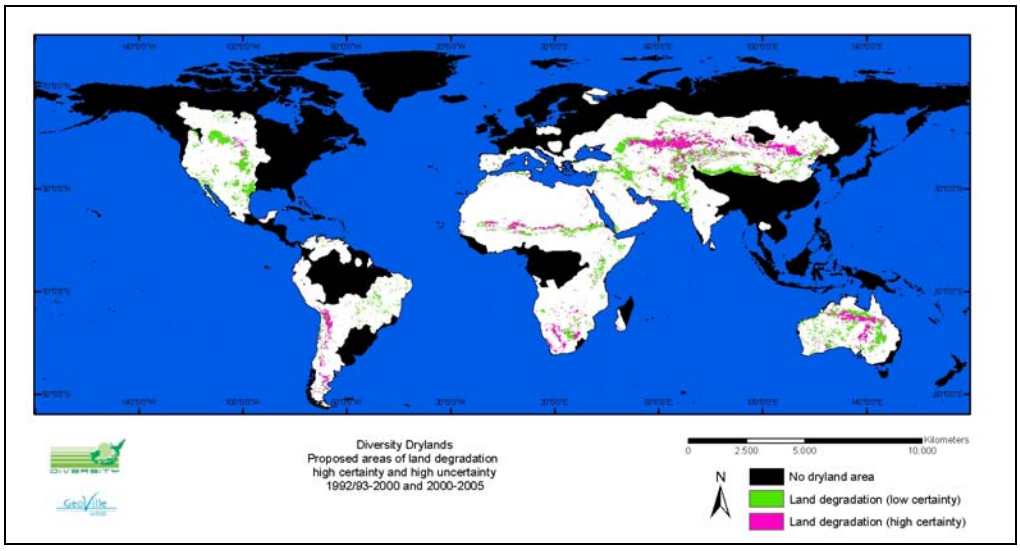

Figure 2: Areas of potential land degradation between 1992 and 2005

For further information, please have a look at the Deliverable D10 (Operational Documentation), or contact Stefan Kleeschulte (kleeschulte@geoville.com, Phone: +0043 (0) 512 562021 10).