

*FACET – Initiative for remote sensing forest monitoring in Central Africa*  
**Atlas of forest cover and change 2000-2010 in the Democratic Republic of the Congo**

Prepared by:

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**Landsat data and Forest cover/change atlas for use with Geographic Information System software**

*Data included on this DVD*

**Landsat image mosaic 2000-2005 DRC: landsat2000-2005.tif**

**Landsat image mosaic 2005-2010 DRC: landsat2005-2010.tif**

Data format: TIFF (LZW), 8bit, 3 bands  
Projection: Sinusoidal, Central meridian 20E  
Earth Ellipsoid: Sphere with radius 6370997 m  
Upper Left Corner (m) -959970 X 599970 Y  
Pixel size (m): 60 X 60 Y

Data description:

An exhaustive mining of the Landsat Enhanced Thematic Mapper Plus (ETM+) archive, totaling 8,881 images with less than 50% cloud cover from metadata, was performed to generate the forest cover extent and loss analysis. Included in this DVD are two seamless cloud-free image mosaics for the whole of the Democratic Republic of Congo. The enclosed image mosaics are based on ETM+ SWIR, NIR and Red spectral bands and represent multi-year composites for 2000 to 2005 and 2005 to 2010. The ETM+ data are resampled to a 60m spatial resolution. Image data represent top-of-atmosphere (TOA) reflectance relatively normalized using MODIS atmospherically corrected inputs. The per band reflectance values are scaled to digital numbers with a range of 1 to 255. To obtain TOA reflectance values, use the following equation:  $reflectance = (DN - 1) / 254$ . DN=0 represents no-data areas or areas outside of the DRC.

Landsat data can be accessed from the United States Geological Survey at the following website: [landsat.usgs.gov](http://landsat.usgs.gov).

**Forest cover and loss map for the DRC: map.tif**

Data format: TIFF (LZW), 8bit, single band  
Projection: Sinusoidal, Central meridian 20E  
Earth Ellipsoid: Sphere with radius 6370997 m  
Upper Left Corner (m) -959970 X 599970 Y  
Pixel size (m): 60 X 60 Y

Legend:

- 0 No Data (outside DRC)
- 1 Non-forest areas
- 2 Water bodies
- 3 No Data (within DRC)
- 4 Woodlands
- 5 Primary humid tropical forests
- 6 Secondary humid tropical forests
- 7 Forest cover loss 2000-2005 within woodlands
- 8 Forest cover loss 2000-2005 within primary forests
- 9 Forest cover loss 2000-2005 within secondary forests
- 10 Forest cover loss 2005-2010 within woodlands
- 11 Forest cover loss 2005-2010 within primary forests
- 12 Forest cover loss 2005-2010 within secondary forests

Data description:

Forest was defined as 30% or greater canopy cover for trees of 5 meters or more in height. All such assemblages that were converted to non-forest are quantified and labeled as forest cover loss. Forest cover and loss were divided into three categories, primary forest, secondary forest and woodlands. Primary forest cover is defined as mature forest with greater than 60% canopy cover. Secondary forest is defined as regrowing immature forest with greater than 60% canopy cover. Woodland is defined as forest cover with greater than 30% and less or equal to 60% canopy cover. Permanent water bodies were mapped separately