

GEOG432: Remote Sensing, Fall 2015
Environmental Change assignment (10%)
Due: Friday 30 October

Outline

Goal: to create a pair of Landsat images covering change over a period within 1984-2015
Landsat 5 images cover 1984-2011; (Landsat 7 covers only 1999-2002)
Landsat 8 is 2013-2015 – your ‘current’ image could be from Landsat 5 or 8

This should be in an area of interest to you, both the location and topic / feature
e.g. deforestation, urban expansion, coastal erosion, glacier retreat, mining, disaster ! etc..

Initial search – if you need to locate an area

You can use Google Maps to find your area of interest – zoom to it, and once there, right-click -> what’s here will give you the lat/long; You could enter these coordinates in the browser – remember that longitudes are negative for the western hemisphere – don’t go to Siberia!

You should select the optimal earliest and latest matching scenes - they don't need to span the entire period, only to show the change you desire could even be from consecutive years
Find a suitable pair of images (ideally same time of year to avoid seasonal differences)
Select according to apparent image quality and comparability – a shorter time difference is better than a longer span with different seasons or poorer quality

Final area:

Zoom in enough to clearly show area of change, but not so far that one can see individual pixels.
Also ensure peripheral features are included if they give context to the change features e.g. a lake, road or town that provides location information.

Required Output:

Two georegistered Landsat images with similar enhancements / contrast – submit as .ppt or .pptx (aligned to each other) or as animated GIF
Include the dates (day/month/year) for each image.

A brief description of what we are seeing in a (~ one page) **text/word document**– the area and the change shown; include the name of the area/country and latitude/longitude (degrees, minutes). Briefly describe the environment, the nature of the change and its impact.
Your choice of change might also include some future reversal/recovery e.g. forest clearance, fire or volcanic eruption – whereas some other changes may not reverse.