Regular text: speaker is talking

*Italics 🡪 comments on what the video should be showing*

1. *Video of Borneo island –*
2. *whole island*
3. *pictures of forested and deforested areas of Borneo*
   * Borneo rainforests, one of the oldest in the world, act as an important carbon sink for reducing carbon dioxide in the atmosphere.
   * These once-dense rainforests have been extensively deforestated since the 1960s, as a result of rapid industrialization.
   * The image data from JAXA’s ALOS Palsar show both the forested and deforestated areas in Borneo.
   * The removal of forests compromise the important role they play in atmospheric carbon uptake.
4. Video of FedEO client doing collection search (IDN keywords for search criteria: “modis, land surface, reflectance”) and showing one DIF for any of the MODIS data collections in the list. (Note : MOD15A25 selected)
   * This WGISS demo demonstrates how scientists can search and access satellite data from different CEOS agencies to study Borneo deforestation.
   * A scientist searches for (green vegetation density data – and views collection information before proceeding with a more detailed search.
5. *Video of FedEO client doing granule search for MODIS land cover data granules. Show MODIS data – show data search, browse, and button for data download*.

-- A European scientist uses ESA’s FedEO search tool to search for NASA’s MODIS data over Borneo island.

* + MODIS images tropical forests nearly daily, providing the best possibility for cloud-free observations at lower spatial-resolution. However, most forest clearing occurs at sub-MODIS pixel scales.

1. *Video of FedEO client and search for Landsat (Landsat\_TM) data – show data browse from 1 Landsat scene*
   * After identifying areas of deforestation with MODIS,, the scientist uses the same tool, to search for high-spatial-resolution Landsat data from the USGS for more accurate assessment of change in forest area since the early 1980s. But this data suffers from less frequent observations and frequent cloud cover. On the plus side, Landsat TM, ETM+ and OLI/TIRS data form a 30+ year history for global monitoring.
   * The southeastern part of Borneo is an area of interest.

*(5) Video of FedEO client accessing browse of SPOT data.*

* + The user can also access the better resolution of the SPOT imagery from CNES which can add extra information in the forest cover evolution analysis. The repetitiveness of acquisitions and the high resolution of images allows detection of subtle changes in surface cover, notably in the forestry domain.

1. *Video of FedEO client accessing browse of Envisat C-band data with Sentinel-1 data*

- The user can access ESA’s Envisat C-band data with the European Sentinel-1 data to perform a temporal analysis of tropical forest coverage comparing old data with the new.

- ENVISAT ASAR C-band data provides valuable information concerning change detection occurring in forest areas, particularly when cloud cover is a problem using optical imagery.

-The Sentinel-1A, a continuation of Envisat for SAR, plays an important role by continuing to fill observational gaps due to cloud cover.

*(7) Video of CWIC-Smart client doing collection search, and then accessing browse of same MODIS product, Landsat products, SPOT, ENVISAT, and same Sentinel product. Show as much as can be shown during the concluding remarks)*

* + Across international waters, an American colleague uses NASA’s CWIC-Smart search tool to access the same data.
  + The results of their studies into the Borneo deforestation can be given to policymakers who can make decisions.
  + We have demonstrated that scientists are able to use independently developed search tools to access satellite data at many CEOS agencies.
  + In this demonstration, we showed scientists accessing satellite data from NASA, USGS, CNES, ESA, and the EC using two tools.
  + The ability to search and access data from multiple CEOS agencies and perform inter-comparisons with the satellite data are valuable capabilities for scientists studying environmental problems.
  + The use of the WGISS interoperability standards for search and access makes this possible. These tools enable advisors to use satellite data in combination with other information to study environmental issues to benefit future generations.

List of Datasets :

Please note updated entry ids. Some of the data had several versions of the same dataset with several versions of the entry id. The dataset list of entry ids has been updated to use the most recently updated data.

MODIS:

MODIS Land Cover: MCD12Q151

MODIS LAI/fPAR: MOD15A25, MYD15A25

MODIS Gross/Net primary productivity: MOD17A255, MYD17A25

MODIS Albedo: MCD43B35

Landsat:

TM - CWIC:GDC:Landsat\_TM

ETM+ - CWIC Entry ID: LANDSAT\_ETM\_PLUS

OLI/TIRS - CWIC Entry ID: Landsat\_8

PALSAR Global mosaic - CWIC Entry ID: ALOS\_PALSAR\_Global\_Mosaic\_Forest\_Non-forest\_50m (this has been marked as GEOSS Data Core but cannot be independently accessed outside their system. However, maybe we can show images from this dataset in the intro??)

SPOT data – FedEO Entry ID:  EOP:CNES:TAKE5:SPOT5

See <http://geo.spacebel.be/opensearch/request/?uid=EOP:CNES:TAKE5:SPOT5>.

Not yet available @fedeo.esa.int.

Sentinel-1 – FedEO Entry ID : EOP:ESA:SENTINEL\_1\_L1\_GRD

See <http://geo.spacebel.be/opensearch/request/?uid=EOP:ESA:SENTINEL_1_L1_GRD> or <http://fedeo.esa.int/opensearch/request/?uid=EOP:ESA:SENTINEL_1_L1_GRD>

ENVISAT ASAR – FedEO Entry ID : EOP:ESA:ESA.EECF.ENVISAT\_ASA\_APC\_0S (TBC)

See <http://fedeo.esa.int/opensearch/request/?uid=EOP:ESA:ESA.EECF.ENVISAT_ASA_APC_0S> or <http://geo.spacebel.be/opensearch/request/?uid=EOP:ESA:ESA.EECF.ENVISAT_ASA_APC_0S>

IDN Keywords:

For storyline Point 2:

MODIS Landcover (for point 2 above)

“modis, land cover” 🡪 MCD12Q151 (MODIS/Terra+Aqua Land Cover Type Yearly L3 Global 500 m SIN Grid V051); fits the storyline but no browse available

MODIS leaf area index – MOD15A25 (for point 2 above)

“modis, land surface, reflectance” 🡪

“MODIS/Terra Leaf Area Index/FPAR 8-Day L4 Global 1km SIN Grid V005”

#140 out of 270 results when using the UI at idn.ceos.org to do the search

#34 out of 54 results when searching with CWIC-Smart client (live search to IDN OS port)