# DGs and available data, information needs and user stories:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DG | Information needs | Response to proposed user stories | Priority | Comments EDW |
| ECHO | Help implement the UCPM by providing information on fire danger, active wildfires and (hopefully soon) fire risk (EFFIS) | This is clearly a EFFIS task  However, FISE could extract information from EFFIS on area and distribution of forest fires over time, including information on area and distribution of cumulated burnt forest areas (agree with JRC on how).  Coupling this information to other FISE information, would answer questions on degree of degradation after disturbance eventually explain/relate to fires causes, allow for characterisation of forest fires and some statistics regarding tree species, type of management remoteness, in protected areas, in recreation areas (close to cities) | High priority to use the opportunity of our current work with JRC on transfer of data and information | <http://effis.jrc.ec.europa.eu/applications/data-and-services/>  The data are in tifs for a period of 7,14,30 days.  Export in CSV upon request |
| REGIO | assess wildfire damages in the context of the EU Solidarity Funds (a function already delivered by EFFIS) | See the answer above | See the answer above | Same as above, corroborated with the data from the JRC on fires.  Alternative: <https://data.jrc.ec.europa.eu/dataset/292622eb-1be7-4f1d-8991-a72e1400f9e9> |
| ENV | Create comprehensive EU 'country briefs' (notably for EU Member States) with information (notably figures and thematic maps) on forest area, forest types, forest management intensity, forest biomass, forest carbon, share of N2000 protected forest area, conservation status of protected forest habitats etc. These briefs could be attached to briefings for the hierarchy (for meetings, speech etc.). | We discussed that on the SKYPE talk: crossing country information from the Forest Europe and FAO stats. Crossing information to answer e.g.  Area of broadleaved forests that are more 80 years old growing on mineral soils in forested watersheds by country – see the list of questions I compiled and the feasibility and accessibility of the information  State and trends (when the data will be available) | 1. priority: not everything but some requested information |  |
| Create monitoring tables or graphs that cover longer period in time and display, for a specific country of region, the evaluation e.g. forest area, conservation status, biomass, carbon, to identify trends in these areas, and to assess correlations e.g. between forest area, carbon balance, and biomass stocks and flows. | This a more about how to present it  I liked the TABLEAU approach |  |  |
| Monitor the effects of wildfires and other natural/man-made disasters on nature (in particular Natura 2000 areas) | Coupling the information from EFFIS to other FISE information, would answer questions on degree of degradation after disturbance eventually explain/relate to fires causes, allow for characterisation of forest fires and some statistics fires in protected areas- see answer in the first row | See the ECHO and REGIO requests |  |
| AGRI | Similar to ENV i.e. retrieve data for a variety of forest parameters in one go, to use them for briefings, analyses etc. | See my list and above answers | Would be very similar to DG ENV |  |
| CLIM | In the context of the LULUCF from 2021 have an forest carbon inventory with spatially explicit LULUCF data layers | This we can get from the LULUCF reporting conducted at EEA | 2. priority again some examples due the high actuality of LULUCF and the fact that this is a very high agenda topic at the EEA  This as a case study |  |
| Annual carbon stock change reports with a reasonable level of aggregation (NUTS) | This we can get from the LULUCF reporting conducted at EEA | Eventually also this one |  |
| Allow plausibility check of the numbers provided by MS (i.e. to what degree do other relevant forest parameters - such as area, type, biomass stocks and flows etc. – support the official forest carbon balance figures which EU member states submit under the LULUCF framework) | This we can get from the LULUCF reporting conducted at EEA | This only if FISE is to continue after the pilot project ☺ |  |

# Datasets that have been identified:

## **COPERNICUS Hydro:**

**EU Hydro** <https://land.copernicus.eu/pan-european/satellite-derived-products/eu-hydro>

## **European Vegetation survey:**

**EVA (European Vegetation Archive)** <http://euroveg.org/eva-database-obtaining-data> - needs a request for access to the data

## **JRC**

1. <https://data.jrc.ec.europa.eu/dataset?q=forest&sort=sort_criteria+desc&page=2>
2. <https://data.jrc.ec.europa.eu/collection/fise> - datasets labelled with FISE
3. <https://data.jrc.ec.europa.eu/dataset/7e3f0681-5967-41f7-ae9b-87f1c3cfac4f> - part of MAES, could be from BISE
4. <https://data.jrc.ec.europa.eu/collection/maes>

## **FOREST JRC:**

European Atlas of Forest Tree Species (ask the JRC for its transfer to FISE officially)

* <http://forest.jrc.ec.europa.eu/european-atlas-of-forest-tree-species/atlas-data-and-metadata/>
* <http://forest.jrc.ec.europa.eu/download/data/google-earth-overlays/>
* <http://forest.jrc.ec.europa.eu/download/data/forest-data-download/>
* Meanwhile we can download it from <https://www.nature.com/articles/sdata2016123>, documentation on <https://www.nature.com/articles/sdata2016123>, section on rights and permission: <https://www.nature.com/articles/sdata2016123#rightslink>

## **LULUCF**

* <https://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2012/annex-2.9-crf-tables-lulucf/view> (is the data up to 2016 available?)
* <http://forest.jrc.ec.europa.eu/activities/lulucf/>
* <https://unfccc.int/topics/land-use/workstreams/land-use--land-use-change-and-forestry-lulucf>

## **EUFGIS**

* <http://portal.eufgis.org>

## **EFFIS**

* <http://effis.jrc.ec.europa.eu/applications/data-and-services/>

## **FAO**

* <http://www.fao.org/state-of-forests/en/>
* Country profile example: <http://www.fao.org/countryprofiles/index/en/?iso3=ROU>
* <http://www.fao.org/faostat/en/#data>
* <http://www.fao.org/faostat/en/?#search/forestry>
* <http://www.fao.org/forestry/46203/en/>
* <http://www.fao.org/in-action/global-forest-survey/en/>
* <http://www.fao.org/sustainable-development-goals/indicators/1521/en/> and other indicators <http://www.fao.org/sustainable-development-goals/indicators/en/>

## **EFDAC**

* <http://forest.jrc.ec.europa.eu/download/data/>
* <http://forest.jrc.ec.europa.eu/download/data/species-distribution/>

## **Alpine convention**

* + <http://webgis.alpconv.org/>

## **Bioeconomy Knowledge Centre – referred in the Concept Paper**

* <https://biobs.jrc.ec.europa.eu/knowledge-library/datasets/forest>
* <https://biobs.jrc.ec.europa.eu/topic/biomass>

## **EUROSTAT**

* <http://ec.europa.eu/eurostat/data/database>

## **ICP:**

* <http://icp-forests.net/page/icp-forests-technical-report>
* <http://icp-forests.net/page/publications>
* About data and rights <https://www.icp-forests.org/pdf/manual/2016/ICP_Manual_2017_02_part01.pdf>
* Collaboration project JRC and ICP <https://www.icp-forests.org/pdf/icp_projects/Project_description_131.pdf>
* EEA, DG ENV should sign a collaboration protocol for data exchange, if considered of importance for FISE

## **FOREST EUROPE**

[http://dbsoef.foresteurope.org/#](http://dbsoef.foresteurope.org/)

## **CFP - Collaborative Partnership on Forests**

<http://www.cpfweb.org/en/>

## **DIABOLO - Distributed, Integrated and Harmonised Forest Information for Bioeconomy Outlooks**

<http://diabolo-project.eu/>

## **Global Forest Watch**

* <https://www.globalforestwatch.org/map/3/38.32/28.58/ROU/grayscale/loss/607,556,580,592?tab=analysis-tab&begin=2001-01-01&end=2016-01-01&threshold=30>
* <http://water.globalforestwatch.org/>
* <http://climate.globalforestwatch.org/map/3/25.57/16.80/ALL/dark/biomass_loss?begin=2001-01-01&end=2017-01-01&threshold=30>
* <https://fires.globalforestwatch.org/map/#activeLayers=viirsFires%2CactiveFires&activeBasemap=topo&x=25&y=58&z=5> – based on NASA datasets

## **Initiative of the World Resources Institute WRI**

* <http://datasets.wri.org/>
* <http://www.wri.org/resources/maps>

**Other datasource proposals, ideas:**

* **NASA** - <https://gcmd.gsfc.nasa.gov/search/Titles.do?search=#titles>
* **UN REDD** - <http://www.un-redd.org/> - looks a bit irrelevant, data from other regions also collected
* **UNFF** - <http://www.un.org/esa/forests/index.html>
* **EFI -** <https://www.efi.int/> and dataservice here <http://dataservices.efi.int/euromap/phase2/register.php> (registration needed)
* **EFISCEN -**
* **ENFIN -** <http://enfin.info/>
* **Less important:**
  + WSL, for Switzerland - <https://www.wsl.ch/en/forest.html>
  + ITTO – International Tropical Timber Organisation <http://www.itto.int/annual_review_output/?mode=searchdata>
  + **Finland -** <https://smy.fi/en/forest-fi/graphs/forest-owners/>

EUFORGEN network has stopped to produce their own maps, they will rely on a new generation of better maps developed by the JRC (in between the European atlas of tree species): <http://www.euforgen.org/about-us/news/news-detail/better-distribution-maps-for-tree-species-now-available/>.

From Annemarie:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Relevance to** | **Source(s)** | **Feasibility** | **Comments** | **Comments EdW** |
| Forest area | ENV, AGRI | COPERNICUS TCD-Forest map: Copernicus land services site  Forest Europe statistics: UNECE forest site  JRC collected country forest area statistics: data set 2  Work from ETC/ULS | good | Basic information | Tracasa, maps |
| EU protected forest habitats (incl. conservation status) | ENV, AGRI | Natura 2000 sites, CDDA, MS reserves and nature parks: from EEA SDI | good |  | TBD |
| Wood production | ENV, AGRI | FAOSTAT statistics at country level, FLUDE database online, <http://www.fao.org/faostat/en/#data> |  |  | FLUDE not found, website no longer available. Use:  <http://www.fao.org/faostat/en/#data/FO> |
| Removals and emissions | ENV, AGRI, CLIM | Emissions country level from KP and LULUCF reporting:  <https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018>  See also land use matrix  Removals: country statistics  Forest management activities, storms and fires may be mapped based on COPERNICUS TCD | Good but country level  More complex, feasible but country levels  Relatively good |  | <http://di.unfccc.int/time_series>  Can be exported also at EU level  Land use matrix visualisation implemented, EdW |
| Biomass | ENV, AGRI | UNECE and Forest Europe statistics  Copernicus above ground biomass map | Country statistics  Good but  complex as resulting from modelling | Based on forest growing stock (volume), height and expansion factors by species, differs country to country |  |
| Forest carbon stocks | ENV, AGRI, CLIM | Transformation of above ground biomass into carbon stocks – once biomass is estimated it is a transformation. The challenging part is litter, soil organic matter, deadwood and below ground tree biomass | As above  On top of that the other 4 pools | As above | <http://www.forestcarbonportal.com/#fcp_map> |
| Forest fires | ECHO, REGIO | EFFIS | Depending on JRC |  | Tracasa |
| Other stories:  Location of continuous big forests | EEA |  |  |  |  |
| Relation between freshwater’s quality and forests | EEA |  |  |  |  |
| Forest in mountain areas | EEA |  |  |  |  |
| Forest connectivity (fragmentation) | EEA |  |  |  |  |

From Project charter - Proposed list of data sources:

|  |  |  |
| --- | --- | --- |
| National Forest Inventory (NFI) data | Countries with an open access policy provide raw data |  |
| COPERNICUS Land Monitoring | Include here the HRL forest layers, derived products and services and other forest-relevant HRL and VHR layers |  |
| Forest Europe 'State of Europe's Forests 2015' | Possibility to obtain data currently published in a UNECE database? The 2015 FE data in the paper report contain many errors. |  |
| Natura 2000 data | Reporting on the Habitats and Birds Directives (Articles 17 and 12 assessments); Forests in Natura 2000 sites (available in Natura 2000 viewer, which should also make numerical data available, which is not currently the case) | <http://natura2000.eea.europa.eu/>  <https://bd.eionet.europa.eu/article17/reports2012/>  <https://bd.eionet.europa.eu/article17/reports2012/habitat/progress/?period=4&group=Forests&conclusion=overall+assessment> – already integrated in the FISE portal |
| ICP Forest data | Available in EFDAC. Includes N deposition and concentrations etc Use if data will require agreement with ICP. Can be accessed directly from EEA – time series since 1992 | *We do not yet have access to the data* |
| Other forest biodiversity datasets provided by MS | Forest bird indicators, both national and EU, to be developed by the European Bird Census Council (EBCC) | <http://www.ebcc.info/>  <http://s1.sovon.nl/ebcc/eoa/>  *What to choose from existing data?* |
| DG SANTE data | Data and geographical information e.g. on forest pests and epidemics; Forest Reproductive Material Information System (FOREMATIS) | <http://homed-project.eu/>  <http://ec.europa.eu/forematis/> |
| EUFGIS – European information system on forest genetic resources | Includes EUFORGEN databases on forest genetic resources in Europe |  |
| CAP indicators | See <http://ec.europa.eu/agriculture/cap-indicators/index_en.htm> | <https://agridata.ec.europa.eu/extensions/DataPortal/cmef_indicators.html> |
| EUROSTAT data | E.g. wood production and trade for EU-28 and other large producers (sourced from FAOSTAT); annual statistics on renewables: gross inland energy consumption of renewable energy, i.e. solid biomass (wood) and other biomass and municipal waste; Forest accounts for physical and monetary value of services |  |
| European Tree Species Atlas | Data in EFDAC |  |
| EFI database of forest models |  |  |