



Support to wildfire management in the Amazon and Latin America and the Caribbean (LAC) region

Second virtual meeting of the Experts' Group on Wildfire Management

Place: Zoom

Date: 04/05/2021

Time: 15.00-18.00 CET

1. Participants

The meeting was conducted by Jesús San Miguel Ayanz, European Commission – Joint Research Centre (JRC) Directorate E – Space, Security and Migration Disaster Risk Management Unit (E.1). The list of participants is included in the annex.

2. Agenda

- Presentation of the Global Wildfire Information System (GWIS)
- Discussion of the establishment of an expert group for LAC
- AOB

3. Presentation of GWIS

3.1. Presentation of GWIS

The Global Wildfire Information System ([GWIS](#)) processes satellite data and converts it into real-time information on wildfire management, convergent to different national systems.

This is a joint initiative of the Group on Earth Observations (GEO) and the Copernicus Programme, that brings together existing information sources at national and regional level to provide a comprehensive view and evaluation of fire regimes and fire effects at global scale.

GWIS's compatibility with national systems makes it a flexible and adaptable tool for concrete methodologies and needs. As such, this system may support the LAC region to collaborate through harmonised data to support regional policies. The Global Wildfire Information System (GWIS) was created within the scope of two programs: Group on Earth Observations Programme (2020 – 2022) and EU Copernicus Programme (2021-2027).

GWIS covers:

- Danger forecast,
- Hazard detection,
- Burnt area map,
- Land cover damage,
- Emissions assessment

Benefits to have a regional/national system:



- Access to harmonized and live data,
- A reliable scientific method based on cooperation among expert groups
- Helps to raise awareness on wildfire management and could be used for education,
- Based on a proven system (European Forest Fire Information System),
- A preponderant and useful tool to promote interaction and collaboration between countries for knowledge exchange.

3.2. Questions and answers

- *Luis Olguin, what is the resolution of the products mentioned?*

Jesús San Miguel Ayanz: The resolution for danger forecast corresponds to European standard, i.e. 8 kilometers. For burned areas there are different products with different resolutions, for example MODIS, that has a resolution of 500 meters(?). For the emissions assessment, the resolution is of more or less 25 km.

- *Videci, Bolivia, Does the system have the OGC standard and is it possible to connect via WMS?*

Jesús San Miguel Ayanz: Yes, all the data is OGC standardized and available to download on the website.

- *Rossano, How do you measure emissions?*

Jesús San Miguel Ayanz: Emissions are measured through two methodologies. FRI, energy detected as a signal into the satellite sensor. The energy corresponds to the biomass of certain types of emissions. The other source is Liffet(?). A reference point of emissions that is used in the scientific community; another database will be added in one month.

- *Gustavo Adolfo Galindo Garcia, I would like to know about the products associated to Sentinel 3. Would they be included in GWIS with the option to use them for the Americans lands? What filters are you using for active hotspots and burnt areas?*

Jesús San Miguel Ayanz: Sentinel 3 was not included initially but given that GWIS is within Copernicus (funding Sentinel), the objective is to integrate those products too. GWIS is still under development, taking into consideration the feedback and advice from forestry associations.

There are two methods related to emissions assessment: radiating power detected by the sensors is a direct method that uses the energy detected and detects the type of gases that are being released. Other types of emissions come from GFS and it detects the types of fuel that is being burned on the ground. This method can differentiate between a range per energies emitted (Black carbon, Methane).

Filters are used to avoid false alarms. We use an index measuring the vegetation. When the index indicates that there is no vegetation around the heat source, it is not declared as WF. Possible to have more details if needed.

- *Carlos Salinas, What do local experts need to do in order to use this information effectively? Trainings are sometimes needed, even for regional projects. In this system, what would we need?*

Jesús San Miguel Ayanz: Of course this is important to navigate everything, but the system has been created to be as simple and as easy to understand as possible. Training per se would only be webinars to show how data can be, for example downloaded, displayed and saved. Regarding IT, there's no training needed, maybe only if you want to include new sets, to format it appropriately. This is a very simple to accessible to everyone.

- *Jose Luis Epiquien Rivera: Could you explain how GWIS was developed? Was the website developed on an open platform or a paid platform?*

Jesús San Miguel Ayanz: Everything was developed with open-source systems providing free access to every user. The website was developed mainly using coding languages (Python, Java, ...). For the products inside the system, the info for each kind of data is available on the technical background.

- *Diana Soto: Is the site only available in English?*

Jesús San Miguel Ayanz: For the moment the website is only available in English but it can be translated to other languages, at least to Spanish and Portuguese.

- *Lawrence Nobrega De Oliveira: Is the application compatible with other plaforms?*

Jesús San Miguel Ayanz: Most of the data set presented on the map are downloadable on the data and services pages of GWIS website. Fire services can download a database regularly to insert them in their IT systems, like in the EU. For all countries, the data can be divided between its administrative regions.

4. Discussion of the establishment of an expert group in LAC

4.1. Expert group on wildfire management

The Expert Group on Forest Fires (EGFF) is a network of experts on wildfire management from 43 countries in Europe, Middle East and North Africa.

EFFIS and EGFF are instruments to prevent and tackle wildfires from a regional perspective. These initiatives that promote collaboration between countries are based on their complementarity: EFFIS collects data that EGFF exchanges.

EGFF, that was created in 1998, is a stable and apolitical platform that allows the countries to exchange ideas, lessons learnt and best practices through regular meetings between its experts. Through this network, countries are able to engage in dialogues that improve their wildfire management and monitoring capacity.

A regional group of experts on wildfire management in LAC would enhance the regional capacity to prevent and tackle the full cycle of fires in the region. This group would work as a platform to exchange convergent data from GWIS complemented with essential knowledge between the countries.

4.2. Expert group in LAC

The LAC region have long term expertise in wildfire management. By creating an expert group on wildfire management, the countries would be able to exchange comparable data harmonised to the national systems and at the same time facilitate the exchange of essential information and knowledge on wildfire management.

Potential impact of GWIS and the expert group



EU-LAC Policy Dialogue Support Facility

- A global scale information system that provides comparable data to different national systems,
- An integral tool that manages and monitors the entire cycle of fire management starting with prevention and ending with the vegetation regeneration,
- A flexible system to support regional policies,
- A platform of regional experts to exchange lessons learnt and best practices for the full fire cycle,
- An effective network to improve national wildfire management and monitoring capacity.

4.3. Questions and answers

- Francesca Majorano, Is it possible for scientific organization and the civil society to participate in the expert group?

Jesús San Miguel Ayanz: It is possible for those groups to participate without being a direct member of the group. Their participation is indirect, through research for example. There are sometimes invited but do not participate. An important aspect of the expert group is that its members should represent their own countries.

5. AOB

5.1. Next meetings

- Third virtual meeting of the Experts' Group on wildfire management: 26 May 2021

5.2. Related documents

- *Two Power Point documents presented during the meeting*
- *Links to the websites of [EFFIS](#), [EGFF](#), [GWIS](#)*
- Presentation of [communication materials](#) for the Project.

5.3. Presentation of communication materials for the Project

A series of communication products has been developed:

- Two one-pagers, one on EFFIS and EGFF and a second one on GWIS and the LAC expert group
- A 2D animated video.

Each one-pager will be presented in English, Spanish and Portuguese and the video in English with subtitles in Spanish and Portuguese.





- *Andrea Bustos: My advice about the video is that not all fires are bad and that there are ecosystems adapted to fire, and when we see them from satellite platforms, we must be careful in how the data is interpreted since there are natural fire regimes.*

Jesús San Miguel Ayanz: The video is a little bit focused on collaboration between countries and say that the collaboration is good for wildfire management. The goal is not so much to describe the process of fires. However, we could include a part mentioning that not all fires are bad and are crucial to some ecosystems.

Annex

Participants

Bolivia

Brazil

Chile

Colombia

Ecuador

Paraguay

Peru

FAO

OTCA

EU Delegations & EEAS

EU INTPA

EU JRC/CCI

EU-LAC PDSF