

EGFF LAC 2nd Meeting 28-29 July 2022 – Santiago: Notes

Summary

Points and Ideas

1. Countries are using remote sensing data to prepare products and platforms that provide information on the elements of fire management. The approaches appear to share elements in common. Possibly:
 - a. Convene a more in-depth discussion to exchange on methods, ideas and future steps. Perhaps as part of the next EGFF LAC meeting?
 - b. Questions that might be used to stimulate discussion:
 - i. Are other forms of data being used or integrated?
 - ii. Has there been consultation with the planning, management and operations staff? What feedback have they provided?
 - iii. Has there been a setting down of the 'decision path' for those who are sent or use the products? ie – where are the products applied to the 'decision path'? If applied how could they be improved? If not applied why not and can the limitation be overcome?
 - iv. If no 'decision path' convene a group to 'walk through' what the decisions they make are for assessing risk, planning, operational decisions.
 - c. CEOS is undertaking a Wildfire Pilot that includes assessing all the currently available and future satellites with fire related capability. It also is undertaking a stakeholder and user consultation.
 - i. The EGFF LAC would be a suitable group for the consultations.
2. A number of countries are using or testing detection cameras. They have been available for some years, probably over a decade, but do not seem to be installed in many countries or situations.
 - a. What has been the contribution of cameras to detection?
 - b. Value for money – are the cost, maintenance and the staff required to operate them efficient and effective and value for money compared to the alternatives?
 - c. The figures:
 - i. How many fires are detected by cameras?
 - ii. How many fires are only detected by cameras?
 - iii. How many fires that could have been detected by cameras are not detected by cameras?
3. The lack of data to support analysis of the benefits of investment in risk reduction to reduce damage and loss – vs – fire suppression costs.
 - a. This is a MAJOR weakness in the underpinning data and information on wildfires.
 - b. The existing analysis suggests the investment return in avoided damage and loss is potentially massive. The assumption is that it would be positive if not actually massive.
 - c. There is no set of data collection methods and consistent analysis set out that will enable this step to be taken.
 - d. Collaboration across the region and with relevant agencies could initiate the process of finding/designing the data collection to support the analysis of risk reduction -vs- fire suppression + damage and loss.

4. A number of countries noted data and information from 'App' from the field and to the field. FOLLOW UP:
 - a. ASEAN REGION WEBINAR EARLY AUGUST ON APPS FOR FIELD USE – report back to EGFF LAC on that?
 - b. ALSO RELATES TO THE INTEREST OF PARAGUAY (Alejandro Roman)
5. Ecuador - Are going to propose that the FAO should be the articulating entity for these expert meetings so there can be follow up and support of processes for the EGFF, with the support of the EU in the coming years. Providing input on what the EU and others are doing.
 - a. Will propose this at the COFO and then the COFLAC

Ideas for topics of agenda items for EGFF LAC

6. Collate together a list and description of current fire related projects and efforts across the region. As feasible also include past projects.
 - a. Noted in the EGFF LAC were projects from FAO, publication by UN, projects under OTCA, Italian Cooperation Agency (AICS). Other actors involved included USAID and Spain.
7. Argentina noted - Have added a 'tax' (?) on insurance and now have 50 times the budget. This is an interesting approach. It would be worth presenting and explaining at the next EGFF LAC meeting.
8. Chile - Have prepared a fuel map. Member nations could present on fuel mapping methods, approaches and descriptions of fuels across EGFF LAC?
9. Columbia - The NDC includes a target to reduce wildfires.
 - a. The inclusion of fire related emissions in NDCs and the potential for wildfires to impact on NDCs may be a topic for future EGFF LAC meetings?
10. Wildfire risk assessment – the Pan-European Wildfire Risk Assessment was recently released. A number of EGFF LAC countries noted 'early warning' and other efforts to identify conditions that contribute to wildfire potential (weather, fuels, ignition sources, topography, etc).

ACTIONS from this EGFF meeting

11. DONE - Commend logistics and arrangements – among the best I have ever experienced.
12. DONE - Send most final version of Chile 2016 report to PvL
13. Arrange translation of 5Rs into Spanish and Portuguese
14. Circulate a copy of the Regional Wildfire publication by the UN to the participants.

Día 1: 28 de julio de 2022

Apertura y bienvenida – moderator Patricio Sanhueza

Sr./Sra. X, Centro Común de Investigación, Comisión Europea – Ana Beatriz Mar..

- Recounted the project and importance of it, noting another initiative that will continue the activity until 2028.
- Noted emergencies, CC, reducing emissions. Increasing complexity.
- This initiative relates to some existing initiatives that are ongoing.
- Technology change, opportunity.

Sr. Christian Little, Executive Director CONAF

- Good to be meeting in person. Pueblo, manager of fires for CONAF noted this meeting of colleagues from LAC. Minister not able to attend and sends his warm greetings for the meeting.
- Christian has been Executive Director for three months in a very diverse country where fires are of strong interest to the country and the people. Soon after starting the position there was a fire in Valparaíso where houses burned. Asked about prevention and received a report that noted that ar had a very low budget and requested doubling to strengthen prevention. **Noted a void in reports and analyses that identify the value of interventions in respect of reducing impacts, damage and loss.**
- Almost 50 years old, and recalls using fire to clear land as a working tool. Later in the 90s fire was used for forest controls or farmland and government had a budget for burning. Today we have an emergent issue that many countries share CC, demographics, etc. so we now have the “sixth-generation fires” that we are seeing in the news that have ecological effects, social effects, damage and loss with tremendous challenges for management.
 - Will receive a report from 2016, prepared by FAO in collaboration with CONAF
- Noted that each of our countries shares these issues and need to develop resilient landscapes but what are ‘resilient’ landscapes?
- Government of Chile proposes some changes in transformation of forest management and look to sharing experiences of that and experiences from your countries.

La perspectiva de la UE: iniciativas actuales y futuras

Sr. Jesús San-Miguel, Centro Común de Investigación, Comisión Europea

- Described the work of the project from December 2020 and the EFFIS and the GWIS as resources for the EGFF in Europe and LAC, which provide additional support for countries.
- Website for the EGFF LAC project was developed and can be found on GWIS. Includes a video that describes the project.
- Officially established the EGFF LAC in May 2021 – ‘officially’ but needs to be discussed with countries to decide on what to do, working groups, topics, subjects, etc
- Have had a series of meetings with FAO, NASA SERVIR HQ Himalaya and Amazonia; NASA ARSET on training and tutorials; also bilateral meetings with the countries (Uruguay and Argentina to come) and now the second physical meeting of the EGFF LAC.
- Noted the technical reports that are being produced on fire information systems in LAC and fires in LAC.
- The TEI Amazon specifically includes forest fires and noted the range of actions that are being considered by this initiative.
- All the data used is made available and downloadable for further analysis by countries.

Sr./Sra. EEAS Americas, Maria Jarvio. Comision European: **DG INTPA**, DG ENV, DG CLIMA, etc. (tbc mediante video u opción hibrida) – Maria Janio

- Amazon Action – Basin Countries, Euro 35m, to be contracted by end 2022.
 - 20m multi-country, Suriname and Guyana 10m, Brazil 5m
- Components are about deforestation and forest degradation, focus on forest fires – will continue efforts of before
- Also work with local and indigenous communities particularly on monitoring of the forest and sustainable use.
- Set out the examples of what might be done

Seguimiento de los incendios forestales, perspectivas nacionales:

Argentina – Ministry of Environment – Juan ?

- Argentina is federal and the provinces own the resources. Action initially by the province and then the national level service can be engaged.
- Due to CC are seeing provinces that have not had fires in the past but now do. Example of a province that historically has floods but now has fires and extensive area burned.
- Have a separation of **prevention and remediation**.
- Have added a 'tax' (?) on insurance and now have 50 times the budget.
 - This is an interesting approach that follows an Australian model. It would be worth presenting and explaining at the next EGFF LAC meeting.
- Did have lack of equipment and planning. Have **installed towers with multi-spectral automatic detection** and will expand this. Example of the detection system presented – sweep of area every three minutes, also have a normal camera that records. Information provided by the system is direction and distance up to thirty kilometres.
- Fire season is now longer, beginning in October/November and end in April.
- **Have precipitation index**, and at present they are over the average and are concerned about the fuel availability.
- Have a program of remediation after fires. Example of a national park Ibera in the north.
- Have had little inter-relationship with other countries.

La perspectiva de Bolivia:

Autoridad de Bosques y Tierra (ABT)

- Looking towards cooperation on **prevention**, improved monitoring and management, to lead to improvements and a future situation where fires are natural or productive only.
- In the past have had fires started in relation to political issues and tensions.
- Have had help from Argentina
- In the future will not download but will have servers with accounts to share code and knowledge for direct access to products (from the cloud?)
- **Need to connect fire information systems from e.g. remote sensing to the ground data/people.**
- **Prevention and monitoring → mitigation**

Ministerio de Medio Ambiente y Agua (MMAyA) Rene Cerezo

- Have a national strategy to prevent, control and fight forest fires. Updated this year and made public. Listed the relevant laws and the basis for the strategy.

- Four components – integrated fire management; reduction of risk, MISSED THE THIRD??, alternatives to fire use (?)
- Worked towards a set of norms shared between agencies.
- SIMB – have daily report on heat anomalies, weekly, quarterly and comparison with historical data. Are using Sentinel 2 and have annual meetings to improve the methodology.
- Working on which satellites to use, why and why not. Are discussing on appropriate satellites
- FOLLOW UP RE WILDFIRE PILOT?
- Have also cultural fires of agriculture and can differentiate between them (?)
- Also working on how to improve the techniques to differentiate between types of fires including prescribed burns. Using Sentinel 2.

La perspectiva de Brazil:

Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA) Rossano Ramos, Anderson Gonçalves Nunes, Govinda Terra

Sistema Nacional de Prevenção e Combate aos Incêndios Florestais (PREVFOGO)

- Good news, this year have a new installation funded by the Amazon Fund. Facilities, new systems, increased staff, 400 people in regional offices to improve management of fires
- Over 1700 people working, including indigenous brigades and their knowledge,
- Making some changes in policies on fire management towards integrated fire management – ecology, culture and management of fires
- **SISFOGO**
 - Have a national system of fire information that generates data and information.
 - Noted the need for a legal apparatus and within it the use of technology
 - Fire fighters needs good information, satellites do not talk
 - Have GIS, drones, Apps, Web Map, Platform – depends on IT specialists for a natural information flow of simple information to the field
 - Person can put information into the App from the field
- **CROTALUS**
 - System to analyse the geospatial and environmental information in relation to the risks of deforestation in real-time. Distributed based on compressed files and maps that allows to see location of fires, meteorological information and fuel load.

CENISPAM -Centro Gestor e Operacional do Sistema de Proteção da Amazônia –

- Integration of organisations and the data for the Amazon to prioritise to the fires that need attention. Differentiate between traditional fire use and criminal use of fire.
- Many inputs to create products that assist the fire managers

La perspectiva de Chile:

Corporación Nacional Forestal (CONAF) – Pablo Lobos?

- Protection against forest fires delegated to CONAF through the Ministry of Agriculture. Fire protection is one of four technical divisions and has representation in each of the regions.
- Have defined the mission and vision for forest fires. Cover all of the disaster cycle – five noted – mitigation, readiness to suppress fires, responding to fires, +2?
- Chile also has an increasing trend in fire occurrence and area burned. Seasons are lengthening.

- For the last ten years investigating causes, this year objective is 30 percent investigated.
- Chile is 4500km long and has differences in climate, seasons, vegetation and landscapes. So the fire context varies with these factors. **Have prepared a fuel map.**
- During the 2017 fires, the efforts needed to be reviewed and adapted.
- The trend includes reduced precipitation, above normal temperatures and leading to increase in available fuel along with increase in human settlements (issue with the WUI),
- 80 percent contained under 5 hectares. 2 percent of fires represent more than 80 percent of 'damage'.
- Decided to implement and strengthen use of tools
 - Fire simulation, coordination and observation planes and drones, satellites, GWIS,
 - Designed a series of products for pre-emergency (risk conditions, long term, short term), emergency and post emergency analysis.
 - Provided an example of the availability of the data into products that are provided to the managers and decision makers.
- Needs of Chile
 - Strengthened wildfire analysis and planning, to better understand risk
 - Improve the efficiency standards to address the expenditure particularly on air operations
 - Raise safety standards – example of air space and more planes.
 - Strengthened prevention and mitigation
 - Improved focus on human factors – losing experience, formation of human capital
 - NOT THE HUMAN ELEMENT OF FIRE CAUSE?

La perspectiva de Colombia:

Ministerio de Ambiente y Desarrollo Sostenible

- Have a focus on sustainable development at the national level and systems to work towards that
- Described the national system for management of DRR
- **The NDC includes a target to reduce wildfires, aims at -30% burnt areas in 2030 vs 2019**
- Process of considering the risk, reducing the risk, managing the disasters. The national wildfire strategy was prepared in 2011 and is being updated, including indigenous communities.

Instituto de Hidrología, Meteorología y Estudios Ambientales (IDEAM)

- Have a national forest system that gathers data on various aspects including fires.
- Have a zoning protocol for mapping fire risk areas. There are different inputs relating to forest fire risk. These are all consolidated into a GIS system – the System for Monitoring Forests and Carbon.
- Are working on a fire alert system, also for forecasts,

Bomberos

- Have monitoring and situational room. Have aerial and land support protocols used to activate resources and contracted private sectors resources (aircraft?).
- Have technical links for products from **NASA (FIRMS)**.
- Have a national guide to forest fire control, that is maintained. Have alliances with CONAF and USFS. Seeking out good practices.

Instituto SINCHI

- Institution works in the Amazon area. Provides data and information on fire anomalies and on area burned by vegetation types.

- Issues and challenges
 - More information and detail in “real time”

La perspectiva de Ecuador:

Ministerio del Ambiente, Agua y Transición Ecológica (MAATE)

- Brief description of Ecuador – small country and large population. So pressures of land conversion, shifting cultivation. Burning is a cheap tool. Results in fragmentation, lower production.
- Most fires are in Sierra region. Presented the GWIS data and national statistics also.
- Have the concept of integrated fire management – fire management, fire ecology, fire culture and society
- Participating in the Amazonia Without Fire program – includes planning, etc and alternatives to fire use. Use of GEE moving on to PASF2, aiming at institutionalizing IFM.

Instituto Nacional de Meteorología e Hidrología (INAMHI)

Servicio Nacional de Gestión de Riesgos y Emergencias (SNGRE)

- Identified a ‘path’ of understanding the risk – strengthening local and national level governance
- Threat analysis has been made since 2010 and identifies the areas susceptible to wildfires
- Have a national portal of threats that includes wildfires. Use GEE to cross reference layers to identify local threats.
 - Result allows staff in the field to plan their strategies
- As national risk bureau work before and during on wildfires. Central part of the country is the area of most wildfire activity – 16 provinces have higher incidence.
- There are 498 bomberos in 15 districts trained in fire suppression and have accreditation.
- Inputs used for the national portal are from **NASA FIRMS**, **USGS**, PredictWind.com, and others.
- Some examples of wildfires presented briefly as examples of the portal in use.

La perspectiva de Paraguay:

INFONA

- Monitoring and reporting of fires
- July until October has the highest number of fires. **Use NASA FIRMS and VIIRS**. Combine with meteorological data
- Generate levels of alerts for the country based on terrain conditions, meteorology and thermal anomalies.

Secretaría Técnica de Planificación (STP)

- National plan that includes the milestones for development and SDGs, updated last year. One of the cross-cutting concepts is sustainability and this includes wildfires. Allocating natural capital values to the landscape.

Secretaría de Emergencia Nacional (SEN) – general director of risk management

- Brief history of 2008, 2011 and 2019 fires led to the development of three ‘boards’, with good integration in the whole process.
 - Identify and differentiate thermal anomalies

- Board that organises and coordinates the inputs to fire suppression, including the private sector
- Campaigns on **prevention and mitigation**
- **Produces a unified report by all agencies.**

Agencia Espacial de Paraguay (AEP) - Alejandro

- Putting together a lot of data and information.
- Activating the International Charter of CEOS for wildfire
- Have a Paraguayan satellite (in planning? Launched and operational?)
- Have created a series of 'labs' to deal with remote sensing, geospatial and technical aspects.
- Supporting efforts of different agencies on fire monitoring.
- **Requests capacity building on the use of GWIS.**

La perspectiva de Perú:

Dir. Gen. Areas Naturales Protegidas (SERNANP)

Servicio Nacional Forestal y de Fauna Silvestre (SERFOR)

- Brief description of the country. Megadiverse, with 58 percent being Amazonian forest. 33 million people with the pressure closest to the coast.
- Described the national management of disaster risk. Forest fire issue is 'new' for Peru and only opened a budget line in 2016 and so at this stage have ~2300 fire fighters only some of whom are trained.
- More impact of fires in 2019 and even worse in 2020, which led advanced planning, qualifications, monitoring fires and prevention. Looking to articulate the interinstitutional interactions; consolidation of efforts;
- There are international projects with JICA, USFS, Spain
- Agree **prevention is important and have prepared the forestry prevention backpack** that includes graphics and materials that are used in schools and for discussion at the local level.
- Director of **remote sensing and monitoring**
 - Noted satellites and will update to other data soon
 - Monitoring forest fires – alerts provided to concerned agencies
 - Also report on fire scars.
 - Have analysis from 2017 to 2022
 - Hold workshops to strengthen capacity and draft regional plans.
- **Collaboration with INPE and NASA and mentions GOES, as two other countries.**

La perspectiva de Uruguay:

- Presentation on the national emergency system. The whole government is included as well as private activities. Each Department (district) has an emergency management committee, which is multi-sectoral.
- DG Forestry has mission on sustainability of forests, including the conservation of forests and developing of plantations. Forestry Law of 1967 updated in 1987 (?). All forest areas must have a fire plan and adopt means to prevent fires. This is followed up through inspections. Have set out requirements for tools, water sources and includes working with the private sector.
 - Example, 900,000 hectares managed by private landowners in respect of fires

- Carry out analyses of the areas burned.
- National de Bomberos – distribution of 75 units with ~1200 staff. Includes wide areas for coverage with 1 bombero per 2500 inhabitants. Staff do all types of incidents.
 - Had experience of strong fire weather followed by heavy rainfall and inundation.
 - Have tested detection cameras and positive results.
- **Use of cameras on the coastal areas for fire detection**, while in 2021 they had the worst fires in the last years with 25000 ha burnt.

La perspectiva de Mexico:

Comision Forestal Nacional (CONAFOR) – Eduardo Cruz

- Program of fire management 2020-2024
- 194 million hectares and high population pressures
- Have a comprehensive set of arrangements, organisation and plans for fire management. National, Regional and Local plans.
- Have an alert system under development that will evolve. Have process of combining ignitions, numbers of fires, fuel availability, vegetation stress and also reports of active fires, with the aim to extend the system.
- Analyse historical data 2015-2019
- Fuel dryness includes 100h fuels and NDVI for vegetation.
- Also have created indices for fire danger
- Different layers of information were noted. Using GEE that will also assess fire severity as well as burned area.
- **Planning development of the system for prediction of forest fires.**

La perspectiva de organizaciones internacionales y otros países que trabajan en el monitoreo y la gestión del medio ambiente en la región:

FAO

FAO, Pieter Van Lierop – FAO LAC; Sr. Sara Steil - FAO Rome; Peter Moore - FAO consultant & fire management expert

- 5Rs – for Spanish need to find four Rs and another letter.
- The bulk of components in FAO projects that had a fire element were on Readiness (to suppress wildfires)
- The **COFLAC provides the mandate for FAO to work on fire management in the region.**
- Wildfires in Latin America publication – COPY TO BE MADE AVAILABLE TO EGFF LAC

PNUMA Gabriel Labbate, Piedad Martin, Felipe Dall (RC)

- Understanding the vision of PNUMA
- Mutual issues – CC, recurring events,
- The wildfire report identified that there is much we do not know about fires in the region. Also that there are ecologies that depend on fire and need it in the region.
- For Latin America there is also the impacts of the **expansion of cities and towns and the WUI.**
- Global panorama from the UNEP-GRID Arendal RRA. For the region 2009-2019
 - 360m ha area burned
 - Three types of vegetation affected – forests, farmlands and open fields (associated with dry environments)

- Close to 90 percent of events in South America.
- Gabriel Labbate – UNEP Director of Mitigation
 - Committed funds to the UNEP-GRID RRA since fires were impacting on the work on UNEP. There was an enormous response to the launch of the publication. Were surprised at the public reaction. Many impacts on people, land, infrastructure, etc
 - Global calls for mitigation to keep temperature increase down. One of the major opportunities for mitigation is in natural systems. Some of those are showing signs of losing resilience, including the Amazon Region.
 - UNEP also works on attracting funds to support efforts on avoided deforestation and reducing emissions. For those projects a wildfire could remove all the benefit.
 - UNEP-FAO are working together and have already begun to explore what might be done. Have talked to the GCF about opportunities to prepare a fire project and investment at big scale. This would include LAC as one focus.
 - Would like to get in contact to be sure the concept is linked and sensible for the region.

Other Organisations

OTCA

- Have had a project in the past until 2018
- Last year a MOU on cooperation and mutual assistance in the management of fire among member countries was agreed. Working towards a comprehensive network of integrated fire management across the region.
 - Integrate; avoid duplication; capitalise on existing experience; articulate with existing and strategic organisations that work on fire management or aspects of it.
- Are working to ensure fire is also noted in the other documents and guidance of the OTCA such as the ORA – Regional Observatory of the Amazon.
- Noted a series of efforts, including a bibliography of fire information, and OTCA working with others – JRC, FAO, USAID, CI.

Italia Int. Cooperation Agency (AICS) – TEI Amazoni – Pietro Graziani

- Agency formed in 2016 and has 18 offices across the world with 3 in America, so not strongly present. Present in Colombia, Ecuador, Bolivia, Argentina and Uruguay. Have committed 58 million Euro in projects.
- Have had the PASF - Programa Amazonia sin Fuego in LAC. Started in 1999 and worked in Brazil, Bolivia and Ecuador. With the objectives to reduce incidence through alternative practices with a focus on prevention not suppression.
 - Justification – 50-80 hours of planes is equivalent to fire years of the project efforts in Ecuador.
 - Results have been very good in Bolivia and Ecuador.
 - Are designing a new fire program that has prevention of deforestation/degradation; reduction in ignitions;

BELOW NOT PRESENTED

Sesión de preguntas y respuestas sobre cooperación y sinergias entre los enfoques de la Unión Europea y los países de América Latina y el Caribe

Resumen del día realizado por el moderador

Conclusiones operativas y posible seguimiento de acciones (áreas de cooperación o discusiones posteriores)

Día 2: 29 de julio de 2022

Sesión 1: Testimonios sobre la experiencia y los beneficios de formar parte del Grupo Europeo sobre Incendios Forestales (EGFF)

España Int. Cooperation Agency (FIIAPP) TEI Amazon – Camila Saute Torresini

- Public sector Spanish organisation for cooperation, linked to foreign affairs and policies. Works for the improvement of exchange and best practices.
- Also contributes to the design of improved policies, so work on public administrations and the SDGs.
- Have projects related to issues of deforestation, forest fires. LAC is one of the priority regions.
- Focus on two projects
 - Mexico – national action plan linked to NDC and
 - Dominican Republic – action on forest fires
 - CHECK RE FAO WORK
 - Invest in green economy
- Amazon Basin Initiative – component 2 which Spain will lead. A consortium with Italy and France.
 - Component fire is on restoration from forest fires. With support from JRC
 - Intended results include
 - Institutional training on preventing fire impacts
 - Restoration from forest fires
 - Scientific knowledge for policies on forest fires
 - Sensitization for those involved – government, private sector, communities
 - Facilitating dialogue including experts on forest fires
 - Interaction and study tours
 - Reports and statistics
 - Harmonisation across the region
 - Drive the processes?
 - Mobilisation of expertise from national, regional and global level.
 - Have support of ADCIF and MITECO from Spain
 - Will begin in 2023 for four years.

Spanish Forest Fire Service – Angela Iglesias Rodrigo

- Lots of fires in Spain, so Elena on duty for that.
- Potential benefits of belonging to EGFF Europe from an environmental perspective. In much of Europe coverage of the fires is only from the suppression point of view. In Spain look at comprehensive management.
- Broadened the EGFF to include countries in North Africa and the Middle East, which allowed inclusion and learning as many things are in common
- Common definition of causes – ran a workshop on causes
 - “If you know the causes you are facing you can address the risk a lot better.”
 - Noted that there were both police style and environmental approaches to fire investigation. Harmonised the approach across countries.
 - Normalised the terminology – what are “intentional”, what is a “pyromaniac”, etc. The media is ‘loose’ with these terms, so it is needed to be clear from the institutional point of view.
 - Causes terminology now implemented through EGFF across Europe
 - FOLLOW UP THE DOCUMENTATION OF THIS AND CIRCULATE TO EGFF LAC?

- Prepared a position paper on forest fires
- Strong benefits in being part of an information network, so learn from different experiences and shared technical level work between countries. With political support then following.
- Potential Benefits of EGFF
 - Exchange of experiences at a technical level, where all contribute and for fire management in full not only suppression
 - Work a lot in standardising information (rather than a “sewing box”) which helps in understanding.
 - Northern Europe where fires were infrequent and are now becoming more damaging and more frequent was more prepared and able to access approaches, materials and documents through being a member of the EGFF
 - The topics also covered include labour relations, standards, safety, etc that can inform and support national efforts in fire management.
- Proposals
 - Important to have a secretariat that drives the group, so the group can reach an enhanced level of effectiveness and exchange. Not too ambitious but be realistic.
 - Work systematically with dates etc
 - Integrate other experts and organisations and sectors beyond forestry and emergency only
- Working on a transition towards major mitigation and resilience. Many European countries are dependent on “brute force” and response to the emergency is not the only solution.

Sesión de preguntas y respuestas con la participación activa de los representantes de servicios de gestión de incendios de ALC.

Moderated by Jesus san Migeul Ayanz and Pieter van Lierop

- Passed around the notes from the discussions yesterday. What are the most important topics from the discussion and what should be included in future meetings?
 - Noted also that future discussions and activities for future meetings could also be suggested.
- Most important regarding risk and forest fires, prevention, early alert systems are fundamental. Many countries have developed satellite information that could be improved so that countries that do not have access or capability can received information and work with it.

Identified priorities by each of the countries:

- **Uruguay** – indicates as priorities the following topics:
 - Use of satellite derived information for wildfire monitoring
 - Early warning systems and fire danger indices
 - Exchange of methods for image processing, as most of the countries use the same base satellite data, such as MODIS, VIIRS, Sentinel-2.
 - Training on the use of GWIS
 - Greater amount of GWIS data shared with the countries
 - Promote collaboration between countries and set up cooperation projects among the countries.
- **Paraguay** – some points in common and progress in various countries. Will benefit greatly if unify criteria and strengthen the capacities since the tools are not being used to their full capacity (such as GWIS) so suggested some leveling and training to

harmonise capacity across the region. very powerful platforms but need capacity to access and fully use them.

- Resources and training to enable countries to take advantage especially by incorporating among the countries
- **Bolivia** - As a delegation it seems there are common problems. In 2019 the fires in Paraguay and Bolivia were similar and the risks are always going to be there but the ways to face the problems will be different due to technology, economic and other differences.
 - Establish working groups on across border fires between countries, e.g. Bolivia, Paraguay, Brazil.
 - Need for standardization of data, or harmonization of data as proposed in the point below.
 - Through this meeting find a common view to develop capabilities that are a genuine help, can be homogeneous (example of analyses that already exist and can harmonised for all).
 - Something to take home is make emphasis on prevention and this is more economical than fighting fires. There will always be fires of course. Never enough to be ready need to prevent.
 - Homogeneous view is important so knowledge and technology transfer will assist in dealing with these events.
 - Possible involvement of academia, although JsMA mentions it is not a primary objective of the EGFF, although essential to incorporate new developments.
 - Access to wildfire information services, using e.g. persistency of thermal anomalies to confirm wildfires.
- **Brazil** - We are available to discuss with countries on the potential and the issues.
 - Need to know which satellites, technical steps, data sharing, map creation, knowing which images to use, and so on. Best quality materials are not always feasible due to limitations of data access and physical limitations.
 - This could be approached in the EGFF through development of protocols to try to mitigate or reduce the data latency in the data processing.
 - Hubs exist, but there is still the need to pass the information in real time to the wildfire management services on the ground.
 - Exchange of knowledge – create new or use existing training courses that could be attended by the members of the EGFF LAC, with the EU support.
 - Training on information systems at sub-national level and establishment of a collaborative platform.
- **Mexico** – many countries have common interest, some advanced. Should create a list of advancements that are needed that can be found in other countries so the capacity, methods and ideas can be shared – tutor countries to assist other countries.
 - Proposal to make a list of tools that are available in countries for other countries, make a list of needs by the countries and determine gaps on which the group should work together.
 - Establish working groups per thematic interest and establish links to future meetings.
- **Columbia** – for the operational part, different airplanes have been doing but not using more and having so many different types created a “trauma” so would like to improve this. Helicopters are more evolved to conflict rather than wildfire suppression. Would like to ask for training of aircraft crews and have involvement of the private sector for fire suppression in Columbia.
 - Need to involve people on the land as to how aircraft can be used, ground to air signals and directions. If other countries have experience that would be welcome.

- Proposal for capacity building/training of helicopter crews, ground crews, establishments of heliports for emergencies, e.g. as on the ongoing collaboration with Brazil.
- PvL – relates to what Mexico has on the list of capacities and tools in the countries and gaps.
- Priority is prevention in e.g. non-accessible areas, also areas outside the Amazon biome and in rural environments.
- Establish a platform for exchange of information/good practices among countries, including the profiles for each country, period country reports.
- **Ecuador** - Believe it is fundamental to look for spaces where decision-makers can be involved. Difficult as there can be a high turnover of decisions makers.
 - Need to sensitize policy makers
 - Like to say we need to talk more on prevention and to define and specify the issues related to comprehensive fire management and resilience. Perhaps expand the 5Rs to include this for the first phases of management?
 - COMMENT – ‘resilience’ could be an outcome of efforts to reduce risk.
 - Use the original instruments that can be used – MoUs to crystallise actions for fire fighting to enable working on trans-border fires. Propose to analyse them to refine and restructure them.
 - Proposal to organize a meeting on fire prevention, which could be included in the extension of the project in the next years.
 - Are going to propose that the FAO should be the articulating entity for these expert meetings so there can be follow up and support of processes for the EGFF, with the support of the EU in the coming years. Providing input on what the EU and others are doing.
 - Will propose this at the COFO and then the COFLAC.
 - Proposes collaboration with Prevfogo for integrated fire management
- **Peru** – first time at the EGFF physically and can know more by being here. Main topic that concerns Peru is fire management. Big difficulties due to wildfires all over and in high numbers. Issues include solid waste burning and sanctions for fire lighting. All the fires are prohibited. Idea is to have knowledge on how to manage fires when they start (suppression?). Have insufficient funds to carry out inspection (prevention?)
 - Many international treaties but none on transboundary fires and jurisdictional collaboration.
 - Important to see the influence that fire events have on national policy. In Peru do not have a national policy. Limited fire suppression resources.
 - Important that each country can dedicate resources to fire fighting. Look for assistance from international organisations to support fire/disaster management. Currently the international support is focused on preserving natural areas, not so much on fire management for PAs.
 - Looking for support not good intentions – requires capacity building in the areas of fire early warning and fire ecology looking into the ability to undertake restoration.
- **JsMA** – there is a budget to develop tools on all sorts of applications and not restricted to Amazon. Objective is to create EGFF and open it up to all countries.
 - Coordination in various countries – make an inventory of projects across the region as there seems to be a lot of fire projects and if we gather the information and get together then could begin to share and cooperate. Noted Canada as well.
- **Argentina.**
 - Suggests to work on the development and maintenance of wildfire information systems, while basic services on imagery availability could be provided by Copernicus.

- **Columbia** - Prevention is very important and should identify the potentials of each country and then could exchange appropriately. In Columbia need to work with communities to ensure the fires are worked on in support of the emergency response before they can attend.
 - Fire conditions likely to increase.
 - All countries are interested in technical capacity and access to information. Have networks in the country to disseminate information to local people. Would be interested to have an experience exchange platform to enable fluid exchange of ideas, get to know what is happening and share it to reach a balance of knowledge management and service.
- Exchange of knowledge, satellite data. Want the same and has been done in our country. But experiencing problems with using the machinery for accessing and processing data and make efforts available. Perhaps make the scripts and algorithms available.
 - JsMA – you mean to access the images more quickly?
 - You can get the images readily but processing it is the problem.
 - So the access to images could be through existing hubs of Copernicus processing locally and distributing to the countries
 - It is difficult – the times of academia are different to operations.
 - Users of service are not academics, basic information is provided routinely to managers based on agreement and discussion with managers. Would be interesting to have a list of what is available and then develop a standard that would enable availability for all.
- **Uruguay (Alejandro)** – professionals in various bodies that are specialised in processing images, but managers in government do not have the capacity to carry this out. IF it could be developed to be available that would be very helpful.
 - Project coordination – the arrangement of a project depends on whom is funding and what for, so projects may not have a focal point that is fire management related and the other way around. So sometimes a project is not known about.
 - Liked the FIAPP presentation and made a summary of all the goals that we share as it covers government, technology, research etc. These could be results that each country could use for their own prioritisation.
 - JsMA – FIAPP showed the fire components. FIAPP will implement ideas and proposals put forward by the countries. So would be good if the EGFF could prepare and propose activities, noting that the options include many approaches – exchanges, training, study tours, etc. The project will begin towards the end of 2023 and last four years.
- **Mexico (Tania)** Contracting consulting firms to prepare a ‘canned system’ then have the option for training and IT. In general we can not compete with the private sector. How to develop IT systems and maintain them so they are not obsolete in a short time.
 - JsMA – Copernicus provides service already developed so the user does not need to maintain the system. The user only access the service. The country can take the service and improve on it.

- Some countries have validated, reliable record of fire data. But do not have it in a good spatial database, systematised with standards. We are normalising for risk management, layers, data, metadata, standards. Why not create something normalised at a regional level – fires do not have borders but data does not have border either. Homogenise at regional level by leveraging knowledge and best practices.
- JsMA – there are a number of things noted in the EGFF that have done that, fire cause is one example of this harmonisation. In data it was agreed a series of basic data that would be shared – common core of forest fires. Idea was to share data in a standardised form with key elements in common.
- Problem of labour in agencies will not be expanding but possibly reducing. Budgets might be increased but not the number of people. So in strategies it would be necessary to have strengthening at all levels, particularly sub-national and districts, to use the products that are available. Potentially leaves national more freedom to develop further products.
- Chile suggest to use tools that are already in place in Europe.
 - mentions the FAST and the fact this should be included in the activities of the group. Information could be distributed by JsMA on this to the group.
- Brazil – we all talk of sharing, exchanging. A technological suggestion that already exists to share knowledge, experiences and tools – create a central platform where data, knowledge, protocols in a collaborative way. Everyone can contribute their ideas and knowledge about forest fires in LAC.
- Mexico – important to not double our efforts. Is someone has something, be clear about how it can be shared and if it is open, then exchange the tool itself.
 - Also have the problem of hiring companies for ‘development’ so have focused more in academia and key players that already have a career in fire management and an interest that can be developed between government and universities. Using multiple organisations to do this. Does not recommend private sector.
- Everyone is talking about exchange. A lot of satellite data available and also a big change in IT. Really need to work on the exchange of knowledge, need to relate to academia as they can provide continuity to the work. Create libraries to document the work, have access to international journals (and materials?).
 - While processed data is useful, access to raw data is also needed at times to create new products.
- Observation – we have talked about a platform, regardless of being global. In the following steps we could prioritise the need for communication of data that is required by a large number of countries. We work with thermal anomalies at different times and Brazil is working on this as well, so will not require that much development but most countries could access it if normalised and available through a platform with a regional outlook.
- JsMA – in Europe needed capacity to maintain but also the satellites change and so quite a dynamic process as each change of satellite things have to be recalculated and processes revised.
 - Fire managers interested in products while academia and new tools need raw data. So that availability is what is done now.
- PvL – idea is to create all of the comments and look to how to include those in the next meeting.
- JsMA – emphasis for the topics of FIAPP – some will persist throughout the project and can be taken up by this group. Eg helicopter training, exchange platform – could be done on GWIS website for EGFF members where information on projects can be exchanged,

profile of country, trainings being offered and who needs training to establish bilateral cooperation between the countries.

- The report being developed might be a starting point for including some of this information
- We will send the report of the meeting to you for your review and ideas.
- Some possible funding sources identified. How can we access those funds? Is each country being alone in accessing?
 - JsMA – not fully worked out yet. The countries will be consulted. Single country projects are not as interesting and multi-country or regional activities are preferred. Budget is not high but a reasonable budget.
 - JsMA – can also undertake study tours of countries in the region and in Europe.

Future Activities in the Short Term

- If you think about what was mentioned are there activities in the short and medium term 2-4 years, and even in 3-4 months activities could be undertaken before the next meeting. For next meeting, if anyone is interested to host please let us know but understand there may need to be consultation with your agencies and government.
- Brazil offered to host the next meeting in Brasilia, to see what Brazil is doing in fire prevention.
 - JsMA – many thanks and will consider this and take into consideration.
- Paraguay – proposal for GWIS training on the system.
 - JsMA – can do that. Can be general and as needed in detail on the tools.
- Ecuador - Interest as a country is to promote prevention. Need to strengthen the topic of fire management and specifically prevention.
 - JsMA – how? – a meeting to establish in a more concrete way to identify and address what is needed?
- Ecuador - What topics can we discuss at the end of this year and in Portugal next year? Representation as a group?
 - Uruguay - **Agreed to bring something to the conference touching on the topic of prevention.** In the next 3-4 months, we see each country has technology, some more advanced, some stronger interpretation – could we gather that so the EGFF understand what is available and can complement existing efforts. A compilation of the strengths in the region might be a good place to start.
- PS – IWFC let's see if through this project people can be supported to attend.
 - Undoubtedly some countries will access international response during the fire season – but we are not prepared to receive a big collaboration where equipment and brigades and commands to tackle incidents. So we need to advance in that area by using the EU guidelines and perhaps US guidelines to inform the process.
- The reports that we will create will set a good foundation that is important.
- Identify the priorities of each country is important. So suggests working groups for each area and its key stakeholders for exchange and verify what capacities are so they are not duplicated but integrated into each other's efforts. Good to have the information on a single platform.
 - JsMA – related to seeing the strengths for each country and how to exchange on that.
- Recalls teams being evaluated to manage fire and a mechanism in the EU and other countries should be taken into consideration.
 - JsMA – EC ECHO has technical visitations program that could be used and a visit on FAST (?) could be considered.
 - INCLUDE SOME INFORMATION ON 'FAST'
- Get to know on community experiences as well. Use the next meeting to get to know the use of brigades in the field in Brazil?

- Brazil – always a pleasure to receive colleagues and have done so before for training. Ideas it to expand that to all countries.
- Could coordinate a meeting but need to understand when fire season is on (either on purpose or to avoid?)

Patricio/JSM - Alguna actividad en relación al International Wildfire Conference? May 2022?

Entrenamiento en fuegos técnicos, si es posible.

FAO

1. Necesidad de hacer un inventario de actividades y proyectos en los países para una mejor coordinación.
2. JRC, necesidad de coordinar con los “Action Documents” de los programas bilaterales de los países en el NDICI (Neighborhood, Development, International Cooperation Instrument - Global Europe).
3. JRC necesidad de crear un espacio de colaboración del EGFF LAC y para compartir documentos, proyectos, experiencias, etc. **Maybe CIRCA BC?**
4. **Informe final debe ser distribuido a las Delegaciones de la UE y a las autoridades**

- Schedule some activities for each 'group' by subject?
 - NOT CLEAR WHAT WAS BEING SUGGESTED.
- PS – technical fire applications to reduce the risk of wildfires – good fires and integrated fire management.
- Final report of this efforts – all sent to each country as a final report? Besides being technical, those who make decisions are the policy makers. Through the EU will send the results and suggestions to the countries or will use OTCA and the foreign service of those member nations
 - Will the report be sent or will attendees will inform their governments?
 - JsMA – if informed, can be sent to EU delegations and can advise them to distribute it as much as possible according to the advice of the countries attending.

Sesión 2: Mesa de trabajo para el intercambio de conocimiento y buenas prácticas europeas y latinoamericanas (panel de discusión e identificación de puntos de colaboración futura del GEFF LAC)

This session was merged with the previous one, which included the exchange of ideas and identification of future areas of collaboration among the countries in the EGFF LAC, the EU and International Organizations.

Almuerzo

Sesión 3 (de carácter interno): Mesa de trabajo miembros del GEFF LAC:

Miguel Segur presented a summary of the inputs received from the countries for the two reports that are intended to be published with the collaboration of the EGFF. The input for each report was divided into good status (reports provided by the countries are nearly complete or fully complete) and poor status (there is no input provided yet by the countries or the input provided does not comply with the overall structure of the report or the required information).

At the end of the review it is proposed that Miguel Segur contacts again those countries that have not yet provided all the required input and gathers the information into a full report, following the guidelines of the reports produced by the JRC in Europe, which were presented during the session.

Final del evento