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DEFORESTATION AND FORESTS' DEGRADATION: THINKING EFFICIENT LEVERAGES TO TACKLE THIS MULTIFACTORIAL ISSUE

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WHY IS IT IMPORTANT?

Forests have an essential role in many regards.

Forests ensure biodiversity abundance:
The FAO report "The State of World's Forests" (2020) states that the GlobalTreeSearch database (2019) reports the existence of 60 082 tree species of which 20 334 are included in the IUCN List of Threatened Species, 1400 being critically endangered while according to the IUCN (2021), over 80% of the world's terrestrial biodiversity live in forests. Therefore, deforestation and forests' degradation are a direct threat to the survival of a large variety of species.

Forests sustain livelihoods and societies' wellbeing:
They are producing essential services to societies' survival and wellbeing - clean air, clear water or again healthy soils central to the practice of agriculture. All the societies are affected by deforestation and forests' degradation, and even more the poorest communities or indigenous/local communities that directly rely on forests to live (IUCN, 2021).

Forests are central actors of climate mitigation and adaptation: They absorb carbon dioxide, about 2.4 billion tonnes per year on average according to the IUCN (2021) - which represents one third of the annual carbon dioxide released from burning fossil fuel. Not only deforestation and forests' degradation reduces the potential for absorption of carbon, but these carbon sinks release large amount of carbon into the atmosphere when burnt. Forests also help to reduce risks from disasters like coastal flooding and regulate water flows and microclimates (IUCN, 2021).

KEY FACTS:

Deforestation and forests' degradation has decreased over the past three decades – "between 2015 and 2020, the rate of deforestation was estimated at 10 million hectares per year, down from 16 million hectares per year in the 1990s" (FAO, 2020) – even though it still happens at an unsustainable rate.

"Over half of the tropical forests worldwide have been destroyed since the 1960's and every second more than one hectare of tropical forests is destroyed of drastically degraded" (IUCN, 2021)

Over 43 million hectares of forests were lost on 24 deforestation fronts in South America, Sub-Saharan Africa, Southeast Asia and Oceania between 2004 and 2017 – which represents "roughly the size of Morocco" (WWF, 2020).

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DEFORESTATION AND FORESTS' DEGRADATION - DEFINITIONS AND CAUSES:

There is a common distinction between deforestation and forests' degradation:

- Deforestation refers to the suppression of the tree coverage of a land in order to use it for another purpose, like agriculture or infrastructures' construction.
- Forests' degradation refers to the negative impact of activities on forests in the services they produce and the ecosystems they harbour.

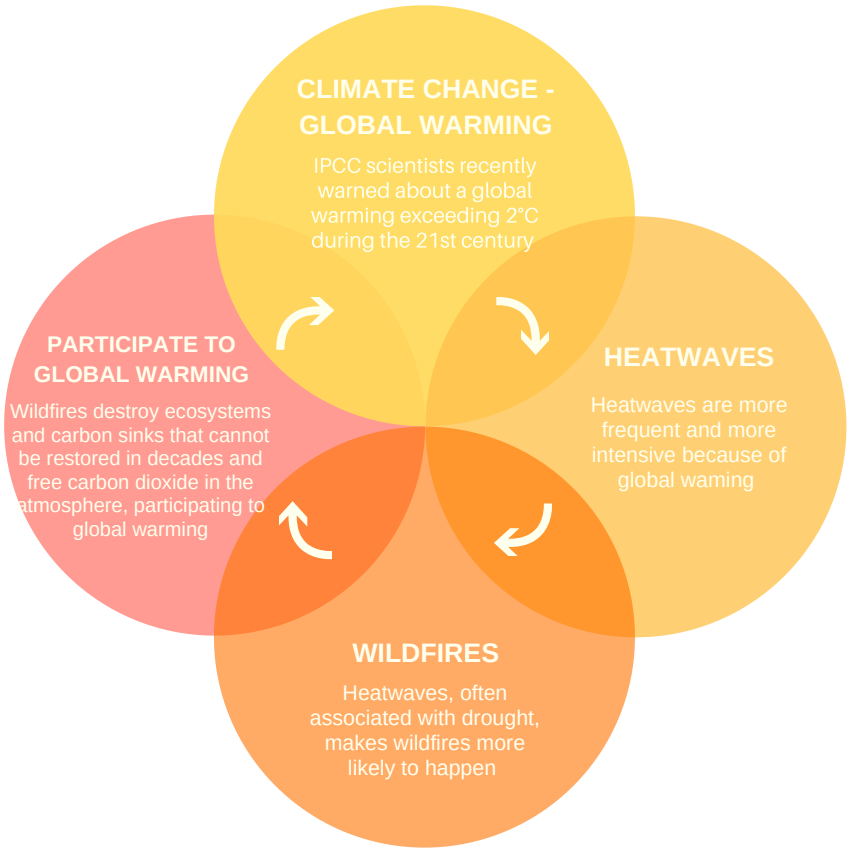
The WWF "Deforestation Fronts" report (2020) identifies various direct and indirect causes of deforestation and forests' degradation. Agriculture, extractive activities, and infrastructures development are well known direct drivers of deforestation – with a large dominance of agriculture as the main driver of deforestation. According to the FAO "The State of World's Forests" report (2020), large scale commercial agriculture represented 40% of tropical deforestation between 2000 and 2010 and local subsistence agriculture represented 33% of tropical deforestation on the same period. These factors vary depending on more indirect factors like demographic growth, changes in consumption patterns, political regulations, economic changes and climate and topographic related reasons (FAO, 2020, WWF, 2020). The causes of deforestation and forests' degradation largely vary depending on the regions and even the countries - people's use of a resource depends on the economic, historical, cultural local context (FAO, 2020).

EFFICIENT LEVERAGES TO TACKLE DEFORESTATION AND FORESTS' DEGRADATION ISSUES:

Various responses, area or sector based, have proven to be efficient to tackle deforestation and forests' degradation.

Conservation responses by protecting biodiversity-rich forest areas from human activities appear as broadly recommended a majority of the political and scientific spheres. Conservation of forests also means protection against wildfires - a growing threat. The European "Land Based Wildfire Prevention" (2020) report states that actions can be taken to prevent and/or mitigate the impact of wildfires, a few essential actions are:

- An efficient and clear governance - it appears essential to have a clear idea of who is in charge of what to act efficiently.
- A work on anticipation of potential drivers and risks
- An intelligent forest management relying on a deep knowledge of ecosystems to manage land and potential restorations as efficiently as possible.
- A strong investment in prevention and potential operations, notably the enforcement of rigorous rules regarding human activities around forests or again investment in firefighters teams and equipments.



1..**Wildfires, caused by global warming as they enhance it - a vicious circle**

Beyond conservation and protection, restoration of biodiversity and forests enhances ecosystems and has the potential to create nature□based jobs/economies - today, 38.500 species are threatened with extinction, that is 28% of all assessed species according to the IUCN (2021). The urgency and importance of the matter is well embodied by a current initiative - The United Nations Decade on Ecosystem Restoration 2021-2030 to scale up the initiatives taken by States on these issues.

Another key to the protection, conservation and restoration of forests, biodiversity and ecosystems is the protection of indigenous people and local communities' rights. Indeed, around 28% of the world's land surface is currently managed by indigenous people and this land includes **some of the most ecologically intact forests.** Indigenous people developed a remarkable technical knowledge of their environment - ecosystems, biodiversity interactions but also seasonal and weather indicators and climate change - used in the context of Joint Forest Management by indigenous people. This knowledge is based on local, collective and diachronic data transmitted through history and cultures, but also based on spiritual beliefs - land and in general nature having a sacred quality, as the primary source of life, that is absent from common Western thinking and knowledge.

Local solutions can have an efficiency only if global mechanisms follow - international organizations emphasize the importance of the regulations of production and trade as well as the implementation of sustainable supply chains, "deforestation free" supply chain. The FAO (2020) insists on the importance of regulative policies, the constant provision of environmental services and the spread of responsible finance which are keys to the protection of forests.

More generally, it appears essential to head towards new synergies regarding societies' ways to produce and consume and global interactions with nature in their relationship with economic growth. For example - since agriculture is the first driver of deforestation and forests' degradation - a new innovative food system appears essential. Specifically, the primary and main solution would be to change food demand, mainly in developed countries, that is resulting in inappropriate agricultural practices. This type of changes is only possible if all actors access to a level of knowledge of their environments and decide to manage it as of primary importance.

MULTIPLE SOLUTIONS HAVE PROVEN EFFICIENT – IT IS UP TO THE ACTORS AT EVERY LEVEL TO CREATE NEW SYNERGIES, AND PARTICULARLY, IT IS UP TO THE DECISION MAKERS TO TAKE STRONG ACTIONS TO PROTECT OUR FORESTS.

RESOURCES:

- IUCN issues brief, Deforestation and forest degradation, 2021

- Office National des Forets (ONF)

- The European Union, Directorate general for Environment, "Land Based Wildfire Prevention" report, 2020

- The United Nations Food and Agriculture Organization (FAO), "The State of World's Forests" report, 2020

- World Wide Fund for Nature (WWF), "Deforestation Fronts" report, 2020

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[2] GARNETT Stephen T., BURGESS Neil D., FA John E., et al (2018), A spatial overview of the global importance of Indigenous lands for conservation, Nature Sustainability, vol. 1, no 7, p. 369-374.
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