

# CRISIS POINT: Oil and Gas Expansion Threats to Amazon and Congo Basin Tropical Forests and Communities

December 2022



**Earth InSight**



Mapping threats to people,  
nature, and climate



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## SUMMARY

This report offers a close-up look at the threats that oil and gas expansion poses to forests and biodiversity and Indigenous and local communities in the world's two largest tropical forest regions: the Amazon and the Congo.

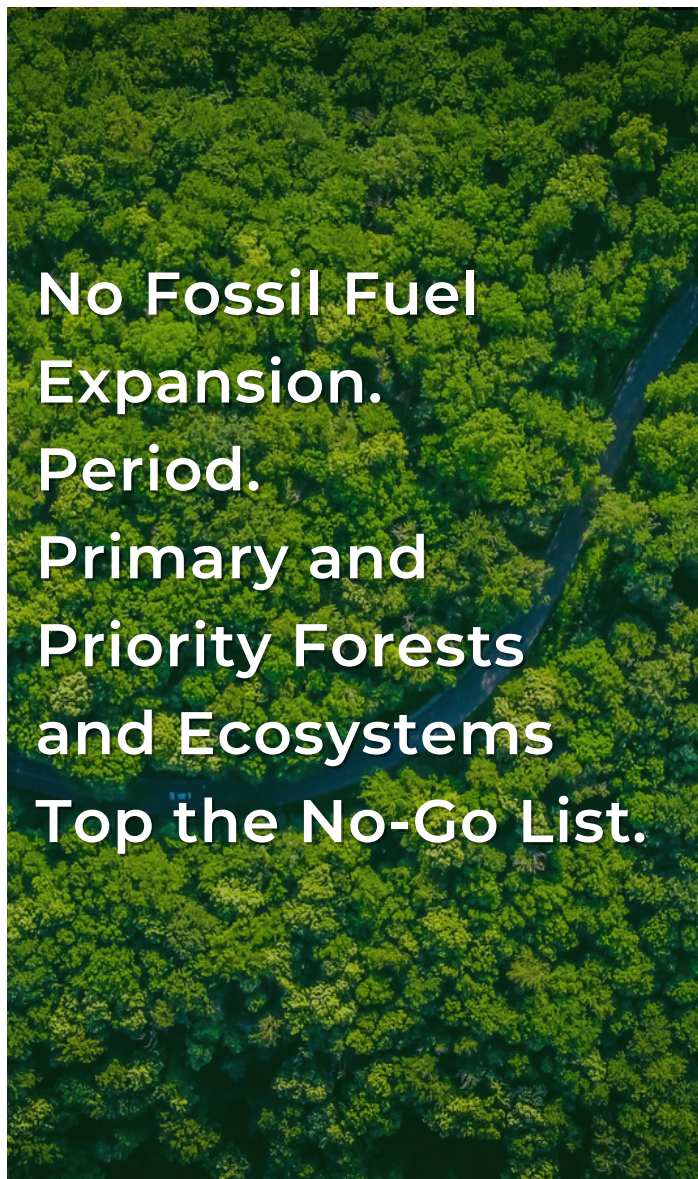
**Tropical rainforests cover just 6% of the Earth's surface, but contain over 50% of its species.** Despite their critical importance for the future of humanity, preserving primary<sup>1</sup> and priority forests and ecosystems has not yet risen to be a global priority. In fact, vast sums of public and private money are being used for logging, agri-business, mining, and oil and gas drilling in these regions – causing harm to Indigenous peoples and local communities and destroying the integrity of these increasingly rare and vitally important places on the planet.



Indigenous women in the forests of Cameroon. Image credit: Courtesy of Nomedjo\_Martijn, Rainforest Foundation UK



Protecting primary and priority forests and ecosystems<sup>2</sup> will enable humanity to address the intersecting and accelerating climate, biodiversity, and social justice crises that we now face. Protecting these critical places requires a new level of global action as they face accelerating threats from industrial exploitation, in some cases nearing and passing ecological tipping points of no return.



**No Fossil Fuel  
Expansion.  
Period.  
Primary and  
Priority Forests  
and Ecosystems  
Top the No-Go List.**

**We are in the midst of a climate and biodiversity emergency. Time is running out and bold action is required to address the scale of the challenge we face. An immediate moratorium on industrial activity in primary and priority forests and ecosystems is essential.**

The International Energy Agency (IEA) has stated that in order to limit global warming to within the threshold of 1.5°C, no further fossil fuel expansion must take place.<sup>3</sup> However, with current forecasts, in 2030, governments' production plans and projections would lead to around 240% more coal, 57% more oil, and 71% more gas than would be consistent with limiting global warming to 1.5°C.<sup>4</sup>

Unfortunately, the threat of oil and gas expansion in key tropical forest basins and other forest regions around the globe is immense - and representative of a trajectory that is vastly out of alignment with the need to protect these places in order to advance climate and biodiversity stability and uphold the human rights of Indigenous Peoples. Prioritizing and financing primary forest and ecosystem protection is an investment in the future of humanity that will yield dividends for generations to come.



## Key Findings: Amazon and Congo Rainforests Facing Massive Threats from Oil and Gas Expansion

- Over 135 million hectares of undisturbed tropical forest<sup>5</sup>(an area approximately six times the size of the United Kingdom) overlap with oil and gas blocks already in production or designated for future drilling in the Amazon and Congo.
- More than 20% of the total population in these regions or up to 45 million people<sup>6</sup> (inclusive of Indigenous and local communities) now dwell in oil and gas blocks
- More than 25,000 populated places (villages, towns, cities, etc.) overlap with oil and gas blocks in these key tropical forest regions.
- More than 25 million hectares of Indigenous Territories overlap with oil and gas blocks in the Amazon

Note: This report uses a new methodological classification for threats to forests - undisturbed tropical forests instead of dense tropical forests (>70% forest cover) and accordingly some analytical findings have shifted slightly from Congo in the Crosshairs.

**TABLE 1: AT A GLANCE**

Oil & Gas Block Overlap	Amazon	Congo	Combined Total
Tropical Moist Forests in hectares (undisturbed)	65+ million	71+ million	136+ million
Indigenous Territories in hectares	25+ million	unknown	
Populated Places (villages, towns, communities)	10,000+	16,000+	26,000+
Population	12+ million	32+ million	44+ million
IUCN Endangered/ Red Listed Species	700+	500+	
Peatlands in hectares	2+ million	10+ million	12+ million

Note: These estimates are generally within +/-5% of accuracy



## Solutions

There are viable solutions and reference points in both the Amazon and the Congo regions that can enable humanity to chart a different path including:

- A moratorium on all industrial activity in primary and priority forests until 2050<sup>7</sup> in order to safeguard critical ecosystems and while allowing time and space to develop appropriate plans and financing including redirecting subsidies for extractive industries to support primary forest preservation and indigenous co-management, and the expansion of rights and territories
- Expansion of global Indigenous land tenure, access and resource rights, direct funding for co-management, and the requirement of Free, Prior, and Informed Consent (FPIC)<sup>8</sup>
- The Amazonia for Life: 80% by 2025 Declaration from Indigenous federations across the Amazon<sup>9</sup> calling for expanding indigenous rights, territories and funding, conditioned debt forgiveness, clean financing and supply chains, ending extractive activities in primary and priority forests, restoration, new financial mechanisms that preserve forests and lands, and a range of other solutions
- New debt for Climate and Biodiversity commitments from International Financial Institutions such as the IMF, large debt-holding nations like China, and other debt holders in the private sector<sup>10</sup>
- With strengthened ambition related to primary forest degradation and accelerated timelines for action, the Glasgow Leaders' Declaration on Forests and Land Use<sup>11</sup> can be a reference point
- New frameworks for financing bold climate and biodiversity action including the 10-Point Plan for Financing Biodiversity<sup>12</sup>
- Commitments from banks and financial institutions to stop financing oil and gas expansion – starting with critical forest basins and ecosystems, e.g., through platforms like Exit Amazon Oil and Gas<sup>13</sup>
- Increased country-level commitments to the principles of the Beyond Oil and Gas Alliance<sup>14</sup>
- Widespread commitments to the Fossil Fuel Non-Proliferation Treaty<sup>15</sup>
- Unlocking the vast potential in renewables and scaling up direct support to forest communities and other frontline forest defenders



## AMAZONIA: WHAT'S AT STAKE

### A Global Wonder in the Midst of a Tipping Point Crisis

Amazonia is a true bio-cultural gem and is the largest rainforest in the world – spanning nine countries and home to 2-4 million Indigenous People from 500 over distinct nationalities, it also contains the world's richest concentrations of biodiversity. **Amazonia is also in the midst of a tipping point crisis that threatens the rainforests' very existence, and it is imperative that 80% of the forests and ecosystem be protected.**

Agribusiness, mining, oil and gas extraction, and logging have been an engine of deforestation and high degradation which now stretch across 26% of the Amazon region.<sup>16</sup> Scientific evidence and modeling establishes that a hydrological and ecological tipping point in the Amazon would occur when deforestation and degradation exceeds 20 to 25%.<sup>17</sup> This is the point at which deforestation and global warming trigger an irreversible cascade that would trigger feedback loops that affect the remaining rainforest. There is evidence that the Amazon is on the verge of, or already in the early stages of such collapse.<sup>18</sup>

The Amazon is the primary generator of rain for itself and other parts of the world. As deforestation and degradation occur, it rains less – affecting water for the tens of millions that depend on a healthy primary forest ecosystem, exacerbating regional droughts and fires, and accelerating the biodiversity and climate crises.

### Indigenous Leadership and Call to Action: Protecting 80% of Amazonia by 2025

The cultural survival of hundreds of distinct Indigenous nationalities – including communities living in voluntary isolation – is also interwoven within the fabric of the forests and rivers and lands that are the living wonder of Amazonia. Indigenous people have been stewarding a balance of life that kept the Amazon in balance for hundreds of years. At this precipice, they are urgently calling for bold action to protect 80% of the Amazon by 2025.



“

“Indigenous peoples have stewarded and helped keep Amazonia in balance for thousands of years. Oil and gas expansion is one threat among many types of industrial extractivism to the indigenous people and cultures, forests, lands, rivers of our rainforest. Put simply, there is no place for new oil and gas drilling in the Amazon if we are to preserve the integrity of our rainforests and if the rights of indigenous people are to be respected.”

*José Gregorio Díaz Mirabal  
Coordinator General of COICA*



## Momentum Building for Policy Action and Public and Private Leadership

A critical campaign with Indigenous leadership at its center known as Amazonia for Life: 80% by 2025 has been oriented around raising global awareness and catalyzing emergency action in the region and internationally in order to change the current trajectory. One vehicle for policy action is evident in IUCN Amazon Tipping Point Motion 129 (now WCC 2020 Resolution 129) that passed with the **support of over 500 civil society organizations and over 60 ministries from more than 30 nations at the International Union for the Conservation of Nature World Congress.**

## An Opportunity: Staggering Amount of Forests Are Highly Intact But Without Designation

Fortunately, the coalition's recent publication, Amazonia Against the Clock,<sup>19</sup> shows that preserving 80% of the Amazon by 2025 is still possible. This comprehensive analysis found that there are **255 million hectares of intact areas and Key Priority Areas with low degradation have not been titled to Indigenous Peoples or designated as protected areas and are at imminent risk.**

A 13-point solutions framework in the form of a declaration from Indigenous Peoples of the Amazon calls for a wide array of solutions from a moratorium on industrial activity in primary forests and indigenous territories to conditioned debt forgiveness and fund creation for Amazon protection.

The vision and pathways of opportunity will be unpacked in greater detail in the solutions section of this report. In the meantime, a deep analysis of the threat of oil and gas expansion in the Amazon follows.



“

Two thirds of oil and gas exports from the Amazon rainforest go to the United States and US and European banks are complicit in the build out of this industry and all the related human rights and environmental impacts. A new paradigm and emergency action is needed to protect 80% of the Amazon by 2025 - one that charts a path of prosperity and ecological balance and is grounded in the vision and leadership of Indigenous People,

*Alicia Guzman PhD*

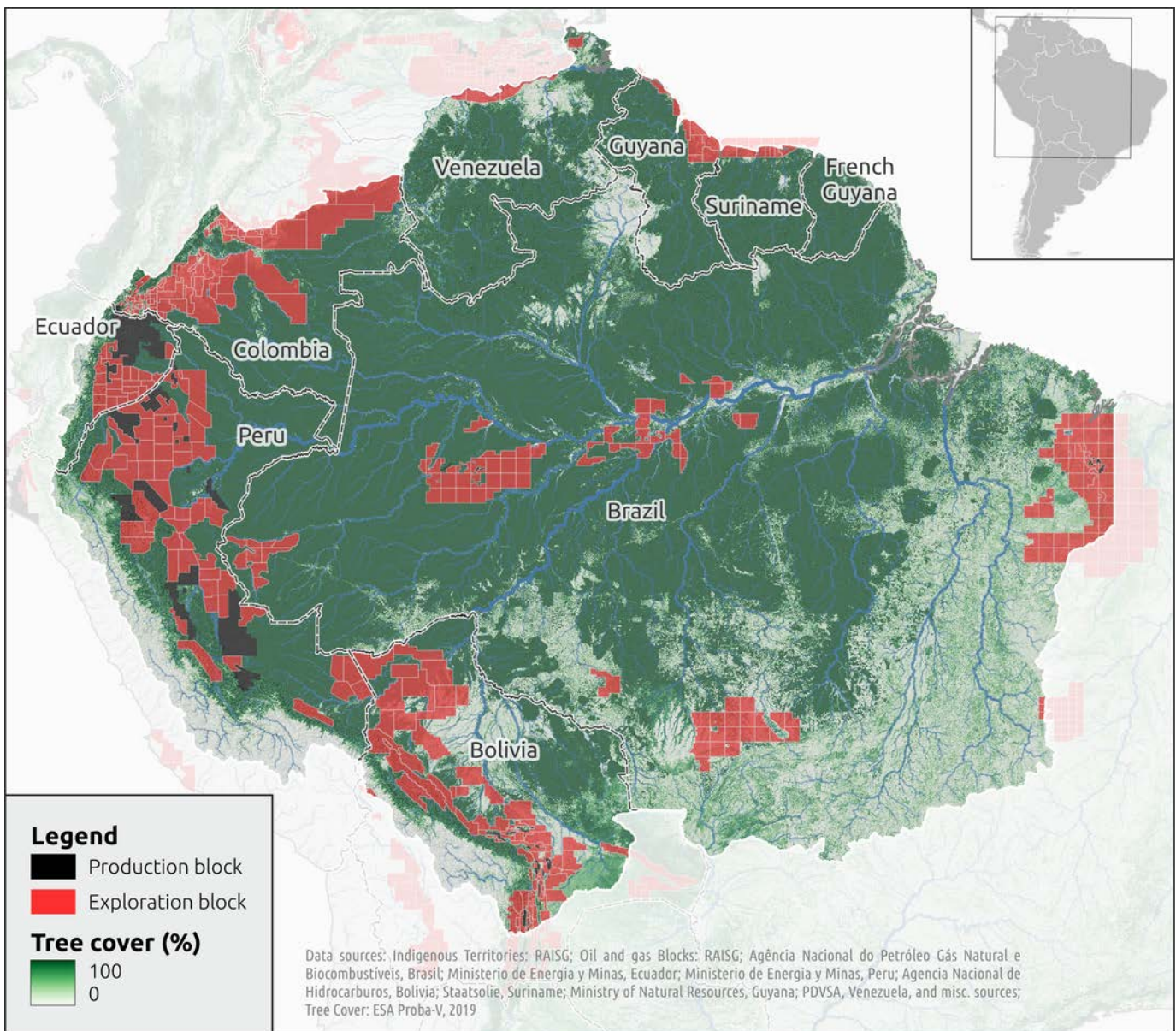
*Co-coordinator of Amazonia For Life: 80% by 2025 coalition*

*Director of the Amazon program at Stand.earth*

## THREAT ASSESSMENT OF OIL AND GAS EXPANSION: A RISK TO INTACT AND UNDESIGNATED LANDS

Oil and gas expansion is one of a range of threats that is driving the Amazon to the brink. Agribusiness (cattle, palm oil, soy, etc.) have been and continue to be the biggest drivers of deforestation and high degradation. Oil and gas development brings large infrastructure, roads, etc. and has been a gateway to deforestation. This region contains the richest biodiversity on the planet. An estimated 65 million hectares of undisturbed tropical forest (an area nearly twice the size of Poland) now overlap with existing or planned oil and gas blocks in the Amazon Basin and over **12 million people** living in more than 10,000 villages, towns, etc., or more than 20% of populated places in Amazonia are now in oil and gas blocks.

### MAP 1: OIL AND GAS THREATS TO UNDISTURBED FORESTS IN THE AMAZON





## KEY FINDINGS: AMAZON OIL AND GAS EXPANSION THREATS AT A GLANCE

TABLE 2: AMAZON AT A GLANCE

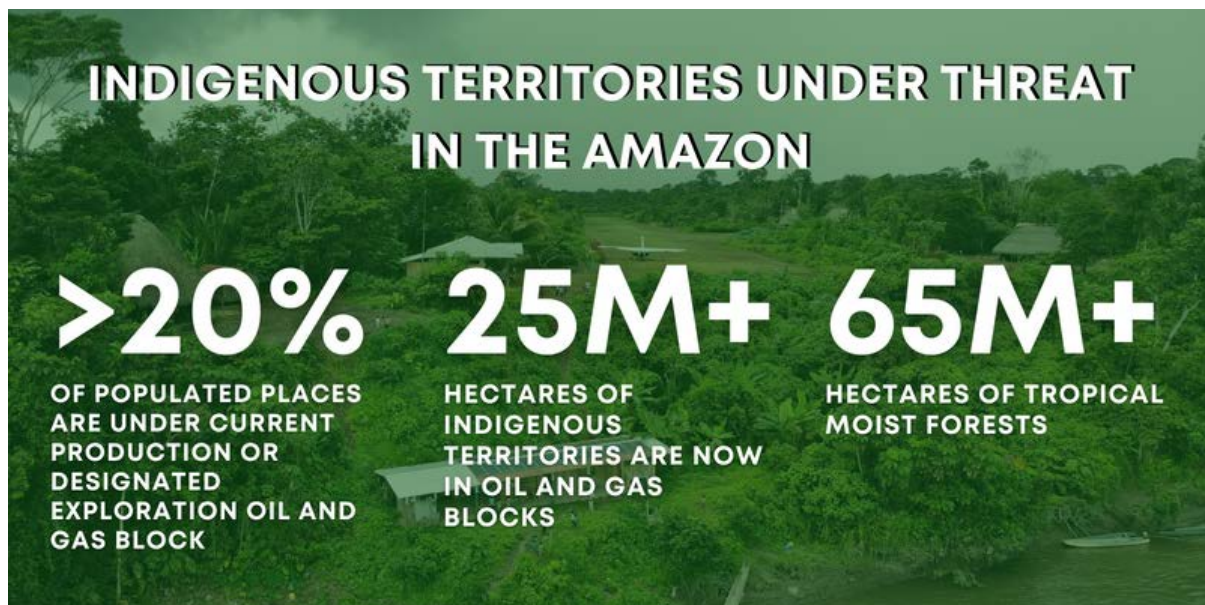
Oil & Gas Block Overlap	Amazon
Tropical Moist Forests in hectares (undisturbed)	65+ million
Indigenous Territories in hectares	25+ million
Populated Places (villages, towns, communities)	10,000+
Population	12+ million
IUCN Endangered/ Red Listed Species	700+
Peatlands	2+ million hectares

Note: These figures are estimates generally within +/-5% of accuracy

### Oil and Gas Expansion: A Gateway to Deforestation

Oil drilling requires roads and infrastructure that fragment the rainforest; deforestation along roadsides has been a driver of forest loss - with a strong correlation between oil drilling and deforestation in the Ecuadorian Amazon.<sup>20</sup> Ecuador has one of the highest road

densities of the Amazon basin, and deforestation and colonization is a critical threat to the Indigenous cultures and ways of life.<sup>21</sup> Land-use change from agriculture is the number one cause of deforestation in Ecuador and, not surprisingly, the highest concentration of forest loss due to these practices overlaps with the three most active oil blocks in the country.<sup>22</sup>

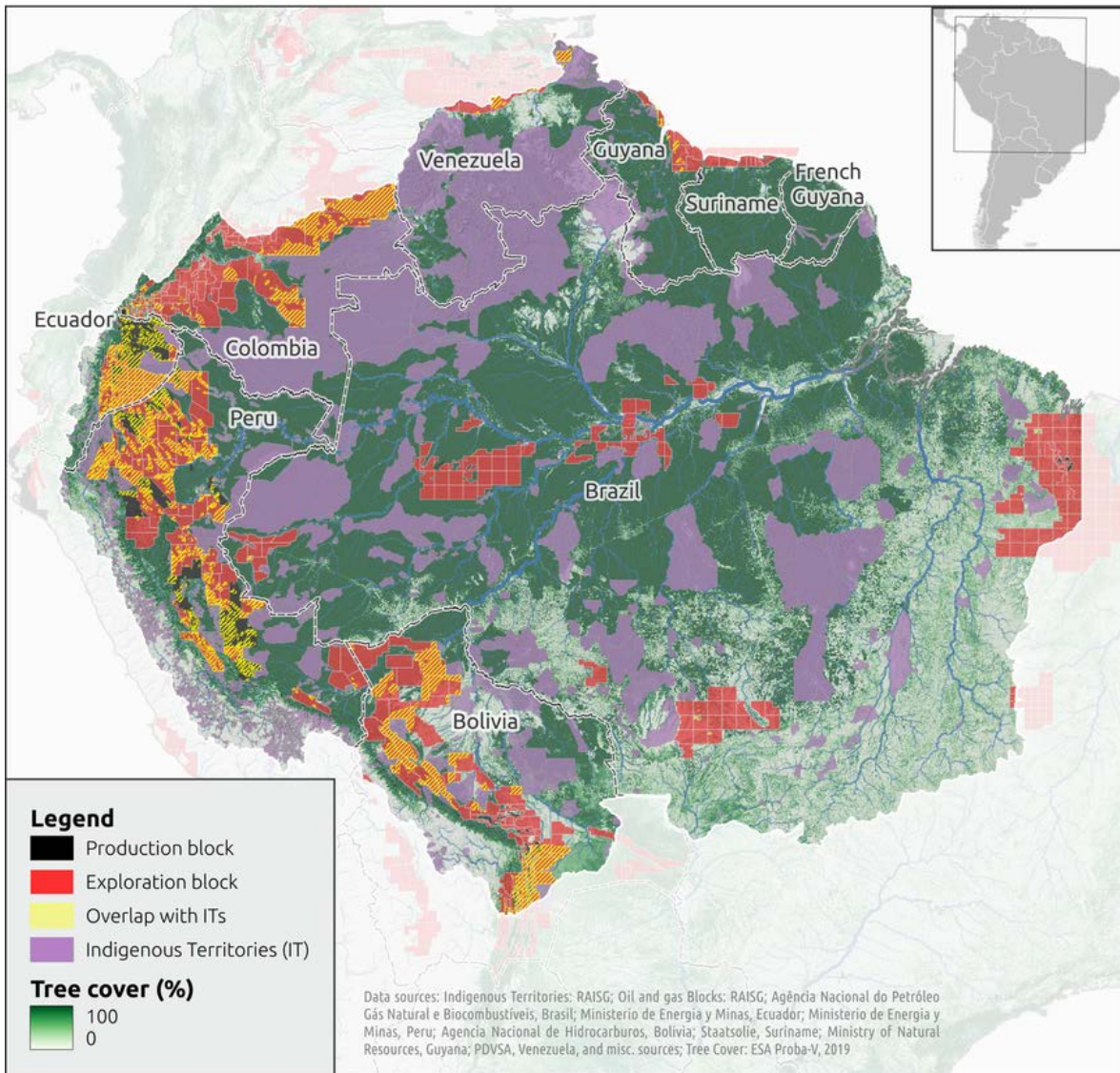


## AN EXISTENTIAL THREAT TO INDIGENOUS PEOPLE AND AN ONGOING TOXIC LEGACY

Oil extraction and deforestation lead to violations of Indigenous Peoples' rights and are threats to their survival and cultural stability. Indigenous federations and a vast majority of Indigenous communities are opposed to the expansion of oil and other industrial activities in their territories. Yet the oil industry continues to advance into their territories and frontier rainforests.

Over 500 distinct Indigenous nationalities call the Amazon Basin home and more than 25 million hectares of Indigenous Territories and customary lands are now in oil and gas blocks and more than 20% of populated places (over 1,800 villages, towns, etc.) in Indigenous Territories are under a current production or designated exploration oil and gas block

### MAP 2: AMAZON: OIL AND GAS THREATS TO INDIGENOUS COMMUNITIES





## OIL “DEVELOPMENT” IN THE WESTERN AMAZON: A CAUTIONARY TALE

The history of oil-related contamination in the Western Amazon spans decades. Fossil fuel extraction has brought with it toxic waste and crude oil spilled from extensive and poorly-maintained pipelines. Oil development has also been associated with exposure to heavy metals and contaminants and cancer rates as high as four times that of reference populations.<sup>23</sup> Major pipeline ruptures in 2022<sup>24</sup> and 2020 have heavily impacted the water resources of the Indigenous and local communities who live within the impact zone of the oil and gas industry. Since 1972 at least 7,850 spill sites have been inventoried by the Ministry of Environment of Ecuador. At the same time, the aging Norperuano pipeline in the Peruvian Amazon continues to spill regularly; it is estimated more than 450 oil spills have occurred in the Peruvian Amazon since 2000.<sup>25</sup>

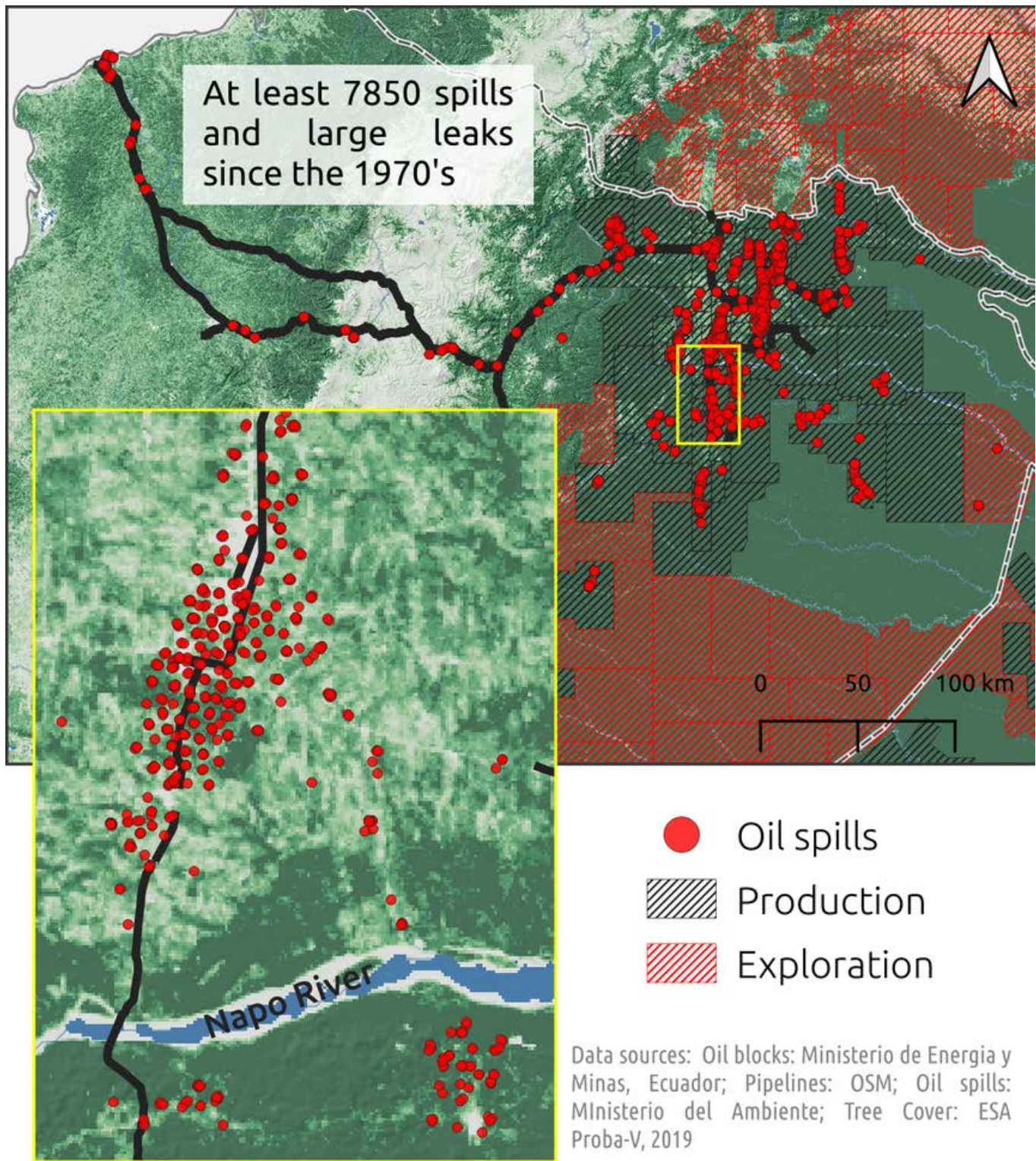
Indigenous resistance has been a steady force to oil expansion and other forms of extractivism with a steady arc of victories keeping oil, mining, and other extractive interests out of their territories and customary lands.<sup>26</sup> As Indigenous Federations and a range of civil society organizations have been calling attention to, millions of hectares of rainforest in the Western Amazon are now under imminent threat due to oil and gas expansion. With 90% of Amazonian oil exports coming out of Ecuador, this region is a critical hotspot and a microcosm of the dangers of a path that most often leads to debt, pollution, corruption, Indigenous rights violations, and civil unrest. In order to pay off debt and meet economic demand by exporting oil to refineries in California – where half of all Amazon crude oil ends up<sup>27</sup> – the Ecuadorian government is hoping to double oil production; putting millions of hectares of primarily roadless, intact rainforest at risk.



Historic Indigenous mobilization confronts threats to rights and resources. Image credit: Courtesy of Amazon Watch



## MAP 3: AMAZON OIL SPILLS



Simply put, new oil and gas expansion in the Amazon is a dangerous and out-dated path of “development” and leaders of Amazonian nations and willing allies have a unique opportunity to chart a different path from what Indigenous federations leaders have called “a policy of death” as it relates to new oil and gas expansion.

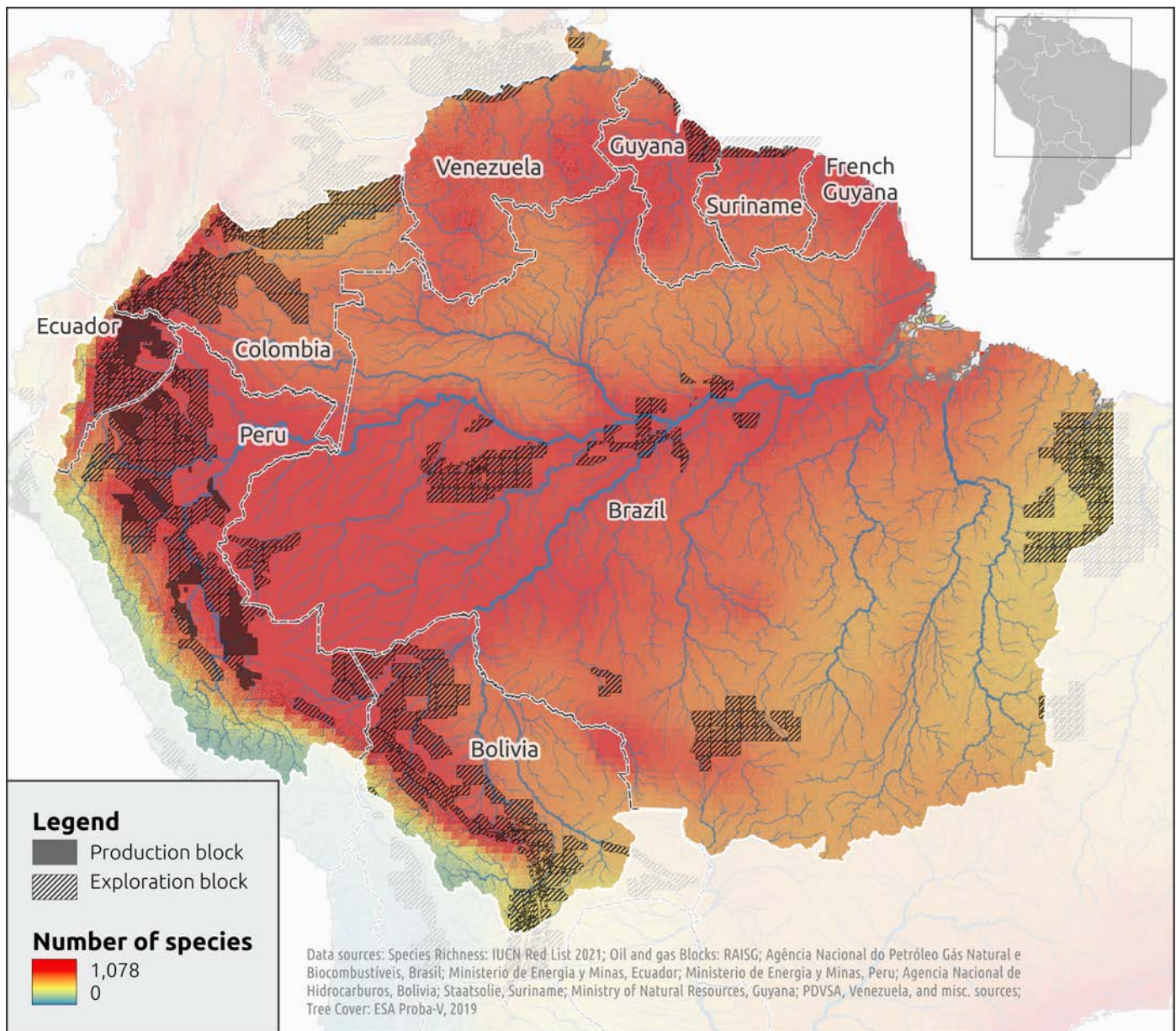


## THREAT ASSESSMENT OF OIL AND GAS EXPANSION: A RISK TO BIODIVERSITY

The Amazon and specifically, its headwaters is the world's most biodiverse region in the world. The Amazon region 40% of the world's remaining rainforest, at least 25% of its known terrestrial biodiversity, and more fish species than in any other river system.<sup>28</sup>

The greatest species richness in the world is found along the transition of the Amazon lowland basin to the Andes mountains headwaters in Colombia, Ecuador, Peru and Bolivia.<sup>29</sup> Due to its unique geology this region also has the most intensive oil production and exploration.

### MAP 4: OIL AND GAS EXPANSION THREATS TO BIODIVERSITY



## AMAZONIA FOR LIFE: 80% BY 2025 SOLUTIONS FRAMEWORK:

COICA and allied organizations have developed a 13-point solutions framework designed to advance protections for 80% of the Amazon by 2025 and follows:

1. A Pan-Amazon regional vision that lands in a shared strategic plan built upon the strict guidelines of Free, Prior, Informed, Consent (FPIC). To reach the 80 percent by 2025 vision, each Amazon country must develop National Amazon Biome Action Plans (NABAP) to spell out their commitments for meeting the target. The process should be with the full participation of civil society, including Indigenous peoples who have been effective stewards of this biome for millennia.
2. **100 percent legal recognition and demarcation of Indigenous lands** and the allocation of **permanent financial resources** that allow their titling and expansion.
3. Implementation of a **governance model with political representation** and formal recognition of the role of Indigenous peoples in reaching this goal at national and international levels.
4. **An immediate moratorium on deforestation** and industrial degradation of all primary forests.
5. Forest policy and zoning that enables the creation of intangible zones for areas that remain intact/roadless and other zones that are for industrial activities.
6. **Ecological restoration** for degraded lands.
7. Creation of expanded Indigenous or co-managed reserves for unprotected Indigenous that are not currently listed as TIs or ANP and other territories (OECM), with the safeguards and responsibility of the States to guarantee the protection of Indigenous Peoples in Voluntary Isolation and Initial Contact (PIACI).
8. Halting key drivers of current and future deforestation and industrial development pressures by suspending new licensing and financing for mining, oil, cattle ranching, large dams, logging, and other industrial activities.
9. Conditioned debt forgiveness in exchange for permanent moratoria on industrial extraction in key priority areas and Indigenous territories and protected areas.
10. The finance sector commits to ensure respect for the rights of Indigenous peoples and an end to deforestation throughout financed supply chains.
11. Supply-chain transparency and accountability.
12. The international community's immediate adoption of policies and frameworks that guarantee a permanent influx of resources to accomplish this target.
13. The international community facilitates the financial resources necessary to cover the costs of access to basic services for Indigenous communities, consolidate their self-determination, and strengthen the comprehensive management of territories, sustainable livelihoods and use of ancestral knowledge.



Amazon Basin countries are urged to **declare a state of emergency** and immediately **halt the expansion of destructive industrial activities**, government policies, and harmful public subsidies that enable further forest destruction. The state of emergency would address the drivers of deforestation while allowing space for longer-term transition strategies that lead us towards an enduring transformative change.

Industrialized nations must recognize their role in climate change and channel all resources needed to guarantee a just transition for those who inhabit the biome and for their own citizens. The time for action is now.



Domingo Peas of Sacred Headwaters Initiative and José Gregorio Díaz Mirabal General Coordinator of COICA embrace at the IUCN Congress when Motion 129 was approved which highlights the need to avoid the Amazon tipping point, protecting 80% by 2025 and emphasized Indigenous territorial recognition. Image credit: Andrew E. Miller via Twitter

## CONGO IN THE CROSSHAIRS: WHAT'S AT STAKE

**Note that this content is drawn from Congo in the Crosshairs, the recently published report in partnership with Rainforest Foundation UK that was released at COP 27.**



Source: Chad-Cameroon pipeline. Image credit: Tom Stoddart/Getty Images

Spanning approximately 200 million hectares (500 million acres), an area roughly 1/4th the size of the contiguous United States, the undisturbed tropical forests and wetlands of the Congo Basin are vital for its people, wildlife, and the future climate stability of the planet. The Congo region is the largest carbon sink in the world, absorbing even more carbon than the Amazon. Until recently it has suffered from lower deforestation rates than other tropical forest regions but pressures are increasing from agribusiness, logging, extractive industries, associated infrastructure projects and much more.

The forest overlaps six countries – Cameroon, Central African Republic, Democratic Republic of the Congo, Republic of the Congo, Equatorial Guinea, and Gabon. This diverse landscape contains undisturbed tropical forests as well as riverine systems, savannahs, and swamp

forests supporting thousands of species of tropical plants and birds and an incredible range of unique and endangered wildlife from forest elephants and chimpanzees to mountain gorillas and hundreds of species of mammals – including many that are IUCN red-listed.

These forests sustain tens of millions of people, including hundreds of thousands of Indigenous People, many of whom maintain a semi-nomadic existence. The cultural diversity of the region is evident in the hundreds of distinct ethnic groups whose rich heritage and traditions are interwoven within this unique landscape.



## KEY FINDINGS

- Despite the need to end oil and gas expansion globally, the area of land allocated to oil and gas production on the African continent is set to quadruple.
- Oil and gas exploration blocks overlap 30% of undisturbed tropical forests in Africa, of which 90% are in the Congo Basin.
- In the Congo Basin, over 180 million hectares of undisturbed tropical forests still remain and over 35% of these critical forests, or 71+ million hectares, now overlap with over 150 existing or designated oil and gas blocks (an area nearly twice the size of Germany).
- Over 150 distinct ethnic groups call the Congo Basin home and over 32+ million people, or 20% of populated places in Congo Basin countries, are now in existing or designated oil and gas blocks.
- A close examination of oil development that has already occurred in the DRC and also in Nigeria reveals disastrous impacts on the environment, health, livelihoods and human rights of local communities and is a cautionary tale for the Congo Basin.
- There is still time for African nations and the international community to chart a different path that advances economic well-being while protecting critical forests and the communities that depend on them. Key investments include unlocking the continent's vast potential in renewables and scaling up direct support to forest communities and other frontline forest defenders.

Note: This report uses a new methodological classification for threats to forests - undisturbed tropical forests instead of dense tropical forests (>70% forest cover) and accordingly some analytical findings have shifted slightly from Congo in the Crosshairs.

# New Oil and Gas Expansion Threats to the Congo Basin

**150+**

DISTINCT ETHNIC GROUPS CALL THE CONGO BASIN HOME

**35%**

OF CRITICAL FORESTS IN THIS REGION ARE IN EXISTING OR PLANNED OIL AND GAS BLOCKS

**90%**

OF AFRICA'S DENSE TROPICAL FORESTS THAT OVERLAP WITH OIL AND GAS BLOCKS ARE IN THE CONGO BASIN



**The Congo Basin contains 90% of Africa's undisturbed tropical forests that overlap with oil and gas blocks making the region the epicenter of oil and gas expansion threats to undisturbed tropical forests on the continent, and likely the world.**

Oil and gas expansion in the Congo Basin threatens to further fragment intact lands and exacerbate forest and wetland degradation and deforestation in the region. Over 180 million hectares of undisturbed tropical forests remain in the region and **over 35% of these forests, or 64 million hectares (an area nearly twice the size of Germany), now overlap with over 150 production or designated exploration oil and gas blocks.**

In addition to the immediate threats to forests and the climate, the indirect and cumulative impacts in terms of the required roads, drilling equipment, pipelines, rigs, processing plants and use of local water sources are still higher. This infrastructure would in turn open up previously intact forest areas to a 'cascade' of deforestation as loggers, settlers and poachers move in.<sup>30</sup>



“ We must not let a chaotic expansion of fossil fuels risk our precious tropical forests, biodiversity hotspots, and the rights and livelihoods of forest communities who are already feeling the impacts of climate change. With a focus on realizing our potential in renewable energies, Africa and Congo Basin countries can lead the way to a prosperous green future”

**François BILOKO**  
**General Secretary of Réseau CREF,**  
**a leading environmental network in**  
**the Congo Basin**

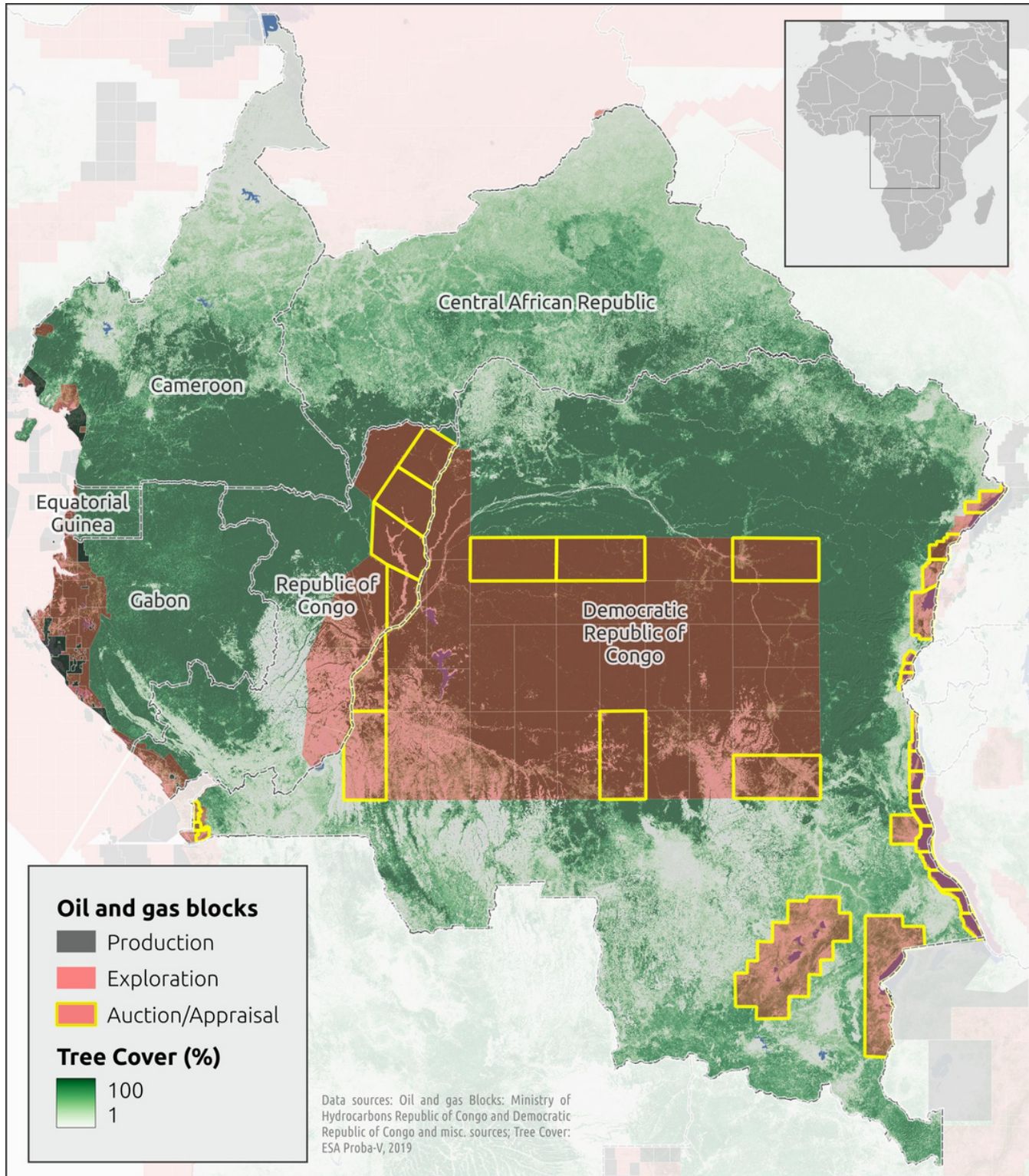


**Harrison Nnoko**  
**Executive President (CEO)**  
**AJESH Cameroon**

“ The Congo Basin is a place of immense beauty and its life sustaining capacities not only support tens of millions of people and hundreds of diverse cultures who live in its midst, but this vital region also is critical for global climate stability. The science is clear – oil and gas expansion must not be happening anywhere and it is vital that the fossil fuel industry stay out of the Congo Basin region and for regional leaders chart a different path and invest in energy security and renewable energy instead of pathways that will fragment and pollute the forest.”



## MAP 5: OIL AND GAS THREATS TO UNDISTURBED TROPICAL FORESTS AND OTHER CRITICAL LANDS IN THE CONGO BASIN

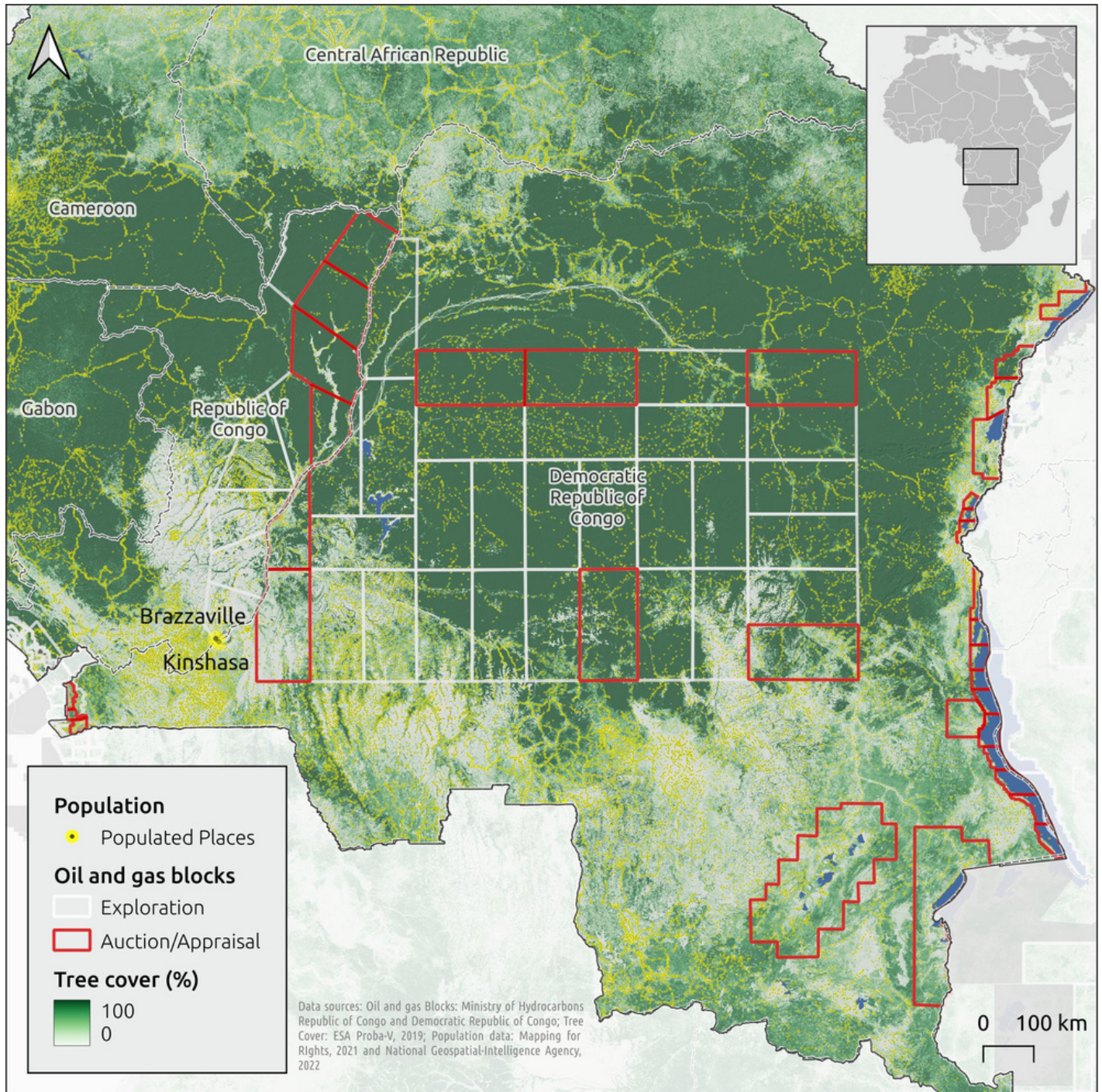


Source: Rainforest Foundation UK and Earth InSight, 2022



## MAP 6: OIL AND GAS BLOCKS OVERLAP WITH HUMAN SETTLEMENTS

It is estimated that in the Congo Basin countries, there are over 81,000 populated places – as identified in the map above. These places are comprised of cities, towns, and villages and our analysis shows that 20% or over 16,000 populated places – representing nearly 36 million people – overlap with oil and gas blocks in the region.

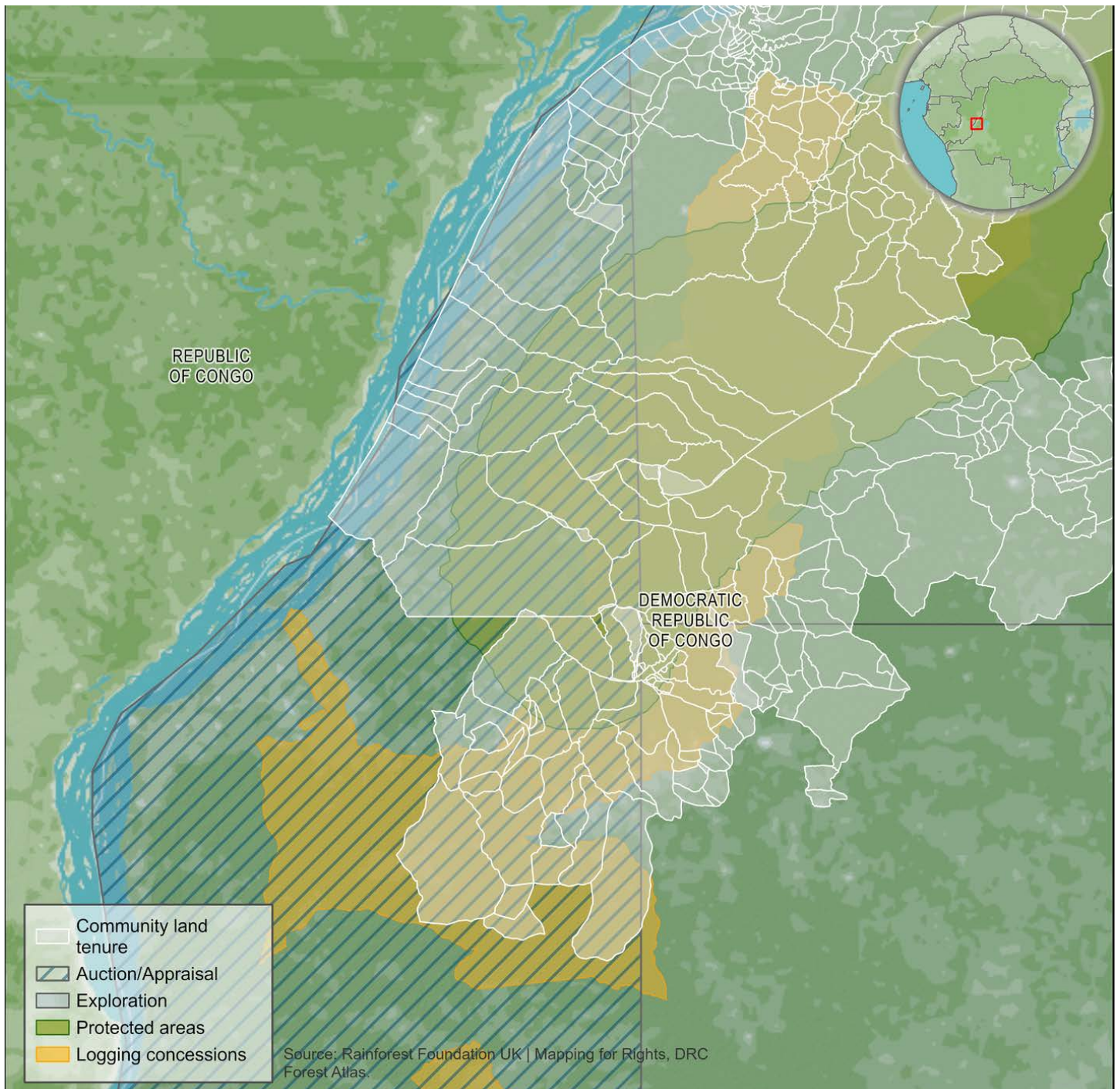


Source: Rainforest Foundation UK and Earth InSight , 2022.



## MAP 7: PARTICIPATORY MAPPING CASE STUDY

Many communities in the region are characterized by a high degree of forest-dependency with livelihood and cultural activities extending well beyond population centers. As represented in the map below, participatory mapping with local communities supported by Rainforest Foundation UK and its local partner organizations indicates the entire forest area is likely to be subject to long-standing collective tenure claims. However, these systems mostly still lack legal recognition, leaving many communities living in industrial concessions and more vulnerable to having their lands further dispossessed by oil and gas expansion.

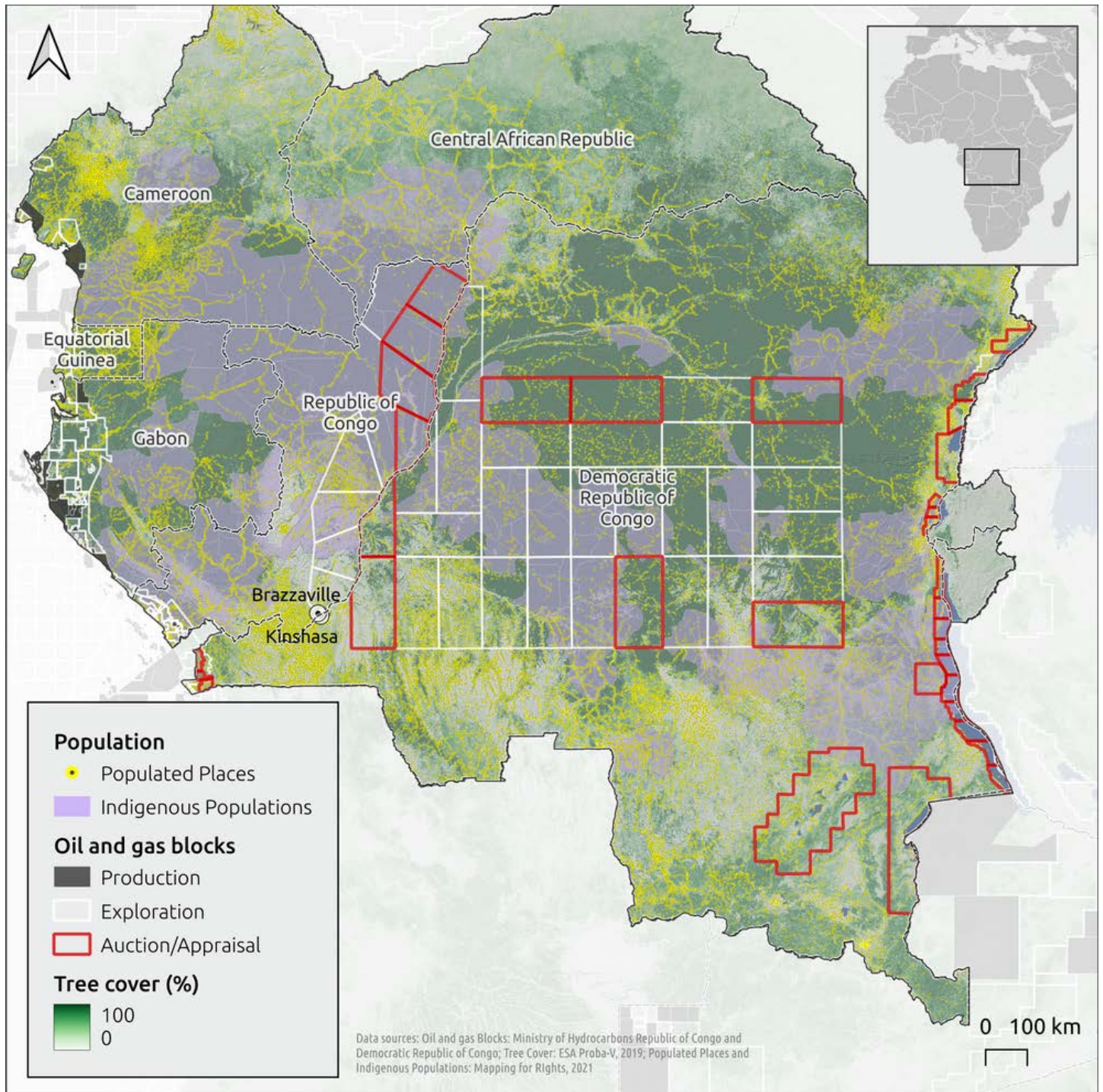


This participatory map from DRC shows clan-based customary tenure and forest management systems that are prevalent across the Congo Basin and how these are superimposed by oil and gas permits and other land uses. Note that empty spaces on the map do not indicate that such areas are not subject to customary claims and usages as only a small percentage of the Congo Basin has so far been mapped by local communities. Source: MappingForRights.org, DRC Forest Atlas



## MAP 8: OIL AND GAS BLOCKS AND THE PRESENCE OF INDIGENOUS PEOPLES

The oil and gas blocks also extensively overlap administrative areas that are inhabited by Indigenous Peoples. Both the Republic of Congo (2011) and the DRC (in process) have Indigenous Peoples laws that are supposed to safeguard the rights of Indigenous Peoples. The latter even requires the free, prior and informed consent (FPIC) of Indigenous Peoples in relation to development projects on their lands.<sup>31</sup>



This map is based on desk research conducted by Rainforest Foundation UK and the Dynamique des Groupes des Peuples Autochtones (DGPA) on administrative areas in the Congo Basin countries that are known to have the presence of Indigenous Peoples. So far, only a fraction of their land use claims has been mapped on the ground. Source: Rainforest Foundation UK and Earth InSight, 2022



## **DRC'S MASSIVE OIL AND GAS AUCTION – PRIMING A CARBON BOMB AND THREATENING PROTECTED AREAS**

The Democratic Republic of the Congo (DRC) covers 60 percent of the Congo Basin, solidifying the country's decision-making as central to the fate of the region. In July 2022, the DRC government moved a massive auction of 30 oil and gas blocks covering more than 11 million hectares of undisturbed tropical forest – an area nearly the size of England.

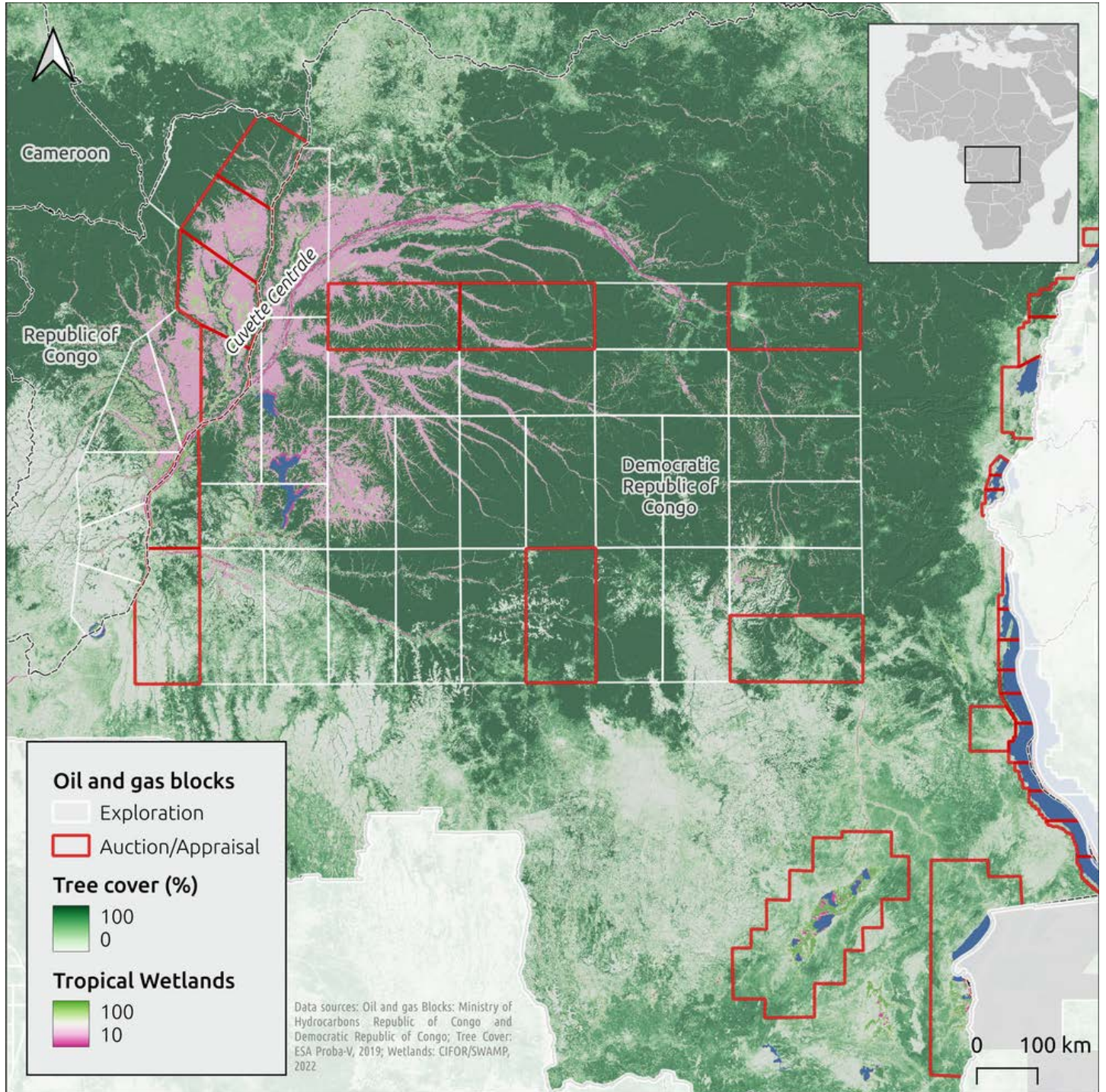
As well as the climatic impacts, the infrastructure required to even explore for oil in this remote and highly sensitive ecosystem could alter drainage patterns, contaminate water and open up previously intact forest areas to further deforestation.<sup>32</sup>



Cuvette Centrale peatlands, one of largest terrestrial carbon sinks on Earth. Image credit: Alamy



## MAP 9: OIL AND GAS BLOCKS OVERLAP WITH CARBON-RICH PEATLANDS



Source: Rainforest Foundation UK and Earth InSight, 2022 (See data sources in methodology section)

Three of these oil blocks (4, 4B and 22) overlap with the Cuvette Centrale peatlands, a globally vital carbon sink storing an estimated 29 billion tonnes -- or three years' worth of global fossil fuel emissions. The peat in these three oil blocks alone store 1.67 billion tonnes of carbon - equivalent to the carbon emitted by burning 14.2 billion barrels of oil, according to the CongoPeat initiative.<sup>33</sup> This is in addition to several oil blocks that have already been allocated over these peatlands in the neighboring Republic of Congo, including to oil majors Total and ENI.<sup>34</sup>



**TABLE 3: OIL AND GAS THREATS BY NUMBERS**

Metric	Africa	Congo Basin	Congo Basin Oil & Gas	DRC Oil & Gas
Area (millions of hectares)	3,030.0	404.9	111.9	88.1
Onshore exploration blocks (count)	1,218	150	114	62
Undisturbed Tropical Forest (Millions of hectares)	206	181	71	56
Population 2020 - UN adjusted (count in millions)	1,415	156	32	27
Populated places (count)		81,510	16,311	11,936
Granted community forests in DRC (count)		160	101	101

Source: Congo in the Crosshairs: Oil and Gas Expansion Threats to Forests and Communities, Rainforest Foundation UK, Earth InSight, 2022.

# Human Cost of Oil and Gas Development

## 32M+

PEOPLE LIVE IN CONGO BASIN OIL AND GAS BLOCKS

## 16k+

COMMUNITIES IN CONGO BASIN OIL AND GAS BLOCKS

## 101

GRANTED COMMUNITY FORESTS IN CONGO BASIN OIL AND GAS BLOCKS

## THE DESTRUCTIVE PRECEDENT OF FOSSIL FUEL DEVELOPMENT IN AFRICA

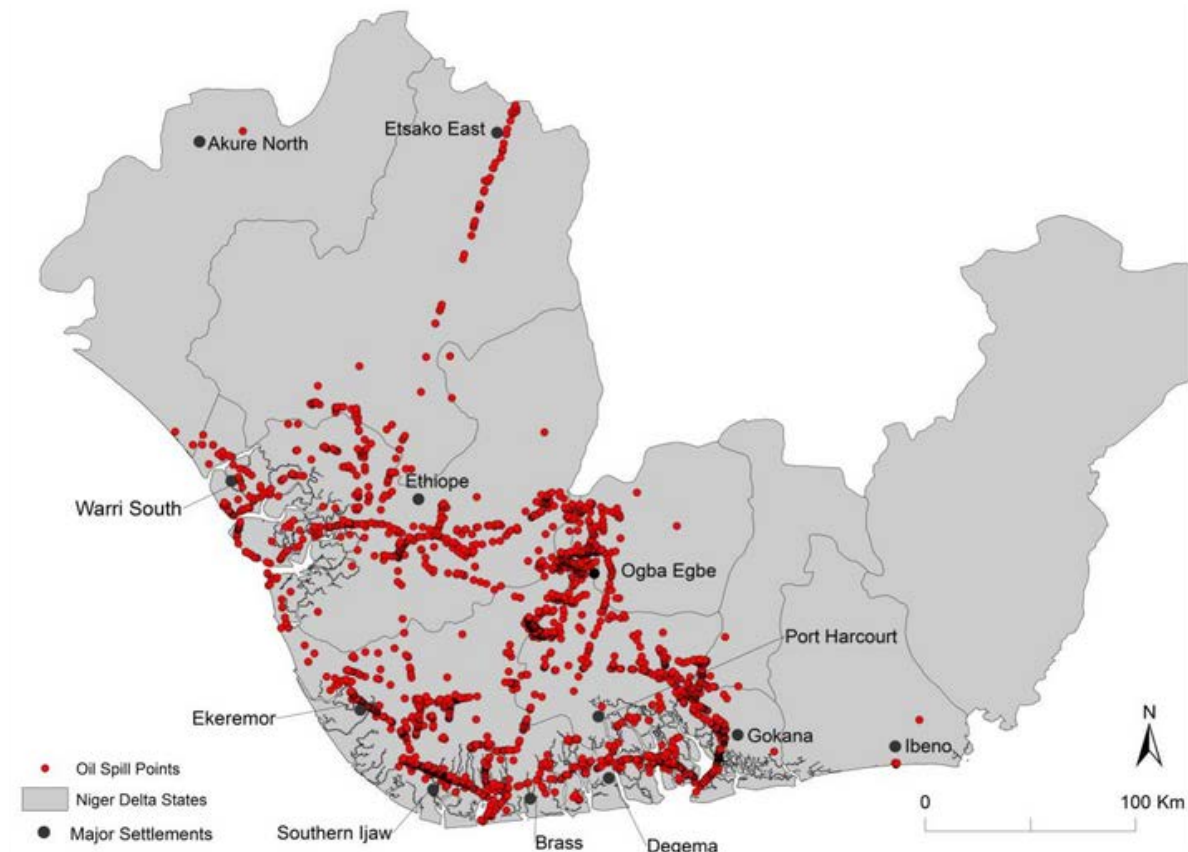
Oil development is often heralded as a solution to development needs. However, the reality is that the majority of the wealth lands in the hands of fossil fuel companies, banks and other vested or corrupt interests. A closer examination of the toxic legacy of oil development in the DRC and Nigeria are a cautionary tale...

### Oil in Nigeria: 50 Years of Pollution and Disastrous Community Health and Livelihood Impacts

Southern Nigeria, home of the Niger Delta, is one of the most polluted places on Earth<sup>35</sup> and over 50 years of oil operations have had

disastrous effects on local communities' health and livelihoods. In fact, According to the Bayelsa State Oil and Environmental Commission, over the last half century, as many as ten million barrels of oil have been spilled across the country. That's equivalent to a spill similar in size to the Exxon Valdez catastrophe - which devastated the coast of Alaska - every single year for the last fifty years.<sup>36</sup> The health of hundreds of thousands of people has been affected by the contamination of the water they drink, the land they grow food on and the air they breathe. Estimates suggest that the pollution could be responsible for as many as 16,000 infant deaths in one year alone.<sup>37</sup>

### FIGURE 1: MAPPING OIL SPILLS IN NIGERIA - A DISASTER WAITING TO HAPPEN IN THE CONGO



Source: Quantifying the exposure of humans and the environment to oil pollution in the Niger Delta using advanced geostatistical techniques. Christopher B. Obida, Environment international 2018



The widespread oil pollution in Bayelsa has been devastating. Research has found that people living near polluted sites have been continually exposed to elevated levels of heavy metals such as chromium, lead and mercury in their blood stream, leading to increased risk of diseases ranging from Alzheimer's and Parkinson's to cancer, diabetes and kidney damage. With nearly 75% of the local population depending on fishing and farming, the Commission has come across case after case where individuals and communities have lost their livelihoods and, in some cases, reduced to destitution as the result of oil spills – underscoring the fact that the presence of oil is not a benefit to local communities, but rather it is an ongoing threat to their health, livelihoods, and very existence.



*Oil pollution in Ogoniland, Niger Delta. Image credit: Marten van Dijk, Milieudefensie via Flickr (CC BY-NC-SA 4.0)*

## **Oil in the DRC: An Ominous Warning**

As reported by Human Rights Watch, production in DRC's only exploited oil block, managed by the Anglo-French company Perenco on the country's Atlantic coast, has been a source of ongoing health and environmental impacts.<sup>38</sup> In fact, within the last decade, a Congolese Senate commission accused the government of "irresponsibility" for failing to address the air, water, and land pollution from oil operations and related leaks, flaring, and contamination in connection with oil operations.<sup>39</sup> This ongoing toxic legacy in relation to oil development in Muanda and the surrounding region was also recently extensively documented by Congolese NGOs<sup>40</sup> and is a point of reference of the risks associated with further oil expansion in the Congo Basin. These risks are further amplified given that many of the oil blocks slated for development in DRC are in far more remote, logistically challenging and ecologically sensitive areas.

## Oil and Gas – A False Development Pathway

The Congolese government rightly points to the double standards of countries in the global north that have grown rich on fossil fuel development, whose per capita emissions far outstrip that of its own citizens, and which continue to expand their own fossil fuel operations and profit from surging energy prices fuelled by the war in Ukraine. While these same forces are now driving oil and gas exploration to new frontiers such as in tropical forests, DRC's poor track record of managing its timber industry and other natural resources for the public good (rather than the personal enrichment of political elites) does not bode well.<sup>41</sup>

A further issue is the security implications of oil and gas pipelines, particularly in the east of the country where the state is largely absent and the fight for control over natural resources has fuelled decades-long conflicts.

Pipelines in other volatile regions have not only been exposed to incessant attacks but also remained potential targets for socioeconomic sabotage and sources of environmental degradation.<sup>42</sup>

Even if the governance conditions did exist to support the country's significant local development and energy needs, the many years it would take to develop the infrastructure required to extract oil could leave these as stranded assets as the world transitions to renewable energies – which DRC has the potential for in abundance.



A man walks as crude oil spills from a pipeline in Dadabili, Niger state. Image credit: Reuters



## DRC AUCTION: LEGALITY CONCERNS, LACK OF DUE PROCESS, AND WIDESPREAD COMMUNITY OPPOSITION

Several issues surrounding the oil and gas auction in July 2022 have done little to alleviate governance concerns. An analysis by Congolese civil society organizations found serious issues around due process including an unlawful increase in the number of auctioned blocks from 16 to 30 – placing millions of additional hectares of forest at risk, as well as the absence of a sectoral policy guiding development of hydrocarbons in the country or a land-use planning process necessary to avoid future conflicts with other land users.<sup>43</sup>

Despite the Hydrocarbons Minister Didier Budimbu's repeated assertions that oil and gas can be exploited without negative environmental impacts, it seems the auction has fallen afoul of several of the country's own environmental protection laws such as those prohibiting fossil fuel development in protected areas.<sup>44</sup> The Ministry also appears to have foregone key requirements of the country's 2011 Environmental law on environmental and social impact assessments and public consultations.<sup>45</sup>

Field missions conducted by Greenpeace Africa to dozens of potentially affected local communities on the eve of the auction found that not a single community member had been consulted in regards to the oil auction plans and most were adamantly against them.

It appears that the people most dependent on healthy ecosystems for their livelihoods and that would be most affected by the presence of oil on their lands are in the dark about the government's plans. It is estimated that more than a million Congolese in the oil auction zone could be directly impacted by significant oil pollution, as well as population centers downstream, including Kinshasa.<sup>47</sup>



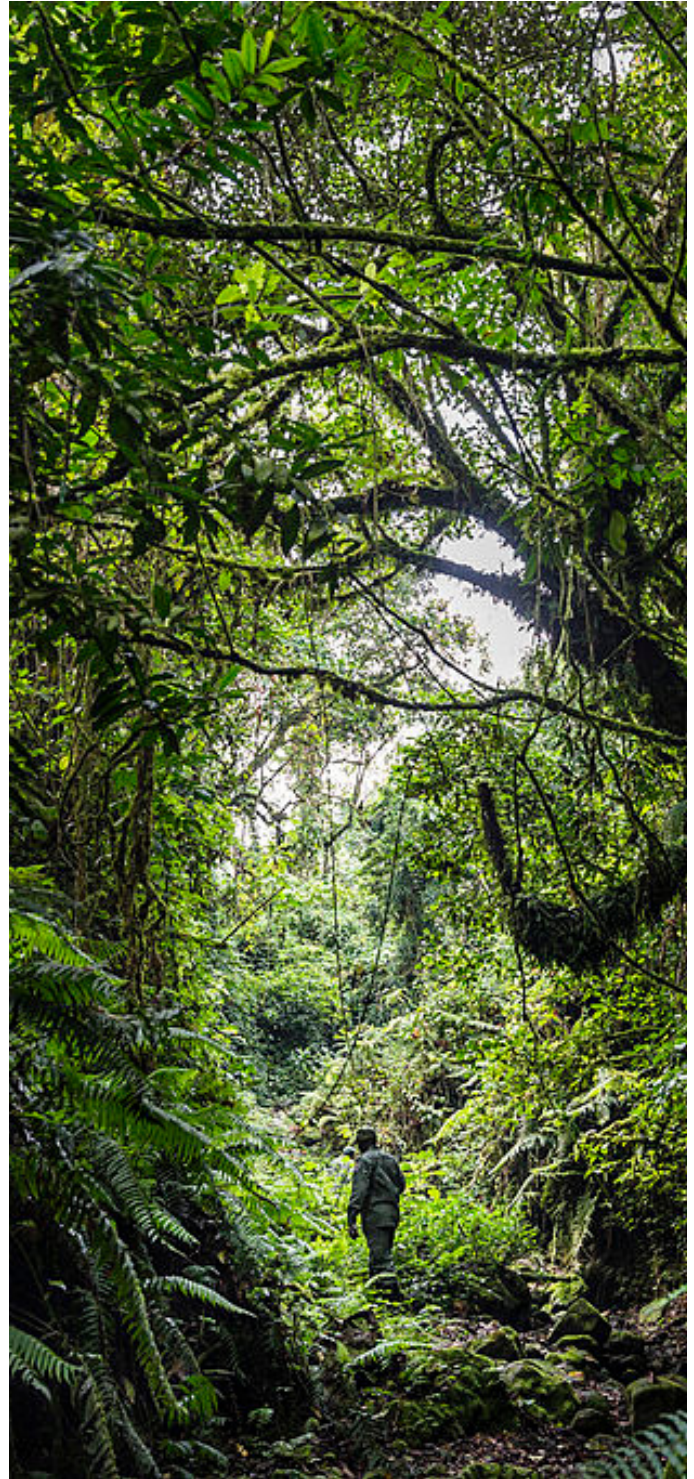
Congolese climate activists hold a concert in Goma on September 23, 2022. Image credit: © 2022 350Africa.org

## **DRC's Climate and Biodiversity Commitments and the Role of the International Community**

The exploitation of oil and gas in DRC's forests would have major implications for the country's promoted image as a 'solutions country' to the climate and biodiversity crises and in particular its international commitments in these areas such as its nationally determined contribution (NDC) to the Paris Climate Accord.<sup>48</sup>

For their part, DRC's international partners have not only fallen short on decarbonizing their own economies but also in addressing the threat that oil development poses to international forest protection efforts.

For example, a USD 500 million forest protection agreement signed at COP26 between the DRC and the Central African Forest Initiative (CAFI), a major grouping of international donors, lacks any clause prohibiting oil and gas activity in the carbon-rich peatlands, emissions reductions programs or protected areas, instead only referring<sup>49</sup> to vague prevention and mitigation measures. This is despite the fact that the chaotic development of oil and gas in the country would undermine several needed CAFI-sponsored programmes on land-use planning, tenure reform, community forests and the new Indigenous Peoples law.



The plant life in the gorilla sector of Virunga National Park, on August 6, 2013 in Bulima, DR Congo. Image credit: Brent Stirton for WWF-Canon



## CHARTING A DIFFERENT PATH - EXPANDING PROSPERITY WITHOUT THE TOXIC LEGACY OF MORE OIL AND GAS

In the Congo Basin, there is tremendous support for increasing prosperity without expanding oil and gas development. The following alternative pathways would engender greater health and well-being for communities and citizens of the region, advance critical conservation goals, support global climate stabilization needs, and serve as a model development approach:

- Transition away from oil and gas by unlocking the abundant potential of renewable energy in the region, promoting investments in distributed energy sources (small-scale hydro, wind, solar, etc.<sup>50</sup>)
- Invest in transparent, well-regulated, sustainable and equitable supply chains for minerals that will fuel the renewable energy transition (e.g. cobalt and lithium), ensuring that processing facilities and other value chains remain in the Congo Basin countries.
- Mobilize significant technical and financial support from the G20 economies, including via a carbon windfall tax to support climate change mitigation and adaptation efforts and by leveraging debt held by foreign governments, banks, and other creditors conditioned on keeping fossil fuels in the ground, trees standing and expanding Indigenous and local community forest and land rights.
- Create and implement National Adaptation Plans in order to pursue Loss and Damage resources through international financial mechanisms designed to ensure industrialized economies pay their dues to countries bearing the brunt of climate change related costs.
- Ramp up financial support for the protection of forests and peatlands and expand direct support to Congolese civil society organizations, indigenous peoples and other local communities on the frontlines of tropical deforestation so that they may control their own development.<sup>51</sup>



Woman carrying a solar panel near Yangambi, DRC.  
Image credit: CIFOR via Flickr (CC BY-NC-SA 4.0)

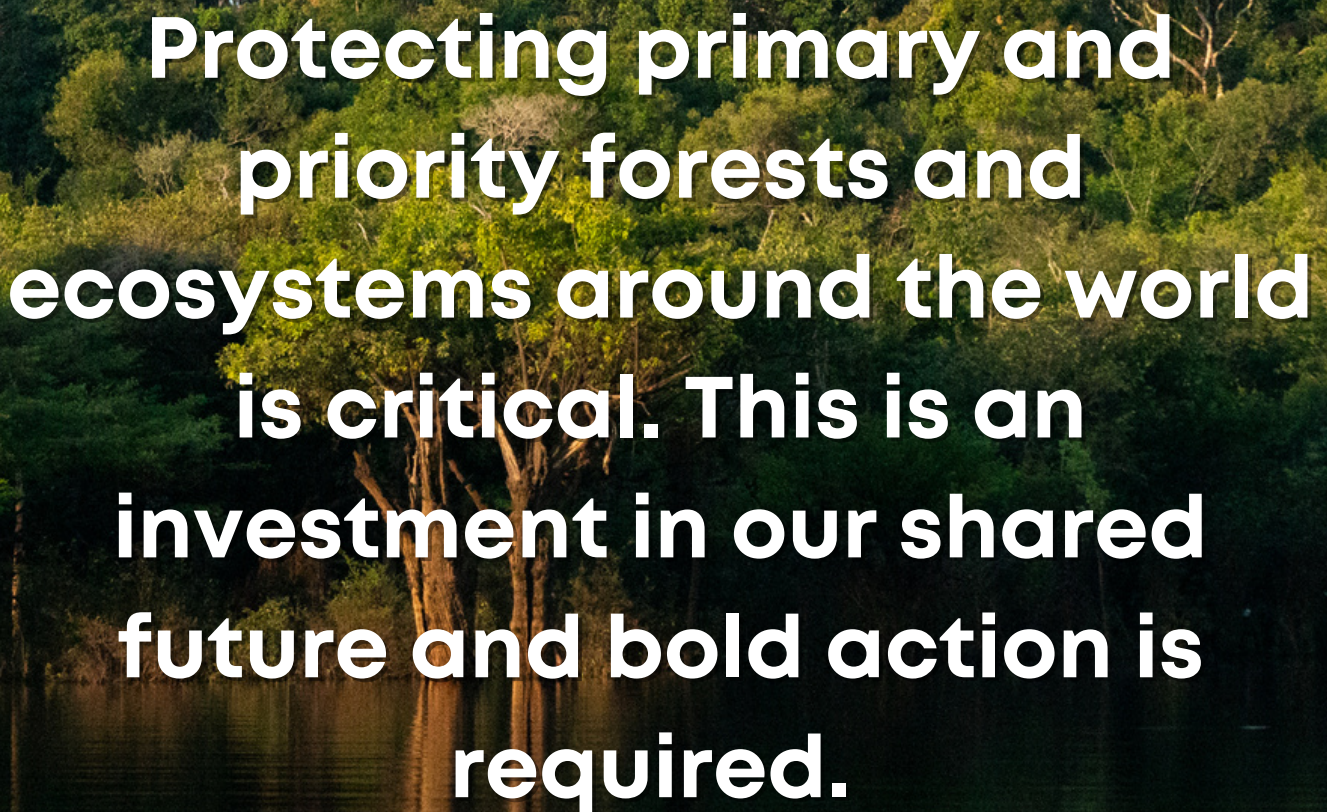
## SOLUTIONS AND REFERENCE POINTS FOR ENDING THE THREAT OF OIL AND GAS EXPANSION IN KEY FORESTS

There are viable solutions and reference points in both the Amazon and the Congo regions that can enable humanity to chart a different path including:

- A moratorium on all industrial activity in primary and priority forests until 2050<sup>52</sup> in order to safeguard critical ecosystems and while allowing time and space to develop appropriate plans and financing including redirecting subsidies for extractive industries to support primary forest preservation and indigenous co-management, and the expansion of rights and territories
- Expansion of global Indigenous land tenure, access and resource rights, direct funding for co-management, and the requirement of Free, Prior, and Informed Consent (FPIC)<sup>53</sup>
- The Amazonia for Life: 80% by 2025 Declaration from Indigenous federations across the Amazon<sup>54</sup> calling for expanding indigenous rights, territories, and funding, conditioned debt forgiveness, clean financing and supply chains, ending extractive activities in primary and priority forests, restoration, new financial mechanisms that preserve forests and lands, and a range of other solutions
- New debt for Climate and Biodiversity commitments from International Financial Institutions such as the IMF, large debt-holding nations like China, and other debt holders in the private sector<sup>55</sup>
- With strengthened ambition related to primary forest degradation, and accelerated timelines for action, the Glasgow Leaders' Declaration on Forests and Land Use<sup>56</sup> can be a reference point
- New frameworks for financing bold climate and biodiversity action including the 10-Point Plan for Financing Biodiversity<sup>57</sup>
- Commitments from banks and financial institutions to stop financing oil and gas expansion – starting with critical forest basins and ecosystems, e.g., through platforms like Exit Amazon Oil and Gas<sup>58</sup>
- CBD Alliance comprehensive recommendations for a Post 2020 Global Biodiversity Framework<sup>59</sup>



- Increased country-level commitments to the principles of the Beyond Oil and Gas Alliance<sup>60</sup>
- Widespread commitments to the Fossil Fuel Non-Proliferation Treaty<sup>61</sup>
- Unlocking the vast potential in renewables and scaling up direct support to forest communities and other frontline forest defenders.



**Protecting primary and priority forests and ecosystems around the world is critical. This is an investment in our shared future and bold action is required.**

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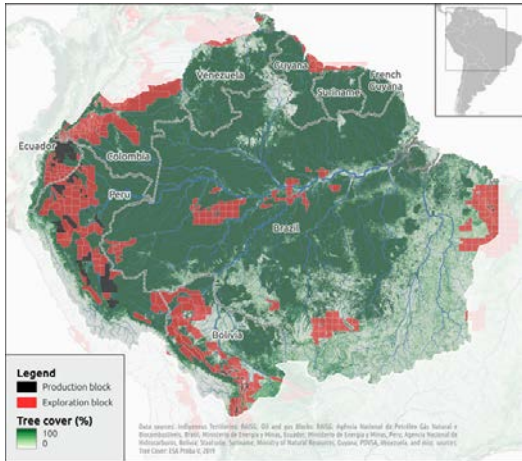
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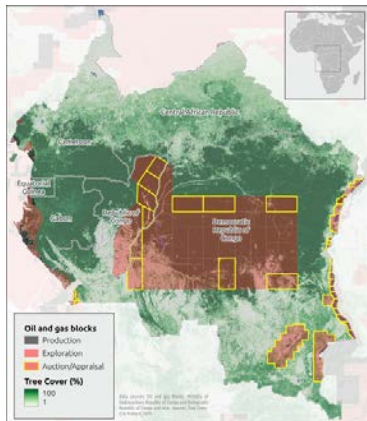
Cover Page: Ecuadorian Amazon rainforest spill clean up. Image Credit: Victor St. John, Getty Images and Aerial view of an meandering jungle river in the rainforest of the Congo Basin. Odzala National Park, Republic of Congo. Image credit: Guenter Guni, iStock

# METHODOLOGY

## Maps 1 and 5: Oil and Gas Threats to Tropical Forests and Other Critical Lands

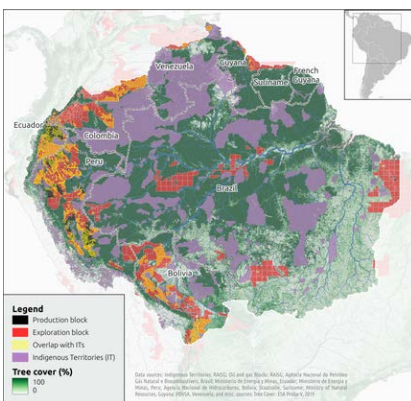


The extent of the Amazon region was defined by RAISG based on a consultative process that combines hydrographic, ecoregional and other biogeographic factors. Note that based on this definition the region may be different from the one used in the national context of individual countries. The extent of production and exploration blocks was compiled based on the RAISG database which was updated based on recent official publications by the ministries of natural resources or energy of Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname by Earth InSight. The forest cover used in this analysis consisted of the 2021 ESA/JRC Tropical Moist Forest product (TMF), while the global ESA Tree Cover fraction was used for visualization purposes. The TMF is thought to be the most accurate representation of tropical forest cover that is available at the moment.



The Congo Basin countries were defined as the six nations that encompass the Congo Forest ecoregions: Democratic Republic of Congo, Republic of Congo, Central African Republic, Gabon, Cameroon and Equatorial Guinea. Note that the domain differs from the hydrographic basin which is smaller than the country domain. The auctioned or appraised blocks were identified based on recent publications by the governments of the RoC and DRC.

## Map 2: Amazon: oil and gas threats to indigenous communities

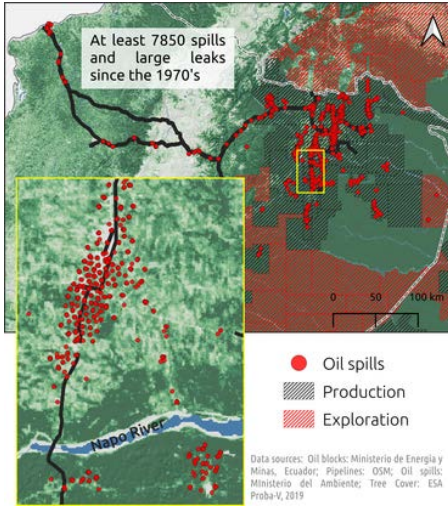


The extent of indigenous communities was derived from the RAISG database. This layer was intersected with the Earth InSight oil and gas block dataset in order to identify areas of overlap.



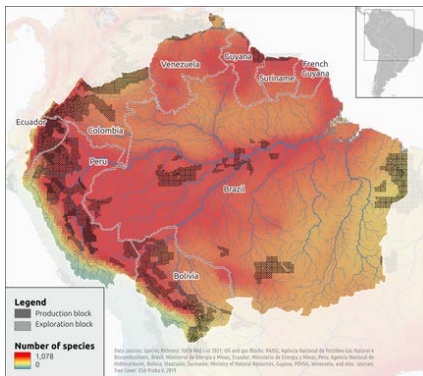
## METHODOLOGY

### Map 3: Amazon oil spills



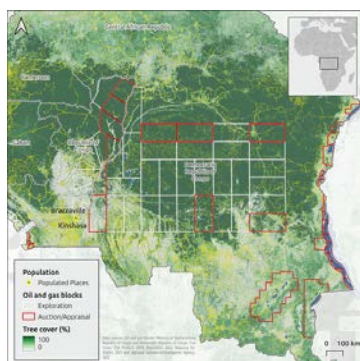
The oil spill location history in this map is based on the National database of sources of hydrocarbon pollution of the National Environmental Authority (MAE) in Ecuador.

### Map 4: Oil and Gas expansion threats to biodiversity



The raster data in this map is based on the raw IUCN ranges for amphibians, birds and mammals. As the species ranges have not been refined (for example, by altitude and landcover), there may be a fair amount of unsuitable habitat in the raw ranges, resulting in errors of commission. The raw IUCN ranges for amphibians, birds and mammals were intersected with a grid of 865 km<sup>2</sup> hexagon cells, clipped to the coastline, to give the number of species potentially occurring in each cell. Marine-only species were excluded from the analyses.

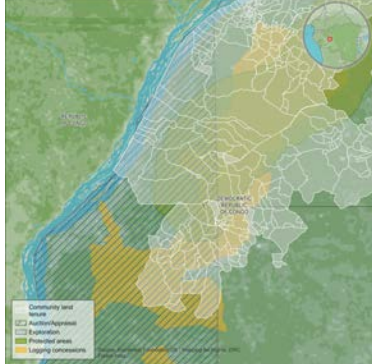
### Map 6: Oil and Gas Blocks Overlap with Human Settlements



This map illustrates the overlap between the planned oil and gas blocks, the large number of settlements throughout the Congo Basin region and their concentration along rivers and access roads. The populated places layer was derived from a global product maintained by the US National Geospatial-Intelligence Agency and information collected by RFUK. Population numbers were derived from a global high-resolution gridded dataset maintained by Columbia University in New York/CIESIN.

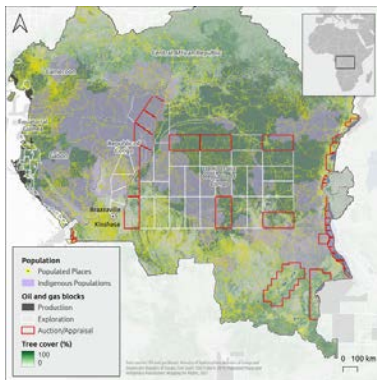
## METHODOLOGY

### Map 7: Participatory Mapping Case Study



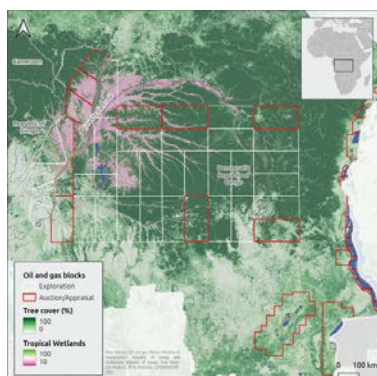
This participatory mapping case study was supported by RFUK and GASHE in Equateur Province, DRC

### Map 8: Oil and Gas Blocks and the Presence of Indigenous Peoples



This map illustrates the overlap between the planned oil and gas blocks with the presence of indigenous peoples based on data collected by RF UK, DGPA and other partners.

### Map 9: Oil and Gas Blocks Overlap with Carbon-rich Peatlands



The Congo Basin countries were defined as the six nations that encompass the Congo Forest ecoregions: Democratic Republic of Congo, Republic of Congo, Central African Republic, Gabon, Cameroon and Equatorial Guinea. Note that the domain differs from the hydrographic basin which is smaller than the country domain. The auctioned or appraised active blocks were identified based on recent publications/auctions by the governments of the RoOC and DRC.



## Data Sources

- **Oil and gas blocks:** RFUK oil and gas block database, the Ministry of Hydrocarbons of the Republic of Congo, the Ministry of Hydrocarbons of the Democratic Republic of Congo, World Oil Map 2021 (Leal, 2021) which was significantly improved by Earth Insight (2022).
- **Pipelines:** The Global Oil and Gas Infrastructure Tracker maintained by the Global Energy Monitor provides an inventory of pipelines and their most up to date status.
- **Oil and gas basins:** CGG Robertson Basins and Plays Basin Outlines define over 800 sedimentary basins worldwide. The database was designed to understand basin and play scale petroleum geology worldwide.
- **Tree Cover Fraction:** The Global Tree Cover Fraction was derived from the PROBA-V satellite observations and ancillary datasets.
- **Tropical Moist Forests:** The European Commission's Joint Research Centre developed this new dataset on forest cover change in tropical moist forests (TMF) using 40 years of Landsat time series.
- **Biodiversity:** The IUCN Red List of Threatened Species contains global assessments for more than 147,500 species. More than 81% of these (>120,500 species) have spatial data.
- **Wetlands:** The Sustainable Wetlands Adaptation and Mitigation Program (SWAMP)
- **Country outlines:** The Global Administrative (GADM) dataset provides administrative boundaries at all levels of subdivision.
- **Populated places:** The populated places database were derived from the Geographic Names Server maintained by the US National Geospatial-Intelligence Agency.
- **Population data:** High-resolution population estimates were derived from the Columbia University GRID3 (Geo-Referenced Infrastructure and Demographic Data for Development) dataset for Africa.
- **Protected Areas:** World Database of Protected Areas (WDPA) UNEP-WCMC/IUCN.



