



THE AMAZON IS BURNING. THE FUTURE IS BURNING!

YOUNG ACTIVISTS DEFENDING THE ECUADORIAN AMAZON
FROM GAS FLARES THAT THREATEN RIGHTS NOW AND IN THE FUTURE



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EXECUTIVE SUMMARY

All phases and activities of oil extraction generate a variety of impacts that degrade the natural systems and have profound negative impacts on the right to a dignified life, the right to health, the right to a clean and healthy environment, and other human rights of the local populations. Moreover, the oil sector is responsible for a large proportion of the greenhouse gases (GHGs) that have contributed and continue to contribute to the worsening of the climate crisis, with serious implications for a liveable planet and therefore the enjoyment of human rights around the world.

However, one of the most harmful practices in the oil sector is the routine burning of the gas associated with the extraction of crude oil in gas flares. The negative human rights and environmental impacts of this practice, as well as its contribution to global warming, have been widely recognized by the international community.

Despite global initiatives to phase out flaring, and the banning of the practice by some countries, many companies and oil-producing states continue to refuse to eliminate flares. In general, both public and private companies use flaring in socially and environmentally vulnerable areas, known as “sacrifice zones”, where marginalization and poverty are compounded by the environmental degradation caused by oil extraction.

In 2020, a group of nine Amazonian girls and young women from Ecuador, together with the strategic litigation group *“Unión de Afectados por las Operaciones Petroleras de Texaco”* (Union of People Affected by Texaco’s Oil Operations - UDAPT), brought a legal action, known as an injunction or protection proceedings, against the state authorization that allows the operation of gas flares in the Amazonian provinces of Sucumbíos and Orellana. The girls and young women, with the support of UDAPT, created a social movement and embarked on this legal process

against the gas flares because of their concern about the serious threat that flaring poses to human rights in the Ecuadorian Amazon as a sacrifice zone of the oil industry, to the global climate system, and to the fragile biodiversity of the Amazon region.

On 29 July 2021, as a result of the actions of these nine Amazonian girls and young women, the Provincial Court of Justice of Sucumbíos ruled that the Ecuadorian state had disregarded the plaintiffs’ right to live in a healthy and ecologically balanced environment, violated the right to health and failed to comply with its international obligations on climate change mitigation.

The Court ordered the integral reparation of the damage caused, with the gradual and progressive elimination of the gas flares, prioritizing the removal of those near populated areas. However, the Ministry of Energy and Mines and the state oil company Petroecuador have implemented a series of measures that give the appearance of complying with the ruling, but in reality keep the flares operating near communities and only benefit oil production.

In this report, Amnesty International analyses whether the actions of the Ecuadorian state, in relation to its obligations to reduce greenhouse gas emissions, violate its duty to protect human rights from the consequences of the climate crisis, now and in the future by failing to eliminate routine flaring as ordered by the ruling on the gas flares case brought by the nine Amazonian girls and young women and supported by UDAPT.

Amnesty International found that the Ecuadorian state has refused to fully comply with the ruling on the gas flares case issued on 29 July 2021 by the Provincial Court of Justice of Sucumbíos, which concluded that the flares should be gradually and progressively

eliminated, prioritizing the removal of those located near population centres. The court also ordered reparation measures for the affected communities.

The testimonies and documents collected, the verification of information in the field and the data analysed in this report show that the Ecuadorian state and its institutions responsible for the oil sector have so far only taken measures that seek to maintain oil production at all costs, avoiding any concrete and ambitious steps to remove the flares and transition to a decarbonized economy.

By failing to implement the ruling, the Ecuadorian state is denying the girls and young plaintiffs and other victims of human rights violations caused by the gas flares the right to adequate, effective and prompt reparation. Moreover, allowing gas flares to operate near population centres creates conditions that perpetuate the social inequality inherent in the Amazonian communities as sacrifice zones of the oil industry. Flaring also poses risks to the right to health and to a clean, healthy and sustainable environment.

At the same time, by maintaining and protecting flaring and failing to implement existing alternatives to replace this harmful practice, the Ecuadorian state is neglecting its international obligations to reduce GHG emissions and creating the conditions for the emission of super pollutants such as methane which have serious consequences for the global climate system due to their strong contribution to global warming. Given the human-induced climate crisis and the contribution of the fossil fuel sector to exacerbating the problem, Amnesty International notes with concern the contribution of flaring to global warming and its differential impact on the current and future enjoyment of human rights. Particularly vulnerable are historically marginalized population groups and children living in sacrifice zones in the global South, who are now demanding climate justice.

Amnesty International therefore makes the following recommendations to:

The Ecuadorian government and the institutions responsible for implementing the ruling in the gas flares case:

- Fully comply with the ruling of the Provincial Court of Sucumbios and immediately guarantee the reparation measures that require urgent attention, such as those related to the right to health, as ordered by the Provincial Court of Sucumbios in its ruling on the gas flares case.

- Meet the climate targets set out by the Ecuadorian state in its Nationally Determined Contribution (NDC) regarding the elimination of routine flaring in the unconditional scenario and report the results at the next Conference of the Parties of the United Nations Framework Convention on Climate Change.

- Recognize and urgently address, through plans and measures, the marginalization and social inequality inherent to the Amazon region as an oil sacrifice zone, while developing preventive policies to avoid the expansion of sacrifice zones.

- Work with the Indigenous peoples of the Amazon region to help them define their own priorities and development plans in accordance with their values and cosmovision and provide them with all the necessary means to implement them, in order to avoid the deepening of inequality and marginalization in the Ecuadorian Amazon.

The Ministry of Energy and Mines and the Ministry of the Environment, Water and Ecological Transition:

- Design and implement as soon as possible a plan to remove gas flares in order to comply with the provisions of the ruling in the gas flares case, through actions agreed with the plaintiffs and the organizations that make up the “Eliminen los mecheros, enciendan la vida” collective. Such a plan must focus on compliance with international human rights obligations.

- Undertake an accurate assessment of the volume of gas flared and seek to implement all necessary measures to phase out routine flaring in oil extraction operations as the country transitions to a non-fossil fuel dependent economy, in accordance with its international climate commitments and in a manner consistent with the respect and protection of human rights, with special safeguards for the protection of the human rights of marginalized communities and those historically subjected to conditions of racial injustice, such as Indigenous peoples and Afro-descendants.

- Accelerate the removal of gas flares operating within 5km of population centres and request the necessary technical assistance to curb practices such as venting and to prevent methane leakage and the release of other gases emitted simultaneously, so that Ecuador can meet its climate obligations to reduce emissions of the super pollutant methane and mitigate the threat that a global temperature increase of more than 1.5°C poses to the guarantee and respect of human rights now and in the future.

- Revise and include in the NDC more ambitious targets in the unconditional scenario, with measures on technological innovation to eliminate routine gas flaring.

- Revise and include in the NDC targets related to concrete measures and actions for a just energy transition that is consistent with human rights, excluding solutions that do not include human rights safeguards.



■ Seek international assistance, based on the principle of cooperation, to develop initiatives, policies and solutions for reducing the intensity of carbon emissions, including ending the routine flaring and venting of gas into the atmosphere and curbing methane leakage.

■ Conduct a thorough review, based on the principle of prevention, of the potential future contribution [to global warming] of the fossil fuel exploration, extraction and trading operations it authorizes, and develop policies and measures for a just energy transition based on principles consistent with human rights, as outlined in the Paris Agreement.

Petroecuador:

■ Respect human rights by refraining from causing, contributing to or being directly linked to actual and potential climate change-related impacts arising from its activities. Petroecuador must integrate climate change considerations into its policies, processes, governance structures and decisions to identify, prevent, mitigate and be accountable for adverse impacts on human rights and the environment, and to do so in all its operations.

■ Put in place specific plans to reduce emissions across its operations and value chains as soon as possible, to at least 45% below 2010 levels by 2030 and to zero by 2050, in line with recommendations from the Intergovernmental Panel on Climate Change (IPCC). This must be done without excessive reliance on offsets and carbon removal mechanisms, and detailed action plans to implement such commitments should be developed.

■ Apply ongoing human rights and environmental due diligence; produce meaningful reports on its operations, value chains and business relationships; show how it is reducing greenhouse gas emissions; address risks to people and the environment and ensure that such risks are not caused by, contributed to or linked in any way to the flaring from its operations, products and business relationships. This includes integrating climate change considerations into all aspects of the human rights due diligence process throughout its operations.

■ When Petroecuador ceases its economic activities in a given area with the aim of ending flaring and/or reducing greenhouse gas emissions, it must take steps to ensure that this is done in a responsible manner, in accordance with the UN Guiding Principles on Business and Human Rights. It must promptly provide public and transparent information on the steps taken.

■ Carry out effective and meaningful consultations with all relevant stakeholders, ensuring the free, prior

and informed consent of Indigenous peoples, on its actual and potential climate change-related impacts on human rights and the environment.

■ Petroecuador must be accountable for its climate impacts and human rights violations and ensure that those affected have access to redress. When harm occurs, Petroecuador has a responsibility to provide a solution or cooperate in remediation efforts.

■ Refrain from lobbying public officials – either directly or indirectly through trade associations – to adopt policies and decisions that perpetuate the carbon-based economy. It must also refrain from supporting public information campaigns based on inaccurate, misleading or unsubstantiated claims that make it difficult for the public to access accurate information and make informed decisions.

The Ombudsperson's Office:

■ Monitor the state's response to the non-compliance with the ruling in the gas flares case and, within the scope of its mandate, urgently take all necessary actions to ensure compliance.

■ Produce a report detailing the impact of flaring operations on the human rights of communities in the oil sacrifice zones of the Amazon region and recognizing the differentiated impact of the greenhouse gas (GHG) emissions from such operations on children.

■ Guarantee the safety of climate activists and defenders, including the young women plaintiffs in the gas flares case, so that they can exercise their freedom of expression and right to protest, and defend the environment.

The National Assembly:

■ Supervise compliance with the ruling in the gas flares case, as well as with the Ecuadorian state's unmet obligations to remove the flares.

The international community of countries with the greatest responsibility for the climate crisis:

■ Strengthen cooperation and provide or facilitate technical assistance aimed at technology change to enable the elimination of routine gas flaring.

■ Provide support so that the Ecuadorian state can apply for the climate financing that may be required to end routine flaring, decarbonize the economy and achieve a just energy transition.

1. INTRODUCTION

It is a scientific fact that life on the planet is endangered by the effects of human-induced climate change.¹ The current global temperature, 1.45°C above pre-industrial levels,² is intensifying devastating rapid-onset events such as heatwaves,³ wildfires, back-to-back high intensity tropical storms and severe drought.⁴ Climate change is part of a triple planetary crisis as it interacts with environmental degradation and biodiversity loss.⁵

These events, together with slow-onset events such as desertification and sea-level rise,⁶ are already having an impact on human rights and will prevent millions of people from enjoying them in the near future.

Due to the danger that the climate crisis poses for the inhabitability of the planet, various international instruments establish the pressing need for states and companies to rapidly reduce greenhouse gas (GHG) emissions, especially those from the fossil fuel sector that intensify global warming.

The oil sector is responsible for a large part of the GHGs that have contributed and continue to contribute

to the deepening of the climate crisis, with serious repercussions on human rights and the inhabitability of the planet.⁷

However, in crude oil extraction processes, the routine burning of gas through flaring is a major source of GHG emissions, despite the existence of technological alternatives that would allow the elimination of this procedure. This is a global problem, and, in the case of the Americas, gas flares are present in all countries with oil extraction activities.

As will be seen below, in the Americas, Ecuador, the United States of America, Mexico, Argentina, Brazil and Venezuela routinely use gas flaring in their oil extraction operations.

Although measures exist for the elimination of gas flaring, many oil extracting companies and states refuse to eliminate this practice by maintaining flaring operations, generally in historically marginalized areas, also known as “sacrifice zones”.⁸

¹Intergovernmental Panel on Climate Change (IPCC), Climate Change 2022: Synthesis Report of the Sixth Evaluation Report. Summary for Policymakers, Para. A1 and C1, <https://www.unep.org/es/resources/informe/sexta-informe-de-evaluacion-del-ipcc-cambio-climatico-2022>

²World Meteorological Organization, ‘WMO confirms that 2023 smashes global temperature record’, 12 January 2024, <https://wmo.int/news/media-centre/wmo-confirms-2023-smashes-global-temperature-record>

³IPCC, Climate Change 2021: The Physical Science Basis. Summary for Policymakers, 2021, <https://www.ipcc.ch/report/ar6/wg1/chapter/summary-for-policymakers/>

⁴The IPCC indicates that “the most visible consequences of this anthropogenic phenomenon are alterations in global land and ocean temperature, loss of biodiversity, widespread changes in the amount of precipitation and its patterns, sea-level rise, while at the same time, extreme climatic conditions such as droughts, the rapid evolution and intensity of tropical cyclones and heat waves are magnified” in IPCC, Climate Change 2007, The Physical Science Basis. P.7 ar4-wg1-sum-vol-sp.pdf (ipcc.ch) paras 3.2, 4.2, 5.5.

⁵UN, Message of the Secretary-General on the occasion of International Mother Earth Day, 22 April 2022, International Mother Earth Day (unric.org)

⁶The IPCC indicates that “It is virtually certain that global mean sea level will continue to rise during the 21st century” in IPCC, Climate Change 2021: Synthesis Report of the Sixth Evaluation Report. Summary for Policymakers, para. B.5.3. It also states that “[i]n the longer term, sea level is committed to rise for centuries to millennia due to continuing deep-ocean warming and ice-sheet melt and will remain elevated for thousands of years (high confidence). Over the next 2000 years, global mean sea level will rise by about 2 to 3 m if warming is limited to 1.5°C, 2 to 6 m if limited to 2°C and 19 to 22 m with 5°C of warming” in IPCC, Climate Change 2021: Synthesis Report of the Sixth Evaluation Report. Summary for Policymakers, para. B.5.4 (previously cited).

⁷UN, “Causes and Effects of Climate Change,” <https://www.un.org/en/climatechange/science/causes-effects-climate-change>

⁸A report by the UN Special Rapporteur on Contemporary forms of racism, racial discrimination, xenophobia and related intolerance defines “sacrifice zones” as the “areas hardest hit by pollution, biodiversity loss, and climate change. [They] are disproportionately concentrated in global ‘sacrifice zones’ – regions rendered dangerous and even uninhabitable owing to environmental degradation. Whereas sacrifice zones are concentrated in the formerly colonized territories of the global South, the global North is largely to blame for these conditions.” UN Special Rapporteur on Contemporary forms of racism, racial discrimination, xenophobia and related intolerance, Report, 25 October 2022, Doc. UN A/77/549, para. 1. They are also described as “places with serious pollution and environmental degradation, where economic gains have been prioritized over people, causing human rights abuses or violations... with intentionality on the part of the State” in Elizabeth Bravo (editor), Zonas de sacrificio en América Latina: Vulneración de derechos humanos y de la naturaleza [Sacrifice zones in Latin America: Violation of human and environmental rights], 2021, p. 4.

Although it is possible to extract oil without burning gas through flaring, this is still done to keep the operating costs of oil production low, at the expense of the right to a dignified life and a healthy and sustainable environment for the surrounding communities, and the contribution of this practice to global warming.

In oil-producing countries such as Norway, the routine burning of gas through flaring has been banned because of the scientific consensus on the impacts of this practice on the environment and people, as well as its contribution to global warming.

Concerned about the serious problem that gas flares pose for human rights and the global climate system, in 2020 a group of nine Amazonian girls and young women from Ecuador, together with the strategic litigation group **“Unión de Afectados por las Operaciones Petroleras de Texaco”** (Union of People Affected by Texaco’s Oil Operations - UDAPT), brought a legal action, known as protection proceedings,⁹ against the annual state authorization that allows the operation of gas flares in the Amazonian provinces of Sucumbíos and Orellana.

In July 2021, as a result of this legal process, the Provincial Court of Justice of Sucumbíos ruled that the Ecuadorian state had disregarded the plaintiffs’ right to live in a healthy and ecologically balanced environment, violated the right to health and failed to comply with its international obligations on climate change mitigation.¹⁰

The Court also ordered the integral reparation of the damage caused and the gradual and progressive elimination of the gas flares, prioritizing the removal of those near populated areas.¹¹

Despite the ruling, gas flares in the Ecuadorian Amazon continue to operate today. In fact, as will be seen below, since the girls and young women activists brought the case, the number of flares has increased and possibly also the volume of GHG emitted into the atmosphere. Moreover, the exact number of operating gas flares is currently uncertain because, as this report will show, the Ministry of Energy and Mines has implemented a series of measures that simulate compliance with the ruling yet only benefit oil extraction at all costs.

Since 1992, the Ecuadorian state has made international commitments as a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and has ratified the Paris Agreement, a legally binding international treaty that establishes the obligation of states to reduce GHG emissions in order to combat climate change.

In addition, the Constitution of Ecuador, in its article 414, explicitly and meaningfully addresses climate change by determining the state’s obligation to adopt adequate and cross-cutting measures to mitigate climate change. This includes curbing GHG emissions, avoiding deforestation and air pollution, and protecting natural systems from environmental damage.

This Amnesty International research report focuses on the obligations of the Ecuadorian state to reduce its GHG emissions in order to protect human rights from the consequences of the climate crisis, now and in the future, by eliminating the routine burning of gas in flares, as also mandated in the ruling on the gas flares case brought by the nine Amazonian girls and young women.

Due to the worsening of global warming and the significant contribution of the fossil fuel sector to this, Amnesty International decided to focus its research on the impact of gas flaring on global warming and how this pernicious practice has a differentiated impact on the enjoyment of human rights of historically marginalized populations in the sacrifice zones of the fossil fuel industry, with children living in these sacrifice zones being particularly vulnerable and now also demanding climate justice.

⁹La acción de protección es un recurso establecido en el Art. 88 de la Constitución de la República de Ecuador que tiene “por objeto el amparo directo y eficaz de los derechos reconocidos en la Constitución, y podrá interponerse cuando exista una vulneración de derechos constitucionales, por actos u omisiones de cualquier autoridad pública no judicial; contra políticas públicas cuando supongan la privación del goce o ejercicio de los derechos constitucionales; y cuando la violación proceda de una persona particular, si la violación del derecho provoca daño grave, si presta servicios públicos impropios, si actúa por delegación o concesión, o si la persona afectada se encuentra en estado de subordinación, indefensión o discriminación.”

¹⁰Sala Multicompetente de la Corte Provincial de Justicia de Sucumbíos, sentencia del juicio N° 21201202000170, segunda Instancia, 29 de julio de 2021.

¹¹El plazo establecido fue de 18 meses para los mecheros priorizados por su cercanía a poblaciones humanas y hasta diciembre del 2030 para los no ubicados cerca de poblaciones humanas.

2. METHODOLOGY

The information contained in this report is based on almost two years of continuous work by Amnesty International together with UDAPT and the nine plaintiff girls and young women. It also includes a field visit to the Ecuadorian Amazon in January 2024, which involved working directly with the plaintiff activists, UDAPT and communities in the provinces of Sucumbíos and Orellana.

Visits were made to the nine communities where the girls and young women live with their families, as well as to five other communities affected by gas flaring operations near oil wells in the communities of Joya de los Sachas, Shushufindi, Dayuma and Lago Agrio.

In these communities, 12 in-depth individual interviews were conducted, and meetings were held with groups of people affected by gas flaring emissions. One of such groups was **“Eliminen los mecheros, enciendan la vida”** (Remove the flares, ignite life).

In addition, the research team geo-referenced the gas flares operating in 52 wells in Sucumbíos and Orellana and located less than 5km (5000 meters) from population centres. This activity consisted in comparing, in the field, the information and geographical data set provided by the Ministry of Energy and Mines in two reports submitted in judicial hearings on compliance with the ruling on the gas flares case in 2023 and in January 2024.

The documentary information obtained in judicial hearings and evidence of non-compliance with the ruling was also verified in the field, at specific locations in the provinces of Sucumbíos and Orellana. The content of these reports was communicated to Amnesty International by UDAPT and verified in meetings with representatives of the Ombudsperson’s Office of the province of Sucumbíos, as well as through the participation of the Ombudsperson in a hearing of the Biodiversity Commission of the National Assembly of Ecuador in January 2024.

In January 2024, Amnesty International met with local authorities in the provinces of Sucumbíos and Orellana and attended a public hearing of the Biodiversity Commission of the Ecuadorian National Assembly; two meetings were also held with members of the National Assembly of Ecuador. In January and February 2024, meetings were requested with representatives of the Ministry of the Environment and the Ministry of Energy and Mines, but at the time of publication of this report no response had been received.

Amnesty International thanks the courageous plaintiff girls and young women who brought the case against the gas flares in Ecuador – referred to in this report as the gas flares case – and their families, whose resilience and commitment are helping to raise the profile of the urgent need to phase out fossil fuels. Their stories show that children and young people are at the forefront of climate justice.

Amnesty International is also grateful to the UDAPT team for all their legal and comprehensive support work in the gas flares case and the many causes they support. UDAPT has been at the forefront of emblematic litigation that has demonstrated the consequences, in terms of a wide range of rights, of the historical outsourcing of the social and environmental damage caused by the fossil fuel industry in communities that have been transformed into sacrifice zones. Amnesty International is especially grateful to UDAPT members Pablo Fajardo, José Fajardo, Donald Moncayo, Deisy Torres and Jayro Salazar for their unconditional support in this research.



3. PROTECT THE PRESENT AND THE FUTURE BY CURBING GREENHOUSE GAS EMISSIONS FROM THE FOSSIL FUEL SECTOR

3.1 STATES' OBLIGATION TO URGENTLY REDUCE GREENHOUSE GAS EMISSIONS FROM THE FOSSIL FUEL SECTOR

The UN Human Rights Council¹² and the Office of the High Commissioner for Human Rights (OHCHR)¹³ have noted the serious impact of climate change on the realization of human rights such as life, food, health, water, and a clean, healthy and sustainable environment. UN treaty bodies¹⁴ have also stressed that climate change and its consequences are a direct threat to such human rights, especially those of historically marginalized communities and their children,¹⁵ in areas considered sacrifice zones.

Since the 1992 United Nations Framework Convention on Climate Change (UNFCCC), states parties have recognized that “additional warming of the Earth’s surface and atmosphere... may adversely affect natural ecosystems and humankind.”¹⁶

The Paris Agreement of 2015, a legally binding international treaty on climate change, states in its preamble that “climate change is a common concern of humankind”¹⁷ given the seriousness of its adverse effects. This position was reiterated in the Glasgow Climate Pact of 2021, where the parties expressed their “alarm and utmost concern”¹⁸ at the danger that global warming represents for humanity.

Some regional systems have also recognized the grave threat to human rights posed by human-induced climate change. The Inter-American Court of Human Rights determined that the realization of the right to life and other rights can be affected by both environmental degradation and the adverse effects of climate change.¹⁹ Similarly, the European Court of Human Rights (ECHR) has pointed out that “there are sufficiently reliable indications that anthropogenic climate change exists, [and] that it poses a serious current and future threat to the enjoyment of human rights”.²⁰

International climate agreements establish that states have an obligation to address the main cause of the climate crisis, namely greenhouse gas (GHG) emissions that undermine the balance of the climate system²¹ and impact the enjoyment of human rights.

¹²United Nations Office of the High Commissioner for Human Rights (OHCHR), Human Rights Council resolutions on human rights and climate change, <https://www.ohchr.org/en/climate-change/human-rights-council-resolutions-human-rights-and-climate-change>

¹³OHCHR, Report on human rights and climate change, <https://www.ohchr.org/en/climate-change/reports-human-rights-and-climate-change>

¹⁴The right to a clean, healthy and sustainable environment was universally recognized by the UN General Assembly in 2022. The declaration on the right to a healthy environment also reaffirms in its preamble that “climate change, biodiversity loss, desertification and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to effectively enjoy all human rights”.

¹⁵See for example: UN Committee on the Rights of the Child, General Comment 12: The right of the child to be heard, 20 July 2009, UN Doc CRC/C/GC/12, para. 134; UN Committee on the Rights of the Child, General Comment 14 (2013) on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1), 29 May 2013, UN Doc CRC/C/GC/14, para. 91; UN CEDAW, General Recommendation No. 37, para. 36; OHCHR, Analytical study on the promotion and protection of the rights of persons with disabilities in the context of climate change. Of particular importance: OHCHR, Joint statement of treaty bodies on human rights and climate change, 2019 and UN, General Comment No. 26 (2023) on children's rights and the environment with a special focus on climate change, para. 7.

¹⁶UN, UN Framework Convention on Climate Change, 1992, Doc. FCCC/INFORMAL/84.

¹⁷UN, Paris Agreement, 2015

¹⁸UN, “Conference of the Parties serving as the meeting of the Parties to the Paris Agreement,” 8 March 2022, Doc. FCCC/PA/CMA/2021/10/Add.1, para. 3.

¹⁹Inter-American Court of Human Rights, Advisory Opinion 23 Environment and Human Rights, 15 November 2017, https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf, para. 47.

²⁰European Court of Human Rights (ECHR), Case of Verein Klimaseniorinnen Schweiz and Others v. Switzerland, 9 April 2024, <https://hudoc.echr.coe.int/eng#%7B%22itemid%22:%5B%22001-233206%22%5D%7D>, para. 436.

²¹Paris Agreement, Article 3

WHAT ARE GREENHOUSE GASES (GHGS)?

Gases that trap heat in the atmosphere are called greenhouse gases. Their effect on climate change depends on three key factors: concentration of the gases, their lifetime in the atmosphere, and their level of effectiveness in warming the planet.



In its preamble, the UNFCCC points out that “human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth’s surface and atmosphere and may adversely affect natural ecosystems and humankind”.²²

Subsequent to the UNFCCC, the Paris Agreement established the duty of states parties to the UNFCCC to commit to the common goal of preventing global temperature increases from going above the 1.5°C and 2°C thresholds.²³ To achieve this goal, they are required to make ambitious and progressive efforts to reduce their GHG emissions;²⁴ these are known as Nationally Determined Contributions (NDCs).²⁵

While the Paris Agreement leaves it to the discretion and capability of states to set their GHG reduction

targets, which must show progression over time, they are obliged to adopt and implement all feasible measures to reduce these emissions.²⁶ This is based on the principle of common but differentiated responsibilities,²⁷ recognized both in the UNFCCC²⁸ and in international law,²⁹ that establishes the different capabilities and responsibilities of each country to address climate change.

Countries with greater capability for climate action have the obligation to decarbonize their economies, meaning that they must implement a progressive process of reducing carbon emissions into the atmosphere, mainly GHGs such as carbon dioxide (CO₂). Countries with greater climate action capability must decarbonize faster than developing countries and provide the latter with assistance, including through financing and technology transfer, to meet their climate change mitigation targets.³⁰

²²United Nations Framework Convention, preamble.

²³Paris Agreement, Article 2

²⁴Art. 3 of the Paris Agreement specifically states that climate targets must be ambitious and show progression over time.

²⁵Paris Agreement, Art. 4, para. 2. The implementation of the Paris Agreement, in five-year cycles, implies that countries must prepare, communicate and maintain a Nationally Determined Contribution (NDC) detailing the measures they will develop to reduce their greenhouse gas emissions, in addition to adaptation plans to the effects of climate change.

²⁶In 2024, the European Court of Human Rights ruled that the Swiss government had failed to comply with its obligations under the European Convention on Climate Change, including by failing to set limits on greenhouse gas emissions and by failing to meet the targets it had set in the past on reducing GHG emissions. See: European Court of Human Rights (ECHR), Case of Verein Klimaseniorinnen Schweiz and Others v. Switzerland (cited above), 9 April 2024.

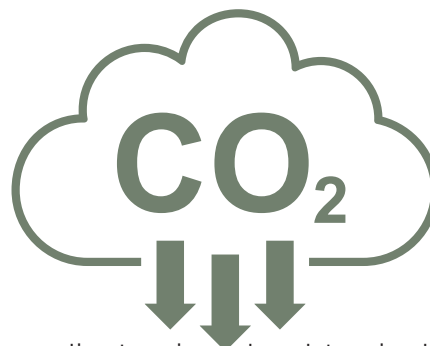
²⁷United Nations Framework Convention on Climate Change, Art. 3 .1 and reaffirmed in Art. 4 of the Paris Agreement. Under international human rights law, the principle of common but differentiated responsibilities can also be found in Article 2(1) of the International Covenant on Economic, Social and Cultural Rights (ICESCR).

²⁸Paris Agreement, Art. 4.4.

²⁹Under human rights law implicitly, responsibilities are differentiated in that states in a position to do so are required to provide international assistance where required for the realization of human rights (Article 2(1), ICESCR). Nevertheless, lack of sufficient international assistance does not excuse any state from complying with its human rights obligations and, in the case of economic, social and cultural rights, from realizing these rights to the maximum of its available resources. See also: UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Report, 1 February 2016, UN Doc. A/HRC/31/52, para. 46.

³⁰UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Report, 15 July 2019, UN Doc. A/74/161, paras 14, 26 and 68.

Carbon dioxide (CO₂) is a gas composed of oxygen and carbon. Its concentration in the atmosphere globally has increased by 50% since the beginning of the industrial revolution,³¹ contributing to the rise in global temperatures. The concentration of CO₂ in the atmosphere is essentially directly linked to the burning of fossil fuels, changes in land use, and the lifestyle of the world's wealthiest populations.³²



In order to significantly reduce national and global GHG emissions, climate science has determined that it is necessary to curb emissions from the fossil fuel sector, which contributes 70% to the concentration of GHGs in the atmosphere.³³

“The scientific data is unequivocal. If greenhouse gas emissions, and in particular CO₂ [carbon dioxide], are not rapidly reduced, climate change will have irreversible and increasingly destructive consequences for life on Earth.”

Petteri Taalas, former Secretary General of the World Meteorological Organization (WMO)

The Intergovernmental Panel on Climate Change (IPCC) has also confirmed that the only way to keep temperatures within a limit that avoids the dire consequences for the climate system necessarily involves the phasing out of fossil fuels.³⁴

Despite warnings from much of the global scientific community, carbon dioxide (CO₂) emissions from fossil fuel use grew by approximately 1% annually between 2010 and 2018.³⁵ In 2019, these emissions were slightly higher compared to 2018³⁶ and fell by 5.8% in 2020 due to the aftermath of the Covid-19 pandemic.³⁷ However, emissions reached record levels in 2023, with an estimated 36.8 billion metric tons of CO₂ emitted, an increase of 1.1% compared to 2022 levels.³⁸

According to the National Oceanic and Atmospheric Administration (NOAA), atmospheric CO₂ levels are 50% higher than pre-industrial levels.³⁹ While the world's natural carbon absorbing spaces (carbon sinks) continue to mitigate most of the carbon produced by human activities for the time being, the acidification of the oceans and the loss of large tracts of land as a result of human action are severely compromising their ability to absorb GHGs.⁴⁰

In order to limit the increase in the global average temperature to 1.5°C and avoid further damage to the world's climate system and natural systems, in 2019 the United Nations Environment Programme (UNEP) estimated that the total production of fossil fuels should be reduced by approximately 7.6% per year until 2030.⁴¹ According to its 2023 emissions report, fossil CO₂ emissions increased between 0.8% and 1.5%, and were one of the main contributors to the overall increase in GHG emissions.⁴² Meanwhile, the IPCC indicates that it is necessary to reduce GHG emissions by at least 43% by 2030, in order to stay within the 1.5°C target.⁴³

³¹NASA, “Carbon Dioxide”, May 2024, Carbon Dioxide | Vital Signs – Climate Change: Vital Signs of the Planet (nasa.gov)

³²NASA, “Carbon Dioxide”, May 2024, Carbon Dioxide | Vital Signs – Climate Change: Vital Signs of the Planet (nasa.gov)

³³Science, “Inefficient and unlit natural gas flares both emit large quantities of methane”, 29 September 2022, <https://www.science.org/doi/10.1126/science.abq0385>.

³⁴IPCC, Summary for Policymakers, Technical Summary and FAQs of the Special Report on Global Warming of 1.5°C, 2019, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Summary_Volume_Low_Res.pdf and IPCC, Climate Change 2023: Synthesis Report of the Sixth Evaluation Report. Summary for Policymakers, <https://www.unep.org/resources/report/climate-change-2022-impacts-adaptation-and-vulnerability-working-group-ii>

³⁵World Meteorological Organization and others, “United in Science”, 2019, <https://wedocs.unep.org/bitstream/handle/20.500.11822/30023/climsci.pdf?sequence=1&isAllowed=y>

³⁶Global Carbon Project, “Global carbon budget 2020, summary highlights” https://www.globalcarbonproject.org/carbonbudget/archive/2020/GCP_CarbonBudget_2020.pdf.

³⁷International Energy Agency (IEA), Global Energy Review 2021: Assessing the effects of economic recoveries on global energy demand and CO₂ emissions in 2021, April 2021, <https://www.iea.org/reports/global-energy-review-2021>.

³⁸Earth Observatory, “Emissions from Fossil Fuels Continue to Rise,” February 2021, Emissions from Fossil Fuels Continue to Rise (nasa.gov).

³⁹NOAA, “No sign of greenhouse gases increases slowing in 2023”, 5 April 2024, <https://research.noaa.gov/2024/04/05/no-sign-of-greenhouse-gases-increases-slowing-in-2023/#:~:text=The%20global%20surface%20concentration%20of%20CO2%2C%20averaged%20across%20all%2012%20months%20of%202023%2C%20was%20419.3%20parts%20per%20million%20%28ppm%29%2C%20an%20increase%20of%202.8%20ppm%20during%20the%20year.>

⁴⁰Earth Observatory, “Emissions from Fossil Fuels Continue to Rise,” February 2021, Emissions from Fossil Fuels Continue to Rise (nasa.gov).

⁴¹UNEP, Broken Record: Temperatures hit new highs, yet world fails to cut emissions (again), 2023, <https://wedocs.unep.org/handle/20.500.11822/43922>.

⁴²UNEP, Broken Record: Temperatures hit new highs, yet world fails to cut emissions (again) (previously cited), p.4.

⁴³IPCC, Climate Change 2023 Synthesis Report: Summary for Policymakers, https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf, Table SPM.1: Greenhouse gas and CO₂ emission reductions from 2019, median and 5-95 percentiles.

This means that in order to avoid a rise in the global average temperature, the use of fossil fuels must be phased out, since the CO₂ and other GHG emissions they produce accelerate global warming.

However, the UNEP noted that, since the beginning of the Covid-19 pandemic, G20 countries have directed more than USD 300 billion to finance fossil fuel activities.⁴⁴ In response to the Covid-19 pandemic and its economic consequences, many industrialized countries and states have used public money to bail out or provide unconditional support to fossil fuel companies, the aviation industry and other companies carrying out activities with high CO₂ emissions.⁴⁵

In 2021, the UNEP estimated that the world's governments were "planning to produce around 110% more fossil fuels in 2030 than would be consistent with limiting global warming to 1.5°C, and 45% more than would be consistent with limiting warming to

2°C."⁴⁶ It also estimated that governments' production plans would lead to an increase in coal production of 240%, 57% more oil and 71% more gas by 2030 than would be consistent with limiting global warming to 1.5°C.⁴⁷

On the basis of these figures, it seems clear that global fossil fuel extraction plans, rather than decreasing in order to avoid further damage to the global climate system, continue to privilege economic dependence on fossil fuels and accelerate the risk of dangerous increases in temperature.

Among the fossil fuels whose global extraction is expected to increase is the gas commonly known as "natural" gas,⁴⁸ also called fossil gas,⁴⁹ a hydrocarbon composed of 80% methane gas which contributes to GHG emissions when burned or emitted directly into the atmosphere.

“Governments' planned gas production is expected to increase the most between 2020 and 2040. This continued long-term global expansion of gas production is inconsistent with the temperature limits of the Paris Agreement.”

UNEP, “Governments' fossil fuel production remains dangerously out of sync with Paris Agreement limits”, 20 October 2021

The fossil fuel industry has sought to promote “natural” gas as a transition fuel.⁵⁰

The UAE Consensus, issued at the 2023 Conference of the Parties (COP28) – the highest decision-making body of the UNFCCC where all states parties are represented –, includes a package of measures urging states to phase out fossil fuels this decade in order to achieve carbon neutrality by 2050.⁵¹ Carbon neutrality is achieved when the amount of carbon dioxide emitted into the atmosphere equals the amount of emissions removed, resulting in a zero balance, also known as a zero carbon footprint.⁵²

Another outcome of COP 28 on fossil fuels was the publication of the Oil and Gas Decarbonization Charter (OGDC), which aims to accelerate climate action in the oil and gas sectors.⁵³ To date, 50 companies, representing up to 40% of global oil extraction, have signed the OGDC, committing to achieve net-zero carbon emissions by 2050.⁵⁴ The OGDC also calls on states and private companies to end routine flaring – a traditional and harmful practice in the oil industry that consists of the regular and continuous burning of the gas released in crude oil exploration, extraction and processing facilities – by 2030.

⁴⁴ UNEP, “Production Gap Report 2021: Executive Summary”, 2021, SEI_PG2021_Exec Summary Spanish.pdf (production gap.org), p. 4.

⁴⁵ Amnesty International, “G20: Rich, powerful states must ensure COVID-19 recovery measures tackle global poverty, inequality, and the climate crisis”, 17 July 2020, <https://www.amnesty.org/en/latest/news/2020/07/g20-rich-powerful-states-must-ensure-covid-19-recovery-measures-tackle-global-poverty-inequality-and-the-climate-crisis/>

⁴⁶ UNEP, “Governments' fossil fuel production plans dangerously out of sync with Paris limits”, 20 October 2021, <https://www.unep.org/news-and-stories/press-release/governments-fossil-fuel-production-plans-dangerously-out-sync-paris>

⁴⁷ UNEP, “Governments' fossil fuel production plans dangerously out of sync with Paris limits” (previously cited).

⁴⁸ See concept in: Britannica, “Composition and properties of natural gas”, <https://www.britannica.com/science/natural-gas/Composition-and-properties-of-natural-gas>.

⁴⁹ Greenpeace, “¿Por qué lo llaman gas natural cuando quieren decir gas fósil? [Why do they call it natural gas when they mean fossil gas?]", <https://es.greenpeace.org/es/wp-content/uploads/sites/3/2021/06/INFORME-por-que-lo-llaman-gas-natural.pdf>, June 2021.

⁵⁰ Amnesty International, “Fatal fuels: Why human rights protection urgently requires a full and equitable fossil fuel phase out” (Index: POL 30/7382/2023), <https://www.amnesty.org/en/documents/pol30/7382/2023/en/>, p. 9.

⁵¹ Amnesty International, “What happened at COP28? Essential need-to-knows”, 14 December 2023, <https://www.amnesty.org/en/latest/news/2023/12/global-what-happened-at-cop28-essential-need-to-knows/>.

⁵² UN, “A Beginner's Guide to Climate Neutrality”, 26 February 2021, <https://unfccc.int/news/a-beginner-s-guide-to-climate-neutrality>

⁵³ COP28, “Oil & Gas Decarbonization Charter launched to accelerate climate action”, 2 December 2023, Oil & Gas Decarbonization Charter launched to accelerate climate action (cop28.com).

⁵⁴ COP28, “Oil & Gas Decarbonization Charter launched to accelerate climate action”, 2023 (previously cited), chap. II, para. 1.



The OGDC recognizes that climate change represents “a collective challenge that requires strong and focused action from producers and consumers of energy, fundamental changes across society and the energy sector, as well as international collaboration, to advance the energy transition and reduce greenhouse gas emissions from oil and gas”.⁵⁵

The OGDC initiative is seen as a key element of the Global Decarbonization Accelerator (GDA), a series of plans for energy transition and the reduction of GHG emissions⁵⁶ focusing on three key pillars: expansion of the energy system, decarbonization of the current energy system, and reduction of methane and other GHG emissions that contribute rapidly and powerfully to global warming.

Due to current global temperature levels, the removal

of emissions of powerful GHGs such as methane⁵⁷ has been considered a viable and rapid option by the world's states. For this reason, the OGDC reaffirms the COP26 Global Methane Pledge (2021), which commits signatory countries to work together to collectively reduce methane emissions by at least 30% below 2020 levels by 2030, with the goal of eliminating over 0.2°C of warming by 2050.⁵⁸ This pledge is particularly important because it calls on states to reduce methane emissions, in order to meet the binding commitments set out in the Paris Agreement.

However, several civil society organizations have pointed out that methane reductions are necessary, but only if there is a sustained and increasing reduction in the total amount of fossil fuels burned. Fossil fuel companies must therefore⁹ not instrumentalize voluntary initiatives to further increase their extraction targets.⁵⁹

WHAT IS THE SUPER POLLUTANT METHANE AND WHY IS IT IMPORTANT TO URGENTLY REDUCE ITS EMISSION?

- Methane is the main component of the gas.
- Although this gas has a short atmospheric lifetime,⁶⁰ its warming effect is more potent than that of CO₂. For this reason, environmental organizations⁶¹ and even some states⁶² call it a short-lived climate super pollutant. After CO₂, it is the GHG contributing the most to global warming.⁶³
- As a greenhouse gas, it is responsible for 30% of the

increase in global temperatures since the Industrial Revolution.⁶⁴

■ Globally, the fossil fuel sector contributes approximately 36% of methane emissions,⁶⁵ emitting about 130 Mt of methane in 2023 alone.⁶⁶

■ Methane also remains in the atmosphere for between 10 and 20 years, a shorter period than CO₂.⁶⁷

■ In a 20-year period, methane has a warming potential of up to 84 times that of CO₂.⁶⁸ Therefore, much of the scientific community is of the opinion that methane emissions must be rapidly and sustainably reduced to limit global warming in the short term.⁶⁹ This is the only way to avoid a climate tipping point that will not allow the international community to reach its target of keeping global temperatures within sustainable limits.

⁵⁵COP28, “Oil & Gas Decarbonization Charter launched to accelerate climate action”, chap. II, para. 3.

⁵⁶COP28, “Oil & Gas Decarbonization Charter launched to accelerate climate action”.

⁵⁷A gas that rapidly heats the atmosphere since, due to its structure, it traps much more heat per molecule than carbon dioxide. See UNEP, “What’s the deal with methane?”, 18 October 2022, <https://www.unep.org/news-and-stories/video/whats-deal-methane>.

⁵⁸Climate & Clean Air Coalition (CCAC), “About the Global Methane Pledge”, <https://www.globalmethanepledge.org/>

⁵⁹Oil Change International, “Open Letter: The World Needs A Transformational Outcome, Not More Voluntary Pledges”, 1 December 2023, <https://priceofoil.org/2023/12/01/ogda/>

⁶⁰IMF, “Methane Emissions Must Fall for World to Hit Temperature Targets”, 2 November 2022, <https://www.imf.org/en/Blogs/Articles/2022/11/02/methane-emissions-must-fall-for-world-to-hit-temperature-targets>, according to the IPCC “Methane (CH₄) is removed by chemical processes in the atmosphere” https://archive.ipcc.ch/publications_and_data/ar4/wg1/en/faq-10-3.html and according to the UNEP “it takes only about a decade for methane to break down” <https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them>

⁶¹Clean Air Task Force, Super pollutants: The impacts of climate change are already here and accelerating, <https://www.catf.us/super-pollutants/>

⁶²The White House, “FACT SHEET: Biden Administration Combats Super-Pollutants and Bolsters Domestic Manufacturing with New Programs and Historic Commitments” <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/23/fact-sheet-biden-administration-combats-super-pollutants-and-bolsters-domestic-manufacturing-with-new-programs-and-historic-commitments/>.

⁶³International Energy Agency (IEA), “Methane emissions from the global energy sector rose to nearly 135 Mt in 2022”, 2024, <https://www.iea.org/energy-system/fossil-fuels/methane-abatement>.

⁶⁴Reilly J.M., Jacoby H.D. and Prinn R., Multi-gas contributors to global climate change: Climate impacts and mitigation costs of non-CO₂ gases, 2003, http://web.mit.edu/globalchange/www/PewCtr_MIT_Rpt_Reilly.pdf.

⁶⁵See Table 1.1 on the average anthropogenic emissions of the energy sector (134) versus the total of 372 metric tons/year in IPCC, UNEP/CCAC, Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions, 2021, <https://www.ccacoalition.org/resources/global-methane-assessment-2030-baseline-report#:~:text=In%202021%20the%20CCAC%20and,to%20global%20efforts%20to%20limit>

⁶⁶IEA, “Understanding methane emissions”, 2024, Understanding methane emissions – Global Methane Tracker 2024 – Analysis - IEA.

⁶⁷O'Neill, R., “Methane’s role in climate change: Harvard researchers provide policymakers a clearer picture on methane emissions”, 9 February 2023, Methane’s role in climate change (harvard.edu).

⁶⁸World Bank, Global Gas Flaring Tracker Report, March 2023, 2023-Global-Gas-Flaring-Tracker-Report.pdf (worldbank.org), p. 20.

⁶⁹IPCC, “Anthropogenic and Natural Radiative Forcing”, 2018, Anthropogenic and Natural Radiative Forcing — IPCC and IPCC, “By 2021 rapid reductions in non-CO₂ GHGs, particularly methane, would reduce the maximum warming level (high confidence level)” in IPCC, Climate Change Mitigation: Summary Guide to the Sixth Assessment Report of the IPCC Working Group III, November 2022, https://www.miteco.gob.es/content/dam/miteco/es/cambio-climatico/temas/el-proceso-internacional-de-lucha-contra-el-cambio-climatico/ipcc-guia-resumida-gt3-mitigacion-ar6_tcm30-549165.pdf or “Reducing methane emissions is one of the most important climate actions we can undertake in the short term” in World Bank, Global Gas Flaring Tracker Report, 2023 (previously cited), p. 20.

3.2 THE OBLIGATION TO PREVENT HARM FROM GREENHOUSE GAS EMISSIONS FROM THE FOSSIL FUEL INDUSTRY

States have the obligation to prevent damage caused within their own jurisdictions that may affect the global climate system and the right to a clean, healthy and sustainable environment.⁷⁰ In particular, they have the obligation to prevent activities that may cause significant environmental damage with repercussions on the right to life.

The UNFCCC has mandated that states must take measures “to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.”⁷¹ The scope of this duty of prevention by the states requires imperative and rapid measures to mitigate the main cause of climate change: emissions of greenhouse gases and their accumulation in the atmosphere.

The lack of preventive action to avoid the increase of existing anthropogenic damage to the global climate system has a profound impact on the right to life and on the ecosystems on which humanity depends and which must be conserved, as established in various international instruments.⁷²

Similarly, the Inter-American Court of Human Rights established in its **Advisory Opinion 23 on the Environment and Human Rights**⁷³ that states have the duty to act in accordance with the principle of preventing significant damage to the environment⁷⁴ beyond their borders⁷⁵ and that may entail a violation of the right to life or personal integrity.⁷⁶

To guarantee this principle of prevention, states must be guided by a series of duties, which, in the Inter-American System for the Protection of Human Rights, have been established by the Inter-American Court of Human Rights’ Advisory Opinion 23 on The Environment and Human Rights:⁷⁷

- 1.The duty to regulate: States should use all means at their disposal and take the necessary measures to regulate actions and activities that may cause significant harm to the environment within their jurisdiction and under their control.
- 2.The duty to supervise and monitor: States must develop control mechanisms to supervise and monitor activities that have the potential to contribute to significant damage to the environment.

These duties include the operations of public and private entities that carry out extractive activities with associated environmental risks.⁷⁸ The Inter-American Court also provides that in addition to prevention, states must put in place appropriate measures to “investigate, punish and redress possible abuse through effective policies, regulations and adjudication.”⁷⁹

The Inter-American Court of Human Rights has also emphasized that states have both territorial and extraterritorial obligations to protect against environmental damage and climate change,⁸⁰ whether committed by state or private actors.

⁷⁰This obligation was reflected in the Stockholm Declaration on the Human Environment (1972), which recognizes the duty of states to “ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”. UN, Stockholm Declaration, adopted 16 June 1972, Principle 21.

⁷¹UNFCCC, Art. 3, Principle 3.

⁷²Stockholm Declaration, note 20, Principle 6. The principle of prevention can be found in the Convention relative to the Preservation of Fauna and Flora in their Natural State, note 6, created to prevent the extinction of species of fauna and flora.

⁷³Inter-American Court of Human Rights, Advisory Opinion 23, The Environment and Human Rights (previously cited).

⁷⁴According to the Inter-American Court of Human Rights, the criterion for determining that significant damage to the environment has been caused is that it may involve “a violation of the rights to life and to personal integrity... The existence of significant harm in these terms is something that must be determined in each specific case, based on the particular circumstances.” Inter-American Court of Human Rights, Advisory Opinion (OC) 23 The Environment and Human Rights, para. 140.

⁷⁵Inter-American Court of Human Rights, OC 23 The Environment and Human Rights, para. 38.

⁷⁶Inter-American Court of Human Rights, OC 23 The Environment and Human Rights, para. 38.

⁷⁷Inter-American Court of Human Rights, OC 23 The Environment and Human Rights, para. 146 on the duty of regulation and para. 152 et seq. on the obligation to supervise and monitor.

⁷⁸Inter-American Court of Human Rights, OC 23 The Environment and Human Rights, para. 65.

⁷⁹Inter-American Court of Human Rights, OC 23 The Environment and Human Rights, para. 154.

⁸⁰Inter-American Court of Human Rights, OC 23, para. 74.



“ States parties have obligations, including extraterritorial obligations, to respect, protect and fulfil all human rights of all peoples. Failure to take measures to prevent foreseeable harm to human rights caused by climate change, or to regulate activities contributing to such harm, could constitute a violation of States’ human rights obligations. ”

Joint Statement on “Human Rights and Climate Change” by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities, 2019.

Likewise, states are obliged to regulate and monitor that private or state companies respect human rights⁸¹ in the context of climate change and reduce their GHG emissions in the activities they carry out, aligning their operations and business models with the objectives of the Paris Agreement.

Businesses can also collaborate with governments to contribute to local and global climate resilience, as well as to support the transition to a low-carbon economy and avoid environmental damage.

International human rights law establishes the **obligation of states to protect individuals against human rights violations caused by businesses, including the damage resulting from their contributions to climate change.**⁸² States should therefore supervise or influence the conduct of companies operating in their territories or under their jurisdiction, in order to ensure that such private or state business actors respect human rights in the context of the climate emergency and do not contribute to magnifying it. The human rights responsibilities of companies and financial institutions include identifying, preventing, mitigating and being held to account for the human rights impacts⁸³ resulting from their contributions to climate change. Such responsibilities are applicable even in the absence of any national regulation on climate change.⁸⁴

States, for their part, should develop regulations and put in place measures for state and private companies to fully report and reduce GHG emissions from all their operations and value chains, with the necessary urgency and high decarbonization ambitions⁸⁵ to achieve net zero emissions by 2050.⁸⁶

⁸¹The UN Guiding Principles on Business and Human Rights establish the independent responsibility of businesses to respect human rights. They were developed in 2011 by the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, and subsequently endorsed by the Human Rights Council. They do not intend to create new international legal obligations, but rather to clarify those already existing. In: UN, Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework, 2011.

⁸²UN, Guiding Principles on Business and Human Rights, 2011, https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_sp.pdf

⁸³The UN’s ‘Guiding Principles on Business and Human Rights’ also require companies to take steps to redress the human rights violations they have caused or contributed to. In: UN, Guiding Principles on Business and Human Rights, 2011, https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_sp.pdf, Principles 22 and 31.

⁸⁴OHCHR, Human Rights, Climate Change and Business. Key messages, <https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/materials/KMBusiness.pdf>; UN Special Rapporteur on the human rights of internally displaced people, Report, 1 July 2020, Doc. UN A/75/207, para. 59-60 (English).

⁸⁵COP28, “Oil & Gas Decarbonization Charter”, 2023.

⁸⁶Amnesty International, Stop burning our rights! What governments and corporations must do to protect humanity from the climate crisis, <https://www.amnesty.org/en/documents/pol30/3476/2021/en/>, p. 18.

3.3 URGENTLY REDUCING GREENHOUSE GASES GUARANTEES THE FUTURE IN THE FACE OF THE CLIMATE EMERGENCY

The climate crisis is both a consequence and an aggravator of structural injustices. It disproportionately affects individuals and groups already subject to multiple and interrelated forms of intra and intergenerational discrimination or historical marginalization as a result of structural inequalities. Above all, however, it is one of the most pressing current threats to the lives and future of the world's children. In 2013, the Committee on the Rights of the Child identified climate change as one of the greatest threats to the life and health of children⁸⁷ and reiterated in 2023 that "the extent and magnitude of the triple planetary crisis, comprising the climate emergency, the collapse of biodiversity and pervasive pollution, is an urgent and systemic threat to children's rights globally".⁸⁸

A prerequisite for the realization of children's rights and the application of the principle of intergenerational equity in climate change, established in the Paris Agreement and understood as the responsibility of the current generation to care for and deliver to growing children and human beings to come an environmentally and climatically stable planet,⁸⁹ is a clean, healthy and sustainable environment, currently recognized by international human rights law.⁹⁰

Ensuring this right and taking all necessary measures to prevent environmental degradation, which is being exacerbated by climate change, is an essential condition for the physical and mental development of children. As the Committee on the Rights of the Child points out, "children's rights and environmental protection form a virtuous circle",⁹¹ precisely because the most serious, lasting and sometimes irreversible physical impacts⁹² of environmental pollution occur in children because they affect their physiology and biological growth, with more profound impacts on the youngest children.⁹³

As recognized by the UN Special Rapporteur on the environment, children and young people belonging to historically marginalized groups and in climate vulnerable regions are particularly at risk of physical and psychological harm from the impacts of climate change,⁹⁴ well as being less able to exercise their right to participation and access to justice in contexts that put their rights at risk.⁹⁵

Climate change affects the rights of children globally in multiple ways. Climate science warns that the severity of this climate scenario for children of present and future generations brings multiple risks to life. Indeed, the IPCC has determined that the Paris Agreement's target of limiting the increase in global average temperatures to between 1.5°C and 2°C does not guarantee the safety of humans today or in the future.⁹⁶

⁸⁷UN Committee on the Rights of the Child (CRC Committee), General Comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health (art. 24), 17 April 2013, CRC/C/GC/15, para. 50.

⁸⁸CRC Committee, General Comment No. 26, 22 August 2023, CRC/C/GC/26, para. 1.

⁸⁹Paris Agreement, Preamble

⁹⁰UN, "General Assembly: The human right to a clean, healthy and sustainable environment", 26 July 2022, Doc. UN A/76/L.75.

⁹¹General Comment No. 26 (2023), on children's rights and the environment, with particular attention to a special focus on climate change, <https://treatybodyexternal/download.aspx?symbolno=CRC%2FC%2FGC%2F26&Lang=en>, para. 8.

⁹²IPCC, Climate Change 2021: The Physical Science Basis: Summary for Policymakers, (previously cited), para. B.5.

⁹³UN Human Rights Council (HRC), Resolution 45/30: Rights of the child: realizing the rights of the child through a healthy environment, adopted on 7 October 2020, A/HRC/RES/45/30, p. 3.

⁹⁴UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Report, 30 December 2019, paras 31 and 32. And Inter-American Court of Human Rights, Case of La Oroya population v. Peru: Judgment of 27 November 2023 (Preliminary Objections, Merits, Reparations and Costs), 27 November 2023, Series_511 _esp.pdf (corteidh.or.cr)

⁹⁵UN, General Comment No. 26 on children's rights and the environment, with a special focus on climate change, 2023 (previously cited), para. 7.

⁹⁶IPCC, Climate Change 2023: Synthesis Report of the Sixth Evaluation Report. Summary for Policymakers, p 25; see also IPCC, Global Warming of 1.5°C.



According to UNICEF's Children's Climate Risk Index (IRCI), up to 2021 approximately 1 billion children (nearly half of the world's children) lived in countries with extremely high climate risk.⁹⁷ Various UNICEF investigations have confirmed these conditions of extreme risk for children in the face of the climate emergency.

“The lives of millions of children around the world are being upended by the climate crisis. Geography does not protect against climate change; it is affecting children everywhere – even in high-income countries – and the world is not doing nearly enough to protect them.”⁹⁸

UNICEF: The climate-changed child (2023)

Climate change intensifies and causes extreme weather events, such as storms, floods, prolonged droughts and sea level rise that can lead to forced displacement and food insecurity, and prevent access to education and health care, among other risk scenarios and violations of children's rights.⁹⁹

The Committee on the Rights of the Child and other bodies have recognized that these events caused and exacerbated by climate change affect the enjoyment of the rights to life, food, adequate housing, health, water and cultural rights, and have therefore called on states to address the damages and risks related to climate change that may affect the rights of children.¹⁰⁰

The United Nations Convention on the Rights of the Child (CRC) provides that states have an overriding obligation to guarantee “to the maximum extent possible the survival and development of the child”.¹⁰¹ Under international human rights law, states have an obligation not to harm the well-being of children and to take proactive action to secure their rights. Strategies to mitigate the impacts of climate change must focus on protecting their rights under the principle of the best interests of the child,¹⁰² which reinforces the responsibility of caring for the environment and protecting the global climate system.¹⁰³

In addition, on October 2020 the UN Human Rights Council adopted by consensus a resolution on the realization of children's rights through a healthy environment, calling on states to “develop ambitious mitigation measures to minimize the future negative impacts of climate change on children to the greatest extent possible by holding the increase in the global average temperature to well below 2°C above pre-industrial levels and by pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”¹⁰⁴

The World Health Organization (WHO) has recognized that the majority of the world's 2.2 billion children are disproportionately affected by changes in their environment as a result of climate change. In this context, the WHO underlines the crucial importance of stabilizing and reducing greenhouse gas concentrations in the atmosphere. These actions are essential for preserving the health and development of children, adolescents and young people, and for intergenerational equity.¹⁰⁵

⁹⁷United Nations Children's Fund (UNICEF), The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index, 2021, The Climate Crisis is a Child Rights Crisis.pdf (unicef.org), p.12.

⁹⁸UNICEF, The climate-changed child, November 2023, <https://www.unicef.org/lac/media/43946/file/The%20climate-changed%20child%20.pdf>, p. 7

⁹⁹UNICEF, The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index, 2021.

¹⁰⁰Joint Statement on “Human Rights and Climate Change” by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities, 2019.

¹⁰¹UNICEF, UN Convention on the Rights of the Child, Article 6.2.

¹⁰²Article 2 of the Declaration of the Rights of the Child and Article 3 of the Convention on the Rights of the Child. This principle has been developed by the Inter-American Court of Human Rights in its advisory opinion OC-17: “the best interests of the child, understood as the premise on which the provisions relating to children and adolescents must be interpreted, integrated and applied, and which therefore constitutes a limit on the discretion of the authorities in taking decisions relating to children,” Para. 16. Advisory Opinion OC-17: Juridical Condition and Human Rights of the Child, paras 56-61. It has also been incorporated into provisions of various inter-American instruments such as the Inter-American Convention on Conflicts of Law Concerning the Adoption of Minors and the Inter-American Convention on the International Return of Children.

¹⁰³UN Special Rapporteur on human rights and the environment, Report, 24 January 2018.

¹⁰⁴UN Human Rights Council (HRC), Resolution 45/30: Rights of the child: realizing the rights of the child through a healthy environment, adopted on 7 October 2020, A/HRC/RES/45/30. para. 14.

¹⁰⁵World Health Organization (WHO), “Climate Change, Health & Intergenerational Equity,” October 2022, [who-unfccc-cop27-cchie-11122-ic.pdf](https://www.who.int/publications-detail/who-unfccc-cop27-cchie-11122-ic.pdf).



The WHO has also pointed out that children, adolescents and young people are and will be affected by significant changes in environmental determinants of health, warning that these effects will be particularly harmful for children and young people.¹⁰⁶

For example, UNICEF has found that during periods of drought, women, girls and young people in Central Africa, where communities suffer from the disappearance of Lake Chad, are forced to travel longer distances to obtain water. This puts them at greater risk of gender-based violence.¹⁰⁷ In addition, it is estimated that up to 80% of those displaced by climate change are women.¹⁰⁸

This differentiated gender impact has been recognized by the Committee on the Elimination of Discrimination against Women (CEDAW), noting that states must take effective steps to reduce carbon emissions, soil degradation and pollution, as well as all other environmental hazards and risks that contribute to climate change, which tend to disproportionately negatively affect women, especially young women and girls.¹⁰⁹

¹⁰⁶WHO, "Climate Change, Health, & Intergenerational Equity", (previously cited).

¹⁰⁷WHO, "Climate Change, Health, & Intergenerational Equity".

¹⁰⁸WHO, "Climate Change, Health, & Intergenerational Equity".

¹⁰⁹UN, Committee on the Elimination of Discrimination against Women (CEDAW). General Recommendation No. 37 (2018) on the gender-related dimensions of disaster risk reduction in the context of climate change, 13 March 2018, CEDAW/C/GC/37, para. 46.





4. BURNING THE PRESENT AND THE FUTURE: GAS FLARES AND GREENHOUSE GAS EMISSIONS

One of the most damaging activities of the fossil fuel sector and significant contributor of potent GHG emissions into the atmosphere is routine gas flaring. This consists in the regular burning of the gas that is released in crude oil exploration, extraction and processing facilities.

Gas flaring has been practiced for more than a century, through devices known as gas flares, burners or stacks, which are easily recognizable by their flares and emit large amounts of heat and persistent noise.

Historically, oil companies have used routine flaring to release so-called “associated” gas¹¹⁰ that is in contact with and/or dissolved in crude oil from an oil field. Many oil companies that practice gas flaring consider the gas they burn to be a by-product that can be discarded. Where the associated gas is not flared, it is “vented”, which is the intentional or unintentional release of the gas, and therefore methane, into the atmosphere.¹¹¹

In the context of crude oil extraction, gas flaring is “routine” when, “in the absence of sufficient facilities or sufficient geology to re-inject the produced gas, utilize it on-site or dispatch it to a market,”¹¹² it is burned. Gas is also flared for safety reasons, over short periods of time, to mitigate excess pressure in crude oil extraction facilities.

The types of associated gas that can be flared in oil wells are classified according to their “quality”. “Lean gas” is gas with relatively few hydrocarbons other than methane, while “rich gas”, in addition to methane, has significantly higher proportions of other heavier hydrocarbons (propane and butane, among others). Rich gas has the potential to be converted into liquid to become liquefied petroleum gas (LPG), a fuel that can be used in the residential, commercial and industrial sectors for heating and cooking, heat generation, and as fuel in the transport sector.

¹¹⁰The gas burned in flares is known as “associated gas” and consists mainly of methane (CH₄) and, to a lesser extent, ethane, propane, butane and other hydrocarbon gases. It may also occasionally contain trace gases such as carbon dioxide, nitrogen, hydrogen sulfide and helium. See: U.S. Energy Information Administration (EIA) or the American Society of Mechanical Engineers (ASME).

¹¹¹Marmolejo E. and Ramírez G., “La quema de gas asociado a la extracción de crudo y su impacto ambiental [The burning of gas associated with crude oil extraction and its environmental impact]”, 1 July 2014, www.ptolomeo.unam.mx:8080/xmlui/bitstream/handle/132.248.52.100/4070/La%20quema%20de%20gas%20asociado%20a%20la%20extraccion%20de%20crudo%20y%20su%20impacto%20ambiental.pdf?sequence=1, p. 27.

¹¹²The World Bank, “Global Initiative to Reduce Gas Flaring: ‘Zero Routine Flaring by 2030’”, ZRF-Initiative-text-list-map-104.pdf (worldbank.org)



In theory, properly functioning gas flares transform the gas into various intermediate gases, most of which are eventually converted into CO₂ and water. However, certain amounts of other gases, such as methane, but also carbon monoxide, hydrogen and hydrocarbons, escape as emissions. These emissions occur to a greater or lesser extent depending on the operating state of the flares.

Gas flares emit two of the most potent greenhouse gases: CO₂ and methane, the latter being, as mentioned above, a super-pollutant.

Routine gas flaring is no longer necessary, as technologies have been developed that make it possible to eliminate this practice. According to the environmental organization Clean Air Task Force (CATF), even in areas of the United States of America where routine gas flaring is common, such as the Permian Basin in Texas, New Mexico or North Dakota, many operators produce unburned oil, because prior to starting oil production they plan the development of all their wells with sufficient gas infrastructure. Despite international standards that define the ideal conditions for the construction and operation of gas flares,¹¹³ this practice can be replaced by various technologies that not only reduce the need for routine gas flaring, but eliminate it.¹¹⁴ According to CATF, daily flaring in oil wells can be avoided, even with no gas pipeline connections.¹¹⁵

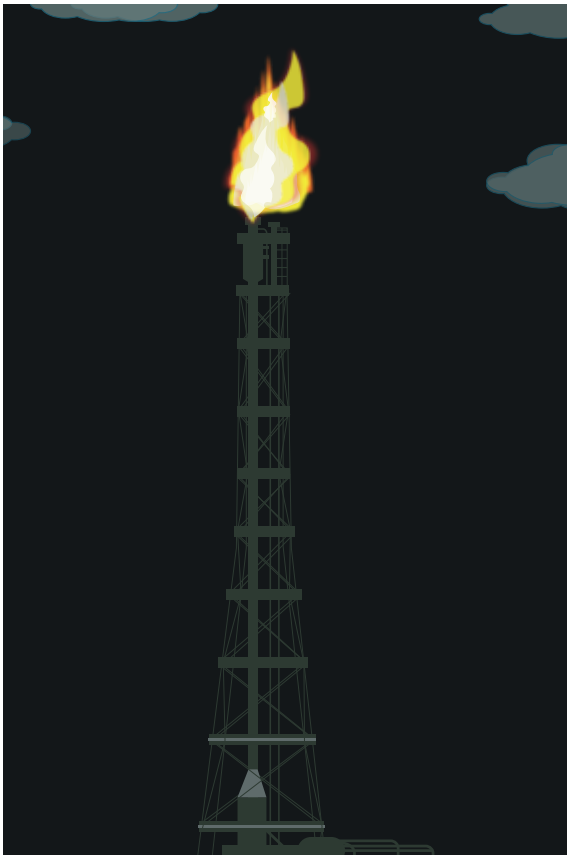
For this reason, countries such as Norway have banned routine gas flaring, except in cases of emergency.¹¹⁶ In addition, the states of New Mexico and Colorado (USA) have recently passed regulations (which will be detailed later in this document) aimed at completely eliminating this practice.

¹¹³The International Organization for Standardization (ISO) Standard API 521 / ISO 23251 "Pressure-relieving and vapour-depressuring systems" determines the conditions and guidelines for overpressure analysis and establishes the individual discharge rates of devices such as piping, ventilation chimneys and flares. API standard 537 defines optimal conditions for the design, manufacture, installation, inspection and testing of flaring systems.

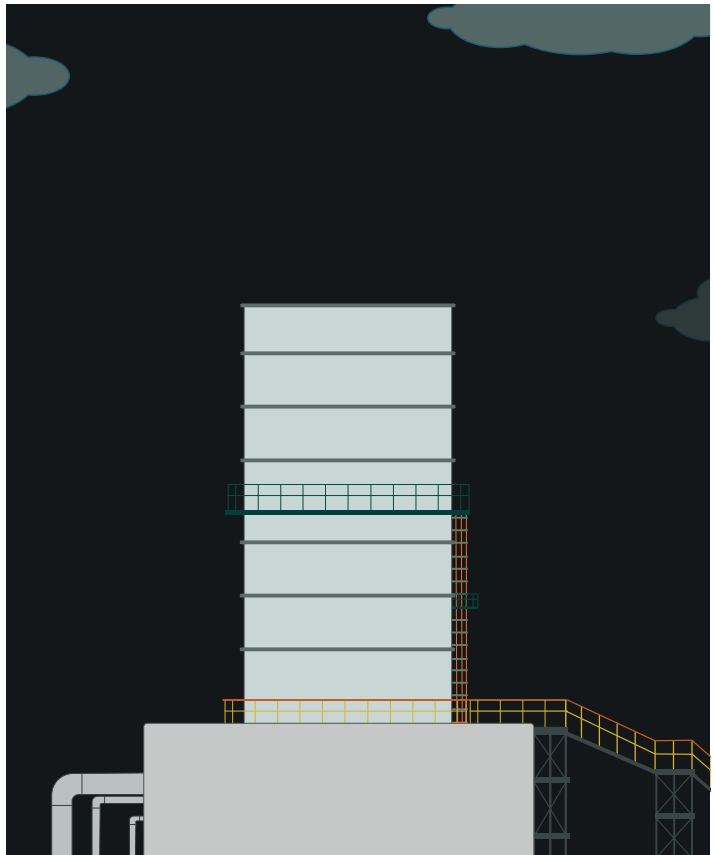
¹¹⁴The World Bank notes that "small modular electricity generation plants, truck-mounted, modular liquefied natural gas plants, integrated compressed natural gas systems and modular, remotely operated mini-gas-to-liquid plants may often, in the right circumstances, be economically viable alternatives to flaring and venting." See: The World Bank, "Transforming Lives Through Climate-Resilient Irrigation", Technical Solutions (worldbank.org). See also: Trávez, S., Yagos, C., Endara, J. S. and Tapia, J., "Soluciones energéticas sostenibles: un estudio sobre estrategias para el uso de gas asociado a la extracción de petróleo en la industria ecuatoriana [Sustainable energy solutions: a study on strategies for the use of gas associated with oil extraction in the Ecuadorian industry]", 2024, AlfaPublicaciones, 6(2), 52-72. <https://doi.org/10.33262/ap.v6i2.467> and The Global Home of Chemical Engineers (AIChE), "Minimize Flaring in Oil and Gas Facilities", January 2023, <https://www.aiche.org/resources/publications/cep/2023/january/minimize-flaring-oil-and-gas-facilities>.

¹¹⁵CATF, "Super pollutants: The impacts of climate change are already here and accelerating" (previously cited), p.1.

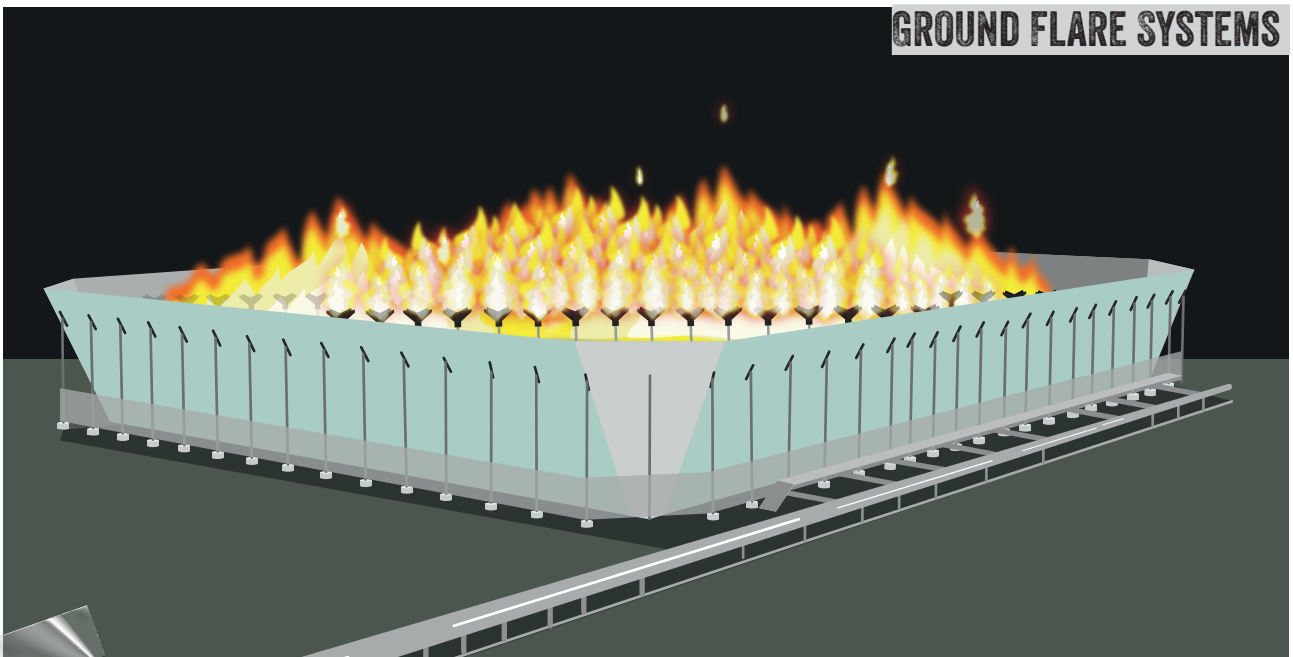
¹¹⁶Climate & Clean Air Coalition, "Norway supports elimination of gas flaring", 20 April 2015, Hydrocarbon Engineering.



HIGH FLARE SYSTEMS



ENCLOSED FLARE SYSTEMS



GROUND FLARE SYSTEMS

There are several types of gas flares, the most common being elevated flares or High Flare Systems. These consist of a tall stack with one or more nozzles at the top where the gas is combusted constantly in the open air. These flares are designed to burn huge volumes of gas and emit large flames which are visible from considerable distances.

Ground Flare Systems are located on the ground and are usually surrounded by wall structures containing the flare. Enclosed Flare Systems, also known as closed or chamber flares, burn the gas in a combustion chamber, minimizing exposure of the flame to the external environment.

Gas flares can be fixed or mobile and can be installed in a variety of locations, including onshore and offshore oil platforms, in hard-to-reach oil wells, on transport vessels and in port facilities. Their design involves multiple factors and technical specifications, including considerations of gas flow rate, gas composition, environmental conditions and the regulatory requirements of the states in which they are used.

4.1 GAS FLARES AROUND THE WORLD AND THEIR POTENTIAL TO EMIT CO₂ AND METHANE INTO THE ATMOSPHERE

According to the World Bank's most recent report on global monitoring of gas flaring, published in March 2023, Russia, Iraq, Iran, Algeria and Venezuela topped the list of the 30 countries with the highest flare volumes in 2022.¹¹⁷ In the Americas, in addition to Venezuela, the United States of America, Mexico, Ecuador, Argentina and Brazil routinely use gas flaring in their oil extraction operations.¹¹⁸

According to the World Bank, in 2022 some 139 trillion cubic metres (bcm) of gas was flared at oil and gas facilities globally.¹¹⁹ The International Energy Agency (IEA) estimates that global gas flares generate approximately 500 million tonnes of CO₂ equivalent (MtCO₂e) annually.¹²⁰

These emissions are especially significant. In 2020, for example, net territorial GHG emissions in the UK were estimated at 405.5 MtCO₂e.¹²¹ In 2015, Mexico emitted 683 MtCO₂e of GHGs.¹²² These figures show that annual GHG emissions from gas flaring globally are similar to those of a whole nation. The IEA report also estimates that inefficient combustion from flares accounts for around 10% of methane emissions from oil and gas operations.¹²³

As mentioned above, in addition to CO₂, gas flares are a "direct source of methane emissions",¹²⁴ a gas which has the particularity of boosting climate change rapidly.

Although it is a scientific fact that gas flares emit

methane, in the opinion of the scientific community two reasons make it difficult to calculate the national contribution to emissions of this gas. The first relates to the assumption that flares properly burn the gas and the second to the idea that flares function properly throughout their operating life.

Studies carried out in the 1980s claimed that gas flares had a methane destruction efficiency of 98%, and that therefore only 2% of the methane was vented¹²⁵ (emitted into the atmosphere without burning). This assumption of a 98% flaring efficiency persists in most emissions inventories, such as the World Bank's routine flaring programme¹²⁶ and that of the U.S. Environmental Protection Agency (EPA).¹²⁷

Several recent scientific studies have shown that the effectiveness of gas destruction in flares could be significantly lower than 98%. In 2014, research published in the journal *Science* showed that, based on emission samples from more than 300 gas flares located in the Permian, Eagle Ford and Bakken basins (United States of America), the gas flares had an average destruction efficiency of 95.2%.¹²⁸ Subsequently, complementary studies carried out in the same area in 2017 concluded that the gas flares sampled actually operated with an "effective" destruction efficiency of 91.1%, after including the fact that 3.2% of the flares sampled in Bakken vented the gas.¹²⁹ As in the aforementioned scientific study, the IEA also suggests that, globally, gas flares operate with a gas combustion efficiency of approximately 92%.¹³⁰

¹¹⁷World Bank Report, Global Gas Flaring Tracker Report, March 2023, 2023-Global-Gas-Flaring-Tracker-Report.pdf (worldbank.org).

¹¹⁸World Bank Report, Global Gas Flaring Tracker Report, (previously cited).

¹¹⁹World Bank Report, Global Gas Flaring Tracker Report, p. 20. One cubic meter of burned natural gas produces approximately 1.9 kg of CO₂. For approximate calculations see: Greenhouse Gases Equivalencies Calculator - Calculations and References | US EPA.

¹²⁰ IEA, "Understanding methane emissions", 2024 (previously cited).

¹²¹Department for Business, Energy & Industrial Strategy, "2020 UK Greenhouse Gas Emissions, Final Figures", 1 February 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1051408/2020-final-greenhouse-gas-emissions-statistical-release.pdf.

¹²²National Institute of Ecology and Climate Change, "Inventario Nacional de Emisiones de Gases y Compuestos de Efecto Invernadero [National Inventory of Greenhouse Gas and Compound Emissions]", 18 May 2018, <https://www.gob.mx/inecc/acciones-y-programas/inventario-nacional-de-emisiones-de-gases-y-compuestos-de-efecto-invernadero>

¹²³IEA, "Understanding methane emissions".

¹²⁴Controlled studies commissioned by the US EPA in the 1980s: U.S. Environmental Protection Agency (EPA), Air Pollution Control Cost Manual, September 2000, https://www.epa.gov/sites/default/files/2019-08/documents/flarescostmanualchapter7thedition_august2019vff.pdf, p. 1.

¹²⁵The World Bank, Global Gas Flaring Tracker Report, 2023.

¹²⁶"98 Percent Burn Destruction Efficiency Assuming 2 Percent Unburned Methane Released" in World Bank Report, Global Gas Flaring Tracker Report, p. 15.

¹²⁷U.S. Environmental Protection Agency (EPA), Air Pollution Control Cost Manual, 2000 (cited above).

¹²⁸Caulton D., Shepson P., Cambaliza M., McCabe D., Baum E. and Stirr H, "Methane Destruction Efficiency of Natural Gas Flares Associated with Shale Formation Wells," 2014, Environmental Science & Technology, p. 48, 16, 9548-9554 <https://pubs.acs.org/doi/10.1021/es500511w>.

¹²⁹Gvakharia A., Kort E., Brandt A., Peischl J., Ryerson T., Schwarz, Smith M., and Sweeney C, "Methane, Black Carbon, and Ethane Emissions from Natural Gas Flares in the Bakken Shale, North Dakota," 2017, Environ. Sci. Technol, PubMed (nih.gov). p. 51, 9, 5317-532.

¹³⁰IEA, "Gas Flaring," 2023, Gas Flaring - Energy System - IEA. And IEA, "Methane emissions from the global energy sector rose to nearly 135 Mt in 2022", 2023, <https://energi.media/news/iea-methane-emissions-from-the-global-energy-sector-rose-to-nearly-135-mt-in-2022/>.



Therefore, according to the studies and sources cited, current combustion efficiencies would be lower than the 98% reported in the 1980s. In addition, operational realities – especially for gas flares in countries with lax environmental and human rights regulations – may lack optimal systems or conditions and adequate maintenance to prevent breakdowns, accidents and venting, which results in higher levels of methane and other associated gases being released into the atmosphere.

4.2 THE IMPACT OF FLARING EMISSIONS ON HUMAN HEALTH AND THE ENVIRONMENT

Eliminating GHG emissions from gas flaring would not only contribute to reducing global warming but would also have a positive impact on air quality and therefore public health.

Institutions such as the World Bank recognize that gas flares emit a variety of gases and other harmful components.¹³¹ Some of the gases emitted by gas flares, such as benzene, are potentially carcinogenic.¹³² Flares also emit volatile organic compounds and polycyclic aromatic hydrocarbons (PAHs),¹³³ a large group of organic compounds prevalent as persistent environmental pollutants. The negative impact on people's health of continuous exposure to PAHs present in the air has been recognized in reports of the World Health Organization's Working Group on Polycyclic Aromatic Hydrocarbons.¹³⁴

While the recent WHO Global Air Quality Guidelines¹³⁵ do not establish a direct causal link between PAH exposure and specific chronic diseases such as cancer, they do highlight the need for countries to develop measures to improve air quality.

The Air Quality Guidelines state that countries must reduce and phase out dependence on fossil fuels and biomass to “reduce greenhouse gas emissions as well as health-relevant air pollutants”.¹³⁶

¹³¹These comprise carbon particles, nitrogen monoxide and carbon monoxide (all of which have been pointed out by the scientific community as potential sources of respiratory problems).

¹³²See: D'Andrea, M. and Reddy, K., “Hematological and hepatic alterations in nonsmoking residents exposed to benzene following a flaring incident at the British petroleum plant in Texas City,” 20 December 2014, *Environmental Health*, 13, <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-13-115>. Cordiano, R., Papa V., Cicero N., Allegra A. and Gangemi S., “Effects of Benzene: Hematological and Hypersensitivity Manifestations in Resident Living in Oil Refinery Areas”, 9 November 2022. *Toxics*. <https://pubmed.ncbi.nlm.nih.gov/36355969/>. And D'Andrea, M. and Reddy, K., “Health effects of benzene exposure among children following a flaring incident at the British Petroleum Refinery in Texas City,” February 2014. *Pediatr Hematol Oncol*. <https://pubmed.ncbi.nlm.nih.gov/24088183/#:~:text=Together%20C%20the%20%20results%20of%20the,hepatic%20or%20blood%20related%20disorders.>

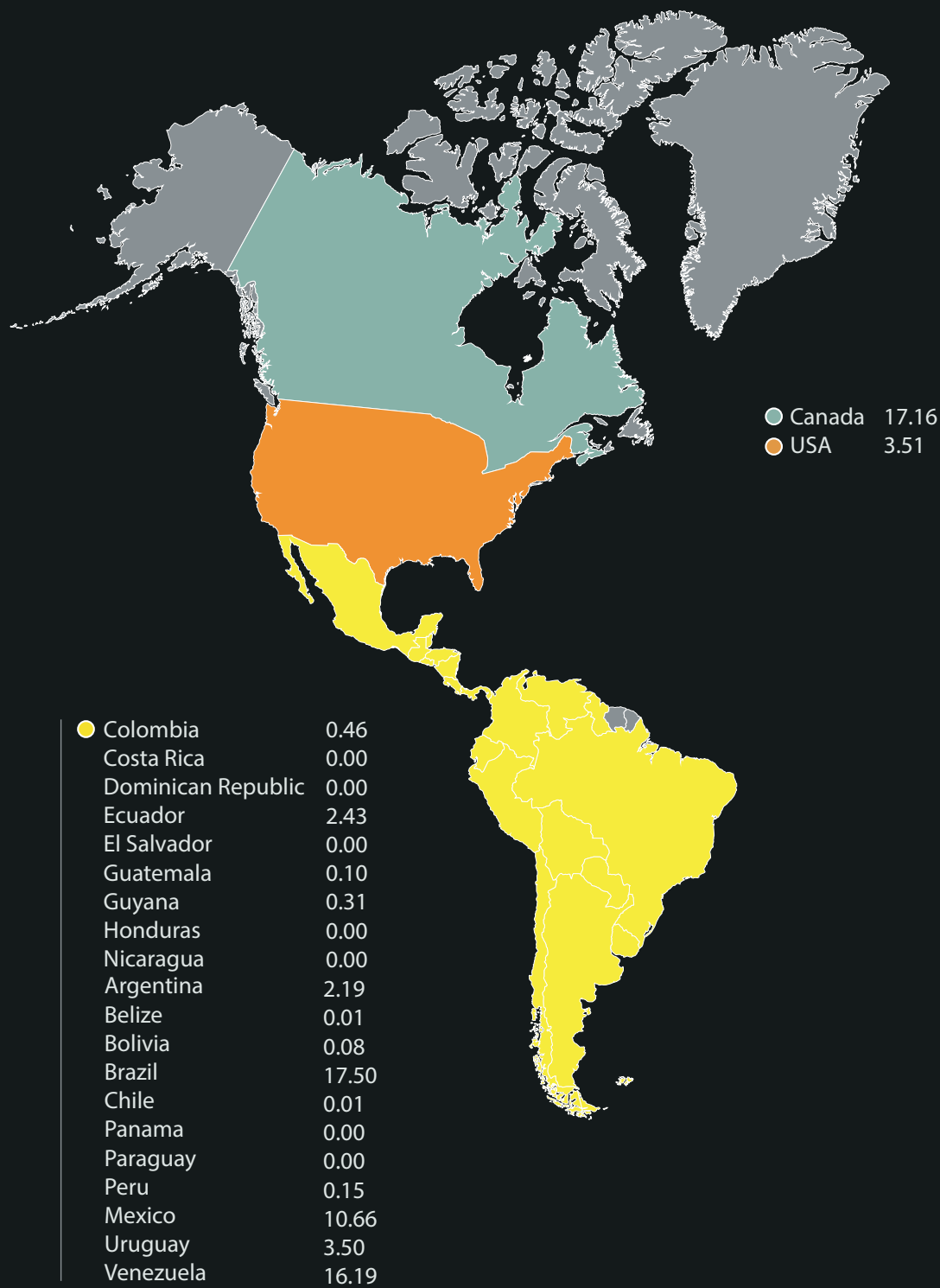
¹³³Venkatraman, G., Giribabu, N., Sakthi, P., Muttiah, B., Kumar, V., Alagiri, M., Shafinaz, P. and Anuar, S., “Environmental impact and human health effects of polycyclic aromatic hydrocarbons and remedial strategies: A detailed review”, March 2024. *Chemosphere*, 351, Environmental impact and human health effects of polycyclic aromatic hydrocarbons and remedial strategies: A detailed review - ScienceDirect.

¹³⁴WHO, Human health effects of polycyclic aromatic hydrocarbons as ambient air pollutants - Report of the Working Group on Polycyclic Aromatic Hydrocarbons of the Joint Task Force on the Health Aspects of Air Pollution, 2021, Human health effects of polycyclic aromatic hydrocarbons as ambient air pollutants - Report of the Working Group on Polycyclic Aromatic Hydrocarbons of the Joint Task Force on the Health Aspects of Air Pollution (who.int); Protecting health through ambient air quality management: a resource package for the WHO European Region.

¹³⁵WHO, Human health effects of polycyclic aromatic hydrocarbons as ambient air pollutants - Report of the Working Group on Polycyclic Aromatic Hydrocarbons of the Joint Task Force on the Health Aspects of Air Pollution, 2021, Human health effects of polycyclic aromatic hydrocarbons as ambient air pollutants - Report of the Working Group on Polycyclic Aromatic Hydrocarbons of the Joint Task Force on the Health Aspects of Air Pollution (who.int); Protecting health through ambient air quality management: a resource package for the WHO European Region; and WHO Global Air Quality Guidelines.

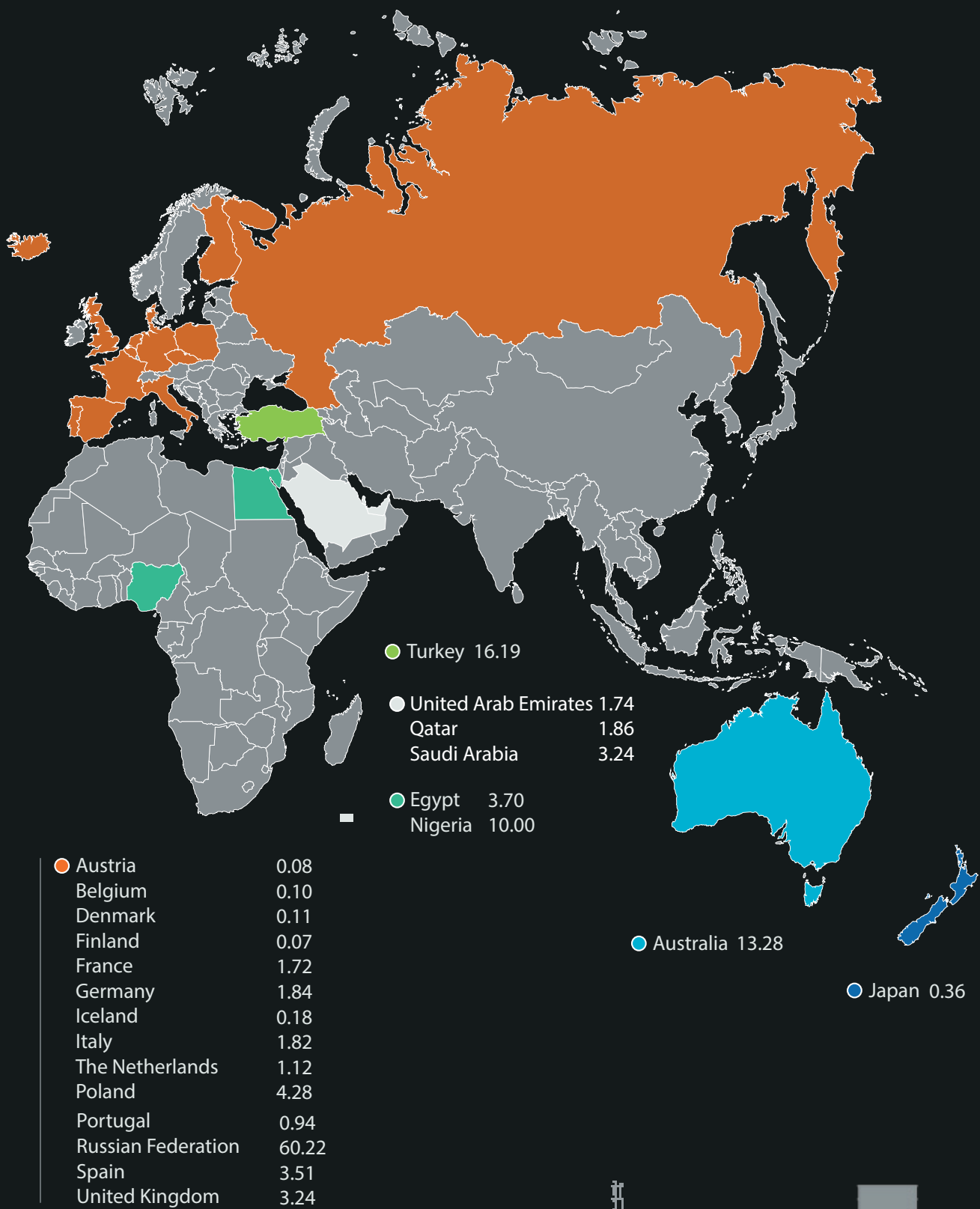
¹³⁶The pollutants specifically referred to in the WHO Guidelines are black carbon (a component of particulate matter) and tropospheric ozone, short-lived climate pollutants that have both health effects and contribute to global warming.

ESTIMATED GLOBAL CO2 EMISSIONS FROM GAS FLARES IN 2022



The numerical values assigned to each country represent the production of MtCO₂.

The unit of measurement for carbon emissions is the metric tonne of carbon dioxide equivalent (MTCO₂e), which is an industry standard measure. This measurement takes into account multiple greenhouse gases, such as carbon dioxide, methane and nitrous oxide.



In addition to affecting the enjoyment and exercise of rights such as life and health,¹³⁷ pollutant gases from gas flaring also affect natural ecosystem processes and the livelihoods of communities that depend on subsistence economies.¹³⁸

Because of potentially harmful gas emissions, gas flares turn surrounding communities into sacrifice zones, understood as places “where residents suffer devastating physical and mental health consequences and human rights violations as a result of living in pollution hotspots and heavily contaminated areas.”¹³⁹

“[T]he areas hardest hit by pollution, biodiversity loss and climate change... are disproportionately concentrated in global ‘sacrifice zones’ – regions rendered dangerous and even uninhabitable owing to environmental degradation. Whereas sacrifice zones are concentrated in the formerly colonized territories of the global South, the global North is largely to blame for these conditions.”¹⁴⁰

Methane emissions have also been linked to pollution from tropospheric ozone,¹⁴¹ a powerful and harmful atmospheric pollutant formed by methane from the extraction, production and combustion of oil and gas. Harmful health effects from methane-related tropospheric ozone have been linked to aggravated cardiovascular¹⁴² and respiratory¹⁴³ disease and at least one million premature deaths worldwide per year.¹⁴⁴

¹³⁷ This includes impact from combined exposure to hundreds of chemical products that cause a variety of physical effects and diseases.

¹³⁸ Studies such as Stanislav Patin’s “Environmental Impact of the Offshore Oil and Gas Industry” (1999) indicate that the gas burned in the exploitation of crude oil penetrates the organism of aquatic animals and affects the physiology of their respiratory and nervous systems, blood circulation, enzyme activity and others. Prolonged exposure to methane gas also causes chronic poisoning in fish, resulting in tissue rupture and elongation of the swim bladder.

¹³⁹ UN Special Rapporteur on human rights and the environment, Report, 12 January 2022, Doc. UN A/HRC/49/53, para. 27.

¹⁴⁰ UN Special Rapporteur on Contemporary forms of racism, racial discrimination, xenophobia and related intolerance, Report, 25 October 2022, Doc. UN A/77/549, para. 1.

¹⁴¹ UNEP, Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions, 6 May 2021, <https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions>, p. 18.

¹⁴² Malley C., Henze D., Kuylenstierna J., Vallack H., Dávila Y., Anenberg M., Turner M. and Ashmore M., “Updated Global Estimates of Respiratory Mortality in Adults ≥ 30 Years of Age Attributable to Long-Term Ozone Exposure”, 28 August 2017, Environmental Health Perspectives, 125, <https://ehp.niehs.nih.gov/doi/10.1289/ehp1390> and PSE Energy, “Methane and Health-Damaging Air Pollutants From the Oil and Gas Sector: Bridging 10 Years of Scientific Understanding”, 2021, https://www.psehealthyenergy.org/wp-content/uploads/2021/10/Full-Report_Bridging-10-Years-of-Scientific-Understanding.pdf.

¹⁴³ UNEP, Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions, (previously cited), p. 57.

¹⁴⁴ The Global Climate and Health Alliance, Mitigating Methane from the Energy Sector: a Global Health Strategy, August 2023, https://climateandhealthalliance.org/wp-content/uploads/2023/08/MethaneReport-Energy_FINAL.pdf, p.7 and CCAC, “Tropospheric Ozone”, <https://www.ccacoalition.org/short-lived-climate-pollutants/tropospheric-ozone#:~:text=Ozone%20absorbs%20radiation%20and%20consequently,precipitation%20levels%2C%20and%20atmospheric%20circulation>





A number of scientific studies have evidenced a link between exposure to air pollutants associated with methane and other emissions from gas flares having an impact on human health:

■ Nitrogen oxides (NO_x) have been linked to the prevalence of asthma, respiratory diseases and mortality from cardiovascular diseases.¹⁴⁵

■ Respirable particulate matter (PM_{2.5}) causes effects similar to NO_x, and has been linked “to premature births, lung cancer and low birth weight.”¹⁴⁶

■ Hydrogen sulfide (H₂S) is associated with “irritation to the eyes and respiratory system. It can also cause apnea, coma, convulsions, dizziness, headache, weakness, irritability, insomnia [and] stomach upset”.¹⁴⁷

■ BTEX (benzene, toluene, ethylbenzene and xylene) is linked to an increased risk of cancer.¹⁴⁸

Gas flaring affects biodiversity in multiple ways:

■ Millions of nocturnal insects die every day through incineration, attracted by the infrared wavelength produced by the light from the gas flares, causing imbalances in the food chain for thousands of animals.¹⁴⁹

■ Likewise, bird populations exposed to gas flaring are affected in terms of their distribution pattern and populations of aerial microorganisms are also radically affected.¹⁵⁰

■ The gas burned in the exploitation of crude oil penetrates the organism of aquatic animals and affects the physiology of their respiratory and nervous systems, blood circulation, enzyme activity and others.¹⁵¹ Prolonged exposure to methane gas also causes chronic poisoning in fish, resulting in tissue rupture and elongation of the swim bladder.¹⁵²

¹⁴⁵ Villeneuve, P.J., Jerrett, M., Goldberg, M.S., Arden Pope III, C., Brauer, M., Robert D. Brook, R.D., Robichaud, A., Richard Menard, R., and Burnett, R.T., “Ambient PM_{2.5}, O₃, and NO₂ exposures and associations with mortality over 16 years of follow-up in the Canadian Census Health and Environment Cohort” (CanCHEC), 2015, Environ Health Perspect, p. 123, pp. 1180-1186.

¹⁴⁶ Fann, N., Coffman, E., Timin, B. and Kelly, J.T. “The estimated change in the level and distribution of PM_{2.5}-attributable health impacts in the United States: 2005-2014”, 2018, Environ Res., p. 167, pp. 506-514.

¹⁴⁷ Center for Disease Control (CDC), “Hydrogen Sulfide” <https://www.cdc.gov/niosh/topics/HydrogenSulfide/default.html>.

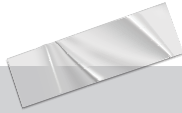
¹⁴⁸ PSE Energy, Methane and Health-Damaging Air Pollutants From the Oil and Gas Sector: Bringing 10 Years of Scientific Understanding, 2021 (previously cited).

¹⁴⁹ Reyes, F. Ajamil, “Petróleo, Amazonia y Capital Natural [Oil, the Amazon and Natural Capital]”, 2005, Casa de la Cultura Ecuatoriana.

¹⁵⁰ Reyes, F. Ajamil, “Petróleo, Amazonía y Capital Natural”, 2005 (cited above).

¹⁵¹ Patin S., Environmental Impact of the Offshore Oil and Gas Industry, 1999. Ecomonitor Pub.

¹⁵² Patin S., Environmental Impact of the Offshore Oil and Gas Industry, 1999 (cited above).



International commitments for the elimination of gas flares and the reduction of their methane emissions

In 2002, the World Bank launched the Global Gas Flaring Reduction Partnership (GGFR), bringing together large public and private fossil fuel companies.¹⁵³ This initiative set out to “minimize the flaring of natural gas associated with oil production by fostering critical collaboration between governments and industry so together they can address policy challenges and specific project implementation.”¹⁵⁴

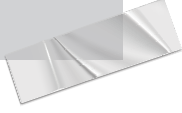
The alliance also set a goal to end routine gas flaring by 2030 through the **Zero Routine Flaring by 2030 initiative (ZRF)**.¹⁵⁵ While the initiative is voluntary, the World Bank monitors commitments through government and corporate reports and satellite observations.

In the Americas, governments in countries such as Brazil, Canada, Colombia, Ecuador, Mexico, Peru and the United States of America have committed to this initiative to end routine flaring and minimize safety and non-routine flaring. The initiative specifies that venting should not be considered as an acceptable alternative to flaring.

The countries endorsing the initiative commit to creating an operating environment conducive to avoiding routine flaring in new oilfield developments and ending routine flaring at existing oil extraction facilities by 2030.

The initiative is part of the World Bank’s Climate Change Action Plan (2021), which provides funds and technical support to “developing” countries for implementing initiatives, policies and solutions that reduce the intensity of carbon emissions, including ending routine flaring and venting of gas into the atmosphere, reducing fugitive methane emissions and accelerating the transition to cleaner sources of energy.¹⁵⁶

Considering the global warming potential of the climate super pollutant methane resulting from flaring operations, at COP28 (2023) the World Bank launched the Global Flaring and Methane Reduction (GFMR) Partnership, which aims to reduce methane emissions from the oil and gas sector.¹⁵⁷ The World Bank has indicated that the GFMR involves a new multi-donor trust fund focused on supporting states with fewer capabilities and resources to reduce carbon dioxide and methane emissions from the oil and gas industry.



¹⁵³The World Bank, “Global Flaring and Methane Reduction Partnership (GFMR),” <https://www.worldbank.org/en/programs/gasflaringreduction>.

¹⁵⁴World Bank, “Sustainable Energy for All: Sector Results Profile”, 9 April 2014, <https://www.bancomundial.org/es/results/2013/04/10/sustainable-energy-for-all-results-profile#:~:text=La%20Asociaci%C3%B3n%20para%20la%20Reducci%C3%B3n%20Mundial%20de%20la,de%20importantes%20empresas%20y%20naciones%20productoras%20de%20petr%C3%B3leo>

¹⁵⁵According to the World Bank, from 2005 to 2014, global gas flaring dropped by 20%, “preventing over 270 million tons of CO2 emissions, equivalent roughly to taking some 52 million cars off the road.” See: “World Bank, Sustainable Energy for All: Sector Results Profile”, (previously cited).

¹⁵⁶World Bank, “World Bank Group Increases Support for Climate Action in Developing Countries”, 22 June 2021, <https://www.worldbank.org/en/news/press-release/2021/06/22/world-bank-group-increases-support-for-climate-action-in-developing-countries>.

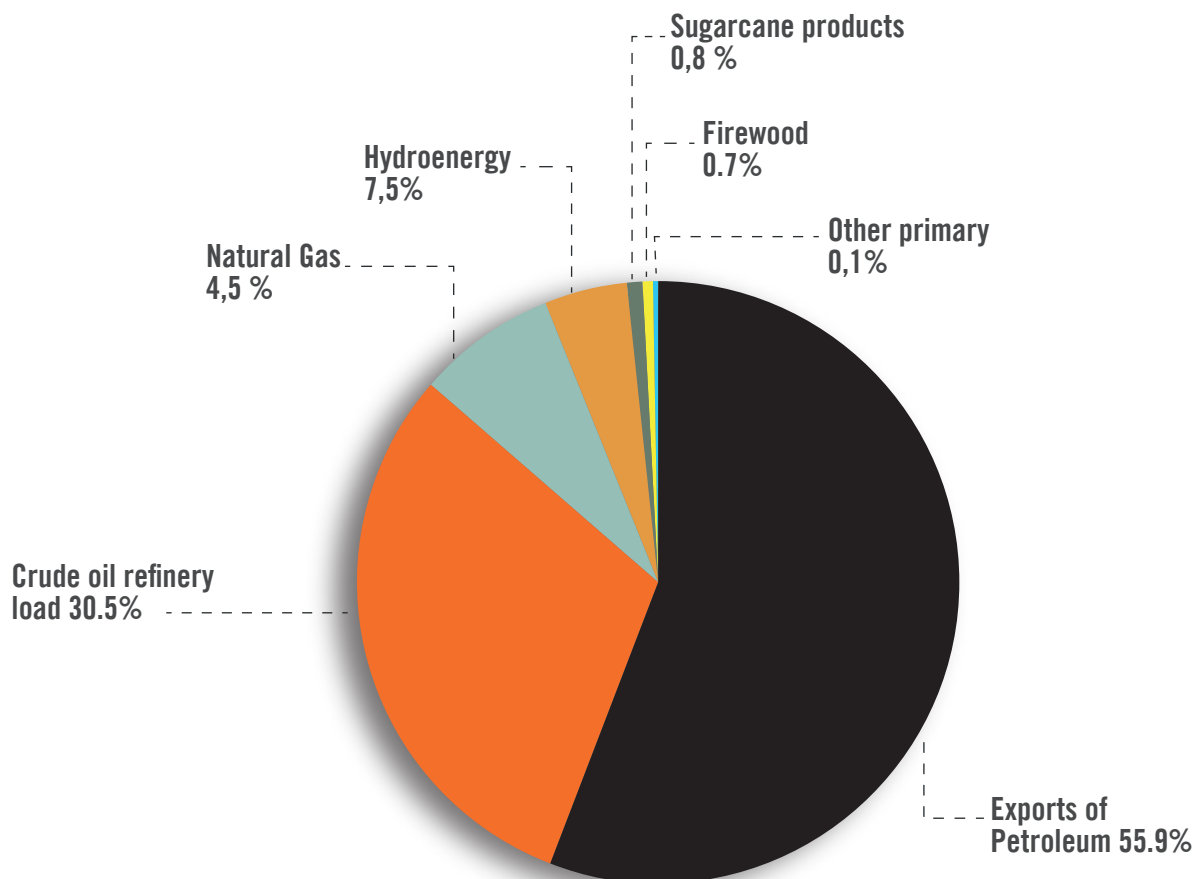
¹⁵⁷World Bank, “GGFR to evolve to the Global Flaring & Methane Reduction Partnership,” Global Flaring and Methane Reduction Partnership (worldbank.org).



YOUNG ACTIVISTS DEFENDING THE ECUADORIAN
AMAZON FROM GAS FLARES THAT THREATEN RIGHTS NOW AND IN THE FUTURE

5. ECUADOR IS BURNING! CONTRIBUTION OF THE ECUADORIAN STATE TO GLOBAL WARMING WITH ITS FLARING POLICY

PRIMARY ENERGY PRODUCTION (%)



Barrel of oil equivalent 203 million

Source: Government of Ecuador, National Energy Balance 2022.

Countries in Latin American and the Caribbean are estimated to contribute 8% of global GHG emissions,¹⁵⁸ with the energy sector being responsible for 43% of the continent's emissions.¹⁵⁹ Although these emissions are not comparable in volume to those of the largest global emitters, countries in the region have mitigation and adaptation obligations under the principle of common but differentiated responsibility, especially those whose economies are heavily reliant on fossil fuels.

¹⁵⁸World Bank, "World Bank Open Data," <https://data.worldbank.org/>

¹⁵⁹World Bank, World Bank Open Data | <https://data.worldbank.org/>

¹⁶⁰Ecuador's crude oil production is the country's most important export, accounting for 27% of total exports by value in 2022. See: EIA, Country Analysis Brief: Ecuador: Ecuador], July 2023, https://www.eia.gov/international/content/analysis/countries_long/Ecuador/pdf/ecuador.pdf, p. 8.

¹⁶¹ Ecuador's Hydrocarbons Law is the regulation declaring oil one of the strategic areas of the country. Articles 313, 314 and 315 of the Constitution establish that the state is responsible for the management of "strategic sectors", including non-renewable natural resources such as oil.

Ecuador is one of the leading crude oil extracting countries in Latin America and the Caribbean. Crude oil is the most important export commodity of the Ecuadorian economy,¹⁶⁰ with both the Constitution and the Hydrocarbons Law¹⁶¹ declaring the oil sector a national strategic area. Ecuador has been producing oil since 1918. Its first commercial oilfields were exploited by the oil company Texaco Inc. (currently operated by the Chevron Corporation) starting in 1967. The fully state-owned oil company Petroecuador (Empresa Pública de Hidrocarburos del Ecuador) was created in 1989.

According to the latest energy balance from the Ecuadorian Ministry of Energy and Mines, total primary energy production in 2022 was 203 million barrels of oil equivalent (BOE), of which 86.4% from oil extraction, 9.1% from renewable energies and 4.5% from gas extraction.¹⁶²

Figures from Ecuador's Energy Balance show the country's deep reliance on the oil industry. At the same time, as a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and through its ratification of the Paris Agreement and commitment to the implementation of the Sustainable Development Goals (SDGs), Ecuador has taken on international obligations regarding GHG mitigation and decarbonization.

In addition, the Constitution of Ecuador explicitly addresses climate change by establishing the state's obligation to adopt adequate and cross-cutting measures to mitigate climate change by reducing greenhouse gas emissions.¹⁶³

Executive Decree 1815, published on 17 July 2009, declared climate change adaptation and mitigation a state policy.¹⁶⁴ Similarly, Ministerial Agreement No. 095 establishes the National Climate Change Strategy as a state policy.¹⁶⁵

By ratifying the Paris Agreement and committing to implement SDG 7 and SDG 13, the Ecuadorian state has undertaken to create the conditions for an energy transition. However, the country continues to concentrate primary energy production in the fossil fuel sector. In fact, in 2022, other forms of primary energy, such as wind, registered a significant decrease compared to the values recorded in 2019.¹⁶⁹

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
WIND ENERGY	1,49	35,13	49,41	61,22	52,02	45,48	49,73	52,99	47,77	38,42	37,54
SOLAR ENERGY	0,20	2,27	10,21	22,34	24,01	23,22	23,59	23,31	23,40	22,84	23,86

Measured in kBOE Kilo barrels of oil

Source: Ministry of Energy and Mines, National Energy Balance 2022, p. 61, Figure 2.13: Other Primary (kBOE)

¹⁶²Ministry of Energy and Mines of Ecuador, National Energy Balance 2022, <https://www.rekursosyenergia.gob.ec/wp-content/uploads/2023/08/wp-1692740456472.pdf>, p. 26.

¹⁶³Constitution of Ecuador, Article 414.

¹⁶⁴Government of Ecuador, Decree No. 1815, Decree No. 1815 (fao.org).

¹⁶⁵Government of Ecuador, "Política de Estado: la Estrategia Nacional de Cambio Climático [State Policy: National Climate Change Strategy]", Documento_Politica-Estado-Estrategia-Nacional-Cambio-Climatico.pdf (www.gob.ec)

¹⁶⁶SDG 7 "Affordable and clean energy: Ensure access to affordable, reliable, sustainable and modern energy" states that "Countries can accelerate the transition to an affordable, reliable and sustainable energy system by investing in renewable energy resources, prioritizing energy efficiency practices and adopting clean energy technologies and infrastructure. Businesses can maintain and protect ecosystems and commit to sourcing 100% of operational electricity needs from renewable sources." UN, "Goal 7: Ensure access to affordable, reliable, sustainable and modern energy", 2023, Energy - Sustainable Development (un.org)

¹⁶⁷SDG 13 "Climate action: Take urgent action to combat climate change and its impacts" states that there is a need for increased ambition and action at all levels to address climate change. "Much is happening around the world – investments in renewable energy have soared. But more needs to be done. The world must transform its energy, industry, transport, food, agriculture and forestry systems to ensure that we can limit global temperature rise to well below 2°C, maybe even 1.5°C. In December 2015, the world took a significant first step by adopting the Paris Agreement, in which all countries committed to take action to address climate change. However, more actions are critically needed in order to meet the targets. Businesses and investors need to ensure that emissions are lowered, not just because it is the right thing to do, but also because it makes economic and business sense as well." UN, "Goal 13: Take urgent action to combat climate change and its impacts", 2023, Climate change - Sustainable Development (un.org)

¹⁶⁸Ministry of Energy and Mines, National Energy Balance, 2022, (previously cited), p. 54, Table 2.4 "Primary Energy Production (kBOE)".

¹⁶⁹Ministry of Energy and Mines, National Energy Balance, 2022, p. 61, Table 2.15 "Other primary" (kBOE). Wind energy in 2019 produced 52.99 kBOE.

Ecuador is currently a member of the Organization of the Petroleum Exporting Countries (OPEC). The Ministry of Energy and Mines oversees the exploration, production, refining and marketing of the country's oil, and Petroecuador is the country's main oil extractor, contributing 80% of crude oil extraction.¹⁷⁰

According to estimates from the Ministry of Energy and Mines, an average of 189 million barrels of crude oil are extracted annually.¹⁷¹ Petroecuador's latest statistical report shows that the company's oil extraction to March 2024 continues to grow, with an increase of 7.4% from 2023 to 2024.¹⁷² Despite the various global calls to phase out fossil fuels, the government of the current president, Daniel Noboa, has set a target for increasing oil production and using gas from flaring by the end of 2025.¹⁷³ At the same time, several studies predict that, based on current extraction rates, Ecuador could reach peak oil between 2024¹⁷⁴ and 2027.¹⁷⁵ Given this scenario, there is little chance that Ecuador will be able to meet its climate commitments and create the conditions necessary for a transition to a non-fossil fuel economy.

5.1 GHG EMISSIONS FROM THE ECUADORIAN OIL INDUSTRY AND ITS GAS FLARES

Ecuador's oil industry has become a high GHG emitting economy.¹⁷⁶ The Global Carbon Atlas estimates show that Ecuador's GHG emissions in 2022¹⁷⁷ were substantially lower than those of Latin America's large oil extractors¹⁷⁸ – such as Brazil or Mexico – but had increased significantly compared to previous decades,¹⁷⁹ despite the GHG reduction commitments made by the Ecuadorian state as a signatory to the UNFCCC and through its ratification of the Paris Agreement, as will be detailed below.¹⁸⁰ According to the latest energy balance from the Ministry of Energy and Mines, GHG emissions from oil have increased by 48.7% from 2012 to 2022.¹⁸¹

¹⁷⁰Ministry of Energy and Mines, "Ministro Juan Carlos Bermeo: 'La industria petrolera del Ecuador está comprometida con la meta de los 40 mil barriles'" [Minister Juan Carlos Bermeo: 'Ecuador's oil industry is committed to the goal of 40 thousand barrels'], 16 September 2021, <https://www.recursosyenergia.gob.ec/ministro-juan-carlos-bermeo-la-industria-petrolera-del-ecuador-esta-comprometida-con-la-meta-de-los-40-mil-barriles/>

¹⁷¹Ministry of Energy and Mines, National Energy Balance, 2022, p. 26.

¹⁷²Ministry of Energy and Mines, Statistical Report: January-December 2023, January 2024, INFORME-ESTADISTICO-MENSUAL-MARZO-2024.pdf (epetroecuador.ec)

¹⁷³La Hora, "Ecuador espera que producción de petróleo alcance 550.000 barriles por día a finales de 2025" [Ecuador expects oil production to reach 550,000 barrels per day by the end of 2025], 21 March 2024, <https://www.lahora.com.ec/pais/ecuador-espera-produccion-petroleo-alcance-550-mil-barriles-dia-finales-2025/>

¹⁷⁴Espinoza V.S., Fontalvo J., Martí-Herrero J., Ramírez P., Capellán-Pérez I., "Future oil extraction in Ecuador using a Hubbert approach", 2019, Energy, 182, 520-534, <https://doi.org/10.1016/j.energy.2019.06.061>.

¹⁷⁵Chavez-Rodriguez M., Carvajal P., Martínez J., Egúez A., Mahecha R., Schaeffer R., Szklo A., Lucena A. and Arango S., "Fuel saving strategies in the Andes: Long-term impacts for Peru, Colombia and Ecuador", 2018, Energy Strategy Reviews, 20, 35-48, <https://doi.org/10.1016/j.esr.2017.12.011>.

¹⁷⁶Buenafina E., Padilla E. and Alcántara V., "Relevant sectors in CO2 emissions in Ecuador and implications for mitigation policies", November 2021, Energy Policy, 158, Relevant sectors in CO2 emissions in Ecuador and implications for mitigation policies - ScienceDirect

¹⁷⁷According to estimates from the Global Carbon Project (GCP), Ecuador has recorded a total of 46,107 megatonnes (Mt) of CO2 emissions. See: Carbon Emissions - Global Carbon Atlas

¹⁷⁸According to the Global Carbon Project and other sources such as the World Bank, Mexico and Brazil are among the top 5 countries in terms of CO2 emissions in the region. See: Carbon Emissions - Global Carbon Atlas

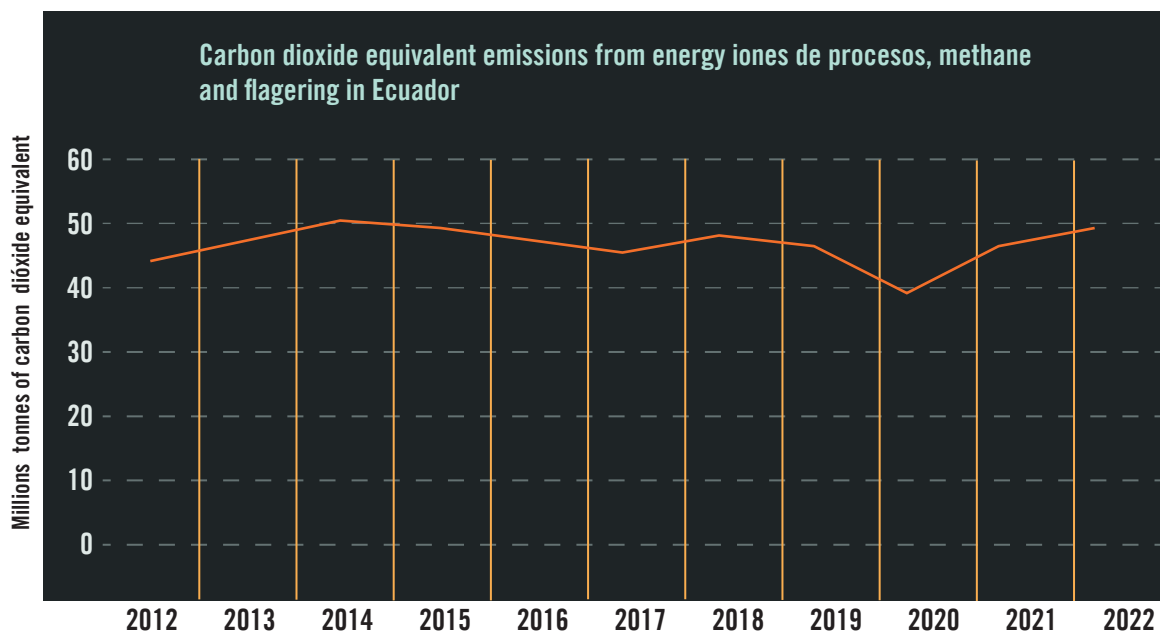
¹⁷⁹European Commission, GHG Emissions of All World Countries, 2023, GHG_emissions_of_all_world_countries_booklet_2023report.pdf (europa.eu), p. 100.

¹⁸⁰Ecuador is a state party to the United Nations Framework Convention on Climate Change (UNFCCC), it ratified the Paris Agreement in 2017, and is obliged to comply with the Sustainable Development Goals related to climate change, the right to a healthy environment and the preservation of natural systems.

¹⁸¹Ministry of Energy and Mines, National Energy Balance, 2022 (previously cited), Table 8.2, p. 154.



According to the Energy Institute, between 2012 and 2022 Ecuador recorded an annual growth rate of 5.9% in its carbon dioxide equivalent emissions from energy, process emissions, methane and flaring.¹⁸²

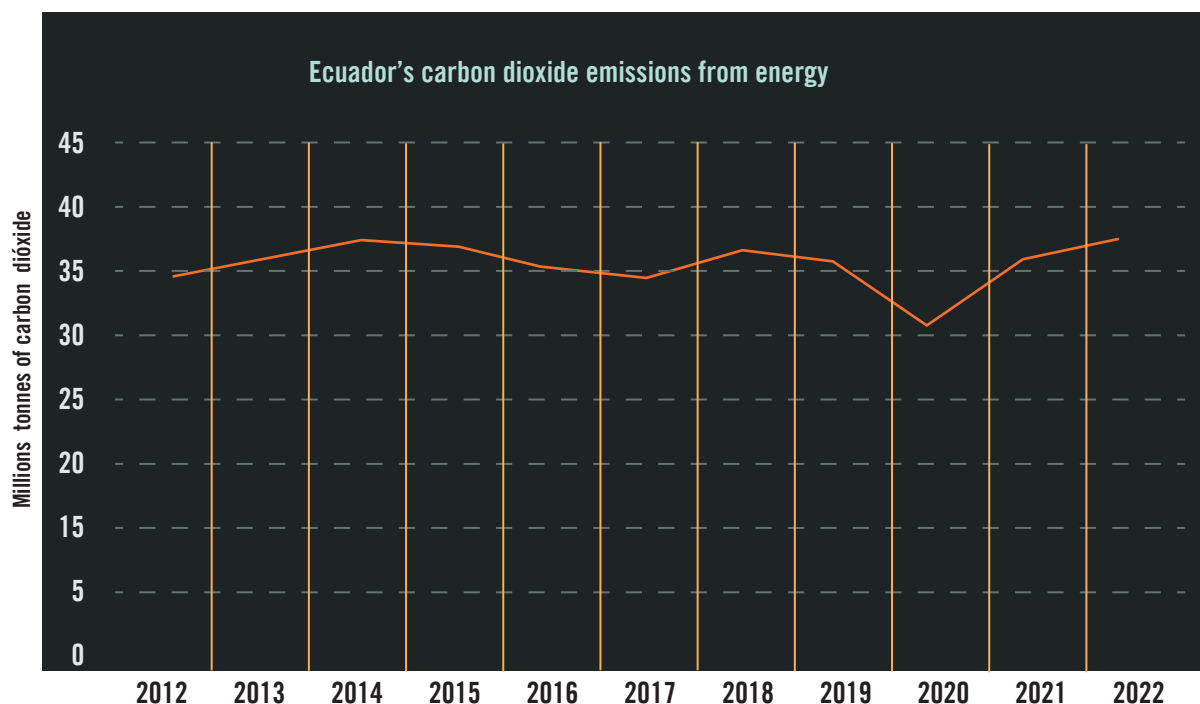


Source: Prepared by the authors based on data from Statistical Review of World Energy 2023, Energy Institute.

This increase is in line with the trend observed over the last five years by the Energy Institute. During this period, total CO₂ emissions from the energy sector have grown, making Ecuador one of the five countries in the Americas and the Caribbean with an annual rate of increase in CO₂ emissions from the energy sector of more than 5% by 2022¹⁸³. These figures reflect a deterioration in the country's environmental situation, in terms of CO₂ emissions from the energy sector.

¹⁸²According to the Energy Institute, these carbon dioxide emissions are calculated as the sum of emissions from energy, carbon dioxide emissions from flaring, methane emissions (in carbon dioxide equivalent) associated with the production, transportation and distribution of fossil fuels, and carbon dioxide emissions from industrial processes. See: Energy Institute, Statistical Review of World Energy, 2023, https://www.energyinst.org/__data/assets/pdf_file/0004/1055542/EI_Stat_Review_PDF_single_3.pdf

¹⁸³According to global energy sector statistics from the Energy Institute, the annual growth rate of total CO₂ emissions from Ecuador's energy industry is 6.5%. See: Statistical Review of World Energy 2023 p. 12.



Source: Prepared by the authors based on data from Ministry of Energy and Mines, National Energy Balance, 2022

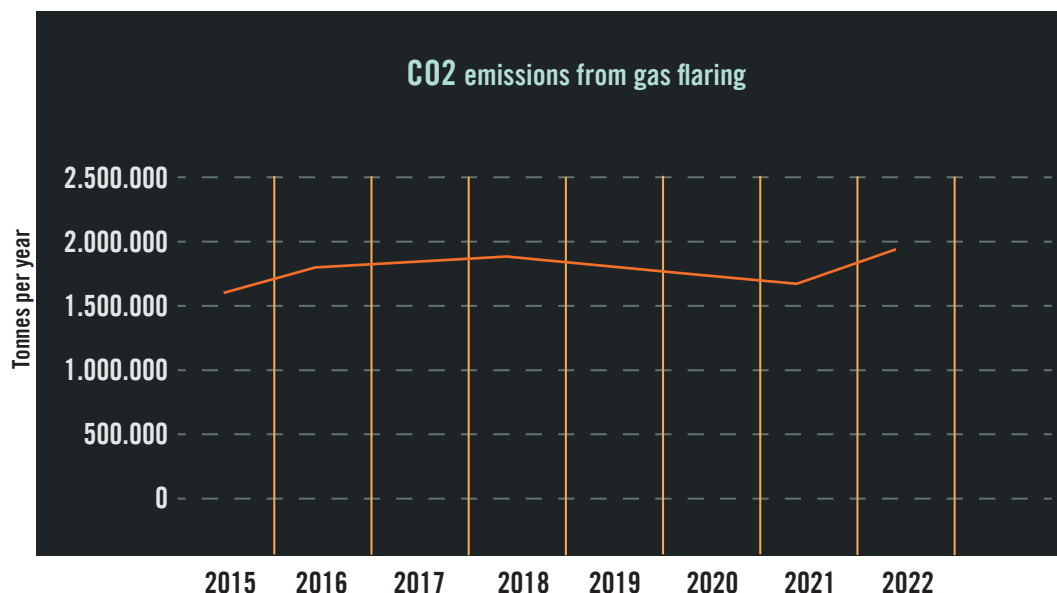
“The Ecuadorian government cannot say that they do not know of the tremendous damage that gas from flaring inflicts on Ecuador, on the Amazon, on the environment and, in general, on the world as a result of its huge contribution to global warming. There are commitments to be met that are not met.”

José Fajardo - Coordinator of Ecological Projects for the Energy Transition, UDAPT

Although the energy balance of the Ministry of Energy and Mines does not detail the specific contribution of gas from flaring in terms of CO₂ emissions, information requested from the Ministry of Energy and Mines by members of the Biodiversity Commission of the National Assembly of Ecuador and provided to Amnesty International and UDAPT indicates that CO₂ emissions from the country's gas flares increased by a significant 20.1% between 2015 and 2022.¹⁸⁴

¹⁸⁴Request for Information No. AN-SUSS-2022-0048-ORI Quito, D.M., 13 November 2022. Request for information on compliance with judgment on Case No: 21201202000170, Second instance.





Source: Ministry of Energy and Mines, National Energy Balance, 2022

In its latest report on gas flaring globally, the World Bank ranks Ecuador among the top 30 countries in terms of flaring intensity between 2018 and 2022, and shows that the intensity of gas flaring over the last five years has steadily increased in the country year on year.¹⁸⁵

In June 2024, the World Bank published its latest report on routine gas flaring in flares in which Ecuador is ranked 17th out of the top 30 countries with the highest flaring intensity until 2023.¹⁸⁶

Similarly, according to estimates by the International Energy Agency, gas volumes flared in Ecuador increased by around 60% from 2012 to 2022.¹⁸⁷ The higher the amount of gas burned, the greater the contribution of powerful GHGs that may be emitted by active flares in Ecuador.

The contribution of gas flares from the Ecuadorian oil sector to global warming has been recognized since

the first Nationally Determined Contribution (NDC) submitted to the UNFCCC by Ecuador in 2019,¹⁸⁸ in which it committed to an unconditional reduction of 12% of its GHG emissions by 2025 compared to the baseline. Specifically, the NDC establishes as a GHG mitigation strategy the “reduction of associated gas flaring... [and] using the gas associated with oil extraction for electric power generation and liquefied petroleum gas (LPG) production”.¹⁸⁹

Ecuador pledged to meet this target in an unconditional scenario,¹⁹⁰ meaning with measures and actions that the country can implement using its own capabilities and resources. Ecuador also joined the World Bank’s ZRF 2030 initiative in 2019,¹⁹¹ a commitment that requires its national oil company to end routine flaring by 2030. Petroamazonas, a public company absorbed by Petroecuador in 2020, had already joined this World Bank initiative in 2015.¹⁹²

¹⁸⁵World Bank, Global Gas Flaring Tracker Report, 2023 (previously cited), p. 8. According to the World Bank, the intensity of flaring in Ecuador increased from 0.8 billion cubic metres (bcm) of natural gas in 2012 to 1.2 bcm in 2016. Despite a drop to 0.9 bcm in 2018, flare gas volumes began to increase again, surpassing 1.3 bcm in 2022, when flaring intensity reached its highest level since 2012. See: The World Bank, “The World Bank in Ecuador”, Ecuador | ieei (worldbank.org)

¹⁸⁶World Bank, Global Gas Flaring Tracker Report, 2024, https://thedocs.worldbank.org/en/doc/d01b4aebd8a10513c0e341de5e1f652e-0400072024/original/Global-Gas-Flaring-Tracker-Report-June-20-2024.pdf?_gl=1*gsd5lk*_gcl_au*NjQ1NjM5NTU0LjE3MjI5NTY1MT

¹⁸⁷IEA, Latin America Energy Outlook, [iea.blob.core.windows.net](https://www.iea.org/publications/energy-outlook), p. 154.

¹⁸⁸Ecuador’s first NDC was also declared state policy in August 2019, through an Executive Decree. See: Executive Decree 840.

¹⁸⁹Ministry of the Environment of Ecuador, Nationally Determined Contribution: Ecuador, 2019, <https://www.ambiente.gob.ec/wp-content/uploads/downloads/2022/02/Folleto-NDC-2020-2025.pdf>, p. 10. (in Spanish, translation by Amnesty international)

¹⁹⁰In its NDC, Ecuador committed to reduce, in an unconditional scenario, between 20.4% and 25% of its GHG emissions by 2025 (uncertainty 10%). In the conditional scenario, which requires international cooperation, Ecuador has committed to reducing its GHG emissions between 37.5% and 45.8% by 2025 (uncertainty 10%).

¹⁹¹EP Petroecuador, “Comunicado Oficial”, Official Statement – EP Petroecuador

¹⁹²EP Petroecuador, “Petroamazonas EP es parte de la iniciativa mundial para eliminar la quema regular de gas” [Petroamazonas EP is part of the global initiative to eliminate regular gas flaring], Petroamazonas EP is part of the global initiative to eliminate regular gas flaring – EP Petroecuador

In the Implementation Plan for Ecuador's first Nationally Determined Contribution (2021),¹⁹³ Ecuador proposed, as another unconditional measure, to put in place the Optimization of Electricity Generation and Energy Efficiency (OGE&EE) programme, with the aim that Petroecuador would “optimize associated gas and generate electricity through the implementation of the Extended Interconnected Oil Power Grid (SEIP-E)”, thereby reducing GHG emissions by “replacing the use of diesel in electricity generation with associated gas”, including associated gas from flaring.¹⁹⁴

The NDC Implementation Plan states that among the aims of the OGE&EE is the “reduction of associated gas flaring”.¹⁹⁵ It also states that the OGE&EE programme enables the optimization of electricity generation and increase in energy efficiency and has a strong impact on reducing emissions from the Amazon region's power system. Emissions reductions could reach up to 300,000 tonnes of CO₂e per year.¹⁹⁶ However, the document acknowledges that the programme's operating status is that of “partial” implementation and that, among its general enabling conditions, it requires financing to cover the costs of equipment operation and maintenance,¹⁹⁷ as well as policy incentives for reducing GHG emissions, specifically through the regulations of the Energy Efficiency Law.¹⁹⁸

As part of the roll-out of OGE&EE, Petroecuador and Ecuador's Electricity Corporation (CELEC) inaugurated the power plant with associated gas capture for the Shushufindi refinery in 2021, 5 years after construction works were completed.¹⁹⁹ The plant is still awaiting the interconnection that would enable it to use the associated gas that is routinely flared, thereby reducing the refinery's reliance on diesel for oil extraction. An Amnesty International visit to the area in January 2024 included an external observation

of the facilities, but no activity was visible from the outside.

Fernando Albite, former Minister of Energy and Non-Renewable Resources [now the Ministry of Energy and Mines], stated in an interview with a national newspaper published in February 2023 that “the interests of the energy companies that use diesel are so powerful that this tender to interconnect the Amazon to the national system has failed five times. We have a substation in the Amazon (Shushufindi) that is ready to operate, but Petroecuador has yet to install a line and it is already powered.”²⁰⁰

As for other powerful GHGs, according to the latest figures from the Ministry of Energy and Mines' Energy Balance, total methane emissions from the energy sector in 2022 were 265.7 kilotonnes of CO₂ equivalent, of which the oil and gas extraction sector contributed at least 32.4 kilotonnes of CO₂ equivalent, approximately 12.6% of total national methane emissions.²⁰¹ Despite the fact that Ecuador signed the Global Methane Pledge (COP26), committing to a 30% reduction in methane emissions by 2030 compared to 2020 levels,²⁰² according to the National Energy Balance total national methane emissions actually increased by 12.7% from 2020 to 2022.²⁰³

There is no disaggregated data in the National Energy Balance on the amount of methane emitted by gas flaring in Ecuador, although various state bodies have acknowledged the contribution of flaring to national methane emissions. For example, an amicus curiae brief submitted by Ecuador's Ombudsperson's Office in relation to the case on gas flaring in the Ecuadorian Amazon (discussed in more detail later in this report) acknowledges that gas flares are potent methane emitters.²⁰⁴

¹⁹³Ministry of the Environment, Water and Ecological Transition, “Ecuador presenta el Plan de Implementación de su Primera Contribución Determinada a Nivel Nacional” [Ecuador presents the Implementation Plan for its first Nationally Determined Contribution], 14 May 2021, Ecuador presents the Implementation Plan for its first Nationally Determined Contribution – Ministry of Environment, Water and Ecological Transition

¹⁹⁴UN Development Programme (UNDP), “Optimización, Generación Eléctrica y Eficiencia Energética en el Sector Petrolero” [Optimization, Electricity Generation and Energy Efficiency in the Oil Sector], NAMA-OGE&EE, 19 December 2018, <https://www.undp.org/es/latin-america/publicaciones/optimizacion-generacion-electrica-y-eficiencia-energetica-en-el-sector-petrolero-nama-ogeee>

¹⁹⁵Ministry of Environment and Water, “Plan de Implementación de la Primera Contribución Determinada a Nivel Nacional del Ecuador 2020-2025 (PI-NDC)” [Implementation Plan for the first Nationally Determined Contribution of Ecuador 2020-2025 (PI-NDC)], 2021, <https://odsterritorioecuador.ec/wp-content/uploads/2023/05/Plan-de-Implementacion-NDC-2020-2025.pdf>, p. 25.

¹⁹⁶Ministry of Environment and Water, “Plan de Implementación de la Primera Contribución Determinada a Nivel Nacional del Ecuador 2020-2025 (PI-NDC)” [Implementation Plan for the first Nationally Determined Contribution of Ecuador 2020-2025 (PI-NDC)], 2021 (previously cited), p. 25.

¹⁹⁷Ministry of Environment and Water, “Plan de Implementación de la Primera Contribución Determinada a Nivel Nacional del Ecuador 2020-2025 (PI-NDC)” [Implementation Plan for the first Nationally Determined Contribution of Ecuador 2020-2025 (PI-NDC)], 2021, p. 25.

¹⁹⁸Ministry of Environment and Water, “Plan de Implementación de la Primera Contribución Determinada a Nivel Nacional del Ecuador 2020-2025 (PI-NDC)” [Implementation Plan for the first Nationally Determined Contribution of Ecuador 2020-2025 (PI-NDC)], 2021, p. 25.

¹⁹⁹El Universo, “Shushufindi, la subestación que lleva cinco años lista esperando atender demanda de energía del sector petrolero” [Shushufindi, the substation that has been ready for five years, waiting to meet energy demand from the oil sector], 27 February 2023, <https://www.eluniverso.com/noticias/economia/shushufindi-la-subestacion-lista-que-lleva-cinco-anos-esperando-atender-demanda-de-energia-del-sector-petrolero-nota/>

²⁰⁰El Universo, “Shushufindi, la subestación que lleva cinco años lista esperando atender demanda de energía del sector petrolero” [Shushufindi, the substation that has been ready for five years, waiting to meet energy demand from the oil sector], 27 February 2023, (previously cited).

²⁰¹Ministry of Energy and Mines, National Energy Balance, 2022, Table 8.8, p. 162.

²⁰²IEA, “Global Methane Pledge”, 18 December 2023, <https://www.iea.org/policies/14257-global-methane-pledge>

²⁰³Ministry of Energy and Mines, National Energy Balance, 2022, Table 8.1, p. 154.

²⁰⁴Multicompetent Chamber of the Provincial Court of Justice of Sucumbios, judgment in Case No. 21201202000170, second instance, July 29, 2021, Par. 6.3.1, statement in amicus curiae – statement by the Ombudsperson's Office.





Likewise, an article describing a workshop on methane emissions management in the oil and gas sector organized in Ecuador in 2022 by the environmental organization Clean Air Task Force (CATF), indicates that representatives of Petroecuador expressed in said workshop their “commitment to take action on methane emissions reduction”.²⁰⁵ CATF states that it carried out a visit to Petroecuador facilities where they were able to visualize methane leaks, and that during the workshop “the importance of implementing leak detection and repair programs became apparent to EP Petroecuador staff”.²⁰⁶ The findings from the visit mentioned by CATF reveal the serious problem posed by gas leaks, and methane in particular, in Petroecuador facilities.

According to an article by the World Economic Forum, methane leaks from oil and gas maintenance operations are a critical issue that must be addressed as a global priority, as these emissions are generally not accounted for in the emissions inventories of companies and nations.²⁰⁷ This means that the impact of methane emissions from activities such as gas flaring cannot be properly assessed, making it difficult to mitigate and contributing to the global climate emergency.

The underreporting of flaring emissions and the resulting increase in GHGs from the oil sector

suggest that Ecuador’s NDC targets for reducing GHG emissions and flaring are unlikely to be met before the next update of the country’s commitments, due at COP29 in 2024.²⁰⁸ Recent actions by the Ecuadorian government to increase oil production also do not bode well for meeting GHG reduction targets in the energy sector.

Officials from the Ministry of the Environment have stated that Ecuador needs approximately 2.8 billion dollars to finance its entire NDC plan.²⁰⁹ Without such funding, the implications are that the state must meet its climate targets using its own financial and technical resources.

To overcome this obstacle for the achievement of its commitments, the Ecuadorian state could resort to the duty of international cooperation²¹⁰ and request the necessary climate assistance to meet the targets set out in its NDC, including the ending of routine flaring. Pursuant to the duty of international cooperation, states in need of assistance, such as Ecuador, may request such assistance and, under the principle of differentiated responsibility set out in the Paris Agreement,²¹¹ states in a position to do so must provide the necessary financial resources, capacity building and technology transfer to countries that would otherwise not be able to meet their climate targets alone.²¹²

²⁰⁵Clean Air Task Force, “CATF in Ecuador: Supporting efforts to address methane emissions in the oil and gas sector”, 19 July 2022, CATF in Ecuador: Supporting efforts to address methane emissions in the oil and gas sector - Clean Air Task Force

²⁰⁶Clean Air Task Force, “CATF in Ecuador: Supporting efforts to address methane emissions in the oil and gas sector”, 19 July 2022 (previously cited).

²⁰⁷World Economic Forum, “European Commission proposes methane emissions limit on gas imports. Here’s what to know”, 31 October 2023, <https://www.weforum.org/agenda/2023/10/tackling-methane-levels-is-the-quickest-way-to-slow-climate-change-say-scientists/>

²⁰⁸UNDP, “Climate Promise: Ecuador”, Ecuador I Climate Promise (undp.org)

²⁰⁹Osborn, C., “Ecuador’s Distant Dream of a Green Recovery,” 19 April 2022, Foreign Policy, <https://foreignpolicy.com/2022/04/19/ecuador-lasso-oil-climate-imf-world-bank-debt-austerity/>

²¹⁰UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (UN Special Rapporteur on human rights and the environment) Report, 1 February 2016, Doc. UN A/HRC/31/52, para. 46; and UN Independent Expert on human rights and international solidarity, Report, 1 April 2020, Doc. UN A/HRC/44/44, para. 8. Likewise, the Climate Solidarity Pact, proposed to the G20 by the United Nations Secretary-General at COP27 in 2022, urges big emitters to make extra efforts to cut emissions, based on the principle of differentiated responsibility set out in the Paris Agreement, and calls on wealthier countries to mobilize financial and technical resources aimed at helping low- and middle-income countries to transform, thus shaping the differentiation of timeframes. UN, “Secretary-General’s video message for press conference to launch the Synthesis Report of the Intergovernmental Panel on Climate Change”, 20 March 2023, Secretary General’s Message for the Press Conference Introducing the Report of the Intergovernmental Panel on Climate Change I United Nations Secretary-General

²¹¹Paris Agreement, Art. 9.

²¹²UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Report, 15 July 2019, UN Doc. A/74/161, paragraphs 68 and 87.

Since Ecuador is also a signatory to specific initiatives for the elimination of gas flares and the reduction of methane emissions, it could request assistance to access climate funds, whether created under the UNFCCC or provided by multilateral institutions, that would allow it to implement the necessary measures and actions to eliminate routine flaring. In the case of Ecuador, such climate finance should be in the form of grants, not loans, with a better balance between mitigation and adaptation financing.²¹³

PETROECUADOR'S HUMAN RIGHTS RESPONSIBILITIES AS A STATE-OWNED COMPANY

The UN Guiding Principles on Business and Human Rights establish the responsibility of States to protect human rights and of business enterprises to respect them. The first pillar of the UN Guiding Principles requires states to take appropriate steps to prevent, investigate, punish and redress corporate human rights violations, as well as to set out clearly their expectations regarding respect for human rights and the fulfilment of their obligations through a range of policies and regulations.²¹⁴

The second pillar of the UN Guiding Principles urges businesses to “avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur” and also to “seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships”.²¹⁵ In addition, the UN Guiding Principles require businesses to remedy

human rights violations to which they have contributed or which they have caused.²¹⁶

The UN Guiding Principles further address how these obligations and responsibilities are manifested when a state is the economic actor, noting that states must take “additional” steps to protect against human rights violations by the business enterprises they own or control.²¹⁷ The commentary clarifies that states should use the additional means at their disposal to protect against abuses by state-owned enterprises (SOEs).²¹⁸ First, the closer a business is to the state or the more it relies on statutory authority or taxpayer support, the stronger the rationale for policy coherence and using the powers at its disposal to ensure that the SOE respects human rights. Secondly, states that own or control businesses have greater means within their powers to ensure the implementation of relevant human rights policies, laws and regulations. Finally, senior management of SOEs are often accountable to government authorities, giving the state greater oversight over the SOE’s compliance with effective human rights due diligence.²¹⁹

While states are the primary holders of obligations under international human rights law and all business enterprises, regardless of their ownership, must respect human rights, SOEs may be held accountable at a different level. As the UN Guiding Principles have noted, where a business enterprise is state-controlled or where its acts can otherwise be attributed to the state, an abuse of human rights by the business enterprise may amount to a violation of the state’s own obligations under international human rights law.

In the case of Petroecuador, the company is wholly owned and controlled by the Ecuadorian state, with a Board of Directors chaired by the Minister of Energy and Mines, who exercises state ownership over the company through the appointment of its Director General.²²⁰ For the Ecuadorian state to ensure compliance with its human rights obligations, it is essential that Petroecuador complies with international human rights law and standards, given the state-business nexus in the company’s ownership and management structure. To this end, Petroecuador must fulfil its human rights obligations in the context of climate change and align its operations and business models with the objectives of the Paris Agreement, in particular the need to limit the increase in global average temperatures to 1.5°C above pre-industrial levels.

²¹³Amnesty International, “Stop burning our rights! What governments and corporations must do to protect humanity from the climate crisis”, p. 17.

²¹⁴UN, Guiding Principles on Business and Human Rights, Principle 4. https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf.

²¹⁵UN, Guiding Principles on Business and Human Rights (cited above), Principle 13.

²¹⁶UN Guiding Principles on Business and Human Rights, Principles 22 and 31.

²¹⁷UN, Guiding Principles on Business and Human Rights, para. 21.

²¹⁸UN, Guiding Principles on Business and Human Rights.

²¹⁹UN, Guiding Principles on Business and Human Rights.

²²⁰Petroecuador, <https://www.eppetroecuador.ec/>



5.2 THE AMAZON: ECUADOR'S LARGE OIL SACRIFICE ZONE

Oil extraction operations in the Ecuadorian Amazon began in 1972, with the state promising that exports of crude oil would reduce the country's poverty.²²¹ Extraction began at well "N° 1 Lago Agrio" in the province of Sucumbíos.²²² Currently, the Trans-Ecuadorian Oil Pipeline System (SOTE) carries the largest volumes of crude oil from the Lago Agrio pumping station, in the province of Sucumbíos, to the Balao oil terminal on the coast of the province of Esmeraldas.²²³ According to Petroecuador's latest report on oil blocks, production is mainly concentrated in the provinces of Sucumbíos, Orellana, Napo, Pastaza and Morona Santiago in the Ecuadorian Amazon.²²⁴

Despite 52 years of oil extraction activities, the provinces of the Ecuadorian Amazon region where crude oil extraction is concentrated face huge challenges in terms of poverty, malnutrition, illiteracy, environmental pollution, unemployment and gender-based violence, as will be discussed later.

groups in the Amazon region are concentrated in the province of Sucumbíos, followed by the provinces of Morona Santiago and Orellana.²²⁵ These are all oil-producing areas, home to the country's most important oil fields²²⁶ and, therefore, the largest concentration of gas flares in the region.

According to Ecuador's National Institute of Statistics and Censuses (INEC) of Ecuador, the largest population

²²¹Ecuadorian Military History Archive, "Speech by Guillermo Rodríguez Lara on occasion of the first extraction of oil in the Ecuadorian Amazon" . Ecuadorball. | By Ecuadorian Military History/Facebook

²²²Rivadeneira, M., "Breve reseña histórica de la exploración petrolera de la Cuenca Oriente" [Brief historical review of oil exploration in the Eastern Basin] in Rivadeneira M. and Barragán R., La Cuenca Oriente: Geology and Petroleum, 2004, Institut français d'études andines, <https://doi.org/10.4000/books.ifea.3019>

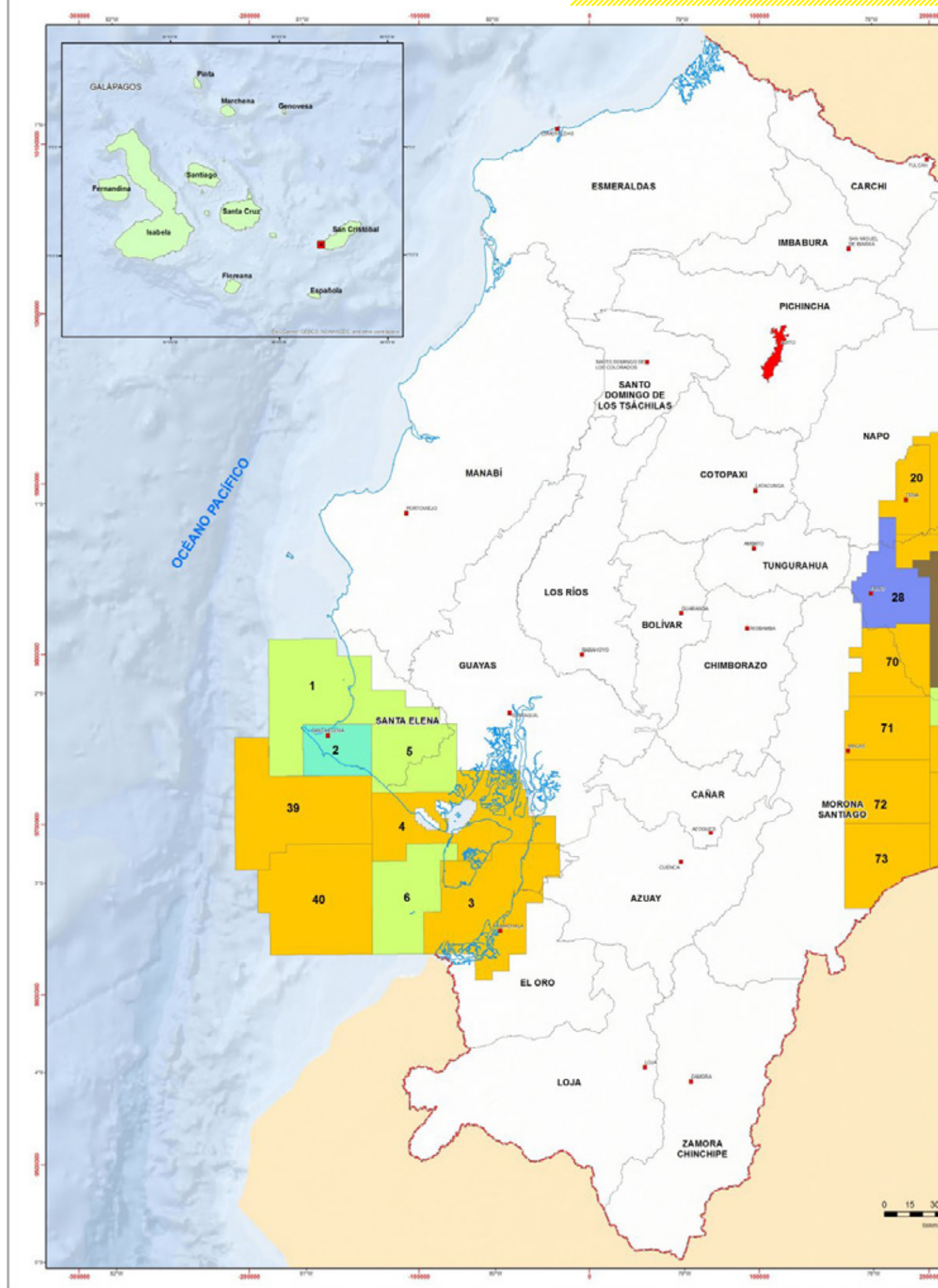
²²³According to Petroecuador, the SOTE pipeline is considered one of the most strategic public infrastructures in the nation due to its capacity to transport up to 360,000 barrels of crude oil per day. See: EP Petroecuador, "El SOTE escribe su propia historia: 5.000 millones de barriles y desarrollo para el Ecuador" [The SOTE pipeline writes its own story: 5,000 million barrels and development for Ecuador], <https://www.eppetroecuador.ec/?p=5793>

²²⁴Petroecuador, Informe Estadístico: enero-junio2024 [Statistical Report, January-June 2024], <https://www.eppetroecuador.ec/wp-content/uploads/downloads/2024/07/INFORME-ESTADISTICO-MENSUAL-JUNIO-2024.pdf>

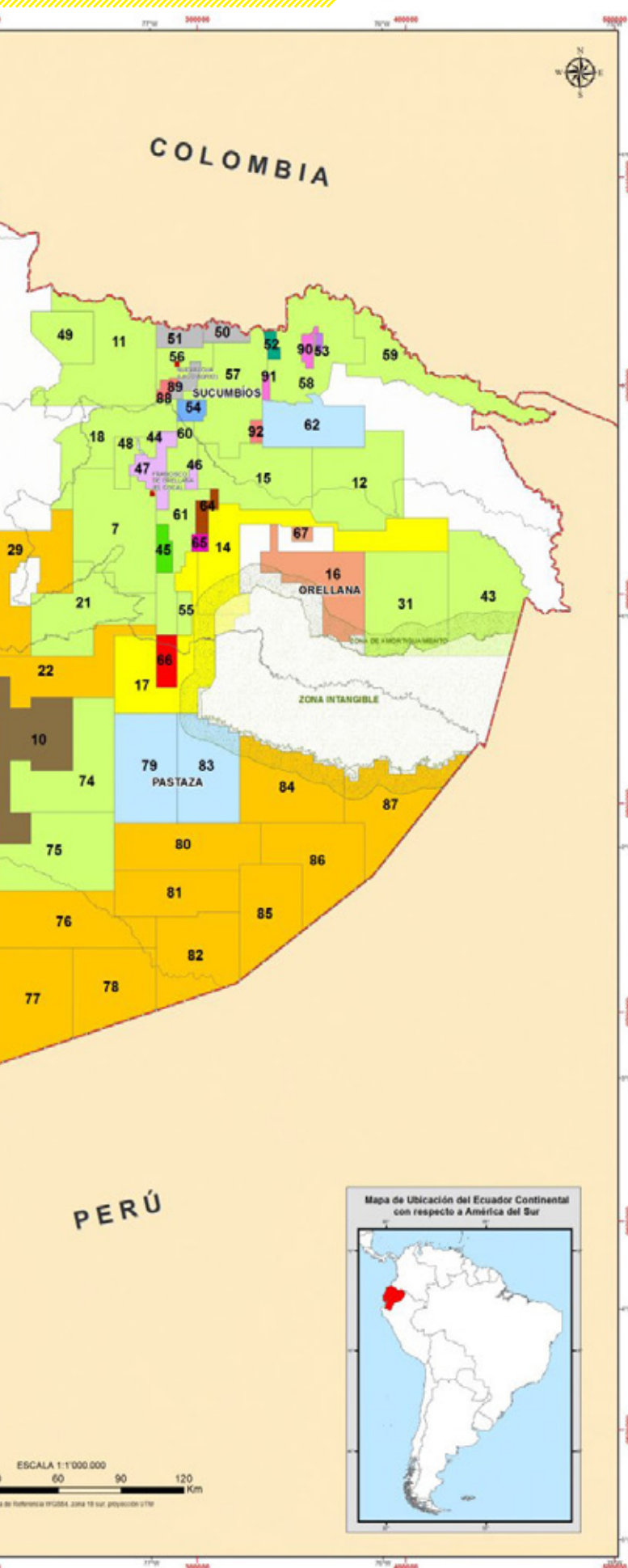
²²⁵National Institute of Statistics and Censuses (INEC), Inicio (ecuadorencifras.gob.ec)

²²⁶See the list of barrels produced by oilfield in 2023 in: Petroecuador, Informe Estadístico: Enero-Diciembre 2023 [Statistical Report: January-December 2023], p. 10, <https://www.eppetroecuador.ec/wp-content/uploads/downloads/2024/01/INFORME-ESTADISTICO-DICIEMBRE-2023.pdf>

MAP OF OIL BLOCKS



OF ECUADOR



BLOQUES PETROLEROS - PETROAMAZONAS EP			
BLOQUE	NOMBRE		
3	Pavón		
5	Rodero		
6	Aracani		
7	Coca-Payamino		
11	Lumbajón		
12	Eden-Yahuri		
15	Indiána		
18	Palo Azul		
21	Tunupa		
31	Apurka-Nemba		
41	IT1		
44	Pucara		
48	Purumayo		
49	Bermeja		
55	Amadillo		
56	Lago Agrio		
57	Libertador		
58	Capaleno-Tepichia		
59	Yumbi		
60	Sacha		
61	Auca		
74	Bloque 74		
75	Bloque 75		
BLOQUES PETROLEROS - COMPAÑÍAS PRIVADAS			
BLOQUE	NOMBRE	OPERADORA	
2	Guilavie Galindo	Pacifiptrol	
10	Villano	Pluspetrol Ecuador B.V.	
14	Nahuri	PetroOriental S.A.	
17	Hermigüero	Consorcio Petrolero Bloque 17	
16	Imo	Repsol Ecuador S.A.	
67	Trucano	Consorcio Bloque 28	
28	Misador	Campo Puma Oriente S.A.	
45	Puma	Enap Sipetrol S.A.	
46	MIX		
47	Puga		
50	Charapá		
51	Chunungui	Gran Tierra Energy Colombia LLC	
89	Agua		
92	Ocaso-Puma Blanca	Orion Energy OcasoPB S.A.	
93	Sigüé	Gente Oil Ecuador Pte. Ltd.	
94	Eno-Ron	Orion Oil Er S.A.	
96	Tigüé	Petrobel Inc.	
97	Palanda-Yuca Sur	Consorcio Palanda-Yuca Sur	
98	Rio	Consorcio Petrolero-Petrovia	
62	Tarapua	Andes Petroleum Ecuador Ltd.	
79	Bloque 79		
83	Bloque 83		
88	Petico	Frontera Energy - Geopark	
90	Espejo		
91	Sabino	Petrolamer S.A.	
95	Araca-Eña		
BLOQUES PETROLEROS - MINISTERIO DE ENERGÍA Y RECURSOS			
3	39	73	85
4	40	75	82
20	70	77	84
22	71	78	86
29	72	80	88, 87

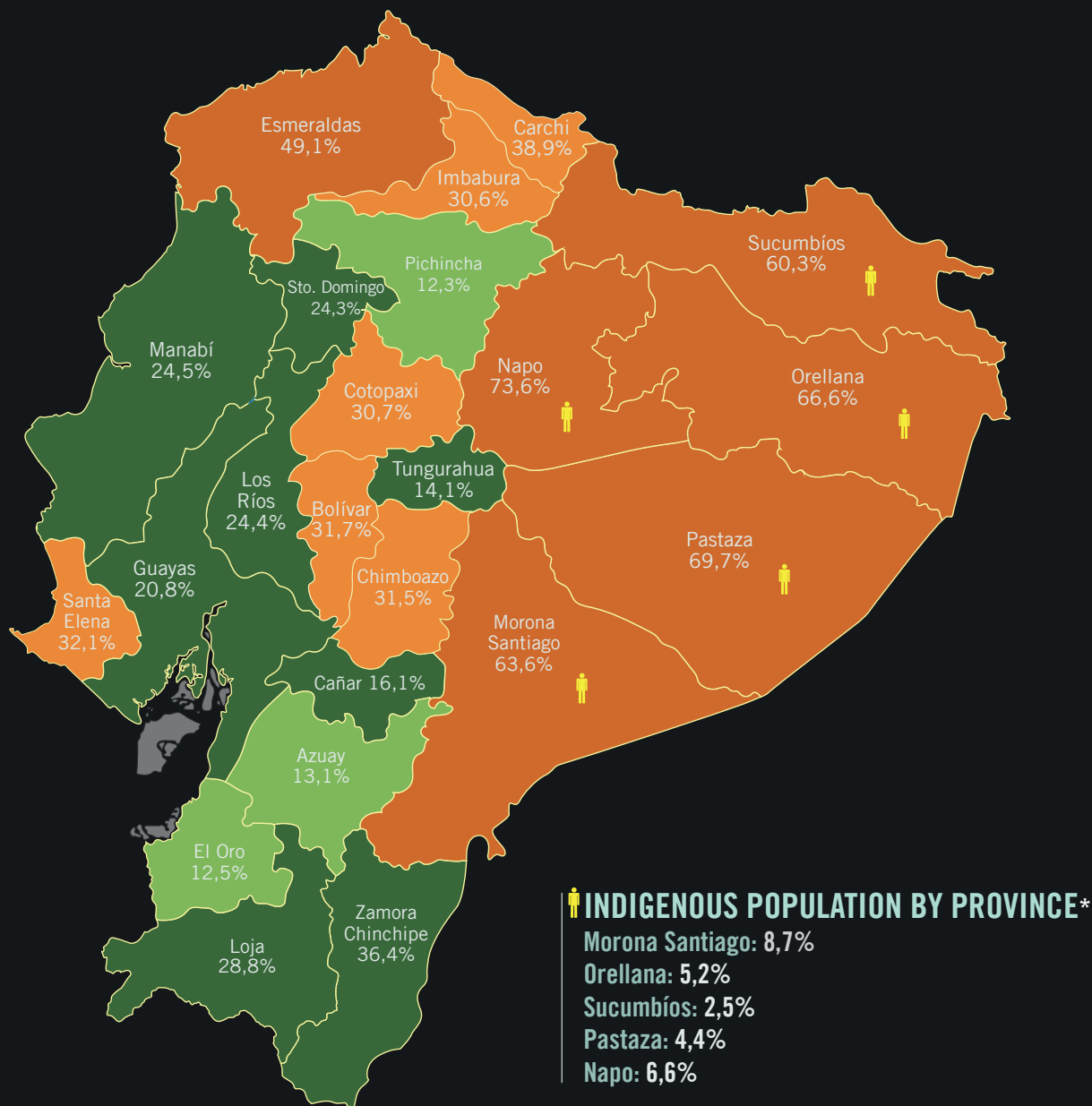
SIMBOLOGÍA	
	Capital de la República del Ecuador
	Capital Provincial
	Límite Costanero
	Límite Internacional
	Límite Provincial Legal

LEYENDA	
	Zona de Amortiguamiento
	Zona Intangible

OPERADORAS	
	Pluspetrol Ecuador B.V.
	Orion Energy OcasoPB S.A.
	PetroOriental S.A. y Consorcio Petrolero Bloque 17
	Gente Oil Ecuador Pte. Ltd.
	Orion Oil Er S.A.
	Consorcio Petrosud-Petrovia
	Consorcio Pegaso
	Frontera Energy - Geopark
	Petrolamer S.A.
	Gran Tierra Energy Colombia LLC
	Enap Sipetrol S.A.
	Pacifiptrol
	Repsol Ecuador S.A.
	PETROAMAZONAS EP
	Petrobel Inc.
	Consorcio Bloque 28
	Consorcio Palanda-Yuca Sur
	Andes Petroleum Ecuador Ltd.
	Ministerio de Energía y Recursos Naturales No Renovables (Bloques no asignados)

MINISTERIO DE ENERGÍA Y RECURSOS NATURALES NO RENOVABLES		
MAPA DE BLOQUES PETROLEROS DEL ECUADOR		
Escala: 1:1'000.000	Sistema de Coordinación: Sistema de referencia WGS84, zona 18 sur, proyección UTM	Elaborado por: Dirección de Análisis de Información Estratégica de Hidrocarburos
Fuente: Cartografía Básica: escala 1:50.000, Geoportal del Instituto Geográfico Militar, 2018. Límites Provinciales: Consejo Nacional de Límites, 2019. Zona Intangible y Zona de Amortiguamiento: Ministerio del Ambiente, Ministerio de Justicia y Ministerio de Energía y Recursos Naturales No Renovables, 2019. Bloques Petroleros: Dirección de Análisis de Información Estratégica de Hidrocarburos - Banco de Información Petrolera del Ecuador (BIPE), junio 2019. Se encuentran representados los elementos que a la fecha se registran en el Banco de Información Petrolera del Ecuador (BIPE).		

OIL "WEALTH" NEVER REACHED THE AMAZON REGION



Indigenous population in Ecuador: 1,302,057 people (7.7% of total population)

GINI COEFFICIENT 2023

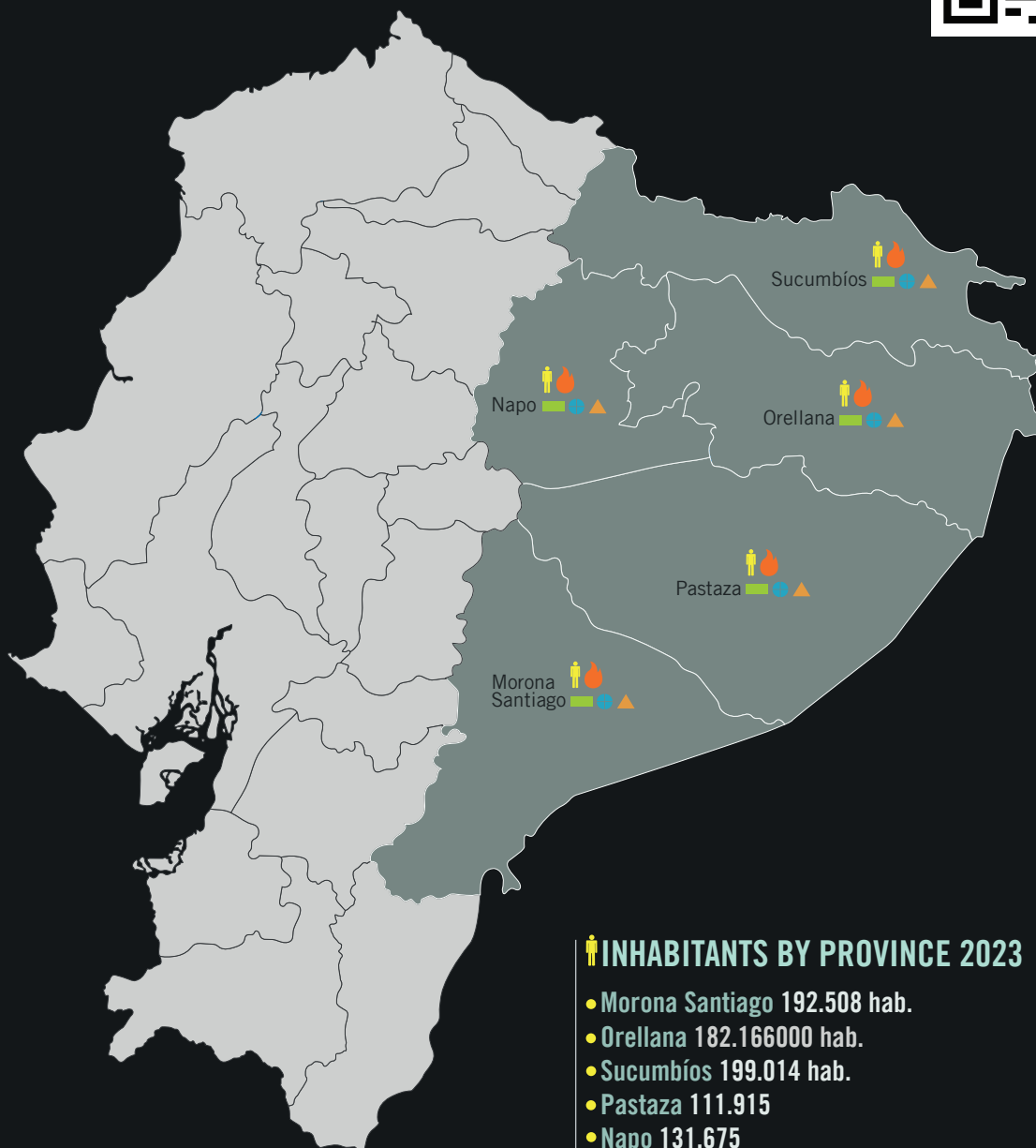
Morona Santiago 0,57%
Orellana 0,58%
Sucumbíos 0,57%
Pastaza 0,57%
Napo 0,59%

POVERTY RATES BASED ON INCOME 2023

(1,3% - 1,3%)
(1,3% - 16,1%)
(16,1% - 24,5%)
(24,5% - 49,1%)
(49,1% - 73,6%)

*SOURCE: 2022 CENSUS

MAP OF FLARES IN THE ECUADORIAN AMAZON



POVERTY RATES 2023

BASED ON INCOME

- Morona Santiago: 63%
- Orellana: 66,6%
- Sucumbíos: 60,3%
- Pastaza: 69,7%
- Napo: 73,6%

MULTIDIMENSIONAL

- Morona Santiago: 79,5%
- Orellana: 84,7%
- Sucumbíos: 77,8%
- Pastaza: 89,9%
- Napo: 87%

WITH UNMET BASIC NEEDS*

- Morona Santiago: 70,1%
- Orellana: 70,6%
- Sucumbíos: 77,8%
- Pastaza: 77%
- Napo: 69,7%

*NBI 2023

Source: National Institute of Statistics and Centers (INEC). Main results of the National Employment Survey, unemployment and underemployment survey 2023.

Despite the strength and influence of the oil industry in the region, the latest figures from the INEC on poverty and unemployment levels for 2023²²⁷ show that the highest poverty rates in the country based on income are concentrated in the Amazon region where oil activities are carried out, with the province of Napo having the highest poverty rate in Ecuador, at 73.6%.²²⁸

Similarly, multidimensional poverty, poverty due to unmet basic needs and the highest rates of inequality as measured by the Gini coefficient are found in these provinces of the Amazon where crude oil is extracted.²²⁹

Although the INEC indicates in its 2023 balance that the unemployment rate is low in the Amazon region compared to other areas in the country, the provinces in which crude oil extraction is concentrated have the lowest rates of adequate employment in the entire country.²³⁰ This implies, according to the INEC, that many people do not earn more than the minimum wage and work more than 40 hours a week without receiving benefits for overtime.²³¹

In addition to poverty and lack of adequate employment, the Amazon provinces are frequently affected by oil spills that severely pollute the region's rivers²³² and negatively impact Indigenous communities and their subsistence livelihoods. According to the 2022 census, the Amazon is home to 27.4% of the country's Indigenous population. In Napo in particular, a province that has historically been affected by critical and repeated oil spills,²³³ 65% of the population identifies as Indigenous.²³⁴

A report published in Climate Tracker revealed that, in response to a request for information, the Ministry of Environment, Water and Ecological Transition (MAATE) acknowledged that public companies, and in particular Petroecuador and Petroamazonas (a Petroecuador operator), are responsible for at least 97% of the oil spills registered by the ministry between 2020 and 2022. MAATE specified that "80.16% correspond to spills that occur within the operational facilities, which are waterproofed, or on rights of way, while the remaining 19.84% correspond to level 3 spills, which are those that have environmental and/or social impacts."²³⁵

Despite the impact on human rights and the serious consequences for the fragile Amazon biodiversity,²³⁶ oil spills are so common that, based on the information provided by MAATE, it is estimated that there are at least 5.6 spills every week, with varying degrees of pollution and environmental impact.²³⁷

According to the latest oil well map published by Petroecuador,²³⁸ as of March 2024 most of the blocks operated by this public company are located in the Amazon region, so it can be concluded that the information on oil spills provided by MAATE may refer to activities of exploration, extraction or pipeline transport of crude oil from the Amazon oil blocks.

This context of environmental devastation caused by the oil industry, together with the entrenched poverty, social inequality and the concentration of Indigenous population in the region, coincides with the United Nations definition of "sacrifice zones" where racial injustice tends to be widespread.²³⁹

²²⁷INEC, Integrated Survey System: National Survey on Employment, Unemployment and Underemployment: Labour Indicators – September 2013 – 15 years and over, 2013 (previously cited), p. 21.

²²⁸INEC, Integrated Survey System: National Survey on Employment, Unemployment and Underemployment: Labour Indicators – September 2013 – 15 years and over, 2013 (previously cited), p. 21.

²²⁹INEC, Integrated Survey System: National Survey on Employment, Unemployment and Underemployment: Labour indicators – September 2013 – 15 years and over, 2013, pp. 22, 23 and 24.

²³⁰INEC, Integrated Survey System: National Survey of Employment, Unemployment and Underemployment (ENEMDU): Labour indicators – September 2013 – 15 years and older, 2013, p. 11.

²³¹INEC, "INEC y Senplades presentan nueva clasificación para la población con empleo" [INEC and Senplades present new classification for the employed population], 21 October 2014, INEC and Senplades present new classification for the employed population I (ecuadorencifras.gob.ec)

²³²Rojas, E., "Derrames de Petróleo en Ecuador: un mal crónico" [Oil spills in Ecuador: a chronic disease], 31 January 2022, Deutsche Welle (DW), Oil spills in Ecuador: a chronic disease – DW – 31/01/2022

²³³INEC, National Census Technical Bulletin 2022, https://inec.censoecuador.gob.ec/public/Boletin_Nacional.html#1_PRESENTACION%3%93N

²³⁴Mongabay and Barra Espaciadora, "Las deudas ambientales de Ecuador en el 2022: derrames de petróleo, sentencias no cumplidas y el impacto imparable de la minería [Ecuador's environmental debt in 2022: oil spills, unfulfilled judgments and the unstoppable impact of mining]", 13 December 2022, <https://es.mongabay.com/2022/12/deudas-ambientales-de-ecuador-en-el-2022-derrames-de-petroleo-mineria/>

²³⁵Ruiz, G., "Un ambiente tóxico: derrames y remediación petrolera en Ecuador [A toxic environment: oil spills and remediation in Ecuador]", 19 July 2022, Climatetracker, A toxic environment: oil spills and remediation in Ecuador - Climate Tracker (climatetrackerlatam.org)

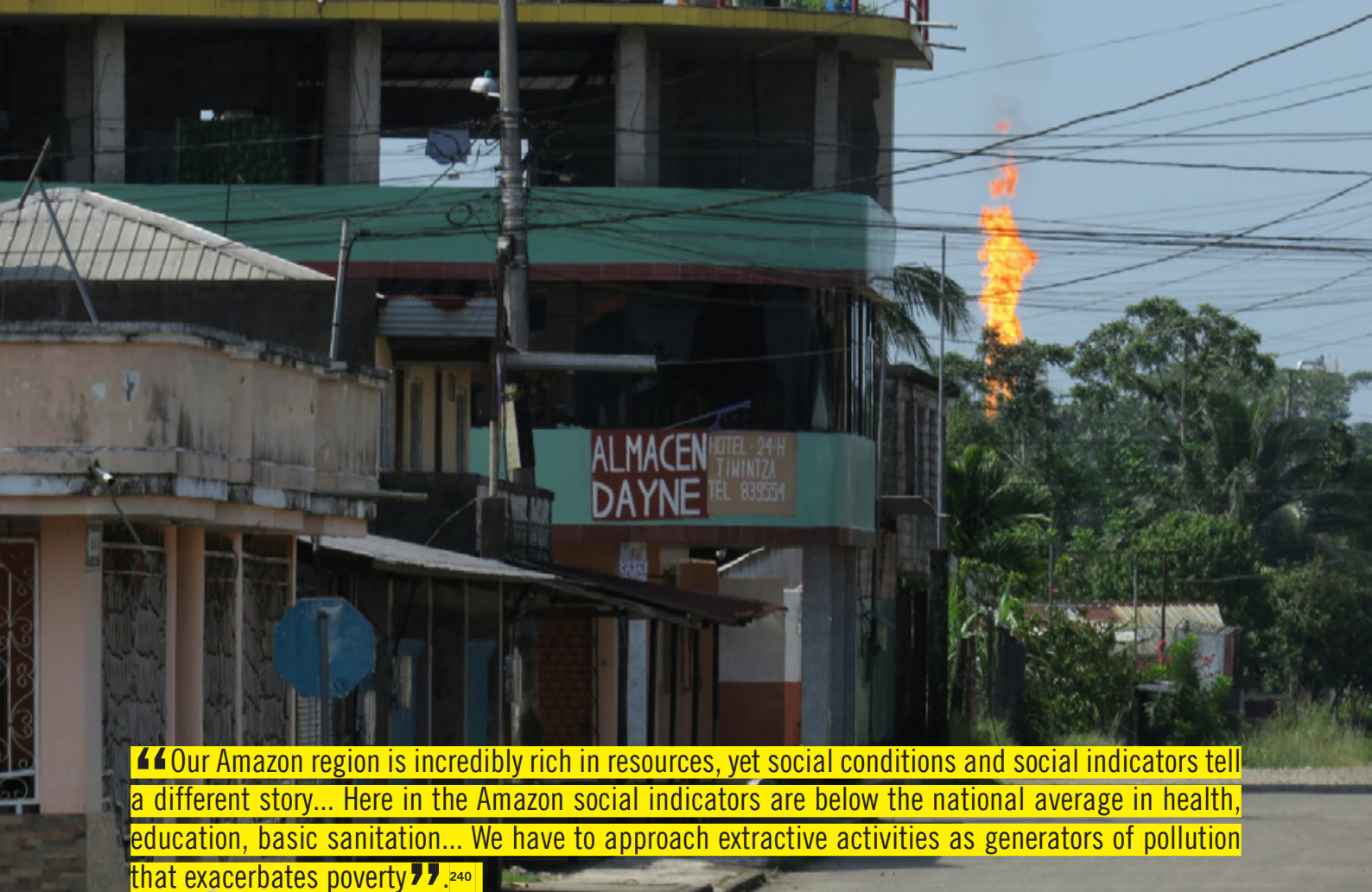
²³⁶ArcGIS, "Map of Threatened Amazon Ecosystems of Ecuador," Amazon Ecosystems of Ecuador (arcgis.com)

²³⁷Ruiz, G., "A toxic environment: oil spills and remediation in Ecuador", 2022 (previously cited).

²³⁸Petroecuador, Statistical Report: January-December 2023, (previously cited), p. 7.

²³⁹UN Special Rapporteur on Contemporary forms of racism, racial discrimination, xenophobia and related intolerance (UN Special Rapporteur on Racism and Racial Discrimination), Report, 25 October 2022, Doc. UN A/77/549, para. 1.





“Our Amazon region is incredibly rich in resources, yet social conditions and social indicators tell a different story... Here in the Amazon social indicators are below the national average in health, education, basic sanitation... We have to approach extractive activities as generators of pollution that exacerbates poverty”²⁴⁰

The situation of systemic inequality that prevails in the Amazon may disproportionately affect socially vulnerable groups such as women, children, indigenous peoples and Afro-descendants, who, despite the extraction of crude oil and the revenues that the sector brings to the nation, live in a region with the worst national poverty rates, as has been discussed.

■ A key indicator evidencing the special vulnerability of children and young people in the region is access to drinking water and sanitation services. In 2016, a UNICEF report on the situation of children and adolescents in Ecuador showed that only a quarter of children and young people in the Amazon region have simultaneous access to water, sanitation and hygiene.²⁴¹

■ An indicator evidencing critical inequality in the Amazon region is chronic malnutrition of children

under five years of age. In 2023, the Amazon province of Pastaza registered the second highest national value for this indicator.²⁴²

■ Other indicators show deep gender gaps in the Amazon region. The INEC's National Survey on Family Relations and Gender-Based Violence against Women (2019) shows that the second highest national value for illiteracy among women is concentrated in the Amazon region.²⁴³

■ The Amazon is also the region with the highest rate of gender-based violence against women throughout their lives, with a prevailing rate of 70.9%²⁴⁴ in the provinces of Morona Santiago and Sucumbíos. Physical (44.3%) and psychological (64.6%) violence is also higher in the Amazon than in the country as a whole.²⁴⁵ Similarly, the region has the highest percentage in the country of women who have been victims of rape (12.2%).²⁴⁶

²⁴⁰Interview conducted by UDAPT, February 2023.

²⁴¹UNICEF, “Situación de la niñez y adolescencia en Ecuador: Una mirada a través de los ODS” [Situation of children and adolescents in Ecuador: A look across the SDGs], 2019, SITAN_2019.pdf (unicef.org), p. 91.

²⁴²INEC, “Principales resultados: Encuesta Nacional sobre Desnutrición Infantil - ENDI” [Main results: National Survey on Child Malnutrition - ENDI], September 2023, National Survey on Child Malnutrition - endi (ecuadorencifras.gob.ec), p. 17.

²⁴³INEC, “Encuesta Nacional de Empleo, Desempleo y Subempleo (ENEMDU)” [National Survey of Employment, Unemployment and Underemployment (ENEMDU)], 2019.

²⁴⁴National Council for Gender Equality, “Mujeres y Hombres en cifras IV: Una mirada estratégica desde el género y las diversidades” [Women and Men in numbers IV: A strategic look at gender and diversity], November 2021, WOMEN AND MEN.INDD (unfpa.org), p. 203.

²⁴⁵National Council for Gender Equality, Women and Men in Numbers IV: A strategic look at gender and diversity, 2021 (previously cited), p. 215.

²⁴⁶National Council for Gender Equality, Women and Men in Numbers IV: A strategic look at gender and diversity, 2021, p. 215.

6. STANDING UP TO THE “FIRE MONSTERS”: THE FLARES CASE AND THE YOUNG CLIMATE ACTIVISTS DEFENDING THE ECUADORIAN AMAZON

Communities located in the oil sacrifice zones of the Amazon region of Ecuador describe how living near a gas flare means suffering the consequences of its emissions, smells, noise and brightness of the flames on a daily basis.

“THEY MAKE SO MUCH NOISE. ALL DAY, ALL NIGHT. I HAVE LIVED TWO BLOCKS AWAY FROM THE FLARE FOR 20 YEARS IN THE CANTON OF SHUSHUFINDI AND I HAVE NEVER BEEN ABLE TO HEAR A BIRD SINGING WITHOUT THE NOISE OF A FLARE IN THE BACKGROUND... WHEN WE GO TO SLEEP WE HAVE TO COVER THE WINDOWS FULLY WITH THICK CURTAINS BECAUSE SOME NIGHTS THE FLAMES FROM THE FLARE ARE SO BRIGHT THAT THEY LOOK LIKE THE SUN.”

Lourdes Jumbo, resident of Miraflores, canton of Shushufindi



For decades, a collective of communities, civil society organizations and religious groups known as “Eliminen los mecheros, enciendan la vida” (Remove the flares, ignite life) has been arguing that gas flares have a disproportionate impact on the quality of life and human rights of the population of the Amazon region, as well as on the region’s fragile natural systems.²⁴⁷



We give up the oil wealth in our soils, they pay us with gas flares that only bring disease”

Fanny Tufiño

Fanny Tufiño, aged 67, is one of the first residents of the Luz y Vida community in the canton of Los Sachas, in the province of Orellana. This community was formed in the early 1970s, when several families moved to the Amazon in search of fertile land for agriculture.

In 1974, when Fanny and her family settled in the community, the only nearby oil well was No.3, located approximately 4.7 km from their farm. In an interview with Amnesty International, Fanny described what it was like to live in the Amazon before the gas flares arrived:

“It was wonderful to live here then, alone with nature, without the noise of the gas flares, without the fear of falling ill from the gases and particles released by the flares.”

Seven years ago, however, Fanny and her family

received notice from Petroecuador staff that they were going to drill oil well Sacha Pad 20 in front of their farm. According to Fanny, without explaining what the consequences would be, Petroecuador started drilling activities and installed an elevated flare:

“Seven years ago oil was first extracted from here, right in front of my farm. The platform started pumping oil and since then I have lived with that flare next to me every day, with its constant noise. When they put the flare out, that’s when I suffer with the most toxic gas. When the flares are extinguished and then reignited, those are the worst days for me and for everyone in the community. My lungs get inflamed, my head hurts.

My neighbours also tell me that young children’s lungs are more seriously affected when the flame

²⁴⁷ Members of the collective “Eliminen los mecheros, enciendan la vida” are the Pastoral Service of the Vicariate of Aguarico and Sucumbíos, Caritas, UDAPT, Acción Ecológica, Clínica Ambiental, UDAPT women’s network, the Yasunidos Collective, Radio Sucumbíos, the Shushufindi Human Rights Committee, the Ángel Shingre Leaders network, the order of Capuchin Friars Minor and Radio Ecuador.



is higher, and when the flare is extinguished and reignited.”

Fanny also tells Amnesty International that the gases from the flare affect not only her health, but also the coffee plants she grows and her farm animals:

“These coffee plants receive the particles released by the burner into the air. Look at the difference in the plants receiving smoke. My eyesight has deteriorated because of what I get from the smoke. But the smoke and particles from the gas flares are everywhere, in us, in the plants we grow and then eat, in the water in the tanks, in the farm animals we eat, so we automatically swallow all the pollution from the flares.”

Although the community has made several informal complaints to the Petroecuador staff who occasionally monitor the operation of the platform, Fanny says they have not received any answers to their complaints, nor has the health clinic the community requested from Petroecuador been built:

“We’ve said to Petroecuador staff: why do you come here if you don’t tell us anything or give us anything? You just take more and more oil, and what you leave us is the pollution and the gases from the flares. The oil companies have left nothing for the people of the Amazon. Not even a pharmacy where we can buy medicine.”





In 2018, a group of social organizations began urging the Ecuadorian state and state-owned company Petroamazonas to comply with their international commitments to eliminate gas flares – as per the ZRF 2030 initiative promoted by the World Bank – and human rights obligations.

The group also planned to take legal action against venting practices and environmental pollution, documenting the increase in the number of gas flares in 2018 and 2019, particularly in the provinces of Sucumbíos and Orellana. The collective, together with other institutions and civil society organizations,²⁴⁸ carried out a comprehensive mapping of gas flares in the Amazon region,²⁴⁹ and produced a report that systematically presents the extent of routine gas flaring in the provinces of Sucumbíos, Orellana, Napo and Pastaza.²⁵⁰

During this mapping exercise, the collective, and UDAPT in particular, held multiple community meetings in the areas affected by the gas flares, gathering testimonies and key information on the impact on the right to health. According to UDAPT, it was not only adults who attended the meetings, but also children and young people, who expressed their deep concern about the consequences of the flares for animals and biodiversity, for their own future, and about the possible links between gas emissions and diseases such as cancer. This concern is supported by studies carried out by some of the organizations in the group, which show that this condition is prevalent in communities living in the proximity of the gas flares.²⁵¹

²⁴⁸The georeferencing exercise was carried out by the Union of People Affected by Texaco (UDAPT), the Critical Geography Collective, the Alejandro Labaka Foundation and the AMAZONYA project, under the supervision of the research team on “Climate Change, Territories and Diversity” from the University of Padua (Italy), which verified the data collected in the field.

²⁴⁹Francesco Facchinelli, Edoardo Crescini, Giuseppe Della Fera, Massimo De Marchi, “The Apaguen los Mecheros campaign: Supporting climate justice in the Amazonian cities of Ecuador by estimating the health risks of gas flaring”, *Landscape and Urban Planning*, Volume 240, 2023, 104898, <https://www.sciencedirect.com/science/article/pii/S0169204623002177>

²⁵⁰Collective Eliminen los mecheros que encendemos la vida, “Informe Mecheros en Ecuador” [Report on Gas Flares in Ecuador], January 2020, https://agenciaecologista.info/wp-content/uploads/2020/01/INFORME_MECHEROS_envio.pdf

²⁵¹Collective Eliminen los mecheros que encendemos la vida, Report on Gas Flares in Ecuador, 2020 (previously cited).



“My daughter was always asking me from a very young age why the animals were dying, why the ground under the gas flares was black, why the vegetation under the gas flares was not growing. One day she had the bad luck to see a reptile – a snake – chasing a toad at one of the gas flares of the Sacha station. That little toad got into the hot ground under the flare with the snake and both died. That caused her a lot of indignation and she kept saying to me ‘Why don’t they put out the gas flares? Because look how the little animals die.’”

Donald Moncayo, human rights defender, resident of Lago Agrio and father of Leonela Moncayo, one of the child plaintiffs in the flares case

6.1 THE AMAZONIAN GIRLS AND YOUNG WOMEN WHO FIRST STOOD UP AGAINST THE FIRE MONSTERS: THE GAS FLARES CASE

As a result of the participation of young people in the community meetings promoted by UDAPT, a group of 9 Amazonian girls and young women from different communities in Sucumbíos and Orellana was formed. They autonomously decided to be the plaintiffs in the protection action that UDAPT had proposed to the communities affected by the gas flares. These girls referred to the gas flares as “the fire monsters”.





“ I decided to participate in the legal action to safeguard my future and that of other girls and boys and young people like me. I have seen with my own eyes the damage that gas flares cause to the environment, to the Amazon and to the world because of the gas, the smoke, the fire. If I have to give my life for this cause, I will do so, because the gas flares are already slowly taking our lives away. Our lives and our futures are burning in the gas flares.”

**Leonela Moncayo, girl
plaintiff in the flares case**

With legal support from UDAPT, in February 2020 these young activists filed a constitutional injunction or protection action against the state authorization allowing public and private oil companies to operate gas flares.²⁵² On 7 May 2020, the judge in the case issued a ruling rejecting the injunction, arguing the lack of evidence of violation of the applicants’ constitutional or fundamental rights.

Rosa Daniela Valladolid, plaintiff in the gas flares case, told Amnesty International that when the judge dismissed the first protection action, she felt very sad: “I felt very bad because not all of us were able to speak at that hearing with that judge. UDAPT told us that maybe in the next lawsuit we could win. I was nervous and I was upset because it is wrong of them not to support us, the gas flares pollute us all. How could they not support us?”

Leonela Moncayo recalled with sadness how she felt upon receiving the news of the rejection of the lawsuit: “[I was] sad, upset, indignant. We have an obligation to protect ourselves and our people. That’s why we decided to be plaintiffs in the case. I’m not a young person who lives worry-free. I am worried about my future, about the future of other girls, boys and young people, of my parents, and the future of the Amazon.”

²⁵²Protection Action no. 21201202000170 was heard by the Family, Women, Children and Adolescents Judicial Unit of the canton of Lago Agrio in the province of Sucumbios.

On 26 May 2020, the same group of plaintiffs filed an appeal against the ruling before the Provincial Court of Sucumbíos.

The Constitution of Ecuador provides that non-renewable resources, such as the gas burned in gas flares, belong to the state's "inalienable and absolute assets, which are not subject to a statute of limitations",²⁵³ and are constituent elements of "strategic sectors" the administration, regulation and management of which is under the sole control of the state.²⁵⁴ However, Ecuador's Hydrocarbons Law (1978),²⁵⁵ the main law regulating the country's fossil fuel sector, defines the gas obtained in the exploitation of oil fields as a "public utility",²⁵⁶ stating that:

"Contractors or associates may not waste, vent or flare natural gas without authorization from the Hydrocarbons Secretariat."²⁵⁷

In accordance with the provisions of the Hydrocarbons Law, gas flaring is considered a form of gas waste that must be authorized and regulated by the Hydrocarbons Secretariat.²⁵⁸ This practice must be an exception, with the priority being to use the gas.

The 2021 Hydrocarbon Operations Regulations²⁵⁹ specify that gas flaring is an activity subject to approval by the Hydrocarbons Secretariat. Specifically, Article 77 of the Regulations states that operators of installations where gas is burned and wasted are obliged to:

a. Submit an application for approval of gas use and flaring before thirty-first (31) March of each year to the Agency for the Regulation and Control of Hydrocarbons.

b. Measure the volume of gas flared. Public and private companies are also obliged to keep a record of gas used for electricity consumption, burning and other uses, and report this **monthly** to the Ministry of Energy and Mines and its regulatory and control agency.

Regarding the conditions established in the current Regulations and also contained in the previous (now repealed) hydrocarbon operating regulations, during the judicial hearings in the gas flares case before the court of second instance, the technical officer in charge of approving gas flaring operations at the Ministry of Energy and Mines indicated that "applications must be sent by all operating companies, both public and private(...) and must contain at least the following information:

- the estimated volume of gas to be produced based on the volume produced in the previous year,
- a technical study justifying the use of such volumes of gas for field operations, including gas chromatography and information on the projects to be implemented to reduce the flaring of such gas."²⁶⁰

However, there is no record in the legal case file that the Ministry submitted information on the estimated volume of gas from the companies' oil extraction and whether they complied with the requirements established for authorization.

Meanwhile, the Environmental Regulation of Hydrocarbon Operations, a current²⁶¹ instrument that regulates all phases of extraction operations in relation to environmental matters, indicates that in order to authorize the phases and their activities (including gas flaring), public and private operators must carry out environmental impact assessments, in addition to having an environmental management plan.²⁶² Environmental impact assessments, according to the said regulation, may also include an analysis of the cumulative environmental impact,²⁶³ including the cumulative impact of certain gas emissions into the atmosphere, such as those from flaring.

²⁵³Constitution of the Republic of Ecuador, Art. 1.

²⁵⁴Constitution of the Republic of Ecuador, Art. 313.

²⁵⁵Hydrocarbons Law, 1978. Supreme Decree 2967. Official Record 711 of 15-Nov-1978. Last modified: 21-Aug-2018. LEY DE HIDROCARBUROS.pdf (www.gob.ec)

²⁵⁶Hydrocarbons Law, Article 34, (previously cited).

²⁵⁷Hydrocarbons Law, Article 39.

²⁵⁸Hydrocarbons Law, Article 34.

²⁵⁹Ministry of Energy and Mines, Regulation of Hydrocarbon Operations, 2021, New Regulation of Hydrocarbon Operations promotes the increase in oil production (petroenergia.info)

²⁶⁰Multicompetent Chamber of the Provincial Court of Justice of Sucumbíos, ruling in proceedings No. 21201202000170, second instance, 29 July 2021, para. 6.2.2, statement by the Ministry of Energy and Non-Renewable Natural Resources.

²⁶¹Environmental Regulation of Hydrocarbon Operations. Ministerial Agreement 100. Official Record 174 of 01 April 2020. untitled (www.gob.ec)

²⁶²Environmental Regulation of Hydrocarbon Operations. Art. 26. Ministerial Agreement 100. Official Record 174 of 01 April 2020

²⁶³Environmental Regulation of Hydrocarbon Operations. Art. 26. Ministerial Agreement 100. Official Record 174 of 01 April 2020 Art. 35.



“In the hydrocarbon production process, gases must necessarily be flared, natural gas is inevitably produced and must necessarily be burned. Therefore, in the hydrocarbons industry, the flaring of gas must take place at the same time as the extraction of hydrocarbons, which is a mainstay of the country's economy.”²⁶⁶

Despite these legal provisions and the climate commitments established by Ecuador in its NDC for the phasing out of gas flaring, UDAPT claims that the statements by the Ministry of Energy and Mines in the judicial hearings on the gas flares case were not consistent with these instruments and climate obligations.

According to the legal case file, the representatives of the defendant institutions also failed to submit evidence of compliance with environmental management plans and impact assessments by the public and private companies operating flares. UDAPT likewise points out that legal representatives of Petroecuador and Petroamazonas (currently part of Petroecuador)²⁶⁴ submitted no information on the actual volumes of gas burned in flares in the Amazon, nor estimates of the volume of gas that could be used rather than burned, therefore reducing the GHG emissions contributed by the gas flares.

On the contrary, according to the case file, the legal representatives of the Ministry of Energy and Mines justified gas flaring with arguments that are not consistent with the principles of *pro persona* and *in dubio pro natura*,²⁶⁵ enshrined in the Constitution of Ecuador, and even less so with the country's international climate commitments, stating that:

According to UDAPT, the authorities insisted in the hearings on the inevitability of flaring, ignoring the fact that there are several ways of using the gases from oil extraction, even those considered low quality. The representative of the Ministry of Finance stated in a hearing in the flares case that:

“It is impossible in the current specific situation that oil extraction can be carried out without the existence of gas flares... this would mean that, in the event that it is considered appropriate to eliminate the gas flares, the economic impact would first be on oil. Oil could not be extracted, and every hour and every day that it should be extracted with all the infrastructure available would represent zero income for state coffers, and the consequences would be that the Ministry of Economy and Finance would not be able to execute the general state budget for 2021.”²⁶⁷

²⁶⁴On 7 January 2021, the President of the Republic, Lenin Moreno, signed Executive Decree 1221 merging Petroecuador and Petroamazonas into a single national oil company, Presentacion-Fusion-2020.pdf (eppetroecuador.ec)

²⁶⁵The Constitution of Ecuador paradigmatically recognizes the rights inherent in nature in the seventh chapter, as well as the principle “in dubio, pro natura” [in case of doubt, the most favourable interpretation for nature will prevail], in article 395.

²⁶⁶Ruling in Protection Action No.21201-2020-00170, issued on 29 July 2021, by the Provincial Court of Justice of Sucumbíos, para. 6.2.2. Statement by the Ministry of Energy and Mines

²⁶⁷Ruling in Protection Action No.21201-2020-00170, issued on 29 July 2021, by the Provincial Court of Justice of Sucumbíos, para. 7.2.4.

The position taken by the defendant authorities during the hearings in the flares case was in favour of the inevitability and necessity of routine flaring, evidencing a lack of commitment to the human rights of the plaintiffs and the communities in the sacrifice zones of the Ecuadorian Amazon who have been denouncing the impacts of emissions from gas flares for decades.

During the legal process, the arguments of the defendant authorities were not consistent with climate commitments, international human rights and environmental law, the precautionary principle and the principle of intergenerational equity established in the Paris Agreement.

On 26 January 2021, the Multicompetent Chamber of the Provincial Court of Justice of Sucumbíos issued its ruling, with the three judges unanimously recognizing that, by authorizing flaring operations, the defendant authorities violated the rights of the plaintiffs to health and to a healthy and ecologically balanced environment, as well as the rights of Nature recognized in the Constitution of Ecuador.

“ When we received the favourable ruling, it was a very exciting moment because we felt that our voice could be heard, and that we had beaten the fire monsters. ”

Skarlett Naranjo Vite, girl plaintiff in the gas flares case

Finally, on 29 July 2021, the Provincial Court of Justice of Sucumbíos notified the second instance ruling in writing, repealed the first instance ruling and accepted the Protection Action filed, recognizing that the state of Ecuador:

i)Disregarded the right of the plaintiff girls and young people and the entire population of Orellana and Sucumbíos to live in a healthy and ecologically balanced environment.

ii)Disregarded the plaintiffs’ right to health by allowing polluting activities and not promoting the use of low-impact technologies.

iii)**Breached its international obligations related to climate change mitigation.**

The Court also ordered the integral reparation of the damage, providing that:

i)The Ministry of Energy and Mines, through the Hydrocarbons Secretariat, and the oil companies must update the plan for the gradual and progressive elimination of traditional gas flares. The priority is to remove gas flares near populated areas within 18 months and to gradually phase out the remaining flares by December 2030.

ii)The Ministry of Energy and Mines, through the Hydrocarbons Secretariat, may authorize flaring in locations removed from population centres if new technology is available that reduces environmental pollution, according to percentages determined by the Ministry of the Environment; or if technology is implemented that allows the use of the gas produced in a technical and environmentally friendly manner.

iii)The Ministry of the Environment will develop an annual monitoring plan to verify the restoration of the natural environments around the gas flares. This measure will be permanent to enable precautionary actions in favour of Nature to be taken.

iv)The Ministry of the Environment will coordinate the various sectors, including the decentralized autonomous governments (GADs) of the provinces of Sucumbíos, Orellana and Napo, to evaluate the quality and suitability of the water resources used by the population. Together with the oil companies, a technical study will be carried out to put in place a water supply system suitable for human consumption in the areas near the gas flares.

v)The state, through the Ministry of Health, will coordinate the various sectors together with the decentralized autonomous governments (GADs) of Sucumbíos, Orellana and Napo, other state ministries and, if necessary, private non-profit organizations. Within a period of six (6) months, a medical-scientific investigation and study will be conducted to determine the extent to which the hydrocarbon activity is affecting the local population. If the study shows that a significant number of people are being affected, an oncological clinical unit will be created or set up to diagnose and treat this type of disease. This measure must be implemented within 18 months from publication of the results.

vi)The Ministry of Energy and Mines will publicly apologize to the plaintiffs, the population of the Amazon and the country for failing to take appropriate decisions in light of the inadequate implementation of the Ecuadorian state’s environmental agreements on flaring.

vii)The Ombudsperson’s Office must prepare quarterly reports on compliance with the ruling to monitor and protect the right to effective legal guarantees.

On 20 April 2022, as a first measure of reparation, a public apology was made in the city of Joya de los Sachas, in the province of Orellana. However, no minister from the institutions responsible for implementing the ruling attended the event.

On 20 April 2022, as a first measure of reparation, a public apology was made in the city of Joya de los Sachas, in the province of Orellana. However, no minister from the institutions responsible for implementing the ruling attended the event.

The girls and young plaintiffs told Amnesty International that they had expected the attendance of such authorities. Only two people representing the Ministry of Mines attended the public event.

“I saw that they were not listening to us. They were there looking at their phones and not paying attention to what we were talking about. And so I said to one of them, putting my bottle of water in his hand: ‘This lemonade has been prepared with the water from here, from my house, into which all the ashes [particulate matter] from the gas flares fall. I want you to drink it.’ It was a moment of rage. He didn’t want to drink the water and looked down.”

Skarlet Naranjo Vite, girl plaintiff in the gas flares case

GIRLS AND YOUNG PEOPLE FIGHTING AGAINST GAS FLARES IN ECUADOR



LEONELA MONCAYO

“I just want the ruling to be respected. For the sake of everyone in the Amazon, of the people, the animals, for the sake of Ecuador. For the sake of the planet.”

Leonela Moncayo is 14 years old. A secondary school student, she joined the lawsuit against the gas flares because she feels it is her responsibility as a young Amazonian “to take care of nature, of the land, of our health and of Ecuador.” Leonela points out that she has a role to play in protecting nature. She is deeply concerned about the impact of gas flares on the environment and their contribution to climate change: “The fight against gas flares is a step, just one step towards a world where there is no more pollution, where we are not afraid for our future as children and young people.”

“I joined the lawsuit because my mother is one of the people whose health suffered because of the gas flares. I know that the gas flares caused the cancer that she had to be treated for by doctors in Quito. I lived far away from her when I was small, and I don’t want any child to have to live through what I lived. Being away from your mother is very hard, very sad. It makes you lose your childhood.”

Denisse is 15 years old, a student and a taekwondo enthusiast. When she joined the lawsuit against flaring, she told her mother that she wanted to be a part of it so that no child would have to live in fear of losing their mother because of the health impacts of the emissions from the gas flares. She told Amnesty International that her only wish was to see the gas flares removed so that she could have “peace of mind, knowing that they would not continue to do the damage they are causing to people’s health.”



DENISSE NUÑEZ



SKARLETT NARANJO VITE

Skarlett Naranjo Vite is a 13-year-old secondary school student. She is one of the girls and young people who openly expressed her dissatisfaction at the failure to comply with the ruling in the public apology organized as part of that ruling. Recalling the moment she rebuked the authorities, she told Amnesty International that she felt a lot of indignation and “a lot of anger. I really felt like: how can they tell us that they are complying with the ruling when the rivers are still being polluted every day with oil, the gas flares are still burning, people are still getting sick? The people of Petroecuador have no heart.” Skarlett says that despite the dangers and obstacles they have faced, they will continue to demand implementation of the ruling:

“We are fighting the fire monsters and will not stop until the very last flare in the Amazon is extinguished.”

Kerly Herrera:

Kerly Herrera is a 12-year-old student. Her house is located very close to several gas flares that should be removed. She is the youngest plaintiff in the group and lives in one of the communities furthest from the most populated areas of the Amazon region. Kerly says that the reason she joined the lawsuit was because she saw the impact gas flares have had on the health of people in her community and on biodiversity:

“I live very close to the gas flares. People are constantly coughing, the water tastes funny, animals get sick and die. The reason for all this is the gas flares because they pollute the rainwater. Animals drink that water, sometimes we drink it too and that hurts us. I think that without gas flares we would be able to live in harmony with nature.”



KERLY HERRERA



ROSA DANIELA VILLAROEL

Rosa Daniela Villaroel is a 13 years old student. She lives in a small community near several gas flares that she says are lit and extinguished frequently. She tells Amnesty International that her motivation for joining the lawsuit was her family's activism on environmental justice. Daniela grew up in an environment where conversations about the importance of a healthy environment are part of everyday life. She tells Amnesty International that she became active because she felt that it was now it was now her turn to take on the role of “protector of nature”: “I started the case with the other girls and young people for my sake, for the sake of my family and my community, but also for all the animals who have no voice. They suffer too. Just as humans suffer, so do they, more so because no one speaks for them.”



DANNYA BRAVO

Dannya is 12 years old, a student who lives on a small farm far from the population centres of the Amazon region. Her father was an important community leader and her mother is also active against the gas flares. Dannia tells Amnesty International why she got involved in the gas flares case:

“Since I was little, I always wondered what those fireballs were that were always kind of burning the trees. I was afraid of them, but I also wanted to find out what they did and why they were still there if everyone said they caused a lot of harm. One day I went with my brother on my bike to one of the gas flares near my house. I asked the guard to let us in to see it, because I wanted to see what they were like, to know [what they were]. The guard said he could not let us in, but I so wanted to know about the gas flares that I started asking everyone, my father, my family, and what we could do to eliminate them. That’s how I started in this flares issue.”

Jamileth is 16 years old, a student of zootechnics, in addition to doing high school and raising farm animals. Her big dream is to be a singer, but she felt the need to join the case against the gas flares because it was an issue that was very important to her:

“When the communities were discussing the issue of the gas flares, I felt it was my duty as an Amazonian, as an Ecuadorian, to demand that Petroecuador take responsibility and repair the damages that this has caused us. They have no idea what we have all suffered here; so much oil is extracted, but nothing for us. No wealth, no progress.”



JHAMIETH JURADO

Evelyn is 18 years old and is the eldest of the plaintiffs in the gas flares case. She has a 2-year-old daughter and joined the lawsuit because her uncle, a well-known human rights activist, encouraged her to be part of the group because of Evelyn’s long-standing concern about the consequences of flaring emissions on the environment. Now Evelyn has a greater concern, her daughter’s future:

“It’s about all the damage that gas flares cause to the environment, to health and also to the warming of the planet. I wonder all the time what nature I’m going to leave behind for my baby. What Amazon she’s going to grow up in, what will that world look like? My future and my daughter’s future is burning in the gas flares. That is why I will continue to fight against the gas flares to the last day. We won’t stop until the gas flares are removed.”



EVELIN MORA

6.2 LIVING TOO CLOSE TO THE FIRE MONSTERS

The Ministry of Energy and Mines was notified of the court ruling in the flares case and its provisions in August 2021.²⁶⁸ On 22 November 2021, the Vice Ministry of Hydrocarbons informed the companies operating gas flares of the legal ruling, requesting them to submit “an action plan for the blocks under their operation, to be implemented over the next 18 months and up to 2030, so as to allow the gradual and progressive elimination of traditional gas flares used to burn gas in locations close to population centres”.²⁶⁹

However, until 21 January 2022, the companies expressed “concerns regarding the application of the ruling in the flares case” and its “technical and operational inconsistencies”, according to an official

document from the Vice Ministry of Hydrocarbons made available to Amnesty International.²⁷⁰ For this reason, the Vice Ministry of Hydrocarbons organized workshops with public and private companies operating gas flares in the week of 17 to 21 January 2022 to resolve the concerns arising from the implementation of the ruling.²⁷¹

Instead of applying the ruling as ordered by the court, the Ministry of Energy and Mines prepared a regulatory instrument called “Regulation to progressively reduce the routine burning of associated gas in flares”.

According to a report by the Ministry of Energy and Mines:

“With support from the Clean Air Task Force, EP Petroecuador and the Agency for the Regulation and Control of Energy and Non-Renewable Natural Resources, the Ministry of Energy and Mines prepared the technical standard or regulatory instrument “Regulation for progressively reducing the routine burning of associated gas in flares”, approved by Ministerial Agreements Nos. MEM-MEM-2022-0047-AM and MEM-MEM-2022-0049-AM of 24 September and 20 October 2022, respectively; the aim of which is to progressively reduce the routine burning of associated gas in flares in Ecuador’s hydrocarbons sector.”²⁷²

The ministerial authority determined unilaterally and without technical justification, that the gas flares to be eliminated should be located within 100 metres of a “population centre”. According to the regulation, this was defined as “a concentration of at least twenty (20) contiguous, neighbouring or adjacent dwellings, located in the rural area of a decentralized autonomous government, whether a canton or a parish”.²⁷³

The Regulation proposed by the Ministry of Energy and Mines is an insult to the plaintiffs in the gas flares case and to all the people who suffer the impact of gas flares in the Amazon. The Regulation has been a strategy for not complying with the ruling, a ploy to avoid having to eliminate the gas flares and to maintain the sacrifice zone that the Ecuadorian Amazon has become.

-Pablo Fajardo, UDAPT trial lawyer

Prior to issuing the Regulation, the Ministry of Energy and Mines had requested the INEC to provide a definition of a “population centre”. The INEC’s response was that they did not have their own definition in their operating manuals, but that in several official documents they used the definition proposed by the Andean Community of Nations (CAN).²⁷⁴

“A population centre is any place in the rural or urban national territory identified by a name and inhabited on a permanent basis. Its inhabitants are linked by common economic, social, cultural and historical interests. Depending on their characteristics, population centres can be classified as hamlets, villages, towns, cities or metropolises.”²⁷⁵

In 2022, the Ministry of Energy and Mines ignored the definition proposed by the INEC and simply referred to the lack of a definition of “population centre” in the Ecuadorian institutional framework.²⁷⁶ It made no mention of the definition proposed by the CAN and provided by the INEC in its response.

²⁶⁸Ministry of Energy and Mines. Memorandum No. MERNNR-COGEJ-2021-0612-ME of 25 August 2021.

²⁶⁹Ministry of Energy and Mines. Circular No. MERNNR-VH-2021-0667-OF of 22 November 2021.

²⁷⁰Ministry of Energy and Mines. Memorandum No. MERNNR-VH-2022-0001-ME of 4 January 2022.

²⁷¹Ministry of Energy and Mines, Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Fourth technical report on the ruling in the gas flares case: 21201-2020-00170, November 2022, p. 2.

²⁷²Ministry of Energy and Mines, Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Fourth technical report on the ruling in the gas flares case: 21201-2020-00170, November 2022, p. 6.

²⁷³Ministry of Energy and Mines, Agreement No. MEM 2022 0047

AM, issuing the Regulation for progressively reducing the routine burning of associated gas in flares, <https://zonalegal.net/index.php?mod=doc&id=16462&tit=Acuerdo%20No.%20MEM-MEM-2022-0047-AM,%20emitido%20por%20el%20Ministerio%20de%20Energ%C3%ADa%20y%20Minas,%20con%20el%20que%20se%20expide%20el%20Reglamento%20para%20reducir%20progresivamente%20la%20quema%20rutinaria%20de%20gas%20asociado%20en%20tea>

²⁷⁴INEC. Document No. INEC-SUGEN-2023-0209-O. Quito, D.M., 15 May 2023.

²⁷⁵INEC. Document No. INEC-SUGEN-2023-0209-O. Quito, D.M., 15 May 2023.

²⁷⁶Ministry of Energy and Mines, Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Fourth technical report on the ruling in the flares case: 21201-2020-00170, November 2022, p. 5.

That same year, the Ministry of Energy and Mines classified the gas flares according to their proximity to population centres, ignoring the pro persona and pro natura principles by establishing that gas flares, even if within 100m from a population centre, require phase-out periods ranging from 18 months to 2030.²⁷⁷

These gas flares are located in communities in the provinces of Sucumbíos and Orellana – which concentrate the country’s highest poverty rates – and continue to affect the fragile Amazon ecosystem.

As regards the distance that should separate a flare from a population centre, the Court of Justice did not provide a specific number of metres in the ruling of the gas flares case. The Ministry of Energy and Mines, however, used its discretion to set a distance based on guidelines issued by the Alberta Energy Regulator of Canada in 2011.²⁷⁸ Reference to the Canadian guidelines is made by the Ministry of Energy and Mines in a 2023 report made available to Amnesty International:²⁷⁹

TECHNICAL CONSIDERATIONS	SPECIFICATIONS
DISTANCE OF THE FLARE TO A PUBLIC PROPERTY	■ 100 M AWAY FROM SURFACE IMPROVEMENTS TO ROADWAYS (FOR SURVEYED ROADWAYS OR ROAD ALLOWANCES THE DISTANCE MUST BE 40M, ALSO FOR PUBLIC ROADWAYS AND ROADS FREELY ACCESSIBLE TO THE PUBLIC) ■ 100M AWAY FROM ANY INHABITED PROPERTY

Source: Energy Resource Conservation Board. (2011). Upstream Petroleum Industry Flaring, Incinerating, and Venting (Directive 060).

Source: Ministry of Energy and Mines. Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Plan for the gradual and progressive elimination of traditional gas flares used to burn gas. Technical aspects, ruling in gas flares case: 21201-2020-00170. 2023.

However, the same Canadian regulatory institution indicates in its updated guidelines of April 2022:

“Flares and incinerators must be located, designed and operated so that they are not a hazard to public property. They must be at least 100 m away from surface improvements and surface developments, as defined in Directive 056 (except for surveyed roadways or road allowances, which must be 40 m from flares and incinerators).”²⁸⁰

The Canadian regulator does not state that the 100m distance is safe for population centres, but rather refers to public property. Thus, the distance set by the Ministry of Energy and Mines is not based on a standard that would technically ensure the safety of a population centre located at that distance.

In 2020, regulations were implemented in the state of Colorado (USA) to increase the distance between wells and gas flares with respect to educational institutions and residential facilities, from 500 feet (152.4m) to a minimum distance of 2000 feet (609.6m).²⁸¹

Multiple scientific studies have shown that pollutants emitted by gas flares can be transported by the wind, depending on their intensity, over distances of up to 5km. This would mean that flaring has negative impacts on nature, animals, crops and humans over that distance.

²⁷⁷Ministry of Energy and Mines, Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Fourth technical report on the ruling in the gas flares case: 21201-2020-00170, November 2022, p. 9 and 10.

²⁷⁸Energy Resource Conservation Board, Upstream Petroleum Industry Flaring and Venting Report: Industry Performance for Year Ending December 31, 2010, September 2011, ST 60B:Upstream Petroleum Industry Flaring and Venting Industry Report Performance for Year Ending December 31, 2010 September 2011 (aer.ca).

²⁷⁹Ministry of Energy and Mines. Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas. Plan for the gradual and progressive elimination of traditional flares used to burn gas. Technical Aspects, Ruling in the gas flares case: 21201-2020-00170. 2023.

²⁸⁰Alberta Energy Regulator. Directive 060, “Upstream Petroleum Industry Flaring, Incinerating, and Venting”, 6 April 2022, Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting (aer.ca), pp. 60-61 (underlining not in the original text).

²⁸¹Colorado Energy & Carbon Management Commission, Senate Bill 19-181, <https://ecmc.state.co.us/sb19181.html#/overview>.

A 2020 study shows that the polluting impacts of gas flares extend over a radius of up to 5km from the point of emission.²⁸² Two studies from 2020 and 2021 show that the risk of premature birth among women living within 5km of a flare increases substantially.²⁸³ Research from 2014 showed that pollutants produced by the gas flares pollute rainwater within a radius of 20km from the flare.²⁸⁴ A 2002 study showed that the pollutant benzene can be found in concentrations posing a risk to humans up to a distance of 5km from the flare.²⁸⁵ CATF, cited by the Ministry in its reports as an organization supporting the preparation of its own Regulation, published a study in 2023 that shows that gas flares located up to 5km from populated areas are more likely to cause negative health outcomes.²⁸⁶

Based on these studies it can be inferred that, at a distance of less than 5km, the violation of rights recognized in the ruling would be perpetuated. Therefore, and in order to effectively comply with the reparation measures, gas flares located less than 5km from any population centre should be removed immediately, regardless of the number of people living there.



²⁸²Facchinelli, F., Pappalardo, S.E., Codato, D., Diantini, A., Della Fera, G., Crescini, E. and De Marchi M., Unburnable and Unleakable Carbon in Western Amazon: Using VIIRS Nightfire Data to Map Gas Flaring and Policy Compliance in the Yasuní Biosphere Reserve, 2019, Sustainability 2020, 12, <https://doi.org/10.3390/su12010058>.

²⁸³Cushing L., Vavra-Musser K., Chau K, Franklin M., and Johnston J., "Flaring from unconventional oil and gas development and birth outcomes in the Eagle Ford Shale in South Texas." Environmental Health Perspectives, 128, <https://ehp.niehs.nih.gov/doi/10.1289/EHP6394>.

²⁸⁴Amadi, A., "Impact of Gas-Flaring on the Quality of Rain Water, Groundwater and Surface Water in Parts of Eastern Niger Delta, Nigeria," 2014, Journal of Geosciences and Geomatics, 2, 114-119.

²⁸⁵Argo, J. Unhealthy effects of upstream oil and gas flaring: a report prepared for Save our Seas and Shores (SOSS) for presentation before the public review commission into effects of potential oil and gas exploration, drilling activities within licenses 2364, 2365, 2368 [For US Standard Industrial Classification 1311 and 1389].

²⁸⁶CATF, Fueling Change: EU's Opportunity to Curb Flaring Pollution and Protect Millions, October 2023, [fueling-change-eu-opportunity-curb-flaring-pollution.pdf](https://catf.us/fueling-change-eu-opportunity-curb-flaring-pollution.pdf) (catf.us), p. 13.





YOUNG ACTIVISTS DEFENDING THE ECUADORIAN
AMAZON FROM GAS FLARES THAT THREATEN RIGHTS NOW AND IN THE FUTURE



“I live 150m from a flare that they haven’t yet removed. It is hell. There are days we can’t sleep. The heat, the noise, the smell... we should no longer be suffering this.”

Wilson Patiño, resident of the community of Nocanqui

Between 2019 and 2020, a list of gas flares located less than 5km from a populated area was prepared by UDAPT together with the University of Padua.²⁸⁷ This showed that at least 293 communities were within the radius of impact of the 437 gas flares identified prior to the legal process in the flares case.²⁸⁸

In January 2024, Amnesty International met with delegates from the Ecuadorian Ombudsperson’s Office at Sucumbíos. These delegates noted that both the definition of “population centre” and the units of measurement used in the Regulation were insufficient to address the magnitude of the impact – both the currently visible and the cumulative impact – of the gas flares. At the meeting, the provincial delegate

stated that, in his opinion, the Regulation was null and void because a judge, in a court order of 30 January 2024, had declared the inapplicability of the distance of 100m set by the said Regulation.²⁸⁹

Since January 2024, Amnesty International has requested a meeting with the Ecuadorian Vice Ministry of Hydrocarbons to verify these issues regarding the Regulation and the inapplicability of the distance as determined by the judge. As of the date of publication of this report, no response to this request has been received.

At the same time, between January and March 2024, Amnesty International located and geo-referenced the gas flares in the provinces of Sucumbíos and Orellana using information contained in the most recent reports of the Ministry of Energy and Mines to which it had access. It found that most of the gas flares in the province of Sucumbíos that were located within 5km of population centres are concentrated in Block 57 (Libertador), operated by the public company.

²⁸⁷The methodology used in this report indicates that the results of the participatory mapping from Facchinelli et al. (2022) were used as baseline data on location of the flares, namely 437 flares in 295 different sites. Data sources for population centres were a combination of data provided by the decentralized autonomous governments (GAD) of Sucumbíos and Orellana and information from the IGM geoportal (Military Geographic Institute, 2017). Technically, a preliminary analysis was carried out using QGIS software and an algorithm for identification of the “nearest hub”. This made it possible to identify the nearest population centre and distance for each flare site. The analysis does not identify all the population centres that could potentially be affected, but only those closest to the flare sites.

²⁸⁸Climate justice, “Gas flaring sites in the Ecuadorian Amazon Region”, 2021, Climate Justice » Gas flaring sites in the Ecuadorian Amazon Region (climate-justice.earth).

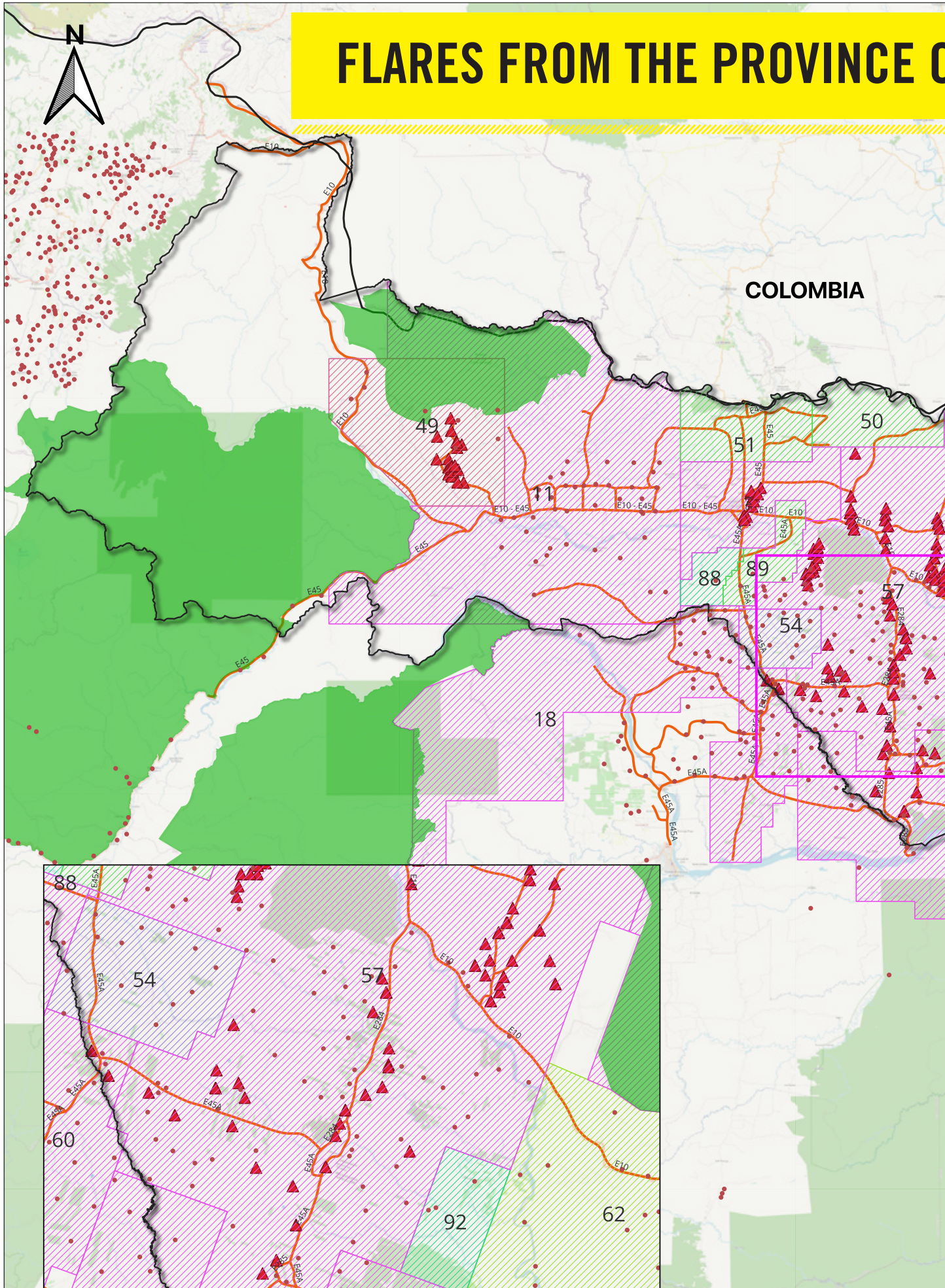
²⁸⁹Judiciary. Trial No: 21201202000170, official document No. 228916534-DFE, 30 January 2024.





YOUNG ACTIVISTS DEFENDING THE ECUADORIAN
AMAZON FROM GAS FLARES THAT THREATEN RIGHTS NOW AND IN THE FUTURE

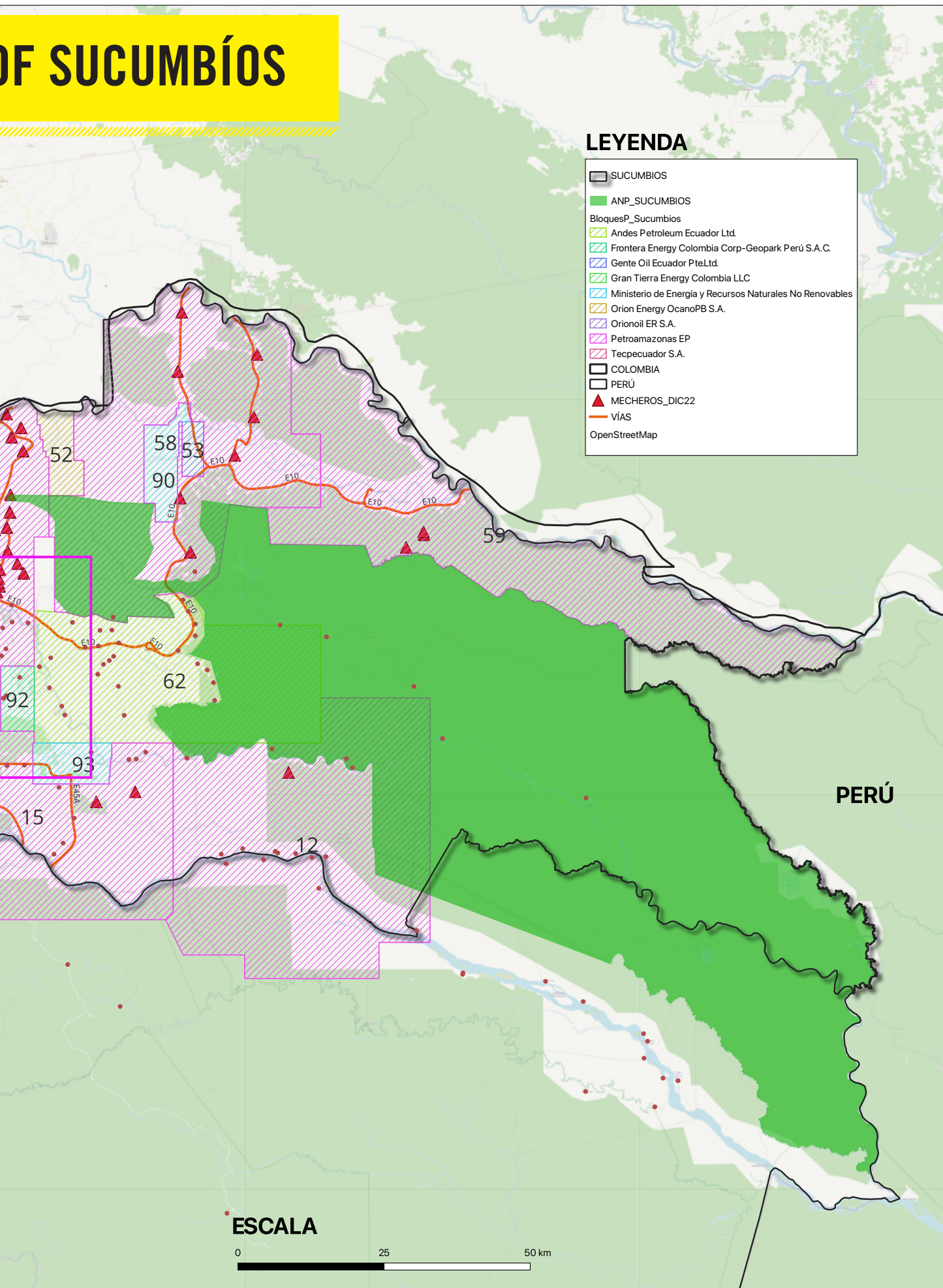
FLARES FROM THE PROVINCE OF



OF SUCUMBÍOS

LEYENDA

- SUCUMBÍOS
- ANP_SUCUMBÍOS
- BloquesP_Sucumbios
- Andes Petroleum Ecuador Ltd.
- Frontera Energy Colombia Corp-Geopark Perú S.A.C.
- Gente Oil Ecuador PteLtd.
- Gran Tierra Energy Colombia LLC
- Ministerio de Energía y Recursos Naturales No Renovables
- Orion Energy OcanoPB S.A.
- Orionoil ER S.A.
- Petroamazonas EP
- Tecpecuador S.A.
- COLOMBIA
- PERÚ
- MECHEROS_DIC22
- VÍAS
- OpenStreetMap







On 19 June 2023, an inter-institutional commission of delegates from the ministries responsible for implementation of the ruling carried out a field visit by order of the judicial authority²⁹⁰ to the communities of Orellana,²⁹¹ finding that:

“The gas flares near the town are still active, as in the case of the [Platform of Chonta Este, 1). There are 4 wells in production there... in the community of Ciudad Blanca, from the Dayuma parish, Francisco de Orellana canton, in the province of Orellana. Enquiries were made regarding the distance of the flare (which is enclosed for safety reasons) in relation to a nearby house, and it was found that it was some 20 or 30 metres from the flare.”

In January 2024, Amnesty International visited the communities covered by the inter-institutional commission field visit and was able to visually verify that the gas flares were still operating. One of the communities visited was that of Kerly Herrera, one of the girl plaintiffs in the gas flares case, who lives with her family in a small community near Ciudad Blanca, less than 5km from the gas flares of the Auca 28, 98D, 99D platforms in Block 61. This is one of the blocks from where the largest volumes of crude oil were extracted from the entire region, at least until March 2024, and the largest number of barrels of crude oil per day in the province of Orellana.²⁹² During the tour of the flares, Kerly Herrera showed Amnesty International the impact they have on her daily life, and said that the gas flares are extinguished and lit on a regular basis.

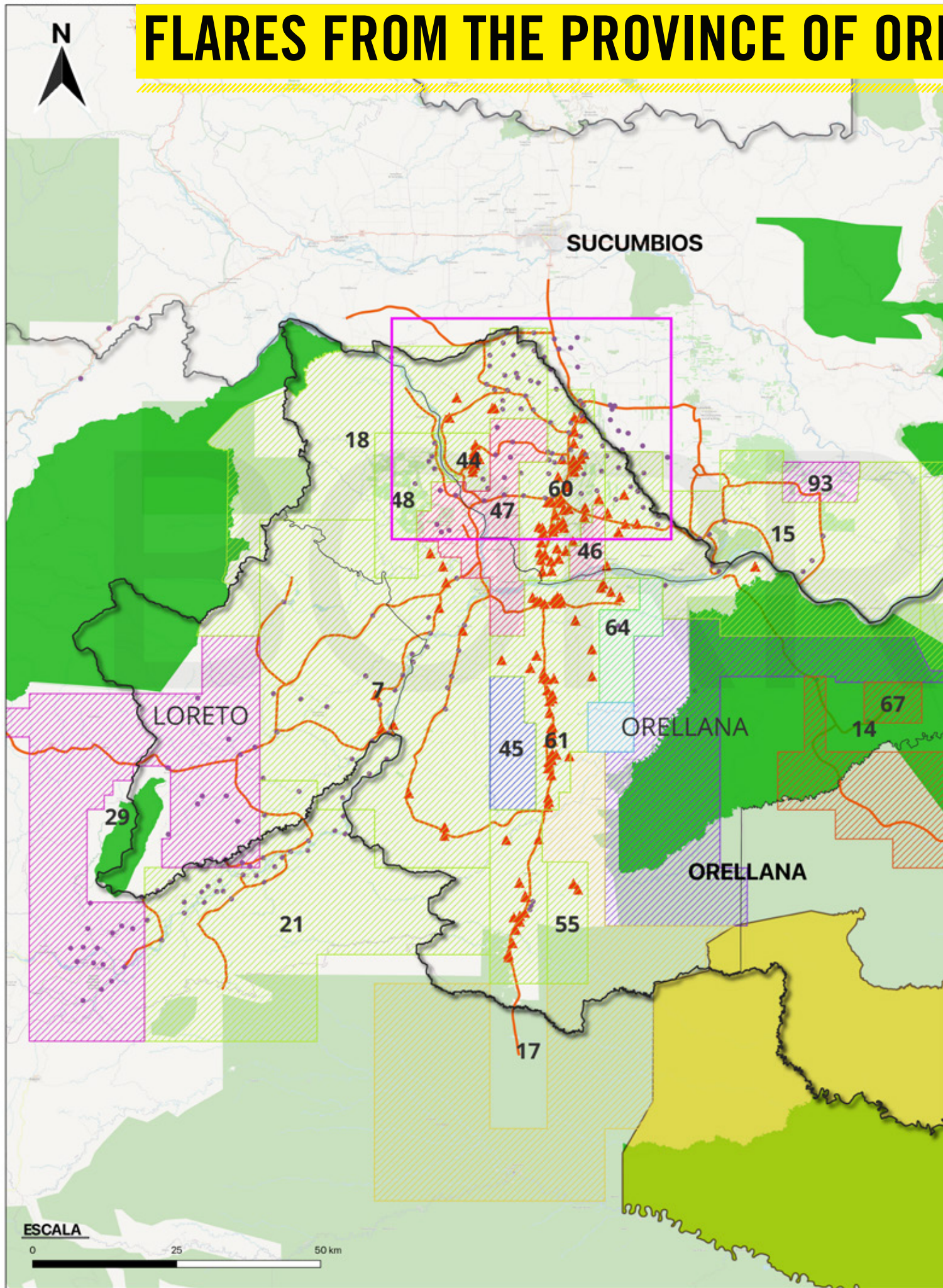
“I’ve always seen the gas flares that are close to my community. I see them when they spew out that black smoke that makes us sick. They say that they are being removed, but they simply turn them off. Then they light them again and the gas flares continue to throw out smoke and harm us and nature.”

²⁹⁰Judiciary. Family, Women, Children and Adolescents Judicial Unit based in the canton of Lago in the province of Sucumbíos. Court order, 14 July 2023.

²⁹¹The communities visited were Aguas Negras, Tipitini, Ciudad Blanca, from Dayuma parish, Francisco de Orellana canton, in the province of Orellana.

²⁹²Ministry of Energy and Mines, Statistical Report: January-December 2023, (previously cited), p.8.

FLARES FROM THE PROVINCE OF ORELLANA



ORELLANA





“ I’ve always seen the gas flares that are close to my community. I see them when they spew out that black smoke that makes us sick. They say that they are being removed, but they simply turn them off. Then they light them again and the gas flares continue to throw out smoke and harm us and nature.”

Kerly Herrera, girl plaintiff in the gas flares case

“ The water with which we bathe, wash our clothes, and often drink when we cannot collect rainwater, is always full of whatever the gas flares throw out. Sometimes it’s oily, sometimes it’s a little cleaner. Everything also depends on the wind, on whether the flare is burning or has been put out. Basically, our whole environment is destroyed by the flare. The air, the animals, the plants, everything. But it is especially visible in the water when it is oily.”

Alicia Herrera, mother of Kerly Herrera, a girl plaintiff in the gas flares case

The communities visited by the inter-institutional commission and subsequently by Amnesty International in January 2024, stated that problems related to water pollution persist. Kerly’s community uses water from one of the nearby rivers on a daily basis, and it is very possibly affected by emissions from the gas flares.

“ Residents say that the flare sometimes goes out, and then the smell of gas is unbearable and the gas causes dizziness and general discomfort. Residents state that there are some 60 families [living there], the town is known as CIUDAD BLANCA, it has a school with about 140 students. Residents report that there is no health centre, that the most common illness is influenza due to the smoke. One resident says that they have to buy water... as the water they collect always has an oily film on top... In our visits to the area, we found that there are active flares less than 100m from the population centre, which means they are still failing to comply with the Regulation drawn up by the defendant institution itself.”²⁹³

²⁹³Judiciary. Family, Women, Children and Adolescents Judicial Unit based in the canton of Lago Agrio in the province of Sucumbíos. Court order, 2023 (previously cited).



6.3 ARE GAS FLARES REALLY BEING REMOVED?

In 2019, when UDAPT and the organizations comprising the group “Eliminen los mecheros, enciendan la vida” began the process of mapping the number of gas flares, some 447 gas flares were identified. This was 125 more than the number registered in the Ministry of the Environment’s database, and some were not even close to the geographical perimeter of the coordinates provided by the ministry.²⁹⁴

In addition, during the mapping process in the field, the group found that 351 flares were actually burning gas, while 35 were venting,²⁹⁵ potentially posing a serious risk for the communities living in the surrounding areas as well as making a significant contribution of methane emissions into the atmosphere. Of the gas flares analysed during the mapping exercise, 80% were found to be under the control of the public company. Similarly, the flares that were found to be venting gas were located in areas leased to the public company.²⁹⁶

In August 2021, according to the case file in the legal process, the total gas flares reported by the Ministry of Energy and Mines were 394, of which 332 were owned by Petroecuador and 62 by the private company.²⁹⁷ In September 2021, only a month later, the Ministry reported during legal hearing that the gas flares operated by Petroecuador were, in fact, 354.²⁹⁸

After the ruling, the Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas at the Ministry of Energy and Mines stated in hearings on the implementation of the ruling in the gas flares case, that, as of November 2022, there were 457 gas flares operating in the country, burning 59.11 million cubic feet per day (mmscf) of gas every year.²⁹⁹ Of the 457 gas flares, Petroecuador reported operating 391, on the platforms of Sacha (Orellana), Auca and Lago Agrio (Sucumbíos).

In those 391 gas flares, Petroecuador had burned, as of November 2022, approximately 64.5% of associated gas extracted in the Amazon region.

OPERATOR	Nr. Flares	ASSOCIATED GAS VOLUME AMAZON DISTRICT			
		PRODUCED (MMPCD)	BURNED (MMPCD)	OPTIMISED (MMPCD)	DELIVERY TO REFINERY (MMPCD)
PRIVATES	66	17,85	5,49	12,28	-
EP PETROECUADOR	391	83,45	53,62	9,16	20,66
TOTAL	457	101,30	59,11	21,44	20,66

Source: Petroecuador, Undersecretariat for the Exploration and Exploitation of Petroleum and Natural Gas, Fourth Technical Report, Ruling in the flares case: 21201-2020-00170 November 2022.

This total volume of gas burned, without taking into account venting and leakage, can represent a significant contribution to GHG emissions. The Ministry of Energy and Mines does not provide figures on super pollutant methane gas, particulate matter and other harmful substances emitted through flaring in its reports, nor has it responded to the requests for information on the issue submitted by Amnesty International since January 2024.

In reports seen by Amnesty International, the Ministry of Energy and Mines indicated that 486 gas flares were active as of June 2023, of which 424 were operated by Petroecuador and 62 by private companies. The Ministry claims that they will not be removed until 2030 because they are more than 100m from population centres.³⁰⁰ Of the 62 gas flares reported by private companies in the Petroecuador report, all are located at distances of between 141m and 5km from population centres.³⁰¹

²⁹⁴“Eliminen los mecheros, enciendan la vida”, Informe Mecheros en Ecuador [Report on Gas Flares in Ecuador], January 2020, INFORME_MECHEROS_envio.pdf (agenciaecologista.info), p.17.

²⁹⁵The group stated that most of the flares were in the province of Orellana, with a total of 232 flares being mapped, of which 166 were flaring and 13 were venting. Second in number was the province of Sucumbíos with a total of 210 flares, 120 of them flaring and 22 venting. In the province of Napo 2 flares were visited, and in Pastaza 3 were counted, of which only 1 was observed to be flaring. The group also mapped 107 flares in the Yasuní Biosphere Reserve, of which 79 were identified as active. “Eliminen los mecheros, enciendan la vida”, Report on Gas Flares in Ecuador, 2020 (previously cited), p. 18-20.

²⁹⁶“Eliminen los mecheros, enciendan la vida”, Report on Gas Flares in Ecuador, 2020, p. 18-20.

²⁹⁷Gas Flares Case File, p. 2602.

²⁹⁸Gas Flares Case File, p. 2548 VTA.

²⁹⁹Technical report delivered by the Ministry to UDAPT at the hearing on implementation of the ruling in the gas flares case. Ministry of Energy and Mines. Fourth Technical Report. Ruling on the gas flares case: 21201-2020-00170, November 2022, p.7.

³⁰⁰Ministry of Energy and Mines. Fourth Technical Report. Ruling on the gas flares case: 21201-2020-00170, 2022, p. 9-10.

³⁰¹Ministry of Energy and Mines. Fourth Technical Report. Ruling on the gas flares case: 21201-2020-00170, 2022, p. 14-20

Given the inconsistencies in the figures contained in reports submitted by Petroecuador to the authorities supervising compliance with the ruling and complaints from the communities regarding gas flares that are lit and extinguished at the discretion of Petroecuador and private operators, on 19 June 2023 an inter-institutional commission of delegates from the ministries responsible for implementation of the ruling carried out a field visit by order of the judicial authority to communities in Sucumbíos.³⁰²

On 31 January 2024, at a hearing before the Biodiversity Commission of the National Assembly of Ecuador, the Ombudsperson submitted a report recognizing the increase in the number of gas flares and the inability of the Ministry of Energy and Mines to provide a figure for the volume of gas being burned in the Amazon.³⁰³

“The gas flares have increased. The ruling has not been fully complied with, and therefore the Ombudsperson’s Office is preparing to file a non-compliance action, as provided for in the Constitution.”³⁰⁴

At a subsequent hearing before the National Assembly of Ecuador on 21 February 2024, the then Minister of Energy and Mines claimed that the ruling in the case was being complied with, and accepted that there were 424 gas flares operated by the public company in the Amazon region, 129 in processing stations and 295 in production platforms, and 62 operated by private companies.³⁰⁵ She also claimed that the Ministry of Energy and Mines was working to reduce the routine burning of gas in flares and comply with the ruling.

	2019	AUGUST 2021	SEPTEMBER 2021	NOVEMBER 2022	JUNE 2023 ³⁰⁶	JANUARY 2024	JUNE 2024
<i>“Eliminen los mecheros, enciendan la vida”</i>	447						
Ministry of the Environment	322						
Ministry of Energy and Mines		332 Petroecuador 62 Private 394 Total	354 Petroecuador	391 Petroecuador 66 Private 457 Total	424 Petroecuador 62 Private 486 Total	424 Petroecuador	424 Petroecuador

On 9 May 2024, the managing director of Petroecuador appeared before the Biodiversity and Natural Resources Commission of the National Assembly and claimed that, as of that date, a total of 145 gas flares had been removed, out of the baseline number of 424 reported by the company in 2022.³⁰⁷ However, as of November 2022, the company reported the existence of 457 gas flares, of which 391 were operated by Petroecuador, so the baseline number for 2022 given by the minister does not coincide with Petroecuador’s reports for that year.

Similarly, a review of the removal reports from 13 March 2022 to 10 April 2024 shows that of the 145 gas flares that Petroecuador claims to have removed, some have been replaced by other gas flares. This has happened, for example, at the Sacha Pad 20 platform. In January 2024, during its visit and tour of the community neighbouring the oil field, Amnesty International was able to verify that the elevated flare had indeed been removed as stated in the relevant report of 5 May 2023,³⁰⁸ but that it had been replaced by a ground level flare system, which was still in operation at the time of publication of this report.

³⁰²Judiciary. Family, Women, Children and Adolescents Judicial Unit based in the canton of Lago Agrio in the province of Sucumbíos. Court order, 2023 (previously cited).

³⁰³National Assembly of Ecuador, “La fiscalización del ‘Caso Mecheros’ continúa en la Comisión de Biodiversidad” [Oversight of compliance with the ruling in the gas flares case continues before the Biodiversity Commission], 21 February 2024, <https://www.asambleanacional.gob.ec/es/noticia/92203-la-fiscalizacion-del-caso-mecheros-continua-en-la>

³⁰⁴Mimeographed material. See also: National Assembly of Ecuador, “La fiscalización del ‘Caso Mecheros’ continúa en la Comisión de Biodiversidad” [Oversight of compliance with the ruling in the gas flares case continues before the Biodiversity Commission], 2024, (previously cited).

³⁰⁵National Assembly of Ecuador, “La fiscalización del ‘Caso Mecheros’ continúa en la Comisión de Biodiversidad” [Oversight of compliance with the ruling in the gas flares case continues before the Biodiversity Commission], 2024.

³⁰⁶Until March 2024, the Ministry of Energy and Mines continued to report the existence of 424 flares belonging to Petroecuador.

³⁰⁷Petroecuador, “EP Petroecuador ha eliminado 145 mecheros en la Amazonia” [EP Petroecuador has removed 145 flares in the Amazon], 9 May 2024, <https://www.eppetroecuador.ec/?p=22118>

³⁰⁸Petroecuador, “Reporte de atención a eventos instalación o desmantelamiento de mecheros en la operación” [Report on installation or removal of gas flares], 5 May 2023, GDP-EVENTOS-MECHEROS REV 0 PAD 161 .xlsx (eppetroecuador.ec)





Moreover, communities visited by Amnesty International report that it is common practice to regularly extinguish and re-ignite the gas flares, as well as to strategically extinguish them when state commissions tour the area to verify compliance with the ruling.

The increase in the number of gas flares up to January 2024, as well as the lack of clarity on the number of active gas flares, is a significant setback in complying with the ruling in the case and with Ecuador's climate commitments as set out in its NDC.



URGENT ACTION

IN LIGHT OF FAILURE TO COMPLY WITH THE RULING, THE GIRLS AND YOUNG PEOPLE IN THE GAS FLARES CASE SPOKE TO THE COUNTRY

On 21 February 2024, four girls and young plaintiffs in the gas flares case attended a hearing of the Biodiversity Commission of the National Assembly. The purpose of the hearing was to review compliance of the relevant authorities with the ruling in the case. At the hearing, the girls and young people expressed their dissatisfaction with the lack of compliance and called on the President of Ecuador take action. The then Minister of Energy and Mines, Andrea Arrobo, stated that the government had removed two gas flares and was therefore already in compliance with the ruling. She said: “It’s one thing to insist on eliminating gas flaring, it’s quite another to create panic,” understating the extent of the problem. Minister Andrea Arrobo also suggested that the young girls had been manipulated. The four plaintiffs spoke out against the minister’s statements. Taking the microphone, they challenged the assertion regarding compliance with the ruling, citing figures from the Ombudsperson’s Office that flaring had increased from 447 to 486 gas flares. One of the plaintiffs also queried how the authorities could claim that they were being manipulated, when what they were actually doing was fighting for their rights.³⁰⁹

Leonela Moncayo, one of the girl plaintiffs, told Amnesty International how on 29 February she and her mother heard a noise in the yard of their home. They thought it was an oil pipeline that had burst. However, when they went out to see what had happened, they observed abundant white smoke that smelled like

fireworks. When the smoke cleared, they realized that what they had heard was the detonation of an improvised explosive device made with guadua cane, paper and a cardboard tube. UDAPT and Leonela and her parents fear that what happened was an act of intimidation and reprisal for the participation and protest of Leonela and the other plaintiffs before the National Assembly, and more generally for their activism to ensure that the authorities comply with the ruling.

The UN Special Rapporteur on the situation of human rights defenders, Mary Lawlor, mentions in her 2024 report that child and youth human rights defenders and activists often face “demeaning and belittling remarks, questioning their experience, expertise and motivation”, a phenomenon further compounded by “political narratives that use the age of child and youth human rights defenders to imply that they are being manipulated, recruited or brainwashed”.³¹⁰ The Special Rapporteur also specifically mentioned in her report the intimidation to which the girls in the gas flares case have been subjected.³¹¹

On 4 March 2024, Amnesty International launched an Urgent Action to urge the Ecuadorian authorities to effectively investigate these events, to refrain from stigmatizing the girl activists and to guarantee their protection so that they can carry out their work in a safe environment.³¹²

³⁰⁹EL PAÍS, “¿Qué les pasa!: el grito de las niñas amazónicas al Estado ecuatoriano” [“What’s wrong with you!”: the call from the Amazonian girls to the Ecuadorian State], 29 March 2024, <https://elpais.com/america-futura/2024-03-27/que-les-pasa-el-grito-de-las-ninas-amazonicas-al-estado-ecuatoriano.html>

³¹⁰UN, “We are not just the future”: challenges faced by child and youth human rights defenders. Report of the Special Rapporteur on the situation of human rights defenders, Mary Lawlor, 17 January 2024, Doc. UN A/HRC/55/50, paras 46 and 47. <https://daccess-ods.un.org/access.nsf/Get?OpenAgent&DS=A/HRC/55/50&Lang=E>.

³¹¹UN, “We are not just the future”: challenges faced by child and youth human rights defenders. Report of the Special Rapporteur on the situation of human rights defenders, Mary Lawlor, 17 January 2024, A/HRC/55/50, (previously cited), para. 104.

³¹²Amnesty International, Urgent Action: “Child Climate Justice activist intimidated in her home,” 4 March 2024, index: AMR 28/7775/2024, Ecuador: Child climate justice activist intimidated in her home - Amnesty International ([amnesty.org](https://www.amnesty.org))



CONCLUSIONS AND RECOMMENDATIONS

Flaring by public and private companies in Ecuador not only severely affects the human rights of Amazonian communities that have historically been turned into sacrifice zones by the oil industry, but also contributes to global warming, with serious consequences for the enjoyment of human rights today and in the future, by compromising the stability of the climate system that sustains life on the planet.

Despite the fact that a court in Ecuador, as a result of the gas flares case and the activism of the girls and young women plaintiffs, has recognized the human rights violations caused by the routine flaring of gas in the poorest communities of the Amazon region and the country's contribution to global warming through this practice, the Ecuadorian State continues to fail to address the urgent need to remove the flares.

Instead of implementing the provisions of the ruling and fulfilling its commitments to phase out routine gas flaring as set out in its NDC, the Ecuadorian state and its institutions responsible for the oil sector have so far only taken measures to maintain oil production at all costs, avoiding any concrete and ambitious steps to remove the flares and transition to a decarbonized economy.

By failing to implement the ruling, the Ecuadorian state is denying the girls and young plaintiffs and other victims of human rights violations caused by the gas flares the right to adequate, effective and prompt reparation. Moreover, allowing gas flares to operate near population centres creates conditions that perpetuate the social inequality inherent in the Amazonian communities as sacrifice zones of the oil industry. Flaring also poses risks to the right to health

and to a clean, healthy and sustainable environment.

At the same time, by maintaining and protecting flaring and failing to implement existing alternatives to replace this harmful practice, the Ecuadorian state is neglecting its international obligations to reduce GHG emissions and creating the conditions for the emission of super pollutants such as methane which have serious consequences for the global climate system due to their strong contribution to global warming. As an upper-middle-income country with an economy based on the extraction and combustion of fossil fuels, Ecuador has an important responsibility and opportunity to reduce GHG emissions from this sector in the region, in order to avoid causing further damage to the global climate system. As anthropogenic damage to the global climate system from GHG emissions is cumulative, Ecuador's failure to address unnecessary and harmful practices such as routine gas flaring is a violation of its duty to mitigate and protect human rights in the context of climate change and puts people and the future of humanity at risk.

Similarly, given the global dimension of climate change and the serious threat it poses to human rights now and in the future, Ecuador's compliance with its international climate obligations is of utmost importance to protect human rights at risk from the climate crisis and to avoid transboundary environmental damage in the global climate system with serious consequences for the enjoyment of the right to life and other human rights.

Reducing GHG emissions is an essential part of the long-term solution to the climate crisis. Unless drastic action is taken, it will be too late for today's children,

young people and the entire global population to enjoy their human rights. Under international law, the Ecuadorian state has a duty to protect the most marginalized population groups and those most exposed to systemic injustice, especially children, from the impacts of the climate emergency and the adverse effects of routine flaring, as demanded by the girls and young people who brought the case against this practice.

Ecuador has the opportunity to be the first country in the region to take drastic action to end gas flaring, meeting both its climate commitments and the demands of the girls and young women plaintiffs in the gas flares case.

Accordingly, Amnesty International makes the following recommendations:

To the Ecuadorian government and the institutions responsible for implementing the ruling in the gas flares case:

- Fully comply with the ruling of the Provincial Court of Sucumbíos and immediately guarantee the reparation measures that require urgent attention, such as those related to the right to health, as ordered by the Provincial Court of Sucumbíos in its ruling on the gas flares case.
- Meet the climate targets set out by the Ecuadorian state in its NDC regarding the elimination of routine flaring in the unconditional scenario, and report the results at the next COP.
- Recognize and urgently address, through plans and measures, the marginalization and social inequality inherent to the Amazon region as an oil sacrifice zone, while developing preventive policies to avoid the expansion of sacrifice zones.
- Develop national energy transition policies aimed at reducing the social inequalities that are exacerbated by the impacts on the Amazon region.
- Work with the Indigenous peoples of the Amazon region to help them define their own priorities and development plans in accordance with their values and cosmovision and provide them with all the necessary means to implement them, in order to avoid the deepening of inequality and marginalization in the Ecuadorian Amazon.

To the Ministry of Energy and Mines and the Ministry of the Environment, Water and Ecological Transition:

- Design and implement as soon as possible a plan to remove gas flares in order to comply with the provisions of the ruling in the gas flares case, through actions agreed with the plaintiffs and the organizations that make up the “Eliminen los mecheros, enciendan la

vida” collective. Such a plan must focus on compliance with international human rights obligations.

- Undertake a robust assessment of the volume of gas flared and seek to implement all necessary measures to phase out routine flaring in oil extraction operations as the country transitions to a non-fossil fuel dependent economy, in accordance with its international climate commitments and in a manner consistent with the respect and protection of human rights, with special safeguards for the protection of the human rights of marginalized communities and those historically subjected to conditions of racial injustice such as Indigenous peoples and Afro-descendants.

- Accelerate the removal of gas flares operating within 5km of population centres and request the necessary technical assistance to curb practices such as venting and to prevent methane leakage and the release of other gases emitted simultaneously, so that Ecuador can meet its climate obligations to reduce emissions of the super pollutant methane and mitigate the threat that a global temperature increase of more than 1.5°C poses to the guarantee and respect of human rights now and in the future.

- Revise and include in the NDC more ambitious targets in the unconditional scenario, with measures on technological innovation to eliminate routine gas flaring.

- Revise and include in the NDC targets related to concrete measures and actions for a just energy transition that is consistent with human rights, excluding solutions that do not include human rights safeguards.

- Seek international assistance, based on the principle of cooperation, to develop initiatives, policies and solutions for reducing the intensity of carbon emissions, including ending the routine flaring and venting of gas into the atmosphere and curbing methane leakage.

- Conduct a thorough review, based on the principle of prevention, of the potential future contribution [to global warming] of the fossil fuel exploration, extraction and trading operations it authorizes, and develop policies and measures for a just energy transition based on principles consistent with human rights, as outlined in the Paris Agreement.

To Petroecuador:

- Respect human rights by refraining from causing, contributing to or being directly linked to actual and potential climate change-related impacts arising from its activities. Petroecuador must integrate climate change considerations into its policies, processes, governance structures and decisions to identify,

prevent, mitigate and be accountable for adverse impacts on human rights and the environment, and to do so in all its operations.

- Put in place specific plans to reduce emissions across its operations and value chains as soon as possible, to at least 45% below 2010 levels by 2030 and to zero by 2050, in line with IPCC recommendations. This must be done without excessive reliance on offsets and carbon removal mechanisms, develop detailed action plans to implement such commitments.

- Apply ongoing human rights and environmental due diligence; produce meaningful reports on its operations, value chains and business relationships; show how it is reducing greenhouse gas emissions; address risks to people and the environment and ensure that such risks are not caused by, contributed to or linked in any way to the flaring from its operations, products and business relationships. This includes integrating climate change considerations into all aspects of the human rights due diligence process throughout its operations.

- When Petroecuador ceases its economic activities in a given area with the aim of ending flaring and/or reducing greenhouse gas emissions, it must take steps to ensure that this is done in a responsible manner, in accordance with the UN Guiding Principles on Business and Human Rights. It must promptly provide public and transparent information on the steps taken.

- Carry out effective and meaningful consultations with all relevant stakeholders, ensuring the free, prior and informed consent of Indigenous peoples, on its actual and potential climate change-related impacts on human rights and the environment.

- Petroecuador must be accountable for its climate impacts and human rights violations and ensure that those affected have access to redress. When harm occurs, Petroecuador has a responsibility to provide a solution or cooperate in remediation efforts.

- Refrain from lobbying public officials – either directly or indirectly through trade associations – to adopt policies and decisions that perpetuate the carbon-based economy. It must also refrain from supporting public information campaigns based on inaccurate, misleading or unsubstantiated claims that make it difficult for the public to access accurate information and make informed decisions.

To the Ombudsperson's Office:

- Monitor the state's response to the non-compliance with the ruling in the gas flares case and, within the scope of its mandate, urgently take all necessary actions to ensure compliance.

- Produce a report detailing the impact of flaring operations on the human rights of communities in the oil sacrifice zones of the Amazon region and recognizing the differentiated impact of the GHG emissions from such operations on children.

- Guarantee the safety of climate activists and defenders, including the young women plaintiffs in the gas flares case, so that they can exercise their freedom of expression and right to protest, and defend the environment.

To the National Assembly:

- Supervise compliance with the ruling in the gas flares case and with the Ecuadorian state's unmet obligations to remove the flares.

To the international community of countries with the greatest responsibility for the climate crisis:

- Strengthen cooperation and provide or facilitate technical assistance aimed at technology change to enable the elimination of routine gas flaring.

- Provide support so that the Ecuadorian state can apply for the climate financing that may be required to end routine flaring, decarbonize the economy and achieve a just energy transition.

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IS BURNING,
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