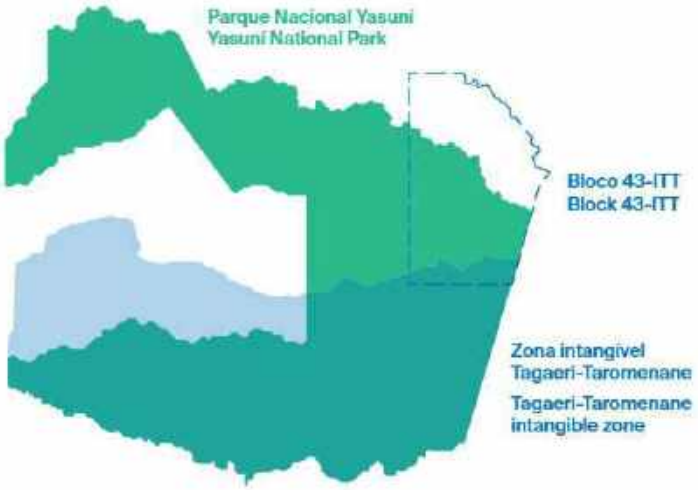

Parque Nacional Yasuní
Yasuní National Park
Bloco 43-ITT
Block 43-ITT
Zona intangível
Tagaeri-Taromenane
Tagaeri-Taromenane
intangible zone

100 STEPS FOR THE CLOSURE AND DISMANTLING OF BLOCK 43-ITT AND THE REPAIR OF THE YASUNÍ

ENOMEME
GOPOKIMONI

A collective reading in a post-oil key
inspired by the triumph of Yasuní-ITT

0. INTRODUCTION

Yasuní: The last piece or the first step?

For the first time in history an oil field has been closed, not because the crude oil has run out, but because of a national and popular decision. This is unprecedented. In the immediate future, thousands of wells around the world will have to be closed: some because they no longer produce, and others due to the damage they cause; is too wide. Ecuador thus becomes the first living laboratory for closure and repair.

Today, there are tens of thousands of oil and gas fields on the planet, tens of millions of wells drilled throughout history. In the case of Ecuador alone, of the 5,000 open wells, 2,500 are abandoned. And as long as each well isn't properly plugged, and the associated infrastructure isn't dismantled, it will remain an open wound that puts communities and ecosystems at risk.

Climate change and the oil industry's responsibility for the destruction of the planet have become increasingly pressing. These are times of unprecedented rainfall and flooding, or of drought and low water levels. The rapid intensification of tropical cyclones, devastating forest fires, and flooding rivers are our new reality and a foretaste of the future.

Oil activity is at the heart of the environmental and climate crisis. We're not just talking about fuel extraction and burning: we're also referring about spills, burning flares that devour gas, roads that pave the way for deforestation, polluted soil and rivers, impoverished and displaced people, disease, and accumulated garbage. Closing and dismantling wells to make way for the restoration of territories is great news and can become a reference and an inspiration. It's about halting the expansion of oil frontiers and, at the same time, healing areas already sacrificed.

After the popular consultation of August 20, 2023, the Ecuadorian people decided to shut down oil operations in Block 43/ITT, in the heart of Yasuní. Halting exploitation in a block and paving the way for

its repair also means opening a real path toward fair transitions for peoples and nature, both in Ecuador and globally.

But the battle is not over yet. We must remain mobilized and informed so that the closure and dismantling of the ITT becomes a reality, and so that the path to repairing the Yasuní truly opens.

This manual outlines the steps to be taken: the obligations arising from the consultation, the accounts and costs, possible sources of financing, the true resources that exist in that territory, and the scope of a comprehensive restoration.

The closure and dismantling of built infrastructure should not be thought of solely in terms of infrastructure, it also involves dismantling a model of oil dependence, born and sustained by the absence of the State in the fulfillment of economic, social and cultural rights.

The Waorani nationality declared a State of Territorial Emergency in January 2004. They did so for many reasons: deteriorating health, persistent pollution, soil and river depletion, and increasingly intense flooding. Decades of exploitation have resulted in the systematic violation of rights recognized in the Constitution and United Nations conventions. These areas, paradoxically, are now among the most impoverished in the country, despite the wealth extracted from them.

Starting with the right to self-determination means recognizing that indigenous peoples have the right to their territory, to a healthy space shared with other species, to maintain their culture, their food and health sovereignty, their ways of inhabiting the world: their malokas, their nanicabos, their ways of exercising authority.

Closing and dismantling oil fields also opens the possibility of restoring life in all its forms. It's not only about removing machinery or sealing wells, but also has to do with allowing the land to breathe again, rivers to run clean, and forests to recover their diversity. In this sense, the closure of the ITT is an exercise in comprehensive reparation in which communities must be protagonists, not mere witnesses.

The dismantling of the oil model is also a step toward new forms of justice. It entails recognizing the ecological and social debt that the State and corporations have accumulated with the Amazonian

nationalities, and creating mechanisms for collective reparation that strengthen health, education, culture, and territorial sovereignty. Only then will the transition be fair: without leaving behind the peoples who have borne the costs of an extractive economy for decades that enriched a few and impoverished many.

Ten years ago, the Amazon for Life campaign published the book More than 100 Reasons Not to Exploit Yasuní Oil. Today, a decade later, we present the steps needed to shut down and repair these operations.

1. WE SAID «YES» TO YASUNÍ

5.000.000 of ecuadorians

What was decided by the Yasuní referendum?

More than five million Ecuadorians voted to leave the oil in the ground. The referendum has important precedents, which relate to the exercise of the rights to direct democracy and participation in matters of public interest, as recognized in the Constitution:

- The citizen mobilization collected signatures to call for a vote on the question: "Do you agree that the Ecuadorian government should keep the ITT crude oil, known as Block 43, underground indefinitely?"[1].
- The ten years it took for justice to overcome the State's obstruction of this exercise in participation[2].
- Mining activities in another megadiverse area of the country (the Andean Chocó) and early and mandatory national elections
- In the elections of August 20, 2023 (the results of which were announced on August 31, 2023[4] "YES" option obtained 58.91% of the votes.

1. On April 12, 2014, the YASunidos collective submitted 107,088 forms to the CNE, representing 856,704 signatures. YASunidos publicly declared that it had submitted 757,623 validated signatures.
2. Several actions and demands were made before the Council for Citizen Participation and Social Control, the Ombudsman's Office, the National Electoral Council, the Electoral Contentious Tribunal, and the Constitutional Court, they demonstrated the existence of electoral fraud in the signature review process, using the independent audit as evidence. With the certificate of democratic legitimacy granted by the CNE, the Constitutional Court proceeded to validate the constitutionality and validity of the question.
4. PLE-CNE-2-31-8-2023.

In the elections of August 20, 2023 (the results of which were announced on August 31, 20234 "YES" option obtained 58.91% of the votes. The result of the consultation not only prevents the expansion of exploitation to the ITT field, but also requires the dismantling of the Yasuní field infrastructure.

What did the Constitutional Court said about the effects of the referendum?

For the application of the results of the popular election, the Constitutional Court ruled that it must be carried out .

[...] A progressive and orderly withdrawal of all oil extraction-related activities within a period of no more than one year from the notification of the official results. Additionally, the State may not take any action aimed at initiating new contractual relationships to continue the exploitation of Block 43.[5]

This "progressive and orderly withdrawal of extractive activities" has been clarified by the same Court, which stated that "[...] the period of no more than one year refers to the suspension of oil exploitation in Block 43, with the goal being a complete suspension. It also includes the initiation of natural restoration, protection of the PIAV territory, among other actions, through the relevant ministries". [6]

Progressivity is also recognized in the Constitution (art. 11.8):

5. Opinion No. 6-22-CP/23.

6. Clarification Order of May 23, 2023.

The content of these rights will be developed progressively through regulations, jurisprudence, and public policies. The State will create and guarantee the necessary conditions for their full recognition and exercise. Any regressive action or omission that unjustifiably diminishes, undermines, or nullifies the exercise of these rights will be unconstitutional (emphasis added).

The Court has expressly recognized that the suspension of the exploitation of Block 43 must be progressive over a period of one year from the official notification of the results, in accordance with the Constitution, which recognizes progressiveness and prohibits regressiveness with respect to the protection of rights such as those sought to be guaranteed through the results of the popular consultation.

What is the role of the Committee for the Execution of the Popular Will [CEVP in its Spanish acronym] from Yasuní ITT?

The [CEVP in its Spanish acronym] Yasuní ITT, established on May 8, 2024 (Decree 257), will have the purpose of coordinating and establishing mechanisms, guidelines, and actions to be implemented to fulfill the popular will regarding Block 43, for which purpose it will enter into agreements with public and private entities in accordance with the Action Plan it will issue for this purpose. Among its responsibilities are issuing reports to the Constitutional Court, which is responsible for monitoring compliance with the popular will, monthly monitoring and preparing compliance reports, coordinating with the National Assembly, and, in general, with the various state entities.

The Waorani Emergency Declaration

The Waorani nationality of Ecuador declared a State of Territorial Emergency at an Extraordinary Assembly held on January 25 and 26, 2024, in the community of Yarentaro.

Their traditional territory extended over an area of approximately 2,000,000 hectares, between the right bank of the Napo River and the left bank of the Curaray River. Their status as hunter-gatherers requires them to move across a vast territory without aggressive intervention, noise, or the presence of third parties.

The presence of oil companies on their territories has posed a threat to the lives of these peoples due to the risks of disease transmission, violent attacks, forced contact, and loss of territory, in addition to the resulting pollution and deforestation. Abuses have been committed against the people, including the Waorani people's dependence on oil companies operating in their territory, imposing conditions that limited their ability to live independently, in accordance with their culture, and deprived them of the special rights and protections to which they were entitled.

The ruling of the Inter-American Court of Human Rights [IACHR]

The ruling clearly highlights the impact of oil activities on the lives of the communities, the right to non-contact of the Tagaeri and Taromenane, and the economic, social, and cultural rights and rights to reparations of the Conta and Daboka girls.

The [IACHR] issued the judgment in the case of the Tagaeri and Taromenane indigenous peoples vs. Ecuador on September 4, 2024, and it was made public on March 13, 2025.

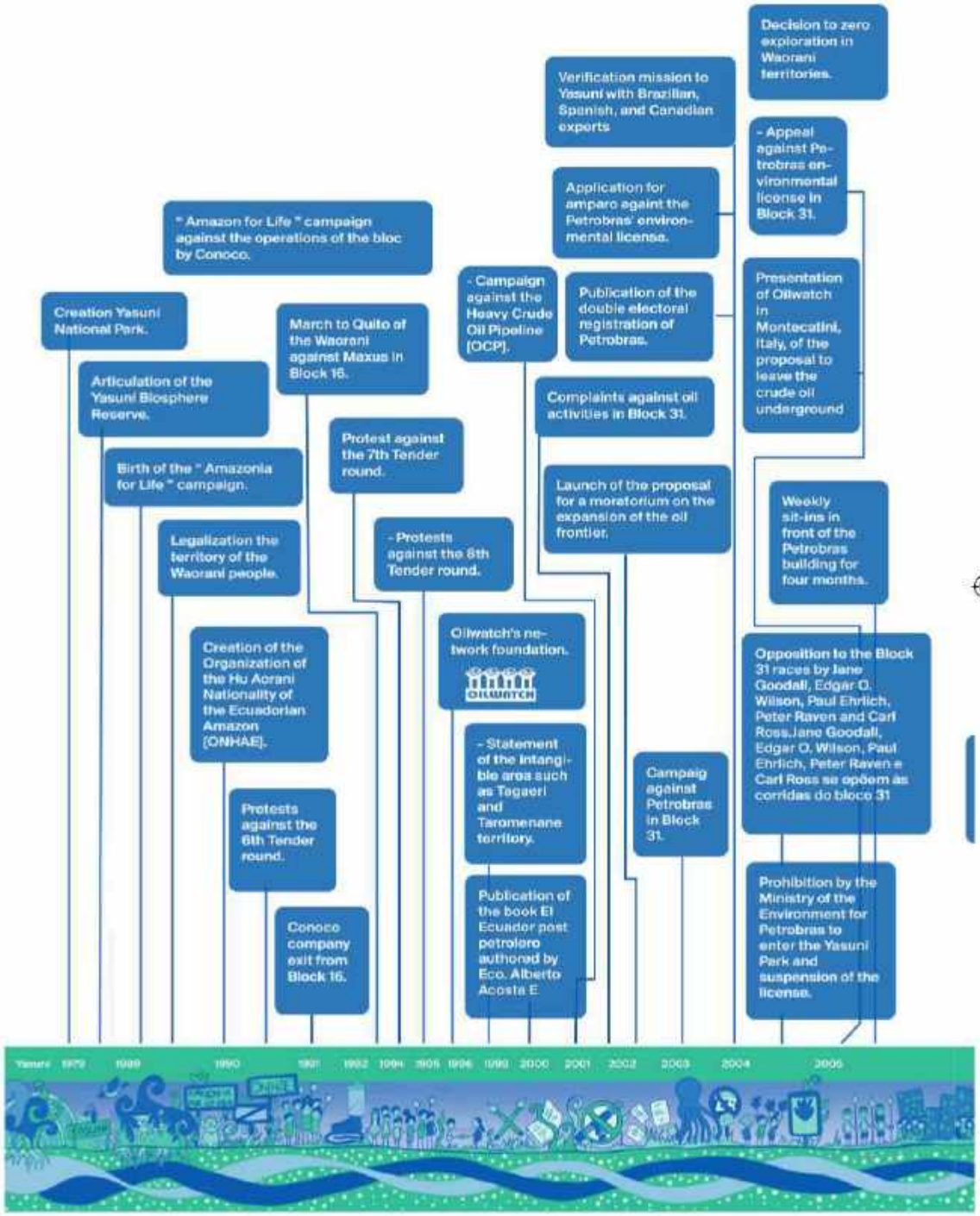
The ruling obliges the State to close and dismantle Block 43, in compliance with the popular will expressed on August 20, 2023. And,

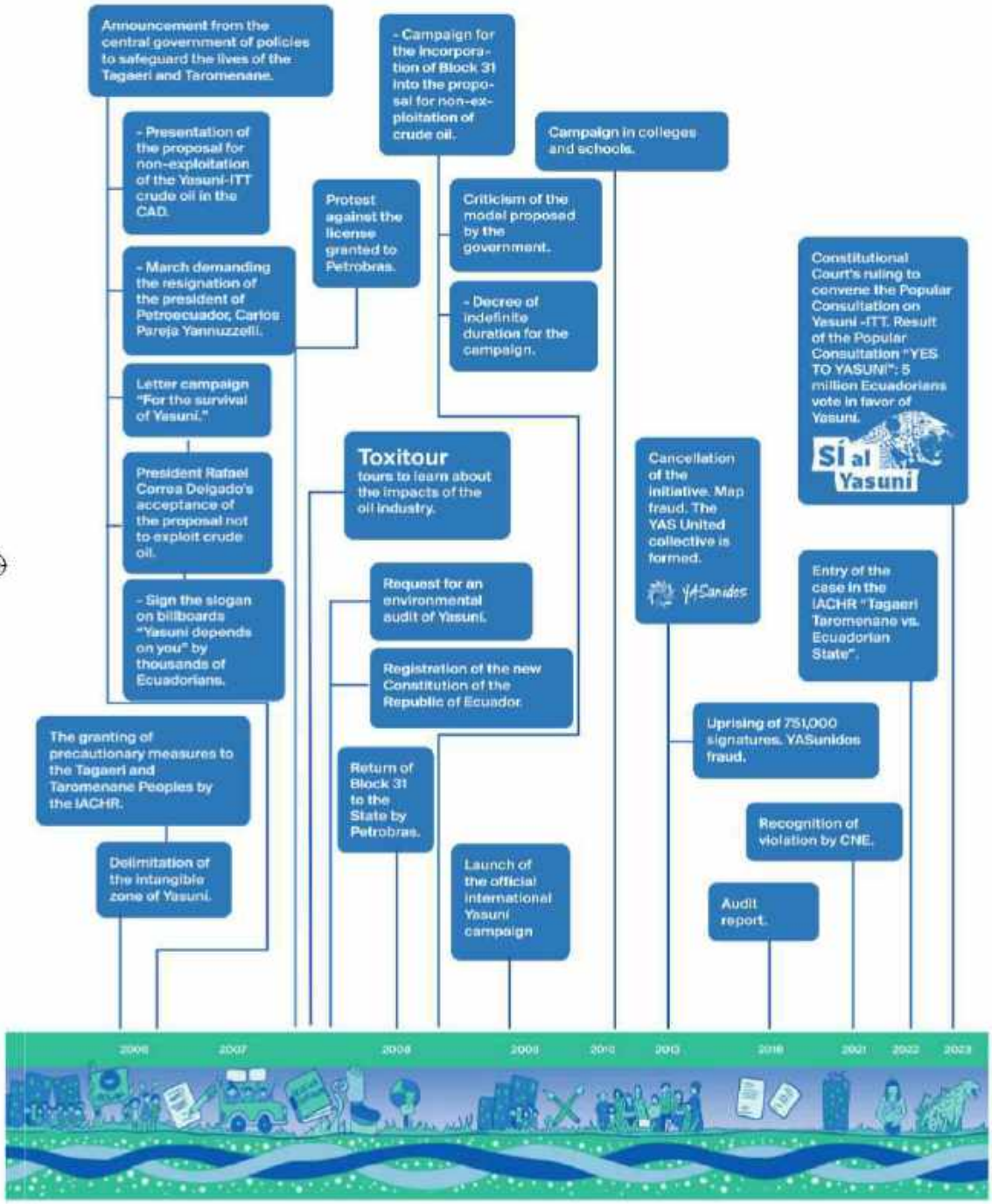
it orders that, within one year, the State take all legislative, administrative and any other measures so that, effectively, this decision is implemented and oil exploitation in Block 43 is prohibited.

The [IACHR] stressed the interrelationship between various economic, social, cultural and environmental rights of Indigenous Peoples in Voluntary Isolation [PIAV in its Spanish acronym] with the protection of their lands in order to guarantee their right to a dignified life, and considered that the lack of protection for the territories entailed a violation of their rights to health, food, housing, a healthy environment, cultural identity, and, ultimately, to a dignified life.

The [IACHR] orders the creation of a Technical Evaluation Commission for the Tagaeri/Taromenane Intangible Zone, which must have specialized personnel in the matter and include in its composition members of civil society and the Waorani indigenous peoples whose territories are close to the ZITT and the zone of Cushioning, and provides that the guiding principles should be non-contact of the [PIAV in its Spanish acronym], respect for their isolation situation and the precautionary principle.

The State is ordered to hold a public act of recognition of international responsibility in relation to the events of this case. It also orders measures of protection and restitution of the rights of the Conta and Daboca girls, measures of satisfaction, and guarantees of non-repetition of the events.


Decision to zero exploration in Waorani territories.
Verification mission to Yasuni with Brazilian, Spanish, and Canadian experts
- Appeal against Petrobras environmental license in Block 31.
Application for amparo against the Petrobras' environmental license.
" Amazon for Life " campaign against the operations of the bloc by Conoco.
- Campaign against the Heavy Crude Oil Pipeline [OCP].
Publication of the double electoral registration of Petrobras.
Presentation of Oilwatch in Montecatini, Italy, of the proposal to leave the crude oil underground
Creation Yasuni National Park.
March to Quito of the Waorani against Maxus in Block 16.
Articulation of the Yasuni Biosphere Reserve.
Complaints against oil activities in Block 31.
Protest against the 7th Tender round.
Launch of the proposal for a moratorium on the expansion of the oil frontier.
Birth of the " Amazonia for Life " campaign.
- Protests against the 8th Tender round.
Weekly sit-ins in front of the Petrobras building for four months.
Legalization the territory of the Waorani people.
Oilwatch's network foundation.
OILWATCH
Creation of the Organization of the Hu Aorani Nationality of the Ecuadorian Amazon [ONHAE].
Opposition to the Block 31 races by Jane Goodall, Edgar O. Wilson, Paul Ehrlich, Peter Raven and Carl Ross.Jane Goodall, Edgar O. Wilson, Paul Ehrlich, Peter Raven e Carl Ross se opõem às corridas do bloco 31
- Statement of the intangible area such as Tagaeri and Taromenane territory.
Campaig against Petrobras in Block 31.
Protests against the 6th Tender round.
Prohibition by the Ministry of the Environment for Petrobras to enter the Yasuni Park and suspension of the license.
Publication of the book El Ecuador post petrolero authored by Eco. Alberto Acosta E.
Conoco company exit from Block 16.
Years: 1979 1989 1990 1992 1994 1995 1996 1999 2000 2001 2002 2003 2004 2005


Announcement from the central government of policies to safeguard the lives of the Tagaeri and Taromenane.
- Presentation of the proposal for non-exploitation of the Yasuni-ITT crude oil in the CAD.
- March demanding the resignation of the president of Petroecuador, Carlos Pareja Yannuzzelli.
Letter campaign "For the survival of Yasuni."
President Rafael Correa Delgado's acceptance of the proposal not to exploit crude oil.
- Sign the slogan on billboards "Yasuni depends on you" by thousands of Ecuadorians.
The granting of precautionary measures to the Tagaeri and Taromenane Peoples by the IACHR.
Delimitation of the intangible zone of Yasuni.
- Campaign for the incorporation of Block 31 into the proposal for non-exploitation of crude oil.
Protest against the license granted to Petrobras.
Criticism of the model proposed by the government.
- Decree of indefinite duration for the campaign.
Campaign in colleges and schools.
Toxitour tours to learn about the impacts of the oil industry.
Request for an environmental audit of Yasuni.
Registration of the new Constitution of the Republic of Ecuador.
Return of Block 31 to the State by Petrobras.
Launch of the official international Yasuni campaign
Cancellation of the initiative. Map fraud. The YAS United collective is formed.
YASunidos
Uprising of 751,000 signatures. YASunidos fraud.
Audit report.
Recognition of violation by CNE.
Entry of the case in the IACHR "Tagaeri Taromenane vs. Ecuadorian State".
Constitutional Court's ruling to convene the Popular Consultation on Yasuni -ITT. Result of the Popular Consultation "YES TO YASUNI": 5 million Ecuadorians vote in favor of Yasuni.
Sí al Yasuni
2006
2007
2008
2009
2010
2013
2018
2021
2022
2023

2. WHAT WE SHOULD KNOW ABOUT CLOSURE AND DISMANTLING

Why is it important to learn about decommissioning?

In places where infrastructure or extractive projects have been built, social and environmental disasters are brewing. The communities that live there, along with nature, are losing their ability to recover, rebuild, and, ultimately, their potential for autonomy. Poorly constructed infrastructure, low-quality materials, and aging or obsolete buildings are emerging global risks.

Companies often abandon wells or fields, leaving behind contamination, scrap, and impoverishment. To justify this, they introduce what they call "abandonment plans" into their strategies. Even these plans—incorrectly called "abandonment plans"—involve rehabilitating the affected areas and returning them to conditions prior to the installation of infrastructure..

The general practice is abandonment. For example, in the northern Amazonia there are 5,000 wells of which 2,500 are abandoned. There are 486 gas burners in the aforementioned region, burning at an average temperature of 400 degrees Celsius, 24 hours a day, all year round.

What should be dismantled in Block 43 ITT?

a. The Infrastructure

As of February of this year, 258 wells have been drilled in the ITT, of which 186 are producing, 52 are already closed (not sealed); and 20 wells are reinjecting formation water into the subsoil. The wells are located on 12 oil platforms (six in Tiputini, four in Tambococha, and two in Ishpingo). There is an average of 20 wells per platform. The wells must be sealed. Almost all the platform sites were swamps or

unstable soils given that there was a large movement of sand, stones and gravel that is contaminated and poses risks to the circulation of materials when it rains.

Pipes were laid for the well installation, which pose a risk of groundwater contamination due to capillary action. Waste was buried during construction. A contamination analysis, including radioactive contamination, and a thorough cleaning are required.

There is a processing plant for the separation of oil and water, an 85-kilometer oil pipeline with access roads four meters wide and 25 kilometers long. It is necessary to verify and assign a destination to the suction motors, generators, pipes, amount of wiring, equipment warranties, construction, among others.

↑
Image of aligned wells in Fernando Reyes' report on block 43-ITT

→
Waorani women during an assembly, Yarentaro, Waorani Territory, 2023.

b. Dismantle the dependency model

Recently contacted Wao nationality have undergone a series of profound and violent transformations since being contacted by evangelical missionaries and oil companies. Diseases, alcohol, chemicals, violence, and various forms of abuse have been introduced into their territory.

The community engagement strategies of oil companies were based on seduction, acculturation, and patronage practices, through monetary offers and the possibility of buying, thus generating a dependence on the company as a source of income. Traditional cultural practices were also replaced by dependence on the market. The State facilitated the imposition of taxes by companies by delegating to them obligations that were their own, such as education, healthcare, transportation, and connectivity.

Dismantling the model of dependence on oil companies requires the presence of the State with education, health, connectivity, and transportation systems consistent with the culture and agreed upon with the communities. This requires recovering their autonomy and enabling self-determination. The recovery of food sovereignty goes hand in hand with such an exercise for the health of the forest as a whole. Restoring the social fabric is part of comprehensive reparation.

Dismantle to repair

Study named ENOMEME GOPOKIMONI. Informe sobre una perspectiva psicosocial y comunitariadel cumplimiento de la decisión de la consulta ciudadanay dictamen de la Corte Constitucional sobre el cierre de las explotaciones del ITT en el Parque Yasuni (LET'S SAVE YASUNÍ. Report on a Psychosocial and Community Perspective on Compliance with The Decision Of The Citizen Consultation And The Ruling Of The Constitutional Court on the Closure of the Itt Mines in Yasuni Park), and conducted at the request of the Ecuadorian Waorani Nationality organization [NAWE by its acronym in Spanish] in its conclusions and recommendations, sets out the conditions and challenges for carrying out the historic decision to close the mines in the ITT and to repair and protect the territory in Yasuni Park. It takes into account the conditions of the affected communities, the recently contacted Waorani, the Tagaeri-Taromenane and Dugakairi indigenous peoples in isolation [PIAV by its acronym in Spanish]; as well as the Kichwa people. And, the social and cultural implications that arise in this case.[7]

1. **The logic that has characterized oil activity in the Amazonia** has been directed at the State guaranteeing companies the right to carry out their operations, which often turns negotiations with affected communities into processes based on an asymmetrical power relationship and a lack of information, cultural adaptation, and consultation standards. These dynamics must be reversed to carry out this process. Obstacles such as dependency relationships, community divisions, and problems of cohesion and commitment in the measures to be adopted must be overcome.

7. Carlos Martín Beristain, April 2024, ENOMEME GOPOKIMONI, Informe sobre una perspectiva psicosocial y comunitaria del cumplimiento de la decisión de la consulta ciudadana y dictamen de la Corte Constitucional sobre el cierre de las explotaciones del ITT en el Parque Yasuni.

2. **In the process of closing the ITT, it is necessary to overcome some of these structural problems, such as the Waorani's lack of control over their own territory;** therefore, to promote their greater capacity, technical support, clear negotiation frameworks, and decision-making mechanisms. All of this in a context where it is no longer about what is underground, but about repair.

3. **The action plans that are carried out in this territory must have the direct participation of these communities.** This requires access to all available information and an assessment of the situation in the territory with the participation of Waorani and Kichwa in the devastated areas. Participation in the dismantling and repair of facilities can provide resources to affected communities during the transition phase.

4. **Information on the measures and risk of calls for postponement.** There is no official data is clear regarding this suspension and withdrawal. Apparently, operations will continue from September 2023 without major changes. The risks of postponement or moratorium constitute the greatest economic and social vulnerability of communities and the development of life plans. Problems of delays in implementation or lack of response from the State can lead to a situation of new limbo and uncertainty that increases social or local conflict between communities.

5. **Existing information and monitoring of the situation.** Although the Ministry of Environment is monitoring the situation, the results of this work have not been shared with the communities or with researchers doing similar work in the area. Guarantees for claims in these cases should incorporate mechanisms by the State to prevent forms of exploitation that alter the habitat, while ensuring compliance.

6. **Principles of reparation.** International experience in these cases shows the importance of considering some general principles of environmental remediation: The comprehensiveness of the repair; which means, there is a relationship of interdependence between the different measures. It is also necessary to follow a criterion of proportionality in relation to the damage caused: when this is quite insufficient, it will easily lose its meaning. Likewise, there is a principle of hierarchy with respect to the most significant measures versus those that depend on others (clean-up versus ecosystem restoration). Ecosystem repair and restoration must be articulated on new bases, in such a way that eradicate relationships of dependency and welfare, while promoting a more horizontal, culturally sensitive dialogue with decision-making capacity within communities.

7. **Environmental liabilities, damage assessment, and proposed measures.** The assessment of environmental liabilities must be based on an independent analysis conducted by technical and trusted personnel, with the participation of the Ministry of the Environment, but also of those affected in the Waorani territory and a portion of the Kichwa one, as well as trusted technical teams, universities and other experts in the region, have documented numerous cases.

8. **Compliance mechanism.** To achieve this, a mechanism must be established that includes monitoring and coordinated decision-making, to be carried out throughout the entire process. A periodic review, with public hearings—which includes reports from different parties into come to a conclusion—can be a strategy that helps limit deviations or decision-making to strengthen implementation in the early stages.

9. **Recognition of rights in a context of change.** The dismantling of the oil infrastructure and the restoration of nature in the ITT

cannot be separated from the exercise of the rights of the affected communities. Overcoming conditions of social marginalization is part of the reparation of other community violations linked to the history of oil exploitation and state building in the region. Aspects such as health and education must be considered economic and social rights, collective rights of indigenous peoples and communities. They should not be subject to conditions of negotiation with oil companies. The protection of the territory and the [PIAV by its acronym in Spanish] is essential for their survival.

10. **Work, economic conditions, and life plans.** The closure of oil fields poses challenges for the exercise of other rights, such as the right to work and the economic conditions necessary to carry out life projects, such as the life plans under construction in the Waorani communities. An analysis of these plans and dialogue with Ecuadorian government authorities are key to offering economic alternatives to people who have been linked to or dependent on oil exploitation.

11. **Participation mechanisms.** The implementation of plans for dismantling, protection, and repair requires inter-institutional coordination and the participation of national and local authorities; however, independent monitoring systems must be established with the active voice of the affected communities and their representatives. International experience shows that the active presence of independent sectors that are credible to the parties represents an important guarantee.

12. **Reparation fund and implementation committee.** A community development and reparation fund, along with an implementation committee, are needed to carry out these actions. The fund may be part of the oil royalties themselves that are reinvested in effective conservation and repair; similarly, a project coordination committee is needed as far as it is capable of making key

decisions and coordinating the action plan. Based on the experiences of the [IACHR] in cases of collective reparation of indigenous peoples and land cases, reparation-oriented committees have also been composed of a representative from the State, one from the community, and another chosen by mutual agreement of the parties.

13. **Information and education about the process**, This includes the participation of support organizations with experience in the area and trusted by the communities. Adequate information can also help prevent and more effectively manage potential conflicts.

14. **Phases and clarity of the action plan.** Since these are measures with a deadline that can take several years, monitoring this stage—with the participation of communities and independent bodies—becomes a guarantee for said process.

15. **Consider culture.** A deeper look is needed at how this process also promotes a non-colonialist, more horizontal, and integrative relationship from an indigenous perspective. An interdisciplinary approach, for example, through the creation of a group of experts (Waorani/ interdisciplinary team) with the aim of proposing measures that accompany the closure of the process from a sociocultural point of view.

16. **A coordinated form of State action and action without end.** Lack of coordination has serious effects when action is taken on a territory or mechanisms and contacts are generated that distort communication, make responsibilities invisible, or fragment actions. This is even more serious in territories or contexts such as the Amazonia in the current situation, where various interlocutors have pointed to "deinstitutionalization" existing in the State regarding these policies.

17. **Preventing and managing potential conflicts.** In the context of reparation, existing differences between communities will likely not have been eliminated, and cooperative work among the various sectors involved is needed. The tendency (still active) to generate community divisions as a way to favor oil policies must be challenged. The State has an obligation to foster a change in its relationship with communities that facilitates participation and social cohesion, not specific interests.

18. **Effective environmental monitoring, preventive measures, and sanctions.** A current problem with environmental monitoring is the lack of the necessary independence of the person doing the monitoring. It is necessary to integrate organizations that carry out this work from civil society, along with state institutions and affected communities. It addresses current problems for the protection of the territory (illegal mining or logging).

An opportunity for transformation. The determined process of dismantling infrastructure, restoring environmental protection, and protecting the territory represents a historic opportunity for Indigenous peoples and Ecuadorian society. So too, It is an example of strong international impact. The way in which the measures included in the ruling are implemented and the mechanisms for effective compliance can contribute not only to its effectiveness, but also to a change in relations with indigenous peoples in the Amazonia; and, consequently, their perception within society and the Ecuadorian State.

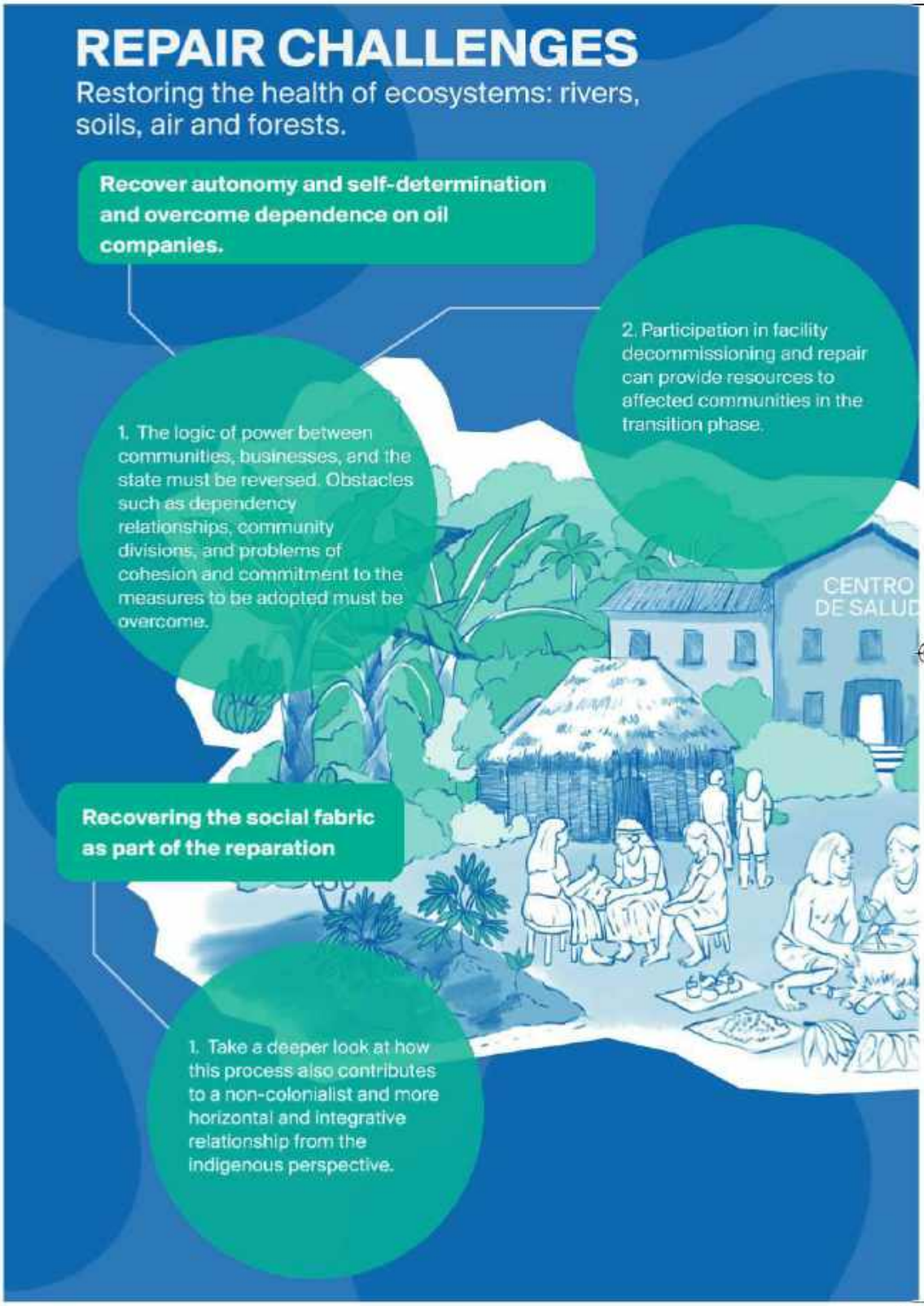
REPAIR CHALLENGES

Restoring the health of ecosystems: rivers, soils, air and forests.

Recover autonomy and self-determination and overcome dependence on oil companies.

1. The logic of power between communities, businesses, and the state must be reversed. Obstacles such as dependency relationships, community divisions, and problems of cohesion and commitment to the measures to be adopted must be overcome.

2. Participation in facility decommissioning and repair can provide resources to affected communities in the transition phase.



Recovering the social fabric as part of the reparation

1. Take a deeper look at how this process also contributes to a non-colonialist and more horizontal and integrative relationship from the indigenous perspective.


3. Waorani life plans are key as economic alternatives for communities that have been dependent on companies.
4. Ecosystem repair and restoration must be based on new foundations that no longer foster relationships of dependency and welfare. A more horizontal, culturally sensitive dialogue with community decision-making capacity must prevail.
Compliance with Rights
2. Recovering food sovereignty—safe and permanent access to healthy, sufficient, and nutritious food—is linked to it being produced locally and in accordance with cultural identities and traditions, preferably.
1. It is essential to overcome the social marginalization of communities linked to the history of oil exploitation. Therefore, aspects such as health and education must be considered economic and social rights, collective rights of Indigenous peoples and communities; therefore, not subject to conditions of negotiation with oil companies.

3. RESPON_ SIBILITIES AND RIGHTS[8]

Obligations of the State towards nature

"Nature or Pacha Mama, where life is reproduced and realized, has the right to have its existence and the maintenance and regeneration of its vital cycles, structure, functions and evolutionary processes fully respected (art. 71)".

Respecting nature means that the State or companies cannot intervene if they cause damage or pollution.

The life cycle means that the State and businesses must respect the rhythms of nature without altering them. If, for example, a forest is cut down and an oil well is drilled, the life cycle is disrupted because it prevents those trees from bearing fruit, housing ants, or transforming sunlight into energy.

Structure refers to the fact that nature and the elements that comprise it have a natural form that allows them to function. For example, if the waters of a river are diverted or piped, its essential form. Similarly, given the characteristics of the river, the water must be clean, transparent, and suitable for consumption by animals, plants, and humans. If the water is contaminated, for example, with oil, the configuration of the river's water is damaged, and the rights of nature are violated.

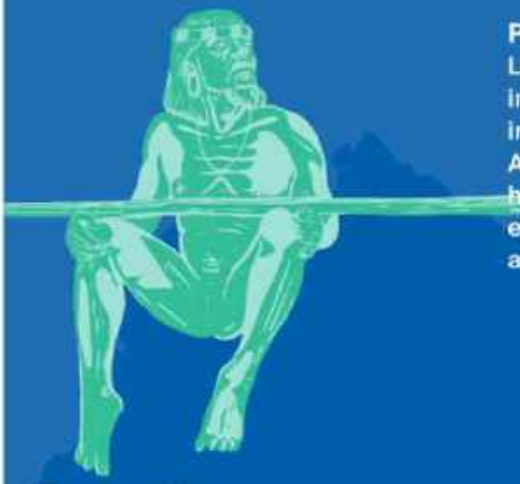
The functioning of nature talks about every ecosystem and its elements have a place and a role to play. A forest, for example, provides food and captures carbon; while a river provides water, food, and

8. The proposal is made by Ramiro Ávila Santamaría and Esperanza Martínez

STATE OBLIGATIONS

applicable to closure, dismantling and comprehensive repair

The State recognizes the rights of People, Communities and Nature



People:
Life, security, property, and access to information and justice. The possibility of influencing collective affairs, participation. A culture of peace, comprehensive security, a healthy and ecologically balanced environment that guarantees sustainability and good living, sumak kawsay

Communities:
Advocate self-determination, traditions and forms of organization. Avoid all forms of discrimination. Conserve their territories, be consulted and not displaced. Provide education and health. Guarantee participation, historical reparations, among others.

Nature:
"Nature or Pacha Mama, where life is reproduced and realized, has the right to have its existence and the maintenance and regeneration of its vital cycles, structure, functions and evolutionary processes fully respected (Art. 71)."

Right to FULL REPARATION

- **Art. 78.-** [...] Mechanisms for comprehensive reparation shall be adopted, which shall include, without delay, knowledge of the truth of the facts and restitution, compensation, rehabilitation, guarantee of non-repetition, and satisfaction of the violated right.

- **Art. 397.-** In the event of environmental damage, the State shall act immediately and subsidiarily to guarantee the health and restoration of ecosystems. In addition to the corresponding sanction, the State will impose upon the operator of the activity that caused the damage the obligations entailed by comprehensive reparation, under the conditions and procedures established by law.

- **Art. 72.-** Nature has the right to restoration.
This restoration will be independent of the obligation of the State and natural or legal persons to compensate individuals and groups that depend on the affected natural systems.

transportation. If, due to State or corporate intervention in nature, the forest, the river, or the plants cannot perform what they have always naturally done; their organic functioning is violated.

Evolutionary process involves ensuring that natural systems can continue their trajectories in harmony and without external disturbances.

Legal principles present in the Constitution

Caution: When there is no scientific certainty regarding the impact or damage to the environment caused by any action or omission, the State, through its competent authorities, shall adopt effective and timely measures to avoid, reduce, mitigate or cease the impact.

Prevention: When there is scientific certainty about the environmental impact or damage that an activity or product may generate, the State, through its competent authorities, will require whoever promotes it to comply with provisions, rules, procedures and measures aimed primarily at eliminating, avoiding, reducing, mitigating and ceasing the impact.

Comprehensive Repair: It is the set of actions, processes and measures, including those of a provisional nature, which, when applied, fundamentally tend to reverse environmental impacts and damage, prevent their recurrence, and facilitate the restitution of the rights of the affected individuals, communes, communities, peoples, and nationalities.

Obligations to indigenous peoples

The indigenous peoples belonging to the Waorani nationality, some of whom were initially contacted and others in voluntary isolation, have special protection according to the Constitution (art. 57) regarding the ancestral possession of their territory and their own forms of social and political organization, in harmonious relationship with nature, since they depend on it to live.

The Constitution of the Republic of Ecuador, Convention 169 of the International Labour Organization [ILO] on indigenous and tribal peoples, ratified by Ecuador in 1998, and the American Convention on Human Rights highlight the protection of the connection of indigenous peoples with their lands, which includes the incorporated elements that arise from that relationship.

Article 57 of the Constitution establishes that the territories of peoples in voluntary isolation are their irreducible and intangible ancestral possessions, and all extractive activities are prohibited within them. According to the cited article, the State shall adopt measures to safeguard their lives, respect their self-determination and will to remain in isolation, and safeguard the observance of their rights. The violation of these rights shall constitute the crime of ethnocide, which shall be defined by law. The State shall guarantee the application of these collective rights without discrimination, under conditions of equality and gender equity between women and men.

Rights of peoples in voluntary isolation

During the 1970s, several clans of Waorani warriors, called the Tagaeri/Taromenane (and possibly others), rejected forced contact and chose to hide in the Yasuní wilderness. Currently, the so-called Indigenous Peoples in Voluntary Isolation [PIAV by its acronym in Spanish] live in

Yasuní National Park and maintain hunting and movement routes in the southern area of Block 31 and the ITT. There is evidence of their presence also in Blocks 14, 16, 17, and even in the buffer zone outside the so-called Intangible Zone.

According to art. 57, the territories of the [PIAV by its acronym in Spanish] are of irreducible and intangible ancestral possession, and all types of extractive activity shall be prohibited within them. The State shall adopt measures to guarantee their lives, respect their self-determination and will to remain in isolation, and safeguard the observance of their rights. Violation of the latter shall constitute the crime of ethnocide, which shall be defined by law.

The [IACHR] issued Merits Report No. 152/19, in Case No. 12 979, which concluded that the Ecuadorian State is responsible for the violation of Articles: 4.1 (right to life); 5.1 (right to personal integrity); 7.1 (right to liberty); 8.1 (right to a fair trial); 11.2 (right to honor and dignity); 19 (rights of the child); 21.1 (right to property); 22.1 (right to free movement and residence); 25.1(right to judicial protection); and 26 (right to health and cultural rights) of the American Convention on Human Rights in relation to the obligations established in Articles 1.1 and 2 of that same instrument.

Environmental rights of people

Article 14 of the Constitution of the Republic recognizes the right of the population to live in a healthy and ecologically balanced environment that guarantees sustainability and good living (sumak kawsay). It declares the preservation of the environment, the conservation of ecosystems, biodiversity, and the integrity of the country's genetic heritage, the prevention of environmental damage, and the recovery of degraded natural spaces to be of public interest.

Article 66 of the Constitution, paragraph 27, recognizes and guarantees the right to live in a healthy, ecologically balanced environment in harmony with nature. Article 399, for its part, mandates

a comprehensive exercise of State protection of the environment, articulated through a decentralized national environmental management system. Article 395 recognizes the environmental principles of sustainable development and cultural diversity, mandatory environmental management policies, participation of those affected at all stages, and the right to in dubio pro natura. Article 397 provides that the State is obligated to ensure the inviolability of protected natural areas and to allow any person, collective, or human group to exercise legal action, which implies the possibility of requesting precautionary measures to help stem the environmental threat.

Furthermore, regarding public policies and State decisions that may affect the environment, Article 398 requires that the community be consulted, and that the community be informed in a timely and comprehensive manner.

The Magna Carta recognizes the right to water in Article 12 as a fundamental and inalienable human right. Article 32 establishes that health is a right to be guaranteed by the State, linked to other rights such as the right to a healthy environment and the right of access to water.

Right to comprehensive reparation and restoration of nature

Comprehensive reparation that will include, without delay, knowledge of the truth of the facts and restitution, compensation, rehabilitation, guarantee of non-repetition and satisfaction of the violated right (art. 78).

art. 397.- In the event of environmental damage, the State shall act immediately and subsidiarily to guarantee the health and restoration of ecosystems. In addition to the corresponding sanction, the State shall repeat against the operator of the activity that caused the damage the obligations entailed by comprehensive reparation, under the conditions and procedures established by law.

art. 72.- Nature has the right to restoration. This restoration shall be independent of the obligation of the State and natural or legal persons to compensate individuals and groups that depend on the affected natural systems.

In cases of serious or permanent environmental impact, including those caused by the exploitation of non-renewable natural resources, the State shall establish the most effective mechanisms to achieve restoration and adopt appropriate measures to eliminate or mitigate harmful environmental consequences.

Laws that speak of abandonment, closure and dismantling

1999 / Law No. 37/1999, on Environmental Management. Law 245, July 30, 1999. It establishes that the Environmental Impact Assessment "covers from the pre-feasibility phase to the abandonment or dismantling of the project, work or activity."

2001 / Substitute Regulations for the Environmental Regulations for Hydrocarbon Operations in Ecuador. Decree 1 215 of February 13, 2001.

- It establishes the definition of permanent and temporary abandonment. Permanent abandonment occurs when a facility or well is abandoned for technical reasons, or when hydrocarbons are no longer present, when exploitation has ended, or when it is no longer profitable. Temporary abandonment occurs when a productive well is plugged, but the field is declared uncommercial, or the necessary infrastructure for its exploitation is no longer available.

The Abandonment Plan "includes the design of the activities to be carried out once the operation is concluded, in order to proceed with the abandonment and handover of the project area that is the subject of the respective Environmental Study."

- The operational standard for abandonment involves the redistribution of the removed organic layer, reforestation with native species and rehabilitation if there was environmental damage (art. 49 lit. i).
- In cases of temporary or permanent abandonment in the areas of influence, the following must be done: i) properly locate unnecessary equipment and structures; ii) treat waste; iii) redesign drains and reforest; and iv) seal with cement plugs to prevent fluid migration (art. 53).
- Injection of liquid waste into abandoned wells is permitted (art. 57 lit. e).

2015 / Ministerial Agreement 061. Reform of Book VI of the unified text of secondary legislation.

Control Subjects who, for any reason, require the closure of operations and/or abandonment of the area must execute the closure and abandonment plan as approved in the respective Environmental Management Plan; additionally, they must submit Environmental Reports, Environmental Audits, or other documents in accordance with the guidelines established by the Competent Environmental Authority (art. 43).

2017 / Organic Code of the Environment. RO. Supplement 983 of April 12, 2017. It establishes the issuance of administrative authorizations for projects, works or activities. In this case, when operators require.

[...] the closure of operations or abandonment of the area, they must execute the closure and abandonment plan as approved in the respective environmental management plan; additionally, they must submit reports and audits on this matter, as well as any other reports established in the secondary regulation (art. 186).

The revocation of the administrative authorization results in the suspension of the work and may entail compliance with

the management plan, including the closure and abandonment plan and the repair of environmental damage (art. 188 and 189). Also, it establishes as a very serious environmental administrative infraction that "the abandonment of infrastructure or closure of activities, without the approval of the Competent Environmental Authority", which gives rise to a financial fine (art. 318 no. 13).

2018 / Hydrocarbon Operations Regulations. Ministerial Agreement 1. RO. Special Edition 254 of February 2, 2018. It establishes the procedure for the plugging and definitive abandonment of wells in the event that they are not commercial or productive, there are operational failures or they are not used as re-entry or reinjection wells (art. 46 and 47).

2019 / Regulations to the Organic Environmental Code. Executive Decree 752. RO. 507 of June 12, 2019. Includes three relevant elements related to project closure:

- The content of the Environmental Management Plan must includes sub-plans according to the nature of the project, work or activity, one of which is the Closure and Abandonment Plan (art. 435, lit. h).
- The environmental audit process should serve as a mechanism to support the environmental administrative authorization. The findings could be either conformities or nonconformities, and a major nonconformity would be the "abandonment of infrastructure, equipment, or closure of activities without the approval of the Competent Environmental Authority" (art. 501, paragraph f).
- The operator is required to update the closure and abandonment plan approved in the Environmental Management Plan when he or she wishes to implement the closure and abandonment plan. To do so, the following must be included in the plan:

a) Identification of the environmental impacts generated during the development of this phase; b) Management measures for the area; c) Restoration measures for abandoned areas; d) Plans and maps showing the location of the infrastructure to be closed or abandoned; and e) Obligations arising from administrative acts and the presentation of documents demonstrating compliance with these obligations, if applicable.

The environmental authority is responsible for approving the plan, carrying out an on-site inspection and making the relevant observations (art. 508).

Rights related to the declaration of emergency

The Organic Law on Risk Management defines an emergency as:

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Occurrence of a situation triggered by one or more adverse events of natural or anthropogenic origin that affect the safety, livelihoods and property of people, the continuity of the exercise of people's rights or the normal functioning of a community or area and that requires immediate and effective actions by the decentralized autonomous governments and other entities that make up the Decentralized National System for Comprehensive Disaster Risk Management.

Although it refers to official declarations of emergencies, the law allows for the identification of the framework for the protection of rights in cases of declarations under the principle of self-determination. Article 6, paragraph 31 of the Organic Law of the National Public Procurement System states: "An emergency situation is concrete, immediate, unforeseen, proven and objective [...]"; and Article 57 says:

[...] Procedure.-To address the Emergency Situations defined in number 31 of article 6 of this Law, prior to initiating the procedure,

the Minister of State or, in general, the highest authority of the entity must issue a reasoned resolution declaring the emergency, to justify the contracting [...].

The information must be public, thus Article 72 on the Prohibition of Confidentiality and Classification of Information determines that Information relating to comprehensive disaster risk management, emergency or disaster response, and humanitarian assistance may not be declared confidential or subject to any type of information classification.

In what cases is an emergency declared?

The Organic Law on Disaster Management in its Article 5 defines some issues related to emergencies:

Catastrophe: It is a disaster situation in which the country's means and resources are insufficient, making international humanitarian assistance necessary and indispensable.

Disaster: It refers to a very serious interruption in the functioning of one or more territorial districts that exceeds their capacity to cope with the situation. It results from the interaction of dangerous events or threats, with conditions of exposure and vulnerability that entail human, material, economic, or environmental losses or impacts that require attention from both decentralized autonomous governments and the central government. The disaster can be triggered by a natural or man-made threat.

Emergency: Or occurrence of a situation caused by one or more adverse events of natural or anthropogenic origin that affect the safety, livelihoods and property of people, the continued exercise of people's rights or the normal functioning of a community or area and

that requires immediate and effective actions by the decentralized autonomous governments and other entities that make up the Decentralized National System for Comprehensive Disaster Risk Management.

In an emergency, according to Article 389 of the Constitution, it is not only a matter of responding immediately to restore the living conditions of people, communities and nature, but also of preventing risks and improving social, economic and environmental circumstances with the aim of minimizing instances of vulnerability.

How to deal with an emergency?

There are legally recognized principles for dealing with an emergency. The State will establish policies, tools, and measures that allow the population to access risk management knowledge.

The first step is to recognize and respect the right of communities to self-protection and their participation in the design and implementation of the measures to be applied. Any action must be respectful of the integrity of the territory, forms of organization, community fabric, cultural particularities, and collective rights, and must promote an ongoing dialogue of knowledge.

The State, through the different levels of government and institutions, has the obligation to define public policies, measures and resources to address these events, with the full participation of territorial organizations:

Nature Protection (20): The State shall guarantee the protection of natural heritage, which includes physical, biological and geological formations; the national system of protected areas; fragile and threatened ecosystems, such as moors, wetlands, cloud forests, dry and humid tropical forests, and mangroves, marine and marine-coastal ecosystems; in the event of a possible emergency or disaster of natural or anthropogenic origin.

International Cases to Learn About Closure and Abandonment[9]:

Case of Indigenous Communities Members of the Lhaka Honaht (Our Land) Association vs. Argentina: the State's responsibility for generating legal uncertainty in the indigenous community's property rights over their ancestral territory was debated, due to the lack of control over deforestation, the construction of public works (an international bridge) and concessions for hydrocarbon exploration (gas pipeline) without conducting prior social and environmental impact studies or consultations with the community.

The Court ordered that "fences and livestock belonging to Creole inhabitants be removed from indigenous territory," that "critical situations of lack of access to drinking water or food that may seriously endanger health or life be identified and that an action plan be formulated," and that a study be conducted (reviewed by the petitioners) on the conservation of surface or groundwater within indigenous territory, the loss or reduction of forest resources in the territory, and access to food in a nutritionally and culturally appropriate manner; among other issues.

Case of the Oroya Community vs. Peru: The "international responsibility of the State for the alleged damages caused to a group of residents of the Community of La Oroya, as a result of acts of contamination carried out by a metallurgical complex in said community" was debated.

9. Written observation addressed to the Inter-American Court of Human Rights regarding the request made by the Republics of Colombia and Chile for an Advisory Opinion on the Climate Emergency and Human Rights. Acción Ecológica, the Environmental Clinic, and the Andean Human Rights Program of the Simón Bolívar Andean University, Ecuador. December 2023.

The [IACHR], in its background report, included the creation and implementation with the participation of the victims, of "a plan aimed at generating opportunities and alternatives for sustainable development in the town of La Oroya that takes human rights into account."

Case of the U'wa Indigenous People and Its Members vs. Colombia: the responsibility of the Colombian State in granting licenses for projects and concessions for oil, mining, tourism and infrastructure activities, without respecting and guaranteeing the right to consultation, is being studied. In the background report, the [IACHR] recommended that the State

[...] Take all necessary measures to ensure that projects linked to concessions and business activities in which the standards established in the background report regarding consultation and consent have not been met are not continued or initiated.

Case of the Tagaeri and Taromenane Indigenous Peoples in voluntary isolation vs. Ecuador: the [IACHR] recommends that the Ecuadorian State "take the necessary corrective measures to guarantee the full exercise of its collective property, including the measures necessary to ensure strict compliance with the principle of non-contact".

2017 Advisory Opinion of the [IACHR]: the obligation to require and approve Environmental Impact Assessments was included [EIAs by its acronym in Spanish] as part of the mandate to prevent potential damage to the right to life and personal integrity as a result of "any activity that may cause significant environmental damage."

4. LET'S DO THE MATH

About Block-43 ITT1[10]

The end of the oil period in Ecuador is approaching

Crude oil exports have fallen by 22.6% since 2014, compared to accelerated growth in imports. In 2007, imports of derivatives represented 29% of exports; by 2023, they will reach 80%. The crude oil production rate fell from 511,000 barrels per day in 2014 to 345,000 barrels in 2023; this represents a drop of 33%.

The depletion of oil reserves is accelerating. The figures from the Ministry of Environment and Energy and Petroecuador speak for themselves in their reports: proven reserves reach 1,370 million barrels; probable, 292 million; possible, 400 million. This gives us a total of 2,062 million barrels for the year 2021.

Data on extraction by Petroecuador (formerly Petroamazonas) fields show a decline in numerous major fields, primarily Indillana (Block 15), Eden-Yuturi, and Libertador, as well as smaller fields such as Palo Azul and Oso-Yuralpa. In all cases, extraction fell by approximately half between 2010 and 2021. In Blocks 16 and 67, managed by Repsol until its departure from the country, extraction fell from 67,000 barrels per day in 2007 to 15,000 in 2021. There are also fields that hold the largest remaining reserves of quality crude oil, whose extraction has not declined, mainly Sacha and Auca, which were originally exploited by Texaco

New oil discoveries in the Amazon will be in increasingly smaller fields, with lower-quality crude. The period in which oil was the pillar of the Ecuadorian economy is approaching the end.

10. This analysis is carried out by Alberto Acosta.

The ITT or Block 43 did not meet extraction expectations

The reserves used to justify its exploitation are not apparent in practice. In 2013, it was said that there were 840 million barrels of crude oil reserves in the ITT. These reserves were said to be exploited for 23 years, with a maximum extraction of 225,000 barrels per day in the sixth year of operations. Then, in 2016, as work to exploit the ITT crude oil was well underway, the reserves were doubled to 1,672 million barrels, with a peak extraction of 300,000 barrels per day in the sixth year.

Actual crude oil production figures are far from those expectations. In August 2019, a peak extraction of 8,012 barrels of oil per day. By June 2022, the extraction rate had fallen to about 60,000 barrels per day. Currently, the daily extraction rate is around 55,000 barrels. The latest Petroecuador reserve figures speak of 282 million barrels. This figure shows that the 1,672 million barrels in 2016 were not supported by technical criteria.

Reality shows that not only is less oil being extracted, but it is also of very low quality. More and more formation water is flowing, which is extremely polluting: it is estimated that 7 out of every 100 barrels extracted are formation water. To leave no doubt, the Minister of Environment and Mines (at the time), Fernando Santos Alvite, acknowledged that the latest exploration wells are only producing "an extremely heavy crude, a real gloop that cannot be transported to the pipeline.

Income and losses of block 43 or ITT

The annual losses for the State of 1,200 million, so often mentioned in the mainstream press, is completely unsupported. Considering that the total fiscal revenue from oil extraction in 2021 was 2 million, the government has been tying the balance of power for decades. 733.5 million, considering that 12% of total withdrawals come from the ITT, we could say that the amount of revenue that would be lost is around 300 million. Since that year, the amount of resources received by the treasury has fallen; a net income of 187 million dollars was estimated for 2023.

It has been said that the non-extraction of crude oil from ITT Block 43 would seriously impact the balance of payments and thus lead to the end of dollarization, a shrinking economy, a shortage of resources for social investment, and massive unemployment. At this point, it's worth considering that not all exports even lead to healthy growth, as a kind of "impoverishing growth" can even occur: this happens very frequently when the economy grows, but serious environmental damage is caused, and the benefits are concentrated in a few hands.

Furthermore, not all oil export revenues are net for the national economy. First, all expenses for imports of equipment and materials required for hydrocarbon activity in the ITT, almost all of which are not manufactured in Ecuador, should be discounted. Likewise, the amount of foreign currency remittances from profits of foreign companies—especially Chinese— operating in the ITT-Block 43 area should be subtracted.

To argue that the reduction in foreign currency earnings from ITT crude oil exports will affect dollarization and produce a series of additional long-term impacts is baseless. It would be enough to recall how oil export revenues fell from 2019 to 2020—from 2,450 million to,626 million—even though oil prices

were negative for a few days on the world market—without jeopardizing dollarization.

The actual extraction cost per barrel is difficult to estimate because Petroecuador lacks reliable accounting. The figures presented by the company refer exclusively to extraction and do not consider capital costs. In the Yasuní National Park itself, in Block 16, where oil is of higher quality, the extraction cost recognized by the State to the company REPSOL was 36 USD per barrel; thus, a cost of, 40 USD per barrel can be estimated, given that the crude oil is of increasingly lower quality.

The oil sector generates minimal direct employment, as it is a capital-intensive sector. According to the 2022 census, direct employment in the oil industry was just 21,162 people. Oil has not generated significant productive links, as most of it is exported as crude oil, and refining is limited. Nor has an oil industry developed capable of supplying equipment for this extractive activity (pipes, pumps, drill bits, drilling rigs, among others).

Its connection to the national economy is greatest through tax revenue, thanks to the State's capture of a portion of oil surpluses and their subsequent economic and social reinvestment. This capture occurs directly through Petroecuador's activities or indirectly through taxes and royalties paid by private oil companies.

Closing costs and how to cover them

The abandonment of the field has been estimated at 476 million USD. This figure must be considered in any case, whether now or in a couple of years, since the Constitution mandates the repair and even restoration of nature. Moreover, the orderly abandonment of Block 43—which cannot be naively assumed to be the "scrapping" of the equipment installed there—could be considered an investment in the future given that this wonderful nature is being protected and, as well, with an appropriate foreign policy, financing could be obtained to do so within the framework of the fight against climate change.

These funds could be obtained, for example, based on a review of the following circumstances:

1. The tax exemptions, incentives, and benefits granted annually, which particularly benefit large economic groups, have been comprehensive from 2014 to 2023.
2. Similarly, these could be achieved by ending the multi-billion-dollar tax debt forgiveness of large economic groups, including the largest banks and even some oil companies. This practice is repeated from time to time. This is what former Ecuadorian presidents Rafael Correa in 2015 and 2008, Lenin Moreno in 2018, and the current president, Daniel Noboa, in 2023, have done in this regard. In the last, case the gift must have exceeded 1,300 million dollars.
3. It is necessary to combat tax evasion, which reaches 7,000 million dollars a year, according to [ECLAC]. The prevailing source of resources is not only to cover the difference that would result from not extracting crude oil from the ITT,

but also for many other essential activities; including as a productive and energy transition. Consequently, resources would be available to finance the dismantling of the equipment in Block 43 and make way for the repair and restoration of the area.

4. In addition, international compensation could be sought for each barrel of ITT heavy crude oil, the emission of 481 kilos of CO2 can be estimated, causing a cost of between 25 and 48 USD per barrel in monetary terms of climate impact, according to estimates by the US Environmental Protection Agency [EPA].

Global reasons for not exploiting ITT crude oil

The continued exploitation and use of fossil fuels (oil, coal, and gas) will continue to carbonize the planet's atmosphere. Stopping the exploitation of more crude oil is an increasingly widespread demand; so much so that it is shared by the Paris-based International Energy Agency [IEA], formed in 1974 by the major oil-importing countries to confront the Organization of the Petroleum Exporting Countries [OPEC].

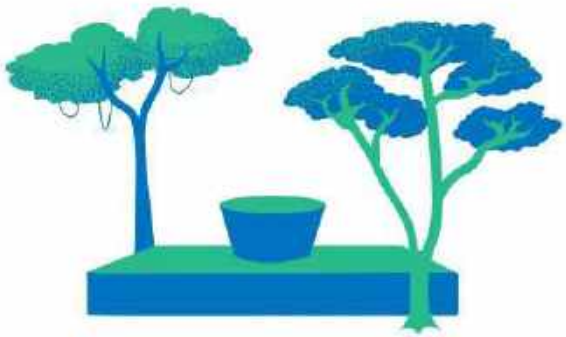
The Agency in question—which is not at all an environmentalist—announced more than 12 years ago that two-thirds of the known reserves of all fossil fuels must remain underground if the planet's temperature is not to rise by 2 °C compared to pre-industrial levels. The scientific journal Nature published in 202—with greater detail—the following conclusion: 89% of coal, 58% of oil and 59% of gas (including crude oil and fracked gas) cannot be extracted to avoid a 1.5% increase °C in the global average temperature.

The valorization of the Yasuni -ITT should only be carried out based on multiple considerations of its contribution to biodiversity and not solely on the oil that this region may contain. The common goods

involved, such as air and water, must also be considered. Despite the fight against global warming, as well as the protection of biodiversity and, above all, the rights of indigenous peoples, especially those peoples who have no voice: the [PIAV].

The immeasurable destruction in the oil-producing Amazon, the poorest region in all of Ecuador, which has become a "land of sacrifice" cannot go unnoticed. Since the Texaco-Gulf consortium began operating in the 1960s, the impacts from spills, swamp pollution, gas flaring, deforestation, biodiversity loss, and the death of wild and domestic animals are truly immeasurable. Added to this are the materials used, which caused the salinization of rivers.

Illnesses (such as cancer) and even poorly paid work are impossible to calculate. Psychosocial impacts are brutal: rape by oil company operators against adult and minor mestizo and indigenous women, miscarriages, discrimination and racism, forced displacement, harmful cultural impacts, and the breakdown of social cohesion. It is worth noting that, in this list of death and destruction, the ethnocide of two indigenous peoples has a prominent place: Tetete and Sansahuari.



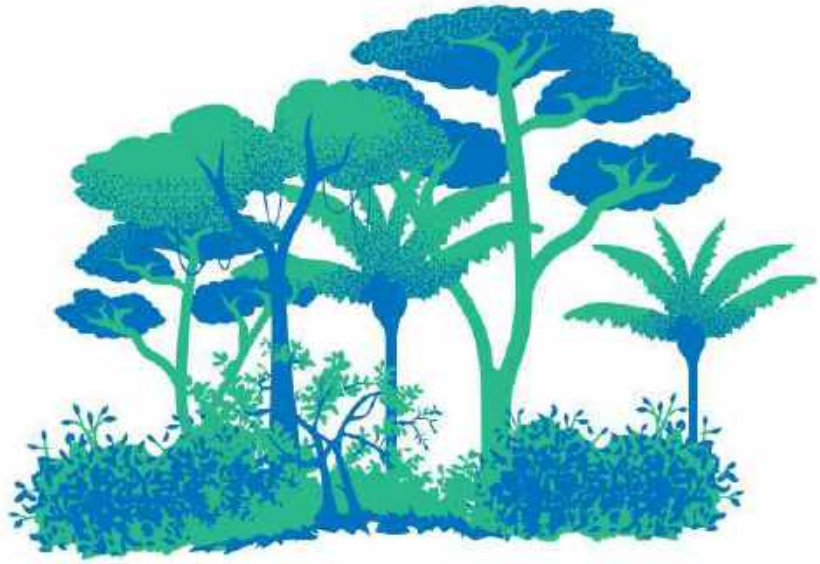
A life economy before an oil economy, as a constitutional mandate

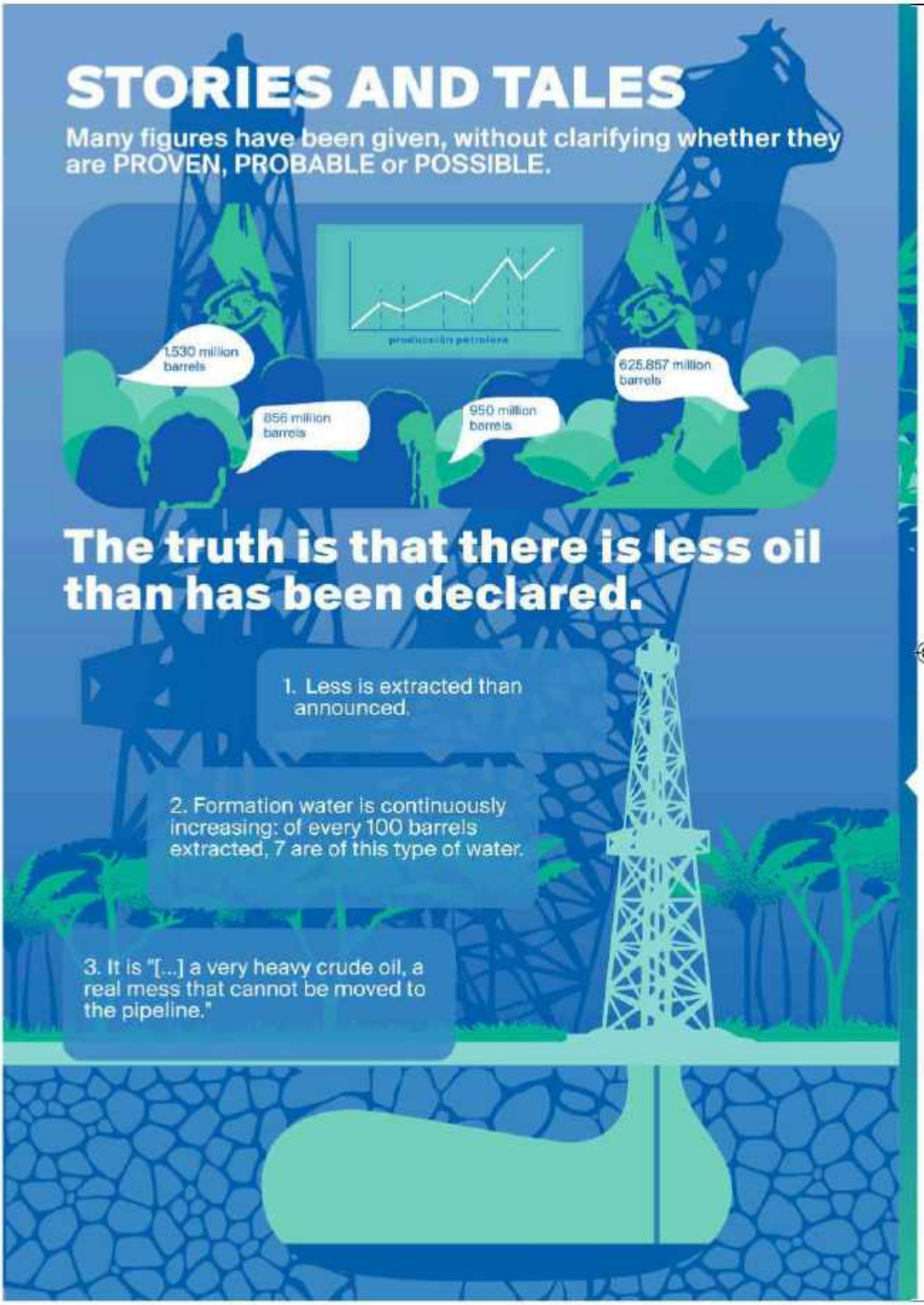
An economy of life must understand that human beings are nature and that we cannot figuratively place ourselves on the sidelines, much less above it. It is urgent to consider the existence of non-human beings, regardless of their usefulness to human beings; even more so when the Constitution of the Republic of Ecuador states in its Article 71, on the Rights of Nature, that nature or Pacha Mama—where life is reproduced and realized—has the right to have its existence fully respected; as well as, to carry out the respective maintenance and regeneration of their life cycles, structure, functions and evolutionary processes.

From which it follows that, if this constitutional mandate and the one that prohibits all extractive activity in regions where there is evidence of [PIAV] had been respected (Article 57 of the Constitution) the exploitation of crude oil in Block 43 or ITT would not have been authorized under any circumstances.

This brief economic analysis concludes by emphasizing that, under no circumstances, should human lives be put at risk. The aim is to protect the [PIAV] Tagaeri, Taromenane, Dugakaeiri; and, perhaps, Oñamenane. This is not a potential threat. Let us remember, Once again, oil activity half a century ago led to the extinction of indigenous peoples such as the Tetete and the Sansahuari, whose name, ironically, is used to name two oil fields in the same area where they once lived.

In addition to the environmental damage caused by this extractive activity, brutal social and cultural impacts were recorded (and are still being recorded) on the Siona, Secoya, Cofán, Kichwa and Waorani indigenous peoples.




STORIES AND TALES
Many figures have been given, without clarifying whether they are PROVEN, PROBABLE or POSSIBLE.
producción petrolera
1,530 million barrels
656 million barrels
950 million barrels
625,857 million barrels
The truth is that there is less oil than has been declared.
1. Less is extracted than announced.
2. Formation water is continuously increasing: of every 100 barrels extracted, 7 are of this type of water.
3. It is "[...] a very heavy crude oil, a real mess that cannot be moved to the pipeline."

Not all exports lead to healthy growth. Impoverishing growth occurs when it causes serious environmental damage and when profits are concentrated in a few hands.

The oil sector has minimal direct employment generation. According to the 2022 INEC census, direct employment in the oil industry was just 21,162 people.

How to raise funds for the closure of

And prevent tax evasion by large economic groups;

And avoid incentives, exemptions and benefits to large economic groupsV

To apply the insurance that oil operations must have by law

To work out the ecological debt that the North has with the South

Invest funds that the state has in this national priority

invest debt-for-conservati on swap funds in the closure and decommissioning of oil operations

Call for international contributions based on common but differentiated responsibilities.

5. TRUE WEALTH

The "true riches" of Yasuní are outside the market

Beyond oil, tourism, and environmental services presented as options with "economic value," Yasuni National Park contains other riches found in the network of relationships between forests, water, soil, animals, plants, ancestral peoples, and all living things, and in their interspecific and intergenerational connections that cannot be "monetized" but that do sustain life.

→
Pink dolphin in Yasuní
Source: dolphin-coca-ya-httpswww.amazonwildlife.tours

Yasuní protects the most diverse tree community in the world

Only in the area of the Yasuní National Park have they been identified and classified 1,852 tree species; another 300 are in the process of classification. It is estimated that 161 additional species recorded in Pastaza in areas surrounding the park are also found within it. With certainty, it can be stated that more than 2,300 species of trees and shrubs would be protected in this territory (Mogollón and Guevara, unpublished data).

Additionally, it is necessary to take into account that it is the western end of the park that has been the site of studies, and that there are areas such as the southern part—superimposed on the intangible zone—and the eastern region of the park, superimposed on the ITT block, which remain completely unexplored.

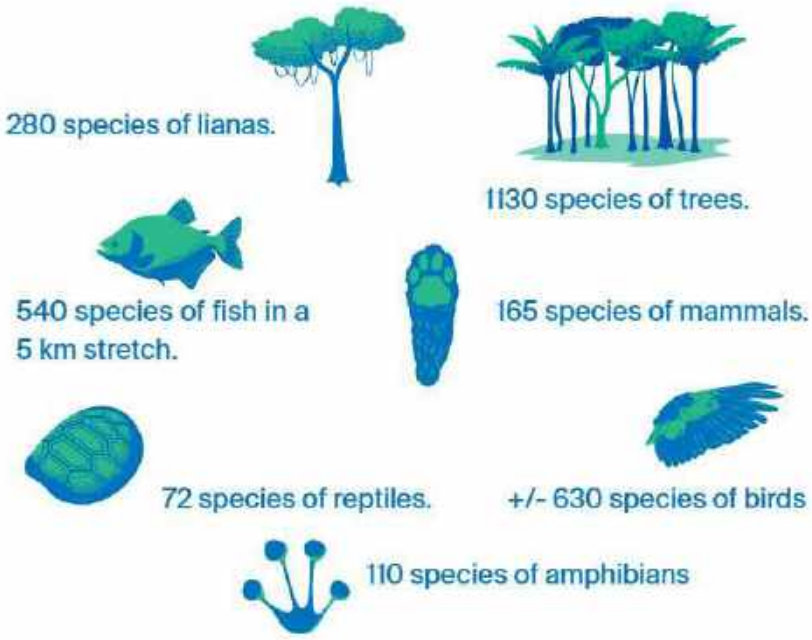
A mission of scientists found that in one hectare of Yasuní there are practically the same number of trees and shrubs as in Canada and the United States combined (Scientists Concerned for Yasuní National Park, 2004)

In Yasuní, almost 10% of the 550 species recorded in the Americas. Palm trees are important to the life and environment of peoples living in the tropics, especially the Amazonian peoples. The chonta, pambil, ungurahua, morete, chambira, chontillas, zancona, and conambo are some of these species.

Moretales are unique, specialized and distinct forests due to their floristic composition, structure and phenology. While the forests of igapó have a canopy represented by different tree species, the morete palm (Mauritia flexuosa) predominates in the moretales.

The biodiversity of Yasuní National Park in numbers [11]

11. Facts about Yasuní (Yes to Yasuní campaign).



The greatest diversity of the animal world

Yasuní has the most diverse herpetofauna (amphibians and reptiles) in all of South America: 105 species of amphibians and 83 species of reptiles (Scientists Concerned for Yasuní National Park, 2004.)

The emerging park is inhabited by approximately 80 species of bats, a figure that places it among the five sites with the greatest diversity of bats in the world (Scientists Concerned for Yasuní National Park, 2004).

It is estimated that there are more than 100,000 insect species and six trillion insects per hectare in Yasuní, representing the highest biodiversity ever documented in the world to date. In reference to social bees alone, 64 species have been identified, which constitutes

the highest diversity for this group ever found anywhere on the planet (Scientists Concerned for Yasuní National Park, 2004).

The area in question has 567 documented bird species (44 % of the total found in the entire Amazonia basin), a fact that distinguishes it as one of the most diverse ornithological sites on Earth (Scientists Concerned for Yasuní National Park, 2004).

It is estimated that there are more than 2,000 species of fish in the Amazonian, many of which remain unidentified.

Rivers and flood zones

The rivers in Yasuní National Park have different origins: some come from the Andes and are known as "white water rivers" due to the high amount of sediment they carry with them from the mountain range. Others originate in the Amazonia itself and are known as "clear water rivers" because they are colored by a certain degree of contact with decomposing leaves. Finally, there are the "black water rivers", which have a color similar to tea due to permanent contact with leaf litter and the tannins they acquire from the leaves. The water that comes out of the moretales (palm swamps) is the blackest of all.

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12. According to the PLOS ONE Study, 2010; Vol. 5(1): Global Conservation Significance of Ecuador's Yasuní National Park. Subscribed by Bass, M. S.; Finer, M.; Jenkins, C.N.; Kreft, H.; Cisneros-Heredia, D. F.; McCracken, S.F.; Pitman, N.C.A.; English, P.H.; Swing, K.; Villa, G.; Di Fiore, A.; Voigt, C.C.; Kunz, T. H., among others. ,

Most of the Yasuní lies in seasonally flooded areas, "varzea"; and, permanently flooded areas, "igapó". These are areas where you can observe the endangered pink freshwater dolphins.

The Yasuni is a mega-rainfall zone, where rivers depend on rainfall. The perhumid climate—and almost without seasonal variation—make it a forest that maintains a constant humidity, dominated by due to rain and warm temperatures .

This regime feeds an intense water system through permanent rivers, high aquifer recharge, and elevated levels of plant transpiration. The park is located in the "Core Amazonia," characterized by an extremely humid climate (high rainfall) and no consistent dry season[12].

Yasuní Park is an area filled with lagoons, swamps, and rivers. It encompasses important river basins such as the Napo, Yasuní, Tiputini, Nashiño, Cononaco, and several tributaries of the Curaray.

Floodable areas are ecosystems that periodically receive water from rivers, lakes, rain, or underground, whose ecological and cultural importance lies in the Ishpingo area, where plant species that produce fruits rich in protein and other nutrients for humans stand out; a cardinal circumstance in the migration territory of isolated peoples.

The hydrographic subbasins within the Yasuní Biosphere Reserve [by its acronym in Spanish] are distributed in the Napo River basin, bordered to the west by the Tiputini River and to the east by the Aguarico River. This basin contains 13 hydrographic subbasins and some smaller areas.

Wetlands, on the other hand, include the system of lagoons, peat bogs and swamps (temporary or permanent) in the area, whose ecological importance has to do with the biodiversity they contain and their role within a complex ecosystem.

13. Nobre, A. D. (2014, September). The magic of the Amazon: A river that flows invisibly all around us [Video]. TED Conferences. https://www.ted.com/talks/

Flying rivers

The mature forests of Yasuni have the largest vegetation per unit area, thanks to the immense number of epiphytes. The best studies indicate 12 tons of dry weight per hectare. Water is captured there, thereby maintaining the balance of the ecosystem and local temperature.

According to Antonio Nobre:

A leafy tree, with a crown of 20 meters in diameter, transpires more than 1 000 liters in a single day. "We did the math, which was also independently verified, and we come to the astonishing number that 20,000 million tons (or 20 trillion liters) of water are transpired every day by the trees of the Amazonia basin."[13]

In tropical forests, clouds form due to the effects of humidity and temperature; they absorb large amounts of solar radiation. Evapotranspiration in the Amazonia —when they collide with the Andes— they cause an effect now known as "flying rivers".

Flying rivers are massive aerial flows of water vapor that come from the tropical Atlantic Ocean and are fed by moisture evaporating from the Amazonia. They are found at an altitude of up to two kilometers and can carry more water than the Amazonia River.

These rivers, which cross the atmosphere rapidly over the Amazonia until they meet the Andes, produce rain at more than 3,000 kilometers of distance; they are therefore vital to the lives of millions of people in Latin America.

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14 Jonathan Watts "South American monsoon heading towards 'tipping point' likely to cause Amazon dieback". The Guardian on October 4, 2023.

15. Science Advances (Bochow and Boers et al., 2023).

The Amazonia is a heart that pumps water for the region

Amazon River and the South American monsoon form a coupled system in which evapotranspiration from the tropical rainforest recycles moisture from the Atlantic Ocean so it can move south across the continent. The rainfall and drought patterns throughout the world depend on this. America; it is therefore stated that And Asuní is a climate stabilizer.

Yasuni produces a large amount of water vapor through evapotranspiration. This vapor is captured by the dynamics of the monsoon that crosses South America. Any disturbance in the park can weaken the monsoon, affecting precipitation patterns in the region. Evapotranspiration from the rainforest recycles moisture from the Atlantic to feed rainfall that moves southward.[14]

The moisture that evaporates in the Amazonia basin—which includes Yasuni —is transported and recycled; it then feeds the monsoon that irrigates southern South America. The South American monsoon, which determines the climate of much of the continentrecuperar da seca, pois muitas espécies de árvores não evoluíram para enfrentar condições extremas. [15]
is being pushed toward a "tipping point": the Amazonia—which would be the most affected—has historically served as an important climate stabilizer.

Declining soil moisture, falling rainfall in many areas, the steadily lengthening of the Amazonia's dry season, and the increasing frequency and intensity of droughts are taking a severe toll on the

16. Edward W. Butt, Jessica CA Baker, Francisco G. Silva Bezerra, Celso von Randow, Ana PD Aguiar, Dominick V. Spracklen, among others. "Deforestation has big impact on regional temperatures, study of Brazilian Amazon shows.". The Guardian, published October 30, 2023.

Amazonia rainforest and will increasingly affect the people who live there. The rainy seasons are becoming shorter and more intense, which also hampers the forest's ability to recover from drought, as many tree species have not evolved sufficiently to cope with extreme conditions.

The Amazonia, normally home to the world's largest body of freshwater, suffered a devastating drought in 2024 that left its once-boisterous rivers at record levels, worsened wildfires, and led to the mass deaths of more than 100 river dolphins.

Trees and climate

Trees are the last part of the ecosystem to experience tipping points because they have the longest life cycle and are the living species most capable of coping. Using satellite data and artificial intelligence, a temperature increase of 0.7 °C has been found for every 10 percentage points of forest loss within a 60-mile radius.[16]

This same study states that an average tree had a cooling effect equivalent to two or three 2.5 kW air conditioners running at full power, every hour of every day. This practice creates a vicious cycle, as reduced rainfall leads to greater forest loss and, consequently, greater vulnerability to fires.

Trees are most likely to die in intense, hot droughts due to two causes: water failure, which occurs when a plant's xylem vessels break and lose their ability to pump water; and carbon starvation, which occurs when trees are forced to close their stomata, eventually drowning from a lack of photosynthesis.

The richness of the soils

It is commonly said that the soils of the Amazonia are acidic and of low natural fertility. How then is it explained that it houses the largest and most diverse trees on the planet or why it is describes as poor the soils that sustain so much life.

Not all soils in the Amazonia are the same. There are at least nine types of soil systems: escarpments, high terraces, hills, plateaus, mounds, meadows, varzea zones, lakes, and wetlands. Most importantly, there are no "bad" or "poor" soils. Soils cannot be "judged" by the "topsoil layer," the "chemical acidity," or the type of "nutrient storage." One must delve into the particular history of each soil in each location.

Soils are linked to the decomposition of organic matter, symbiosis with mycorrhizal fungi, soil microorganisms, insects, and the forest as a whole. This is the foundation of soil richness.

Every meter of soil is covered by a layer of decaying animals and plants, and is inhabited by fauna and a flora made up of small shrubs and large trees. These soils adapt to periods of high and low rainfall, affecting the density of soil macro-fauna—which is highly correlated with soil moisture—; and, decreases dramatically during periods of lower rainfall. They also adapt to light, which depends on the density of the foliage, and generally receive little sunlight.

The Amazonian peoples developed a shifting, slash-and-burn agriculture, which creates crops for two or three cycles, then allows the soil to regenerate, and then proceeds similarly in another location. The area where they cultivate is no more than one hectare. This method of farming—which is typical of subsistence agriculture—responds to the particular conditions of the Amazonian soils,.

The sites that feed off the forest and nourish it, generating "soil" in a perpetual, constantly metamorphosing relationship. Slash-and-burn land rotation techniques have problematized the racist idea of "impoverished" soils.

The richness of the air

The air in the Amazonia is a mixture of dust, pheromones, vibrations, and sounds. It is, above all, a medium of communication, of sounds and of transmitting volatile signals that are dispersed by the winds. Pheromones (chemical substances secreted by living beings), when they seek each other out, attract each other. The Yasuní rainforest is filled with aromas and vibrations, with the sensuality of species sniffing out their mates for procreation. Trees emit pheromones that can be transported for miles.

The rainforest, the shamanic chanting, the music of the plants, the songs of the birds, the howls of the monkeys and the buzzing of the insects; the sounds of the jungle come from everywhere.

The rainforest is also blown into by fine sand from the Sahara, millions of tons of dust that travel long distances due to the winds—hundreds, even thousands of kilometers—across seas and oceans. Some of it reaches the Amazonia and falls with the rains. This dust is rich in phosphorus, an essential nutrient that fertilizes the Amazonian soil, especially in areas where heavy rains leach minerals from the soil. Reciprocally, the trees of the Amazonia transpire and transport themselves.

6. WORK AND EMPLOYMENT

The oil industry does not create jobs

Although work and employment are often referred to as synonyms, they are, in fact, two distinct terms and relationships.

Work refers to a fundamental human activity, with which people relate to each other—and with nature—to reproduce life and sustain community. Employment is a historical form of work inside d the capitalist paradigm: a worker sells his labor power in exchange for a salary.

Work is not limited to wage employment; it includes caregiving, food production, ecological regeneration, ancestral knowledge, and all activities that maintain and restore the bonds between humans and nature.

Oil companies talk about creating jobs. However, it can be seen that they destroy many sources of self-employment and create little wage employment. In the oil industry, the opportunities for communities are, in general terms, as follows:

- Precarious: contractual instability, low wages, long hours, and poor job security prevail.
- Risky: this implies negative impacts on physical and emotional health and family well-being.

Work is not limited to the production of goods and services for the market, it also includes all activities that sustain life and respect natural cycles, protect and regenerate territories, and reproduce the bonds between human beings and nature. "Work is, above all, a process between humankind and nature, in which humankind mediates, regulates, and controls its metabolism with nature through its own actions [17]."It is, in short, a broader category than employment. It is not dependent on salary and can be communal, domestic, voluntary, self-managed, and/or artistic.

17 Karl Marx, Capital, Volume I.

Employment is a relationship in which a worker sells their labor to an employer in exchange for a wage. In capitalism, the general rule is that the value generated by the worker exceeds the wage received; that is, surplus value and the relationship of exploitation.

In general terms, although employment in extractive industries may offer temporary benefits, it is based on highly precarious, unstable, discriminatory, dangerous, unsafe and unhealthy employment relationships for themselves and for the environment and social settings.

The oil industry encompasses technical, operational, administrative, and managerial work; on the one hand, and on the other, it entails services. According to EP Petroecuador's Strategic Plan (2018), operational personnel represented 64% in 2012 and fell to 54% in 2017, while administrative personnel rose from 36% to 46%.

The structure in question is socially and economically hierarchical. Local jobs are service-related, relegated to the lowest ranks, and outsourced. The company explicitly acknowledges that service work is performed by independent contractors, who assume labor, administrative, and social responsibility for the staff; they do not create a dependency relationship with EP Petroecuador.

From the employment format, the local populations of the Amazonia receive occasional contracts, which are the result of negotiations with the communities, occur monthly, rotate indiscriminately and lack any stability.

The situation of women in relation to employment and work is even more complex. From the first stage of the marriage, they work longer hours on average and receive lower wages. This is aggravated by the fact that they take on unpaid domestic and agricultural labor. Work overload reflects another acute problem. It occurs both because of the absence of men and because pollution makes work extremely demanding; and it also takes away time for caregiving.

National Institute of Statistics and Census [INEC by its acronym in Spanish], (2022), talks about the adequate employment rate (minimum wage) in oil-producing regions such as Orellana is 16.4%.

In Sucumbíos, it is 22.7%; here, working days can be longer than 40 hours.[18]

The same institute states that tourism generates, for each dollar invested, on average, 25 times more jobs than oil; it also increases the social impact. A study by the Rosa Luxemburg Foundation (2012) shows that community tourism can have a Internal Rate of Return [IRR] greater than 30%, which positions this activity as a more profitable and sustainable alternative to oil extraction in the Yasuní.[19]

The closure of Yasuní can generate creative work and paid employments

The closure and dismantling of the oil infrastructure—as well as others—will be in the imminent future. A busy area, as the entire mega-construction is obsolete; it represents a high risk to life.

um risco global emergente, com base no seu relatório "Ageing Water Storage Infrastructure: An Emerging Global Risk"[20].

The closure of the oil infrastructure in the and Yasuní-ITT will sue actions to restore soil, flora, fauna and water bodies in degraded areas. To achieve this, it is necessary create the right conditions and promote the natural regeneration of ecosystems. It is necessary to coordinate reforestation actions and control invasive species and the recovery of tropical aquatic ecosystems (rivers, swamps, lagoons, and streams). Additionally, it is urgent to install filters and water treatment

18. National Institute of Statistics and Censuses (INEC). (2022). 2022 Population and Housing Census: VIII Population Census, VII Housing Census, and I Community Census. Quito, Ecuador: INEC. Retrieved from https://www.censoecuador.gob.ec

19. Carrión Sánchez, D., & Sánchez Cárdenas, R. (2014). Thinking about alternatives, imagining the transition: Extractive economy and comparative effects: Tourism, oil, and mining (1st ed.). Rosa Luxemburgo Foundation. at: https://rosalux.org.ec/pensar-las-alternativas-turismo-comunitario/

systems to ensure the quality of the water. The lack of monitoring of endangered species, restoration of salt marshes, and recovery of habitats and local fauna affected by forest loss or pollution, among others.

Based on the following proposals, a monetary compensation model could be established with the aim of replacing local oil revenues; this time, it could be decent employment; and not of the one that links them to activities that sacrifice their sources of survival[21].

For example, in the Amazonia basin of Ecuador there are 5,000 "abandoned" wells [21] hat need to be plugged, decommissioned, and remediated. Worldwide, it is estimated that there are more than 29 million abandoned or orphaned oil and gas wells. This figure is based on a rough estimate from data collected in the United States and also from its proportion of the global total [22].

Reparation must be viewed as a political process of transformation. To prevent it from becoming an imposition or dispossession, it must meet at least these conditions:

- Full and binding participation of affected communities.
- Recognizing memories of harm: symbolic, cultural and spiritual dimensions.
- Real restitution: ecological, territorial, cultural and political.
- End of the model that caused the damage: there can be no repair without transition.

The deterioration of Ecuador's oil landscape reveals the urgency of socio-ecosystemic repair. The damage has been cumulative for

20. Duminda Perera, Vladimir Smakhtin, Spencer Williams, Taylor North, Allen Curry. United Nations University. UN – INWEH. Institute for Water, Environment and Health. At: https://inweh.unu.edu/wp-content/uploads/2021/01/Ageing-Water-Storage-Infrastructure-An-Emerging-Global-Risk_web-version.pdf

21. 21 Ministry of Energy and Non-Renewable Natural Resources (Ecuador). (2023). 5,000 oil wells – Eastern Ecuador [PDF]. Retrieved from the Ministry of Energy and Non-Renewable Natural Resources website.

22. Tabuchi, H. (2021, July 7). Millions of abandoned oil wells are leaking methane, a climate menace. The New York Times.

decades. Added to this is institutional neglect, which leads to a sense of hopelessness. Repair must be co-constructed, centered on the needs and visions of communities, not imposed by external models.[23]

New trades for dismantling

Around closure, dismantling and repair, many new formal or community trades appear, which require interdisciplinary learning as well as the integration of local and indigenous knowledge.

It is generally believed that expertise in these roles lies exclusively with environmental engineering or remediation companies; however, the role and knowledge of local communities in environmental management is increasingly being recognized.

UN General Assembly Resolution 76/214 (2022) urges States to "Preserve and maintain the traditional and local knowledge of indigenous communities in environmental management." This is due to the realization that, despite the attacks on indigenous territories, the diversity and health of ecosystems are maintained thanks to their knowledge.

Traditional knowledge works with nature and its laws and cycles in a reciprocal relationship. [...] indigenous and traditional cultures around the world have developed a diversity of traditions [...] that have successfully sustained themselves and their environments for millennia (UN Secretary-General 2015).[24]

The lack of community participation as central actors in diversity fosters the presence of technocratic systems prone to committing acts of injustice; thus, the opportunity to decolonize the care of nature and territories is lost. Consequently, new trades can and should be

23. Maldonado Campos, A. (2018). A proposal for socio-ecosystemic repair of the metabolic impacts of oil activity in the Ecuadorian Amazon (PhD thesis). Simón Bolívar Andean University, Ecuador. https://hdl.handle.net/10644/6827

24. UN – Secretary-General. (2015). Traditional knowledge and indigenous peoples: working with nature in reciprocal relationships. Address by the Secretary-General to the World Forum on Traditional Knowledge, 2015.

articulated with fair policies for transition, employment, the post-oil process, and climate justice. It is, therefore, a time to revalue work as a reproductive, caring, and colonial activity.

New jobs for a world in climate crisis

In a context marked by the intensification of climate disasters such as floods, prolonged droughts, wildfires, toxic spills, and infrastructure collapses, the transition to new ways of working is no longer a long-term aspiration, but an urgent necessity.

Climate change is transforming the material conditions of the world of work, and with it, the skills, responsibilities, and purposes of people at all levels of social organization. It also particularly affects the poorest, who lack the conditions and resources to cope with disasters. But, yes, knowledge about how ecosystems work, why rivers overflow, or how slopes are contained.

The new climate professions are spaces for rebuilding the social fabric and for collective action in the face of a collapse imposed by the idea of the inevitable. This opens the door to the possibility of generating decentralized jobs, adapted to the territories, with a sense of community and oriented toward sustainability; capable of incorporating those who lose opportunities due to the effects of climate change. All the precedent circumstances causes the closure of extractive operations. All of the above allows for the creation of spaces for mobilization, participation, and collective learning. In this sense, the climate office It translates as a tool of justice.

A reflection for the world of work lies in revaluing its relational and creative nature, which aims to protect life, restore ecosystems, promote community water management, participatory reforestation, promote individual and community agroecology, regenerative

infrastructure, environmental education, territorial climate monitoring, and community post-disaster care; to name a few examples.

True movements are being built around these forms of collective work—especially among young people—of solidarity and support. Their recognition, training, sustainability, and institutionalization must be central to public policies for just transition, work planning, technical education, and climate investment; and also to priorities for union training and organization.

7. HEALING THE JUNGLE[25]

The ecological restoration of the Yasuní

When ecosystems are severely degraded or destroyed, they have lost their regeneration mechanisms and, consequently, require assistance. Active or assisted restoration (directed or assisted succession) is used for this purpose. Active restoration involves human intervention that seeks to help the ecosystem overcome the stressors that impede regeneration and ensure the development of recovery processes. Several techniques exist to carry out this activity[26]:

- Restoration aims to return the ecosystem to its original condition.
- Rehabilitation seeks to overcome degradation for both ecological and economic purposes. And exotic species can be used.
- Recovery is applied to severely degraded lands devoid of vegetation.
- Rewilding introduces native species to lands where land use is to be changed.
- Substitution is the restoration of an ecosystem where ecological conditions have changed to such an extent that non-native species must be used, carefully chosen so that they do not become invasive.

In the case of Block 43, we are committed to restoration.

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25. This proposal is made by Elizabeth Bravo.

26. Lamb, et al (1997). Rejoining habitat remnants: restoring degraded rainforest lands. Pp 366-385. The University of Chicago Press.

What does the ecological restoration of the Yasuní entail?

Ecosystems recover on their own when stressors or barriers to regeneration are removed or eliminated, in a process known as passive restoration or natural succession.

Stressors are those that can cause a destructive disturbance or loss of biodiversity or ecosystem functions. Therefore, one of the first steps to recover an ecosystem is to remove the factors that impede its natural regeneration. This begins with the identification and removal of all the elements that stress ecosystem restoration and that are linked to the different phases and processes of oil exploitation.

It is necessary to identify all infrastructure where waste from oil activities has been produced, which has been exposed to accidents at sites where different types of routine contamination were generated. And, since the contaminants flow—especially in ecosystems with very high levels of rainfall, floodable soils, the presence of wetlands and large rivers—, pollution flows must be identified. It is also necessary to identify and eliminate stressors in areas where hazardous chemicals were stored and where waste management prevailed.

Ecosystem restoration strategies

The first strategy for ecosystem reconstruction lies in the management of natural regeneration, which involves a sequence of stages through which the forest vegetation passes until it reaches its mature state.

Natural regeneration is essential to ensure that an altered ecosystem recovers its initial condition and is maintained over time. One limiting factor is seed dispersal and germination. Natural regeneration can be induced by using patches of remnant vegetation to provide initial seedbeds for restoration. Native pioneer tree species

can be incorporated into these spaces—or at their edges—from seedlings present within or around the area to be restored.

The creation of artificial shelters for wildlife through the accumulation of logs, stones and some vegetation—since the formation of groups—they can serve as temporary shelters or transit sites for native fauna; this is also part of this strategy.

Therefore, priority should be given to so-called «nurse species»: native plants that fix nitrogen and form associations with mycorrhizal fungi to strengthen soil fertility, fast-growing tree and shrub species capable of rapidly developing a canopy to create shade. These include native shrub species that attract pollinators, dispersers, and generalists, so that they attract all types of animals.

Other species eligible to meet this objective are those that have high regrowth capacity, which can withstand limiting conditions (flooding, low fertility, compacted soils, soil acidity or salinity); and which do not tend to spread invasively.

Pay attention to vulnerable ecosystems

There are ecosystems in the Yasuni that are highly vulnerable to oil contamination (lakes, wetlands, flooded and floodable forests). This includes adjacent poorly drained areas such as swamps and marshes.

Floodplains are ecosystems that periodically receive water from rivers, rain, or underground sources. In Ishpingo, their ecocultural importance lies in their dominance by the morete palm (Mauritia flexuosa), a palm tree that produces fruits rich in protein and other nutrients and forms part of the migration territory of isolated peoples.

The greatest force controlling life in floodplains is the passage of river discharge. Biodiversity in these areas is determined by the lateral exchange between flooded areas and the river channel, as well as by the recycling of nutrients within the floodplains.

Oil pollution in moretales can be fatal to their survival, as crude oil and other pollutants can remain in the sediments for long periods, affecting both the vegetation and the communities that make up this complex ecosystem.

Restoration of functional diversity

Species restoration in the Yasuní cannot be limited to recovering a list of "paradigmatic" flora and fauna species that existed before the oil intervention (taxonomic diversity). It is necessary to recover functional diversity; which means, the recovery of the different types of processes that are important for the structure and dynamic stability of biotic communities. The components of biodiversity influence how the ecosystem operates or functions.

Functional diversity is of ecological importance because, by definition, this component influences the dynamics, stability, productivity, nutrient balance and other aspects of ecosystem functioning.

To do this it is necessary to identify in communities, in the first instance, the type of functions such as species that act as pollinators; seed dispersers; decomposers of different kinds of organic matter; that establish symbiotic relationships with other species; that act as bioregulators of populations, which tend to grow rapidly and compete with others; or, that serve as food for other species. There are also fast-growing tree species that allow the development of seedlings that need shade in the early stages of their development.

Understanding the complexity of the forest for its restoration

Restoring a tropical forest is very complex. Although species diversity is very high, the number of individuals of a given species is very low in a given area. Certain plant species depend on another plant for

pollination, as some trees produce female flowers and others produce male flowers. These plants bloom once a year, or every two years. Unfamiliarity with these characteristics of plant phenology will make their restoration very difficult.

There are plants that are pollinated by specific pollinator species, which establish symbiotic relationships with mycorrhizal fungi; also punctually. A large number of organisms depend on vegetation for survival, with whom they maintain very close symbiotic relationships. For example, epiphytic species, vines, and lianas grow on tree trunks, which disappear with the trees.

There are also very complex communities of decomposing microorganisms, endophytes, which in turn maintain little-understood interactions with insects and other invertebrates.

The soil of a mature tropical forest is full of microorganisms and small decomposing invertebrates responsible for nutrient cycling, nitrogen fixation and phosphorus assimilation, that disappear when the forest does. From all of the above, the great complexity that underlies in restoration, even if it takes decades as is typical in other tropical forest ecosystems.

Community participation in ecological restoration

Beyond the right recognized by the Constitution, laws, and international treaties on consultation, consent, and participation, any ecological restoration strategy must be based on actively listening to the voices of the community, whose members are the ones who best understand the dynamics of the forest.

For example, they know better than anyone which species are likely to be established first in a natural succession process, which are appropriate for growing in a disturbed environment (pioneer species and those resistant to adverse ecosystems), and the conditions that must be created for their best development. They also know where

to find seedbeds for the species to be used in environmental restoration programs; about the life cycles of pollinators, and the plants they visit and how often; and where the salt marshes and mating, resting, feeding, and breeding sites of species with different degrees of vulnerability that they want to rescue are located.

Communities are the wise men of the forest; without them, effective ecological restoration of the Yasuní cannot be achieved.

Species-based restoration strategies

To obtain the ideal plants for reconstruction, an assessment of the seed bank present in the territory can be made through samples of the reproductive material from the soil and leaf litter of the site, with the aim of knowing its species composition and the spatial distribution of seeds.

Based on this assessment, the ecosystem's natural regeneration capacity and how its structure has changed since the oil intervention can be determined. From the seed bank, plant material can be collected for use in enriching the areas to be restored. To do this, seeds, seedlings, and shoots from the remaining primary forest must be collected. Community participation, once again, is essential in this process.

Budding vegetative material forms the basis from the manual dispersal of selected seeds, the use of regrowth, the utilization of decomposing logs– which support populations of microorganisms–, the creation of microsites–which promote germination and seedling growth–and the treatment or replacement of degraded soils, depending on the degree of soil damage. Later, the edges of the forest can be expanded and agroforestry systems established with native species as succession catalysts.

Plant species for restoration in the oil-rich amazonia

Several reforestation programs at oil sites in the Ecuadorian Amazonia[27], have been unsuccessful due to the poor survival and growth rates of planted seedlings and trees. A study on ecological restoration in oil-producing areas in the northern part of the region evaluated 15 species of native Amazonian trees and five introduced trees in three types of soil: an uncontaminated soil (control); another obtained from drilling mud cuttings (hydrocarbons and other polluting chemicals used in oil activities); and, still another, from areas surrounding oil wells (oil platform soil).

Tree species that exhibited similar height and diameter across all soil types analyzed were: chuncho and Colombian rose apple. Balsam and oak developed similar heights across all soil treatments (with smaller diameters). Cedar, guaba, mahogany, and red guarango had similar heights and diameters growing on oil platforms and the control. Growth was lower in soils derived from drilling mud. The remaining species showed significant differences in main stem height and diameter after one week of flowering in the different soils.

These studies can serve as a basis for selecting the most suitable species to initiate a reforestation program in the oil-stricken area of the ITT block.

Invasive alien species

In altered ecosystems, invasive alien species often develop due to their high resistance to stressful conditions. Control of invasive alien

27. 27 Villacis J. et al (2016). Land Degrad. Develop. 27: 1771-1780. DOI: 10.1002/ldr.2511.

species is urgently needed because they are highly competitive and best adapt to disturbed ecosystems. Consequently, displacement is necessary. Native pioneer species are beginning to establish themselves in the area being restored.

Although they can initially help rebuild the soil and reestablish biotic relationships disrupted by oil intervention,—due to their great adaptability—can lead to the homogenization of biodiversity and compete favorably with native plants that are more vulnerable to pollution.

One of the ways to achieve effective control is to provide shade for the species. Another aspect to keep in mind is that, while manual eradication generates numerous jobs, the use of chemicals or fire has negative effects on the ecosystem.

Edge effect and habitat fragmentation

The edge effect and habitat fragmentation affect the composition of plant communities near the edge (in this case, the area intervened to establish the oil infrastructure, the road, the right-of-way for flowlines, to name a few examples). Near the edge, the typical species of a climax community are displaced by pioneer species. The edge effect also affects the ecophysiology of plants, that is, their tolerance to variations in temperature and humidity, as well as their water potential.

Since the edge effect also produces changes in the microclimate, which is strongly determined by the plant communities present, this phenomenon also affects microbiological communities.

A fragmented original habitat can divide biological populations into multiple groups. For example, many tropical mammals do not travel through areas that have been deforested or where roads are located. This can create isolated populations that are prone to local extinctions and loss of genetic variability and genetic drift, especially in small populations.

The challenge is to restore the Yasuní ecosystem through the creation of biological corridors, which are fragmented habitats. Thus, the borders will disappear and the ecosystem will be able to recover its structure, functions and biodiversity.

Furthermore, all possible causes that produce the edge effect and habitat fragmentation must be eliminated.

Restoration of water bodies and their biodiversity

The Yasuní wetlands are home to endemic and vulnerable plant species, as well as threatened aquatic mammals such as the Amazonian manatee, giant otters, and river dolphins. The fish fauna is also very important. Some fish species even disperse fruits and seeds of plants associated with wetlands and other aquatic ecosystems.

To reconstruct river channels, riparian corridors can be established or expanded. These corridors are located on river banks and are home to species that can tolerate river humidity and withstand flooding.

Finally, the natural drainage patterns of the site must be restored.

Monitoring

The restoration plan cannot be limited to a program of remediation, cleanup, reforestation, and other actions proposed in the ecological restoration plan. Rather, it requires a comprehensive, multi-year structure that includes ongoing monitoring of the elimination of all ecological stressors that impede restoration.

The recovery of biological communities, especially those of endemic or endangered species or those that play important roles in

the local ecological balance, as well as invasive alien species, must be monitored.

If a species has several stages of development, there is a need for an ecological restoration and repair plan that takes into account the ethological cycles of the species and that monitor several generations. This requires understanding how populations are recovering as the contamination disappears.

Monitoring the recovery of ecological processes and ecosystem functions and the restoration of their structure is essential.

Replenishing soil structure

The life cycle of terrestrial ecosystems begins in the soil, and they are greatly affected by oil activities. The first is the disappearance of vegetation cover to accommodate oil infrastructure. The soil is then left bare due to rainfall, which is very frequent and intense in tropical rainforests, such as those found in the Yasuni. The soil is washed away by the rain, which It causes water erosion and sedimentation of water bodies; this can alter water flow patterns.

Soils at well sites are subject to compaction by vehicle and equipment traffic and other activities occurring near drilling rigs, building foundations, and/or platforms. Bulk densities are often observed at reclaimed well sites after oil field activity and extensive erosion.

During site operations and remediation, subsoils may mix with surface soils, creating poorly drained areas. Subsoils have very low fertility because they lack organic matter or plant nutrients; they are thus exposed. Additionally, earth or sand dikes are frequently constructed to contain the effects of oil spills.

For soil restoration it is necessary to identify all the mechanical modifications that the soil has undergone, in such a way that they can be included in the ecological restoration plan.

Soils and microorganisms

Microorganisms function in communities. Microbial populations form communities because they have complementary ecological and physiological requirements that, by participating in the nutrient cycle, provide soil fertility; however, their ecological functions are disrupted by oil pollution. Likewise, the nutrient cycles in which they participate are disrupted.

In bacteria, oil can be bacteriostatic or bactericidal, which delays the biodegradation of hydrocarbons and increases the populations of microorganisms that degrade them until they evaporate[28].

Algae populations are also reduced in the presence of water-soluble petroleum components. Toxicity is associated with the volatile elements in petroleum. Benzene, toluene, xylene, and naphthalene have a similar effect to the soluble components of petroleum at low concentrations. At high concentrations, they cause algae death.

In addition to the direct toxicity caused by hydrocarbons to microbial populations, the remnants of their degradation can be toxic.

It can be concluded, then, that ecological restoration programs must include the elimination of all sources of hydrocarbon contamination when restoring microbial communities and recovering soil fertility.

28. Atlas, R. M., and Bartha (2002).

8. THE YASUNÍ AS A SYMBOL[29]

Oil exploitation in the Yasuní perpetuates colonialism

It's impossible to think about the oil extraction industry in the Ecuadorian Amazonia without considering its history of colonization, a violent process that began in the early 20th century and boomed in the 1970s. The entry of the first companies into the Amazonia (Shell, CEPE, and TEXACO) was carried out from an anthropocentric, white, male, and racist perspective.

Based on these principles, the story of the Amazonia was—as in all colonized areas of the world—a supposed struggle between good and evil; or, to put it in its own historical terms: between "savages" and "civilized." The latter claimed to be saviors of the Amazonia region, bearers of science, knowledge, and salvation. This assertion served them well to impose themselves on local ways of life and their knowledge systems, which were discarded by the dominant culture; and, with it, at least 8,000 [30] years of memory of a harmonious relationship between the different inhabitants of the Amazonia rainforest: animals, plants, spirits, and humans; an event that was attempted to be erased.

The sedentarization imposed on the Waorani groups—and other peoples who lived on the move within the Yasuní rainforest—; the prohibition on the use of their own languages and the practice of their religions; the dispossession of their knowledge; as well as the environmental destruction of their ecologies, are the legacy left by oil extraction in the Yasuní.

The colonial extractivist logic that has been established since then has been a devastating force shaping the relationship between extractive powers and colonized territories in the Amazonia. This

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29. This proposal is made by Elena Gaivez.

30. Neves, Eduardo Góes. 2022. Sob the tempos of the equinox: I hear a thousand years of history in Central Amazoniaia. São Paulo, SP: Ubu Editora.

dynamic, rooted in the conception of nature as a mere resource to be exploited and of Indigenous populations as expendable obstacles, has altered landscapes, decimated species, contaminated water and soil, and displaced (or exterminated) entire populations. It thus maintains a long cycle of anti-extractivist struggles that constitute, in practice, the first line of resistance to colonialist violence and anti-colonial struggles in the face of the global environmental crisis.

Revaluing local knowledge and collaborative work as a countercolonial practice

The inhabitants of the Yasuní Reserve have been placed within a racialized world where Western capitalist culture devours local indigenous ways of life and imposes itself as the only valid and possible one. Knowledge in this context is a colonized space.

Western science was established over other forms of knowledge and proclaimed itself universal and objective. Its mode of production understood humans as the sole subject; everything else was transformed into objects: plants, animals, or other types of existence. In this sense, the history of Western science is, at the same time, the history of the usurpation of subjecthood from the various entities that make up "nature."

Amazonian indigenous peoples have shown us that the way they conceptualize nature rejects the premise that it is an object open to human exploitation. The various beings or existences that inhabit the forest are subjects with whom there are relations of political exchange: giving and asking. Indigenous peoples are a kind of ancestral diplomats of worlds, capable of establishing communication and emotional connection with their natural environment.

Everything has a heart

This starting point, in which everything has a heart or a point of view—and therefore a right to exist, a voice in important decisions beyond human demand—requires a reparation process to logically transcend an economic starting point as the most important axis and the one that governs it as a whole. For many years, when discussing reparation—both in Ecuador and elsewhere—this action has been understood as simple economic compensation; however, if ancestral knowledge is taken into account, the situation is enriched and becomes comprehensive, since how can we evaluate, exclusively in economic terms, the cultural and historical impact on indigenous peoples whose lives were affected in all areas of their existence.

A vast knowledge of the jungle

The indigenous communities that inhabit the Yasuni (Waorani, the Tagaeri-Taromenani and Dugakairi Peoples in voluntary isolation, as well as the Kichwas) have a vast and comprehensive knowledge of the jungle. This is demonstrated by their cultural practices, which are in synergy with the Amazonia. In the case of the Waorani people, we know that they worship the harpy eagle and no other human being. They read their own history in the jungle: the existence of chonta palms, for example, is a way of understanding time. The different trees scattered by this culture in the forest and their ages speak about the number of generations that have passed through that site. The Waorani are even capable of recognizing the families that left the chonta palm in those places as a vestige of their own history. and, based on this, learn about the history of these families, their mobility cycles,

the In turn, the animals develop a relationship with the chonta palm they feed on. When abundant, the animals mate near the plant [31]. Knowledge of the forest is not a private good that only "experts" or "scientists" have access to, but rather a way of growing in the natural environment. Evidence of this is that "In traditional society, each person came to know around 150 species of vines, at least 80 different species of fungi, and about 120 medicinal plants." [32]

Likewise, shifting agriculture has contributed to the spread of species in the rainforest. Their hunting methods, the construction of their homes, and their movement patterns are in tune with the mobility of animals. In this way, it is possible to understand why these wandering peoples of the Amazonia used to change homes at least once a year. These practices confront the core values of Western capitalist society, which understands wealth only as individual private property and places profit above all other values.

Dismantle, decolonize

Decolonizing the process of oil withdrawal in the Yasuní implies an understanding, or at least a profound questioning, of the meaning of "nature." Beginning to understand nature as a web of deep, complex, multi-species social relations, whose dynamics are alive, in motion, and capable of integrating the challenges of today's society. In this case, the very existence of infrastructure and waste foreign to a forest

31. Rival, Laura M. 2002. Trekking through History: The Huaorani of Amazonian Ecuador. The Historical Ecology Series. New York: Columbia University Press.

32. Almeida and Proaño, 2008 Tiger, eagle and Woarani. One jungle, one fight. The Ecological Debt of Transnational Oil Companies to the Waorani People and Yasuni National Park. Quito, Acción Ecológica. https://www.biodiversidadla.org/Documentos/Tigre-Aguila-y-Waorani-una-sola-selva-una-sola-lucha

like this, and their relationships, will allow us to dismantle or integrate the traces that oil extraction left on this site.

The diversity of life that inhabits it (animals, plants and other existences) represents an alternative to the climate emergency that is being experienced today in the Amazonia. It follows that they are fundamental: the use of social technologies of relationship with nature opposes the extractivism and confronts the economic model based on the intensive exploitation of resources, a legacy of colonialism; and; the recognition historically constructed knowledge, not based on anthropocentrism, and the appreciation of situated knowledge.

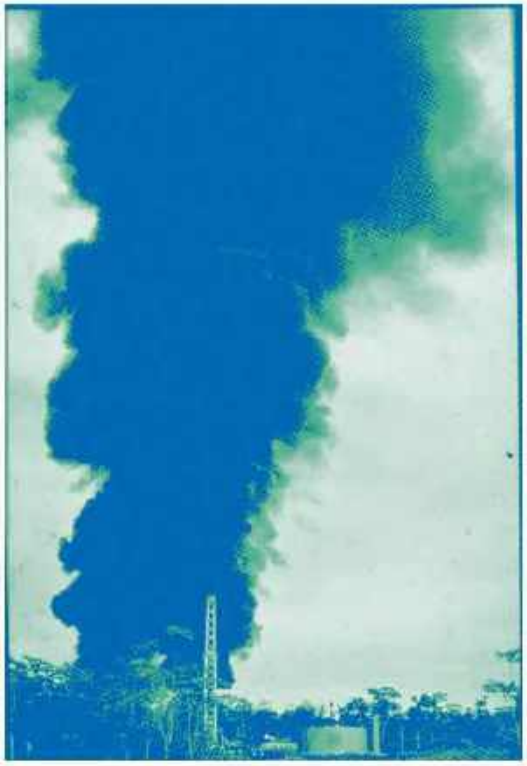

Photo. Adolfo Maldonado →
Font: Archivo Visual Amazónico

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Photo. Adolfo Maldonado
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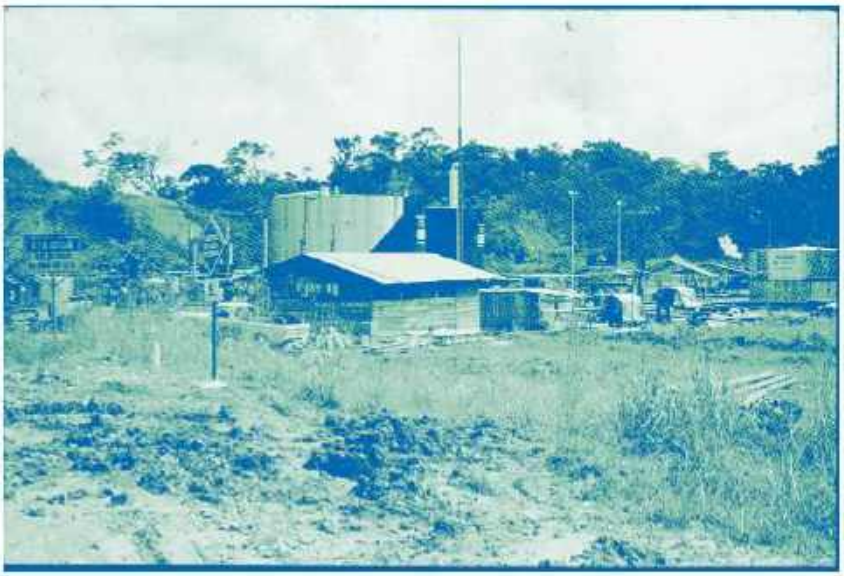
Stopping oil exploitation and repairing the Yasuní territory is a questioning of the idea of development

The idea of development has served to subjugate peoples and nature. In fact, it is still considered the main argument for oil and mining extractivism, through which projects are imposed on the world's ecosystems. The idea of progress emerged in the Age of Enlightenment in Europe, when it was thought that the correct history was that of linear progress. which pursued improvements according to a single system of values: the Western one. Since then, progress as a civilizing horizon

has been associated with the masculinized and white individual. The idea of machinery as a symbol of superiority prevailed over people and nature.

In the 19th century, development was associated with industrial production, the construction of large cities, and the boom in consumption of thousands of new goods. This modern form of existence required everything from the planet's tropical forests: from slave labor, animals, plant species, and minerals to local knowledge. This multi-extractivism was justified under the idea of "national development."



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Indigenous peoples are not backward peoples

The idea of development also served to intervene in "backward" societies. In the Amazonia of the 1960s, indigenous peoples were seen as " undeveloped, " as were their forms of exchange with animals, plants, and other forest life. Their political organization was "civilized" with the promise of development.

Credit corporations such as the IMF and the World Bank and global development agencies generate debt by conditioning sovereignties to "development" as the only legitimate form of existence on the planet and classifying societies into "developed" or "underdeveloped." This perpetuates colonial power relations and delegitimizes other ways of life and social organization that do not conform to the Western model. This leads to the dependence of underdevelopment on development; or, in other words, the preeminence of some countries and cosmological systems over others.

A century after the start of this race for development in the Amazonia, the impact on local populations in the name of development is irrefutable, leading to a growing challenge to the word as something valid. Nemonte Nenquimo, an indigenous Waorani woman, puts it this way: "This is our message to the Western world: your civilization is killing life on Earth."

The cessation of oil exploitation will democratize the idea of democracy

The cessation of oil extraction operations in Block 43 of Yasuní National Park represents a democratic milestone and a paradigm shift for Ecuador. This achievement is the product of a collective effort sustained over four decades, challenging the historical narrative that condemned the country to a primary-extractive economy. According

to state agents (at various times), the country's vocation was limited to the irresponsible and excessive exploitation of nature, considering wealth solely in terms of "natural resources" extractable from the subsoil.

However, in 2023—despite a multidimensional crisis and adverse forecasts —Ecuadorian society surprised the world. Nearly 60% of voters approved in a popular referendum the cessation of oil operations in Block 43 and the removal of infrastructure as a way of restoring the forest. This decision transcends the temporary and marks a new horizon where the promises of capitalist modernity are being questioned and the concept of wealth is being redefined.

The referendum was a leap for democracy

This advance represents a direct challenge to the historical colonization that persists and manifests itself as cosmophobia. It contrasts sharply with the worldviews of the Kichwa and Waorani indigenous peoples who inhabit the Yasuní, who propose leaving the oil underground and building territories of life. These visions propose a space where people, spirits, animals, plants, and other forms of existence coexist, rather than in scenarios of oil extraction.

The referendum contributes significantly to global discussions about climate justice, environmental racism, ecological debt, and ecofeminism. It broadens the concept of well-being as a collective good, not restricted to those who can afford it. It proposes an alternative to the economic dependence based on the export of raw materials, typical of colonial relations, and reaffirms the status of nature as a subject of rights, constitutionally recognized in Ecuador.

This decision raises a crucial debate about alternative development models that do not depend on fossil fuel extraction. Furthermore, it positions Ecuador as a pioneer in the practical implementation of the rights of nature, putting this constitutional commitment to the

test. It could potentially boost the transition to renewable energy in Ecuador and serve as an example for other countries. By allowing Ecuadorians to decide how their natural resources are used, historical colonial and neocolonial exploitation is challenged. Indigenous worldviews are recognized and respected—in contrast to—the historical imposition of Western visions.

Overcoming the extractivist model from the rights of the nature

The rights of nature disrupt the continuity of the colonial extractivist model on which the nation-state was founded. This established limits and demanded accountability for the negative effects of fifty years of oil extractivism.

This case, won by popular vote, demonstrates how Ecuadorian society has realized the constitutional mandate to recognize the rights of nature. It treats the Yasuní as a subject of rights, not a mere object of exploitation. This gesture reflects indigenous worldviews that view nature as a living being with intrinsic rights. Ultimately, it challenges the colonial vision that places humans as masters of nature; thus, it opens the way to a more harmonious and sustainable relationship with the environment. This democratic decision protects a unique ecosystem and redefines the relationship between society, the state, and nature.

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Photo. Adolfo Maldonado
Fuente: Archivo Visual Amazónico

9. CITIZEN'S TECHNICAL GUIDE TO UNDERSTANDING THE CLOSURE AND DISMANTLING OF BLOCK 43-ITT[46]

Block 43 ITT operates in one of the most sensitive areas on the planet: the heart of the [PNY], recognized for its exceptional biodiversity and for being a territory of peoples in voluntary isolation. With 261 wells distributed across multiple platforms—of which only 10 have been closed so far—, some located very close to the buffer zone of the park's intangible zone. This proximity currently represents a permanent risk, to which any type of operational incident, such as a spill or others, could be added, which could have irreversible consequences for nature and for these peoples; this violates their right to remain isolated and threatens their physical and cultural survival.

The closure, dismantling, and repair process of Block 43-ITT will be carried out by the Ecuadorian State through EP Petroecuador under the coordination of the [CEVP Yasuní-ITT by it acronym in Spanish], created in 2024 to implement the mandate of the 2023 popular consultation and supervised by the [CCE by it acronym in Spanish]. This committee is made up of representatives from the relevant ministries and EP Petroecuador. Given that this is a sovereign decision of the Ecuadorian people, it is necessary to maintain constant citizen oversight capable of guaranteeing transparency and compliance with established deadlines.

The technical complexity of closure and dismantling has been used as an argument to delay compliance with the popular mandate. This proposal, based on contributions from various specialists through amicus curiae briefs submitted during the case to the [CCE by it acronym in Spanish] and specialized interviews, seeks to clarify this complexity by distinguishing between operational closure—technically feasible in the immediate future—and the dismantling process, which requires more time for planning and execution.

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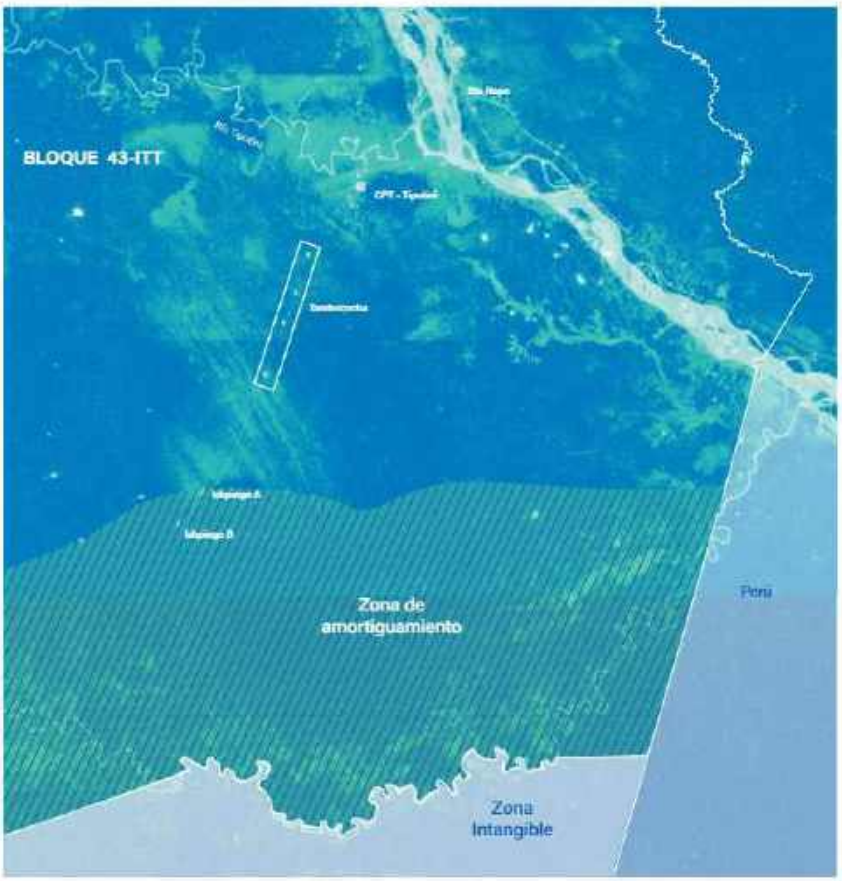
46. Esta proposta é feita por Andrés Soto, com base nas contribuições de vários técnicos que acompanharam o processo.


BLOQUE 43-ITT
Zona de
amortiguamiento
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The fundamental distinction: closure vs. decommissioning

The distinction between the closure and decommissioning of oil operations, as mentioned by Andrés Gómez33 is essential to understanding the technical options available in Block 43. The closure, which seeks to stop the flow of hydrocarbons, is achieved by closing the master valve. This operational action allows for responding to different situations and requirements during the well's production phase.

The Report on impacts, points of attention, and actions aken regarding compliance with the popular consultation for the early closure of operations and abandonment of Block 43 ITT (on page 103) presents important methodological deficiencies; mainly, by not establishing a clear distinction between the closure and dismantling processes.

The cited document indicates that the dismantling process would require refurbishment rigs for the installation of plugs, estimating 14 days per well for this operation, plus an additional day for moving the equipment between wells. Under these conditions, the complete dismantling of the infrastructure would take approximately 90 months using a refurbishment tower; or, 6 5 if two towers are used. It is important to clarify that these estimates correspond to the final dismantling process, not to the closure of the wells.

For consultant Fernando Reyes, the statement that the process would require 65 months (using two refurbishment rigs) refers specifically to definitive decommissioning, not to the initial shut-in of operations. The technical conditions for shutting in Block 43 do not differ substantially from other onshore oil wells. While complete decommissioning takes years, shutting in all wells could be accomplished in a much shorter period. With properly installed manual or automatic shut-in control systems, the process of simultaneously shutting in the master valves on all 261 wells could be completed in less than one hour.

While these processes are not limited to a matter of technical management, from an operational perspective, it can be affirmed that they are fully viable and executable within reasonable timeframes. This technical recognition is also part of the dispute over the meaning of the citizen mandate: to demonstrate that a post-oil Ecuador is possible within the State's own capabilities.

Risks of continued operation

The continued operation of the 261 wells in Block 43 entails a series of technical risks that translate into potential environmental impacts. One of the most significant challenges is the management of produced water, or wastewater, an inevitable by-product of oil extraction. This fluid contains a complex mixture of hydrocarbons, heavy metals, salts, and chemical additives used during the drilling process. Improper management of this water can result in the leaching of contaminants that degrade soil quality and potentially affect groundwater and surface water bodies.

The impacts of these leaks are cumulative: contaminants in the soil can be absorbed by vegetation or incorporated into local food chains through wildlife. If they contaminate rivers, streams, or lakes, these toxic compounds can significantly degrade aquatic ecosystems. This affects not only biodiversity but also the water resources used by local communities.

From an atmospheric perspective, the continued operation of the oil field involves the release of methane (CH_4) and other volatile organic compounds (VOCs). Methane deserves special attention due to its global warming potential, which is much higher than that of carbon dioxide over a 20-year period. VOCs, for their part, contribute to the formation of tropospheric ozone, a key component of smog that affects local air quality and has negative effects, including respiratory problems, damage to vegetation, and material degradation.

Control systems for immediate closure

The Block 43 wells have master valves located at the wellhead, which allow the immediate stoppage of hydrocarbon flow. These valves, together with surface safety valve (SSV) that respond automatically to abnormal conditions, can shut off the flow in less than three minutes, according to international standards. With these systems properly installed, the simultaneous shut-in of all 261 wells could be completed in less than an hour.

During the temporary closure period, a monitoring program and regular inspections will be required to ensure well stability and pressure.

Dismantling process

The August 2023 referendum mandated the closure, decommissioning, and repair of Block 43-ITT. This involves carrying out several organized processes: first, the closure of the wells and then their dismantling by plugging them.

Plugging process

Well plugging seeks to prevent fluids from migrating between subsurface zones. This prevents contamination of aquifers, soils, and surface waters. This process requires careful planning from the initial well design, as it depends on preliminary operations such as casing cementing and complete mud cleaning. Poor sealing can create pathways for natural gas to leak to the surface, creating fire hazards or health hazards.

The operation can take days or weeks, depending on the number of plugs needed. According to the National Petroleum Council of the

United States, since it does not generate economic returns, companies tend to carry out these jobs from the scope of the minimum requirements established by the authorities.

As reported by to the American Petroleum Institute [API], plugging primarily protects underground aquifers, isolates hydrocarbon-producing formations, and safeguards soils and surface waters.

Permanent abandonment

Permanent abandonment goes beyond landfill: it includes the dismantling of all facilities and equipment, as well as the cleanup and environmental restoration of the area.

This process concordant to general standards would include:

a. cutting the cladding between 1 and 1.5 meters below ground level;
b. removal of the wellhead and backfilling of the wellhead;
c. emptying and recovery of the pools;
d. removal of all infrastructure, wiring, debris and other waste;
e. land leveling and installation of a metal plaque with information about the well for future inspections; and
f. restoration of the surface to conditions similar to the original.

The goal is to avoid conflicts between the abandoned well and future land use. Companies must implement additional restoration measures as required by affected communities or the state.

In addition to technical dismantling, the [CCE by it acronym in Spanish] ordered comprehensive reparation of the nature and protection of the [PIAV by it acronym in Spanish]. In this context, the State's obligation is not limited to mitigating previous impacts, preventing future ones and physically restoring the territory, but to strictly respecting the right of the Tagaeri and Taromenane peoples to remain in isolation. The protection of their territories must be understood as a guiding principle of the closure process and not as a compensatory measure.

Pending logistical and technical challenges

The complexity of dismantling and restoring Block 43 poses several technical challenges pointed out by specialist Tom Mitro (Amicus curiae presented: https://nube.petrolpedia.org/s/m6K9kGT2LdHx79k)36 that require immediate attention. Infrastructure management presents specific logistical challenges. The disposal of materials such as stone and concrete demands a technical assessment that considers on-site treatment options, provided these guarantee environmental safety. The process must avoid repeating historical errors such as those documented in Chevron-Texaco operations in Ecuador.

The drainage and disposal of hydrocarbons in flowlines, pipelines, and storage tanks requires special technical attention. The management of residual volumes in tank bottoms and the treatment of pits with drilling fluids are critical; these aspects will require specific procedures not yet detailed in the current planning published by the [CEVP Yasuní-ITT by it acronym in Spanish].

For Mitro, process efficiency could be significantly improved by:

a. the implementation of temporary storage areas that optimize river and land transport;
b. the partial on-site dismantling of equipment to facilitate its transport; and,
c. the involvement of specialist contractors with experience in closures of operations in remote and sensitive areas.

International experiences in early closures

The early closure of oil fields for environmental and safety reasons has precedents in several countries. A recent example was recorded

in California: Griffin Resources, LLC was ordered on August 30, 2024 (by Order 1425 of the State Supervisor of Oil and Gas) to cease oil and gas operations in the Mount Poso and McKittrick Oil Fields. This order, issued after a spill that contaminated water resources, demonstrates the practical distinction between closure and decommissioning: while the immediate closure of the wells was required, their immediate plugging and abandonment was not.

A similar case occurred in April 2022 when the identical the division ordered Ample Resources, Inc. to cease operations at the Temescal Oil Field due to deficiencies in the maintenance of access roads that compromised emergency response capabilities.

These examples illustrate how regulatory authorities may order early closures when they identify significant risks to the environment or operational safety.

Socio-environmental considerations

The restoration process must incorporate the active participation of local communities under the principle of "free, prior, and informed consent." This includes joint assessments of the fate of certain facilities that could benefit communities, such as water treatment plants, communications equipment, or certain access roads.

The environmental restoration of the area will require a technical program that considers, as mentioned in this document:

a. the remediation of contaminated soils;
b. the restoration of natural hydrological patterns;
c. the recovery of native vegetation cover; and,
d. long-term monitoring of the integrity of shut-in wells.

Technical conclusions

According to the experts who have submitted amicus curiae briefs or interviews, the technical analysis reveals that the immediate closure of Block 43 is feasible and could be carried out in significantly shorter timeframes than officially suggested. However, the complete closure, decommissioning, and restoration process will require more detailed planning:

1. Optimize the logistical aspects of dismantling.
2. Incorporate relevant international experiences.
3. Ensure the effective participation of local communities.
4. Ensure comprehensive ecosystem restoration.

The environmental risks of temporary closure are manageable through appropriate monitoring and inspection programs, whereas continued operations would entail significantly greater cumulative environmental impacts. Priority should be placed on immediate closure of wells, while simultaneously developing a comprehensive decommissioning and remediation plan for the natural environment and the communities that live there; incorporating international best practices adapted to the Ecuadorian Amazonian context; and articulate an international oversight committee that guarantee the long-term protection of the Amazon ecosystem and the communities that live there.

The closure of Block 43-ITT is not just a technical obligation. It constitutes, in addition, a concrete step in fulfilling the citizen mandate and in beginning the transition towards a post-oil Ecuador.

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Do you want to learn more about the Yasuní-ITT closure, dismantling, and restoration process?

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100 PASSOS PARA O ENCERRAMENTO E DESMANTELAMENTO DO BLOCO 43-ITT E A REPARAÇÃO DO YASUNÍ
100 STEPS FOR THE CLOSURE AND DISMANTLING OF BLOCK 43-ITT AND THE REPAIR OF THE YASUNÍ

PRIMEIRA EDIÇÃO / FIRST EDITION
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Outubro / October, 2025

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CAPA E DESIGN EDITORIAL / COVER AND EDITORIAL DESIGN
Resaca Tropical

IMPRESSO EM QUITO, EQUADOR / PRINTED IN QUITO, ECUADOR
Poder Gráfico

Ideia original e conceituação / Original idea and conceptualization
acción ecológica

Com o apoio de / With the support of

*European Research Council (ERC nº 101002359) alojado en el Centro de Estudios Sociales de la Universidad de Coimbra.