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Obstacles and opportunities for moratoria on oil/ gas exploration or extraction in Latin America & the Caribbean

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ABSTRACT

Building on the few existing, successful cases of moratoria on oil and gas exploration or extraction activities in Costa Rica (whole country), Mexico (Northwest, Southeast areas, December 2016) and Belize (offshore, December 2017), the paper reflects on the real obstacles and possible opportunities for a larger scale implementation of such instruments to control fossil fuels supply in Latin America and the Caribbean.

*So far, current moratoria stem almost exclusively from **environmental concerns**, mainly related to the defense of biodiversity, not from climate change considerations. Some failures while trying to link environmental and climate issues, such as the Yasuní-ITT fiasco in Ecuador, represented a setback. The Paris Agreement, short of fostering fossil fuel supply strategies or even carbon pricing policies, has yet to test its mettle as a game changer in that respect. The international implications of countermeasures such as the elimination of restrictions for fossil fuel exploration, extraction and use brought about by the United States Federal Administration are still uncertain. On the other hand, the recent international evolution of costs and technologies related to non-fossil fuel approaches may unlock new pathways that favor the acceptance and expansion of moratoria.*

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A brief analysis is carried out on the main factors, both at the domestic and international level, that in one way or another influence the viability in the region of supply policies based on moratoria.

In this context, the paradox of countries that may be quite proactive in the climate change multilateral negotiations but are unable to consider large scale domestic restrictions in fossil fuel supply has still to be fully explained.

Introduction

Actual cases of moratoria on oil and gas exploration or extraction in Latin America and the Caribbean, effectively implemented, are few and far between. They have been carried out recently and at a rather small scale. Their impact on global GHG emissions, if any, is hardly noticeable. However, as they might be considered forerunners or harbingers of future, more ambitious endeavours, they deserve analysis and further consideration of their contexts and implications. The best-known successful cases in the region may be found in three countries: Costa Rica, Mexico and Belize, by chronological order. A previous, notoriously failed, attempt took place in Ecuador.

The Yasuní- ITT fiasco in Ecuador

The Yasuní- ITT² Initiative was a failed attempt by the government of Ecuador to get international compensation for curtailing the extraction of oil in an area with outstanding biodiversity. The case has been well documented elsewhere, and a quick reference will suffice in this document. Ecuador would have left indefinitely on the ground, below the Yasuní ecological reserve, some 856 million barrels of oil, thus avoiding the emission of 407 million metric tons of CO₂ stemming from its combustion. In exchange, it asked for a compensation purportedly equivalent to half the relinquished revenue from oil. This compensation would have been spent in 19 protected areas, a national reforestation programme and changes in the energy matrix.

In spite of a promising start, everything, from the overall concept to the fiduciary details, went wrong with the Initiative. Some potential donors began to question why they should be paying for a result that is anyway mandated by law³, or demanded by local public

² The name refers to the *Yasuní National Park*, in the Ecuadorian section of the Amazon Basin, where three blocks of oil exploration, known as *Ishpingo*, *Tiputini* and *Tambococha*, are located. The Park was established in 1998 by President Mahuad. The Yasuní- ITT Initiative, which began to take shape in 2003, was then formally completed and launched in 2007 by President Correa, who dropped it in August 2013.

³ The Ecuadorian Constitution of 2008, in its Article 407, states: “Activities for the extraction of nonrenewable natural resources are forbidden in protected areas and in areas declared intangible assets, including forestry production. Exceptionally, these resources can be tapped at the substantiated request of the President of the Republic and after a declaration of national interest issued by the National Assembly, which can, if it deems it advisable, convene a referendum”. This last provision would have come in handy for the Yasuní case.

opinion⁴. Others wondered whether it would create a precedent that might pave the way for similar requests from Non-Annex I big oil producers, and recalled that Venezuela's or Saudi Arabia's oil reserves were at least thirty-four times bigger than Ecuador's. Others still did not like a stark, unfair interpretation of a proposal that might sound like "pay for it or... I would cause harm to the global atmosphere". Other potential donors preferred to support positive action, such as REDD+ activities, rather than any inaction.

Facing a meager buildup of funds, in August 2013 President Correa withdrew the Initiative, giving rise to a short-lived confrontation in the classic North-South style. In December 2014, Ecuador prevented a group of German parliamentarians from visiting the Yasuni zone where oil exploitation had already begun.

After the Paris Agreement, that recognized the need for mitigation contributions from developing countries, a new initiative looking like Yasuni- ITT would have even less chances of being successful. In any case, bearing in mind the recent Ecuadorian fiasco, Latin American and Caribbean countries that eventually promoted successful moratoria on oil and gas exploration and production did not follow suit, and did not claim for compensations, other than the conservation of very valuable assets. Rather than assuming that "the world was not mature for Yasuni", chances are that it will be even less so in the near future.

Costa Rica

Building upon a short-lived precedent set during the 2002- 2006 Administration, President Laura Chinchilla and Minister René Castro, signed in 2011 a temporary (3 years) moratorium on petroleum exploitation in Costa Rica⁵. This decree, based on the constitutional right to a healthy environment, mentioned factors such as climate change and risks like the 2010 BP oil disaster in the Gulf of Mexico⁶.

This moratorium was meaningful in a broader context: in 2007 the Costa Rican government had announced its objective of becoming "carbon neutral" as soon as 2021⁷, by reducing the emissions and relying upon ecosystems' capacity to absorb the surplus CO₂ emitted. Notwithstanding a set of measures, such as "carbon neutrality" norms and labels, C Tax for tourism, the use of *Payment for Environmental Services* programme,

⁴ According to the pollster "Perfiles de Opinión", in June 2013, 93% of Quito and Guayaquil inhabitants agreed with the Yasuni-ITT initiative, and 66% of them did not support oil exploitation in the event of an insufficient compensation. A large majority of Ecuadorians would rather protect biodiversity, even if the Initiative failed.

⁵ Decreto Ejecutivo N° 36693 MINAET (Ministry of the Environment, Energy and Telecommunications), 1st of August 2011.

⁶ In April 2010 the BP *Deepwater Horizon* oil rig explosion killed 11 people and the broken pipe leaked on the ocean floor of the Gulf of Mexico more than 3 million barrels of oil during the nearly 3 months it took to cap it.

⁷ Year 2021 marks the 200th Anniversary of the National Independence of Costa Rica.

voluntary carbon markets, among others, this objective was aspirational, some would even say utopian, rather than supported by any legal mandate and enforceable policy instruments⁸. It soon became evident that the country was not on track to meet this target. The biggest challenge was -and still is- to be found in the transport sector, while nearly all the country's electricity was already being produced by renewables.

The carbon neutrality objective nevertheless reinforced public awareness and helped set in motion an enhanced social participation in mitigation activities. Eventually, the country's climate policy kept gathering momentum. In July 2014, President Luis Guillermo Solís extended the country's ban on petroleum exploration and extraction until 2021.

In his inauguration speech (May 8, 2018), President Carlos Alvarado, elected for the period 2018- 2022, announced the "titanic and beautiful task of abolishing the use of fossil fuels in our economy to make way for the use of clean and renewable energies", so that Costa Rica might become the world's first decarbonized society. He had previously announced plans to **end the use of fossil fuels in transport**, again by 2021. It is not properly a ban that the current government has in mind, but a plan to eventually phase out fossil fuels through enhanced policies and incentives.

In Costa Rica, one of the fastest growing auto markets in Latin America, the number of cars and the related demand for gasoline has spiralled in recent years. In 2016 nearly 159 thousand new cars entered the fleet, while demographics only registered about 75 thousand births. Over the last 25 years the number of vehicles grew fourfold, while population increased just 60%⁹. Traffic congestion is getting out of control in the metropolitan area of San José. Transportation problems may stand in the way towards carbon neutrality. Switching to cleaner cars will improve the environment but it will also increase the country's deficit: 22 percent of Costa Rica's revenue comes from taxes on fossil fuels.

Costa Rica has no significant oil or gas industry and its energy matrix is particularly clean: the country powered itself on clean sources for 300 days in 2017. This should simplify its transition towards a low-carbon, or even a no-carbon future.

But some legal issues concerning contracts previously undertaken by the government of Costa Rica with oil companies may somehow hinder the prospects for an eventual fossil fuel ban. In 1994 Costa Rican Congress approved the Hydrocarbon Law, allowing private companies to participate in hydrocarbon exploration and exploitation. A Hydrocarbons Directorate was then created within the Ministry of Environment and Energy, in charge of formalizing and fulfilling contracts. A subsidiary of US Harken Energy won in 1998 a 20-year contract with the government of Costa Rica for prospecting and exploiting oil in areas

⁸ The ambiguity of the status of the carbon-neutrality objective for 2021 became evident in Costa Rica's Nationally Determined Contribution (NDC, September 2015) within the framework of the Paris Agreement. As stated in its NDC, the country's long-term target is to achieve zero net emissions in year 2085.

⁹ Information from Costa Rica's National Registry and the National Institute of Statistics and Censuses.

of the Caribbean (Moín harbour, province of Limón). Likewise, US Mallon Oil Company signed in 2000 a contract to explore and develop natural gas and oil in Costa Rican territory, even without an environmental impact study. This latter aspect has played a relevant role in the ensuing litigation processes, when the Costa Rica government decided to forfeit existing licenses and contracts.

The future of the moratorium depends much more on the mobilization of the public opinion than on technical or legal issues. Costa Rica has a “green” reputation to uphold.

Mexico

Mexico has been for decades a huge oil producer and exporter. In July 2018 Petróleos Mexicanos (PEMEX, State owned) was still producing 1.84 M barrels per day of crude oil, down from 3.4 M bpd in 2004 and 2.62 M bpd in 2013¹⁰, a decline related, among other factors, to the exhaustion of giant fields such as Cantarell, in shallow waters of the Gulf of Mexico.

In the same 14 years, the internal demand for gasoline more than doubled. About three fourths of the gasoline sold in the country are now imported.

Petroleum revenues as a fraction of the public sector budget reached 38% at its peak, in 2006. Although this percentage has been decreasing in recent years, driven by fiscal reforms and price slumps, the Federal Government still runs at a disproportionate rate on oil.

The Mexican energy sector initiated in 2013 a deep transformation, transcending the old State monopolies on oil/ gas and power. The reform allowed for the mobilization of new financial resources from the private sector, and related state-of-the-art technologies, so far beyond the reach of PEMEX and the Federal Commission of Electricity. This was meant to expand the supply of energy, with cost reductions, in association with a more efficient use of energy. The government wanted to reconcile an expansion of fossil fuel production, to keep up with a growing demand, with a large-scale introduction of renewables in the power sector. Any public discussion on “unburnable reserves”, stranded assets or limiting the supply of fossil fuels was not even on the agenda. In the wake of a political transition stemming from the general election of the 1st of July, 2018, the future of this energy reform is at stake.

Against this backdrop, at the end of 2016 President E. Peña Nieto, whose Administration had not been known so far to foster bold environmental protection policies, paid a visit to the Lacandon forest, Chiapas, Southeast Mexico. Guided by a most renowned Mexican environmentalist, Dr. Julia Carabias, who has been deeply committed to the conservation of one of the last, particularly valuable, tracts of rainforest in Mexico, the President had a

¹⁰ Source: PEMEX, *Indicadores Petroleros*; 2018.

direct acquaintance with the outstanding local biodiversity and accepted upon request to enhance conservation measures in the Lacandon region. This included the use of the legal instrument of “Safeguard Zone”, an element of the Law on Hydrocarbons that bans oil and gas exploration and production in a specific portion of the national territory¹¹. The Lacandon Decree was bundled with other four decrees of the same kind, protecting mostly huge marine areas by *safeguard zones* declarations:

- Lacandon Forest Region (18.349 km²);
- Mangroves and RAMSAR sites (92.426 km²);
- Yucatán Platform and Mexican Caribbean (219.011 km²);
- Gulf of California- Baja California Pacific (691.758 km²);
- Coral Reefs of Gulf of Mexico and Mexican Caribbean (6.172 km²)

All these Decrees entered into force on the 7th of December 2016. The total area covered by those Decrees amount to slightly **above one million km²**. This was the first and, so far, the last time that the “safeguard zone” legal instrument was brought into effect.

The safeguard zones decrees invoked the following reasons: defense of natural heritage, conservation of biodiversity, environmental protection, tourism. No reference is made to climate change. They mention also two very important institutions, with a central role in the process leading to each declaration: the National Commission of Natural Protected Areas (**CONANP**), and the National Commission for the Knowledge and Use of Biodiversity (**CONABIO**). The latter in particular has won worldwide recognition for its research work in the conservation field.

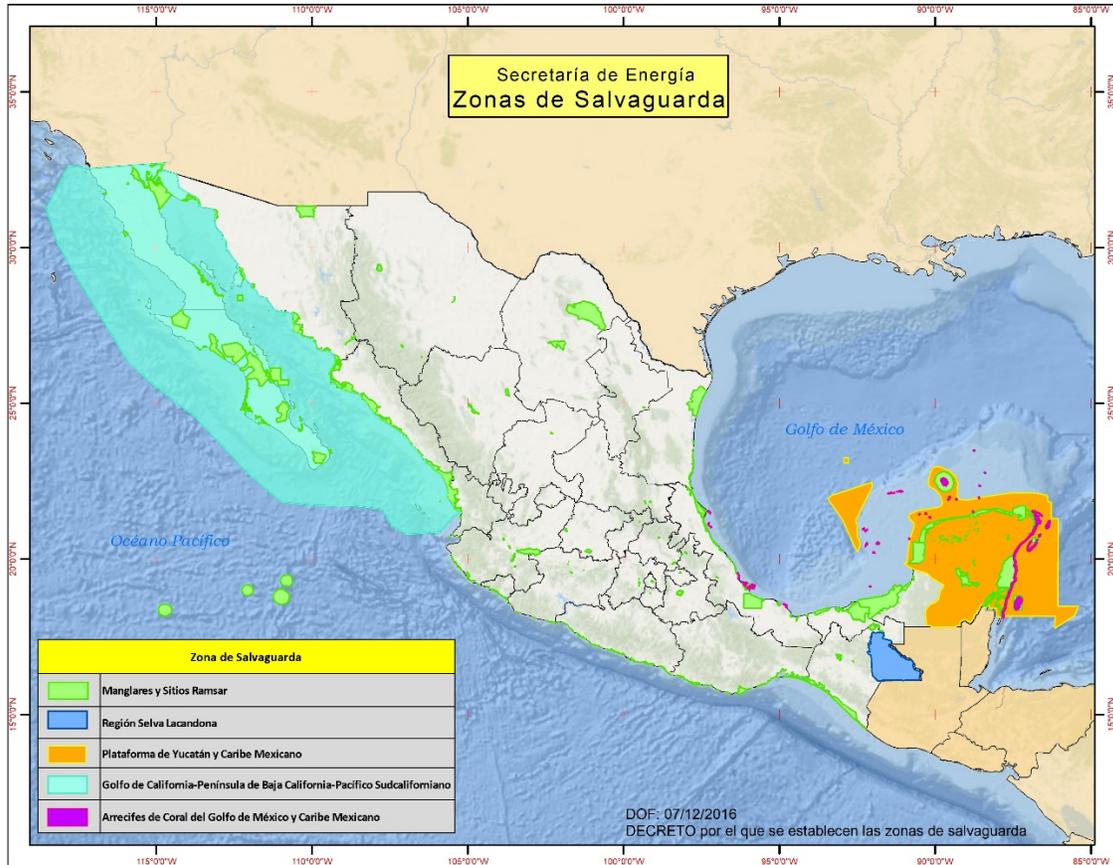
In the same Daily Federal Gazette that published the safeguard zones decrees, four new Natural Protected Areas were established, where no oil and gas activities were allowed, either:

- Biosphere Reserve of the Mexican Caribbean (including 50% of all Mesoamerican Reef System);
- Biosphere Reserve of the Pacific Islands of Baja California Peninsula;
- Biosphere Reserve of Deep Mexican Pacific (over 57.5 Million has of marine areas);
- Biosphere Reserve of Tamaulipas Sierra.

The location of these no-oil/gas zones is shown in the following maps.

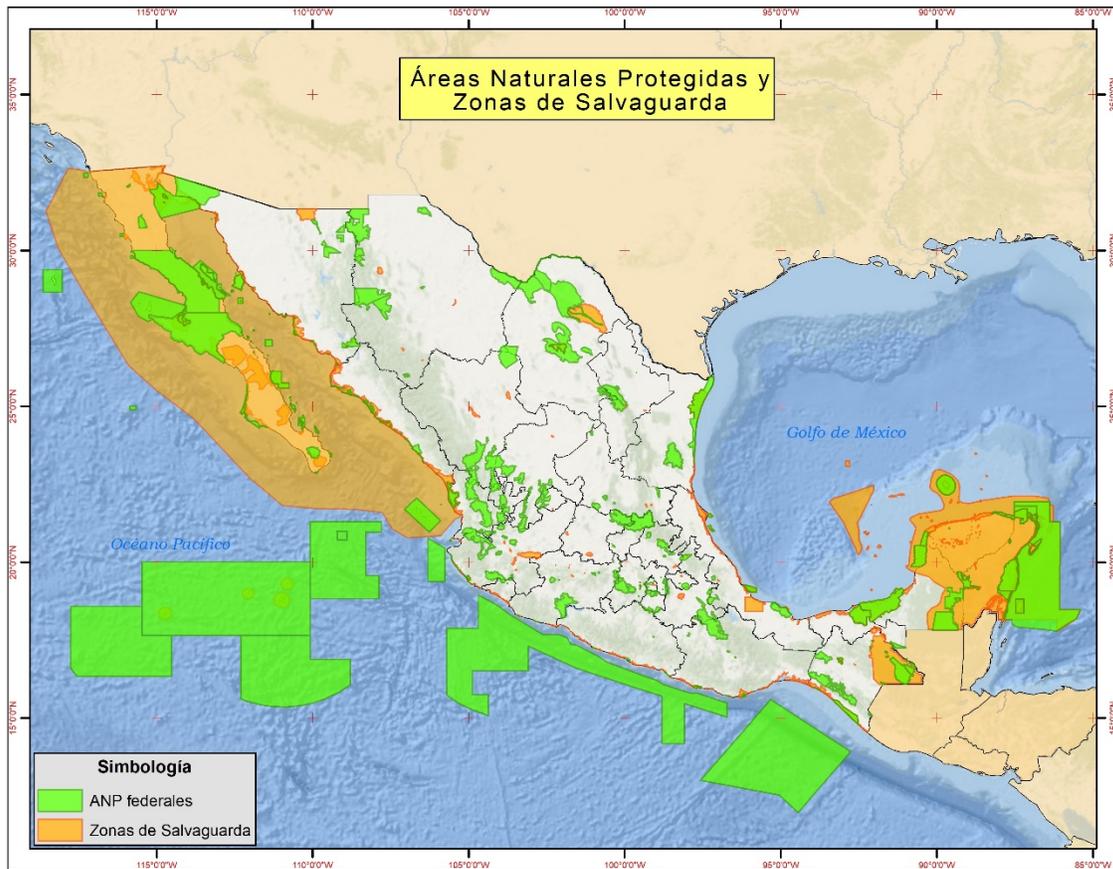
¹¹ Law on Hydrocarbons, in force since its publication in the Daily Federal Gazette, August 12, 2014; Art.41: “The Federal Executive shall, when proposed by the Ministry of Energy, establish Safeguard Zones in reserved areas where the State decides to prohibit hydrocarbon exploration and extraction activities. The incorporation of specific areas into Safeguard Zones, or their removal therefrom, shall be done by presidential decree, based on technical assessments. In Natural Protected Areas no allocation licenses or contracts for the exploration and extraction of hydrocarbons shall be granted”.

MEXICO: Map plotting the “Safeguard Zones” established by decree on December 7 2016.



Author: David Gutiérrez Carbonell (CONANP). Prepared specifically for the Second International Conference on Fossil Fuel Supply and Climate Policy

MEXICO: “Safeguard Zones” and Federal Natural Protected Areas



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Belize

In Belize the search for hydrocarbons started in the late 1930's¹². Although 18 different companies were granted petroleum concession licenses that covered most of the territory, the first on-shore discovery of petroleum and gas deposits of commercial interest took only place in 2005¹³.

In April 2013 the Supreme Court declared null and void all offshore oil exploration contracts issued by the government of Belize. Despite a governmental interest in hydrocarbon exploration, prospecting companies eventually faced not only the complexities of local geology and the international oil prices slump of recent years, but also a growing opposition from specific social groups.

After nearly a decade of lobbying, brisk battles in public opinion's arena, failed attempts to trigger an official referendum and much public outcry over seismic testing deemed to be highly detrimental for wildlife and fisheries, environmentalist groups and businessmen, supported by international advocacy campaigns led by WWF, Oceana and other organizations, managed to stall a 2016 governmental plan to undertake in earnest off-shore oil exploration in Belize.

In December 2017 an unanimously approved Act entered into force that would **put an end to any petroleum activity in Belize's Maritime Zone**. This Act describes itself as a legal instrument "to impose a moratorium on the exploration for and exploitation of petroleum and other petroleum operations in the maritime zone of Belize, to prevent pollution from installation devices and vessels used in the exploration or exploitation of petroleum resources of the seabed and subsoil of the maritime zone; to accordingly, make further provisions for the protection of the Belize Barrier Reef System inclusive of the World Heritage Site; and to provide for matters connected therewith or incidental thereto"¹⁴. This hard-fought moratorium, which would be indefinite, has raised much international praise.

The intention of the Act was to safeguard the country's marine environment, particularly its outstanding, world-renowned but fragile features, from pollution and other destructive processes stemming from offshore oil and gas exploration and drilling.

In 1996 UNESCO inscribed the Belize Barrier Reef Reserve System (BBRRS), comprised of seven protected areas, in its list of World Heritage Sites. However, the threat of offshore oil activities was one of the main factors that led in 2009 to the embarrassing inclusion of

¹² Shell was the first company to obtain an exploratory license as far back as 1938 and carried out geological surveys that were interrupted by the II World War.

¹³ The finder, Belize National Energy (BNE), remains the only company producing and exporting oil from Belize, with a production capacity of a few thousand barrels a day.

¹⁴ "Petroleum Operations (Maritime Zone Moratorium) Act", gazetted on the 30th December 2017. As defined in this Act, "Petroleum" includes crude oil and natural gas, among other hydrocarbons; "Maritime Zone of Belize" means the internal waters, the territorial sea and the Exclusive Economic Zone.

BBRRS in the List of World Heritage in Danger. The moratorium Act helped Belize remove itself from this ominous listing¹⁵.

The BBRRS is part of a larger reef complex, one of the most pristine, second only to Australia's in the world's ranking. Three of the four Caribbean atolls are located outside the reef complex¹⁶. The local marine biodiversity boasts over 1,400 species. Belizean ecosystems are home to threatened species such as the West Indian manatee, some endangered turtles, the American marine crocodile, six rare species of sharks, and a broad array of migratory birds and bird colonies.

Belize is one of the most exciting diving destinations in the world. The direct contribution of tourism represented in 2016 no less than 14 percent of the country's GDP, according to the World Travel and Tourism Council. About one half of Belize's population, that totals currently about 380 thousand inhabitants, depends on tourism or fisheries for their livelihood. In this context, the reef system is critical. Beyond its intrinsic interest, reefs also provide a 'barrier' against storm surges¹⁷. The cultural and economic potential of the reef and other marine ecosystems is invaluable: no wonder Belizeans decided not to put their unique natural assets in jeopardy. The moratorium Act debunks the concept that conservation is a job-killing policy.

It may be noted that while Belize undertook its mighty legal move, the United States Administration decided to open up to oil and gas drilling previously protected large areas off the coast¹⁸.

The moratorium Act will not suffice to guarantee the survival of Belizean coral reefs which are bleaching four times as frequently as they did in the 1980s. This can only be related to rising temperatures and acidification of the sea, processes driven by climate change. Action at a global scale will be indispensable.

¹⁵ The World Heritage Committee has always taken a strong position that oil and gas exploration or exploitation activities are incompatible with World Heritage status. In its 42nd Session held in Manama, Bahrein, 24 June- 4 July 2018, the World Heritage Committee adopted Decision 42 COM 7A.43, thus removing Belize's BBRRS from the said list.

¹⁶ The *Great Blue Hole*, one of the top 10 dive sites on the planet according to Jacques Cousteau, is located in one of the Belizean atolls (the Lighthouse atoll).

¹⁷ According to economic valuations conducted by the World Resources Institute in 2009, every year Belize's coastal and marine ecosystems contribute more than a billion dollars to the national economy through just three goods and services: tourism, fisheries, and coastal and shoreline protection.

¹⁸ President Donald Trump's Jan. 4 2018 announcement.

BELIZE Protected Areas



Reflections from recent Latin American & the Caribbean experiences

Moratoria and supply side policies

Moratoria or, even better, bans focusing on exploration and extraction of oil and gas, are in theory the most radical instruments for controlling the supply of fossil fuels: no way any fossil fuel could enter the energy market, to be transformed and eventually burned, if it cannot be extracted in the first place. However, at the scale these instruments have been utilized so far in Latin America & the Caribbean (LAC) their effect is still negligible. Whatever oil and gas would remain on the ground as a result of these policies is easily substituted by imports, a clear case of “supply leakage”. We cannot however underestimate the potential expansion of the policies, in at least three directions:

- expansion of **temporal boundaries**: transition between a short-term moratorium to time-related extensions and eventually permanent bans. (Costa Rica’s case)
- expansion of **spatial boundaries**: the area affected by the policy may grow from a small portion of the territory to bigger areas, the entire area of national jurisdiction, or eventually reaching an international dimension.
- expansion of the **nature of the restriction**: starting with the dirtiest fossil fuels, typically coal, and eventually adding others, such as oil and then natural gas; or starting with controversial technologies, for instance “fracking” or “open pit mining” and adding then other perhaps more benign means of extraction. This approach has not been tested in LAC.

In any case **the application of the moratoria instruments will be step-wise, progressive**. This application has been facing strong opposition and cannot be effected in its entirety out of the blue. The consolidation of even a small step may be required before undertaking a more ambitious one. Sometimes a failed previous attempt paved the way for a first successful moratorium (Costa Rica’s case). Success is usually the end product of a difficult, protracted battle in the arena of public opinion to overcome special interests.

Obstacles

The obstacles to be overcome are powerful and should be fully understood before trying to neutralize them: fossil fuel findings and their exploitation were considered a boon insofar as they might increase the revenues of the State through direct sales or taxes, substitute expensive imports, improve balance of payments, contribute to job creation and generate new value chains.

Fiscal reforms might be brought about as a replacement of lost revenue. In the context of a “just transition”, current or future workers in the extractive economy need to be protected, retrained and helped to get access to new, better livelihoods. Other obstacles stem from education, training and social paradigms deeply anchored into an extractive economy. The contents, the structure and the transmission of knowledge of many professionals and their social organizations are interwoven with the role they play in the

fossil fuels economy. Until recently, phasing out fossil fuels was not rejected, it was simply unthinkable.

Practical obstacles include also legal matters, such as the existence of previous contracts, licenses or winning bids that lay the ground for protracted litigations with the State to counter the declaration of a moratorium. So far political considerations have prevailed, and no moratorium has been thwarted by such legal means, particularly when the tide of public opinion in favor of a moratorium is strong enough.

The importance of the reserves under areas covered by a moratorium may represent a practical obstacle. It should be easier to refrain from exploring blocks with unknown potential than relinquishing the exploitation of big reserves determined through a broad array of geological studies, seismic prospection and positive exploratory drilling. If the local surface assets are deemed to be really valuable it is much more sensible to protect them with a moratorium **before** undertaking underground probes in earnest.

Stated objectives of the moratoria

At least in LAC, the rationale for the application of moratoria instruments stemmed from environmental concerns, usually **without any reference to climate change**. A possible exception might be Costa Rica, but even in this case the main reason invoked refers to “the constitutional right to a healthy environment”. Accordingly, the usual declared objectives of any moratorium are:

- defense of **natural heritage** and **landscapes**;
- **environmental protection**, action against land degradation;
- conservation of a particularly rich **biodiversity** and associated **cultural values**;
- cancellation of **risks of accidents**, such as the well-publicized “Deepwater Horizon” 2010 oil spill in the Gulf of Mexico, in risk averse societies, such as LAC’s;
- permanence and enhancement of some sectors, such as **(eco)tourism** or fisheries, and their economic benefits.

Climate change community members are aware of the absence of any reference to the abatement of GHGs emissions and fear that it might weaken the policy or degrade its legitimacy. Some of them may even tend to disengage themselves from the process, which they perceive as external or unrelated to their own concerns.

It remains that, in LAC as elsewhere, the public opinion is much more sensitive to the above stated issues than to the fate of concentrations of unfamiliar gases expressed in parts per million. Absence of explicit references to climate mitigation should not in fact be detrimental for the efficacy or the relevance of a moratorium.

This paper’s argument goes deeper: the disconnect between the environmental, climatic and water communities is the unfortunate, artificial, dysfunctional result of institutional splits at the level of international law, professional paradigms and academic organizations. Each one of the indicated subject matters is the object of specific treaties and multilateral or bilateral negotiations, which create a legal space of their own. They generate their distinct constituencies, build their own institutions, mobilize their financial resources,

induce media specialization, all this reflecting a fragmentation of knowledge deeply rooted in universities and research institutes. Actual socio-environmental processes are integrated functional realities that do not lend themselves to such disaggregation. From a broad point of view, prospecting, extracting and utilizing fossil fuels have been part and parcel of a productive/ destructive process characterizing the Anthropocene. Bringing down the scale of analysis allows us to recognize for instance that the exploitation of shale oil and gas entails the use of substantial amounts of water, involves the injection of chemicals, may create micro-seismic events, calls for conspicuous infrastructure building, may induce different types of pollution, accelerates loss of biodiversity, brings about geopolitical changes while allowing for the introduction of additional hydrocarbons in the economy and, yes, it also entails increased GHG emissions into the atmosphere.

No amount of *environmental impact assessments* will conceal the fact that the exploitation of bituminous sands may degrade landscapes at an unprecedented scale, deeply affect boreal forests or tropical ecosystems according to its geographic location, require considerable amounts of energy, and entail a host of both wanted and unwanted consequences that it would be impossible to summarize here.

Reducing these and so many other examples to parameters that may fit into proper UNFCCC concerns is, to say the least, inappropriate. If a social mobilization brings about moratoria on oil and gas activities that may be just the forerunner of a constructive change in the way current civilization interacts with a rather limited and fragile natural world, it should be welcome and fostered no matter how it is labelled in a foundational decree.

Emissions of GHGs, climate impacts, loss of biodiversity, alteration of water cycles and biogeochemical cycles in general are aspects of one and the same process of predatory human intervention. It is this process that must be redressed, not just a specific aspect of it, but by selecting for instance the defense of natural heritage as an entry point we may achieve a greater leverage and accelerate the whole transformation. Tackling climate change calls for a broad harmonization of agendas and the participation of distinct but hopefully convergent communities.

Opportunities

A number of factors provide us with ground for optimism.

LAC is the region with highest biodiversity: it is home to six of the world's megadiverse countries (Brazil, Colombia, Ecuador, Mexico, Peru and Venezuela). Just in South America 40% of the world's biodiversity may be found, and over one fourth of the remaining planet's forests. The need to protect this huge natural capital and its most valuable ecosystems services should facilitate the expansion of moratoria on coal, oil and gas

related activities. As successive, international polls have shown in recent years, public opinion is in the region particularly sensitive to ecological and climate change issues¹⁹.

The opportunities for further moratoria are also enhanced by already existing institutions, both at national and international levels. As underlined before, the role of UNESCO's World Heritage Sites Programme was decisive for Belize's moratorium. So was CONABIO's and CONANP's participation in the shaping of Mexico's *safeguard zones*, the concept being a legal product resulting from mainstreaming environmental concerns in the energy agenda.

The slump of international oil prices since 2008 may have made it more difficult for renewables to debunk fossil fuels, but it also discouraged oil and gas investments in the wake of increasing extraction costs.

We may also count on the demonstration effect of existing moratoria, disproving the proclaimed job-killing consequence of progressive environmental and climate action. Low carbon, resilient economies seem to generate more and better jobs than the ones wrecked by the transformation. If well managed, the process will also enhance competitiveness.

It has been said once and again that the Stone Age did not end because of lack of stones, but due to better alternatives. The emergence of new technologies and above all the abatement of their costs will eventually be the main driving force for further moratoria and bans.

¹⁹ The literature proving the leadership of LAC in matters of public opinion/ environment/ climate change is now quite abundant. As a sample we may quote D. Ryan: "climate skepticism and open opposition to the climate agenda have not been a relevant pattern among mainstream political parties and coalitions in Latin American countries", in *Politics and climate change: exploring the relationship between political parties and climate issues in Latin America*; Ambiente & Sociedade vol.20 n°3; São Paulo, July/Sept. 2017.