

# Provisions on Liability for Decommissioning Upstream Offshore Oil and Gas Infrastructure in Investor–State Contracts



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## Executive Summary

- **Decommissioning upstream offshore oil and gas operations** involves dismantling infrastructure and equipment and mitigating their environmental impacts when the oil or gas resource becomes depleted or economically unviable. Stricter climate policy and the energy transition away from fossil fuels are likely to accelerate decommissioning processes.
- **Domestic statutes, decrees, and regulations that apply to the oil and gas industry are ideally suited for governing decommissioning liability.** In principle, these instruments are not subject to negotiation with private entities, reducing their leverage in setting decommissioning obligations, in particular those related to environmental and financial matters.
- **Oil and gas contracts between the host state and private oil and gas companies may include decommissioning provisions,** whether to govern the issue comprehensively where statutory or regulatory frameworks are silent on the issue or to complement them.
- Where statutory and regulatory frameworks are insufficient, **contracts should include provisions governing decommissioning as an integral stage occurring at the end of the project (and not as a post-project activity), factoring in the health, environmental, safety, and financial risks it entails throughout the project's life cycle.**
- As part of an analysis commissioned by the Institute for Energy Economics and Financial Analysis (IEEFA), **this paper examines contractual provisions related to decommissioning or abandonment of offshore oil and gas extraction infrastructure** from various jurisdictions for which contracts are available on ResourceContracts.org.
- Not every contract includes **decommissioning provisions** or requires the oil and gas company to develop a **decommissioning plan**; across contracts that do, the scope of provisions varies significantly. Certain contracts refer to a **standard** to be applied in decommissioning activities, with varying stringency levels. While some contracts refer to **industry best practices**, not all of them define what they entail. Not all contracts contain **environmental protection and rehabilitation** obligations specific to decommissioning.
- Certain contracts require **approval and oversight by a state agency** to ensure that the oil and gas company prepares and submits an appropriate decommissioning plan and that the decommissioning process takes place as set out in the applicable statutes and regulations, the contract, and the plan itself. The effectiveness of these mechanisms depends on the rigor and regularity with which the government assesses and inspects decommissioning plans and processes. Where feasible, climate concerns should be added to standard environmental warranties. Contracts could restate environmental and climate-related requirements as forward-looking warranties made by the company to remove any ambiguity about its obligations and the consequences of failing to meet them.
- To avoid a scenario where the government must cover decommissioning costs in case of noncompliance by the oil and gas company with its decommissioning obligations, contracts should **create a dedicated decommissioning fund**, with sufficient money to cover all decommissioning (including expected post-decommissioning) costs, and:
  - **Require the oil and gas company to fully prefund the decommissioning fund** as part of capital and operating expenditures, with contributions assured by the ultimate parent company and beginning before project construction.

- Determine that funds be set aside in an **escrow account dedicated to decommissioning** in an **independent private banking institution** and in the form of a **specific financial instrument** that guarantees decommissioning without freezing the oil and gas company’s funds to develop the project.
- Require the company to **meet the full costs of decommissioning if the offshore extraction infrastructure is transferred to third parties or if the fund is insufficient**, extending the liability to the ultimate parent company whenever possible.
- Require the parties to **renegotiate** as needed to **adjust decommissioning activities** or **increase or decrease their costs**.
- Provide for **tax deductibility and cost recoverability** of fund contributions, to promote companies’ compliance with their obligation to contribute to the fund.
- Contracts should outline objective conditions for the **release of decommissioning liability**, along with any **subsisting obligations** that the oil company and its ultimate parent company retain in perpetuity after decommissioning or after the sale or transfer of the upstream asset.
- Contracts should not include **non-fiscal stabilization provisions**, to ensure that states can enforce any new or amended statutes or regulations governing decommissioning liability, without having to compensate oil and gas companies that are party to pre-existing contracts.

## 1 Introduction

Offshore oil and gas operations are inherently hazardous to the environment, posing environmental risks and impacts throughout all stages of the operations: exploration, development, production, and decommissioning. Offshore decommissioning consists of the process of planning, funding, and implementing measures aimed at safely closing, repurposing, or removing the infrastructure and equipment used in the exploration and production of oil and gas in the marine environment, and at mitigating their impacts.<sup>1</sup> It encompasses a series of activities, including the safe plugging and closure of wells, the removal of equipment and pipelines, the repurposing of platforms, the disposal of non-usable materials and potentially polluting products, and the cleaning of surrounding areas. In some cases, it also entails the rehabilitation of the extraction site as close as possible to its prior condition.<sup>2</sup> Decommissioning typically occurs after the oil or gas resource is depleted or its production is economically unviable. The impacts of climate change, the imperative of the energy transition away from fossil fuels, and the adoption of increasingly stringent climate policies are likely to push the oil and gas sector to expedite the decommissioning of many of these operations, highlighting the need for robust regulation of liability for the decommissioning of oil and gas infrastructure.

Countries can use various legal instruments for governing oil and gas operations and their environmental risks and impacts, from statutes to decrees or regulations to investor–state contracts. Domestic statutes, decrees, and regulations are the ideal instruments to govern the environmental liability for decommissioning of offshore oil and gas infrastructure, since they apply across the industry and are, in principle, not subject to negotiation with private entities. Statutory and regulatory frameworks can establish the scope of decommissioning (activities, facilities, territory, timing, trigger, etc.), the minimum content and

standard of obligations, and enforcement and funding mechanisms.

Investor–state contracts become relevant where legal frameworks recognize that the ownership of oil and gas resources belongs to the host state and require the conclusion of exploration and exploitation contracts. In those cases, private oil and gas companies, contractors, or investors (for simplicity, “oil company”) obtain an authorization or license for oil and gas operations by signing a host government agreement or investor–state contract (for simplicity, “contract”), concluded either with the state, a specific ministry or agency, or a state-owned national oil company (NOC). These contracts generally follow three types (see summary in Box 1).<sup>3</sup>

### Box 1. Primary types of contracts

**Concession agreement:** The government grants to an oil company the rights to develop petroleum resources in a given geographical area, in exchange for royalties, fees, taxes, and bonuses. The government may also receive a share of the production if it is a joint venture partner of the oil company. The oil company funds and assumes all risks of exploration, development, and production.

**Production sharing contract (PSC):** The government retains ownership of the resource and agrees by contract to compensate the company for developing the field through in-kind oil payments. The oil company provides the funding and recovers its costs in the oil it produces, sharing the profit in oil with the government, based on an agreed formula.

**Technical service agreement:** Retaining ownership and control of the resources, the government contracts an oil company to conduct exploration and construction work and manage the development process. The government pays the company in either cash or petroleum commodity based on the activities performed, not on production.

Source: adapted from NRG (2015)<sup>4</sup>

As part of a comparative analysis commissioned by the Institute for Energy Economics and Financial Analysis (IEEFA), this paper examines publicly available contracts (including model contracts) governing upstream offshore oil and gas operations. These oil and gas exploration, extraction, and production operations comprise searching for and identifying crude oil and natural gas deposits from offshore oil and gas fields, installing rigs and drilling wells, and subsequently operating them to extract the oil and gas resources.<sup>5</sup> To understand whether and how contracts address issues of liability for closure of sites, environmental damage, and rehabilitation at the end of the operations, we analyze the contractual provisions that contain obligations related to decommissioning or abandonment of offshore oil and gas extraction infrastructure (for simplicity, “decommissioning provisions”).

We analyze contracts from the following jurisdictions, for which there are published contracts: Albania, Algeria, Angola, Australia, Azerbaijan, Benin, Brazil, Brunei Darussalam, China, Cyprus, Ecuador, Egypt, Eritrea, Georgia, Greece, Indonesia, Libya, Malaysia, Mexico, Nigeria, Peru, Sao Tomé and Príncipe, Timor Leste, and the United Kingdom. For each jurisdiction, our analysis focuses on the two or three most recently concluded contracts retrieved as of May 19, 2022, from ResourceContracts.org, the largest public online repository of oil, gas, and mining contracts.<sup>6</sup>

The lack of transparency of oil and gas contracts significantly limits the scope of our analysis to those contracts that are publicly available. Our analysis focuses on qualitatively describing the most recent contractual approaches to decommissioning provisions in select jurisdictions, as evidenced by their most recently concluded contracts that are publicly available. This sampling approach does not

allow drawing conclusions on how contractual approaches to decommissioning provisions changed over time in any given jurisdiction. Neither does it lend itself to drawing quantitative conclusions about the overall frequency of contractual approaches, both within the same jurisdiction and across jurisdictions, for three main reasons: we only analyzed the most recent contracts; approaches may have changed over time; and the lack of transparency means that the total number of contracts is unknown. Accordingly, our study avoids mentioning quantities, whether specific (percentages) or general (“few,” “many,” or “most”); where such mentions occur, they refer not to the number of *contracts*, but to the number of *analyzed jurisdictions* for which there is *recent publicly available evidence* of a given approach.

The publicly available contracts analyzed may not be representative of the state of the art of any given jurisdiction or of the global oil and gas industry in terms of contractual approaches to decommissioning obligations. It may be that these approaches have evolved in certain more recent contracts that are not public or that the governance of decommissioning has improved because of legislative or regulatory instruments.

Even so, analyzing how publicly available contracts approach decommissioning provisions is particularly important. Where statutory and regulatory frameworks are insufficient, contracts that do not cover decommissioning comprehensively could present a significant environmental risk as oil companies transfer operations to smaller or less financially secure companies<sup>7</sup> or hand them over back to host states or NOCs. While these transfers are expected to occur at the end of the productive life of the upstream asset, early closures may also happen, including to address the climate imperative and the related need to transition away from fossil fuels.

## 2 Analysis of Decommissioning or Abandonment Provisions in Investor–State Contracts for Offshore Oil and Gas Extraction

Our analysis identified nine areas or criteria to distinguish and compare decommissioning provisions, discussed in the following subsections:

1. Whether the contract includes a **decommissioning clause** and, if so, whether the clause defines the term, merely refers to the host state’s domestic laws or other legal instruments governing decommissioning, or contains specific and more detailed contractual obligations on decommissioning.
2. What the **triggers** are for the operation of the decommissioning clause and their applicable procedures, notices, and terms.
3. Whether the clause mandates the oil company to submit a **decommissioning plan** and, if so, whether it defines the minimum content of the plan and its submission procedures.
4. Whether and how the clause refers to **industry best practices** concerning decommissioning.
5. Whether and how the clause refers to **environmental obligations** concerning decommissioning.
6. What **role the government has** in overseeing the design, implementation, and approval of decommissioning activities.
7. Whether the contract **creates funding mechanisms** for decommissioning, how it **allocates the financial burden** of decommissioning activities, and what **tax treatment** (including cost recoverability) it provides for those funding mechanisms.
8. Whether the contract provides the conditions for the oil company to obtain **release of liability** for its decommissioning obligations and whether it

outlines and **subsisting obligations** that the oil company main retain after full and satisfactory decommissioning of the project.

9. Whether the contract includes a **stabilization clause** and, if so, how it may affect contractual obligations on decommissioning.

As discussed below with respect to each area or criteria of analysis, our analysis did not identify any typical or ideal decommissioning provisions. The scope and depth of the various provisions analyzed with respect to the nine areas or criteria above vary both from jurisdiction to jurisdiction and within the same jurisdiction.

### 2.1 Existence and Scope of Decommissioning Provisions

Analyzed contracts from covered jurisdictions vary as to the existence and scope of decommissioning provisions. Certain contracts do not impose any decommissioning obligations on the oil company, whether through general provisions or a specific decommissioning clause, or contain express references to such obligations in laws or regulations. Contracts that do refer to decommissioning obligations vary in how they tackle the matter: from cross references to applicable laws or regulations, to mentions of the term “decommissioning” without further definition or explanation, to provisions that only cover certain aspects of the decommissioning process, to comprehensive decommissioning definitions and clauses.

Analyzed contracts from Eritrea<sup>8</sup> and Peru<sup>9</sup> are silent on decommissioning or the oil company’s obligations after depletion of a well or use of an area. These contracts only regulate the transfer and handover of operative facilities and assets to the government or a NOC for the exploitation of any remaining operative wells, if possible, once the

private oil company’s development of the project has concluded or the agreement has expired or has been terminated.

Contracts from certain jurisdictions, though not containing specific decommissioning provisions, refer to the general legal framework governing decommissioning in which detailed requirements are specified. For example, a Chinese contract states that both parties “shall abide by the relevant abandonment regulations issued by the competent authorities of the Chinese Government,”<sup>10</sup> without detailing the content of these regulations. Similarly, a Nigerian contract does not contain a special decommissioning clause, but only establishes that the decommissioning process shall be carried out in accordance with the regulation on decommissioning and abandonment guidelines issued by the Nigerian Department of Petroleum Resources,<sup>11</sup> and refers to the funds that comprise an “Abandonment Security.”

Other contracts contain decommissioning provisions but fail to define the decommissioning process or to govern it in a general or integral manner. Instead, they merely include ancillary obligations related to decommissioning or include a generic reference to “abandonment” without further detail or cross references to regulation. Analyzed contracts concluded by Indonesia,<sup>12</sup> Libya,<sup>13</sup> and Sao Tomé and Príncipe,<sup>14</sup> for example, do not mention abandonment obligations per se but include obligations on the oil company pertaining to the funding of decommissioning activities (see section 2.7).

Analyzed contracts concluded by Angola,<sup>15</sup> Azerbaijan,<sup>16</sup> Brazil,<sup>17</sup> Malaysia,<sup>18</sup> Timor Leste,<sup>19</sup> and the United Kingdom,<sup>20</sup> despite having specific decommissioning clauses, refer to abandonment obligations in accordance with national legislation and “good,” “generally accepted” or “prevailing” international petroleum or oil and gas industry standards or practices at the time of abandonment.

Contracts from Timor Leste<sup>21</sup> and the United Kingdom<sup>22</sup> do not clarify or distinguish between decommissioning obligations on different types of

infrastructure; they only generically mention “major facilities” without providing further detail on the assets the term entails. Conversely, contracts concluded by Malaysia include decommissioning obligations that authorize abandoning “boreholes or wells which have become or are unproductive” with prior consent of the authority. They also provide that the oil company:

[S]hall be responsible for carrying out all the necessary work in connection with the removal, proper disposal or salvage of any Petroleum facilities, including but not limited to platforms, artificial structures and wellhead equipment, which are deemed by [the authority] to be unusable or no longer required for future operations.<sup>23</sup>

They are also required to submit for government approval “detailed work plans for such removal, disposal, or salvage.”<sup>24</sup>

The definitions contained in contracts of some jurisdictions encompass a broad spectrum of activities and lend themselves to higher standards of expectation for the decommissioning process. Contracts signed by Albania define “abandonment” as follows:

[T]he final abandonment through decommissioning, removal, and/or disposal of wells, facilities and equipment used for Petroleum Operations and the rehabilitation of the land in the immediate vicinity of an abandoned well to a condition not worse than its condition as of the time immediately before commencement of Petroleum Operations in respect of such well or facilities, and the term “to Abandon” shall have the corresponding meaning.<sup>25</sup>

Nigeria’s analyzed contracts refer to “decommissioning” as covering the plugging and abandonment of wells, the removal and disposal of equipment and facilities including well heads, processing and storage facilities, platforms, pipelines, transport and export facilities, roads,



buildings, wharves, plants, machinery, fixtures, and the restoration of sites and structures, including the payment of damages relating thereto.<sup>26</sup>

Similarly, contracts of certain jurisdictions, including Australia, Brazil, and Mexico, refer to this process as those activities to abandon, decommission, transfer, remove, or dispose of structures, facilities, installations, equipment, and other property, and other works, used in oil and gas operations in the area, to clean up the area and make it good and safe, and to protect the environment.<sup>27</sup>

Certain contracts from Azerbaijan determine that “abandonment” includes decommissioning, dismantling, demolition, removal, or disposal of any “major facilities” or any part of them. They define “major facilities” as “large structures and facilities essential to the conduct of Petroleum Operations and the costs of which are charged to the Petroleum Operations Account, including platforms, gathering facilities, wells, pipelines, jackets, pumping stations and terminals.”<sup>28</sup>

## 2.2 Triggers of Decommissioning Liability

The decommissioning procedure begins, or the related obligations become enforceable, when certain circumstances take place or upon certain acts or omissions by the parties, as expressly outlined in the contractual clause or in an applicable statutory or regulatory provision. Examples of these triggers include relinquishment, depletion, governmental requirement, or contractual termination.

For example, contracts concluded by Angola,<sup>29</sup> Brazil,<sup>30</sup> Indonesia,<sup>31</sup> and Mexico<sup>32</sup> determine that the company must return and deactivate the fields and facilities when the production phase is completed, or that decommissioning occurs within a certain time after the termination of the contract, or the sooner relinquishment date of abandonment and decommissioning of some or all the contract area.

Certain contracts from Australia order oil companies to “abandon, decommission, transfer, remove

and/or dispose of all structures, facilities, installations, equipment and other property, clean up the Contract Area and make it good and safe, and protect the environment”<sup>33</sup> once the agreement is terminated or operations are no longer required, whichever occurs first. This obligation is broad, as it also includes extraction areas to which the oil company renounced, as “[r]elinquishment of all or a part of the contract area is without prejudice to the obligations of the contractor to decommission.”<sup>34</sup> This includes all relinquished exploration areas, as well as those extraction areas whose production ceases permanently or for a continuous period of 12 months or on the 25<sup>th</sup> anniversary of the date of the authority’s approval of the first development plan, whichever occurs first, subject to the expiry date of sale contracts.

However, the procedures in other jurisdictions, including certain contracts from Albania and Angola, establish an elective trigger, with the abandonment of wells and decommissioning of facilities proceeding upon requirement, instruction, or authorization of the NOC.<sup>35</sup> The actual decision to proceed with decommissioning is thus in the hands of the government agency, even though the liability for decommissioning remains with the oil company.

## 2.3 Requirement to Develop and Scope of Decommissioning Plan

Analyzed contracts from covered jurisdictions vary as to the requirement to develop a decommissioning plan and the required scope of the plan. The minimum content, the opportunity for its submission, and the need for government approval are the main variables of provisions on a decommissioning plan.

Certain contracts with decommissioning provisions do not require the oil company to develop a decommissioning plan setting a series of mandatory activities to be completed within a certain period as part of the project. See, for example, contracts from Eritrea,<sup>36</sup> Libya,<sup>37</sup> Peru,<sup>38</sup> and Sao Tomé and Príncipe.<sup>39</sup>

In turn, analyzed contracts from various jurisdictions—Albania, Angola, Australia, Bangladesh, Benin, Brazil, Brunei Darussalam, Georgia, Greece, and Mexico—require that oil companies develop a scheduled decommissioning plan or program, outlining a series of studies, activities, works, and an estimate of expenditures that they will undertake for decommissioning purposes. Decommissioning plans are subject to the approval of a government authority (see also section 2.6). Their minimum content and the timing of submission vary considerably across jurisdictions. For example, a contract from Malaysia establishes that the oil company is responsible for carrying out all necessary work in connection to decommissioning “during the term of this contract.”<sup>40</sup>

Under analyzed contracts from Australia, once the oil company has discovered recoverable oil from a new reservoir that is commercially viable to exploit and has requested the government to declare its area developable, the company must submit a development plan within 12 months from the declaration. This plan must contain a decommissioning plan, “in such detail as the Designated Authority requires, including a calculation of the Decommissioning costs, the annual contribution to the Decommissioning Cost Reserve, and the [oil company]’s proposal for the Decommissioning Security Agreement.”<sup>41</sup> Similarly, an analyzed model contract from Bangladesh also details the necessary contents of the required “Abandonment Work Programme and Budget.”<sup>42</sup>

Under analyzed contracts from Indonesia<sup>43</sup> and Mexico,<sup>44</sup> oil companies are required to submit their abandonment program and budget concurrently with the submission of the development plan. However, these contracts do not include provisions establishing a minimum content of the decommissioning plan.

Contracts from other jurisdictions require the submission and approval of the decommissioning plan at a later stage in the project. Contracts from

Angola for example, in compliance with national legislation, require the oil company to submit the plan at least 180 days before the termination of the contract or the date of abandonment and decommissioning in any part of the contract area, and do not expressly provide the minimum content of the decommissioning plan.<sup>45</sup>

## 2.4 Industry Best Practices as a Contractual Standard

Analyzed contracts from covered jurisdictions vary in terms of references to industry best practices on decommissioning. Certain contracts analyzed—whether within a specific decommissioning clause, if there is one, or in decommissioning provisions or general references that apply to the entire performance of the contract—refer to a standard to be applied in decommissioning activities, with varying stringency levels. While certain contracts refer to specific standards or industry best practices, not all contracts define in greater detail what they entail.

The most used standard, as in analyzed contracts concluded by Albania, is “generally accepted practices of the international petroleum industry.”<sup>46</sup> However, the Albanian contracts analyzed do not elaborate on this standard either in the decommissioning provisions themselves or in the contract’s definitions. Other contracts provide guidance, to some degree, as to what the standard entails, such as one concluded by Brunei Darussalam, which defines “Good Oilfield Practice” as:

those practices, methods, standards, and procedures generally accepted and followed by prudent, diligent, skilled, and experienced operators in international petroleum exploration, development, and production operations and which, at the particular time in question, in the exercise of reasonable judgment and in light of facts known at the time a decision was made, would be expected to accomplish the desired results and goals.<sup>47</sup>

The “Good Oilfield Practice” standard is used expressly in the analyzed contract concluded by Brunei Darussalam while identifying health, safety, and environmental issues as relevant goals:

The [oil company] shall comply with Applicable Law and Good Oilfield Practice in relation to all health, safety, and environmental issues as well as [oil company]’s reasonable instructions given for the purpose of maintaining health and safety of personnel, the community, and the environment in the area of Petroleum Operations.<sup>48</sup>

Besides explicitly applying to all environmental issues that may arise from the contract, and despite the lack of mention of “decommissioning” among the stages during which it applies, in this same contract, the “Good Oilfield Practice” standard also applies to the practices used during the rehabilitation of the project’s sector within the decommissioning clause and including additional standards:

All Site Restoration shall be performed in accordance with Good Oilfield Practice and the relevant Approved Work Programme and Approved Budget, the Abandonment Plan (if any) and Applicable Law.<sup>49</sup>

While several organizations have developed decommissioning standards—for example, IPIECA (formerly the International Petroleum Industry Environmental Conservation Association),<sup>50</sup> the International Standardization Organization (ISO),<sup>51</sup> and the Society of Petroleum Engineers,<sup>52</sup> among others—it is unclear which organizations or groups of experts set the authoritative industry best practices mentioned in decommissioning provisions.

## 2.5 Environmental Obligations as Contractual Standards

Analyzed contracts from covered jurisdictions vary as to the adoption of environmental obligations as contractual standards on decommissioning. Certain contracts do not contain environmental protection

and rehabilitation obligations specific to decommissioning, and these obligations are not implied in the scope of the decommissioning provisions. In other contracts, environmental clauses are limited to addressing contamination incidents and environmental damage that may occur during the operation of the project, but do not create an obligation to rehabilitate the area at the decommissioning stage. Certain decommissioning provisions explicitly mention specific environmental obligations; others refer to one or more environmental statutes or regulations applicable to the decommissioning process.

When decommissioning provisions refer to environmental remediation, rehabilitation, or protection obligations, these also come in varying degrees of strength. While some contracts refer to rehabilitation, they do not always elaborate on whether it means reusability of the project’s area for commercial and other purposes or the restoration of the ecological health or natural state of the area prior to the development of the extractive activity.

Contracts concluded by Albania direct the oil company toward “rehabilitation of the land in the immediate vicinity of an abandoned well to a condition not worse than its condition as of the time immediately before commencement of Petroleum Operations in respect of such well or facilities.”<sup>53</sup> This reference, however, is vague and does not specify the intention of the rehabilitation, as it may not necessarily aim for ecological purposes. For example, contracts from Georgia set out:

The abandonment plan shall provide for . . . the return of used areas to a condition that reasonably permits the use of such areas for purposes similar to those uses existing prior to the commencement of Petroleum Operations hereunder.<sup>54</sup>

Although the Georgian clause specifies uses which existed prior to commencement of petroleum operations, it is unclear whether these uses would require restoring the ecological life of an area to its original conditions.

Other decommissioning provisions expressly demand restoration of the environment to its condition prior to resource extraction and not to a state before the existence of any human intervention. Analyzed contracts concluded by Greece, for instance, require the oil company:

to remove the installations used, plug and abandon all wells and restore the environment as nearly as possible to its original condition that existed on the Effective Date (...) restore the environment in accordance with the proposals set out in the Development and Production Programme, the EIS and any further environmental impact study prepared pursuant to Article 12.<sup>55</sup>

In contracts from certain jurisdictions, such as Ecuador, at the time of abandonment the oil company is required to “hire an environmental and social audit for the contract area, in order to apply the corresponding management plans for its repair and rehabilitation [...]”<sup>56</sup> Australian contracts analyzed require the contractor to “clean up the area and make it good and safe, and to protect the environment.”<sup>57</sup> These decommissioning provisions unequivocally put the focus on the oil company’s broad obligation to environmentally remedy the project area.

Aside from decommissioning provisions, environmental obligations and standards are included in some analyzed contracts in other clauses, such as those addressing environmental and social impact assessments and management plans. These other clauses may set parameters on the state of the environment prior to the project—thus outlining the conditions to which the oil company must restore it—and determine whether there are decommissioning obligations in the environmental and social management plan. For instance, contracts concluded by Brunei Darussalam include a detailed provision on the abandonment plan and fund and require a specialist to carry out an environmental impact study of the area prior to the initiation of oil and gas operations:

(a) to determine at the time of the studies the prevailing situation relating to the environment, human beings and local communities, the flora and fauna in the Contract Area and in the adjoining or neighbouring areas; and

(b) to establish the likely effect on the environment, human beings and local communities, the flora and fauna in the Agreement Area and in the adjoining or neighbouring areas in consequence of the relevant phase of Petroleum Operations to be conducted under this Agreement and to submit for consideration by [the NOC] the methods contemplated by the Contractor for minimising environmental damage and carrying out Site Restoration activities.<sup>58</sup>

## 2.6 Government Approval and Oversight of the Decommissioning Activities

Approval and oversight by a state agency—whether a government authority, an NOC or a public–private mixed committee—are mechanisms to ensure not only that the oil company prepares and submits an appropriate decommissioning plan, if required (see section 2.3 above), but also that decommissioning will take place as set out in the statutes, regulations, the contract, and the plan itself. There are different phases at which the state plays a role. Most provisions reviewed are vague on this matter and do not elaborate on the level of scrutiny that the supervision will entail.

Most contracts analyzed require government approval during the drafting or at the submission of the decommissioning plan. As in Angolan contracts, the oil company must hand over, “in accordance with a plan approved by [the NOC],” all of the infrastructure, equipment and all wells within the relevant area.<sup>59</sup> Contracts requiring government oversight only during the drafting of the decommissioning plan and at its initial approval approach this process from a formal perspective. There is no guarantee that its content

reflects the reality of the built project, which may be different to that described in the plan, or that the decommissioning activities have actually been undertaken.

Government oversight may also be required to occur immediately before the decommissioning process to enforce the implementation of the decommissioning plan, if there is one. The stringency level of this provision depends on the actual rigor and regularity with which the government assesses and inspects the decommissioning plan both formally and in relation to the existing project. Contracts from the United Kingdom determine that decommissioning must occur with “the consent in writing of the Oil and Gas Authority.”<sup>60</sup> In a contract concluded by Algeria, “[n]o Well ... may be plugged and abandoned without approval of the Operating Committee and the Competent Authority.”<sup>61</sup> This clause requires government approval in the abandonment of wells that are still in the production stage, without covering wells that run out of hydrocarbons. Since this provision may be a balanced model to be extended to the decommissioning stage, it is useful to analyze the composition of the supervising entity:

To provide for the orderly supervision and direction of Petroleum Operations, there is hereby established an Operating Committee which consists of six (6) members, three (3) appointed by [the NOC] and three (3) by [the private oil company].<sup>62</sup>

In the case of Algeria, then, the government does not have total power over the approval process of programs and budgets submitted by the private oil company, and the NOC’s representatives must come to an agreement with the oil company’s representatives in the operating committee to approve the project’s activities.

Government oversight may also occur after decommissioning has taken place, as in Brunei Darussalam’s model contract:

Upon completion of any Site Restoration the [private oil company] shall notify [the NOC]. Once [the NOC] is satisfied that a Site Restoration meeting the required standards has been completed, it shall notify the [private oil company] thereof in writing, whereupon the [private oil company] shall be deemed to have fulfilled its Site Restoration obligations hereunder.”<sup>63</sup>

Oversight that takes place after decommissioning has occurred, as in contracts by Brunei Darussalam, grants governmental approval a much larger scope than clauses that only provide for supervision to take place prior to decommissioning. It also allows the government authority independently to assess and determine whether decommissioning has been appropriately conducted and successfully concluded.

Even where there are robust regulatory or contractual provisions, a significant risk—particularly in developing countries—is whether the government will be able and willing to enforce the decommissioning obligations. The effectiveness of a government’s approval and oversight of decommissioning activities depends on its technical capabilities, resources, and probity to efficiently process and inspect all related documents, permits, and onsite facilities of a project throughout its life. Although hiring private sector expertise to support those processes could help build government capacity, it may be impractical given the additional costs for the state and the need to address experts’ potential conflicts of interest. In addition, where there is not a dedicated fund provided by the oil company for the government to spend on the decommissioning activities in case the company fails to fulfill them before leaving the field, it may be difficult, slow, and expensive for a state or NOC to pursue the oil company.<sup>64</sup>

## 2.7 Funding and Tax Treatment

Contracts that specify a dedicated source of funding for decommissioning activities can help protect governments from bearing the cost of decommissioning at the end of the economic life of offshore infrastructure. They can also provide long-term protections for the marine environment in cases where governments may lack the resources to pay for decommissioning if a private company fails to fully decommission its assets.

Analyzed contracts from covered jurisdictions vary as to the scope and depth of their treatment of decommissioning funding and taxation aspects. Certain analyzed contracts do not provide for a source of funding for decommissioning activities, including contracts from Eritrea,<sup>65</sup> Indonesia,<sup>66</sup> and Peru.<sup>67</sup>

In most contracts that address this issue, like those from Albania,<sup>68</sup> Angola,<sup>69</sup> Australia,<sup>70</sup> Bangladesh,<sup>71</sup> Brunei Darussalam,<sup>72</sup> Greece,<sup>73</sup> Malaysia,<sup>74</sup> and Mexico,<sup>75</sup> the cost of decommissioning is borne by the oil company rather than by the government. Where a private party is liable for decommissioning costs and no other funding structure is provided by statute or regulation, decommissioning expenses are paid when they are incurred.<sup>76</sup> This approach poses obvious default risks, since decommissioning obligations and their related payments usually occur at the end of an offshore asset's life, "when the relevant field is most likely producing negative cash flow."<sup>77</sup> However, in most cases this cost is generally represented by a decommissioning or abandonment fund, which is determined by regulation or contractual terms. This fund is usually formed before the decommissioning itself in favor of the government to prevent it from bearing the economic burden of decommissioning activities in case of noncompliance by the oil company.

Most decommissioning provisions analyzed do not mandate that this fund be deposited in an escrow account held by a banking institution nor require it to

be composed of specific financial instruments, such as solid securities or bonds or insurance policies. Instead, most contracts merely require oil companies to create a decommissioning fund by paying into it a certain amount of money that must be set aside from other project expenses. Effectively, this approach treats decommissioning as an accounting matter for a corporation to manage along with its other liabilities, rather than a separate reserve that is specifically earmarked to pay for decommissioning. In the event of a corporate bankruptcy or insolvency, these types of contracts may not ensure that sufficient funding is available for decommissioning.

Only a few decommissioning provisions refer to the method to calculate decommissioning costs, or prescribe when decommissioning obligations accrue and release liability.

Certain decommissioning provisions require the government to approve the fund, in addition to or as part of the approval required for the decommissioning plan, to determine its sufficiency and liquidity. In these cases, the government's rigor in the approval process dictates the effectiveness of the fund in holding oil companies accountable for paying the decommissioning costs.

In contracts concluded by Benin, the cost is either equitably shared between the state and the oil company<sup>78</sup> or directly by the state in specific areas: "the expenses relating to the abandonment of the [...] field and facilities shall not be borne by the [oil company] except the wells worked over or drilled to reach the deep zones."<sup>79</sup> Similarly, under an analyzed contract from Libya, "[e]ach Party shall bear and finance fifty percent (50%) of the costs, expenses and liabilities for Abandonment which may be incurred as a result of Development Operations and Exploitation Operations."<sup>80</sup>

In contrast, Sao Tomé and Príncipe contracts mandate that the costs of decommissioning must be covered by the oil company, which "will be estimated on the basis of technical studies undertaken by the

[oil company] to be agreed by [the NOC] as part of each Field Development Program and revised as necessary,” and set a formula based on amounts determined from the second or fourth anniversary after the start of commercial production.<sup>81</sup> The decommissioning fund must be deposited in an interest-bearing escrow account jointly established by the oil company and the state, at a long term “A” rated first-class commercial bank or other financial institution. Contracts concluded by Egypt provide:

[The oil company] shall commence paying contributions to the abandonment fund in the Calendar Quarter in which a percentage of fifty percent (50%) of Petroleum reserves has been recovered. The reference for the abandonment fund estimate shall be in accordance to the ... plan of Development, and shall be revised by the [oil company] and agreed by [the NOC] after ten (10) years from the Development Lease signature. Afterwards, [oil company] and [the NOC] shall perform a periodical update of the abandonment cost every five (5) years or upon any significant change in the estimated cost.<sup>82</sup>

This clause does not guarantee that the oil company will pay into the decommissioning fund as it is conditional to its exploiting half of the reserves. Still, it allows the state to mitigate the scenario in which the fund runs out, unlike most other clauses analyzed, by requiring the parties to revise the estimation of abandonment costs. Analyzed contracts from Brazil also take this scenario into account, providing that “[the oil company] will provide the necessary resources for the deactivation and desertion of the Field in the Development Plan which will be periodically reviewed during the Production Phase.”<sup>83</sup> This provision attempts to safeguard against the possibility of the oil company not being able to comply with the decommissioning due to a lack of funds, resulting in the state having to bear the costs.

Contracts concluded by Angola also attempt to protect against the possibility of a shortfall, but without requiring an update of the funding estimate:

“In the event that the amounts paid by [the oil company] (plus accrued interest thereon) are insufficient to cover the abandonment and decommissioning costs, [the NOC] and [the oil company] shall agree on the method of covering the additional costs.”<sup>84</sup> While it is unclear whether the cost sharing for the additional costs will be the same as that of the initial costs, the contract does not excuse the oil company from carrying out decommissioning entirely if the fund falls short.

In the event that the actual Decommissioning Costs exceed the total accumulated provisions, the remaining balance of the abandonment costs shall be borne exclusively by the [oil company]. In the event that actual abandonment costs are lower than the total accumulated provisions, the remaining balance of the reserve fund shall be vested in the [state].<sup>85</sup>

In an analyzed contract from Nigeria, the private oil company is required to provide security funds to satisfy abandonment obligations, which are reduced or released as these are met:

Upon commencement of operations, and prior to the submission of its first work programme, the parties shall negotiate and agree a separate Abandonment Security Agreement, which shall be completed and executed by all parties prior to any exploration and or development activities take place by the [oil company].<sup>86</sup>

Additionally, at the effective date of termination, if the private oil company has already provided a security fund for abandonment costs by means of a joint signatories’ escrow account with the NOC, both parties review its adequacy. The private oil company takes responsibility for any shortfall or surplus arising from the decommissioning or abandonment operations.<sup>87</sup>

Furthermore, decommissioning provisions award different forms of incentives to foster the oil companies’ contributions to the fund, or as conditions for their contribution to the fund. While Mexican<sup>88</sup> and Nigerian<sup>89</sup> contracts do not grant tax

benefits to the fund, analyzed contracts concluded by Australia establish that the “decommissioning costs reserve shall be cost recoverable by the [oil company] in each of the fifteen (15) years beginning [date] ('decommissioning reserve period').”<sup>90</sup> Contracts from Bangladesh<sup>91</sup> and Brazil<sup>92</sup> provide that decommissioning expenditures are cost recoverable. Similarly, a contract from Malaysia provides that:

All costs incurred by [the oil company] to remove, dispose, or salvage such facilities shall be recoverable from Cost Oil or Cost Gas. For the purpose of setting up a financial mechanism to recover such costs earlier in the life of an Oil Field or Gas Field, Contractors and [the authority] shall agree on a mechanism and modality for setting aside a fund from Cost Oil or Cost Gas, as the case may be, to be used for such removal, disposal or salvage operations, no later than two years after commencement of First Commercial Production.<sup>93</sup>

Analyzed contracts from Azerbaijan and Georgia provide that “[n]o Taxes shall be imposed on any amounts paid into, received or earned by or held in the Abandonment Fund(s) (or the [oil company’s] Abandonment Account, as the case may be).”<sup>94</sup> Similarly, Sao Tomé and Príncipe<sup>95</sup> contracts provide that decommissioning expenditures are both cost recoverable and deductible for tax purposes.

In PSCs, it is in the company's best interest to pre-fund and cost recover the pre-funding. There is no concept of loss or cost carrybacks with respect to production sharing. Therefore, any costs effectively incurred at the end of the oilfield’s life cannot be otherwise cost recovered as there is no production. Tax and royalty regimes, in turn, include tax-loss carry-backs for companies to obtain tax refunds to use them to finance decommissioning activities.<sup>96</sup>

The ideal scenario to prevent the government from having to cover the costs of a decommissioning plan and any post-decommissioning costs (see section 2.8) in case of noncompliance by the oil

company is for it to be prefunded. Oil companies should start contributing the funds no later than before the construction of the site and exploitation of the reserves, with contributions assured by their parent or related companies. However, oil companies are more prone to funding decommissioning activities once development capital expenditures and operating expenses have been recovered, during the development of the operation using revenues generated by the project itself or financed by recoverable costs.<sup>97</sup>

## 2.8 Release of Liability and Subsisting Obligations

Analyzed contracts from covered jurisdictions vary as to the inclusion and scope of provisions governing the conditions under which and timing at which the oil company obtains release of its liability for decommissioning and outlining obligations that may subsist after such release. These provisions are mostly absent from analyzed contracts, and other applicable legal and regulatory instruments may govern how liability is released and impose post-decommissioning obligations on the oil company.

Even if not expressly providing for specific subsisting obligations, an analyzed contract concluded by Australia provides that its termination for any reason occurs without prejudice to obligations expressed in the regulation or the contract to survive termination, or to obligations accrued prior to the termination, “including Decommissioning,” along with any contractual provisions that are “reasonably necessary for the full enjoyment and enforcement of those ... obligations.”<sup>98</sup>

Analyzed contracts signed by Angola provide that “[a]fter having carried out the abandonment of the Wells and related assets ... or after the [oil company] carries out the handing over of the equipment and Wells to [the NOC] ..., the [oil company] will have no further liability in relation to the same.” Even so, they provide for exceptions (subsisting obligations) “in cases of gross negligence, willful misconduct or



Serious Fault,” and the NOC assumes an obligation to “indemnify and defend the [oil company] in case of any claims related to such Wells and assets.”<sup>99</sup>

To help avoid having the government bear post-decommissioning obligations and their costs, contracts should outline objective conditions for the release of decommissioning liability, along with any subsisting post-decommissioning obligations that the oil company and its ultimate parent company retain after decommissioning. These subsisting obligations may include, for example, maintaining certain signage and other closure measures of the area of the project in perpetuity.

In addition, subsisting obligations can help curb risks when projects (or interests in them) are sold or otherwise transferred to third parties. Large and financially secure companies may sell or otherwise transfer their interests to smaller and less secure companies prior to decommissioning. These smaller companies are unlikely to face the technical and financial burden of this phase; it is more difficult for them to obtain guarantees or financing, since neither they nor their parent companies are creditworthy. Therefore—as mentioned above regarding governmental approval and oversight (see section 2.7) and funding (see section 2.7)—contracts should include provisions granting the government the right to approve or reject these sales or transfers. They should also require seller companies to retain liability for decommissioning if the acquiring companies default in their decommissioning and post-decommissioning obligations.<sup>100</sup>

## 2.9 Stabilization Clauses

An extensive review of investor–state contracts signed between 2010 and 2018 found that “over 60% of the oil, gas and mining contracts have stabilization clauses”<sup>101</sup> or change-in-law clauses to prevent new or modified laws from affecting oil companies after contracts are executed.<sup>102</sup> These clauses can crystalize the host state’s legal and regulatory

landscape, precluding new or amended laws from applying to the oil company (known as freezing clauses) or requiring that the state compensates the company for the financial impacts of the new or modified legislation (known as economic equilibrium clauses). There are also hybrid clauses, allowing parties to specify which statutory or regulatory amendments should apply to the oil company and when the state must compensate the oil company for a change in the legal regime.<sup>103</sup>

Change-in-law clauses can apply to purely fiscal issues (taxes, royalties, rents, tariffs, etc.), non-fiscal areas (environment, labor, and health and safety), or both,<sup>104</sup> and may or may not limit the duration for the stabilization. Stabilization clauses that cover non-fiscal areas may affect decommissioning liability by preventing the application of obligations and standards adopted by newly enacted laws and regulations to infrastructure projects covered by contracts concluded before their adoption.

An Angolan contract analyzed includes a change-in-law clause that requires parties to renegotiate the contract with a view to restoring the rights, obligations, and benefits originally provided. The provision reads, in relevant part:

in the event that any change in the provisions of any Law, decree or regulation in force in the Republic of Angola occurs subsequent to the signing of [the contract] which adversely affects the obligations, rights and benefits hereunder, then the Parties shall agree on amendments to the Agreement to be submitted to the competent authorities for approval, so as to restore such rights, obligations and forecasted benefits.<sup>105</sup>

A Nigerian contract establishes that:

[i]n the event that any enactment of or change in the laws or regulations of Nigeria or any rules, procedures, guidelines, instructions, directives, or policies, pertaining to the Agreement introduced by any government department or parastatals or agencies occurs subsequent to the Effective Date of this Agreement which materially

and adversely affects the rights and obligations or the economic benefits of Parties, the Parties shall use their best efforts to agree to such modifications to this Agreement as will compensate for the effect of such changes.<sup>106</sup>

Likewise, a contract concluded by Georgia sets that in case after its execution:

there is a change in the applicable laws, regulations or other provisions effective within Georgia which to a material degree adversely affect the economic position of the [oil company] or any Contractor Party hereunder, the terms and conditions of this Agreement shall be altered so as to restore the [oil company] to the same overall economic position as that which the [oil company] would have been in had this Agreement been given full force and effect without amendment.<sup>107</sup>

Finally, an analyzed contract concluded by Egypt provides:

[I]n case of changes in existing legislation or regulations applicable to the conduct of Exploration, Development and production of Petroleum, which take place after the Effective Date, and which significantly affect the economic interest of this Agreement to the detriment of [the oil company] or which imposes on [the oil

company] an obligation to remit to [the government] the proceeds from sales of [the oil company]’s Petroleum, then [the oil company] shall notify [the NOC] of the subject legislative or regulatory measure as well as its consequent effects that may cause the destabilization of the Agreement. In such case, the parties shall negotiate appropriate modifications to this Agreement designed to restore the economic balance thereof which existed on the Effective Date.<sup>108</sup>

As stabilization provisions can discourage states from passing necessary legislation, the best practice is for states and investors not to include them in contracts, but consider instead a clause on mandatory renegotiation if a change in law makes it difficult or impossible for the oil company to meet its contractual obligations.<sup>109</sup> If a stabilization or change-in-law clause is included in a contract, it should not apply to changes in non-fiscal issues (i.e., regulations governing the environment, labor, health and safety), so that states can still regulate decommissioning, environmental, and safety standards without fear of contractual repercussions or having to compensate the oil company. If included, fiscal stabilization clauses should be bound in time, or include a periodic review mechanism,<sup>110</sup> so that the change-in-law clause expires and does not have a freezing effect for the entire term of the contract.<sup>111</sup>

### 3 Conclusion and Recommendations

To avoid the risk of bearing the costs of decommissioning offshore oil and gas infrastructure at the end of its economic life, governments can adopt domestic statutes and regulations, which are the ideal legal instruments to govern decommissioning. Where there are robust statutory and regulatory provisions governing decommissioning, governments could simply cross reference those provisions in contracts, to provide clarity and consistency in the implementation of decommissioning across projects and to limit or eliminate opportunities for oil companies to attempt to negotiate liability exemptions or lower requirements.

In turn, where statutory and regulatory frameworks are insufficient, governments have a heightened responsibility to ensure that contracts include provisions governing decommissioning as an integral part of the project, factoring in the health, environmental, safety, and financial risks it entails throughout the project's life cycle. On the other hand, spelling out excessively technical and detailed descriptions which exhaustively prescribe what must be done risks setting incomplete and outdated terms that prevent the contract from being interpreted, updated, and improved according to new regulations and practices. Accordingly, contract drafters need to strike an appropriate balance between depth and flexibility in the language of decommissioning provisions. Irrespective of the robustness of the legal framework on decommissioning, contracts should also govern decommissioning in light of relevant site specificities and business aspects of each project.

Governments can contractually require a decommissioning plan with a set basic content, consisting of a systematic program and outlining a series of studies, works, and objectives that the oil company must undertake for decommissioning purposes. They can also mandate that oil companies submit the plan during the design stage of the project and prior to its construction, subject to the objective

assessment, approval, and periodic update of a technical government authority. Approval should depend neither on the financial or political needs of the government in power nor on the oil company's leverage and discretion regarding its obligations and liability.

Contracts should include an obligation on the government to monitor the implementation of the decommissioning plan during the construction and operation of the project to check its correspondence with reality as well as ongoing impacts, subject to necessary amendments along the project's lifespan. The plan should be iterative, each successive version representing a more efficient solution.<sup>112</sup> Once decommissioning liability is triggered, the contract could also require the government to monitor the plan until it is fully implemented and to survey the condition of the area after the extraction has concluded.

Regarding triggers, the circumstances necessary for decommissioning obligations to become enforceable should be objective and not subject to the decision of either party. Governments could draft contracts that requires technical and environmental parameters to be considered throughout the complete decommissioning process to minimize financial, social, and environmental risks. While the application of international industry standards—by express reference to a specific norm or standard-setting organization—are highly recommended, these may be ineffective if the state does not have the capacity to enforce them or lacks skilled professionals to secure them locally. Thus, it is crucial to ensure that the state has such capacity.

To avoid the risk of states being left with the financial, environmental, and social costs if appropriate funds are not in place, and embracing the understanding that decommissioning is the final stage of project operation (and not a post-operation activity), governments could ensure that contracts

mandate the prior funding of decommissioning (including post-decommissioning) activities as part of capital and operating expenditures.<sup>113</sup> Sufficient money to cover all decommissioning costs could be guarded in a segregated escrow account dedicated to decommissioning by an independent private banking institution in the host country of the operations,<sup>114</sup> guaranteeing quick access (on first demand) if necessary by host state authorities, in the form of a specific financial instrument such as securities, bonds, insurance policies, other guarantees that do not freeze the oil company's funds to develop the project, or a combination of these provisions. Contributions to the fund should be assured by the ultimate parent company and begin before the construction of the project. Contracts should also require the oil company to meet the full costs of decommissioning if the offshore extraction infrastructure is transferred to third parties or if the fund is insufficient, extending the decommissioning liability to the ultimate parent company, and requiring the parties to renegotiate as needed to adjust decommissioning activities or increase or decrease their costs. Adding tax incentives to funding provided by oil companies—for example, providing

that decommissioning expenditures are tax deductible and cost recoverable—is key to promote decommissioning compliance.

Provisions should outline objective conditions for the release of decommissioning liability, along with any subsisting obligations that the oil company and its ultimate parent company retain after decommissioning or after the sale or transfer of the upstream asset. The full and satisfactory implementation of the decommissioning plan will mostly cover the oil company's liability, except for subsisting obligations over potential leaks and environmental impacts caused by outbreaks taking place after the abandonment.

Finally, in line with OECD's Guiding Principles for Durable Extractive Contracts, governments should refrain from including non-fiscal stabilization provisions in contracts, to ensure that states can enforce any new or amended statutes or regulations governing decommissioning liability, without having to compensate oil companies that are party to pre-existing contracts.

## Endnotes

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