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ENVIRONMENTAL ASPECTS OF INVESTOR-STATE CONTRACTS IN THE UPSTREAM OIL & GAS SECTOR

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ABSTRACT

The literature on environmental regulation of the upstream oil and gas sector in developing countries and economies in transition has focused largely on domestic legislation as well as a number of intergovernmental agreements and, more recently, voluntary industry initiatives. Much less notice has been taken of environmentally relevant content of contracts negotiated between international oil companies and petroleum producing states, which often have a significant if not dominant role in shaping the regulatory regime for oil and gas operations. The only major study on this subject, carried out by Zhiguo Gao, was published in 1994. Gao concluded that environmental issues had not received enough attention in the oil and gas contracts that he had reviewed. His conclusion raises two questions, one empirical and one normative, that this article aims to explore: (i) have environmental issues received greater attention in more recent oil and gas contracts; and (ii) should contracting parties give further consideration to environmental issues and, if so, in what areas and through what types of provisions? A limited survey indicates that oil and gas contracts negotiated and signed in the last fifteen years do generally give greater attention to environmental protection than those signed previously, but the coverage of specific topics varies widely as does the strength of terms. Additionally, concerns that certain contractual provisions may actually undermine rather than bolster environmental protection efforts have become more prominent in the period since Gao’s study. There remains, therefore, significant room for oil and gas contracts to be improved from an environmental governance perspective.

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INTRODUCTION

The recent Deepwater Horizon tragedy in the Gulf of Mexico, which resulted in a massive oil spill endangering wildlife and wetland habitat along the Louisiana coast, is a stark reminder of the environmental risks posed by the oil and gas industry. Although disasters on this scale are fortunately rare, the average oil and gas operation has many other commonplace, yet significant, environmental impacts throughout its lifespan. Environmental issues begin with exploration activities - seismic tests, used to locate petroleum, often disturb local wildlife - and carry on to the end of the production phase when facilities must be dismantled and disposed of. The everyday operation of many offshore petroleum installations involves the discharge of oil-contaminated ‘produced water’, drill cuttings and mud, and production chemicals. Onshore, land clearing for base camps, helipads, roads, pipelines, waste disposal sites and other facilities has an appreciable ecological impact. Furthermore, the industry is a significant contributor to air pollution and a major emitter of greenhouse gases. In 2008, 32 companies in the International Association of Oil and Gas Producers (OGP) reported emissions of 296 million tonnes of carbon dioxide, 2.1 million tonnes of methane, 1.1 million tonnes of non-methane volatile organic compounds, 366 thousand tonnes of sulphur dioxide, and 827 thousand tonnes of nitrous oxides.

The industry faces increasingly strict environmental standards in developed countries such as the United States and the United Kingdom. However, the majority of the world’s proven oil reserves are in developing countries and economies in transition, which often lack sophisticated regimes for environmental protection. Even when legislative frameworks are well developed, there are often deficiencies in capacity and/or willingness to monitor and enforce environmental regulation. There is, furthermore, no comprehensive global convention on the environmental impacts of petroleum exploration and production. Although a number of multilateral and regional agreements cover certain aspects of the industry, they require translation into domestic legislation in order to have a direct effect on international oil companies (IOCs).

Apart from domestic and international law, one could also look at conditions attached to loans and investment insurance, as well as voluntary corporate social responsibility codes as sources of environmental standards for the petroleum industry.

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5 Gao (see note 1 above).
industry. However, the intent of this article is to shine a light on a much less studied and poorly understood domain of environmental regulation: the contracts signed between IOCs (or consortiums of IOCs) and host states, which allocate rights to explore for and exploit hydrocarbons within an area of land (or an offshore block) over a fixed period of time.

There are four main types of host state-investor contracts in the upstream oil and gas sector: (i) concessions or licences; (ii) production sharing contracts (PSCs); (iii) risk-service contracts; and (iv) association or joint-venture agreements. Under concession contracts and licenses, IOCs are given exclusive rights to explore for and produce hydrocarbons and in return are required to pay royalties, taxes and fees to the government. In a PSC, the most common type of contract used in the upstream oil and gas sector, the IOC has similar rights, but obtains only a portion of the oil produced, with the state recouping the remainder in lieu of collecting royalties. Under a risk-service contract the IOC explores for and produces petroleum on behalf the government and is paid a fee for its services. Association or joint venture agreements involve IOCs partnering with host governments or state-owned enterprises and, as in a PSC, sharing petroleum production. In practice, these forms and labels tend to be much less important than the specific content of a contract.

Oil and gas contracts cover a wide range of issues, from fiscal terms to dispute settlement. In a 1994 monograph, Gao noted that environmental issues had “not received enough attention” in the oil and gas contracts he had studied. His conclusion raises two questions, one empirical and one normative, that this article aims to explore: (i) have environmental issues received greater attention in more recent oil and gas contracts (i.e. those negotiated and signed in the last 15 years) than in the ones reviewed by Gao; and (ii) should contracting parties give further consideration to environmental issues and, if so, in what areas and through what types of provisions?

As discussed further below, oil and gas contracts (as is the case with other types of investor-state agreements) are generally not disclosed to the public. This obviously presents a major obstacle for any researcher aiming to identify clauses in these contracts that relate to the environment. Many governments produce model agreements, which are publicly available. However, it should be noted that model agreements may be substantially altered or ignored altogether in the negotiation of actual contracts.

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In this study, a sample of 40 upstream oil and gas contracts (both onshore and offshore) covering 35 countries and the period 1994-2007 was reviewed. Sixteen of the contracts were models.\textsuperscript{11} An effort was made to find the most up-to-date model contracts, as they are periodically revised by governments. However, it should be noted that some of the models were undated. The 24 actual contracts reviewed were from 23 different countries and had an average signature date of 1998. Some of contracts in the sample are available on the Internet either because governments have chosen to release them or because they have been leaked to non-governmental organizations (NGOs) that have subsequently published them. Others are available in company filings to the Securities and Exchange Commission. Although it is argued later in the article that all oil and gas contracts should be publicly disclosed, the specifics of the actual contracts (other than the country involved and the date of the signature) are not provided in the text or the footnotes. This is primarily because the aim of the article is not to expose any individual agreement as an example of poor practices, but rather to provide the reader with a broad sense of what kind of environmentally-relevant clauses exist.

Given the small sample of contracts that was reviewed, and the great variety of clauses that were encountered, nothing can be extrapolated from this preliminary survey about the frequency with which any particular type of clause is likely to appear in oil and gas contracts. Furthermore, in any given situation, a contract should be considered within the broader context of a country’s petroleum law, environmental law, and other domestic legislation. The purpose of the article is not to provide a full picture of environmental regulation of petroleum operations in individual countries, but instead to draw attention to how contracts can either bolster or undermine environmental protection efforts.

The remainder of the article is organized as follows. In the next section, the empirical question is tackled with an exploration of a variety of clauses found in modern oil and gas contracts that address or have an impact on environmental protection. In the third section, the benefits and drawbacks of a contractual approach to environmental regulation are discussed and the best practices found in the sample, as well as some further options for improvement of contracts, are highlighted. The final section offers some tentative conclusions.

\textbf{THE EMPIRICAL QUESTION: WHAT IS IN UPSTREAM OIL \& GAS CONTRACTS?}

\textit{Environmental Standards \& Stabilization Clauses}

Most of the oil and gas contracts reviewed (though not all\textsuperscript{12}) contained a section on the environmental standards to be applied to the project. In this regard, there are five forms that contracts appear to follow:

\textsuperscript{11} From the following countries/regions: Angola, Bangladesh, Brazil, Egypt, Equatorial Guinea, Ghana, India, the Kurdistan region of Iraq, Liberia, Madagascar, Mozambique, Pakistan, Tanzania, Timor-Leste, Trinidad & Tobago, and Vietnam.

\textsuperscript{12} See, e.g., the model PSC of Angola (the model is undated but was evidently drafted post-2004).
(i) reference to domestic environmental law only;
(ii) reference to international industry standards only;
(iii) reference to both domestic law and international industry standards;
(iv) reference to domestic law and/or industry standards and international environmental agreements; or
(v) development of project-specific environmental standards.

Some reference to domestic environmental legislation is clearly desirable from a public policy perspective. Domestic standards have been developed (in most cases) under a democratic system of rule, have often been designed with local environmental conditions in mind, are familiar to the agencies that are tasked with monitoring and enforcement, and are in the public domain. However, as noted previously, in many developing countries environmental regulation of the oil and gas sector is still in its infancy and it may be inadequate in some situations. As such, reference in contracts to domestic legislation alone may be undesirable. In any event, from the limited sample reviewed, it appears to be rare for parties to adopt this form. A 1997 Algerian contract is one of the few examples from the sample that has a clause which refers only to domestic environmental legislation: “Within the context of the performance of the Petroleum Operations, the Operator shall be subject to the law and regulations for the safeguarding and protection of the environment in force in Algeria.” A 1995 Peruvian contract similarly refers only to national legislation, but is even more specific: “The Contractor is obligated to comply with the rules and provisions of the “Environmental Regulations Applicable to Hydrocarbon Activities” approved by Executive Decree No. 046-93-EM as amended, Legislative Decree No. 613 of the Code of the Environment and Natural Resources and other pertinent provisions.”

In the sample, it was more common for contracts to include a reference to international industry standards and fail to mention the application of domestic environmental law. A clause in a 1994 Bangladeshi contract provides an example:

Contractor shall in addition to its obligations under other provisions of the Contract be obliged to...while conducting Petroleum Operations, take necessary measures in accordance with generally accepted standards of the International Petroleum Industry for conservation, safety of life, property, crops, fishing and fisheries, navigation, protection of environment, prevention of pollution and safety and health of personnel...

The advantage of referring to international industry standards is that in some cases they may be higher than, or cover specific issues not addressed in, domestic legislation. Furthermore, reference to international standards allows some scope for change and evolution of the environmental management regime of an investment over time, thus providing a way around a contractual requirement for stability (see further below). However, there are serious problems with referring only to industry standards, given their inherent

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ambiguity. The terminology ‘good oilfield practices’ or ‘good petroleum industry practices’ is frequently employed in environmental standards clauses (as well as in other types of provisions discussed further below), but these phrases are seldom defined. Timor-Leste’s Model PSC is a rare example of a contract that provides an explicit definition:

“Good Oil Field Practice” means such practices and procedures employed in the petroleum industry worldwide by prudent and diligent operators under conditions and circumstances similar to those experienced in connection with the relevant aspect or aspects of the Petroleum Operations, principally aimed at guaranteeing:

a) conservation of petroleum and gas resources, which implies the utilization of adequate methods and processes to maximize the recovery of hydrocarbons in a technically and economically sustainable manner, with a corresponding control of reserves decline, and to minimize losses at the surface;

b) operational safety, which entails the use of methods and processes that promote occupational security and the prevention of accidents;

c) environmental protection, that calls for the adoption of methods and processes which minimise the impact of the Petroleum Operations on the environment;

However, this definition fails to provide much insight. One is left wondering who the “prudent and diligent operators” are that are to set the example, particularly given the caveat that it is only those operating “under conditions and circumstances similar” to those found in Timor-Leste that would qualify for consideration. A similarly vague definition is found in a 2002 Cambodian contract, which states:

Good Petroleum Industry Practices means the standards and practices, and exercise of that degree of skill, prudence and foresight that would reasonably be expected of persons carrying out international petroleum operations, and adherence to generally accepted standards of the international petroleum industry, including sound environmental provisions.

This definition begs the question of where exactly one can find the “generally accepted standards of the international petroleum industry”? There are a multitude of potential sources of standards. For example, members of the American Petroleum Institute (API) “pledge” to manage their businesses according to a set of eleven environmental principles. However, the majority of these principles are imprecise, such as the commitment “to reduce overall emission and waste generation”. The API also has guidelines for environmental protection in both on- and offshore oil and gas operations, although they are not freely available to the public. Other potential sources include guidelines produced by the previously mentioned OGP, the Australian Petroleum Production & Exploration Association, as well as bodies such as the International Organization for Standardization (ISO). As Wawryk notes, the existence of so many guidelines in the petroleum industry makes it impossible to point to one that can definitively be considered ‘good’ practice and furthermore the “actual practices of international oil companies...vary from company to company and,

14 See www.api.org/aboutapi/principles/index.cfm.
for one company, across jurisdictions...making it difficult to identify the best practices actually in use.\textsuperscript{15}

Some contracts remove this ambiguity by specifying what industry standards will apply. For example, a 1997 PSC between Kazakhstan and a consortium of investors lists the following: Oil Industry International Exploration and Production Forum (now OGP) guidelines on health, safety and environmental management systems; International Association of Drilling Contractors (IADC) safety and environmental guidelines; International Association of Geophysical Contractors (IAGC) safety and environmental guidelines; and The American Conference of Government Industrial Hygienists Threshold Limit Values for Chemical Substances in the Work Environment. This level of specificity is an improvement over general references to good oilfield practices. However, there remain questions about public access to these guidelines, coverage of all relevant issues, and problems of monitoring and enforcement. It is also debatable whether the incorporation of industry guidelines into a legally binding contract has any effect on their voluntary nature. It can be speculated that this would be highly dependent on the wording of the specific guideline. For example, if an industry guideline utilizes language such as ‘best efforts’ or ‘reasonable measures’, it seems difficult to imagine that it could be transformed into a hard standard simply through its insertion in a contract.

The majority of contracts reviewed for this article contained reference to both domestic environmental law and international industry standards. In most cases, there was no mention of how these two sources of standards would be reconciled in the event of a conflict. However, in some contracts a form of hierarchy was established. For example, Article 21.1 of Brazil’s 2004 Model Concession Contract indicates that industry standards are only intended to act as a supplement to domestic legislation:

\textbf{The Concessionaire shall adopt, at its own cost and risk, all the necessary measures for the conservation of reservoirs and other natural resources and for the protection of the air, soil and water in the surface or in the subsurface, subject to Brazilian legislation and rules about environment and, in their absence or lack, adopting Oil Industry Best Practice in this regard.}

In contrast, the clause below, from a 1994 Azerbaijani contract, has evidently been adopted to ensure that domestic environmental regulation is \textit{not more stringent} than international industry standards:

\textbf{Contractor shall comply with present and future Azerbaijani laws or regulations of general applicability with respect to public health, safety and protection and restoration of the environment, to the extent that such laws and regulations are no more stringent than the then current international Petroleum industry standards and practices being at the date of execution of this Contract those shown in Appendix IX, with which Contractor shall comply.}

In addition to domestic law and/or industry standards, some oil and gas contracts refer to international environmental agreements, although this does not seem to be a common practice. One example is Article 6.5 of Liberia’s Model PSC, which states that: “The Contractor further undertakes to carry out all petroleum operations in accordance with the Environmental Protection and Management Laws of Liberia and all international environmental protocols”. It is questionable whether such a sweeping reference to international environmental law will have anything more than symbolic value. Provisions in multilateral environmental agreements are not only typically ‘soft’ in nature; they also generally require translation into national policy before they can have any impact on private actors. Furthermore, few environmental agreements tackle specific issues concerning the management of petroleum exploration and production. However, there are some treaties covering marine pollution that are relevant to offshore operations. In this respect, it is notable that Mauritania’s 1994 Model PSC is less ambiguous in its reference to international environmental law, noting in Article 6.6 that:

The Contractor shall take all necessary precautions to prevent pollution of the marine area of the Exploration Perimeter and observe, inter alia, the provisions of the International Convention on the prevention of petroleum pollution of sea waters signed in London on May 2, 1954 and the amendments and texts enacted for the implementation thereof.

The final form of standards clause observed in the sample, although only in one contract, is the development of a project-specific environmental regime. A 1996 contract between Azerbaijan and a consortium of investors stipulates that the contractor, the state-owned oil company and the State Committee on Ecology and Control over the Use of Natural Resources will jointly agree on a set of safety and environmental standards based on “(i) international Petroleum industry standards and experience with their implementation in exploration and production operations in other parts of the world and (ii) existing Azerbaijan safety and environmental legislation”. Once developed, this set of standards can only be altered through a written agreement and if any standards that have not been agreed upon are applied to the project, the investor can invoke the contract’s stabilization clause (see explanation below).

There are three key problems with this approach. The first is that it essentially puts environmental standards up for negotiation; corporations are permitted to bargain in order to avoid those standards that they view as most costly. The second is that this approach adds greatly to the administrative burden of whatever agency is tasked with monitoring activities in the petroleum sector, as it will have to consult a different set of rules for each project. The third is that, in the absence of a mechanism for periodic review and updating of the standards, it freezes the environmental regime and insulates the project from developments in scientific knowledge, advances in technology, and increasing public awareness and concern about environmental issues.

This last problem can arise whenever a contract contains a stabilization clause. According to a recent study, the use of stabilization clauses is widespread across

16 Gao (see note 1 above); Vingradov and Wagner (see note 2 above).
industries and regions of the world. Stabilization clauses come in various forms. In their most basic form they ‘freeze’ the law that applies to the investment at the time the contract is signed. A more nuanced version is often referred to as an ‘economic equilibrium’ clause; it requires the government to restore the balance of risks and rewards established in a contract when it is upset by a new regulation or tax. An example of an economic equilibrium clause is found in Article 17.1.3 of Vietnam’s 2004 Model PSC:

If after the Effective Date, existing law(s) and regulation(s) are amended or annulled or new law(s) and regulation(s) are introduced in Vietnam, an official interpretation or application of a law or regulation changes, or a Government approval or license is cancelled, not renewed, or the conditions therefore are revised, in any case adversely affecting the economic rights or benefits expected by the CONTRACTOR from this Contract, then upon notice from the CONTRACTOR the Parties shall meet and consult promptly with each other and make such changes to this Contract as are necessary both to maintain the CONTRACTOR’s rights, benefits and interests hereunder and to ensure that any revenues or incomes or profits, including any one or more of the foregoing, derived or to be derived under this Contract in every Calendar Year shall not in any way be diminished (in comparison to that which was originally contemplated) as a result of such changes or annulment to law(s) and regulation(s) or their interpretation or application or as a result of such changes, cancellation or non-renewal of approvals or licenses.

It is possible for a stabilization clause to be strictly circumscribed to only cover very specific issues or for areas such as environmental protection to be explicitly ‘carved out’ of its application. For example, in a 1997 contract from Kazakhstan, the stabilization clause contains the caveat:

provided, however, that no amendment to this Agreement shall be required hereunder as the result of (i) changes to Laws concerning health, safety or environmental protection that cause such Laws to be consistent with international standards for health, safety or environmental legislation and are applied on a non-discriminatory basis.

As Cotula notes, this provision is weakened by its ambiguous reference to “international standards”, but it is still far preferable to the stabilization clauses found in many contracts, and even model agreements, which are worded in such a broad manner that they can stifle any future regulation that might be perceived to undermine the profitability of an investment, including efforts to address

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19 Cotula (see note 13 above).
corruption, to safeguard human rights (including labour rights) and to protect the environment.\textsuperscript{20}

\textit{Environmental Impact Assessment}

Environmental Impact Assessments (EIAs) and corresponding management plans have become a staple requirement for investment projects in most sectors. EIAs may be prescribed under national legislation or by the policies of international financiers and insurers. EIAs have the potential to act as a powerful tool of environmental governance and to ensure that potential environmental impacts are recognized at the earliest stages of project planning, thereby allowing them to be prevented or mitigated. Unfortunately, a recent survey of environmental governance in petroleum producing countries commissioned by the World Bank found that “much of the emphasis of the EIA process appears directed towards the approval of oil and gas projects, rather than to a life cycle approach for minimizing environmental and social impact.”\textsuperscript{21}

In the oil and gas sector, an EIA is typically mandated to be completed after a contract with the state has been signed and most of the contracts reviewed contained some reference to the need for an EIA. However, the form of the EIA clauses varied widely across the sample from a simple note of the existence of a requirement to detailed specifications of what the EIA should cover, who should prepare it, when it should be submitted, and so forth.

An example of an EIA clause is found in a 1994 PSC from India:

\begin{quote}
The Contractor shall, within one hundred twenty (120) days of the Effective Date, cause a person or persons with special knowledge on environmental matters, approved by the Government, to carry out an environmental impact study in order:

\begin{enumerate}
\item[a)] to determine, at the time of the study, the prevailing situation relating to the environment, human beings and local communities, the wildlife and marine life in the Contract Area and in the adjoining or neighbouring areas; and
\item[b)] to establish the likely effect on the environment, human beings and local communities, the wildlife and marine life in the Contract Area and in the adjoining or neighbouring area in consequence of the relevant phase of Petroleum Operations to be conducted under this Contract.
\end{enumerate}
\end{quote}

The first element of this clause, concerning the “prevailing situation” is more commonly referred to as a ‘baseline assessment’. This aspect of the EIA process is actually in the best interest of IOCs because they do not want to be held liable for environmental damage that existed prior to the commencement of


operations. It is, therefore, unsurprising that baseline assessments are frequently referred to in contracts.

In a few of the contracts in the sample there was mention of the need for EIAs and environmental management plans to be provided to all subcontractors. A small number of contracts also made it explicit that a public hearing on the EIA would need to be held.

*Access to Protected Areas*

Petroleum operations are particularly contentious when they are located, even partially, within wildlife reserves, parks, or areas of cultural or biological significance. NGOs have long argued that such areas should be off limits to the extractive industries, but most governments are not ready to forgo the potential economic opportunities that the exploitation of these areas offers. This is evident in several of the contracts in the sample. For example, Article 37.6 of Madagascar’s 2006 Model Offshore PSC states:

> In the event that a portion of the Contract Area is located within a natural reserve area, the Operator shall deploy the necessary efforts in order to minimize the negative impacts on these natural reserves, in accordance with generally accepted environmental practices in the international petroleum industry.

This is an incredibly weak provision. A 2004 PSC from Uganda is similarly permissive, but it also contains a bizarre caveat:

> In the event of protest from responsible concerned third parties within or outside Uganda regarding the conduct of Petroleum Operations in any National Park or Game Reserve and the consequent effects upon the environment or wildlife, the Government and Licensee shall meet to determine what if any action should be taken.

Given that this clause provides nothing more than an obligation for the investor and the government to meet, it is questionable why the parties bothered to include it at all. Finally, Article 14.13 of India’s 2007 Model PSC gives an example of a somewhat more stringent provision:

> Where the Contract Area is partly located in areas forming part of certain national parks, sanctuaries, mangroves, wetlands of national importance, biosphere reserves and other biologically sensitive areas passage through these areas shall generally not be permitted. However, if there is no passage, other than through these areas to reach a particular point beyond these areas, permission of the appropriate authorities shall be obtained.

*Access to Water & Other Natural Resources*

Petroleum operations require natural materials in their construction phase, and significant amounts of water and electricity throughout their operation. While many operations are self-sufficient in terms of energy supply, other natural resources may need to be obtained from within or outside the contract area.
It is concerning, not only from an environmental/community rights perspective but also with a view to economic development, that many governments appear to focus solely on the potential revenue that they can obtain from petroleum production and are willing to simply give away other valuable natural resources under the terms of oil and gas contracts. For example, Article 27.8 of Mozambique’s 2007 Model concession contract provides for the right of the investor “to drill for and have the free use of water and impound surface waters”. Article 2.8 of the 2006 Model PSC of the Kurdistan Regional Government of Iraq is even broader, giving the contractor the right to “freely use sand, water, electricity and any other natural resources located inside or outside the Contract Area for the Petroleum Operations”.

Some of the contracts in the sample were completely silent on the issue of access to natural resources, and a small number had more nuanced provisions than those quoted above. For example a 1994 contract from Ethiopia states that the contractor shall “have the right, subject to the approval of the Minister, to use water in the Contract Area for operational purposes, but the Contractor shall not deprive any land, domestic settlement or livestock watering place of the water supply to which they are accustomed”. A 1994 contract from Bangladesh goes a step further by requiring that the contractor pay for the natural resources, such as water, that it utilizes.

Gas Flaring

The World Bank estimated in 2004 that the volume of associated gas being flared and vented globally every year was about 110 billion cubic meters; enough fuel to provide the combined annual natural gas consumption of Germany and France. Although some short-term flaring during testing or in cases of emergencies is accepted as standard practice in the industry, the flaring of substantial amounts of gas is only practiced in poor countries with limited infrastructure and weak regulatory institutions. Aside from being incredibly wasteful, flaring has a significant impact on local air quality and also makes an appreciable contribution to climate change. At the World Summit on Sustainable Development in Johannesburg in 2002, the World Bank launched a Global Gas Flaring Reduction initiative to tackle the problem. Despite this development, and widespread condemnation of the practice, flaring continues in many states. In 2008, 32 companies in the OGP admitted to flaring 18.6 tonnes of gas for every thousand tonnes of hydrocarbon that they produced.

Many oil and gas contracts, even recent models, appear to be lenient on the issue of flaring. For example, the Bangladesh 2008 Model PSC notes in Article 15.3 that:

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24 OGP Report (see note 4 above).
Any Associated Natural Gas as is not used under Article 15.1 or Article 15.2 and which Contractor does not consider possible to recover economically shall be offered to Petrobangla without any payment to Contractor but at Petrobangla’s cost at the well-head or field facilities in the Production Area. To the extent that Petrobangla does not so take any of such Associated Natural Gas, Contractor may flare such Associated Natural Gas provided that such flaring is included in the Development Plan submitted under Article 8.10.

Although this clause gives priority to utilization of the resource, there is no requirement for the gas to be reinjected into the ground if it is not taken by the state-owned enterprise and economic concerns clearly trump environmental ones. A 1997 contract from Indonesia also reflects this in the statement that gas “may be flared if processing and utilization thereof is not economical”. Other contracts, such as a 2000 contract from Belize and a 1998 contract from Angola, allow for flaring with only if it is authorized by the government. A Ugandan contract from 2004 also follows this model, but includes the caveat that the government’s consent “shall not be unreasonably withheld or delayed”. The most stringent clauses, found in only a few contracts in the sample, restricted flaring to cases of an emergency or for safety reasons.

**Responding to Emergencies and Accidents**

In 2008, 32 companies in the OGP reported 2978 spills greater than one barrel in size, resulting in the release of 18,266 tonnes of oil into terrestrial and marine environments. In many of the oil and gas contracts in the sample, the parties have recognized that spills and other accidents and emergencies have the potential to occur and should be planned for. As such, as a part or separate from an EIA, an emergency response plan is often required from the contractor. Some oil and gas contracts also cover three additional elements in respect of emergencies: notification; response; and consequences for failure to respond. In the oil and gas contracts reviewed, notification was limited to the contractor apprising the government of the situation (not the local community or broader public). In terms of response, the requirements were often vague (e.g. “take prudent steps”) or simply provided reference to good oilfield practices. However, some of the contracts in the sample did additionally stipulate that in the event that the contractor did not act promptly to respond to an emergency/accident, the government had the right mount its own response and charge the contractor for expenses that it incurred in doing so. An example is Article 17.7 of Ghana’s 2002 Model PSC:

> If Contractor does not act promptly so as to control, clean up or repair any pollution or damage, GNPC [Ghana National Petroleum Corporation] may, after giving Contractor reasonable notice in the circumstances, take any actions which are necessary, in accordance with accepted Petroleum industry practice and the reasonable costs and expenses of such actions shall be borne by Contractor and shall, subject to Article 17.5 be included as Petroleum Costs.

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25 Ibid.
Liability, Indemnity, & Insurance

Liability for environmental damage is an increasingly important issue for the oil industry. The ongoing dispute between Chevron and the residents of the Ecuadorian Amazon concerning the company’s liability for oil pollution is a prime example of why most contracts have express provisions on liability that cover environmental damage.26

As evidenced in the Chevron case, issues of liability for environmental damage can be complex, especially when multiple parties, including state-owned enterprises, are involved in petroleum production. Contracts, therefore, need provisions that are explicit about who is to be liable for what and to whom. The issue of ‘who’ depends somewhat on the form of contract, but generally it is the contractor/concessionaire (the IOC) that will be liable except in cases where fault can be directly attributed to the state or state-owned enterprise. If there is more than one contractor involved in the project, then there will likely be a clause that stipulates that they are jointly and severally liable.

The issue of ‘what’ concerns the types of harms (e.g. only death or injury or also ‘damage to the environment’), the period in which the harms were caused (i.e. no liability for prior environmental damage established in a baseline assessment) and the legal form of the liability. There are three forms of liability that may be adopted in a contract: fault liability, strict liability, or absolute liability. Fault liability requires that the operator intended to do harm or was grossly negligent. Absolute liability, on the other hand, does not require the operator to be at fault and provides him with no possible defence. In between these extremes is strict liability which does not require negligent or wilful misconduct on the part of the operator, but does provide him with a limited number of defences, the most common being: natural disasters or acts of God; war or hostile conflict; and intentional or grossly negligent acts or omissions of a third party. Most international and national environmental liability regimes impose strict liability because it is seen as most likely to encourage preventative measures and to reduce the onus on victims of environmental damage, without placing an unreasonable burden (as absolute liability would) on the party that is liable.27

Finally, on the issue of to ‘whom’ the contractor is liable, there are typically two separate issues covered in contracts: liability to the state and liability to third parties. In the latter case, the issue is not directly one of liability - contracts cannot affect the rights of third parties under national law - but rather one of indemnity. Through indemnity clauses, contractors commit to compensate states for any costs that they incur as a result of a third party liability suit.

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26 In this particular case, Chevron claims that Texaco (which merged with Chevron in 2001) was released from liability through a series of agreements on reclamation and that the state-owned oil company Petroecuador should indemnify the company for any damages awarded by the court. Chevron has taken Ecuador to international arbitration on the matter (see the Notice of Arbitration under the terms of the US-Ecuador bilateral investment treaty at http://ita.law.uvic.ca/documents/EcuadorBITEn.pdf).

Most contracts in the sample made specific mention of ‘pollution’ or ‘environmental damage’ in liability/indemnity clauses and adopted a strict liability approach. However, a small number, including the 2004 Model PSC from Vietnam, provided only for fault liability. A 2002 Cambodian contract, for example, states:

Where Petroleum Operations cause pollution of the environment in a manner which is inconsistent with Good Petroleum Industry Practices, Contractor shall be responsible for cleaning up, at Contractor’s expense, such pollution and shall be liable for all damage and expense in connection with such pollution to the extent that it results from the negligence, recklessness or wilful misconduct of Contractor or its Subcontractors.

The most developed liability/indemnity clause in the sample was from a contract signed by Belize in 2000, which required that the contractor contribute a tenth of a percent of the value of the annual gross production to a fund managed by the government “for the sole purpose of indemnification against any or all environmental damages cause during the petroleum operations”.

An additional issue closely related to liability/indemnity is the requirement for contractors to have insurance coverage. These clauses often specify that insurance should cover ‘pollution’ or ‘environmental damage’. For example, Article 18.3.1 of Equatorial Guinea’s Model PSC states:

The Contractor shall obtain and, during the term of this Contract, maintain in full force and effect, for Petroleum Operations insurance of such type and in such amount as is customary and prudent in accordance with generally accepted practice of the international petroleum industry, and whose coverage terms and conditions shall be communicated to the Ministry within thirty (30) days after the Effective Date. The foregoing insurance shall, without prejudice to the generality of the foregoing provisions, cover:

a) any loss or damage to all assets used in Petroleum Operations;
b) pollution caused in the course of Petroleum Operations;
c) property loss or damage or bodily injury or death suffered by any Person in the course of Petroleum Operations;
d) the cost of removing wrecks and clean-up operations following an accident or upon decommissioning; and
e) the Contractor’s liability to its employees engaged in Petroleum Operations.

One potential problem with both liability/indemnity and insurance clauses is that the term ‘pollution’ is quite narrow and does not cover all of the various environmental impacts that oil and gas operations have. Even ‘environmental damage’ may be subject to interpretation if it is not defined in the contract.

Decommissioning & Remediation

When an oil operation reaches the end of production, a number of costly activities must be undertaken. Onshore, wells need to be plugged and structures

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28 Even in the absence of explicitly listed exceptions within the liability clause, the extremely common ‘force majeure’ clause provides a defence for non-compliance.
dismantled, with materials removed and ultimately recycled or disposed of. Remediation of the local environment (e.g. decontamination and revegetation) may also be required. Offshore installations present particularly complex issues in terms of decommissioning, although it is also in this area that international law has its most direct and significant impact on the oil and gas industry.

The extent to which decommissioning is dealt with in contracts depends somewhat on the contractual relationship between the parties and the expected life of the project. Under some arrangements, states retain ownership over production facilities and may continue operations after the termination of the contract. However, even in such instances, there may be contractual provisions covering decommissioning of installations that are not destined to be taken over by the state.

Clauses on decommissioning and remediation found in contracts in the sample were generally lacking in detail. For example, a 1997 PSC from Benin states:

> At the end of the Contract, in any other situation than the abandonment case, the Contractor must take the measures according to the Good Practices of the Oil Industry to restore the environment and the sites where the Petroleum Operations have been performed to their original state on the Effective Date of the Contract, taking into account the rules of the abandonment procedure.

Although this provision appears quite strict (as it suggests that sites should be restored to their “original state”) it is weakened by the generic reference to good oilfield practices. According to a recent World Bank commissioned report, the absence of guidelines for what should be included in a decommissioning plan is a pervasive problem in petroleum producing countries.

In addition to an absence of guidelines, there are obviously strong incentives for some companies to ‘cut and run’ or to conduct only superficial remediation to minimize costs. One method for ensuring that decommissioning and remediation are carried out to plan is to use a financial mechanism such as a performance bond or reserve fund. Tanzania is an example of a country that has set up such a regime in Article 20 of its 2008 Model PSC:

> In order to discharge its obligations for site cleaning and abandonment of all assets and facilities which are not acquired by TPDC [Tanzania Petroleum Development Corporation] in accordance with the provisions of this Article 18, the Company, the Government and TPDC shall, within two years of the commencement of commercial production, enter into an agreement to establish an abandonment cost reserve fund. Such agreement shall address the administration and utilisation of funds deducted from Cost Oil in accordance with the following:

(i) TPDC and the Company shall estimate the cost for site cleaning and abandonment in good faith, on the basis of industry average costs in accordance with generally acceptable petroleum industry practice.

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30 Gao (see note 1 above).
31 Environmental Resources Management (see note 29 above).
32 Ibid.
(ii) The payments deposited into the fund shall be placed in a U.S. Dollar, long term, interest bearing account in a first class bank located within Tanzania to be designated by TPDC and Company.

(iii) If, upon expiration or other termination of this Agreement, TPDC determines to conduct the site cleanup and abandonment operations, such funds, plus all accrued interest, shall be paid to TPDC whereupon the Company shall be released from any further obligation and liability with respect to such site cleanup and abandonment.

(iv) If, within sixty (60) days prior to the expiration or other termination of this Agreement, TPDC has failed to advise Contractor of TPDC's determination to conduct the site cleanup and abandonment operations, such funds, plus all accrued interest, shall be paid to Contractor and Contractor shall thereupon conduct all such operations in accordance with generally accepted petroleum industry practices.

(v) If the reserve fund in (iii) and (iv) above is insufficient to pay the costs of cleanup and abandonment, such shortfall shall be paid by Contractor. Where the reserve fund exceeds the costs incurred such excess shall revert back to TPDC.

**Dispute Resolution**

It is unlikely that one would ever come across a dispute settlement clause in an oil and gas contract that specifically mentioned environmental protection. Nevertheless, this crucial enforcement mechanism cannot be ignored in this survey. It is standard practice for contracts to consign disputes between the parties to international arbitration. Given that arbitral tribunals will interpret contractual terms, including environmentally relevant provisions, their set-up and composition deserve scrutiny.

Most contracts refer to the arbitration rules of the International Centre for the Settlement of Investment Disputes (ICSID) or those of the United Nations Commission on International Trade Law (UNCITRAL). However, some contracts instead opt for dispute settlement under the International Chamber of Commerce, Stockholm Chamber of Commerce, American Arbitration Association, London Court of International Arbitration, or other such institutions.

In a typical case, an investment arbitral tribunal will have three members: one chosen by the investor, one chosen by the state and a third that is mutually agreed upon and will act as president. Arbitrators are generally specialists in commercial and investment law and are unlikely to have expertise in areas such as environmental law. Once a tribunal has made a decision there is no appeals process, and there are only very limited options for annulment or review of awards. Although international arbitration was initially advertised as a cheap and quick alternative to litigation, investor-state disputes can cost both parties millions of dollars and cases often take several years to be decided.

Arbitration is commonly framed in the literature as a neutral and depoliticised forum for dispute resolution, but in recent years, scholars, governments and NGOs have begun to question this depiction. The international arbitration community is a relatively small and tightly knit group, often referred to as a
‘mafia’ or ‘club’.\textsuperscript{33} The means by which arbitrators are chosen and rewarded for their services also creates the appearance of a biased system. Court judges have no financial stake in the outcome of disputes. Arbitrators, on the other hand, are not only chosen by the parties to the dispute, they are also paid by the hour with no time limits on proceedings. Such incentives inevitably favour the party advancing the claim (i.e., the investor), even if this is not the intention.\textsuperscript{34} The fact that individuals can act as both arbitrators and counsel in different cases is also problematic as they may “consciously or unconsciously” make decisions as arbitrators that will further their client’s interests in another case.\textsuperscript{35}

Investor-state arbitration has also traditionally favoured the principle of confidentiality over that of transparency. ICSID maintains a public registry of all cases filed under its rules, but there is no such record of cases when UNCITRAL rules or other rules are applied. Proceedings of investment disputes are typically held \textit{in camera} and non-parties will not have access unless the disputants consent to open the proceedings. Awards and other documents (e.g., memorials, statements of defence) are not universally disclosed.

There is also the critical issue of the capacity of governments in developing countries to effectively represent their interests in what is a highly technical and expensive system of dispute resolution.\textsuperscript{36} Closely connected to the issue of capacity is the potential for the threat of arbitration to ‘chill’ policy development.\textsuperscript{37}

While most of the above concerns have been raised in discussions about international investment agreements, there are further specific issues that arise in the context of investment contracts that are not widely recognized. One is the question of what areas covered by contracts are subject to arbitration and what ones remain in the purview of domestic courts? For example, if an EIA is not reviewed and approved by the relevant agency within the time frame set out in national legislation or specified in the contract is this an issue for arbitrators to resolve? Although in the sample of contracts reviewed there were no examples of express stipulations that disputes concerning the EIA process would be delegated to arbitration, some contracts in other sectors (e.g. mining, rubber) have such provisions.\textsuperscript{38} However, even if the wording of the contract does not


\textsuperscript{38} See, e.g., Art. 15(b) of the Concession Agreement between the Republic of Liberia and Firestone Natural Rubber Company, LLC and Firestone Plantations Company, 28 January 2005 and Art. 10.4 of the Mining Development Contract for the Lihir Gold Project on Lihir Island between The
make it explicit, it is possible that such disputes could become the subject of arbitral proceedings. An investor-state dispute of this nature has already arisen in the mining sector, albeit under the auspices of an international investment treaty rather than a contract.\textsuperscript{39} Another question is whether breaches of domestic environmental law on the part of the IOC will also be resolved by arbitration? In 2005, the American mining company Newmont convinced an Indonesian judge that its liability for the pollution of area known as Buyat Bay was an issue for an arbitral tribunal, not a domestic court, to decide.\textsuperscript{40}

\textbf{THE NORMATIVE QUESTION: WHAT SHOULD BE IN UPSTREAM OIL & GAS CONTRACTS?}

\textit{Benefits and drawbacks of a contractual approach to environmental regulation}

It is difficult to evaluate individual contracts without reference to the national legislative context that they are situated in. A contract from one country that refers to national law but says nothing more on the subject of the environment might be equally as good as a contract from another country with several pages of references to international environmental standards. There are certainly some clauses found in contracts that are easily identifiable as inappropriate from an environmental governance perspective, such as strict stabilization clauses and provisions that are overly permissive about gas flaring or access to protected areas. However, it is also worth examining whether the endeavour to improve contracts should be merely a matter of ensuring that environmental efforts are not undermined, or whether contracts could also be designed to bolster those efforts. In other words, should environmental governance experts pay more attention to contracts as a potential policy tool?

The main reason, historically, for the adoption of a ‘contractual approach’ to environmental regulation in some countries was the absence of national legislation on the subject.\textsuperscript{41} Although most countries now have some form of environmental policy framework in place for the sector, a recent World Bank commissioned survey suggests that in most cases this framework is “largely theoretical”.\textsuperscript{42} The World Bank report raises particular concerns about poor monitoring and enforcement in many countries, as well as barriers to the disclosure of information about oil and gas projects. Unfortunately, the review of contracts provided in the previous section of this article indicates that contracts tend to mirror these problems rather than to fill gaps in regulation. Fundamental deficiencies in monitoring, enforcement and disclosure of information are not remedied, and are perhaps exacerbated, by standard contractual practices.

\begin{footnotesize}
\begin{footnote}\textsuperscript{39} See the Notice of Arbitration in the dispute between PacRim Cayman LLC and the Republic of El Salvador under the Central American Free Trade Agreement (\url{www.pacrim-mining.com//pdf/2009-04-30_CAFTAF.pdf}).\end{footnote}
\begin{footnote}\textsuperscript{40} See further Tienhaara (note 37 above) at 251.\end{footnote}
\begin{footnote}\textsuperscript{41} Gao (see note 1 above).\end{footnote}
\begin{footnote}\textsuperscript{42} Integrated Environments and D’Appolonia SpA (see note 21 above).\end{footnote}
\end{footnotesize}
There are two other arguments that have been put forward by those who favour a contractual approach to environmental regulation in developing countries and economies in transition. One argument is that legislation is necessarily general in nature and therefore cannot deal as well as contracts can with project-specific environmental issues. For example, Cohen (discussing mining agreements) argues that: ‘By developing environmental management mechanisms through individual project agreements, LDCs [least developed countries] can promote smaller-scale joint ventures, maintain and improve their foreign investment climates, and address both project-specific and general environmental concerns.’ A second argument is that enforcement of contracts is supposedly easier than enforcement of national law. For example, Flores argues:

A more practical approach would be to remove environmental risk management from the isolated realm of public law (national law) and apply a combination of private contract law and public law. Enforcement against MNCs is simplified in the private law arena. Any non-compliance is adjudicated through an arbitration tribunal as a straightforward contract claim. Political and social issues do not play a dominant role.

On the first issue of specificity, this may be a valid argument in theory, but as shown in the review of oil and gas contracts above, in practice contracts do not tend to be particularly specific when it comes to environmental protection issues. On the subject of enforceability, it certainly is an attractive idea that environmental standards will be given more ‘teeth’ if they are enshrined in contracts. However, in practice governments are unlikely to pursue environmental claims against companies in arbitration, which is an incredibly costly and technical process. A prime example is the decision of the Indonesian Ministry of Environment to settle its civil liability suit against the mining company Newmont in the case mentioned above, rather than to pursue its claims in arbitration. Furthermore, even if governments were willing to take environmental damage claims to arbitration it is not evident that this would be an appropriate forum for such claims to be heard, given the issues of confidentiality, expertise, and institutional bias that have been discussed above.

There are also other problems with employing contracts as a tool of environmental regulation. One major difficulty is that contracts, particularly those that involve some form of profit sharing, represent a significant conflict of interest on the part of the government. In other words, environmental regulation that negatively affects the rate of production or increases the costs incurred by the operator will have a direct impact on the government’s ‘take’. Although some degree of conflict of interest will always exist when states are directly involved in the exploitation of their natural resources, this conflict can be managed when regulative branches of government have autonomy from those agencies.

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collecting revenue and when decisions are made out in the open. It seems inevitable that environmental regulators will play a minor role (if they are involved at all) in contract negotiations and that as a result, environmental issues will frequently be either sidelined or used as a bargaining chip.

Another fundamental problem with oil and gas contracts, as well as all other host state-investor agreements, is that they are not typically publicly disclosed. The standard justification given by governments for confidentiality of contracts is that disclosure would negatively affect their bargaining power in future negotiations. However, as a guide produced by the International Monetary Fund (IMF) notes, the terms of a contract are likely to be widely known within the industry soon after signing. Oil and gas companies can gain access to contracts through personal contacts or expensive subscription services. The same cannot be said for NGOs and members of the communities affected by petroleum operations.

In addition to enabling civil society to scrutinize what their government has agreed to, contract disclosure would also likely have some impact on how officials and company representatives negotiate ‘up front’, as it would increase the potential for revelations of inappropriate conduct. Transparency of contractual terms would deter governments from bargaining away environmental protection and would furthermore increase the enforceability of standards. As noted by Graham and Woods, civil society plays a very important role in monitoring corporate activities in developing countries. If the public does not know what has been agreed to in a contract then it is not possible for them to monitor compliance or to pressure governments and/or corporations to live up to their commitments.

However, it should be noted that confidentiality is one problem with contracts that could be fairly easily rectified and there has been some movement on the issue in recent years. In response to the Extractive Industries Review (which recommended that the World Bank Group require the disclosure of contracts in the extractive sector) the International Finance Corporation (IFC)’s Policy on Social and Environmental Sustainability was updated in 2006 to include the following paragraph:

Accordingly, IFC requires that: (i) for significant new extractive industries projects, clients publicly disclose their material project payments to the host government (such as royalties, taxes, and profit sharing), and the relevant terms of key agreements that are of public concern, such as host government agreements (HGAs) and intergovernmental agreements (IGAs).


See, e.g., the price list for subscriptions to the Basic Oil Laws & Concession Contracts series published by Barrows Company (www.barrowscompany.com).


IFC Policy on Social & Environmental Sustainability, April 2006 (www.ifc.org/ifcext/enviro.nsf/Content/SustainabilityPolicy). Several NGOs have criticized the

**Best practices and further options for improving oil & gas contracts**

There are wide disparities in the contracts reviewed for this article which appear to be mainly the result of different approaches taken by governments, rather than the company that was involved. This is also evident in the wide variation across models; for example, India’s model PSC has an article on the environment that spans four pages, whilst the model of Angola only refers once to the protection of the environment in a clause on emergencies. Furthermore, although it is clear that there is, in general, increased attention to environmental issues in oil and gas contracts drafted since the time of Gao’s study, the date of signature of a contract is not always a good indicator of its environmental content; the contract with the least consideration of environmental issues in the sample was from 1997; the same year as one of the contracts in the sample with the most comprehensive coverage of environmental issues.

Although some contracts and models in the sample clearly devote more attention to environmental protection, there isn’t one in particular that can be held up as exemplary in all of the areas discussed above. Instead, a few tentative suggestions about existing best practices in oil and gas contracts are drawn from across the sample. These are summarized in Table 1.

There are some additional clauses that could be included in oil and gas contracts that were not found in the sample or were found only in one or two cases. One option would be for contracts to refer to home state or third state environmental standards. This type of clause can be found in other types of host government agreements, even in other parts of the oil and gas industry. For example, the intergovernmental agreement for the Baku-Tibilisi-Ceyhan pipeline states that the operations will be “in accordance with international standards and practices within the Petroleum pipeline industry (which shall in no event be less stringent than those generally applied within member states of the European Union)”.\footnote{Art. IV of the Agreement Among The Azerbaijan Republic, Georgia and The Republic of Turkey Relating to the Transportation of Petroleum Via the Territories of The Azerbaijan Republic, Georgia and The Republic of Turkey Through the Baku-Tbilisi-Ceyhan Main Export Pipeline, 18 November 1999.}
<table>
<thead>
<tr>
<th>Provision</th>
<th>Best Practice in the Sample</th>
<th>Further Options</th>
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| **Environmental Standards & Stabilization** | • Reference to applicability of domestic environmental legislation  
• Reference to applicability of specific industry standards which are annexed to the agreement  
• Reference to applicability of specific international environmental agreements  
• Stabilization clause not included or environmental and social legislation explicitly carved out | • Reference to home country or third country standards |
| **Environmental Impact Assessment**   | • Reference to applicability of domestic environmental legislation  
• Requirement that EIA be conducted by a reputable firm that is approved by the environmental ministry  
• Requirement that EIA be provided/explained to subcontractors  
• Requirement for community consultation | • Stipulation that disputes over the approval or rejection of the project based on the outcome of the EIA will not be subject to arbitration |
| **Protected Areas**                    | • Prohibition on entry to or passage through protected areas without express permission of the environmental ministry | |
| **Natural Resources**                  | • Access to water and other natural resources provided in compliance with local law, upon payment of a fee and with the assurance that it will not deprive other users in the area | • Requirement for contingency plan to be made available to local community  
• Requirement to immediately notify local community when accident/spill occurs  
• Stipulation that the contractor will be subject to fines if it fails to respond to emergencies |
| **Emergencies & Spills**              | • Requirement for a contingency plan  
• Requirement to immediately notify government when accident/spill occurs  
• Requirement to take immediate and appropriate action  
• Stipulation that if action is not taken by the contractor the state can step in and charge the contractor for expenses | |
| **Flaring**                           | • Prohibit except in emergencies | |
| **Liability, Indemnity & Insurance**  | • Strict liability for environmental damage  
• Requirement that state be indemnified for third party claims except for (i) environmental damage existing prior to operations; or (ii) environmental damage caused by state actors  
• Development of an indemnity fund  
• Requirement that insurance cover environmental damage | • Community consultation on development of D&R plan  
• Carve out of environmental issues from arbitration clause  
• Transparency measures |
| **Decommissioning & Rehabilitation**  | • Requirement for a D&R plan  
• Development of a fund or other financial mechanism | |
| **Dispute Settlement**                | | • Stipulation that contract will be disclosed in its entirety (subject to limited redaction) and made freely accessible to the public |
| **Other**                             | • Broad definition of environmental damage included in the contract  
• Requirement for environmental reporting | |
While this type of clause is not without problems it can be a beneficial supplement to domestic standards if combined with other clauses, for example, on strict liability for environmental damage.

A further addition that could be made to contracts would be the inclusion of a definition of 'environmental damage'. As noted in the Introduction, there are a variety of environmental impacts that upstream oil and gas operations can have beyond air and water 'pollution'. A broad definition included in the contract can help to ensure that the contractor is held liable for all of these various impacts. The model PSC and the signed PSC involving India were the only contracts in the sample with an explicit definition of environmental damage. Although the definition provided in India’s contracts is quite comprehensive, perhaps a better model is that found in the United Nations Environment Programme’s draft guidelines on environmental liability:

The term “environmental damage” means an adverse or negative effect on the environment that:

a) Is measurable taking into account scientifically established baselines recognized by a public authority that takes into account any other human-induced variation and natural variation;

b) Is significant, which is to be determined on the basis of factors, such as:

i) Long-term or permanent change, to be understood as change that will not be redressed through natural recovery within a reasonable period of time;

ii) Extent of the qualitative or quantitative changes that adversely or negatively affect the environment;

iii) Reduction or loss of the ability of the environment to provide goods and services either of a permanent nature or on a temporary basis;

iv) Extent of any adverse or negative effect or impact on human health;

v) Aesthetic, scientific and recreational value of parks, wilderness areas and other lands.

As noted above, the main deficiencies in domestic environmental regulation in many countries are in the areas of monitoring and enforcement. Thus, contractual clauses that could lead to improvements in these areas would be welcome. Cotula recommends provisions requiring investors to regularly report on environmental impacts as well as those which would establish mechanisms for periodic inspections and third-party monitoring and verification.

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52 For example, an Amnesty International UK report argues that reference to EU standards does not confer rights on individuals or citizens in the countries in which the project takes place (which are not currently EU member states) to sue the state or the consortium for breach of those standards. See Amnesty International UK 2003. Human Rights on the Line: The Baku-Tbilisi-Ceyhan Pipeline Project, Amnesty International UK: London. See also David Ong, 2008, “The Contribution of State-Multinational Corporation ‘Transnational’ Investment Agreements to International Environmental Law”, Yearbook of International Environmental Law 17: 168–212.


respect, only a few contracts in the sample made a passing reference to the need for companies to submit reports. While some contracts in the sample stipulated that companies should permit government inspections, no detailed mechanisms were established. Cotula also recommends environmental fines to operationalize the polluter pays principle. Only one contract in the sample mentioned the “payment of fees for unpermitted environmental impact”.

Another option for governments to consider when drafting models and negotiating contracts is an explicit ‘carve out’ for certain issues from the application of the arbitration clause. Arbitration is an appropriate forum for commercial disputes, but government policy decisions, for example on whether or not to approve or reject a project based on an EIA, should only be subject to challenge in local courts. Transparency and participation measures could also be introduced to arbitration clauses to ensure that the public: (i) is aware when investor-state disputes occur; (ii) can gain access to arbitral documents and awards; and (iii) can make amicus curiae submissions to the tribunal. Such provisions could be based on those found in the recent model bilateral investment treaties of countries such as Canada and the United States.

Continuing on the theme of transparency, clauses on EIAs, emergencies and decommissioning and remediation could be more explicit about the need for operators to consult with local communities about their plans and also to make them easily accessible once they have been formulated. Such consultation is recommended, for example, in a World Bank report on decommissioning.

Finally, contracts could exclude clauses that stipulate that the terms of the contract will be kept confidential or even include clauses that expressly require contract disclosure (subject to limited redaction of legitimate ‘trade secrets’ or proprietary information). They could additionally require initiatives to make contracts freely accessible (e.g. posting contracts on company and government websites, storage of hard copies of contracts in government offices, local corporate headquarters, and university libraries). It is also important for IOCs and industry associations to make their environmental guidelines freely and easily accessible by the public. Ideally, any industry standards referred to in a contract would be included in an annex, which would then be published and made accessible along with the rest of the contract.

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55 Ibid.
57 Environmental Resource Management (see note 29 above).
58 A trade secret is defined in the Restatement (First) of Torts (quoted in Rosenblum and Maples, note 45 above, at 34) as ‘any formula, pattern, device, or compilation of information which is used in one’s business, and which gives [the holder] an opportunity to obtain an advantage over competitors who do not know or use it’.
CONCLUSIONS

It is not particularly surprising that since Gao’s study was published in 1994 there have been significant changes in the content of upstream oil and gas contracts vis-à-vis environmental protection. The small sample reviewed indicates that a significant number of clauses covering a variety of issues - from baseline environmental assessments all the way through to environmental remediation – can be found in modern contracts. Given the monumental increase in environmental awareness and the intense scrutiny that the petroleum industry has come under in the last fifteen years, this is unsurprising. What is remarkable is that a handful of contracts still resemble those that Gao criticized for having only a token mention of environmental protection, and that references to ambiguous terms such as good oilfield practices remain so pervasive.

The limited number of oil and gas contracts that are available in the public domain makes it difficult to devise a general statement on how such agreements could be improved. This article has put forward some preliminary suggestions but there is an obvious need for further research to be conducted. However, without greater transparency, it will be extraordinarily difficult for research in this area to progress.

In concluding, it should be reiterated that contracts, even those that adopt best practices, are no substitute for domestic legislation and do not resolve the fundamental problems of poor monitoring and enforcement. Efforts aimed at improving environmental regulation in the oil and gas sector in developing countries and economies in transition should be focused on these areas. However, it would be a mistake for contracts to be ignored by environmental policy experts, given their centrality in the regulatory regimes of many countries, and the potential for certain clauses, particularly those on stabilization and arbitration, to undermine environmental protection efforts.