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Regulatory capture by default: Offshore exploratory drilling for oil and gas



Michelle E. Portman*

Faculty of Architecture and Town Planning, Technion – Israel Institute of Technology, Haifa, Israel

HIGHLIGHTS

- Regulatory capture occurs when ambiguity exists about environmental protection standards for new types of activities in the marine environment.
- A typology is developed from theories of regulatory capture (RC) and applied to cases of offshore exploratory drilling.
- The typology is applied to offshore natural gas reserves discovered in 2010 offshore of Israel in the Mediterranean Sea.
- Temporal aspects (anachronistic laws and regulations) and spatial aspects (jurisdictional ambiguity) have created regulatory vacuums leading to RC.
- Comprehensive marine spatial planning would result in less capture and the development of more capture-resistant regulations.

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ABSTRACT

This article examines a form of regulatory capture that occurs when significant ambiguity exists regarding the environmental protection standards for new types of activities in the marine environment. To begin with, there is little research that categorizes the typologies of regulatory capture despite the ubiquity of the phenomenon. After a discussion of theoretical approaches to regulatory capture, I describe the operative definition and theory appropriate to the situation related to authorization of oil and natural gas production in Israel following the discovery of large offshore reserves in 2010. This approach, embodying several facets of existing typologies, is applied to decisions made authorizing construction of the Gabriella offshore exploratory drilling platform. The analysis highlights the nature of capture in the absence of clear agency jurisdiction over new activities located in offshore environs organized as temporal and spatial “vacuums”. I conclude that comprehensive marine spatial planning would result in less capture and the development of more capture-resistant regulations.

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“If the government is to tell big business men how to run their business, then don't you see that big business men have to get closer to the government even than they are now? Don't you see that they must capture the government, in order to not be restrained too much by it?” – President Woodrow Wilson, 1913¹

1. Introduction

The popular adage of Moses taking a wrong turn when he allegedly led the Israelites out of Egypt was debunked with the recent discovery of very large deposits of natural gas off the coast of Israel in 2010. Despite the exaltation of these discoveries in the public eye, environmentalists are concerned about damage these new drilling activities

could cause to marine and shore resources. Sensitivities are heightened by uncertainty about the ability of the Israeli authorities to respond to accidents, especially in the wake of recent US experience with British Petroleum's catastrophic Deepwater Horizon blowout that began in the Gulf of Mexico in April of 2010.

Israel has a reasonably advanced set of environmental policies and perhaps due to its small size (approximately 21,000 km²), a centralized legal regime with a strong centralized regulatory planning structure (Tal, 2002). Yet the country's environmental establishment has been faced with unexpected challenges due to commencement of offshore oil and natural gas extraction following sanctioned exploration. Much of the activity is slated to occur within in Israel's exclusive economic zone – in an area between 40 and 70 nautical miles from the shoreline – which is outside its official legal jurisdiction (Hason et al., 2011). However, even within the country's territorial waters² statutory requirements are

* Tel.: +972 4 8294067; fax: +972 4 8294617.

E-mail address: michellep@cc.technion.ac.ilURL: <http://portman.net.technion.ac.il/>

¹ Wikisource.com.http://en.wikisource.org/wiki/The_New_Freedom:_A_Call_for_the_Emancipation_of_the_Generous_Energies_of_a_People (accessed August 29, 2013).

² Territorial waters, or territorial sea, is a boundary limitation stipulated by the United Nations Convention on the Law of the Sea (UNCLOS) indicating a belt of coastal water area regarded as sovereign territory of the adjacent coastal nation. It

underdeveloped. Laws and regulations pertaining to environmental standards for the development of infrastructure leading to and from the shore have been characterized as outdated, redundant, unenforced or contradictory (Hason et al., 2011; Tabachnik et al., 2012). In addition to these shortcomings, there are few professionals in the country to address the technical and policy aspects of the drilling. Foreign experts and consultants face a steep learning curve *vis a vis* local physical conditions and local legal and political institutions.

Regulatory capture occurs when the clientele of a public agency comes to control the agency, thereby deflecting its behavior from its mandated mission (Fortmann, 1990; Thomas et al., 2010; Grant, 2011). Regulatory capture in the energy sector (Sabatier, 1975; Gormley, 1983; Dal-Bó, 2006; Kraft, 2007) and in the marine resources sector (e.g., Thomas et al., 2010), is common and has been described both in academic literature and in the general media (e.g., Frank, 2009). Yet, despite its ubiquity, it is not always clear when institutions have been captured. This is where typologies and case studies can help.

Understanding common situations under which capture occurs, can help policy makers and watchdogs groups alike identify the phenomena. In an article entitled “*What can we Learn from the 2010 BP Oil Spill?*” Grant (2011) asks if regulatory capture was partially to blame for the BP oil spill. He answers in the affirmative proving that the Minerals Management Service, the government agency charged with regulating the U.S. oil and gas industry, failed to enforce the safety concerns that the agency itself raised with the industry and left drilling site operators to define the steps they would take to ensure safety largely on their own. This brought about some of the conditions leading to the catastrophic BP oil spill of 2010 (Grant, 2011).

This article analyzes policy aspects of the nascent offshore exploratory drilling operations in Israel from an environmental perspective using the framework of regulatory capture. While developing regulations to expedite the approval of drilling operations offshore of Israel, policy-makers have failed to develop clear environmental standards. Instead, they have relaxed existing requirements. Will such regulatory changes result in neglect of environmental standards for offshore drilling activities as they have in other areas of the world?

The first part of this article examines theories of regulatory capture and their relevance to various sectors involved in resource management. I continue by developing an approach to regulatory capture which might best fit the development of policy for the Israel offshore energy sector. This approach is then applied to a case study: the Gabriella offshore exploratory natural gas drilling site. My intent is to highlight a workable and realistic concept for which to understand regulatory capture and its implications. The analysis leads to theoretical contributions that highlight ways to reduce capture in the offshore energy sector.

2. Theories of regulatory capture

When regulatory capture (RC) occurs, government bureaucrats, regulators or generally public sector agencies fail to serve collective public interest. It is related to the distribution of the benefits and the burdens of economic life (Etzioni, 2009; Wexler, 2011). On what basis should resources be allocated and what are the responsibilities of those who use these resources? On the one hand, natural resources are public goods that should be held in the public trust. On the other, Adam Smith’s theory of the value

of labor holds true in most capitalist societies. This theory embodies the idea that those who invest heavily in extraction and production activities should be able to reap the rewards of their labors (Rawls, 2005). Therefore, a delicate balance between regulatory burdens and production incentives must prevail (Wexler, 2011).

The earliest versions of capture theory were advanced by political scientists in the 1950s whose studies of the life-cycle of regulatory agencies disputed the classic “public interest” theory of regulation. These theories challenged previous New Deal and Progressive assumptions of government agencies as benevolent regulators. Earlier works on public administration, including Herrings (1936), Leiserson (1942) and Fesler (1942), provided in-depth discussions of the idea of regulatory – or “clientele” – capture and were accompanied by considerable disillusionment. Such texts related to the implementation of regulatory statutes, particularly those concerned with diffuse interests like consumer protection and environmental quality.

Most notably, Marver Bernstein in his book *Regulating Business*, took these ideas further, observing a “cycle of decay” whereas regulatory agencies become “captured” overtime by the very interests they are supposedly regulating (Bernstein, 1955). Today literature and the media often freely generalizes that regulated interests have been adept in capturing control of the regulators (Etzioni, 2009; Frank, 2009). However, remarkably little empirical work has been done to describe and analyze the contexts of various types of regulatory programs in terms of their susceptibility or resilience to capture.

A notable exception is Stigler’s (1971) seminal study of goods transport in the US in the 1930s. In this study Stigler successfully modeled various factors affecting the demand for regulation of interstate truck traffic based on assumptions of regulatory capture by the railroad companies (Stigler, 1971). Theoretical propositions were confirmed by empirical evidence. The study was also striking because regulations were considered at the time to serve the public interest. Even today, much of the general debate on regulation addresses the extent to which the public is served (Etzioni, 2009).

More recent works on RC attempt to describe its different forms; these works range from presenting RC as an inevitable downside of government bureaucracy in the leftist-socialist view, to cause for celebration in the libertarian view. In any case, the RC paradigm posits that regulations serve the regulated entities as opposed to the greater public interest. This is particularly problematic when regulated entities gain from the exploitation of natural resources which are public goods, such as offshore oil and gas deposits.

Without using the term regulatory capture, Kraft (2010) points out that in the realm of environmental and resources policy, situations in which those regulated are the same people as those responsible for crafting regulation is quite common. He contends that few people have the time, the skills, or the inclination to follow the intricacies of certain environmental policies, such as the way that standards are set and scientific assessment are conducted for potential nuclear waste repository sites, or comparable aspects of clean air policy, drinking water policy, the handling of hazardous wastes or pesticide use (Kraft, 2010). This relates to Sabatier’s (1975) description of a prevailing belief at the height of the era of the Progressives. At that time, resource management agencies were created with the belief that the use of good science by these agencies would solve the problems faced by government. This view did not foresee the loosening of aggressive regulations over time as constituencies lose interest in what were previously considered “hot” topics. It follows that regulation of the use of marine resources would be particularly susceptible to capture due to the public-at-large’s distance and detachment from what goes on at sea (Steel et al., 2005).

In addition to these challenges to regulation in the marine environment (see Smith and Jepson (1993)), regulatory capture of

(footnote continued)

extends, in most cases, to 12 nautical miles (1.8 nautical mile=1 km) from the baseline, which is usually approximately at the mean low-water mark.

regulation in the energy sector is common (e.g., Kimmell and Stalenhoef, 2011; Kraft, 2007). The lack of a constituency supporting strong protection of the marine environment due to perceived distance and detachment is inextricably tied to the political forces pushing new horizons for development, rendering the marine energy sector open to close government–industry association. As an example, the second Bush Administration loosened the rules to ease the way audits of energy operations would be conducted so that it would be “difficult to uncover corporate misbehavior; the administration had been trying to increase the incentives for oil and gas production” (Kraft, 2007). Another case that illustrates this susceptibility to capture comes from Latin America. Following nationalization of most of the offshore oil and gas production enterprise by the early 2000s, there have been claims of preferential treatment regarding compliance with environmental regulation of state-owned versus foreign owned companies conducting oil drilling off Brazilian shores (Romero and Marconi, 2011) even though government agencies regulating the industry are supposedly “independent” (see Mueller and Pereira (2002)).

The limitations of some of the approaches to regulatory capture are that they tend to be either outcome or process-oriented, looking at either the existence of capture³ or the way in which it transpired. Some recent reviews, particularly those of Wexler (2011) and Etzioni (2009), offer broad, inclusive narratives of regulatory capture that integrate both process and outcomes. I add to this literature describing ‘vacuums’ that occur which support the capture of regulations in the offshore oil and gas sector. I describe them as *temporal*, *spatial* and *political* vacuums and they represent situations of uncertainty or ambiguity that facilitate regulatory change accompanied by capture. These concepts constitute the operative framework I apply to the discussion of RC in Israel.

2.1. Israel's emerging interest in ocean development

Beyond Israel's shoreline, within the territorial sea to 12 nautical miles (22.2 km) seaward and beyond it, many important natural resources can be exploited for public benefit: fish, water for desalination and cooling power plants, and sources of energy including large recently-discovered natural gas reserves. The size of Israel's exclusive economic zone (EEZ), at approximately 27,300 km² is greater than the country's terrestrial area and well over 6 times greater than its territorial sea that has an area of about 4200 km². As opportunities arise, it is clear that business interests as well as the Israeli public-at-large will wish to further exploit resources in this extensive offshore marine area.

The uses of the submerged marine areas away from shore are important to Israel with all its geopolitical and environmental challenges, although in the past these uses have not been as prominent in day-to-day political discourse as those on land. Today, Israel's most important marine uses are energy production, fishing, shipping and recreational boating. Emerging uses are largely place-based (stationary as opposed to transient): the potential for fill expansion, coastal protection, construction of offshore islands, infrastructure needs including for desalination and outfalls, and for marine protection.

Despite the low profile Israel's marine environment has played in its national consciousness (Erell, 1998), the country's approach to planning and management of marine and coastal areas has

changed significantly in the past 15 years. Shifts in policy were first articulated in an important document published in 1999: the Coastal Waters Policy Paper (Alfasi, 2009). But this document, being a non-statutory “policy” document had limited influence. It was followed some years later by the passage of the Law for the Protection of the Coastal Environment in 2004. However, the promulgation of this important legislation transpired as a response to increasing development occurring along the coast and for the most part it is applied to terrestrial shore uses affecting the marine environment (Sas et al., 2010). By and large, the general public has been unconcerned and unaware of what goes on at sea, considered far away, unknown and irrelevant to daily life (Erell, 1998). This perspective on the marine environment thought of as far away and inconsequential is common (Steel et al., 2005).

2.2. The capture of gas production regulation

From among the 45 offshore exploratory and extractive oil and natural gas drilling sites off the coast of Israel, the Gabriella site was chosen for this analysis. The request brought before the Tel Aviv District Planning Committee is one in a series of exploratory drilling sites recently proposed offshore of the coast of Israel (Tel Aviv District Planning Committee, 2013). I chose this site because the process followed for its approval epitomizes that of typical offshore natural gas exploration sites (see Fig. 1). It is proposed within Israel's territorial sea boundary. The plan is therefore reviewed, discussed and approved by District Planning Committees and it has the clear potential to impact near-shore environmental amenities. I review the Gabriella plan approval based on an analysis of meeting protocols and relate these to recent regulatory changes.

Drilling for natural gas at the Gabriella site will impact the undersea flora and fauna; it is located in the heart of an area identified for the establishment of a marine protected area (MPA). Based on surveys conducted by marine experts of the Israel Nature Parks Authority (INPA), the area contains environmental amenities not found in other areas of Israel's sea. The location slated to be the focal point of exploratory drilling is within the boundaries of plans, both comprehensive and detailed proposed by the INPA for an extension of the existing small Poleg coastal nature reserve. As intended by the INPA, the agency responsible for nature protection for the State of Israel, the Poleg MPA would extend from the shoreline to the limits of the country's territorial waters (see Fig. 2).

2.3. The Gabriella offshore drilling site – a case study

Gabriella was first proposed for exploratory drilling by Adira Energy in 2012. Adira estimates the site will yield under a best-case scenario 110 million barrels of oil (<http://www.adiraenergy.com/projects/israel/>). Located approximately 19 km off the coast of Herzliya at about 180 m depth, it is near the seaward limit of Israel's territorial sea. The area requested in the plan for the drilling activities consists of a circular area with a 1800 m radius; this includes the designation of a 1000-m wide “flexibility” buffer within which the actual platform is to be constructed (see Fig. 2).

The request to construct the exploratory drilling rig platform was approved by the Tel Aviv District Planning Committee on October 15, 2012 in a special meeting held only to approve deposit of the request and accompanying plan for public review. As explained at the meeting, this special meeting was held in response to the government's decision to approve offshore drilling sites (Tel Aviv District Planning Committee, 2013). However, this author could not find record of such a government decision (State of Israel Office of the Prime Minister, 2013). The Planning Committee's decision to deposit the plan allowed a 60-day reviewing period for filing of objections to the plan. Objections submitted,

³ Etzioni (2009) describes the main ways that capture occurs using examples from the global financial crisis of 2008. His typology consists of situations for which: (a) special interests shape legislation; (b) enforcement of existing regulations is severely weakened; (c) prices and rates for goods and services surpass those of the market; (d) a switch of regulators occurs (i.e., a switch to a more favorable authority such as from federal to state); (e) existing regulations are repealed; or (f) existing regulations are diluted.

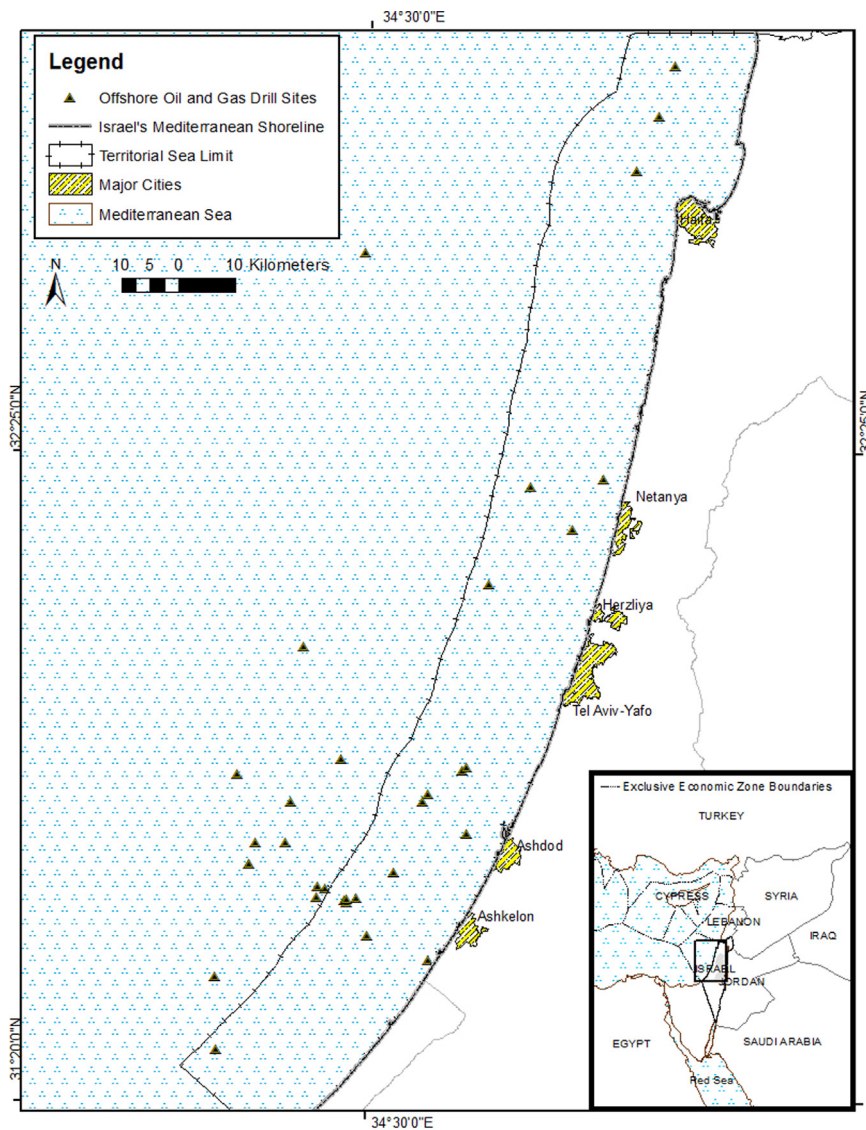


Fig. 1. Map showing the existing offshore drilling sites permitted and constructed offshore of Israel. Source: <http://energy.gov.il/Subjects/OilSearch/Pages/GxmsMniOilAndGasDrillingMaps.aspx> (accessed December 2, 2012). The inset shows a regional locus map of the area shown with seaward boundaries of the EEZ of countries in the Eastern Mediterranean. Source: <http://www.marinerregions.org/downloads.php> (accessed July 3, 2011).

mostly by environmental NGOs (see Table 1) were discussed at a planning committee meeting held January 14, 2013. At this meeting, the plan was finally approved.

2.4. The concept of regulatory capture applied to the Gabriella case

Application of my operative definition of 'regulatory capture' to the Gabriella case includes identification of those interests captured and those doing the capturing, identification of the main means by which the capturing is done and recognition of the diversity of the suite of public interests that must be accounted for. I address three aspects of the case to facilitate the analysis: (a) a temporal aspect; (b) a spatial aspect; and (c) a review of competing interests at stake. This threefold approach highlights the theory and practice of regulatory capture. What follows in the discussion is an exploration of the utility of applying these conceptual components.

2.5. Outdated regulations create a regulatory vacuum (temporal)

A major use of Israel's sea area is now oil and natural gas production. It became a major use only in 2010 when private

exploration companies confirmed the existence of more than 37 trillion cubic feet (TCF) of natural gas off the coast of Israel. These discoveries included the Tamar Reserve (8.5 TCF), the Leviathan Reserve (16 TCF) and the Noah Reserve in the Tethys Sea (about 12.25 TCF). Seismological surveys conducted at the end of 2010 estimated a 90% probability of an additional 6.2 TCF at a distance of about 40–70 km from shore in three additional tracks: Shimshon, Mira and Sara. These discoveries brought about a slew of requests to approve new uses under old laws; oil and gas interests rallied to continue operating under existing laws without updating or amending them. The Israeli public and lawmakers were persuaded that time needed to develop new laws and regulations would be too costly – the exploration companies would, in the meantime, lose interest and go elsewhere.

While these new natural gas reserve discoveries bring opportunities for the country, they also have sparked deep debates in Israeli society. There are three problems related to the anachronistic legislation: (a) old laws lack consideration of uses that involve modern technologies; (b) current knowledge about environmental risks and tradeoffs are missing; (c) existing legislation favors exploration and neglects aspects of production. I first discuss how updating of

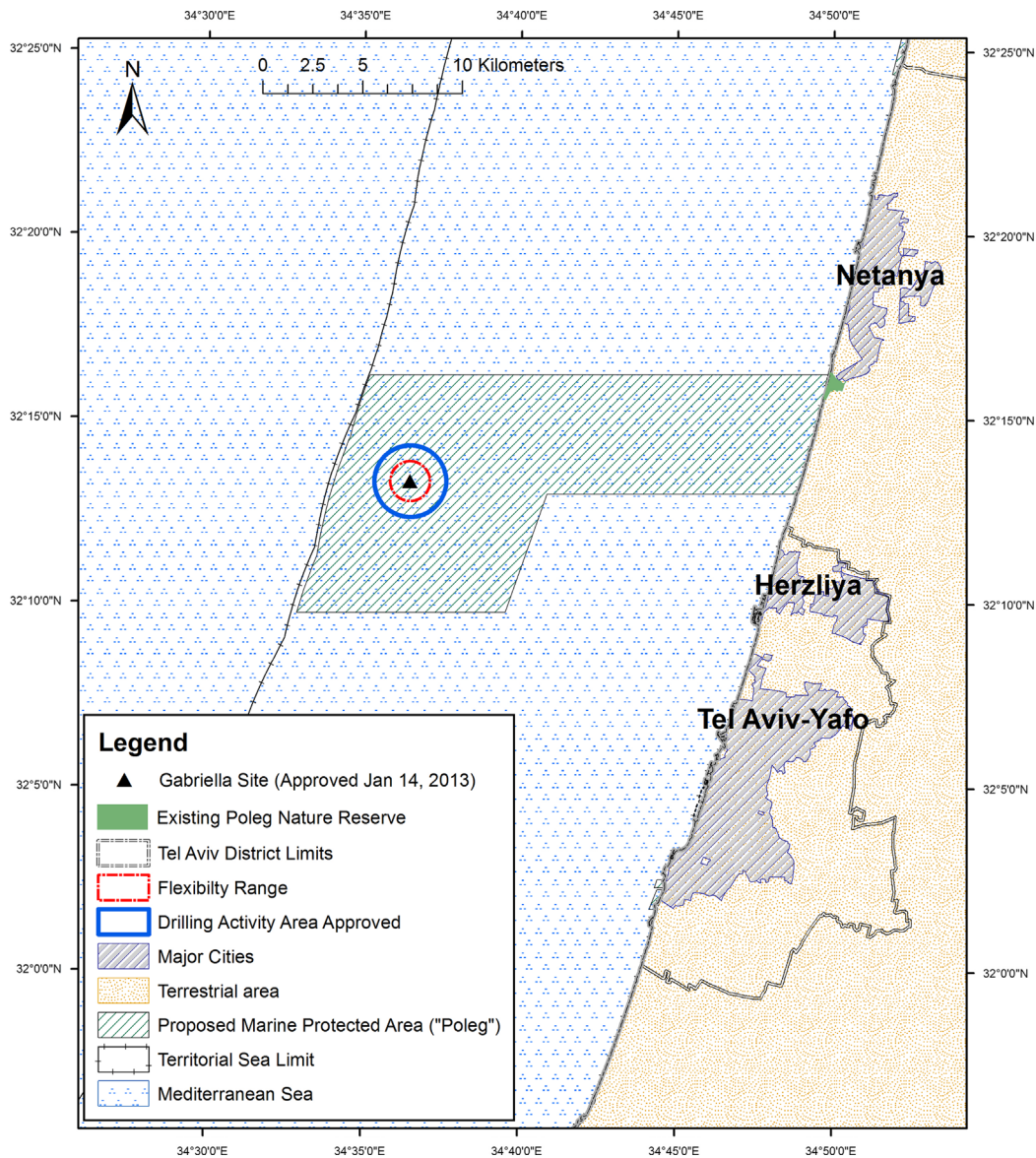


Fig. 2. Map showing location of the Gabriella site within the proposed extension of the existing Poleg Reserve (at the mouth of the Poleg River) within the territorial waters of Israel. The approved Flexibility Range has a radius of 1000 m and the Drilling Activity Area, a radius of 1800 m around the proposed center of the drilling site.

regulations has affected the drive for offshore drilling in general and then relate this to the case study.

To address the lack of appropriate legislation two major regulatory initiatives were launched; one to address the fiscal issues of distribution of revenues and the second to address the approval of drilling sites. When the country's Gas Law was promulgated in 1952, lawmakers sought to encourage very costly and risky exploration which was unlikely to yield profit, therefore the law favored the gas company conglomerates. Fiscally, it left a very small cut of profits to the public from extraction. According to comparative research conducted in 2010 on the public income from offshore gas and oil production between western countries, Israel ranked among the last with only 24% of revenues going to the public benefit as taxes or royalties paid to the government⁴ (Sheshinsky Commission, 2010).

Following public outcry, the government appointed a commission in early 2010, named the Sheshinsky Commission after its

leading member, to review fiscal policy (integrating taxes, commission and fees) related to gas production. Public advocacy groups took great interest in the commission and rallied to influence outcomes to the greatest extent possible. The Sheshinsky Commission found that the existing fiscal policies were indeed relics of earlier times, reflecting outdated geopolitical conditions, some from the time of the British Mandate when the price of oil was \$2 a barrel. In 2011, recommendations of the Sheshinsky Commission were adopted by the government. The outcome was a new law, the Fees on Gas Revenues Law of 2011. Even though the call by activists for a split of 20% to the corporations and 80% to public coffers failed, the government cut was raised to 52–62% of revenues (see Sheshinsky Commission, 2010).

To address the second issue – that of site approval – the Ministry of Energy and Water Resources (MOEWR) used its existing authority through the Gas Law of 1952 to promulgate regulations expediting site approval by overriding planning regulations. In April of 2012 MOEWR passed the Regulations Allowing Deviation from the Planning and Building Law of 1965 (hereafter MOEWR Gas Regulations) which curtail the authority of the District Planning Commissions. Six district commissions

⁴ For the sake of comparison, in Australia gas exploration companies pay between 53% and 56%, in Norway between 75% and 84% and companies drilling in areas neighboring to Israel, e.g. offshore of Egypt, pay royalties (including taxes) of around 79–82% of their production revenues.

Table 1
Table summarizing the objections submitted by the entities listed to the Tel Aviv District Planning Committee. The right column provides the justification given by the committee for their response. The text is paraphrased from the protocol of the objections hearing held on January 14, 2013 (Tel Aviv District Planning Committee, 2013).

Reason to deny approval	Organization	Decision	Planning committee response
(1) The Plan instructions [text] fail to designate a team responsible for compliance	City of Herziliya	Overruled/rejected	A non-planning related compliance team is required by other laws and regulations; the MOEWR notified the planning board (at the time of deposit of the Gabriella site plan) that a follow-up team, headed by MOEWR, will meet bi-weekly to review progress at the site
(2) Lack of a pollution monitoring plan accompanying the site plan	City of Herziliya	Partial rejection	A MOE-approved monitoring plan is required as a pre-condition to platform construction; the plan will determine subjects to be monitored, monitoring stages, spatial extent for monitoring and agencies to be notified of findings
(3) Insurance policies held by the drilling companies are not available to the public	Zalul ^a	Overruled/rejected	The documents will be submitted to MOEWR as a condition to initiate work at the drilling site but they are not relevant to planning; disclosure of this type of information is not mandated by the PBL
(4) The survey of environmental impacts conducted within a 500 m radius of the drilling site was insufficient	INPA	Partial rejection	MOEWR recently contracted with the Israel National Oceanographic and Limnological Institute to conduct a baseline study that will be the basis for a comprehensive plan for all marine activities (also #2 above already addresses issues related to monitoring)
(5) The impact of the dispersal of drilling cuttings' mud on a nearby colony of sea sponges	INPA	Partial rejection	The drilling site itself is distanced from sensitive and valued natural habitats; if hazardous materials are sequestered from the drilling they will be collected and disposed of on land
(6) Israel is unprepared for accidents; the country lacks appropriate contingency plans	SPNI, Zalul	Overruled/rejected	According to the MOEWR, there is a system for monitoring on-going compliance to avoid malfunctions and to respond to spills for this particular site; the MOEWR-issued license for exploratory drilling already requires the proponent to be fully prepared for hazards, including agreements for international assistance, if needed
(7) Israel lacks comprehensive environmental regulations specifically addressing offshore drilling	SPNI	Overruled/rejected	Environmental regulation is not under the authority of planning bodies or part of this committee's administrative mandate; it is mandated in this case by the MOEWR Gas Regulations
(8) The Gas Law and its regulations lack environmental protection standards	Zalul	Overruled/rejected	Following an appeal to the Israeli Supreme Court to repeal the Gas Regulations on these grounds the Attorney General opined that environmental concerns are sufficiently addressed by the new MOEWR Gas Regulations
(9) Israel lacks a comprehensive outline plan for its marine area	Zalul	Overruled/rejected	Marine spatial planning is being initiated by the Thematic Planning Department of the Israel Ministry of the Interior. This will take 2–3 years. In the meantime activities should continue
(10) The INPA should be responsible for monitoring and impacts to habitats and natural amenities and for compliance with conditions stipulated to protect the ecosystem	INPA	Partial acceptance	It is improper for the coordination of any aspects of planning to be administered by a non-planning authority (i.e., INPA); also, monitoring will be taken care of through an MOE-approved plan mentioned in #2 above
(11) The plan fails to delineate the role of the Ministry of the Environment	City of Herziliya	Overruled/rejected	Authority is mandated to the MOE through laws and therefore need not be addressed as part of the Gabriella site plan
(12) Allow greater flexibility at a later time regarding the treatment and disposal of the drill cuttings	City of Herziliya	Sustained/accepted	Not applicable because accepted
(13) The plan proposes drilling for gas within an area proposed as a MPA	INPA	Rejection	The most valuable natural amenities exist, according to the INPA survey, approximately 5 km from the point of drilling and therefore beyond the area of impact as determined by the MOE; the proposed MPA does not yet have statutory approval and therefore no specific boundaries
(14) The planning process failed to consider alternative site locations	SPNI	Rejection	The MOEWR considered other sites before commencing the statutory process for authorization (including permitting) of the Gabriella site; alternatives are at short distances from the site proposed due to geologic structures
(15) The MOE should determine the readiness for commencement of drilling	Zalul	Overruled/rejected	The administrative mandate for this step is by law within the purview of the MOEWR
(16) Lack of a requirement that drilling be conducted diagonally and thus located outside the area slated for protection as an MPA	SPNI	Overruled/rejected	A diagonal drilling slope is uncommonly used for exploratory drilling because geologic structure is not completely known; the committee believes the drilling will not impact valuable natural amenities; and the permit allows flexibility regarding the exact drill site to be determined by the MOEWR at the time of operation

^a Zalul: ("clear", in Hebrew) is one of Israel's leading environmental NGOs, dedicated to protecting the seas and rivers of Israel.

administer the Planning and Building Law of 1965 (hereafter PBL) and its regulations throughout the country. The PBL allocates authority to the commissions to approve or deny (and under what conditions) construction activities and development in Israel's territorial waters.⁵ Deviating from the PBL is expected to streamline and expedite site approval.

The problem is that the country's Gas Law of 1952 and other legislation regulating the extraction of offshore oil and gas resources developed in an era when environmental concerns were not a priority (Tabachnik et al., 2012); even early catastrophic drilling blowouts, such as the Ixtoc I accident in the Gulf of Mexico

(footnote continued)

proposed to extend Israeli jurisdiction past the limit into its Exclusive Economic Zone, it has not been voted on by the full Israeli Parliament.

⁵ Israeli legal and planning institutions do not have jurisdiction past the seaward territorial water limit of 12 nautical miles. Although a law has been

of 1971, had not made their mark on world-wide public consciousness and policy (Wilson, 2010). However, through authority granted by this law and the overriding interest of the government to improve the economic situation of the country and to ensure greater energy independence through expedited oil and gas production, capture-like actions have led to weakened environmental protections.

2.6. Jurisdictional uncertainty creates a regulatory vacuum (spatial)

Most of the large offshore oil and gas deposits recently discovered are beyond Israel's territorial sea; they are located in the country's EEZ. This has created an atmosphere of uncertainty regarding which laws, especially environmental and planning laws, apply to the offshore oil and gas sector (Hason et al., 2011). Can companies drilling in areas seaward of the 12 nautical mile limit of Israel's territorial waters drill for oil and gas without any regulatory constraints? What laws do and do not apply in this area? These situations of ambiguity in relation to exact seaward limits and marine borders between countries has resulted in much regulatory uncertainty which in turn has led to opportunities for: (1) the relaxing of environmental protection and planning standards, and (2) the maneuvering of compliance and enforcement roles away from the MOE.

Despite legal opinion, including that of the Israeli Attorney General (Licht, 2011), that Israeli law extends past the territorial sea limits into the EEZ for offshore drilling activities, environmental standards met by the drilling companies are based for the most part on the will of the MOEWR as opposed to legal requirements (Hason et al., 2011). Most problematic has been the failure of the MOE to demand that the same environmental regulation mandated in the territorial sea apply to drilling sites in the EEZ. Rather, the MOEWR uses its authority through the Gas Law to require environmental compliance measures as it sees fit. Instead of raising the level of environmental protection regulation in the EEZ to that applying in the territorial waters, regulations have been relaxed so that what applies in the territorial waters is more similar to the limited regulation applying in the EEZ. The result has been that that same agency whose goal it is to promote energy production (the MOEWR) (see www.mni.gov.il/mni/he-il/Energy/EnergyGeneral/EnergyGoals/Default.htm) also regulates energy production both in the territorial waters and in the EEZ.

Israel is one of the few countries in the world not a signatory to the UNCLOS⁶ that clarifies jurisdiction of riparian countries for exploitation of resources as far as 200 nautical miles (~370 km) from shore. Due to the configuration of the Mediterranean Sea shoreline and the proximity of neighboring countries in the Levantine Sea ecoregion (the eastern-most part of Mediterranean), Israel's EEZ extends only 70–100 nm (130–185 km) seaward of its shoreline. Known for its conflictual relations with its bordering neighbors, Israel has avoided arbitration in international courts of justice by avoiding specific claims for its EEZ. A recent exception has been an agreement on EEZ borders with the country of Cyprus, specifically for the purpose of clarifying claims to oil and gas reserves for the purpose of current and future exploitation.

As mentioned the MOEWR Gas Regulations override the PBL for offshore drilling sites in the territorial waters so that environmental and planning regulations – or rather the lack of regulations – mirror those in the EEZ.⁷ Before promulgation of the new 2012

MOEWR Gas Regulations an environmental impact statement (EIS) would have been prepared for the Gabriella site according to the PBL Regulations for Environmental Impact Statements of 1982. Gabriella is located in an area of sensitive natural amenities (i.e., a proposed MPA) and for this reasons the PBL EIS regulations would have required a full EIS prepared according to guidelines specifically designed by the MOE.

According to the 1982 PBL regulations requiring EISs, proponents are required to prepare five part EISs. They are to include: (1) a description of the environment baseline conditions at the proposed site; (2) an explanation and justification for the specific site chosen; (3) a description of the activities that will occur as a result of execution of the plan; (4) a detailed description and assessment of the expected impacts from the activities proposed at the site, including construction; and (5) findings and recommendations for changes to the plan proposed (Mandelik et al., 2005). By contrast, the environmental “document” that has been required by the MOEWR is less defined than a full EIS and it is reviewed (and approved) by the MOEWR itself. It addresses those issues considered important by the MOEWR. The MOE can review and respond to this document but there is no requirement that the MOE's review be heeded in planning forums or by the MOEWR.

All these regulatory changes, undercutting the authority of both the Israel planning institutions and the MOE, have transpired despite clear public statements made by high-ranking officials that much more study of the environmental implications of offshore drilling is needed. Some have publicly warned of the country's lack of preparedness to deal with the risks from possible accidents related to offshore drilling. For example, in October of 2012 the Minister of the Environment cautioned “the State of Israel today is not prepared to respond to events of oil spills of significant size... exploratory drilling proposals are being advanced without appropriate national preparedness” (Darel, 2010).

The ‘spatial’ issue also has to do with ambiguity regarding development in the marine environment versus in the terrestrial environment. There is a greater chance of overriding the PBL (and its stricter environmental regulations) in the marine environment where there are relatively few detailed development plans, no masterplans and no marine spatial plans even for those areas within the territorial waters. Further evidence of this ambiguity is found in previous research on the Israeli planning law for the coast, the Law for the Protection of the Coastal Environment of 2004. Sas et al. (2010) found that the farther a proposed development is from shore, the less likely is planning committee intervention. Gabriella is close to the outer limit of the territorial waters (i.e., far from shore – see Fig. 2). On land, a multitude of plans at all levels (detailed and master plans) and a multitude of laws regulate every possible use. By contrast, there is much ambiguity in the marine environment.

Other spatial (place-based) issues have to do with costs and difficulties of gathering information in the marine environment. Both the MOE and MOEWR face challenges regarding acquisition of information needed for regulatory decision making on environmental impacts. Information regarding the physical environment is generated by the oil and gas companies themselves and much of it is protected as proprietary. The sole possession of information and expertise by industry that is needed by government regulatory agencies is often a condition leading to capture (Gormley, 1983). The Israeli government invested resources and provided the INPA with a mandate to find environmentally valuable resources and conserve them. Yet the planning committee favored more detailed

⁶ Very few states have not signed UNCLOS: Eritrea, Israel, Peru, Syria, Turkey, US, Venezuela and other states with limited recognition (Palestine, Taiwan, Kosovo) (Duvic-Paoli, 2011).

⁷ “These [regulations] are clear evidence that the MOEWR has neglected environmental protections, but that it consistently takes environmentally destructive actions that could lead to detrimental accidents and national calamities... The

(footnote continued)

goal of these regulations is to ease restrictions for energy companies and to expedite energy exploration and production at the expense of the environment, public health and security...” [translated from Hebrew] (Tabachnik et al., 2012).

publically-unavailable information possessed by private oil and gas interests over the apparently limited information brought by the INPA (see Objection 5 and 16).

To summarize, once environmental compliance measures were accepted as part of the MOEWR's mandate in the EEZ, the weakening of environmental regulations for oil and gas exploration and extraction activities became acceptable for these activities in the territorial waters. Also, ambiguity surrounds many aspects of planning in the marine environment, a unique and dissimilar one from the traditional terrestrial planning milieu. Similar to the temporal vacuum described above, these types of spatial (place-based) ambiguities, together with the prevailing interest of the government to promote oil and natural gas exploration, have facilitated capture-like actions leading to weakened environmental protections.

2.7. Public interests at stake

The constituency for stronger environmental regulation of oil and gas production activities has been weakened by geo-political forces. The daily importation of oil and gas to Israel is valued at \$25 million a day and the energy-security link is firmly established. In 2011, the flow of the natural gas based on agreements with Egypt was severed. While some reports blamed purely business interests, others blamed the “Arab Spring” as the reason for the cessation of these imports (Daly, 2012). The upset with Egypt created another type of vacuum, eagerly filled by oil and gas companies posed to exploit new reserves off the coast of Israel with government support.

At the hearing on objections to the Gabriella site, an attorney for one of the ENGOs described the expedited processing for approving offshore drilling sites as a “rush for black gold” (Tel Aviv District Planning Committee, 2013). The haste exhibited by the planning authorities in Israel for the approval of oil and gas drilling is not unprecedented. It parallels measures taken in Israel to address problems such as emergency housing for the absorption of half a million immigrants from Russia in the early 1990s when the Soviet Union collapsed, or to solve transportation infrastructure failures in the late 1990s (Feitelson, 2010).

The response to objections (see Table 1) that drilling should continue despite the lack of comprehensive marine planning (objection no. 9) and clear environmental standards (nos. 7 and 8), contrasts with what other countries have done following the BP Gulf of Mexico spill. For example, the Italian government voted in June 2010, two months after the disaster began, to ban offshore drilling within 12 nm of its MPAs (Clark, 2010). Both the US and Britain moved to separate authorities responsible for permitting of offshore drilling sites from those responsible for environmental compliance and enforcement of environmental regulations at such sites (Paterson, 2011).

Planning committees seem to believe that they are implementing the public's will but they do have responsibility to consider other uses of the marine environment, especially those of longer term and broader objectives, such as nature conservation. This has been the claim of ENGOs against the “rush for black gold”. The planning committees refuse to postpone decision making on the approval of drilling sites for any reason. Usually objections are heard by a sub-committee and then brought for further discussion to the full-committee. In the Gabriella case, objections were heard by the full committee with the sub-committee review forgone.

As further evidence of the rush for drilling site approval, another recent decision to approve an offshore drilling site was made during a period of intense conflict between the Hamas and the State of Israel. During the month of December 2012, thousands of missiles, on some days over 100, were shot from the Gaza strip into Israel targeting the city of Beer Sheva. During this time, the

Society for the Protection of Nature in Israel (the SPNI) requested to postpone a meeting scheduled to take place in Beer Sheva, the seat of the Southern District, for approval of the drilling site. The justification for the request was concern for the physical safety of those expected to attend the meeting. At first the request was denied so as not to delay approval for offshore drilling. At the last minute, hours before the scheduled meeting, the committee secretariat agreed to relocate the meeting.

3. Discussion

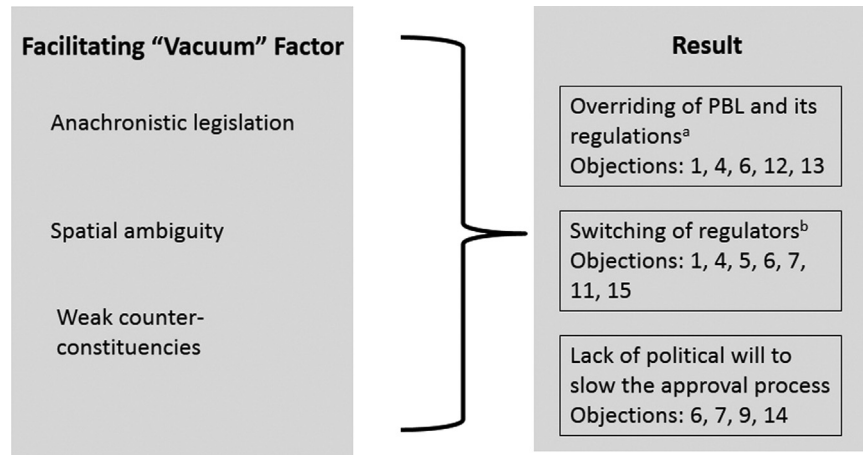
All three conditions described in this article (anachronistic legislation, spatial jurisdictional ambiguity, and the lack of strong constituencies supporting interests other than those of oil and gas) are intrinsic to understanding how the capture of environmental regulations transpired in regards to the case study. Each of the facilitating conditions can be related to the literature on regulatory capture. Since the latter third condition is a common one, not new to the literature on regulatory capture, most of the discussion will focus on the temporal and spatial problems of anachronistic legislation and spatial jurisdictional ambiguity. The awareness of the presence of these conditions can help policy-makers – particularly in the environmental field – anticipate situations that encourage regulatory capture in order to avoid them.

Some theories suggest that rising standards of living and economic well-being are accompanied by commensurate improvements in quality of life due at least in part to improved institutional capacities. The well-known environmental Kutznets curve schematically indicates that after a certain peak point as income per capita rises, environmental degradation decreases (Barbier, 1997). Although many aspects of this theory are debatable, certainly well-designed and functioning institutions are needed to attend to the distribution of the benefits and the burdens of economic life.

Environmental policies can be understood by how burdens of regulation are distributed. Fee-permitting systems and policies that realize principles such as ‘polluter pays’ are founded on the consensus that market failures must be corrected by the regulation of actors responsible for externality-generating activities. In the Gabriella case, and generally in the two to three years since large reserves of natural gas have been discovered offshore of Israel, the inadequacy of planning institutions in Israel to address new uses (i.e., offshore energy production), in new environments (i.e., marine areas) has become clear.

The problem of reliance on outdated legislation can be greater than “weak” or “watered-down” regulation. The latter two are often the outcome when new regulation goes through regulatory and judicial review with the political process and industry lobbies making their mark. Original or old legislation being left unchanged despite new knowledge is a different case although the result may be similar (e.g., neglect of environmental protection and precautions). Scientific knowledge enables development and production in the first place and thus the full panoply of knowledge needs to be considered so that regulation reflects all aspects of progress, those that favor industry and those that do not.

Although in some cases anachronistic legislation could act as a brake on capture, with industry forced to invest resources in altering the legal landscape to one friendly to its operation, this is rarely the case when dealing with environmental and public health regulatory issues. The reason is the advance in scientific knowledge over time in these fields. Older regulations reflect earlier levels of knowledge. A salient example comes from the regulatory case of the tobacco industry. Had the industry succeeded in its campaign to prevent updating of regulation, much of what is known about the health effects of cigarettes would have



^athrough promulgation of new regulations, Allowance for Deviation from the Planning and Building Law of 2012 under the Gas Law 1952.

^breduction of the authority of the planning committees and the MOE; increased authority to MOEWR.

Fig. 3. A schematic of factors that generate “vacuums” facilitating the types of regulatory capture discussed in the literature by Etzioni (2009) and Wexler (2011). Numbers correspond to the objections listed in Table 1. Based on the (empirical qualitative) analysis of the case study, the factors on the left-hand side led to the three outcomes on the right side.

had little impact and regulation of the industry would be quite different (Brownwell and Warner, 2009).

In regards to the spatial dimension, most of the drilling sites off the coast of Israel are located past the territorial sea boundary (see Fig. 1) where it has not been made clear whether or not Israeli environmental and planning laws apply⁸ (Hason et al., 2011). In the meantime, the MOEWR regulates these activities with almost complete authority and autonomy. It was relatively easy to include drilling sites proposed in the nearby territorial sea under the new MOEWR Gas Regulations with the justification that these sites are part of the “comprehensive” oil and gas enterprise (Tzemach Commission, 2012, p. 17).

As mentioned, Gabriella is only 3 km from the seaward extent of the territorial waters and it was proposed immediately following the promulgation of the MOEWR Gas Regulations of 2012 which were promulgated on the 24th of April 2012. The new regulations immediately followed the publication of the interim findings of the Tzemach Commission on April 5, 2012. This commission, appointed in October 2011 by the Israeli Prime Minister and the Minister of Energy and Water Resources was headed by Shaul Tzemach, Director General of the MOEWR. The commission submitted its final recommendations in August 2012 and these were later fully adopted by the government. Although mostly concerned with the ratio of gas allowed for export, the commission addressed the issue of planning and approval of offshore drilling sites for exploration (such as Gabriella) in the territorial sea. In relation to regulatory planning the Commission recommended “that the Government work to shorten to the greatest extent possible, the time it takes for statutory approval of [EEZ-related] infrastructures” (Tzemach Commission, 2012). Once the MOEWR Gas Regulations took effect, statutory planning processes within the territorial sea were expedited and, as a by-product, environmental regulation curtailed.

In a current paper analyzing the main forms, captives, and captors of the RC paradigm, Etzioni (2009) describes several

situations that apply to the Gabriella case. One is when special interests shape new regulations, another is when special interests dilute existing regulation and a third situation (of the six described) occurs when special interests affect regulatory regimes by switching regulations to a new jurisdiction (e.g., for example from state to federal). In the Gabriella case, ambiguities concerning *which* regulations applied *where*, facilitated all three of these modes of RC (see Fig. 3).

It seems that by making use of temporal and spatial “vacuums” oil and gas interests, joined with the MOEWR, have exploited ambiguities to reshape new regulation in their favor. Such shaping has brought about the dilution of existing regulation and the switching of regulators. Regulated entities have accomplished this “shaping of regulations” through pressure on lawmakers and indirectly through efforts to influence public opinion (Shemer, 2011). The PBL has been diluted and authority has been switched over to the MOEWR from the planning commissions and the MOE.

Through the MOEWR Gas Regulations, the MOEWR is now responsible for signing-off on the completeness of environmental assessment and protection documents, and the determining of contingency requirements (e.g., approval of emergency response plans in the case of a drilling site blowout or accident) and other aspects effecting the approval and operation of exploratory offshore drilling for natural gas (e.g., insurance requirements) instead of the MOE and the planning committees whose authority comes from the PBL. The MOEWR, which has a mandate to manage the energy needs of the country and meet energy demand, is not responsible for environmental protection. At the same time, the agency whose mandate it is to protect the environment, the MOE, has had this mandate reduced.

Of environmental concern is the fact that the Gabriella exploratory drilling site has been identified as an area of valuable natural amenities. Identification of the amenities occurred in 2010 based on a survey done by the INPA. The INPA operates under the auspices of the MOE. As such, the positions of the MOE and INPA would likely be similar or at least supportive of one another. Here too the oil and gas interests managed to reduce the importance of natural amenities in the planning discourse by ‘switching regulators’ to the MOEWR and away from the MOE, as mentioned. Furthermore, environmental NGOs have so far failed to rally a

⁸ A bill has been introduced in the Israeli parliament which would extend regulatory jurisdiction past the 12 nm limit into the EEZ but it has remained in committee for at least two years and has not been voted on.

marine conservation constituency to counter the oil and gas development interests.

Justification for a reduced regulatory burden is often linked to social and economic ideologies and the related construction or deconstruction of constituencies (see [Sabatier \(1975\)](#)). In Israel, neoliberal economic policies, including privatization, have sanctioned changes in water policy that lead to government support for a large scale desalination program ([Feitelson and Rosenthal, 2012](#)). Similarly, social norms such as the veneration of the Zionist agrarian past, are related to domination of watershed management and public land policy by agricultural interests. [Shapira \(2010\)](#) and [Hananel \(2010\)](#) describe characteristics of regulatory capture in these two sectors respectively.

Recent neoliberal economic policies espoused by the conservative rightwing Israeli governments of recent decades tend to weigh regulatory burdens against development incentives. The need to reward entrepreneurship often leads to lifting of the regulatory burden ([Wexler, 2011](#)). This is particularly true when rewards are uncertain as in the case of the incentives needed for high risk investments in oil and gas exploration that may or may not lead to exploitation.

[Wexler \(2011\)](#) describes the libertarian, free-market version of RC which celebrates the phenomena as inevitable and desirable. A situation described is that of the regulator dutifully joining the public's shifting will. Both of these narratives are relevant for the exploitation of natural gas and the development of installation off the coast of Israel. Local crises, such as the faltering of industry due to soaring energy prices and sense of national security and self-sufficiency, are linked to the delay in production caused by regulation seen as overzealous by the public.

For example, in September 2011, the closing of a factory in the north of the country was unequivocally blamed on the delay in the supply of natural gas ([Mizrachi, 2012](#)). News coverage, describing distraught employees – parents of large families, disabled and aged workers – destined to lose their jobs following the expected closure of the Fenitzi Crystal factory due to the unavailability of natural gas, support the creation of a constituency willing to ease up (or even sacrifice) regulatory rigor. This is perhaps a situation opposite of that described by [Sabatier \(1975\)](#) whereas the regulatory agency actively attempts to develop a support constituency. Here we have what [Marver Bernstein](#) described as part of the cycle of decay ([Bernstein, 1955](#)). It commences with the demise of the constituency that would be supportive of regulation. The difference in the offshore drilling case at hand is that the regulation destined for demise is not yet in place. This goes back to the temporal aspects of the offshore drilling enterprise in Israel.

Now that there is a set group of exploration/extraction companies working with the MOEWR, a freeze on the provision of further approvals by the planning committees has been set by the MOEWR. The freeze, established in early 2013 immediately after the approval of Gabriella, will continue until the MOEW prepares environmental standards. This now works to the oil and gas companies' advantage; it could be an entrance-limiting action such as those described by [Stigler \(1971\)](#). Again, these are signs of regulatory capture as described in the literature.

4. Conclusions

The national case described of a *new* energy production activity entering a particular previously unregulated *spatial* realm highlights various aspects of regulatory capture. Temporal and spatial regulatory ambiguities have facilitated capture. Simultaneously, we see the touting of economic and security advantages to support lightening of the regulatory burdens on the agents (firms) currently active in the realm in ways which exclude other, long-

established public interests, particularly those of the environmental protection, precaution and conservation.

Although the need for precaution spurred by accidents such as the BP Gulf of Mexico disaster increased environmental precaution in regulating (planning and permitting) of oil and gas production activities ([Clark, 2010](#)) and furthered offshore alternative energy development in other countries ([Kimmell and Stalenhof, 2011](#)), we see little or no impact of this event in Israel. This coincides with perspectives presented by some authors indicating the long road to deep change in the field of offshore oil and gas drilling ([Hoffman and Devereaux-Jennings, 2011](#)). I contend that this has to do with the largely accepted close collaboration between big business and government (neo-liberal politics) facilitated by conditions of regulatory ambiguity.

It is clear from this analysis that if regulations are made more capture-resistant, they could better serve the public interest or at least consider the myriad of interests that there are in the realm of marine resources. The time-factor is critical here. Improved, capture-resistant legislation would take more time to develop and require a moratorium. Similarly, ambiguity can be reduced by efforts at comprehensive planning that could reintroduce regulatory rigor. Comprehensive marine spatial planning could reinstate the precautionary principle when dealing with activities that could have very dire environmental consequences under contingency conditions. This would at least address spatial issues, allow for greater public participation and reduce conflictual proposals between conservation uses and drilling activities over the long term.

This paper offers an inclusive, operative definition of regulatory capture as situations in which regulatory changes are implemented as special interests and those of government agencies coincide. By raising awareness about conditions that facilitate regulatory capture, it is hoped that ENGOs, policy makers, and researchers will promote approaches to policy-making that avoid or at least reduce this phenomenon in Israel and for offshore oil and gas exploration in general.

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