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Dealing with pollution from conflict: Analysis of discourses around the 2006 Lebanon oil spill

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ABSTRACT

In July 2006 a war between Lebanon and Israel resulted in severe environmental damage in Lebanon from Israeli bombing raids. An attack on the Lebanese Jiyyeh Power Plant released 15,000 tons of heavy fuel oil into the Mediterranean Sea. Remarkably, a clean-up operation was effected despite a continued state of war and lack of capacity in the Lebanese government. Civil society environmentalists played a key role in dealing with the pollution and complying with pollution-control legislation. In this study we use Q-methodology to analyse discourses on the effectiveness of pollution legislation during times of conflict using the Jiyyeh oil spill as an example. We interviewed 35 people from eight different stakeholder groups involved in environmental issues. Five distinct discourses were generated covering compensation schemes, need for new legislation, role of stakeholders during wartime and strengthening government ministries.

1. Introduction

Environmental destruction can be a significant by-product of war (Maler, 1990), either as collateral damage or following premeditated attempts to disrupt economic and military activity (Maler, 1990). For example, in the 1961–75 Vietnam War the environment was targeted as part of strategy and tactics (Westing, 1976, p.32) and during the 1991 Gulf War oil was deliberately discharged on land and into the Persian Gulf to hamper military operations (Sadiq et al., 1993, p.86). Destruction of human habitat is common, such as use of incendiary weapons on the cities of Hamburg, Dresden and Tokyo during World War II. Damage to strategic facilities such as dams, power stations, water supply pipes and hospitals includes the 1938 incident when the Chinese dynamited a Yellow River dyke leading to destruction of farmlands, crops and topsoil. In Vietnam extensive bombing by the USA caused craters that disrupted agriculture and forestry. In the Gulf War of 1990 ignited oil wells led to massive air pollution (Levy and Sidel, 1997, p. 117; Papastefanou, 2002; Bem and Bou-Rabee, 2004).

Environmental protection is well covered in national and international agreements and conventions both generally and in the specific case of wartime. However, nations engaged in conflict tend to ignore environmental legislation. It might be straight forward to identify the aggressor who caused the environmental damage, but less easy to adopt a 'polluter pays' principle because arguments will be put forward justifying the damage for strategic reasons that override the environmental problems. In this way wartime environmental damage differs from that caused by accident or negligence. The damage might be quite deliberate, but action of the aggressor might be based on a perceived higher need for national security with the assumption that the victim brought the damage upon themselves and so should be responsible. The situation is further complicated by power inequality. The victor will be able to extract reparations from the loser, but the reverse is not necessarily true. The position of international environmental authorities is also problematic. An environmental agency is unlikely to commit staff to field-based clean-up operations in an area of active armed conflict.

In this study we examine perceptions on the following questions. Is environmental legislation effective during times of war? Do we need new environmental conventions that are specific to

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certain types of environmental damage during war? Is the compensation scheme strict enough to deter aggressors from committing environmental damage? We use Q-methodology to extract discourses based on 35 interviews with environmentalists from Lebanon following a major oil spill from the coastal Jiyyeh power plant caused by bombing in the July 2006 Lebanese–Israeli war. The clean-up operation in Lebanon was remarkable in that civil society and non-governmental environmental groups played a major role because government was fragmented and lacked capacity. In the following sections we highlight environmental legislation and its effectiveness during times of war. We then present a short history of the Lebanese–Israeli conflict and oil spill before describing the Q-methodology and resulting discourses.

1.1. Environmental legislation

The efforts of institutions to protect and conserve the environment have resulted in the adoption of a substantial body of international agreements and conventions that regulate the protection of the natural environment. Principle 21 of the Stockholm Declaration of the United Nations Conference on the Human Environment says that states have "the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national States or of areas beyond the limits of national Jurisdiction" (UN, 1972). This principle applies not only on land, but also to territorial seas, the high seas, and "even where they are at war with other states" (Gharabagh, 1997). The international law of war, the Geneva Convention, also sets – though somewhat vague – limits to the use of means of warfare in relation to damage of the environment (UN, 1977).

While international laws on the environment and war prohibit use of methods which cause long-term, widespread and severe damage to the environment, enforcement of such laws is problematic. Environmental degradation has been deliberately used as an instrument of war, to restrict economic activity, to control movements, or to retaliate as in the 2006 Lebanon–Israeli war. The question of whether new international treaties or adjustment of existing treaties would provide a solution seems redundant, since the problem is not in the existence, but in implementation, of international law, limited enforcement capacity, and lack of cooperation by parties who have continuing interest in geopolitical – or socio-political- control over environmental and infrastructural resources. Power is gained by controlling movement, retaliation and creating fear (Homer-Dixon, 1999). Literature on armed conflict indicates that treaties over natural environment strategic resources can play a role in conflict prevention, such as over transboundary water resources (Richards, 2005). Environmental treaties do not authorize military or economic sanctions. Instead, most contain restrictions which prevent non-complying countries from voting and result in exclusion from the rights and privileges of membership. Unfortunately this type of sanction has not proven to be successful in either peace time or during war. It is clear that we cannot rely on 'teeth' to implement environmental legislation during times of conflict. In the absence of effective means of enforcement it is pertinent to ask what ways can be found to ensure implementation.

1.2. Jiyyeh oil spill

Lebanon is a Middle Eastern country bordered by the Mediterranean Sea to the west, Syria to the east and north, and Israel to the south. In the early morning of 12 July 2006, one of the radical Lebanese parties, Hezbollah captured two Israeli soldiers. Hezbollah named the attack 'Operation Truthful Promise' after their leader Hassan Nasrallah's public pledges over the previous year and a half to capture Israeli soldiers and swap them for Lebanese prisoners incarcerated in Israel (Urquhart and Mcgrean, 2006). The Israeli government condemned the act by Hezbollah and described it as an "act of war" and promised Lebanon a "very painful and far-reaching response" (Greg and Erlanger, 2006). The Israeli response started the second day of the soldiers' abduction. Israel's chief of staff Dan Halutz said, "if the soldiers are not returned, we will turn Lebanon's clock" (Greg and Erlanger, 2006) implying that the attack would cause severe economic damage. The subsequent 31 day war destroyed large parts of the Lebanese civilian infrastructure, including 400 miles of roads, 73 bridges, and 31 other targets such as Beirut International Airport, ports, water and sewage treatment plants, electrical facilities, 25 fuel stations, 900 commercial structures, up to 350 schools and two hospitals, and 15,000 homes. Some 130,000 more homes were damaged and large areas of the southern part of the country effectively mined by 1800 cluster bombs, many of which did not explode (UNDP, 2006).

The conflict had major environmental impacts. One of the most important was an oil spill resulting from Israeli air raids on the Jiyyeh power plant south of Lebanon (30 km south of Beirut and directly on the coastline) between 13 and 15th July 2006, releasing 35,000 tons of oil of which 15,000 tons leaked into the sea (UN, 2007; UNEP, 2007). Jiyyeh had six fuel tanks, four of which burned completely within days of the raid, while the fifth, which was also the main cause of the spill, continued burning for some time. A black tide blighted the Lebanese coasts, damaging tourist beaches and fishing grounds and threatening endangered species such as turtles. More than 100 km of the Lebanese coast, from Jiyyeh in the South to Chekka in the North, was affected by the oil spill, contaminating at least 22 areas along the Lebanese coastline (UN, 2007). To place the magnitude of the spill in an international context, the Exxon Valdez tanker release was about 40,000 tons of crude oil (Ehrenfeld, 1988).

It was the biggest oil spill in Lebanese history and one of the biggest environmental disasters to hit the Mediterranean. At the time of the spill, wind and water currents ran from the southwest to north and north east causing the oil to move north more than 150 km from the original source, polluting some of the Syrian coastline (Steiner, 2006) and later Turkey and Cyprus. Damage to the environment included migratory and local seabird mortality, effects on fish spawning grounds, July hatching of green turtle eggs, contamination of water aquifers and destruction of cultural heritage sites (Khuraibet, 2006). In this paper we focus on stakeholders involved in the environmental issues associated with clean-up of the spill with the aim of eliciting views on the effectiveness of pollution legislation in times of conflict.

2. Methodology

In order to elucidate the different perceptions that constitute the discourses on effectiveness of environmental regimes during times of war we used Q-methodology. This method was first utilized in psychological studies (Stephenson, 1953). It combines both qualitative and quantitative techniques (Dennis and Goldberg, 1996; Sell and Brown, 1984). The main objective of the Q-method is to identify 'attitudes' towards a certain issue. The strength of Q-methodology is that it allows individual responses to be pooled and correlated so as to extract 'idealized' forms of discourse hidden within the data provided by the sample (Barry and Proops, 1999). It does not test the participants; on the contrary it asks them to decide what they think is of importance and what items are of significance (Watts and Stenner, 2005). Bias is reduced by selecting Q-statements verbatim directly from the participants' actual statements. In contrast to other techniques, especially the R-technique which tries to discover