

“In the Name of Security: In the Name of Peace”
Environmental Schizophrenia and the Security Discourse in
Israel / Palestine

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Introduction:

This paper focuses on a major component of the security discourse in Israel which has largely been ignored by both politicians and academics, namely the threat to the environment and what could loosely be termed as the issues of “soft” security as contrasted with the “hard” security issues relating to military and defense agendas. The reconceptualization of the security debate in recent years to include many issues over and beyond the traditional discourse of military security has not impacted Israel / Palestine in a major way. While the traditional military, territorial and demographic dimensions of the security discourse have continued to play centre stage in the political agenda of the country, the latter – along with a host of other civil society issues - has largely been ignored as constituting a sort of “luxury” issue, subsumed by the ongoing concern with the perceived existential and physical threats of the political conflict. For Israelis, security means safety from suicide bombers (for the individual) and from an existential threat to the State as a whole (for the collective), while for Palestinians, security is safety from Israeli soldiers and roadblocks (for the individual) and from the ongoing process of Occupation (for the collective). The fact that the environment in this region is undergoing a constant process of degradation is, at the most, of concern to aware citizens but is not defined in terms of security. For both Israelis and Palestinians, “security” still belongs to another realm of discourse. In this sense, the issue of environmental and human security in Israel / Palestine lags behind the environmental discourse in most parts of the industrialized world.

This paper will address the notion of environmental security in Israel / Palestine from two, interlinked, perspectives. In the **first** place we will address the wider issues of environmental and ecological threat faced by societies who do not undertake actions aimed at preserving and replenishing scarce resources within the context of a growing population and a semi-arid and arid environment. We identify a form of environmental “schizophrenia” where the society and its institutions are aware of the ecological problems, discuss them in great detail, but fail to act accordingly in an effort to prevent further environmental degradation. This is particularly apparent with respect to the management and exploitation of the region’s scarce water resources. **Secondly**, we will examine the way in which the existence of the political and military conflict

impacts, both directly and indirectly, on environmental management, resulting in an even more serious problem of resource scarcity and degradation than would otherwise have been the case. There are direct and indirect impacts of the conflict on the way that the physical environment is managed, often making use of the securitization discourse as an excuse for bypassing the normal planning and statutory authorities. The paper concludes with a brief discussion of the implications of conflict resolution and a peace agreement on the environment. While peace is obviously a positive development, the hasty implementation of development projects “in the name of peace” without due recourse to the necessary environmental checks and balances, could result in substantial and irreversible damage to the environment.

The Traditional Securitization Discourse in Israel – A Review

In Israel, the nature of the Israeli security discourse is closely tied to the perceived existential threat facing the State from its Arab neighbours, the need to maintain a strong military deterrent and the desire to retain control of territories which provide the State with a security/strategic advantage. Contextually, the Israeli security discourse centers on the need for physical security against invasion or terrorism, while the Palestinian need for security is more firmly rooted in the need for economic wellbeing and national self-determination. As such, each views the other as constituting the main threat through which their own human security is threatened and denied. Despite the events of the past two decades, including peace agreements with both Egypt and Jordan, as well as the (failed) beginnings of dialogue with the Palestinians aimed at finding a political solution to the conflict, the nature of the security discourse has not changed substantially throughout this period.

The traditional notions of military and political security in Israel-Palestine have been the subject of much academic research. This can be typologized in three broad categories:

a) Military security

Israel has been in a state of perpetual conflict since its inception over fifty years ago. The main issue on the public agenda throughout that period has been the issue of military security, as defined through the role of the IDF (Israel Defense Forces) and the notion of the “peoples army”. Security is defined at the collective level in terms of the perceived existential threat facing the country from the wider Middle East region and the need to maintain strategic superiority. At the individual level, security is defined through the need to fight terrorist activities and, most recently, the growth in suicide bombings inside Israel’s civilian centres. Kam (2003) defines three major categories of threat facing the country, namely the conventional military capabilities of the Arabs states, the non-conventional ballistic and chemical weapons, and the threat of terrorism and guerrilla warfare, the latter two having gained prominence in recent years, as the conventional threat has largely been removed (Kam, 2003). This has resulted in the recent construction of the “separation fence” between Israel and parts of the West Bank,¹ the Israeli government proposal to “disengage” from the Gaza Strip,² and the prevention of Palestinians from entering into Israel. Military deterrence is also defined through Israel’s nuclear weapons program which, despite the surrounding secrecy, is widely assumed to be the most advanced in the region (Cohen, 1998).

b) Territorial security

Territory is perceived as constituting a central plank in the Israeli understanding of security. Given the small area of the country (20,000 sq. kms excluding the Occupied Territories) and the fact that in the pre-1967 territorial configuration, the country’s population was concentrated in a narrow coastal strip located between the sea in the west and the West Bank in the east, many Israelis perceive the need for territorial expansion as a guarantee of greater security (Newman, 2002). During the 1967 Six Day War, Israel extended its territorial control through the conquest of the Sinai peninsula, the Golan Heights and the West Bank. These areas were seen as providing a

¹ For diverse analyses of the Separation fence / wall, see: David Makovsky, ‘A Defensible Fence: Fighting terror and enabling a two-state solution’, The Washington Institute for Near East Policy, April 2004: *The Wall in Palestine: Facts, Testimonies, Analysis and Call to Action*, The Palestinian Environmental NGO’s Network (PENGON), June 2003. Jerusalem: David Newman, ‘Barriers or bridges? On Borders, fences and Walls’, *Tikkun Magazine*, Vol 18 (6), 2003.

² David Newman, ‘Boxing in Palestinians’, *Los Angeles Times*, August 4th, 2004: The World Bank Report, *Disengagement, the Palestinian Economy and the Settlements*, June 23rd, 2004.

territorial buffer between Israel and her neighbours, although the major buffer – the Sinai Peninsula – was returned to Egypt as part of the Camp David Peace Accords. Successive Israeli governments have argued for the retention of the Golan Heights and the Jordan valley as a guarantee to future security and the creation of “defensible” borders (Horowitz, 1975; Allon, 1976; Cohen, 1986). In reality, the peace agreement with Egypt and the introduction of a multinational peace force into the Sinai Peninsula (to the south), the peace agreement with Jordan and the American conquest of Iraq (to the east) and the military superiority with respect to both Lebanon and Syria (to the north and north east) have all but rendered micro territories increasingly irrelevant to the contemporary security discourse (Newman, 1998a). Notwithstanding, Israel continues to use the territorial pawn as a key factor in its negotiations aimed at achieving conflict resolution.

c) Demographic security

For many countries, the notion of demographic security relates to the pressures of rapid population growth on a limited resource base, the former outstripping the capabilities of the latter to provide the basic existential resources necessary for the increased population. In Israel / Palestine, notions of demographic security concern the demographic ratios between Jews and Arabs, Israelis and Palestinians and the respective aspirations of each group to reach demographic majority and thus strengthen the political claims to territory and sovereignty. Israel is self defined as constituting a Jewish state in which eighty percent of the population are Jewish. Together with the Occupied Territories, the Jewish population constitute only 60 percent of the population, while the gap between the two national groups is rapidly closing given the much faster natural growth rates of the Arab-Palestinian population. For many Israelis, it is the supreme desire to maintain Jewish demographic hegemony which results in their support of territorial separation and a two state solution to the conflict, rather than any altruistic belief in the rights of Palestinian self government and independence. Israeli governments have always supported policies which have encouraged natural growth amongst the Jewish population, as well as policies aimed at encouraging Jewish immigration from throughout the world as a means of retaining demographic superiority (Newman, 1998b). The immigration of approximately one

million people from the former Soviet Union during the 1990's (increasing the country's population by one fifth in a short space of time) is seen as a major contribution to the demographic notion of security. Israeli government opposition to the right of Palestinian refugee return to Israel is also seen as a central plank in the demography security discourse, even though the respective Israeli – Palestinian population ratios inside pre-1967 (sovereign) Israel are approximately 80:20 and have remained relatively stable (given rapid Arab population growth on the one hand, countered by waves of Jewish immigration on the other) throughout the fifty five years of the existence of the State of Israel.

Environmental Security in Israel / Palestine

Environmental issues have not occupied a prominent place in the Israeli public agenda. Even the use of the term “environment” relates to the social context, such as the “strategic and military environment”, rather than the ecological and physical notions of environment as a resource per se. The redefinition of notions of security which have taken place throughout the world, to include energy, food, health, livelihood, rights or global environmental change (Brauch, 2003; 2004), are not considered part of the “security” discourse as such inside Israel, where the term “security” retains a narrow and highly focused interpretation. Even in recent years when a new environmental lobby has begun to take shape, their concerns are not considered as being of major national importance.³ This is surprising given the amount of attention given to “land” related issues in the public discourse. But, as will be discussed below, this is due to the political, rather than the environmental, significance of land within collective thinking. In the words of Parag (2002) Israel remains an environmental laggard in comparison to most western countries.

The Public Discourse: Environmental Schizophrenia

Israelis could best be described as suffering from a form of environmental schizophrenia, in the sense that there is a large gap between the amount of

³ For a list of Israeli environmental agencies and NGO's, see: (see: <http://www.israelemb.org/envlist.htm>).

environmental awareness and socialization instilled into the country's population (especially the younger generation) and that of actual environmental preservation practices. At the level of high school, notions of environment are considered to be of great importance. It is common practice in Israeli schools for children to go on annual school trips and hikes throughout the length and breadth of the country as part of a process of geographic and political socialization. These trips have a number of objectives. At one level, children are constantly reminded of the historical events which have taken place in this region and, in particular, are taught about the Biblical and ancient Jewish – Israelite associations of different places. This is part of a process through which they are socialized into believing that this land belongs to them by historical right, thus shaping their attitudes concerning the contemporary conflict for land between Jews and Arabs.

At the same time, these trips are also used to instill a strong bonding between the children and the landscape. The names of flowers and plants, the location and formation of specific rock formations, dry wadis and desert environments are all explained and explored in great detail. There are some residential high schools which are located in the south of the country and which specialize in a curriculum based on ecology and environmental studies, with a particular focus on the desert and arid environments. Children are taught about the scarcity of water and the way in which life can be maintained in arid and semi arid regions. They return home with a strong understanding of regional flora and fauna coupled with an understanding that water is a scarce and valuable resource which cannot be wasted.

But when it comes to practice, when these children grow up, they show scant regard for any form of environmental preservation. Despite the problem of water scarcity, Israelis continue to hose their cars in the middle of the summer, irrigate water consuming lawns in the middle of the desert (partly due to the continued dream that the return to the Land of Israel was to be accompanied by the "greening of the desert", a policy which in many cases changed the micro-climates of desert regions and resulted in substantial ecological damage) and to generally waste water as though there was no scarcity. On public holidays and Independence day it has become a

national custom for tens of thousands of Israelis to go for picnics and barbeques in the country's open spaces and public parks, but when they return home they leave behind tons of garbage and refuse, with tree branches and saplings often destroyed as a result of neglect on the part of the revelers. It is common practice for the main news channels to devote part of their post-holiday broadcasts to coverage of the major clean up and repair operations that have to be carried out by national park officials, complaining of the lack of environmental concern demonstrated by the population at large.

It is not just at the level of children that notions of environment and ecology are disseminated. Israel boasts some of the worlds leading research institutes dealing with issues of arid environments, water scarcity and climatic change. The Desert Research Institute at Sdeh Boker in the Negev desert has become one of the leading centers of global research in this field. The country clearly does not lack the necessary expertise or knowledge in dealing with the human security constraints imposed by the environmental realities.

The gap between awareness and practice is not limited to the use of the public space. It is equally a problem at the level of formal decision making concerning virtually all developmental and land use issues facing the State. Israel has an orderly and hierarchical system of physical and regional planning, consisting of three tiers of statutory authorities (Alexander, Alterman & Law-Yone, 1983). The National Master Plan, drawn up by the Planning Authority of the Ministry of Interior, sets the national guidelines for planning and construction activity, based on demographic and socio-economic forecasts and projections. At the next level, the country is divided into six regional planning authorities, below which is a third level of municipal authorities who approve and authorise the development plans of specific communities, developers and housing contractors. Each level of the planning committees has representatives of various public agencies, some of them on a permanent basis, others participating depending on the particular project being discussed. These agencies include the Israel Lands Authority, the Infrastructural Agencies (such as Electricity, Roads,

Communications), the Military Authorities, Economic agencies, the municipal and local government authorities, as well as the Environmental lobbies.

On the face of it, Israel has many environmental agencies. The Environmental protection Service (EPS) was created in 1973 which, in turn, eventually gave birth to the Ministry of the Environment in 1988. To date, there are 142 designated nature reserves and 44 national parks spanning some 3,500 square kilometers, including sites of natural heritage, Mediterranean forests, marine landscapes, sand dunes, freshwater landscapes, desert and crater landscapes, oases, as well as sites of historical and archaeological heritage (Gabbay, 2002).

But despite their formal status, the environmental and green lobby in Israel is relatively weak. With the exception of the Public and State Institutions (such as the Society for the Protection of Nature or the Jewish National Fund – both of which also have clear political agendas aimed at land reclamation and control, justifying policies of afforestation and fencing) real grass roots environmental lobby groups have only been founded since the 1990's.⁴ These are relatively small and their effective influence is very limited. The Ministry of Environment is a small, resource starved ministry. The Minister is usually appointed from amongst the junior members of the government, often reserved for someone from a party which is part of a government coalition and which demands a number of cabinet seats in return for their support of the government majority. Ministers appointed to this position often see it as no more than a jumping point to a more "senior" job in the future and, with few exceptions, have little expertise or interest in the particular job.⁵ The Ministry of Environment does have a seat on the regional and national planning commissions and often raises objections to planned developments on environmental grounds. All major infrastructural and regional planning proposals must be accompanied by an environmental impact survey. In most cases however, and despite the raising of objections on the part of the environmental lobby, the development agencies and other economic interests create the sort of coalitions with other government ministry

⁴ Note 1, op.cit.

⁵ David Newman, 'A most important ministry', Jerusalem Post, July 21, 1999.

representatives which enables them to go ahead with projects despite the damage that may be caused to the environment. The environmental agencies do not have any veto power in the planning commissions – they have a single vote like all other public Ministries and Agencies and, as such, are normally outvoted by development oriented agencies.

A good example of the environment – development dilemma in Israel has been the construction of the new north to south Trans-Israel highway during the past five years (Fig 1). This highway was planned with the objective of relieving congestion from the overcrowded Israeli road system, drawing traffic away from the deeply congested metropolitan area of Tel Aviv and the neighbouring towns, and facilitating ease and speed of travel between the north and south of the country. The central sections of the Highway were located parallel to the Green Line border separating Israel from the West Bank, although within the sovereign territory of Israel, and were designed as Israel's first toll road, revenue from which will go towards the construction and upkeep costs of this transportation artery, and the aesthetic maintenance of the surrounding landscape. From the moment that the plans were announced in the early 1990's, the environmental agencies joined forces in an attempt to prevent its construction. They argued that the construction of this major highway would destroy some of Israel's few remaining areas of open space and cause ecological havoc to localized nature and water resources.⁶ The environmental lobby further argued that rather than relieve congestion on the existing roads, the construction of the new road would bring in its wake an even further increase in the number of cars on the road, as has been the case in many other countries which have embarked on major road construction projects. They argued that it was necessary to create disincentives for motor traffic and, as an alternative means of transportation, to develop the rail system throughout the country (a project which has also experienced significant improvement during the same period). But given the congested nature of the existing road system in the centre of the country and the fact that this was seen as constituting a project of major national prestige, the government and its associated planning agencies,

⁶ See the web site of the Environmental NGO, Adam, Teva Vedin (Man, Nature and Law) at: <http://www.iued.org.il/>. See also, David L. Block, 'Fighting the Trans-Israel Highway', *Tikkun Magazine*, May/June 2000.

approved the project. By 2004, the central section of the new highway had been completed and was attracting an increasing number of motorists.

Another recent example has been the construction of Israel's new national airport, "Natbag 2000". This major infrastructural project, originally intended for completion by the year 2002 but which, in reality, will finally open its doors to travelers at the end of 2004, had been the subject of a number of environmental impact surveys. In 2002, the airport development agency were obligated to construct a new sewage purification and treatment plant to go into operation once the airport was opened, as a means of dealing with all the additional environmental hazards and wastes which would result from the operation of this facility. In July 2004, the development agency announced that the airport would be ready to open its doors in November of that year, at which time the environmental agencies announced that the waste treatment plant had not been constructed and that the airport should not be allowed to open until this had been completed.⁷ Given the huge economic loss which has been experienced by the already late completion of the airport, and the fact that this, like the trans-Israel Highway, is considered a project of major national importance, the developers announced their intention to go ahead with the opening of the facility in November 2004, regardless of the immediate environmental implications. No major public opposition was discernible to the news that the waste treatment plant had not been built and it disappeared as a news story within two days of it having been announced. Given the general lack of interest or concern shown by the wider public which has been waiting impatiently for the opening of this modern, more efficient, more comfortable, airport, the chances of the environmental agencies delaying the opening of the facility once more, did not appear to have much chance of success.

The notion of environmental schizophrenia is particularly strong concerning the problem of water scarcity (see section below). Successive Israeli governments have been aware of the problems caused by cyclical lack of precipitation together with a rapidly growing population and increased demands for water consumption per capita. Potential solutions to the problem have constantly been discussed, ranging from the

⁷ Zohar Blumenkrantz, 'Ministry threatens to block new airport terminal over sewage', *Haaretz Daily Newspaper*, 23/07/2004.

construction of desalination plants, the import of water from Turkey, the diversion of water out of cheap agricultural consumption to domestic uses (with significant implications for the country's agricultural economy), as well as the need to enforce stricter regulations concerning the use of water for luxury uses, such as the washing of cars or the watering of grass lawns in desert conditions. The intensity of these discussions increase during period of accumulated water scarcity, as Israelis watch daily as the level of the country's major water reservoir, Lake Kinneret (the Sea of Galilee), continues to decrease and as the underground reservoirs fall to the point where they could be affected by salination. But no Israeli government has implemented a serious plan of action which would point to a structural change in the use of water and the way in which it is priced or stored. And when, as happens every four to five years, the region experiences abundant precipitation and the reservoirs fill up yet again, the issue is removed from the public debate and pushed aside as other matters of national security take center stage.

How do we explain this gap between environmental socialization and awareness on the one hand, and the lack of good environmental practices on the other? On the one hand (as we will discuss below) notions of security are related to military and strategic issues. As such, notions of threat, as contrasted with notions of aesthetics, are not associated with the environment. Moreover, this is an increasingly laissez faire capitalist society in which notions of the common good are gradually taking second place to the objectives of economic development and venture capital. The latter agencies and private firms have much more, in terms of finance and power, to offer the decisions makers than do the relatively young and inexperienced environmental lobbies and, as such, the latter groups are often unsuccessful in their attempts to prevent harmful construction projects from taking place.

The Geopolitics of Water Security

Issues of environmental and military strategic security are interlinked through the water geopolitics of the region. Since the establishment of the State 56 years ago, the country's population has grown tenfold from approximately 600,000 inhabitants to

over six million. Moreover, the existing population have increasingly adopted western water consumption patterns, with more washing machines and dish washers, more cars to wash, more lawns to irrigate, while former traditional societies, such as the Bedouin communities who learnt to live within a framework of stringent water limitations for thousands of years, have also begun to adopt western consumption patterns. Against this backdrop of a huge increase in demand for water, the region has suffered a growing number of drought years, significantly reducing the available supply of water for domestic consumption purposes. The growing gap between supply and demand has brought the country to extreme crisis situations on a number of occasions during the past decade, with the Kineret reservoir falling below its red line, beyond which no more water is meant to be pumped out of the lake for fear of salinity and irreversible damage, while similar situations have been reported in each of the country's main underground water aquifers.

Given the nature of the political relations between Israel and her neighbours, the lack of sufficient water resources for basic consumption needs is perceived as constituting a major geopolitical source of tension and friction. In the eyes of some analysts, the struggle for water is as likely to cause regional conflict during the next decade as are the contentious issues of oil and / or religious fundamentalism (Allan, 1992; Kliot, 1994). Within the specific context of the Arab-Israel and the Israel-Palestine conflict, water has figured prominently as a source of geopolitical contention (Shapland, 1997). With the exception of Egypt, water has been a source of friction and conflict between Israel and all of her neighbours, including Jordan, Syria, Lebanon and the Palestinian Authority.

In the case of Jordan, issues related to water and the environment figure prominently in the peace treaty between the two countries.⁸ Israel agreed, despite its own water shortage, to transfer 50 million cube metres of water per annum to Jordan, as well as developing joint projects for research into the more efficient usage of scarce water resources in this region. In the case of Syria, the Yarmouk River, flowing into the River Jordan, has – in the past – constituted an issue of friction between riparian

⁸ See Israel – Jordan Peace Treaty, Annex IV – Environment.

States. In 1965, Syria began a dam construction project on the Yarmouk which would effectively have completely ceased the flow of water over the border into the Jordan River. Israel responded by bombing the dam and stating that any attempt to interfere in the free flow of water would be interpreted as a legitimate *casus belli*. Israel's occupation of the Golan Heights in the June 1967 War enabled it to control some important water sources such as the Banias springs, as well as other melt flow from Mount Hermon. Much of the informal negotiations which have taken place between Israeli and Syrian representatives over potential peace agreements in the future have dealt with the issue of water as a major topic, second only in importance to the military security arrangements.⁹

In the case of Lebanon, Israel's invasion of that country in 1982 was originally intended only to reach as far as the River Litani (although, in effect, the invasion went as far as Beirut). Following Israel's pull back from Beirut to the Litani, there were suggestions on the part of both Lebanon and Syria that Israel was planning to exploit the free flowing waters from this river and to divert some of them southwards through channels to Israel (Amery, 1993). In the early twentieth century (1919-1920), when power in this region was transferred from the defeated Ottoman Empire to the British and French mandate Authorities, the British government attempted to demarcate the boundary between the two along the River Litani so that they too would have access to these critical water resources – in a period when the nature of water scarcity vis a vis a relatively small local population was nowhere near as critical as it is today. The French authorities refused to acquiesce to this request and the eventual boundary was demarcated further to the south, along the line of the present boundary between Israel and Lebanon (Brawer, 1987; Biger, 2004).

Control of water is also central to the Israeli-Palestinian negotiations over future territorial configurations (Elmusa, 1994; Shuval, 1996; Shapland, 1997). Numerous discussions have been held during the past decade (since the signing of the Oslo

⁹ Some anti-withdrawal groups use the strategic importance of water in an attempt to persuade both the Israeli public and the government not to undertake any territorial withdrawal in this region. See: <http://www.golan.org.il/water.html>

Accords in 1993 and 1995) in an attempt to reach an acceptable solution concerning the distribution of water resources between Israel and a future independent Palestinian State. These talks, held under the international auspices of the Canadian government as part of the multilateral peace talks,¹⁰ focused on the quotas which each side would be allowed to exploit from the underground water aquifers which underly both Israel and parts of the West Bank. In the past, these underground water sources have proved a major point of contention, as Palestinians have accused the Israeli Administration of using this water for the purposes of settlement construction while, at the same time, refusing to allow them to drill new wells for the basic subsistence needs of their own growing towns and village.¹¹ The international partners to the water negotiations attempted to persuade both sides to develop joint control and management of this important trans-boundary resource in such a way that they would derive mutual benefit from the arrangement, coupled with the more efficient exploitation of this valuable scarce resource. The two sides would become inter-dependent on each other and thus less likely to enter into renewed conflict in the future given the danger of destroying their own water infrastructure and not just that of the other side. It is probably for this reason that the two sides prefer unilateral control of their own water resources, while agreeing to the monitoring of quotas which will prevent the aquifer from falling below an acceptable level and thus increasing the dangers of salinity.

During the past two decades, there have been proposals aimed at importing water from the major water surplus country in the region, Turkey.¹² While the possibility of a land pipeline has been ruled out because it would have to run through Syria, the laying of a pipeline along the floor of the Mediterranean Sea was considered. This too was rejected on political grounds when it became clear at one stage that the Turkish government insisted on having a transit station for the transfer of water in the occupied zone of Northern Cyprus. Originally, it was assumed that the import of water

¹⁰ See Kaye, 2001.

¹¹ For a full analysis of the geopolitics of the West Bank waters, see the United Nations Project, *Hydropolitics along the Jordan River: Scarce water and its impact on the Arab-Israeli conflict*, on the web site: <http://www.unu.edu/unupress/unupbooks/80859e/80859E01.htm>

¹² See: Ayca Ariyoruk, 'Turkish water to Israel?', *Policywatch* No. 782, August 2003, the Washington Institute, <http://www.washingtoninstitute.org/watch/policywatch/policywatch2003/782.htm>. See also: Herb keion, 'Water import from Turkey improved', *Jerusalem Post*, January 4th, 2004.

would be cheaper for the consumer than the construction of desalination plants in Israel. However, given the improved and cheaper technology for powering the desalination plants, the Israeli government eventually authorized their construction assuming a similar price per cube of water as that of the imported water. But given their desire not to worsen relations with Turkey who had become an important regional and strategic ally, the Israeli government agreed to sign an agreement for the import of a limited amount of water at an undefined date in the future.

The politics of water inside Israel also plays a major role in the way that this resource is managed. Given the major focus on agriculture in the first decades of Statehood (partly due to the national expression of the “return to the ancient land” and partly because of the desire to be totally self sufficient), water was provided to the agricultural sector at a greatly reduced cost per cube of sweet water. During the past decade, Israel has moved out of agricultural branches of production which require high water inputs, although the agricultural sector continues to lobby, quite effectively, for lower costs, resulting in some cases in considerable water wastage. Notwithstanding, the siege mentality which led Israel to insist on water and agricultural independence fifty years ago is no longer relevant in a globalized world with easy access to most markets and, as such, is becoming less prominent in the Israeli security discourse. This is particularly the case with respect to water heavy products, such as cotton and even the famous Israeli-Jaffa citrus orchards, a product which is now becoming less prominent throughout the world. At the same time, Israel was the pioneer in the development of trickle irrigation techniques which greatly reduced the amount of water necessary for agricultural production, as well as the use of brackish water for certain crops.

Environmental Security and the Israel-Palestine Conflict.

The Israel-Palestine conflict impacts the environment both directly and indirectly. This is as true of the conflict itself as it is of the many attempts (mostly failed) to bring about conflict resolution and move towards a lasting peace in the region. Peace and conflict resolution brings with it the opportunity to deal with a host of social, educational and environmental issues which have largely been pushed aside in

previous periods due to the obsessive focus on the physical and military dimensions of the security discourse. However, the supremacy of both the security / conflict and the peace / cooperation discourses means that large scale developmental and infrastructural projects which are put forward as a means of either ensuring security or promoting peace, will have a strong chance of overriding any environment or ecological related objections which may arise as a result of their implementations.

The role of the army and the defense establishment in determining land use zoning and development in the "**name of security**", or the role of investors and development agencies in promoting large scale infrastructural projects in the "**name of peace**", can have major impacts upon the local environment, some positive but many negative (Blacksell & Reynolds, 1987; Soffer & Minghi, 1986). Such plans are often pushed through at great speed, in certain instances even bypassing the normal planning and legislative processes as they are portrayed as serving national objectives. In certain cases, the reverse may be true. The designation of land for security purposes may result in environmental conservation where the army opposes the use of certain areas for urban development or other speculative construction activities (not because they are concerned with the environment but because they want the land left vacant for other defence related purposes) while equally trans-boundary cooperation between two states which were previously cut off from each other can also bring about, under conditions of peace, a more efficient and positive management of the local environment.

a) Securitization Discourses and the "National Interest"

One area in which the conflict plays an important role in either degrading or preserving the environment is the virtual monopoly of the defence and military establishment in determining land use and land zoning. According to Oren & Newman (2005) almost fifty percent of the land surface inside Israel (not including the Occupied Territories) are influenced, directly or indirectly, by the demands and priorities of the defense establishment. This ability to use the defence-securitization discourse as a "national" discourse overriding all other civilian and economic development interests, means that the defence establishment maintains a monopoly

over almost all spatial development throughout the country (Baumer, 1997; Yanai, 2000; Oren, 2002). Oren & Newman (2005) have defined ten categories of land use, direct and indirect, which are affected by the needs of the defense establishment, ranging from the use of land for army camps, training areas, closed border zones, settlement landscapes, restrictions on building in urban areas, as well as the construction of transportation arteries enabling rapid deployment along the borders and other areas defined as “strategic”.

In some cases, the military take over of land – such as for the purposes of military camps, or the construction of the separation fence between Israel and the West Bank – can have a serious detrimental effect on the physical landscape and the ecological balance and will automatically be opposed by the environmental lobby. In other cases, the army insistence on leaving land untouched for training purposes (especially non-vegetated open areas in the southern coastal sand dunes for training purposes), prevents its alternative use and despoliation by economic developers.

The securitization discourse is also linked with a broader discourse of “national interest”, even where the specific purpose is not always directly related to matters of military security or defence. Two of the most important projects of the past decade which have been promoted by Israeli governments without being subject to the decision making process have been, respectively, the mass construction activity which took place in the 1990’s as a means of providing housing for the arrival of nearly one million new immigrants from the former Soviet Union, and the construction of the separation fence separating Israel from the West Bank. In both cases, the use of the “national imperative” and “securitization” needs of the country, as well as the immediacy of the projects, have enabled the government to undertake emergency procedures which have not necessitated the authorization, even retroactive, of the Planning Authorities. This has had major implications with respect to the conversion of land uses between functions (particularly from rural and agricultural to housing, developmental and commercial), which otherwise would have taken a great deal of time, discussion and bureaucracy within the statutory planning authorities.

The implementation of both national projects have had an immediate impact on the country's fragile environmental resources. In the case of the mass construction for the Russian immigrants, the then Minister of National Infrastructure (currently Prime Minister), Ariel Sharon, succeeded in gaining emergency powers for the construction of new housing developments without the need to get normal planning authorization from either the Israel Lands Authority or the statutory planning commissions on the grounds of "national emergency requirements" – opening the door for land privatization in Israel (in a country where, for political reasons of land control, over 90 percent of the land has been State owned – a fact which may have prevented even greater environmental degradation in the past) (Alterman, 2002). In the case of the rapid construction of the Separation Fence (a fence deemed illegal by the International Court of Justice ruling in July 2004¹³), a large swathe of land was cleared of all previous usages, including the destruction of orchards and the conversion of agricultural lands into a brutal defensive landscape consisting of barbed wire fences, concrete walls and patrol roads (Fig 2). The military and defence authorities are thus able to use the argument of "national interest" as a means of promoting or opposing many projects relating to infrastructural development or land use, a power which is not possessed by any of the civilian planning agencies.

Despite the fact that the army is such a major user of land, there is no national masterplan, even taking into account different security and strategic scenarios ranging from conflict to peace, for the security land uses in their broadest sense. The Defence establishment works on an ad hoc basis, depending on specific needs (as self defined within the system), drawing their authority from Section 6 in the Planning and Construction Legislation which deals with the special status of "defence related facilities", enabling the Defence establishment to preserve land for its own uses, to prevent non-defence related uses where it deems necessary and to have formal representation on all local and regional planning authorities.

In most cases, any area of land deemed as necessary for defensive purposes – however defined – is not subject to the normal scrutiny or veto power of the civilian planning

¹³ See Yuval Yoaz, 'Attorney general: ICJ Fence ruling may lead to sanctions against Israel,' *Haaretz daily Newspaper*, 21.08.2004.

authorities. But in cases of civilian development, planning permission has to be coordinated with the defence authorities and they have a veto power over all civilian related development if, as they often argue, such development is detrimental to the security interests of the State, without the need to elaborate precisely what these interests are. At the same time, all regional and national plans have to be submitted to the Defence Authorities prior to their being tabled before the relevant committees. At the local and regional levels, the Defence Ministry has automatic power of veto, while at the national level it is rare for decisions to be made which negate the Defence establishment position, with agreement over major developmental issues being reached at ministerial and cabinet level.

b) The Environmental Impact of Occupation

For as long as Israel continues to occupy the West Bank and Gaza Strip, she is responsible for the management of all civilian affairs, including the economic, social, governance and environmental issues. But given the fact that even inside Israel proper, the environmental issues are largely neglected, the Civil Administration of the Military Government (the responsible authority for the Occupied Territories) paid scant attention to such matters. For their part, the Palestinian Authority which replaced the Military Government in parts of the region following the implementation of the Oslo Accords and partial transfer of power in the mid-1990's, were too involved in creating a new administration for any serious attention to be given to what was, and continues to be, seen as issues of secondary importance, given the continued struggle for independence and self governance. Neither does the Palestinian Authority have the necessary expertise to deal with a host of environmental issues, ranging from landscape preservation, efficient use and conservation of scarce resources, particularly water, or the preparation of environmental and ecological surveys relevant to future development and construction plans for a new State which will have to improve housing conditions and absorb tens of thousands of returning refugees.

In their report on environmental degradation, Isaac & Ghanyem of the Applied Research Institute (ARIJ) lay the blame for the extremely poor situation of the local

environment directly on Israeli colonization policies (Isaac & Ganyem, 2004).¹⁴ The report attributes the depletion of water resources, continued desertification, deforestation and the uprooting of trees, and general pollution within the West Bank, as a direct outcome of Israeli government policies aimed at ensuring physical security (through the construction of bypass roads or the uprooting of orchards along existing roads) or furthering settlement activity (through the transfer of green areas into construction sites, the exploitation of limited local water resources, and the disposal of industrial and domestic wastage without proper treatment facilities).

The construction of Israeli settlements throughout the region has had a major impact on the local environment (Newman, 1989; Qumsieh, 1998). In the first place, the settlements have taken up a large amount of open land, some of it comprising terraced agriculture. Given the western suburban nature of the Israeli settlements, population densities are much lower than amongst the neighbouring Palestinian villages and towns and, as such, the amount of land consumed per family for settlement purposes is exponentially greater than in the neighbouring communities (Newman, 1996). This is accompanied by the preparation of access roads, security fences and additional infrastructural capacity which eats into the available open land resources. There has also been much dispute over the water rights of the new settlements, in many cases tapping into local water sources which are already depleted and, ironically, from which some of the neighbouring Palestinian communities are forbidden from drilling new wells because of the “dangers to the aquifer” which will result from over exploitation of a scarce resource.

Environmental damage is also caused by the direct intervention of the army in security affairs. This includes the construction of bypass roads in those areas which are considered to be dangerous for Israeli travelers to and from their homes in the settlements. These roads have also resulted in the consumption of available land and, in many cases, the destruction of orchards and other agricultural capacity to make way for the route of the new transportation artery. Other orchards have been destroyed along existing routes as a means of creating an open visible space for travelers and

¹⁴ For an analysis of the environmental problems in Palestine (West Bank & Gaza Strip), see: PENA (Palestinian Environmental Authority), Environmental Strategy Plan, Ramallah/Gaza, October 1998.

preventing them from becoming a hiding place for potential bombers or stone throwers. This has also become the automatic policy in locations where terrorist incidents have taken place, regardless of the fact that it is not the orchard owners or local farmers who were responsible for the incidents of violence which take place on their land. This sort of environmental damage has recently been experienced at its greatest along the route of the security fence constructed by the Israeli government to effectively close off the West Bank from Israel in an attempt to prevent the transit of suicide bombers. The fence, which has been constructed at great cost and in haste, resulted in the rapid and sudden destruction of wide cordon sanitaires along the route, previously consisting of Palestinian orchards and cultivated lands (Fig 3).

Israel has also used afforestation as an important political means of land control. The “return to the land” dimension of the state formation process has resulted in a great deal of reforestation throughout Israel / Palestine, reaching into the southern approaches to the Negev desert region. But in many cases, the objective of turning the brown arid desert into a green landscape has been accompanied by a political objective of asserting control over land, or preventing the use of land by Arab settlements, in empty or vacant areas. Cohen (1993) has shown how the politics of planting has also been implemented in frontier and border regions, both as a territorial demarcator and also as a means of preventing the use of this land by groups whom the State deems as undesirable. Ironically, much of the afforestation, especially in the southern and more arid parts of the country, has caused some long term ecological damage, given the non-suitability of some of the tree types used for this purpose. The same happened in the Hula swamp lands in the north of Israel. A century of over fertilization and over working of this small area, for many years shown to visitors as a miracle of reclamation, has now reverted to its original swamp characteristics through restoration activities.¹⁵

c) The Environmental Threat of Peace

¹⁵ Tamar Zohary and K. David Hambright, 'Lake Hula – Lake Agmon', *Jewish Virtual Library*, http://www.jewishvirtuallibrary.org/jsource/Society_&_Culture/geo/Hula.html

It is often assumed that the transition of a region from conflict to peace will, somehow automatically, have a positive spillover effect on a host of civilian issues, including greater attention to environmental protection and conservation. But while peaceful relations between countries brings with it a potential for greater environmental awareness and attention, it does not necessarily happen. In the first place, the necessary cooperation between former conflictual actors is itself part of the necessary process of confidence building, viewed suspiciously by many of the actors involved. More threatening however is the fact that post-conflict situations are often accompanied by a desire to undertake major construction and investment projects “in the name of peace”, replacing what was done in the past “in the name of security”, despite the fact that their rapid implementation does not always take into account the negative impact on the already depleted environmental resources. The move towards conflict resolution brings with it a “chicken and egg” situation in the sense that to deal adequately with trans-boundary environmental concerns requires a minimal level of regional cooperation which may not yet exist, while it is precisely cooperation over these quality of life, non-political, issues which can facilitate greater cooperation in a wide range of social, economic and political activities, thus cementing and strengthening the process of conflict resolution and transforming a situation of non-violence into a gradual process of inter-society normalization and mutual understanding.

The experience of Israel – Palestine in the first decade following the implementation of the Oslo Accords is a good example of these problems. The lack of coordination between the Israeli and Palestinian authorities, when many civilian authorities and functions were handed over from the Israeli military administration to the Palestinian Authority, even resulted in the exacerbation of some environmental problems. One would have assumed that in those areas which affect the quality of life of both peoples and which have no direct implications for the political process per se, such as the joint preservation of the local environment, it would have been easiest to have created new modes of cooperation. Environmental spillover from those areas under control of the Palestinian Authority should have been an obvious area of cooperation. But here too, the nature and extent of cooperation is seen by each side as part of a political one-

upmanship. Complaints by one side to the other are couched in political terms, blaming the other side for negatively impacting the quality of life of their own citizens, and demanding, rather than suggesting, that solutions be found immediately. What could have been a focus for new cooperative modes of activity are transformed into part of the conflict, instead of being used as a means of overcoming bridges of animosity and mutual suspicions.

Of greatest significance has been the flow of untreated domestic and industrial waste from the West Bank into Israel, along the mostly dry wadis which flow down from the upland region, eventually finding their way to the Mediterranean Sea. This brings problems of noxious elements and provide the breeding places for mosquitos and other human irritants. The Israeli authorities accuse the Palestinian authorities of not dealing adequately with problems of waste disposal and treatment, using this as an example of the “inability” of the PA to manage its own affairs.¹⁶ For their part, the PA points to the interference of the Israeli military authorities in their attempts to create new infrastructural projects as well as the fact that they lack the necessary economic resources for putting such programmes into effect. The PA request the assistance of international environmental agencies to deal with these problems, arguing that they do not have the expertise or the necessary resources.

Environmentalists are particularly concerned with the expected economic effects of a peace agreement. The short period following the signing of the Oslo Accords was enough to demonstrate the large number of capital venture projects - from both local and international investors – waiting to get through the door once a situation of political stability was to emerge. In particular, one can expect major housing and construction projects, as well as investment in large tourism resorts. These will be implemented in haste, with the full backing of both Israeli and Palestinian governments eager to reap the economic dividends of peace and with little, if any, environmental checks and balances. Thus the coming of peace will prove to be a major challenge for the environmental security of the inhabitants of the region who

¹⁶ David Newman, ‘The politics of mosquitos’, Jerusalem Post, July 3, 1998.

may find that one security threat (the military and the defensive) has simply been replaced with a new one (the environmental and the ecological).

Finally, there has also been concern with the attempts of some Israeli companies to move their development projects to neighbouring countries and thus bypass Israeli environmental laws. It was suggested that the much touted Red Sea – Dead Sea Canal be built entirely within Jordan as a means of avoiding any potential environmental opposition on the Israeli side of the border. This too is a form of transboundary cooperation between States which were formally at war with each other, but in these cases the transboundary activities are manipulated in such a way as to avoid any form of environmental conservation (Bromberg & Twite, 2002)

Clearly there is a need for both the Israeli and the Palestinian populations to become more aware of the security dimensions of the environmental and ecological threat facing both populations on an equal basis. The discourse needs to be transformed from that of a “problem” to that of a “threat”, from a mundane quality of life issue to one which, if not dealt with, can cause harm to the existing population. The move towards conflict resolution and an eventual peace agreement can be used as a means of changing the environmental security discourse, but only if it is a joint effort on the part of both populations, probably with the assistance of international environmental agencies and foreign governments who are actively involved in attempting to reach a lasting political solution. A peace discourse which lacks the environmental security element is not an automatic guarantor that the situation will improve. For this to happen, basic perceptions of what constitutes “security” in this troubled region still have to undergo structural change.

Concluding Comments:

This paper has focused on the notions of environmental security facing Israeli and Palestinian populations. Other issues of “soft” security, such as economic livelihood, access to health and housing etc; have not been addressed in this paper although they, too, suffer from the hegemonic discourse given to the military and defensive securitization discourse in Israel / Palestine. Notwithstanding, Israel’s welfare State

policies (although these are being threatened under the current move towards a laissez faire economy with a great deal of privatization along Thatcherist lines) posits these issues as constituting no more than a social or economic problem rather than a threat to the security and livelihood of the people. This is particularly the case with regard to the first world socio-economic conditions of the Israeli population, although less so with regard to the third world (and worsening) conditions of the Palestinian population. The latter problems are, in turn, directly related to the political conflict, the extent to which the Palestinians are able to exercise self government, find places of employment inside Israel (or are cut off from this market place due to separation barriers and security fears on the part of Israel) and are enabled to create their own civil society institutions. The human security issues facing the Palestinian population constitute basic needs and are much more directly related to the outcome of the political conflict than are those facing the Israeli population. That does not mean to say that there is no connection between “hard” and “soft” security issues for the Israeli population. There is a constant discourse concerning the distribution of the national budget between defense related and civil society (education, health, welfare) related issues in the public discourse, but this is a question of degree and quality of life for Israelis, while for Palestinians it is increasingly becoming a basic existential and hard core security issue. These non-environmental, but nevertheless “soft”, security issues also need to be addressed as part of the ongoing security debate in Israel / Palestine.

References.

Allan, J. A., 1992. 'Substitutes for water are being found in the Middle East and North Africa', *Geojournal*, 28 (3), 375-385.

Alexander, E, Alterman, Rachelle, & Law-Yone, Hubert., 1983. 'Evaluating plan implementation: The national planning system in Israel', *Progress in Planning*, Vol 20 (2).

Allon, Yigal, 1976: "Israel" the case for defensible boundaries." *Foreign Affairs*, 55:38-53.

Alterman, Rachelle. 2002. *Planning in the Face of Crisis: Housing, Land-Use, and Mass Immigration in Israel*. (London: Routledge).

Amery, Husein, 1993, 'Israel's designs on Lebanese water,' *Middle East International*.

Baumer, A., 1997, *Military Land Uses versus Nature Preservation: the Case of Ramat Negev*. M.A. Thesis, Haifa University (Hebrew).

Biger, Gidon., 2004, *Boundaries of Modern Palestine* (London, Routledge)..

Blacksell, M. & Reynolds, F., 1987. 'Military Training in National Parks: A Question of Land Use Conflict and National Priorities', in Bateman, M. & Reily, R.(eds) *The Geography of Defence* London & Sydney: Croom Helm. pp. 215 – 227.

Brauch, Hans Guenter, 2003: "Security and Environment Linkages in the Mediterranean: Three Phases of Research on Human and Environmental Security and Peace", in: Hans Günter Brauch, P. H. Liotta, Antonio Marquina, Paul Rogers, Mohammed Selim (Eds.): *Security and Environment in the Mediterranean. Conceptualising Security and Environmental Conflicts* (Berlin-Heidelberg: Springer 2003): 35-143.

Brauch, Hans Guenter, 2004: "Goal paper for the two books" (Mosbach, unpublished, 2004).

Brawer, Moshe., 1987, *The Borders of Israel*. (Tel Aviv: Yavneh Press – in Hebrew).

Bromberg, Gidon & Twite, Robin., 2002, 'Regional and International Cooperation', Paper presented to the *World Summit on Sustainable Development* (WSSD), Johannesburg, August 26-September 4th.

Cohen, Avner., 1998: *Israel and the Bomb*. (NY: Columbia University Press).

Cohen, Saul B., 1986. *The Geopolitics of Israel's Border Question*. (Jaffee Center for Strategic Studies, Tel Aviv University. Westview Press: Boulder, CO).

Cohen, Shaul E., 1993. "The Politics of Planting: Israeli-Palestinian Competition for Control of Land in the Jerusalem Periphery". Geography Research paper, 236. Chicago University Press.

De Shalit, Avner & Talias, M., 1994. 'Green or blue and white? Environmental controversies in Israel', *Environmental Politics*, Vol 3 (2), 273-294.

Elmusa, Sharif., 1993, 'Dividing the Common Palestinian-Israeli Waters: An International Water Law Approach,' *Journal of Palestine Studies*, No. 87.

Gabbay, Shoshana, 2002., 'The environment in Israel', *Israel Environmental Bulletin* (reproduced on the Israel Ministry of Foreign Affairs web site).

Horowitz, D., 1975: *Israel's Concept of Defensible Borders*. (Jerusalem Papers on Peace Problems, No. 16. Leonard David Institute for International Relations, Hebrew University of Jerusalem).

Isaac, Jad., 2000. The essentials of sustainable water resource management in Israel & Palestine, *Arab Studies Quarterly*, 22,2,13-31.

Isaac, Jad & Ghanyem, M., 2004. *Environmental Degradation and the Israel – Palestine Conflict*. Applied Research Institute Jerusalem (ARIJ), Report.

Isaac, Jad & Selby, J., 1996, The Palestinian water crisis; Status, projections and potential for resolution, *Natural Resources Forum*, Vol. 20, No. 1, pp. 17-26.

Kam, E., 2003, 'Conceptualising security in Israel', in: Hans Günter Brauch, P. H. Liotta, Antonio Marquina, Paul Rogers, Mohammed Selim (Eds.): *Security and Environment in the Mediterranean. Conceptualising Security and Environmental Conflicts* (Berlin-Heidelberg: Springer 2003): 357-365.

Kaye, Dalia., 2001, *Beyond the Handshake: Multilateral Cooperation in the Arab-Israeli Peace Process, 1991-1996* (N. York: Columbia University Press).

Kliot, N., 1994, *Water Resources and Conflict in the Middle East*. Routledge: London.

Newman, David., 1989. "The role of civilian and military presence as strategies of territorial control: The Arab-Israel conflict". *Political Geography Quarterly*, 8 (3), pp. 215-227.

Newman, David., 1996. 'The territorial politics of exurbanisation: reflections on thirty years of Jewish settlement in the West Bank', *Israel Affairs*, 3 (1), 61-85.

Newman, David., 1998a. "The geographical and territorial imprint on the security discourse", In D. Bar Tal, D. Jacobson & A. Klieman (eds) *Security Concerns: Insights from the Israeli Experience*. Greenwood Press, Praeger.. pp. 73-94.

Newman, David., 1998b. 'Population as Security: the Arab-Israeli struggle for demographic hegemony', In N. Poku and D. Graham (eds), *Redefining Security: Population Movements and National Security*. Greenwood Publishing Group: CN.

Newman, David., 2002. 'The geopolitics of peacemaking in Israel-Palestine'. *Political Geography* 21 (5), pp. 629-646.

Oren, Amiram., 2002. "The geographer in the service of military physical planning". *Ma'archot*, 385, pp. 60-67 (Hebrew).

Parag, Y., 2002. 'Sustainable environmental policy formation in Israel', Paper presented at the OIKOS Summer Academy on *Sustainability, Corporations and Institutional Arrangements*

Oren, Amiram & Newman, David., 2005. (In Press) 'The territorial dimension of civil-military relations in Israel', *Israel Affairs*, 12,

Qumsieh, V., 1998. The Environmental Impact of Jewish Settlements in the West Bank, Palestine-Israel *Journal of Politics, Economics and Culture*. Volume 5 (1).

Shapland, Greg., 1997. *Rivers of Discord: International Water Disputes in the Middle East*. Hurst & Co: London.

Shuval, Hillel., 1996. 'Towards resolving conflicts over water: the case of the mountain aquifer', In E. Karsh (ed), *Between War and Peace: Dilemmas of Israeli Security*. Frank Cass: London.

Soffer, Arnon & Minghi, Julian., 1986 'Israel's Security landscapes: the impact of military considerations on Landuses', *The Professional Geographer* 38, pp. 28-41.

Stauffer, T., 1996. *Water and War in the Middle East: The Hydraulic Parameters of Conflict*, (Washington DC: The Center for Policy Analysis on Palestine)

Vogel, D., 1998. 'Israeli environmental policy in comparative perspective', *Israel Affairs*, Vol 5, 246-264.

Yanai, S., 2000. "The land policy of the Israel Defence forces", *Karka*, 50, pp. 32-42 (Hebrew)