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# The Environment in Successive Regional Development Plans for Israel's Periphery

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**Abstract.** The Negev, Israel's southern region, is mostly an arid desert and constitutes more than 60% of the country's territory. As in other dryland regions, population size is relatively small, comprising only 9% of Israel's total population. Planning policies in Israel for the past sixty years rarely express a bottom-up approach, but rather a centralized approach to development, derived from national ideology and the needs of a nascent state. This paper describes the place of the environment and sustainability criteria over three eras of planning the development of the Negev region. This region is one of the most challenging areas in Israel in terms of socio-economic conditions, its multi-cultural population, as well as its geographically and ecologically diverse environments. Here we illustrate a transition in relation to the planning bureaucracy to the environment: from obliviousness to rational planning to pseudo-sustainability. Thus, there is a clear tendency of the official planning institutions as well as the out-sourced governmental initiatives to increasingly pursue a more sustainable approach that seeks to integrate environmental consideration within planning processes. At the same time, however, we show the degree to which these processes are still deficient in their lack of a coherent environmental strategy and implementation by the government and its agents, and in the lack of conceptual and material resources for an integrated treatment of the Negev's social, economic and environmental problems.

**Keywords:** Development, Environmental concerns, Regional planning, Core-Periphery, Israel

## Introduction

The problem of revitalizing the economies and societal dynamics for peripheral regions is an objective which has traditionally informed regional and national planners in the U.S. ([Hanna, 1995](#)) and across Europe -- both in developed countries such as the UK ([Smout, 1980](#)) and

transitional economies, such as the Czech Republic (Sucháček, 2005) and Slovakia (Smith, 2007; Lord, 2000). Indeed, what was originally diagnosed as a domestic dynamic can be superimposed on the increasingly global international political economy, with the traditionally asymmetrical relations between developed and developing countries. Development of the periphery has also become a major theme in EU planning policies (Smith, 2007; Jensen and Richardson, 2001). This global phenomenon is exacerbated when geographic remoteness merges with harsh climatic conditions, shaping what has been called the "drylands syndrome", as recently addressed by Reynolds et al. (2007).

Israel has always offered a surprisingly "extreme" case of such dynamics, given the country's diminutive size (Gradus, 1983; Portnov and Erell, 1998). The case study described here presents planning for development of the Negev, a large sparsely populated desert region. The Negev is generally considered to contain the country's worst social, political conditions as well as some of the country's more notorious environmental affronts. Socio-economic gaps between living standards, unemployment, infrastructure and the provision of services of this region and the rest of the country have led to repeated attempts to achieve economic progress, frequently on the expense of the environment, as soon will be elaborated.

Despite some claims that this pattern has improved recently or at least has been overstated (Bar-El and Parr, 2003), in fact a plethora of objective criteria (from per capita hospital beds to high school graduation rates to life expectancy) confirm that socio-economic indicators are negatively associated with geographical remoteness, especially in the southern, "Negev desert" region. Notwithstanding the spatial flattening potential of information and industries, telecommuting, high speed trains etc., (Friedman, 2005) geography still appears to matter. As in many other countries around the world, over the past fifty years a steady stream of Israeli government planning initiatives to ameliorate these dynamics has been singularly unsuccessful.

A promising dynamic seen around the world is the privatization of centralized planning and the active participation of the private sector as a force for replacing central government

initiated and run regional planning<sup>1</sup>. In the planning literature this has been theorized as part of the more global transformation from Fordist (modern) to post-Fordist (post-modern) regime. Post-Fordist planning is theoretically much less detailed, more flexible, and market-oriented than that which characterized planning even twenty years ago. The city/region is no more a subject of standard, detailed planning, but is regarded as a self-organizing system, with too many actors, plans and designations of land-use, to be completely planned ([Alfasi and Portugali, 2004](#); [Allmendinger, 2001](#); [Harvey, 1989](#)). Private sector involvement presumably has the potential to bring with it a higher quality, more creative product through competition, nimbleness, innovation and direct links and closer orientation to the commercial/business sector.

Theoretically, strategic peripheral development projects and private investments, when coupled together, should produce more positive outcomes for planning initiatives designed to improve social equity and opportunity in peripheral regions. The recent Israeli experience with a major development initiative for its periphery ostensibly exemplified both of these approaches. But the results in retrospect have been disappointing, differing little from previous planning failures. The question is “why”.

The present analysis contrasts the recent “Negev 2015” plan with its predecessors, identifying three distinct eras of planning for the Negev region, and their respective relations to the environment: the pre-environmental, the modernist-rational, and the pseudo-sustainable periods. These three eras demonstrate how the perception of the environment in Israel has shifted: from ignorance and indifference toward, an ostensible embrace of sustainable development principles. Yet, despite rhetorical progress, a sober assessment suggests that actual plans suffered from “sustainability lip service”. More than cosmetic incorporation of jargon and the mere mechanics of “public involvement”, however, are needed for sustainable development plans to have a transformative impact. Plans and planners may wear new

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<sup>1</sup> The “National Strategic Plan - Negev 2015” is in the focus of this research. While mostly shaped by the international consultants company *McKinsey & Co.*, it was found to be very similar to other development plans written by the same consultants company around the world, such as: “The Economic-Growth Development Plan for the city of Dallas (USA) (see: <http://www.dallasnews.com/s/dws/spe/2004/dallas/strategies2.html>) and “A Blueprint for Redeveloping Mumbai” (see: <http://timesofindia.indiatimes.com/articleshow/215486.cms>) and More examples exist around the world. For example, in 2005 “A National-Development Plan for Trinidad and Tobago” written by *McKinsey & Co.*, was introduced by Trinidad and Tobago government. Vicziany and Puteh (2004) have described how following McKinsey’s intervention, the Malaysian government has introduced the notion of K-economy, transforming the economic regime of Malasia.

outward clothes, but fundamental change is difficult and old paradigms and assumptions in planning have a way of persisting.

A review of what was arguably Israel's most ambitious and seemingly novel plan for its southern region demonstrates that beyond its non-governmental / private sector drafters and the ambitious marketing surrounding its launch, there was little new in its substantive orientation. In fact, the initiative replicated many of the themes (and mistakes) that characterized five decades of master and strategic planning for Israel's periphery

Existing research has highlighted the importance of integrating environmental considerations in the planning process ([Glasson, 1995](#); [Blowers, 2002](#); [Brown and Therivel, 2000](#)) and others have demonstrated on-going efforts to incorporate sustainable development within regional plans ([Amir et al., 1997](#); [Therivel, 1998](#); [Verheem, 2000](#)). Given the negative environmental outcome of non-environmental planning approaches ([Tal, 2002](#); [Wood, 1999](#)), it is important to understand the reasons behind the Israeli failure to embody "greener" tools within regional planning processes. The story reflected in the Israeli case suggests that, as [Healy and Shaw \(1993, p.770\)](#) have argued, "without the systematic adjustments within the planning system, the agenda of environmental issues may be constantly challenged by the expediency of political short-termism as it affects economic development".

In order to evaluate the Negev 2015 plans' aspirations, prospects challenges, and potential hazards the research includes analysis of numerous planning documents and twenty-five in-depth semi-structured interviews. The views of planners, government officials involved in the decision-making process, heads of regional and local councils in the Negev, NGO members, civilian and governmental representatives of range of organizations and authorities working for the cause of Negev development were elicited. The paper is composed of two main sections. First, the local setting is described; the Israeli planning system and the Negev region. Following, we depicted three historical eras differ in their level of comprehensiveness in respect to environmental considerations of and within the chosen strategic, non-statutory development plans. The most recent development plan – hereafter “Negev 2015” – and its private sources is discussed in greater details. Although clear repetition of basic principles might have hinder previous attempts to create a real change for this peripheral region, we

finally conclude with a sense of optimism; environmental principles are being increasingly integrated into the general planning discourses in Israel and social capital and environmental sensitivity are steadily growing.

## **The local setting**

### **The Israeli planning system and its environmental elements**

Israel has a highly hierarchical statutory planning system. Similar to the Dutch or Italian models, it is a regulatory system geared toward high resolution designations of land-use patterns and population distribution in space. The Israeli Planning and Building Law- 1965 was based on the belief that centralized, detailed planning was essential at the early stages of the Israeli nation-building process and that national needs are superior to any local or regional considerations (Alterman, 2001; Alfasi and Portugali, 2004).

Within this system, the Israeli National Planning and Building Council (NPBC), under the supervision of the Ministry of Interior, initiates the preparation of national land-use and development plans. Six regional planning committees are in charge of the planning, inspection and judicial aspects of building, development and land uses in the local committees of their jurisdiction (Alexander, 2001; Tal, 2002). Land development proposals and projects are approved or rejected based on the restrictions explicitly mentioned in the national, regional and local levels. This partially contrasts with the British planning system for example, with its system of “guidance” (rather than more regulations and proscriptions), which generally supports developer initiatives in proposing development projects (ODPM, 2005).

In Israel, dozens of domain-specific national Masterplans set aside lands for power plants, nature reserves, forests, tourist facilities, mining, and so forth. The kind of flexibility that characterizes the British system, for example, is anomalous, at least in formal terms. Yet, the existing planning culture in Israel has growing gaps between its formal hierarchal structure and the actual dynamics in the physical environment. These gaps produce many uncertainties among stakeholders. For instance, in theory, the national and regional planning system in Israel has no official apparatus for strategic planning. In practice however, many cities are now in a stage of preparing such urban strategic plans, which technically are not legally

binding. At the same time, the cities' statutory local outline plans are not being updated. This situation gives rise to growing unpredictability in the planning system and can be attributed to the collision of different interests, mainly the public's interest (such as the public's legal right to object a statutory plan) and entrepreneurs' aspirations to receive building permits with minimal effort. This dissonance can have a major effect on the quality of environmental planning.

## **The Negev region and its history of development**

Israel's southern region, the "Negev", occupies 12,900 km<sup>2</sup>, or 62% of Israel's territory (i.e. the pre-1967 borders). Running south to north, the area has a steady and steep rain gradient, with hyper-arid climates quickly merging into arid and semi-arid regions, and with contrasting sub-areas, differing in their climatic, geological and ecological characteristics (Orni and Efrat, 1971). Despite the Negev's harsh natural conditions, and its maximum precipitation of 200mm per year, it has always served as a trans-continental bridge between Europe, Asia and Africa, enabling human inhabitation and large scale economic activities. Abundant archeological traces dated to the Roman, Nabatean and Ottoman periods reflect the area's strategic importance.

Modern Jewish settlement in the Negev began under Ottoman rule at the end of the 19th century and continued under the British mandate, against the backdrop of regional and global geopolitical events (Kark, 2002). Settlement was driven by the goal of delineating (and expanding) the borders of the Jewish community in Palestine and later, the Jewish State, and characterized by ad-hoc planning and unorganized development. Planning in the Jewish sector, in general, did not take place within formal governmental structures, but through non-governmental institutions, such as the *World Zionist Organization*, *The Jewish Agency* and *The Jewish National Fund*, which proposed and implemented development projects, based on agricultural activities, and were, therefore, limited by the lack of water. At that time, the Negev was sparsely populated, mostly by semi-nomadic Bedouins tribes (Meir, 1997).

With the establishment of the State of Israel in accordance with the United Nation's decision of November 29, 1947, many development plans to settle the area were written and

implemented. New rural settlements, as well as small urban centers were built side-by-side with large development projects such as a massive water pipeline, a hospital and university, power plants, and industries based on the potash resources of the Dead Sea (Porat, 1994). While planning practice was soon moved to the Planning Administration, (under the direct supervision of the Prime Minister's office and the Ministry of Interior), the aforementioned pre-state institutions continued to play a large role in shaping the spatial and social map of Israel.

The development of the Negev was attempted largely through the settling of populations that arrived during the immigration waves of the 1950's and later in the 90's: primarily from Middle-eastern and North African countries in the 1950's and from Ethiopia and the former USSR in the 1990's. Many of these immigrants, who lacked resources and who were alien to the culture of veteran Israelis, were directed to new rural settlements in the Negev or to a series of newly constructed "development towns"(Swirski, 2007) according to the preexisting governmental plans.

A second significant settlement procedure was the establishment of towns for the Bedouin minority population. The Planning Authority prepared plans for the settling of Bedouin communities into seven towns, which were established between 1977 and 1990. This process took place against a background of long-standing tensions over Bedouin land claims and the State's attempt to relocate semi-nomadic people of a highly traditional community to permanent towns ([Swirski and Hasson, 2005](#)).

During the 70s, planners focused on the utilization of natural resources and the creation of employment opportunities for a population target of one million Jews in the Negev. This was to be achieved primarily through the creation of an inter-urban area for heavy industry, petro-chemical and defense industries (Batz, 1974). While these demographic objectives were not achieved, several industrial installations were established, contributing to the increasing numbers of employees in the region and national economic growth. Yet, as the largest plants were associated with the chemical and pesticide industries, this stage also led to a precipitous degradation in the Negev's environment. Over time a stigmatization of the Negev emerged as a peripheral "garbage-bin" for polluting industries and waste disposal.

Today, despite decades of such development attempts to settle the area and the expenditure of considerable resources, the vast Negev region houses only about 575,000 people, or 9% of Israel's seven million people (Central Bureau of Statistics, 2008). Almost half of these live in the main city, Beer Sheva, with a population of 185,000 which is home to a variety of industries and a major university. More than 60% of the Negev territory is designated as army training zones while another significant proportion is zoned as nature reserves. About half of the Bedouin population lives in the governmental-established towns, with the remaining 170,000 people dispersed in "illegal" settlements (unrecognized by the authorities) in the Negev highlands. Given the absence of building permits, infrastructure is minimal in these shanty towns as are basic services such as connection to the electricity grid, running water and trash collection.

Economically, the Negev's population is starkly polarized, both with respect to the "Center" of the country and among different settlements in the Negev itself. These gaps are found in many areas of life. For example, while the average salary in Israel per month per adult (in 2003) was \$1,657, the average salary in the Southern District was only \$1180; unemployment rates are 25% higher; there are 6 hospital's beds per 1000 persons in Israel as a whole, compared to 4.4 in the Negev; 15.6% of total high schools' graduates in Israel achieve a diploma that is acceptable by universities, compared with 12.1% in the Negev and only 3% among the Negev's Bedouin minority (Negev Statistical Yearbook, 2004).

From an environmental perspective, there may be no region in Israel that is as deliberately dotted with so many polluting industries, hazardous facilities and dumpsites, as the northern Negev. The most acute environmental problems are: air pollution, untreated waste and groundwater contamination, solid waste and illegal dumpsites, soil pollution and the steady erosion of open spaces, biodiversity and scenic landscapes. Gas stations, army bases and fire zones, lack of wastewater treatment facilities, mining and quarrying companies, hazardous-waste and industrial facilities, are only part of this deterioration, which also pose serious health risks for the multi-cultural residents of the Negev.

## **Planning and the environment**

### **Three eras of development plans and their environmental dimensions**

Three approaches to the environment as manifested in three non-statutory plans for developing the Negev were compared and then summarized in **Table II**. Each of the planning initiatives represents a different historic era, each characterized by its own set of planners, motivations for planning, preferences for key-projects and ultimately, environmental perspectives, elaborated upon in the following sections.

#### **The pre-environmental era (pre-state – 70s)**

As mentioned earlier, until the establishment of the State of Israel in 1948, the semi-arid and arid parts of the Negev were inhabited primarily by semi-nomadic Bedouin tribes. Numbering no more than 53,000 individuals according to official British colonial census they subsisted on sheep, goat and camel herding. Roughly 100 years ago, Bedouin also started patchwork farming in dry streams (*wadis*) ([Portnov and Erell, 1998](#)). In the wake of the conflict surrounding the establishment of the state, the vast majority was forced or chose to relocate to Egypt, Jordan and the West Bank, with only 12,500 or 20% of the population remaining within the jurisdiction of the Jewish state.

At the same time, agricultural and rural cooperation settlements (*Kibbutzim*, *Moshavim*), in the Northern Negev, were a central mechanism by which the Zionist movement sought to achieve a target of Jewish population dispersal and physical possession of land in both of the northern and southern peripheries of the land of Israel ([Kellerman, 1993](#)). The opening shot in this demographic battle for the Negev was the establishment of eleven Kibbutzim during one night of 1947, almost a year before the UN declaration of Israel's independence. By 1948, their population had grown to some 6000 residents and by the mid-1950s the number of the semi-collective *Moshavim* in the Negev had increased from two to twenty-eight. The need to produce fresh food locally and to employ new immigrants in agriculture led to the formulation of what has been called "The Big Plans" ([Porat, 1994](#)). Their proximal objective was to deploy new agricultural technologies and extensive irrigation projects across the dryland region ([Tal, 2007](#)).

These plans have had irreversible environmental implications, which can be divided into two kinds. The first is the long-term ecological effects of intensive agricultural production in arid and semi-arid land. Along with its technological achievements, which helped combat desertification and increase food security, this agricultural vision also contributed significantly to environmental degradation, and especially to water-resource contamination and depletion, and in many cases to public health insults in the rural sector (Clow and McLaughlin, 2006). Second, "The Big Plans" succeeded in changing the map of Israel, by dotting it with literally hundreds of small, rural settlements. Although this transition was driven by geo-political exigencies and the belief that demographic facts were essential for security reasons, with the Negev as a "border region" between hostile countries, this policy of demographic dispersal often had negative ecological results such as fragmenting the continuity of open-spaces and threatening biodiversity ([Sauvajot et al., 1998](#); Orenstein, 2007).

The absence of environmental considerations in these initial plans was to be expected, given the circumstances of their formation. Firstly, there were the most urgent issues to be addressed, such as absorbing enormous waves of immigrants, providing food and defending the land from acute security threats. Secondly, the Negev region was seen as a border region that had to be rapidly settled, populated and stabilized as part of the state and these critical ends were regarded as justifying shortcuts in the means. Finally, knowledge and awareness about local and global environmental issues during this period were still nascent and little data were available about the condition of natural resources. Discursively, the vision was that the "desert bloom as a rose" and practically, deserts worldwide were to be concord through large-scale irrigation and hydraulic missions ([Molle et al., 2010](#)).

### **The modernist-rational era (70s-90s)**

Since the mid 70s, after an economic relative stabilization and temporary security relief, agricultural activity in Israel was, to some extent, reduced in intensity and prominence. Instead, decision makers and planners at national levels saw the vast, empty land of the Negev region as containing enormous industrial potential. A plan called "The National Industrial

Zone in the Negev" (from 1974) was the opening shot in a push to intensify industrial activities in the Negev. Its basic purpose was to *"create, in addition to that currently in existence – a national inter-urban area for heavy industry, petro-chemical industries and defense industries"* in the northern Negev (Batz, 1974).

Government officials envisioned an industrial center in the desert based on the assumption that it was necessary to remove these types of industries from densely populated areas for reasons of security, safety and environmental health. Not surprisingly, this trend contributed greatly to poor environmental conditions in the Negev, with the introduction of several polluting industries as well as a major industrial park designated for heavy industry and hazardous waste disposal. It seems that thirty-five years ago, the key promoters of Negev development thought, that it was not only acceptable but desirable, to relocate and direct polluting industry to this region. By doing so, the country could better preserve areas, such as its coastal plain, where population density was greater than the Negev. As noted in the plan: *"...the future of continued growth of industries and particularly destructive, noisy, special and dangerous ones, must be brought to the desert"* (Batz, 1974).

This attitude cannot be fully rationalized by the prevailing lack of knowledge regarding the environmental outcomes of industrial activities. Several publications from the period show that academic researchers in cooperation with expert engineers of the industrial facilities were acutely aware of the associated environmental implications. During this period, along with expressing concerns about exacerbating desertification through agricultural and grazing practices, scientists had already begun to advocate renewable energy and its ecological benefits, as well as identify the perils of poorly managed hazardous and domestic wastes, their potential risks to human health and to water resources (Conference summery report, 1975). An additional document from 1972 presents a list of environmental concerns which should be addressed in new development, such as air pollution, implications for public health, natural resource management, water scarcity and the future impact of human activities on the Dead Sea (Batz, 1972). Yet the planners, as well as the decision-makers, believed that technological finesse would find solutions for all these problems (Conference summery report, 1975).

## **The pseudo-sustainable era (90s-today)**

If a “National Industrial Zone in the Negev” plan was going to bring the Negev into the an intensive industrial era, then planning initiatives since the 1990 were written in order to develop the Negev, so that the entire state would be able “to face the challenges of the 21<sup>st</sup> century and the post-industrial era” (Shafir et al., 1991, p.19).

The “National-Strategic Plan for Developing the Negev – Negev 2015” (“Negev 2015”) exemplifies our main premises in an extraordinary way: Firstly, it is a large-scale plan to deal with core-periphery relations in Israel through an attempt to recreate a “buzz” around what is still perceived today as an arid, empty and endless desert. Secondly, it appropriate market powers as a major catalyze for peripheral development and thirdly, it present a new era in term of environmental awareness and integration capacities.

“Negev 2015” constitutes the most recent in this series of planning initiatives for regional development in the south of Israel. It was initiated, conducted, and promoted by a registered non-profit organization and accepted by the Israeli government in 2005 as its official, regional plan guiding policy. The government also committed to allocate half of the anticipated budget of the plan, approximately 5-8 billion US dollars, while the rest of the money was expected to be invested by the private sector. This plan seeks to almost double the region’s population by the target year, by adding 200,000 residents to the Negev —preferably of a high socio-economic status— while improving job opportunities, the educational system and generally "quality of life". In addition to its population targets, the plan declared three additional quantifiable goals related to closing the gaps between the Negev periphery and the “centre”, in the sphere of educational quality, salary levels, and unemployment. To achieve these objectives, the Plan relies on the contribution of the anticipated new residents, a thriving university and its graduates, expansion of existing profitable corporations and industries, the appeal of the region’s “vast lands and natural resources,” and several key projects such as a relocation of major military bases to the area. Massive investments in road and sewage infrastructures as well as high quality housing are a key element in the overall strategy.

This plan succeeded statutory National Masterplans (National Master Plan #31 from 1991 and the more recent plan #35 from 2005), which regulate planning and construction in the entire

country, and which divided Israel's national development objectives into four, concentrated metropolitan areas in order to prevent continued loss of open spaces (Asif and Shahrar, 2005; Donski, 1991). An accompanying statutory Southern District plan, which was written in 1998 and approved in 2004 joined the two national master plans to create a new socio-environmental planning language that ultimately included important ethical commitments. For example, among the prescriptions called for in the planning framework were: (1) “The plan should create the conditions for improving the level and quality of life of the population, promoting weak populations and incorporating the Bedouin community in regional development”. (2) Not only is the plan to define land-uses, it also obligates the “protection of natural places of high value and the quality of life and environment in the region together with its development” (Asif S. Et Al., 1996).

Against this background, the “Negev 2015” plan was designed as a non-statutory, conceptual development plan whose drafters spelled out their underlying rationale. The planning team members expressed a sincere concern about the socioeconomic difficulties of the Negev's population (*interviews with the researchers*, 2008). Additional stakeholders in regional councils have also indicated that the plan ultimately recognizes the Negev's economic potential (*interviews with the researchers*, 2008). The lead funding source for the planning process was a result of a collaboration of two affluent individuals with *The Jewish Agency*. The head of the planning team was a high ranking former military officer who used his personal connections to receive the blessing of top officials in the central government for the initiative. This allowed the planning team to attract considerable media attention for the plan, making it conspicuous and visible to the media, NGOs and the general public. Eventually, in a highly publicized meeting of the cabinet, the plan was approved by the government with a multi-billion dollar vague commitment to its implementation. (Governmental decision no.4415, 2005)

As for its environmental concerns, the preparation of the “Negev 2015” plan included a dedicated planning team for the issues of “Infrastructure and Environment” (*Daroma*, 2005). This chapter of the plan includes recommendations for investments of approximately one billion Dollars toward transportation upgrades. They include funding for extending the national Trans-Israel highway into the Negev region, additional freeways in the region,

expanded railway access, and airfields. Like the other development strategies for the Negev during the last few decades, “the Negev 2015” relies on a range of industrial initiatives including: pharmaceutical, biotechnology and high-tech industries which join plans for expanding the more traditional industries. Education and community cohesion has received much greater weight in the new plan. An additional substantial investment is specified for the upgrading of infrastructures in Bedouin communities and the Negev’s “development towns”, such as roads and sewage.

This chapter also includes an inventory of existing dumpsites, water resources as well as communication and energy infrastructure (oil-lines, gas). In addition, an appendix, written by a professional environmental planner presents a description of existing and prospective environmental hazards in the Negev, and recommends principles for environmental protection and sustainable development in planning.

In theory, “Negev 2015” could have created a new vision for the region. In practice this was not the case. Our research interviews have showed that the environmental strategy contained in “Negev 2015” was an “afterthought”, added to the program after the initiative had already been launched. This contributed to its lack of breadth and depth. As the environmental planner who worked with the plan explained: “this chapter was not planned to be included at all until I approached the “Negev 2015” steering committee” (*interview with researchers, 2007*). Thus, rather than making enhanced quality of life and ecological harmony the heart of the program, no real creative efforts were made to integrate innovative sustainable development initiatives (such as solar energy, bicycle trails, more efficient public transportation, climatic-sensitive building or landscaping,) into the plan. Environmental NGOs and activists, openly criticize the very essence of the plan. According to them, the environment should not just be an additional chapter in a lengthy document, but rather the very foundation and conceptual touchstone upon which the plan rests (*interviews with researchers, 2007*).

In order to illustrate the gap between rhetorical claims and actual implementation, **Table I** tabulates and contrasts the sustainable development principles, which were written as an appendix document for the "Negev 2015" plan with their actual manifestation (or lack

thereof) in the plan itself. In other words, the table presents a comparison between the Guiding Principles for Environmental Protection as they appear in the “Negev 2015” plan (Daroma, 2005) and the actual manner in which “Negev 2015” relates to these environmental criteria. The disparities between the two columns are striking. This is surprising, considering the fact that the list of principle was not prepared by an environmental advocate, but by an independent scientific advisor who joined the planning team. For example, while the environmental planner highlighted the need to concentrate development in urban places and to improve public transportation, the plan itself strongly promotes sprawling rural settlements and has no suggestions for the upgrading and investment in the existing bus system. In addition, while the environmental principles have stressed the importance of preservation and management of natural resources and historical sites, the planners neglected to allocate any budget for these purposes.

A component of the plan that is conspicuously absent is its relation to what has become a key part of modern sustainability: environmental justice. This includes questions regarding rights, equity, and public participation in processes that might affect the public's life (Beierle and Cayford, 2002). This more holistic phase of environmentalism is designed to address social dimensions of sustainability, such as power relations, governance of the means of production and fairness. Accordingly, environmental justice includes the extent to which, natural resources as well as locations of environmental hazards and exposures are equally distributed between different populations, especially in relation to disadvantaged populations and minority groups (Van De Veer and Pierce, 1994; Gottlieb, 2005). Planning systems that seek to serve as agents of change in people's physical living conditions (Faludi, 2000) must not only address the physical environment, but also be cognizant of its effect on social reform and distributive justice ([Yiftachel, 1998](#)).

The question of environmental justice or equity is particularly salient in the context of the Negev region. The claims of the Bedouin population, both with regards to the poorer access to resources (land, water, energy) and to the greater exposures to environmental risks have emerged as a national issue. Of particular concern in this context is the proximity of Bedouin settlements to hazardous-waste disposal sites and industrial facilities and the exposure

resulting from the lack of municipal services, such as waste collection in unrecognized villages (Meallem and Garb, 2008).

Another issue with implications for environmental justice is the "Negev 2015" plan's advocacy of a controversial initiative to settle 100 single families along the major transportation routes across the Negev. The ostensible goal of this plan is to attract new residents of high socio-economic status to the Negev, marking the Negev as an attractive destination for tourism, and increasing the local residents' feeling of security, presumably through greater Jewish presence. While this project's attendant ecological risks have been noted by "green" organizations (Tal, 2008), the brunt of the opposition was actually based on opposition to the single-family farms on the grounds of environmental injustice; granting considerable land resources to a few families was considered unfair, when the Negev should be accessible to the entire population. Despite the protestations, the initiative has been deemed by decision makers to be a success and plans to expand the single-family farms are under constant debate (Tzfadia, 2008; Swirski, 2007).

This position might partially be a result of a broader shift in Israeli environmentalism, which traditionally had framed its opposition to projects on the basis of the loss of open space. Schwartz (2006), for example argues: *"...social environmentalism in Israel, has transformed into a social change movement. Today, it rejects the perception, which sees the environment as marginal territory on the edge of the great story of humanity's evolution. The environment, according to the new insight, is an essential characteristic of the bigger story, a major dimension that is becoming more and more critical"*. The growing exposure of these plans to the media's increasing coverage of environmental concerns and the general greening of the Israeli public has also promoted their environmental "performance. Rhetorically this certainly seems to be the case in "Negev 2015"; the plan does not promote, what was traditionally called "tourism", but explicitly endorses "eco-tourism". The vast "open spaces" are now considered to be an asset and therefore should be preserved (and not "conquered" as in the rhetoric of past paradigms). Finally, in the new plan, the desired industries to promote economic growth are those that can be labeled and presented as "clean" industries.

## Summary and conclusions

In this article we document three different phases in the Israeli government's attempts to develop its southern region, and offer insights about the gap between the emerging environmental consciousness and the prevailing patterns of unsustainable planning procedures and orientation. **Table II** summarizes different aspects of the three plans discussed, which intended to guide the development of Israel's southern Negev region. While there is a clear evolution in the orientation of the different plans, the most recent efforts still appear to fall short of accepted models of sustainable development.

As a result of formal planning strategies, there may be no region in Israel that is as deliberately filled with polluting industries, hazardous facilities and dumpsites, as the northern Negev. These plans emerged from the national need to utilize the Negev's natural resources and built on a perception of the region as a vast empty space. Sixty years of development history were informed by a constant culture of neglect, low prioritization and a chronic lack of resources and manpower to address environmental issues. As a result, the region's most populous area, the metropolitan area of Beer-Sheva contains a long list of untreated environmental hazards.

The first phase of the plans for developing the Negev began before the establishment of the state. The environmental policies embedded in these plans were dominated by the perception of the Negev as an empty, border region, a wild desert that should be overcome by settling. The second phase of planning emerged during the 1970s with an ambivalent attitude toward environmental considerations; a non-restrictive utilization of the Negev's natural resources was perceived as desirable and legitimate. Simultaneously, environmental awareness began to grow gradually over time, and become embodied in statutory regulations. The third phase arrived in the mid-90s and from a semantic point of view; its environmental terminology evolved considerably. Environmental problems were suddenly being regulated and environmental impact assessments were utilized, even if the resulting findings and recommendations were not always being implemented or enforced.

Over the years, many stakeholders have attempted to intervene regarding the issue of the environment, and yet the subject often appears to be insignificant and neglected. This

dynamic is particularly conspicuous in the final and most recent case - the “Negev 2015” plan, with its political, economic, spatial and environmental implications. In theory, “Negev 2015” could have created a new, holistic vision for the region by bringing together social, economic and environmental considerations. In practice this was not the case and the longstanding tradition of neglecting the Negev's environmental issues was not interrupted by the "Negev 2015" plan.

From fundamental absence of awareness and lack of knowledge, through deliberate exploitation of natural resources, and now with the apparent gaps between declaration and implementation, the Israeli planning system still has much to improve. After decades of planning, a region, once virtually untouched has been mined with little concern for landscape restoration. The Negev now contains the most polluting industries in Israel while urban and regional development continues to take place with insufficient concern for open space and biodiversity preservation. At the same time, a historical perspective also reveals significant improvements with regards to the role of environmental consideration in the planning process ([Feitelson, 1998](#)). It remains unclear whether or not this maturation will continue and produce an effective, sustainable development paradigm internalized by planning officials before additional, egregious environmental errors are made.

One reason for the poor integration of environmental concerns within planning process lies in the continued short-term, and un-integrated planning practices at all levels: national, regional and local, whereas a strategic approach in planning, characterized by plans that are general, cross-sectoral and longer-term (Faludi, 2000; Thompson, 2000), have been argued to better address environmental considerations. In the words of Blowers (2002): *“sustainable development is a strategic process in the sense that it requires the co-ordination, integration and implementation of a wide range of policies at local, regional and national levels. Strategic planning is a key mechanism for the delivery of sustainable development”*. Nonetheless, such a strategic mechanism in planning has not yet been practiced by the planning system in Israel. The primary reason for such a failure had been recognized by planning theoreticians as the presumable tension both in theory and practice, between the notions of ‘sustainability’ (meaning maintaining overall quality of life while avoiding lasting

environmental damage) and of ‘sustained economic growth’ at the regional level (Schainberg, 1980; [Roberts, 1994](#)).

Rather than embed environmental quality in the economic strategy for the region (e.g., heavily promote solar energy, ecotourism, algae/bio diesel production, etc.) the “Negev 2015” strays little from the traditional industries and occupations that have left the region both relatively disenfranchised economically and environmentally degraded. Environmental considerations are an afterthought that at best offer an orientation of hazard mitigation rather than one of proactive prevention, based on creative, and sustainable livelihoods. The case suggests that and that it is much easier to adopt the slogans and language of “sustainability” than to actually change the substantive orientation of regional plans and actual development.

The Israeli experience offers a message to countries who seek to address asymmetry in economic capacity and social status between regions regarding the need to offer true environmental benefits and “bottom-up” approach as part of a successful strategy. The reliance on private planning deserves further research. In the Israeli case it reflects a vacuum in national neo-liberalism. While not inherently incompetent, such efforts must be informed and guided by the perspective (and regulatory oversight) of public-interested representatives of the citizenry. Furthermore, ultimately, private entrepreneurial planning must still enjoy meaningful political support from central or regional governments.

**Table I:** A comparison between the Guiding Principles and the plans' final outline

Guiding Principles for Environmental Protection in “Negev 2015”	Strategic-National plan for Developing the Negev - “Negev 2015” - Environmental approach in practice
Adopting sustainable development principles: prevention, rehabilitation or minimization of environmental hazards	Except for treating the issue of sewage as part of the necessary infrastructure, none of the mentioned environmental hazards in the Negev were budgeted or even mentioned by the plan
Efficient land-use and utilization of resources. Placing restriction on the use of natural resources	The planners perceived the land of the northern Negev as a resource that should be fully utilized for settlements, industry, army bases, single-family farms etc. There are no restrictions on industries that make their profit from mining natural resources. On the contrary, these industries are seen as major economic accelerators.
Preservation and management of natural resources, open-spaces and historical and archaeological sites	There is an appendix on tourism that stresses the importance of the desert, nature, open-spaces and historical and archaeological sites for tourist sites. However, these are not budgeted. According to the plan, the preservation of the old city of Beer-Sheva is important and therefore 18 million shekels should be invested in it.
Highlighting the importance of natural areas for preservation, open-spaces and ecological corridors	There is no specific statement about the importance of natural areas for preservation, open-spaces and ecological corridors, nor concrete management plans and zoning recommendations.
Emphasis on the urban space and increasing utilization of public transportation	The planners promote rural settlements, “special real estate opportunities” and single-family farms. With the exception of the planned extension of the existing train-line a bit further south, there is no proposal for public transportation improvement in the region. The complete absence of bus service to all seven Bedouin town is not mentioned.
Reducing source-pollution through recycling and reuse	There is no proposal for reducing source-pollution of any kind. No proposals exist for regional recycling centers, for example.
Rehabilitation of damaged environments	The plan generally suggests the rehabilitation of industrial parks and urban neighborhoods. Polluted soils, mining and quarrying areas etc. are not mentioned at all.
Equal distribution of resources between areas and population groups	There are important ideas for shared industrial zones. However, the promotion of single-family farms is generally considered to exacerbate environmental injustice by, allowing (almost exclusive Jewish) families to spread over considerable territory while confining Bedouin development and preventing Bedouin families from continuing their traditional dispersed habitations.
Financial and administrative resources need to be earmarked for environmental protection	No suggestion for establishing an administrative body that would focus on the environmental issues of the region, much less a dedicated budget.
International cooperation in environmental protection	There is no trans-boundary planning or concepts set forward despite the special geopolitical location of the Negev between Jordan, Egypt and the Palestinian Authority.
Accelerating environmental awareness and public participation in “green” activities	Considerable weight is given to education in the Negev, but the orientation is mainly toward science. Only one recommendation offers to integrate a special program which would strengthen the connection between Negev children and their special desert surroundings.

**Table II:** Comparison of Three development plans for the Negev

Name	Planners	Motivation for Planning	Main issues & key-projects	Attitude toward Bedouin community	Demographic target in the region	Role of Israel's Defense Force in develop.	Environmental concerns
<b>1. "The Big Plans" (1949)</b>	Special Authority appointed by first Prime Minister David Ben-Gurion: Negev Enterprise	Realization of Zionist vision of Jewish state in "the promised land". The need to create and protect the borders of the Jewish entity. First Prime Minister's belief that without the Negev the State will not be able to sustain itself.	<ul style="list-style-type: none"> <li>• Search for natural resources, soil &amp; water.</li> <li>• Search for settlement options. Encourage fishing and fish products in southern port-city of Eilat.</li> <li>• Establish local agricultural and later industrial production.</li> </ul>	Buying of Bedouin's lands was strategically part of a Jewish "redemption" of the Negev. Still, the planners foresaw an allocation of water for Bedouin's lands. Plans were agreed for their concentration into defined area.	As many Jews as possible.	The army is part of the settling process in the region and does not yet control much of its territory.	Plans for agriculture and use of natural resources. The plans ultimately lack recognition of potential environmental outcomes.
<b>2. National Industry Zone in the Negev (1974)</b>	Ministry of Interior, Southern district	Achieving maximum benefit from natural resources and the vast and empty land of the Negev. Creating jobs for future population in the region to fulfill the principle of "population dispersal".	<ul style="list-style-type: none"> <li>• Create a national industry area for: heavy &amp; petro-chemical industry, domestic and international airfield, additional 40,000 workplaces, power stations for hydro, electric, and nuclear energy.</li> <li>• Enable further scientific research.</li> </ul>	There is an indication the number of current Bedouin population (30,000). No mention of needs or development goals.	Until the year 2000: One million Jews in the region. After 2000: Two million Jews	Focus only on industry thus, army's role not mentioned	The Negev was conceived as vast and vacant. However, the 1972 version included <u>concerns of ecological impacts</u> and further inspections were planned in areas of: air pollution, public health, natural resources, water resources & impact on Dead sea. Despite this, no plans for preventing ecological / environmental damage

<b>3. "Negev 2015" (2005)</b>	Private initiative "Daroma-The Age of the Negev"	Developing the Negev region is crucial for national prosperity.	<ul style="list-style-type: none"> <li>• Relocation of army bases to the Negev</li> <li>• Investments in education, university and science,</li> <li>• special housing &amp; "single - family" farms,</li> <li>• Bureaucratic shortcuts for industries</li> <li>• Roads &amp; railway</li> <li>•Infrastructure s&amp; education in Bedouin sector.</li> </ul>	Emphasis on the needs of the Bedouin community. Additional reference in each chapter and special budget allocation.	Predict 900,000 residents in the Negev - Doubling current population	Central role of the army: relocation of army bases from the center designed to attract "strong" families, jobs and crucial infra-structures.	Separate report includes principles for environmental protection. However, this is general and non-obligatory guidance. Major projects are planned with no EIA. Natural scenery is important only for tourism and high quality housing.
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