A Decade's Experience in Implementing a Land-Use Environmental Impact Assessment System in Israel in View of the American and European Experience

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RUTH ROTENBERG, A DECADE’S EXPERIENCE IN IMPLEMENTING A LAND-USE ENVIRONMENTAL IMPACT ASSESSMENT SYSTEM IN ISRAEL IN VIEW OF THE AMERICAN AND EUROPEAN EXPERIENCE (Natural Res. Law Ctr., Univ. of Colo. Sch. of Law 1992).

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A DECADE'S EXPERIENCE IN IMPLEMENTING
A LAND-USE ENVIRONMENTAL IMPACT
ASSESSMENT SYSTEM IN ISRAEL
IN VIEW OF THE
AMERICAN AND EUROPEAN EXPERIENCE

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June 1992

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I. INTRODUCTION

The idea and procedure known as "environmental impact assessment" (EIA) or "environmental impact statement" (EIS) has been recognized worldwide as an eminent and essential means of good environmental practice.

Ten years ago, an EIA system was introduced in Israel, within its comprehensive planning and building process, controlling all land-use activities, and applying a preventative approach to assure sustainable development.

The purpose of this paper is two-fold: it attempts to present the Israeli EIA system to the foreign (American) reader, and to expose the Israeli reader to the American long-time experience in implementing the EIS system under NEPA, including an acquaintance with a dominant characteristic thereof—the notable volume and value of American courts' decisions.

The paper starts with a presentation of the Israeli EIA system, introducing its legislative and historical background, describing the framework of the Planning and Building Law and process, and continues by reviewing the Israeli EIA Regulations—their main provisions and their actual implementation.

The paper then introduces some observations of the American EIS system, as set up under the National Environmental Policy Act, the U.S. Council on Environmental
Quality Environmental Impact Statement Procedural Regulations, and according to some relevant federal courts' decisions specifically focusing on some basic and essential components thereof.

As further elaborated in the paper, the American and European EIA systems are presented and observed not for a comparative evaluation (although some comparisons are featured), but for the sake of stimulating ideas and learning.

Finally, some conclusions are drawn and recommendations made, with a view to strengthen the Israeli EIA system (without underestimating its merits) and to further improve its decision-making processes which may have environmental effects.

II. LEGISLATIVE AND HISTORICAL BACKGROUND OF ISRAEL'S EIA SYSTEM

(a). The Planning and Building Law, 1965

Israel's land-use planning system is regulated under the Planning and Building Law of 1965\(^1\) (hereinafter - The PBL) that replaced a 1936 Town Planning Ordinance, which was enacted by the British Mandate.

The PBL establishes a comprehensive legislative framework which regulates all land-use development activities in Israel, public as well as private, within a three-level hierarchy system: national, district and local. According to the PBL, no work related to the building and use of the land can be initiated without a permit, and a permit cannot
be issued unless it fully complies with the various outline (master) and detailed plans applying to the specific area and project.

The top level of the PBL hierarchy is the National Planning and Building Council (NPBC), composed of representatives of various government ministries, relevant public and professional organizations and local authorities. The NPBC is responsible for preparing national outline plans, reviewing regional outline plans and serving as an appeal board for decisions of the District Planning and Building Committees (DPBCs).

The National masterplans are prepared for land-uses and projects of national significance such as: national parks and nature reserves, solid waste disposal sites, water catchment basins, the coasts (Mediterranean coast and Lake Kinneret shores), electric power stations and networks, prisons, roads and railways, cemeteries, tourism and recreation.

The six DPBCs are composed of regional representatives of governmental ministries and of representatives of local authorities (municipalities) within each district. The DPBCs are responsible for the preparation and implementation of district outline plans, in accordance with policies and guidelines expressed in the national outline plans. The DPBCs are also in charge of reviewing and commenting on national outline plans and reviewing and approving local outline and detailed plans.

The local level consists of about a hundred Local Planning and Building Committees (LPBCs) serving one or more local authority and composed of the elected members of the municipal councils. The LPBCs are responsible for the preparation of outline and detailed local plans or reviewing such plans prepared and presented to them.
by developers. The LPBCs are also responsible for issuing building permits and enforcement in cases of illegal building.

In addition to the above described three-level hierarchy, there are two special national-level committees: One is The Committee for the Protection of Agricultural Land, which is in charge of reviewing any development plan on agricultural land for other land-use purposes. The second is the Committee for Coastal Waters, which is responsible for all off-shore development projects. No plan or building permit regulating agricultural lands or an off-shore project may be approved without prior approval of the relevant above-mentioned committee.

The PBL provides for a public notification and participation process, which is a uncommon feature in the Israeli administrative system. A proper public notification is required prior to approval of all local and district outline plans, including a variation or amendment thereof. Any person interested in the land, the building or other planning item, subject to a submitted plan, who considers himself aggrieved by the plan, any representative of a governmental ministry in the planning committee or any public body enlisted under the regulations (such as the Nature Preservation Society), may file an objection to the plan. The opposing person or body has a right to present his objection in writing and the right to be heard by the planning committee. The PBL also provides for an appeal process in case an objection is rejected.

The Minister of the Interior is in charge of the PBL and most plans require his final approval and signature. The national plans are also subject to government (cabinet) approval. A notification of each approval of a plan must be published.
(b) The Environmental Impact Assessment Regulations (EIAR)

The Environmental Impact Assessment Regulations were promulgated in 1981 under the PBL and came into force in July 1982. The preparation and promulgation of the EIAR took many years, starting March 1973, when the government of Israel decided to create the Environmental Protection Service (EPS) within the Prime Minister's Department. In its decision on establishing the EPS, the government stated that one of the EPS functions would be "To prepare a program for the establishment of a system of environmental impact assessment." In its decision, the government also set the basic rules, the scope and nature of such a system, by specifically determining that "The program will be prepared in conjunction with the Ministry of the Interior and the National Planning and Building Council, ensuring preventive measures to avoid delays and duplication in the proper functioning of the planning and building agencies." In its decision the government of Israel expressed a worldwide growing concern for the need to consider environmental impacts within the development process to prevent and eliminate adverse environmental impacts, unreasonable depletion of resources, and ensure sustainable development. Since then the EPS has made numerous efforts for launching an EIA program, through steering committees and professional administrative working groups. Within this period, the EPS was moved (in 1976) from the Prime Minister's Department to the Ministry of the Interior and became involved in the actual planning process, thus introducing environmental provisions to be included in several national masterplans, and drafting guidelines for the preparation of environmental reviews within
various specific projects, such as the Hadera Electric Power Plant, and the state's largest wastewater treatment plant in the sands of Rishon LeZion.

These decisions and activities as well as the organizational changes (including the appointment of environmental advisors to the national and district planning committees) laid the groundwork for introducing the 1981 EIAR, not before some long and exhaustive discussions on the subject were conducted at the NPBC, and on a specifically designated sub-committee. The outcome of this long negotiation process was a compromised version of subordinate legislation--the Planning and Building (Environmental Impact Assessment) Regulations, signed by the Minister of the Interior on December 15, 1981, and entered into force on July 15, 1982.

III. REVIEW OF THE ISRAELI EIAR

(a). Main Provisions of the EIAR

The EIAR (a complete text thereof is attached) present in a brief manner the procedural and substantial requirements for preparing and submitting an EIA within the context of the planning and building process, thus applying to all--private as well as governmental-physical development activities.

Activities Requiring EIA

The regulations specify types of some activities (plans) for which EIA are mandatory: power plants, airports, seaports and hazardous waste disposal sites. The
regulations also specify other activities--landing fields, jetties, national water supply arteries, dams and reservoirs, wastewater treatment plants, mining and quarrying sites, solid waste disposal sites and an industrial plant not within an industrial zoning area--as conditionally subject to an EIA request, where "in the opinion of the NPBC or the DPBC," considering those plans, may have a "significant environmental impact exceeding the local boundaries."

In addition to the above-listed identified activities, the EIAR provide the grounds for a discretionary EIA requirement--that is, at the request of a representative of a governmental ministry in a PBC or at the request of the PBC considering a PB plan "whose implementation may, in its opinion, have a significant impact on the environmental quality." Such a request can be made at any state of the PB process prior to the plan's approval.

**EIA Scoping and Content**

The EIA Regulations state the following five elements as basic and specific requirements to compose a proper EIA document:

- A description of the environment, subject to a proposed plan, prior to the development activities. Attached to this general environmental data base requirement is a broad definition of the term "environment" expressing a functional rather than geographical approach: "the environment which in the opinion of the PC may be affected by the plan's activities."
A specification of the reasons for the preference of the proposed site of the plan and its activities. This requirement provides a legal basis for an alternatives’ eliminating process, not for a complete presentation and analysis of alternative options to the proposed plan and activities.

A description of the activities resulting from the performance and implementation of the proposed plan. This part to be mainly of a descriptive nature.

Specification and assessment of the future impacts anticipated and forecasted—resulting from the implementation of the development plan and its activities. This open-ended requirement allows for the presentation and examination of the widest scope of (possible and impossible) impacts. Sequentially, there is also a requirement for a description of the necessary mitigating measures to prevent the negative impacts.

The final part to be included in every EIA is the presentation of the findings of the EIA study and its outcomes and proposals to be included in the documents of the actual plan. This provision, if properly implemented, constitutes the substantial and true contribution of the EIA process to environmentally sound planning and development.

EIA Preparation and Submission Procedures

According to the EIAAR, the EIA should be prepared in accordance with specifically-tailored guidelines established by the relevant PB committee, and based on the Environmental Advisor’s (EA) proposal. The guidelines are aimed to ensure that
the EIA is properly prepared and contains the relevant data and information. This is of particular importance, bearing in mind that the EIA is prepared and submitted by the developer.

The Director General of Ministry of the Environment (MOE) (previously Director of EPS) was appointed as the EA for the purpose of the EIAR, and is performing his duty through the Environmental Planning Department (EPD) of the MOE. The EIAR set up the timing for the submission of the EIA: together with the planning documents when the EIA is explicitly required, or at any other stage of the plans preparation, prior to its final approval. This allows also for an EIA request at the later stage of deposition of a plan for public objection.

Finally, the responsibility for examining and evaluating the EIA lies with the relevant PBC, which is instructed under the EIAR not to approve a plan submitted with an EIA, "unless it has reviewed all details of the EIA and has decided upon the findings and instructions to be included in the provision of the plan as an outcome of the EIA."

(b). **EIAR Implementation**

**Factual Notes**

According to information given by the EPD of the MOE, since the entry into force of the EIAR in 1982 until the end of 1991, 84 EIAs have been submitted to PBC and received at the EPD for check up and evaluation. During the same period, the EPD prepared on the request of PBC 154 sets of guidelines.
The plans which required the preparation of EIA concerned mainly the following: seaport and marinas, sites for tourism, recreation and sports, mining activities, energy production plants, various industrial plants, solid waste disposal sites, roads and parking lots. Guidelines have also been prepared and issued on plans for airports and landfields, water and wastewater treatment plants and for railroads, but these plans have not yet been submitted.

Operational Notes

The above-stated numbers reveal a moderate picture of implementation. It did not create an "overflow" and did not obstruct the PB process, as the critics warned. This moderate picture may well be attributed to the character of the EIA system, being basically a discretionary system, especially as concerns the request for EIA.

This picture may change now, as a result of a 1992 Amendment to the PBL that nominated representatives of the MOE as members of the District PBCs. This membership should affect, *inter alia*, the quantity and quality of EIA-related decision-making on these committees.

It is worth noting in this context, another existing practice: to require the preparation and submission of an EIA under the provisions of a specific plan, not directly within the EIAR process. This is the case, for example, in most road construction planning. For some reason, these plans were not included implicitly in the EIAR. This was remedied at a later stage, while amending the NPB Roads Masterplan
to include an obligatory request for the preparation of EIA, regarding road planning and building.

Court Litigation

Unlike the American experience, there has been very little court litigation on EIA matters, in Israel. Two recent cases might be of interest and worth mentioning:

One recent high Court of Justice case, known as the Kfar Hanashi Case, dealt with a petition against the approval of a plan regarding the building of a hydroelectric plant to supply the needs of a small adjacent kibbutz. The plan entailed diverting the natural flow of part of the Jordan River, at a wildlife area, north of the Lake of Galilee, in order to create an artificial waterfall for the hydroelectric system. The case was petitioned on the grounds that the project would cause severe and irreversible damage to the natural ecology of the adjacent Jordan River environment. The petitioners challenged the PBCs for not following the proper procedures in reaching their decisions to approve the plan, and alternatively claiming that the decisions were unreasonable because they did not consider properly the destructive aspects of the proposed plan, neglecting to give the proper weight to considerations such as the special status of the Jordan River as a national asset and the damage to tourism and to the view and environment of this special site.

The court did not accept these arguments. As a matter of fact, it established that all the required procedures had been followed, including: discussions by all relevant PBCs, a detailed EIA was prepared and submitted to the DPBC, necessary mitigation
measures were recommended and incorporated in the plan, and objections from many persons and bodies have been heard by the DPBC.

As a matter of law, the court stated that the question to be examined in such a case is not what the Court would have decided in those circumstances (hinting, perhaps, at its dissatisfaction with the decision), but whether the decision is reasonable according to the rules and criteria established in Administrative Law. Finally, the court reiterated in detail all the mitigating measures that were incorporated in the plan and emphasized that these measures should be scrupulously implemented.

Another recent High Court of Justice case involving environmental and EIA questions is known as The Voice of America Case. In this case, the petitioners challenged a decision of the NPBC to approve the location and construction of a huge radio transmission station designed to improve the quality of the Voice of America’s (VOA) broadcasting services to the Asiatic Russian Republics in the Arava Area. The Arava Area is a desert-type prairie located in the southeastern part of the country, with only a few scattered small agricultural settlements. The supporters of the VOA plan emphasized its potential economic value as a trigger to introduce development and jobs to the Arava Area. The opponents were concerned about the environmental impacts of the project, mainly—the station’s radiation dangers to human beings and to numerous migratory birds that fly along the Arava Area.

In this case the court ruled for the petitioners, mainly on the grounds that the planning and EIA processes were lacking and incomplete. The court established that the EIA has not properly investigated the radiation and thermal effects of the station on the
migratory birds and their navigational mechanism, and therefore the NPBC is lacking sufficient information needed for reaching a proper decision.

Another claim accepted by the court was the default of the EIA to deal with the effects of the VOA station on the location of a nearby Israel Defense Army firing zone, the probability of having to shift its location and the various environmental effects of such a change.

On these grounds and on another strictly administrative default of the process, the High Court of Justice decided to uphold the petitioners’ claim and request that a further study was needed on the above-mentioned subject matters, in order to furnish the NPBC with the appropriate information required for reaching a well-founded decision. It seems that in this case the court took a further step from its strictly administrative procedural approach (as demonstrated in the previous case), while refraining from a substantial judgement and not directly interfering with the competent authority.

IV. OBSERVATIONS ON THE AMERICAN AND EUROPEAN EXPERIENCE

(a). A Comparative Observation

The above presentation of the Israel EIA system demonstrates also that it differs in many ways from the American EIA system under the U.S. National Environmental Policy Act (NEPA) of 1970\textsuperscript{5} and the Environmental Impact Statement Procedural Regulations, developed by the U.S. Council on Environmental Quality (CEQ)\textsuperscript{6},
Both American and Israeli legal systems apply the EIA idea and procedure as a tool of environmental management aimed at identifying and preventing environmental adverse effects of development activities. Nevertheless, different legal and conceptual approaches formulate the differences between the two systems—the American being based on a statement of the National Environmental Policy Act, while the Israeli is based in regulations under the Planning and Building Law. Subsequently, the Israeli EIA system is integrated in the land-use planning and building process and applies to physical development activities, public and private, while the American EIS system is an independent self-supporting system, covering a broad range of federal actions, physical and non-physical, including "every recommendation or report on proposals for legislation ..." In addition to these basic conceptual and structural differences, some further, procedural and substantial, distinctions between the two systems are worth pointing out. The procedural distinctions include:

- The identity of the EIA preparer—the developer of a project with the PB process in the Israeli case, vis-a-vis the Federal Agency responsible for an activity, in the American case (although in practice the private proponent of an action will initially prepare the EIS).

- The various stages for the establishment of a request for an EIS in the American system include preliminary an environmental assessment (EA) according to the CEQ regulations, in order to identify a "significant impact" which triggers the EIS requirement, while the requirement for an EIA according to the Israeli system is,
in most cases (except for those which are mandatory), at the complete discretion of the competent authorities.

On the other hand, the Israeli process provides for an on-going dialogue between the developer and the authorities within the guidelines’ preparation and presentation process, which creates a case-by-case tailored preparation system, in comparison to the more standardized EIS preparation and evaluation process under NEPA and the CEQ regulations.

Embodied with the above-described procedural differences are the substantial distinctions, which include:

- Being much more detailed and specific, the American EIS legislation, regulations and case law provides a more definite and meaningful basis for various EIS terms and components. These specifications, although not excluded from the Israeli system, are not always understood and implemented. This includes: definitions of basic terms and ideas, such as effects and impacts, significance, human environment, major federal actions, mitigation and scoping.

- Specific requests for certain studies and analytical procedures to be included in the EIS, the most important of which is the study and presentation of alternatives, including the "no action" alternative. Other studies required by the American system are: cost-benefit and cumulative impact studies.

Two other distinctions between the two systems are worthy of specific notification, because of their importance, procedural as well as substantial:
Public participation is an important and inseparable component of the American EIS system, by law and practice, while the Israeli EIS system provides for public participation only partially through the "objection process" set by the PBL.

The final phase of the EIA systems is the integration and implementation of the findings and recommendations of the EIA study into the decision-making process and in later review and implementation processes. While in the American system, the Record of Decision of an EIS is an independent document not directly enforceable, the Israeli system requires to include the EIA's findings as an integral part of the plan, ensuring its enforceability, through the existing enforcement mechanisms of the PBL and in following stages.

As already stated, this paper is not meant to present a comparative study of EIA systems. Thus, the above presentation of similarities and differences between the systems has been made for the purpose of demonstration and better understanding and not for evaluation. Each system has its advantages and disadvantages, and it is the aim of this part of the paper to identify these components and features of the American and European EIS systems worth further observation and learning.

(b). A Specific Observation on some Features of the American and European Systems

(i) Significance of Impacts and Screening

The EIS procedure under section 102(2)(c) of NEPA applies to "... major federal actions significantly affecting the quality of the human environment." The words "Major
Federal Action" are defined in CEQ regulation 1508.18 as including "actions with effects that may be major and which are potentially subject to Federal control and responsibility," to include "new and continuing activities" of various specified types. In addition, regulation 1502.4 further elaborates on what are "major federal actions requiring the preparation of environmental impact statements" by referring to criteria of scope, as defined in regulation 1508.25, and by using the term "broad actions" to be evaluated geographically, generically or by stage of technological development. Actually, and as stated in regulation 1508.18, the word "major"--"reinforces but does not have a meaning independent of significantly." The regulations (sec. 1508.27) further define "significantly" as a term requiring "considerations of both context and intensity." As the "context" can vary according to each case's circumstances, "both short-and long-term' effects are relevant." The meaning of "intensity" by this definition "refers to the severity of impact." This definition also presents ten specific criteria to be considered in evaluating intensity, such as: beneficial and adverse impacts, the degree of the action's effects on public health or safety, unique characteristics of geographic area, the degree of the effect being controversial, the degree of uncertainty or unknown risks or the establishing of a precedent or a principal decision, the extent of cumulative significant impacts by relating to other individual actions, the degree of having adverse affects on various objects, including significant scientific, cultural or historical resources, or on endangered species or its habitat, and finally--whether there is a threat of violating any law or requirement imposed for the protection of the environment.
These definitions and criteria are the threshold test for entering the NEPA EIS process and, as stated by the Chief Judge (a dissenting opinion) in the leading case of Hanley v. Kleindienst, (Hanley II), interpreting the significant requirement, "the threshold determination that a proposal does not constitute major Federal action significantly affecting the quality of the human environment becomes a kind of mini-impact statement" (emphasis added). This case concerns various objections to the construction of an Annex of two buildings to the U.S. Courthouses in downtown Manhattan (Foley Square), one of which was to serve as a detention center for more than four hundred persons awaiting trial or convicted of short term federal offenses. At a certain stage, a distinction was made by the appeal court between the two building annexes, and a new EIS was prepared and submitted regarding the detention center. Considering a renewed appeal against this document, the court of appeal was confronted both with questions of law and fact concerning the meaning of the words "significantly" and "significantly affecting the quality of the human environment." After considering principles of administrative law with respect to similar mixed questions of law and fact, such as the "rational basis" standard and the "arbitrary and capricious" standard, the court concluded that the agency's "threshold determination that an impact statement is not required under sec. 102 of NEPA, is an "arbitrary, capricious, abuse of discretion".

In its decision the court attempts to define the term "significance", stating that "In the absence of any congressional or administrative interpretation of the term ... significantly ... the agency in charge, although vested with broad discretion, should normally be required to review the proposed action in the light of at least two relevant
factors: (1) the extent to which the action will cause adverse environmental effects in excess of those created by existing uses of the area affected by it, and (2) the absolute quantitative adverse environmental effects of the action itself, including the cumulative harm that results from its contribution to existing adverse conditions or uses in the affected area. Where conduct conforms to existing uses, its adverse consequences will usually be less significant than when it represents a radical change." In concluding its decision the court also states "Hence the absolute, as well as comparative effects of a major federal action must be considered." The dissenting judge, while admitting the difficult problem of determining the meaning of the "vague and amorphous term "significantly" as used in NEPA, offers an eliminating type of test, thus "that an impact statement should be required whenever a major federal action might be "arguably" or "potentially" significant and that such an interpretation would insure the preparation of impact statements except in cases of "true insignificance".

In a recent Supreme Court decision the question regarding the appropriate standard of judicial review for the significance decision, Marsh v. Oregon Natural Resources Council, was resolved by the court holding that the "arbitrary and capricious standard" of judicial review does apply to the Corps of Engineers' decision that a supplemental impact statement was not necessary on a proposed project.

As already mentioned, the "significance" question is often raised early in the screening process, and in some cases is part of the decision made at the early stage of preparing an "environmental assessment" (EA) usually preceding the full EIS process. When the EA reveals that the proposed project will not significantly affect the quality of
the human environment, the responsible agency has to prepare a "finding of no significant impact" (FONSI) explaining this decision.

The subject of the agency's and court's consideration on the "significant" effects of a project, when a "finding of no significance" is involved, was discussed by the U.S. Court of Appeals First Circuit in the case of *Sierra Club v. Marsh*. This case embodied an argument concerning the question whether a cargo port and causeway planned at Sears Island, Maine, will "significantly affect the environment". The relevant state and federal agencies decided that it would not and therefore decided to permit proceeding with the project without preparing an EIS. The Sierra Club sued the federal agencies seeking to stop the project in the absence of an EIS. The Court of Appeals, reviewing the Federal District Court's determination that the agencies' decision not to prepare an EIS was lawful, vacated this decision and remanded the case. In its decision, the Court of Appeals ruled that, "the record reveals that the project will significantly affect the environment; and the agencies' contrary conclusion lies outside the legally permissible bounds laid down by relevant statutes ... Hence, the agencies must prepare an EIS."

The court further pointed out several major disputed environmental effects resulting from the project, such as those relating to various species (including clam flats lobsters, scallops and other marine animals, waterfowl, and seals) and upland habitat, as well as to questions concerning construction, dredging and "spoil" disposal problems. The Court of Appeals also pointed out that the agencies' "failure to consider adequately the fact that building a port and causeway may lead to the further industrial development of Sears Island, and that further development will significantly affect the environment."
summing up the above-mentioned primary and secondary effects, the Court of Appeals decided that "the record in this case cannot support a FONSI, and therefore an EIS must be prepared."

The above description of the legal framework regarding the determination of the "significance" of impacts demonstrates its difficulties and complexities.

To reduce the difficulties and aid this determination, some other legal systems use a "screening" method, to whereby specified types of activities are listed, based on their size, their potential affects, or on other criteria, such as: sensitive areas and natural resources of special concern.

One important example to demonstrate the "screening" method is the categorical approach of the European Community (EC) Directive on EIA\(^\text{10}\). While in Article 1(1) of the Directive it is stated that "This directive shall apply to the assessment of the environmental effects of those public and private projects which are likely to have significant effects on the environment" (emphasis added), further, in Article 4 there is a reference to projects of classes listed in Annex I and Annex II.

In Annex I of the Directive are listed all the projects for which a preparation and submission of an EIA is mandatory, including crude-oil refineries, power stations and nuclear reactors, installations for the final disposal of radioactive waste, cast-iron and steel melting industries, installations for the production and processing of asbestos and asbestos-cement products, integrated chemical installations, construction of motorways,
railways and airports, ports and inland traffic waterways and waste-disposal installations for treatment of toxic and dangerous waste.

The second Annex of the EC Directive includes an additional detailed classification of projects to be subject to an EIA "where Member States consider that their characteristics so require." These include lists of agricultural projects, extractive industry, energy industry, processing of metals, manufacture of glass, food industry, textile, leather, wood and paper industries, rubber industry, infrastructure projects and other specially listed projects.

The EC classification screening approach is implemented in various countries, as it offers a relatively easy mechanism to apply the EIA system, avoiding the complexity of the discretionary screening approach, as operated under NEPA, for example. Nevertheless, the EC type listing approach has its problems, mainly by not allowing needed flexibility, as individual projects of even the same nature may have considerable variation and differences in their sitting, size and process layout to the extent of varying environment affects.

It seems, therefore, that in spite of its obvious advantages of reducing uncertainty in subjecting projects to the EIA process, the "listing" approach should be supplemented by an additional discretionary phase. The "significantly" criteria as presented and defined in NEPA, the CEQ Regulations and Guidelines and the American judicial decisions, may well serve this goal.
(ii) The Study of Alternatives

Section 102 (2)(c)(iii) of NEPA requires that the EIA include "a detailed statement by the responsible official on ... alternatives to the proposed action," and section 102 (2)(E) requires that an agency "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflict concerning alternative uses on available sources."

CEQ regulation 1502.14 dealing with "Alternatives including the proposed action" states that it is "the heart of the environmental impact statement" (emphasis added). This regulation also requires that "Based on the information and analysis presented in the sections on the Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16) it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public."

This section also requires: to "evaluate all reasonable alternatives" (emphasis added) and to "briefly discuss the reasons" for eliminating certain alternatives, to treat each alternative considered in detail, to also include reasonable alternatives "not within the jurisdiction of the lead agency", to identify "the agency's preferred alternative or alternatives" and to include "appropriate mitigation measures."

This provides the legal basis for a three-level study and discussion of alternatives process, to include: the identification of alternatives, their presentation (descriptive and analytical) and choosing the preferable alternative. This study-process starts at the early
scoping phase of an EIS and becomes, at the end of the process, an important tool to be used by the decision-makers. Throughout this process, the study of alternatives serves various purposes: it helps improve the decision-maker's and public's understanding of a proposed project; it clearly demonstrates, by way of comparison, the advantages and disadvantages of various solutions to problems and it clarifies the range of available choices in obtaining a specific goal. The open and careful discussion of alternatives provides an indication that the decision-makers have actually considered various possibilities before reaching their final decision, in a way that can be considered and evaluated publicly and legally.

In the early leading case of *Natural Resources Defense Council, Inc. v. Morton*\(^\text{12}\), the District of Columbia Court of Appeals disagreed with the agency's (Secretary of the Interior) decision to eliminate the study of certain alternatives to an off-shore oil and gas leasing initiative, on the grounds that it required consideration of complex factors, beyond the agency's scope. In its decision, the Court of Appeals applied a "rule of reason" regarding the duty of an agency to discuss courses of alternatives, stating that "the discussion of environmental effects of alternatives need not to be exhaustive. What is required is information sufficient to permit a reasoned choice of alternatives so far as environmental aspects are concerned." As to the specific question raised in this case, of alternatives not within the scope of the authority of the responsible agency, the court stated that "the impact statement is not only for the exposition of the thinking of the agency, but also for the guidance of these ultimate decision-makers, and must provide them with the environmental effects of both the proposal and the alternatives, for their
consideration along with the various other elements of the public interest." The court also stated that "the mere fact that an alternative requires legislative implementation does not automatically establish it as beyond the domain of what is required for discussion ..."

This decision was later discussed by the Supreme Court in the leading case of Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc. In its statement, the court consolidated for review two decisions made by the Atomic Energy Commission on request for a permit to construct two nuclear reactors. The request, which was opposed by two groups, led to lengthy proceedings and hearings, in which a wide range of issues was raised, including those of "energy conservation" alternatives. At a later stage (after the construction permit was granted and affirmed by an appealing board), new legal circumstances caused the opposing groups to apply for reopening the proceedings. This request was denied by the Commission on various grounds, including (and based on the above-mentioned Morton ruling) that it was required to consider only energy conservation alternatives which were "reasonably available". This decision was challenged in the Court of Appeals for the District of Columbia Circuit which held, "that rejection of energy conservation on the basis of the 'threshold test' was capricious and arbitrary."

The Supreme Court, after a lengthy discussion of the facts and after considering various procedural and substantive matters, found for the Commission and reversed the Court of Appeals' decision. It its decision the Supreme Court stated that, "the term 'alternatives' is not self-defining" and that "the concept of alternatives must be bounded
by some motion of feasibility ... Common sense also teaches us that the detailed statement of alternatives cannot be found wanting simply because the agency failed to include every alternative device and thought conceivable by the mind of man. Time and resources are simply too limited to hold that an impact statement fails because the agency failed to ferret out every possible alternative, regardless of how common or unknown that alternative may have been at the time the project was approved.

Further discussing the question of the extent to which energy conservation alternatives should have been considered, it was the opinion of the Supreme Court that "Taken literally, the phrase suggests a virtually limitless range of possible actions and developments that might, in one way or the other, ultimately reduce project demands for electricity from a particular proposed plant."

Concluding on this subject, the court states its belief that the facts disclosed "demonstrate that the concept of 'alternatives' is an evolving one, requiring the agency to explore more or fewer alternatives as they become better known and understood," and that "This was well understood by the Commission ... ."

On the grounds of these as well as other court decisions and the language of the law and regulations, it is quite obvious that the study and analysis of alternatives covers a wide range of options, such as various alternatives of actions within a proposed project and alternatives to a proposed project, including the important "no action" alternative.

It can also be observed that these and other court decisions attempted to provide some answers to problems regarding how to reasonably perform the study of alternatives. These issues concern both the depth and width of the requirement of alternatives.
Hence, its reasonable limits, or the diversity and number of alternatives to be considered on one hand, and the level of specification to which every alternative should be considered on the other.

Although the American system does not always present a clear picture, the consideration of alternatives is even less articulated in other systems.

In the EC Directive previously mentioned, Article 5(1) elaborates on the "necessary measures to ensure that the developer supplies in an appropriate form the information specified in Annex III ...". Section 2 of Annex III requires that the description of a project include "Where appropriate, an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects."

The EC Directive does not establish a mandatory request for the study of alternatives, although it indirectly seeks for such a study, by asking the developer to outline the "main alternatives" he has studied, and the "main reasons for choosing the proposed alternative." This approach was not generally followed, and although adopted in some countries (e.g., the United Kingdom), it has been indirectly disputed by those European countries (as the Netherlands) that implemented a more detailed and less discretionary alternative-study and analysis system. Observations made by the Economic Commission for Europe\textsuperscript{14} also include recommendations concerning this subject matter, suggesting, inter alia that,

When applicable, this consideration of alternatives should take into account different activities, options in technology, process, operation, mitigation and
compensation measures as well as production and consumption patterns (rec.18);
- A minimum requirement of an EIA content should include (rec. 20(c)(d)):
  - Description of the activity itself and reasonable alternatives to it, if appropriate, including the do-nothing alternative;
  - The potential environmental impacts and their significance attributable to the activity and its alternatives as well as the socioeconomic change owing to the activity or its alternatives; (emphasis added).
- Specific research programs should be intensified, aiming, inter alia at (rec. 21(d) developing methods to stimulate creative approaches in search for environmentally sound alternatives to planned activities, production and consumption patterns.

These recommendations offer a somewhat more elaborate approach to the study of alternatives, which solves or avoids some of the problems of both the very narrow European approach, as well as the open-ended American system.

This may lead to the future development of a more systematic approach to the generation of alternatives and their analysis, similarly to the guidelines developed in the field of scoping, as above described. The elaboration of such guidelines has a particular importance in these legal systems (e.g., U.K., Israel) where the EIA is embodied in the physical land-use process and is prepared by the developer, whose objectivity in conducting and presenting a genuine study of alternatives may be doubted.
At the introductory part of the NEPA Regulations, the CEQ clarifies (sec. 1500.1(c)) that "NEPA's purpose is not to generate paperwork--even excellent paperwork--but to foster excellent action" and that "ultimately, of course, it is not better documents but better decisions that count."

These policy goals of NEPA have been interpreted by courts' decisions as applying procedural rather than substantive obligations.

In the principal Supreme Court decision Robertson v. Methow Valley Citizens Council, various questions concerning the application of NEPA in a Forest Service permit issuing process were discussed. Concerning NEPA's policy goals, the Supreme Court stated the following:

"The sweeping policy goals announced in sec. 101 of NEPA are thus realized through a set of "action-forcing" procedures that require that agencies take a "hard look" at environmental consequences," Kleppe, and that provide for broad dissemination of relevant environmental information. Although these procedures are almost certain to affect the agency's substantive decision, it is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process. ... Other statutes may impose substantive environmental obligations on federal agencies, but NEPA merely prohibits uninformed--rather than unwise--agency action."
An academic attempt to retroactively apply the wording of NEPA and the "procedural test" to the Israeli situation at this stage of completing a decade's experience in implementing the EIAR demonstrates that from the legal as well as practical perspectives it may be considered a "success story." There is no doubt that the EIA system in Israel has been truly embodied as an integral part of the well-established PB process, which controls most of Israel's land-use and development activities. Furthermore, there is no evidence, as some critics have been warning and threatening, that the implementation of the EIA system has created "bulks of unnecessary paper work" or caused extra delays in the PB process, or that it prevented in any way project development.

On the other hand, considering the "hard-look" test, and attempting to evaluate the "quality" of the decisions made by the PB authorities following the implementation of the EIA system, it may well be assumed that a decision-making process that is based upon well elaborated and properly presented information is bound to lead to better understanding of circumstances and consequences, and result in a better decision. Applying this assumption in light of the American experience and while bearing in mind the above-mentioned Kfar Hanashi case, may drive to a conclusion regarding the need of further "action-forcing procedures."

In spite of some obvious advantages of flexibility and efficiency of the Israeli EIAs discretionary approach, a reconsideration of this approach may be needed and is hereby recommended. This is aimed at introducing additional criteria regarding specific problems within the implementation process of EIAs, to include:
Improved techniques to identify activities requiring EIA, taking into account the above-described screening of impacts and significance determination processes; and an adequate study of reasonably defined and analyzed alternatives.

Such additional criteria may also include an explicit request for specific subject matters, such as the inclusion of socio-economic consideration, risk assessment study and cost-benefit analysis.

And last, but not least: a further consideration on improving and expanding public participation in the EIA process. The American and the European EIA legislation include provisions which guarantee the involvement of the public—individuals, groups and organizations—in almost all stages of the EIA process. These provisions also provide for the disclosure of information to the public, to serve the functions of offering the public adequate notice of future development activities and their environmental consequences and of mitigating measures, as well as of informing and ensuring the public that the decision-making process was properly conducted.

Although existing in the Israeli PB process, and applying also to the EIA process, public participation is limited to certain stages in the PB procedure and cannot fully serve its goals. Further consideration of ways and methods to increase effective citizens participation in the EIA system within the PB process, is recommended.

Finally, without impairing the EIA system as an integral part of the PB process, its effectiveness and its invaluable contribution to the environmentally sound development of Israel, it is well understood that this process is limited to land-use planning decisionmaking.
Searching for a complementary system to introduce and apply EIA procedures to decision-making processes and activities other than land-use (such as the issuing of certain permits, for example) may introduce a provocative and challenging idea, worthy of a careful study and consideration, as the American and—to some extent—European experience demonstrate its applicability. Completing a decade of successful implementation, the Israeli EIA system may just be ripe for these new ideas and changes.
NOTES


3 B.G.Z. (High Court of Justice) 2324/91, The Movement for the Quality of Government in Israel and Other v. The NPBC and Other (not yet published).


5 42 U.S.C. §§ 4321-4370C.

6 40 C.F.R., Parts 1500-1508.

7 47i F.2d 823(2d Cir. 1972), cert. denied, 412 U.S. 908 (1973).


9 872 F.2d 497 (1st Cir. 1989).


12 458 F. 2d 827 (D.C. Cir. 1972).


Additional References:


PLANNING AND BUILDING REGULATIONS
(ENVIRONMENTAL IMPACT ASSESSMENTS), 5742-1981

By the authority granted to me under section 265 of the Planning and Building Law, 5725-1965 and following consultations with the National Planning and Building Council, I hereby make the following regulations:

Definitions

1. Within these regulations -

"environmental adviser" - whoever is appointed by the Minister of the Interior in consultation with the Ministers of Agriculture, Health, and Industry and Commerce to be an environmental adviser:

"environmental impact assessment" or "assessment" - a document stating the connection between a proposed plan and the environment within which the plan is to be implemented, including assessments as to anticipated or forecasted impacts of the proposed plan on that environment, and specifications of the means necessary for the prevention of negative impacts as specified in regulation 4.

Obligation of assessment submission

2. (a) A planning agency will not consider or decide upon a plan of the types detailed in subregulation (b) unless an environmental impact assessment has been prepared and attached to the plan.

(b) The following are the types of plans:

(1) power plants, airports, seaports and toxic waste disposal sites;

* An unofficial translation

** Published in Hebrew in Kovetz Ha-Takanot of 1982, p. 502
Authority to require assessment submission

3. In addition to the provisions of regulation 2, a representative of a minister in a planning agency or a planning agency presented with a plan whose implementation may, in its opinion, have a significant impact upon environmental quality, may require the submitter of the plan to prepare an assessment and to submit it to the planning agency in addition to the plan documentation submitted; a requirement for an assessment's submission may be made at any stage of consideration of the plan prior to its approval.

Content of assessment

4. An environmental impact assessment will be prepared according to guidelines established by the planning agency in accordance with the provisions of regulation 5, and will include details on the following subjects:

(a) description of the environment to which the plan relates before implementation of the proposed plan; for the purposes of this section "environment" means the environment which, in the opinion of the planning agency, may be affected by the plan's implementation;

(b) specifications of the reasons for the preference of the proposed siting of the plan and the activities resulting from its implementation;
5. (a) Upon submission to the planning agency of a plan to which regulation 2 or 3 applies, the planning agency will instruct the environmental adviser to prepare a proposal for guidelines for preparation of the assessment; the proposal will be presented to the planning agency which will establish the guidelines.

(b) The planning agency will deliver to the submitter of the plan, for the purpose of the assessment's submission, the guidelines it has established and any information in its possession relevant to preparation of the assessment.

6. (a) The submitter of the plan will be responsible for the preparation of the assessment as required and will submit it to the appropriate planning agency -

(1) if regulation 2 applies to the plan - together with the plan's documentation;

(2) if regulation 3 applies to the plan - in accordance with the requirements of the planning agency and the timetable established by it.

(b) A planning agency which has received an assessment will notify the submitter of the plan of its position within three months from the date of receipt of the assessment; in the event that the planning agency is of the opinion that it is not possible to notify the
Conditions for approval

7. A planning agency will not approve a plan submitted with an environmental impact assessment in accordance with these regulations unless it has reviewed all details of the assessment and has decided upon the findings and instructions to be included in the provisions of the plan as a result of the assessment.

Commencement of validity

8. These regulations will become valid six months following their publication.

Minister of the Interior

15.12.81