
AN INTEGRATED APPROACH TO ENVIRONMENTAL ENFORCEMENT — A CASE STUDY

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SUMMARY

This paper presents a review of enforcement difficulties regarding environmental pollution in solid waste landfill sites in Israel, and describes the success achieved through the integrated approach applied to solve this problem.

The integrated approach consists of two focal levels: the first level addresses governmental, public, legal and professional areas of authority; the second concentrates on the employment of various legal instruments including laws, regulations and other enforcement measures.

1 INTRODUCTION

In 1992, there were over 400 solid waste landfill sites in Israel which had been established without the necessary legal permits and were operating without regard for environmental considerations. These sites caused a number of detrimental environmental effects, such as contamination of water sources (especially groundwater), stench, air pollution and aesthetic damage. In addition, the major landfill site of Hiriya, serving the entire greater Tel Aviv metropolitan area and located one kilometer west of Ben Gurion International Airport, posed a threat to flight safety from flocks of birds attracted to the organic waste.

The landfills were established and operated during the past forty years by municipal authorities (cities and villages), independently, through subcontractors or by private individuals. Landfills were established in the "backyard" of every settlement, with little or no attention allotted to environmental criteria or to proper planning procedures.

When the Ministry of the Environment first initiated measures designed to resolve the environmental problems posed by these landfills, it soon became apparent that individual treatment of landfill sites through often drawn-out litigation processes offered symptomatic relief for specific sites, but that these efforts were ultimately wasted as alternative sites were established in their place which once again operated without the necessary permits and environmental criteria. The primary factors hindering the efficiency of these enforcement measures were the Ministry's inability to provide municipal authorities with valid alternative solutions, the high cost of adequate treatment of solid waste, and a general lack of awareness for the environmental pollution caused by the existing sites.

2 THE INTEGRATED APPROACH FOR TREATING LANDFILL SITES

An integrated approach for achieving a comprehensive resolution of the environmental hazards caused by landfill sites throughout Israel was adopted by the Ministry of the Environment. This approach consists of two stages: the first stage is addressed within the sphere of governmental, public, legal and professional fields of authority; the second stage includes in-depth appraisal and implementation of various legal instruments.

The first level of enforcement includes:

- raising the issue to top public priority;
- finding alternative solutions for shut-down sites; and
- providing financial incentives.

The second level of action applied through legal measures includes:

- expanding the legal basis for action; and
- conducting investigations and pressing legal charges.

2.1 Raising the issue to top public priority

In 1993, a proposal for comprehensive treatment of the landfill problem was presented to the government by the Ministers of Environment, Interior and Finance. The proposal, which received governmental endorsement, called for expediting the establishment of five central landfills to allow for the closure of hundreds of illegal waste dumps throughout the country, and to create an infrastructure for environmentally-safe solid waste disposal both in the short and long terms.

Specifically, the government decision dictated the closure of all illegal landfill sites, and the transfer of waste from these sites to the five authorized landfills. The new sites will operate in accordance with accepted criteria for preventing environmental contamination from solid waste. As of 1995, the Ministry has completed international tenders for the planning and construction of two of the designated sites, and preparations for these sites are presently at an advanced planning stage.

2.2 Finding alternative solutions for shut-down sites

As stated above, preliminary conclusions revealed that the key to success of the process was to provide immediate alternatives for the landfills which the Ministry intended to shut down. The Ministry prepared a long-term action plan which defined stages for closure of specific landfills, the number of sites to be closed at each stage of the process, and the alternative sites which would receive the solid waste.

In the final stages of closing a specific site, the site operators are permitted—for a limited period of time—to accept construction waste which assists proper preparation of the closed site for ultimate sealing. Plans for the removal of buried wastes prior to final closure are prepared according to the Ministry's instructions which include provisions for close monitoring of the clean-up process by environmental enforcement officials. In addition, the Ministry provides professional guidance and daily monitoring services for every shut-down landfill.

2.3 Providing financial incentives

Waste disposal treatment in municipal authorities is financed by local taxes. The government of Israel devised a formula for compensating local authorities who are obligated to transport their wastes over greater distances due to closure of local landfill sites. These compensatory fees help prevent the opening of new illegal landfill sites in place of the site that was closed. In addition, the State is financially involved in closing the landfill, and in paying for transitory sites which are part of the scheme for transporting wastes to more distant landfills.

2.4 Expanding the legal basis for action

Expansion of the legal basis for treatment of environmental pollution created by landfills was negotiated along a number of complementary angles. The primary point of departure held that enforcement needed to be implemented against the managers of the landfills, the disposal companies and the heads of local authorities who hold prestigious positions in society. The persons involved are not viewed as ordinary criminals who aim to contaminate the environment; and the fines and other legal sanctions are too low to constitute significant deterrence. The Ministry uses to its advantage the fact that adverse publicity and the stigma of criminal proceedings are incentives for action.

2.4.1 Regulations for the Abatement of Nuisances (prevention of unreasonable air and odor pollution from solid waste disposal sites), 1990

Within the framework of the Abatement of Nuisances Law, 1961, regulations for the prevention of air and olfactory pollution from solid waste disposal sites were promulgated in 1990. The regulations designate smoke, gas, fumes, dust, and the like, released during the burning of waste in a waste disposal site, as constituting unreasonable air pollution. The regulations obligate operators of solid waste disposal sites to maintain and operate such sites in a manner which will prevent unreasonable air and olfactory pollution, and to undertake steps to prevent such pollution. Operators may not burn waste at landfills, must undertake means to prevent fires, and must extinguish fires in the event of their occurrence.

The requirements specified in the regulations include: daily cover of landfills with at least 15 cm of covering material; possession of appropriate mechanical equipment for extinguishing fires; preparation of procedures for extinguishing fires, including manpower and equipment; establishment of proper work procedures for waste disposal at the site; installation of a gate at the site entrance; and erection of a surrounding fence. The requirements also specify placement of a clearly visible sign at the entrance including the site's name, working hours, the operator's name, address and telephone number; placement of signs in several locations on-site and in the vicinity stating that burning is prohibited, and warning that violators will be penalized.

2.4.2 The Water Law, 1959

The Water Law establishes a comprehensive framework for the control and protection of Israel's water resources. Under this law, all sources of water in Israel are public property. Use of water is ensured for every person, as long as undue salinization or depletion of water resources is avoided.

The Water Commissioner, appointed by the government, is responsible for enforcing the Water Law and Regulations and for maintenance of water quality. For this purpose, the Commissioner is authorized to order personal injunctions against a person not in compliance with the requirements of the law. Furthermore, the law allows for judicial recourse where only "reasonable suspicion" exists regarding possible contamination of water resources. A 1992

amendment to the Water Law provides that in case of violation, a fine of 150,000 NIS may be imposed—the steepest fine in Israeli environmental legislation today—in addition to an incremental fine which can be imposed for each additional day of violation.

2.4.3 Collection and Disposal of Waste for Recycling Law, 1993

The Recycling Law provides the framework for recycling, and authorizes and obligates local authorities, when required by the Minister of the Environment, to allocate sites for recycling centers and to install recycling facilities which will ensure that a certain percentage of the local authority's waste is recycled annually—thereby reducing the total amount of waste disposed at landfill sites.

2.4.4 The Licensing of Businesses Law, 1968

This law empowers the Minister of the Interior, in consultation with the Ministers of Health and the Environment, to designate businesses which require licenses in order to ensure proper environmental conditions. Special environmental conditions may be imposed within the framework of the license. In 1995, an amendment to the Licensing Law was approved which stipulates that the operation of landfills requires a business license under the law. The Minister of the Environment has the authority to define specific instructions for the operation of the site, to close the site through an administrative procedure, or to appeal to the courts for a judicial injunction.

2.4.5 Amendment of Environmental Legislation (Punitive Measures) Law

A comprehensive law revising the punitive measures in case of environmental crimes is presently being drafted by the Legal Department of the Ministry of the Environment. Among its other provisions, the law establishes that the State is responsible for any environmental pollution caused by State-owned facilities; it defines personal responsibility of corporate managers, imposes stiff punishment against polluting corporations or local authorities, and provides for incremental fines for each day of ongoing violations of environmental laws. The law also establishes wide-ranging investigation and monitoring authority for inspectors authorized by the Ministry, and allows the Minister of the Environment to issue clean-up injunctions.

2.5 Conducting investigations and pressing legal charges

2.5.1 The Environmental Patrol Unit

The Environmental Patrol, operated by the Ministry, is authorized by the Ministers of Police and the Environment to conduct formal investigations against suspected violators of environmental laws. The Patrol cooperates closely with the Legal Department of the Ministry in all facets of its daily operations. In regard to solid waste landfills, the unit's officers execute hundreds of monthly inspections at the various disposal sites.

Once a site is found to be operating in contravention of its specific operating conditions and relevant laws, causing environmental damage, a criminal investigation is conducted against the site's managers and the manager of the sanitation department in the relevant local authority. In special circumstances, the mayor or head of the local authority is also investigated under oath. In light of the public implications of such investigations and the unpleasantness they involve, these investigations often facilitate and expedite the implementation of remedial measures. Public employees and elected officials are very sensitive to the stigma of criminal investigations, and the Ministry makes good use of this deterrence effect.

2.5.2 Pressing legal charges

When the Environmental Patrol has completed its investigation, the Legal Department reviews the file and decides whether criminal charges should be pressed against the violators. The litigation process is then advanced by private attorneys who have been authorized for this purpose by the State Attorney. These private attorneys operate under the strict supervision of the Ministry's Legal Department. This arrangement relieves the Ministry of dependency on the State Attorney's office which already operates under heavy work loads; and also offers an added dividend of more efficient and expert legal representation. The budget for this "private" litigation comes from the fund established under the Cleanliness Law, 1984, in addition to special moneys allocated for this purpose by the government.

In each individual case, the Legal Department considers the relevant law or laws which should be applied, and the various legal instruments which can be implemented to serve specific goals. One of the characteristic problems in dealing with solid waste landfills is that the polluter or "beneficiary" of the polluting activities is often the municipal authority itself, as this body is also charged with enforcing the environmental conditions issued under the Business Licensing Law.

2.5.3 Example of a lawsuit against the managers of a landfill

For many years, the Municipality of Hadera operated its dump site in contravention of the relevant laws and instructions issued by the Ministry. Located on private land and run by a private company on the basis of a commercial contract with the Municipality, the Hadera site caused environmental damage and nuisances, such as air and water pollution and aesthetic degradation.

The Hadera Municipality — although invested with effective legal and administrative authority to enforce the required environmental criteria and regulations relating to licensing of businesses — consistently refused to make use of the powers at their disposal. This reluctance was due to a fear of contractual dispute with the operating company, as well as to the fact that proper management of the dump site would entail additional costs for the Municipality.

On three occasions, the Ministry of the Environment submitted lawsuits against the operating company and its directors for management of the site contrary to the applicable regulations, which led to severe environmental nuisances. Following the amendment to the Licensing of Businesses Law referred to above, the Ministry issued an administrative order closing down the site, and ordering the Hadera Municipality to evacuate the urban waste to an alternative site.

The administrative closure was upheld by the court. The court also ordered that the site's operators were to be permitted to bring construction waste to the landfill for a limited period of six months to enable adequate covering of the wastes before final sealing of the site.

Once the site was finally closed, the Ministry reached a court settlement for the three lawsuits, according to which the company and its directors were convicted and fined US \$15,000 (or, in case of nonpayment, 120 days imprisonment against the directors). In addition, the company and its directors signed a commitment to desist from any similar offense for a period of three years, accompanied by a fine of US \$7,000 in case of further violation.

3 ACCOMPLISHMENTS OF THE ENVIRONMENTAL ENFORCEMENT MEASURES AGAINST LANDFILLS

Approximately two and a half years after the government decision, and thanks to the relentless actions of the Ministry of the Environment, 186 of the solid waste sites which were slated for closure were shut down. The most problematic sites were dealt with first; the additional actions undertaken by the Ministry were carried out according to predetermined priorities and time tables.

Hiriya, the largest domestic waste site in Israel — receiving 2,500 metric tons of refuse per day — will finally be shut down in the coming year when the five designated national landfill sites defined in the governmental decision are opened.

The measures described above are resulting in better management of existing landfills in the time remaining until the designated sites are open. To enhance these measures, the Ministry is currently reviewing the remedial action and authority available to the Environmental Patrol officers. Furthermore, criminal investigation and prosecution are carried out in each case of continued violations of regulations or licensing conditions.

Due to intensive efforts by the Environmental Patrol and unrelenting prosecution of violators, the phenomenon of new illegal dumping sites taking the place of landfills closed by the Ministry has almost entirely vanished. Another positive consequence of the new trend are the exemplary sentences imposed by the courts. In recent years, judges have convicted municipalities with severe fines, and have accompanied these fines with commitments to avoid equivalent offenses over two or three years. These judicial measures have greatly contributed to the abatement of environmental nuisances and pollution caused by solid waste landfills.

4 CONCLUSIONS

The enforcement of environmental norms has various objectives, including: elimination of existing nuisances, prevention of future nuisances, restoration of previous conditions, penalization for existing violations and deterrence. In order to implement these goals, we have various tools which can be employed to bring about the most effective solution in each specific case according to the nature and scope of the nuisance, its causes and, more generally, according to the goals we wish to achieve.

Enforcement tools are not viewed as ends in themselves — the policy of the Ministry of the Environment is to use the enforcement tools at its disposal in such a manner that environmentally acceptable solutions will be attained. The Ministry's aim is to strengthen understanding and awareness of environmental protection; to promote sustainable development through the central government and local authorities, as well as through the private sector and the general public.

The Ministry's strategies are directed towards achieving a future in which potential polluters and decision makers will feel personally committed to reducing the level of nuisances, and to preventing damage to the environment. One of the means for achieving this goal is by imparting a clear message of firm and effective enforcement.

