

ENVIRONMENT

For Israel, concern for all living things and prohibitions against environmental degradation may be traced back to biblical sources. Indeed, the first chapters of the [Book of Genesis](#) emphasize the vital link between humanity (*adam*) and the earth (*adamah*) and introduce the concept of stewardship by enjoining man to work the earth and to watch over it.

Israel's rebirth in modern times was sparked by this age-old commitment of the people to their land. Inspired by this profound sense of heritage, efforts are also being made to both preserve what is currently there and reintroduce plant and animal life which existed in biblical times and have since either disappeared from the region or are threatened with extinction.

In juxtaposition to its small geographical size, a wide range of physical conditions and a rich variety of flora and fauna characterize Israel. The country's location at the junction of three continents, coupled with the climatic changes throughout the history of this region, has been largely responsible for the great diversity of species.

Biogeographical Diversity

Though only 470 kilometers from North to South, Israel boasts a wide range of [biogeographical regions](#). Between the snowy slopes of [Mount Hermon](#) in the north and the southern coral reefs in the [Gulf of Eilat](#), lie arid desert, lush oases, Mediterranean woods, and the lowest point on earth—the [Dead Sea](#).

Israel's location at the crossroads of Asia, Europe and Africa has endured large climatic changes over its history and accounts for the vast diversity of species within the region. This wealth of species is expressed with some 2,600 plant species (150 of which are indigenous to Israel), 7 amphibian, nearly 100 reptile, over 500 bird and about 100 mammal species.

Israel is sldo situated at the meeting point of three phytogeographical regions - Mediterranean, Irano-Turanian and Saharo-Arabian - and contains a diverse collection of herbaceous plants, especially annuals and geophytes, typical of all three. Species widely distributed over the entire Mediterranean climate region reach their southern limit of distribution in Israel. Saharan or Asian desert species reach their northern limits of distribution in this country while Irano-Turanian species reach their western limit here. Israel is the northernmost limit for the presence of plants such as the papyrus reed and the southernmost limit for others like the bright red coral peony.

Israel possesses one of the world's largest assortments of wild wheat, barley, oat, and legumes. Israel's forests feature a diverse and exotic collection of tree species, including [Jerusalem](#) pines, oaks, carobs, terbinths, cypresses, Judas trees, acacias, olive and almond trees, and eucalyptuses.

History of Enviornmental Protection

In the first two decades following independence, Israel accorded high priority to intensive development programs: new towns were built, modern agricultural programs were introduced, water sources were tapped and roads and airports were constructed. The rapid growth rate of population, industry and agriculture led to environmental degradation, which was further aggravated by the concentration of industrial and urban activities along the coastal strip, where two-thirds of the population reside.

The roots of Israel's nature protection movement may be traced back to the organization of a small group of nature lovers and scientists around a specific issue: the draining of [Lake Hula](#) and its surrounding swamps in order to combat malaria and reclaim the land for agriculture during the 1950's. This small group of conservationists, who fought for the preservation of a small area of swampland as a nature reserve, understood that the death of the swamps would spell the death of the valley's indigenous [flora and fauna](#) as well. Their successful campaign assured not only the survival of the Hula habitat, but the birth of Israel's nature protection movement.

The Society for the Protection of Nature in Israel (SPNI), the country's largest non-governmental environment organization, has been instrumental in raising public awareness of nature and environmental protection. Founded in 1953, SPNI has initiated dozens of campaigns aimed at the protection of unique Israeli landscapes, wildlife, natural environment, and open spaces, from the adverse effects of development. Other private organizations, such as the [Jewish National Fund](#) and Kerem Kayemet were also influential in the raising awareness about the need for environmental protection.

In 1963, the National Parks Authority was established in order to prepare and maintain park areas for the general public as well as preserve historical and environmental sites. The following year, the Parks Authority named the Lake Hula area as Israel's first declared nature reserve.

In 1973, the Israeli Cabinet established the Environmental Protection Service (EPS) as the country's first environmental government body. This was an important step in the creation of a comprehensive and modern environmental administration in Israel.

In December 1988, the government established the Ministry of the Environment. The decision reflected a positive change in the national determination to tackle environmental issues. In recent years, Israel has embarked on a new journey, taking its first steps on the path toward sustainable development - development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Environmental Conservation Today

Israel maintains a serious commitment to nature conservation and protection today. Israel's modern development has led to rapid growth in population, standard of living, and consumption but also increases in solid waste, hazardous chemical production, and water usage combined with reduced air quality and field and coastline degradation.

Work is being done to map out the country and determine each region's environmental vulnerability. Israel recognizes that, for assuring sustainable development, methods must be developed to conserve biodiversity, protect vital water sources, control air pollution in densely populated areas, upgrade wastewater treatment and

expand effluent recovery, provide for pesticide-free agricultural produce and assure safe disposal, treatment and recycling of solid and hazardous waste.

Consequently, both Israel's environmental industries and its academic institutions have invested in broadening their research and development activities. At the same time, stringent new standards, accompanied by tough enforcement, along with educational initiatives and public campaigns are increasing the environmental consciousness and responsibility of government and civil society alike.

The main issue facing Israel in her nature conservation efforts is habitat fragmentation.

In 1995, Israel created a new afforestation master plan, which recognized the status of forests as the site of vital natural vegetation, biological diversity, and open spaces and called for a total of 162,000 hectares of woodlands and open areas—over 15% of Israel's total land area north of [Be'er Sheva](#).

The government has also designated 105 tracts of land, or 3% of the 205 square kilometer Mediterranean region, and nearly 20% of the desert region as protected nature reserves, many of which overlap with land used for military training.

Israel's air quality has been greatly affected by the country's recent increase in energy production, industry, and transportation. Low sulfur fuel has been introduced to combat sulfur dioxide concentrations, but automotive pollutant emissions have increased dramatically, playing a major role in the deterioration of the country's quality of air. Israel has taken steps to lessen sulfur dioxide output by initiating the use of lead-free gasoline, catalytic converters, and diesel fuel with lower sulfur content. In addition, Israel acts in accordance with international resolutions on ozone depletion and climate change.

Israel's rapid growth in population, standard of living, and consumption over the past twenty to thirty has also led to a 4%-5% annual increase in solid waste. To deal with this increase, environmentally conscious landfills have come to replace illegal garbage dumps and a solid waste management policy is being introduced. They focus on reduction of waste, recycling, recovery, and incineration.

In recent years, efforts have focused on restoring the country's ailing rivers, which have either dried up or become sewage conduits as a result of industrial discharge, municipal sewage, overpumping or just general abuse. The road toward restoration was opened with the inauguration of a National River Administration in 1993 to oversee the restoration of the country's rivers. Twelve coastal rivers and two rivers in the eastern basin are currently undergoing restoration according to approved master plans, which include cleanups, soil conservation and landscape and park development. The results are evident in rivers throughout the country - whether the Alexander River where egg laying and basking areas were set aside for giant soft-shell turtles, or the Kishon River where dramatic improvements in water quality have occurred as evidenced by monitoring results.

International Collaboration

Through its advances in environmental protection and conservation over the past fifty years, Israel has now been able to share its expertise through environmental collaboration with other countries around the world. Moreover, it has also teamed with the Palestinian Authority and neighboring Jordan to ensure bilateral protection of regions that fall in both countries.



The [Environment Working Group](#) endeavors to enhance the ability of regional parties in the Middle East to deal with maritime pollution, wastewater treatment, environmental management and desertification. The working group has endorsed the 1994 [Bahrain Environmental Code of Conduct for the Middle East](#) which focuses on the following principles, accepted by all the parties involved: natural resources must be preserved and any adverse environmental activities avoided; peace and environmental protection are interdependent and regional parties will cooperate on environmental issues; each country will facilitate and promote public awareness to the need for environmental conservation.

In addition, Israel and Jordan have a [bilateral pact](#) on environmental protection and nature conservation. Likewise, Israel has cooperated with the Palestinians to [battle pollution](#).

With the United States, Israel has long had [cooperation in environmental protection](#) as both nations share the value and interest in quality of environment.