08/08/2023

**Submission to the Glazer Foundation—Promoting habitat conservation and restoration policy in Israel**

***Background***

Israel suffers from an acute shortage of land, the result of a combination of its small size, rapid population growth, and, above, all a wasteful culture of construction and development. Israel’s natural spaces are consequently limited and fragmented, and face frequent threats from encroaching development. Today, in the era of climate change, we need to switch from defense to attack in preserving nature in Israel and act to strengthen biodiversity by increasing the number of ecologically representative areas. To do this, Israel needs to exceed the 17% conservation rate for terrestrial and inland water areas set out in the Aichi Biodiversity Targets, and aim for a target of 30% conservation for habitats in protected areas. To reach this goal, we need to be proactive. Indeed, the United Nations has declared the decade from 2021–2030 as the Decade on Ecosystem Restoration.

In Israel, a preliminary analysis shows that in some of the ecosystems that are not sufficiently represented in the set of protected areas, there is almost no natural area left. Preserving these ecosystems will require us to restore and rehabilitate areas that are currently being used for purposes that significantly reduce their ability to function as habitats.

Through our mapping work and methodology development, we have uncovered several challenges for which solutions must be identified if we are to successfully rehabilitate habitats:

* **Management of open spaces**. There is no single entity overseeing the management of open spaces in Israel. Instead, this takes place in separate “silos” depending on the land use, the type of open space, and the specific body tasked with its management. Each land management body focuses on issues that are relevant to its own particular interests. In attempting to advance joint goals, these organizations have encountered difficulties in creating collaborations, implementing targeted and effective enforcement policies, formulating common positions, and overcoming the limitations of municipal boundaries. At the same time, resources for managing open spaces are limited and the financial burden of maintaining them, even when these spaces are heavily used by the general public, falls mainly on regional councils with no dedicated budget or government support for this purpose. Without significant efforts to integrate and efficiently manage Israel’s unprotected open spaces, it is likely that species extinctions will accelerate and that ecosystem functioning will deteriorate, accompanied by a concurrent reduction in system benefits and services for humans, including those related to mitigating climate change.
* **Collecting and collating information and mapping from partner organizations**. After identifying gaps and deficiencies in national surveying efforts and field knowledge, we decided to undertake new regional mapping work and to collate, validate, and update existing efforts. This information and data collection work is occurring on two levels. First, at a national ecological level, we are gathering data from the Open Landscape Institute, the Israel Nature and Parks Authority, and the regional clusters regarding areas that are suitable for ecological restoration and ecological bottlenecks. Second, at a local level, we are gathering data from regional clusters and other bodies active in the field to identify areas that have good potential for ecological rehabilitation.
* **Improving** **the functioning of agricultural systems in terms of agroecology**. These protected and natural areas are small and fragmented. Consequently, preserving and improving the functioning of ecosystems requires making changes to the physical, planning, and administrative infrastructures.
* **Financial support for an action plan to improve open spaces and ecosystems**. This work strand involves: prioritizing avenues for possible functional improvements according to their financial and economic significance; and evaluating alternative costs for projects and the costs of restoring and developing open spaces, including ongoing maintenance expenses.

**The proposal:**

We intend to advance an action plan that includes the development of the areas identified in the mapping as having the potential for habitat restoration while also promoting habitat restoration policy in Israel. Based on the results of work being undertaken in 2023, we will set and implement priorities for advancing habitats for restoration and rehabilitation. Further, based on the data we have gathered, we are developing proposals for policy and implementation methods around regulatory, planning, legal, and land conditions, which we intend to advance in 2024–2025.

1. Work will include promoting habitat restoration policies to government ministries, the Israel Planning Administration, and local authorities.
2. Our action plan to improve open spaces and ecosystems will also include economic solutions. As part of this work, we will prioritize avenues for possible functional improvement according to their potential economic impact and implications. We will also conduct economic evaluations for open space restoration and development work, including ongoing maintenance costs.
3. Based on the data collected, we will develop proposals for policy and implementation methodologies that incorporate regulatory, planning, legal, and land considerations.
4. We will work with the regional clusters to develop a portfolio of pilot projects, with the aim of testing various mechanisms for managing open spaces.
5. Planning and carrying out ecological restoration work. The mapping that we are undertaking as part of our work in 2023 will enable us to move forward with targeted fishpond rewilding projects and with other habitat restoration projects in various areas throughout Israel.

**Work process participants**

* **A limited working team,** including representatives from the Society for the Protection of Nature in Israel’s habitat restoration team, the Israel Nature and Parks Authority, and the Ministry of Environmental Protection.
* **A steering committee** with the role of guiding and advising on the work undertaken as part of this proposal process. The committee includes representatives from relevant actors in the field, including organizations involved in managing Israel’s open spaces (the Jewish National Fund, the Israel Nature and Parks Authority, the drainage authorities, and regional councils), and government bodies (the Ministry of Environmental Protection, the Israel Planning Administration, the Israel Land Authority, and the Ministry of Agriculture and Rural Development).

**Overcoming barriers**

1. **Difficulties in protecting underrepresented habitats.** We need to develop a portfolio of policy solutions for preparing areas for restoration and rehabilitation. Although these habitats are mainly located on state-owned land, they are at risk because of a lack of conservation mechanisms for land designated for agricultural use. Currently, farmers have no choice other than to cultivate the land or develop other, non-conservation, uses for it. Solutions include:

* Amending Israel Land Authority decisions to include conservation as one of the classifications for state land designated for agricultural cultivation on state-owned land.
* Budgeting for a one-time capitalized compensation payment for landholders to incentivize them to release land for management as natural areas.
* Making annual payments to agricultural landholders that consent to not cultivating the land or to use it for conservation purposes.
* Direct budgeting for land purchases or for compensating private landowners in areas earmarked as suitable for conservation.

1. Israel currently does not have sufficient statutory protection for its terrestrial ecosystems, particularly habitats underrepresented in protected areas. Large swathes of ecosystems that are not adequately represented within existing nature reserves and national parks (notably, *hamra –* red loam, *kurkar –* calcareous sandstone, and habitats) are under threat from planning applications for development projects, or have been earmarked for land use change.

Solutions include:

* Implementing a conservation, restoration, and protection plan based on our mapping of underrepresented habitats. The plan aims to increase the representation of all habitats to a minimum target of 30 percent protection.

1. **Ecological corridors and bottlenecks** outside protected areas are on land designated for agricultural use. This land does not enjoy any statutory protection, which facilitates earmarking them for construction and development. Solutions include:

* Advancing statutory protection for ecological corridors and bottlenecks.
* Creating a basket of solutions to preserve the functioning of ecological corridors and bottlenecks.
* Implementing a network of ecological crossings above and below infrastructures.
* Advancing interface management in ecological corridors and creating an outline for establishing an agroecological unit within the Israel Nature and Parks Authority. The unit, which will closely collaborate with the Ministry of Agriculture, regional councils, and farmers, will be responsible for interface management in Israel’s ecological corridors, including advancing solutions for improving the functioning of ecological corridors and bottlenecks.

1. **Restoring water to streams and habitats**. Until the 1960s, Israel had functioning streams along its coasts and in its valleys. Since then, a combination of extensive development, pollution, and the ongoing water crisis have inflicted mortal damage on Israel’s streams.

Solutions include:

* Mapping and identifying areas with potential for water restoration.
* Developing action plans and government decisions for restoring natural water overflow basins in streams and wetlands.
* **Setting priorities**—preparing a report (in table form) that will detail all necessary information, including prioritization criteria, with the goal of ranking mapped areas. The steering committee will decide on the parameters of the table.
* **The countrywide mapping work and the table aims** **to identify** priorities for nature conservation and restoration (such as valuable habitats) and for courses of action with a high potential for realization or other advantages.
* **Preparing a multiyear plan for implementation.** After the analysis, we will work with the steering committee and other relevant organizations and individuals in each planning area to identify and select priority areas for rehabilitation. Our partners in this work will include local authority and local council heads, local communities, potential entrepreneurs, infrastructure and development bodies, drainage authorities, and relevant government ministries. The program will include:
  + **Disseminating and promoting work products to decision-makers.**
  + **Leveraging an array of relationships with government bodies and officials to advance legislation, influence government decisions, and more.**
  + **Advancing conservation and rehabilitation programs within the planning system.**
  + **Advancing regulatory decisions, such as Israel Land Authority decisions.**
* **Preparation of a five-year plan:** Based on the multi-year plan, we intend to develop a five-year plan that will set out our course of actions over this period.
  + Preparing project arrays: We will prepare project portfolios for each area. These will include a description of the area, opportunities, threats, and importance. At this stage, we will prepare cost estimates for planning and execution.

**Ongoing advancement and expansion of other work that results from the Glazer project:**

1.  **Advancing an action plan for habitat restoration in Israel**. We have submitted a proposal to the Open Spaces Conservation Fund for a joint venture with the Ministry of Environmental Protection for a habitat restoration plan in Israel. The Fund has accepted our proposal, and we are currently working with the Ministry of Environmental Protection to develop the project, which has a budget of NIS 2,440,000.

2. Restoring and rewilding abandoned fishponds, to transform them into functioning aquatic habitats. Most of Israel’s fishponds were developed in areas with abundant water resources that could not be used for vegetable farming, such as the Hula Valley, Carmel Beach, Acre Valley, Beit She’an Valley and Harod Basin, and the Jezreel, Hadera, and Alexander Basins. When Israel’s market was opened to imports and changes were made in the water system, Israel’s domestic fishing industry became less profitable. Many fishpond areas have been abandoned, converted to other agricultural uses, or simply not maintained. The Society for the Protection of Nature has embarked on a joint venture with the Israel Nature and Parks Authority to restore and rehabilitate abandoned fishponds across Israel and transform them into functioning aquatic habitats. The work began in June 2023 after signing an agreement and forming a working team. The first phase of the project has been provided with a budget of NIS 447,526.

3. Undertaking a special call for proposals for restoration projects as a tool for mitigating and addressing the impact of the climate crisis in Israel. The Society for the Protection of Nature in Israel, via the Open Spaces Conservation Fund, has issued a call for proposals for projects related to restoring wetland habitats (the call for proposals has a budget of NIS 20 million). As the call for proposals states: “*The Israeli Open Spaces Conservation Fund, which operates under the auspices of the Israel Land Authority, is seeking to identify and advance action-oriented projects to be carried out in Israel’s open spaces that will make a practical contribution to mitigating and addressing the climate crisis in Israel. [Areas of interest include]: preserving, rehabilitating, and strengthening the ecological resistance and resilience of wetland ecosystems in areas that are susceptible to the effects of climate change in Israel—including activities around preservation and rehabilitation, such as rewilding and restoring damaged ecosystems.”*

4. **Advancing the Kabarah swamp restoration project**. The Kabarah swamp near the Carmel range was drained and altered beyond all recognition during the 1920s, and became an artificial cultural landscape with nothing remaining of its original marshlands and the fauna and flora living there. This project seeks to restore the Kabarah swamp to its former glory and rehabilitate and rewild its destroyed habitats. Alongside the ecological restoration efforts, the work will include suitable development work that will enable the public to visit the area, learn about the history of its draining and restoration, and become familiar with the flora and fauna of this unique habitat. To advance the planning of this area, the Society for the Protection of Nature in Israel has partnered with the Israel Nature and Parks Authority, Kibbutz Ma’agan Michael, and the Carmel Drainage Authority. The planning budget is NIS 1.5 million, and we are in the process of forming a working team.

5. **Rewilding Israel’s Fishponds—Start-Up Nature’s Tapuz (Regional Photovoltaic (PV) Corporation) Pilot Project.** This project involves identifying situations where fishponds are starting to close down, and understanding that this phenomenon poses an opportunity and a threat. The Tapuz project was created as part of an agreement with the Ministry of Finance, the Ministry of Agriculture, and fish farmers in Emek HaMa’ayanot in Israel’s Northern District. The agreement was made in light of the decrease in profitability of Israel’s fishponds resulting from the removal of tariffs on fish imports and an increase in water tariffs, developments that will lead to thousands of dunams of Emek HaMa’ayanot’s fishponds drying up. The aim of the Tapuz project is to compensate the fish farmers by enabling them to develop a project to install approximately 4,000 dunams of PV panels on top of the drained fishponds. In light of this, we have supported a request from Tapuz’s project leaders and the Ministry of Energy and Infrastructure to conduct a feasibility study about converting some of the fishponds into PV panel installations and rewilding others as wetland habitats. We propose examining ways to address climate change holistically, by creating a climate “package” that combines two important elements—emissions reduction and emissions absorption. This will include developing renewable energy projects along with initiatives to restore and rehabilitate habitats, all as part of a holistic climate “package.” The project is moving forward with a planning team, aiming to restore 2,000 dunams of fishponds and transform then into wetland habitats that can support wildlife.

6. **A joint project by the Society for the Protection of Nature in Israel and the Israeli Nature and Parks Authority to develop nature restoration projects.** Our environment is constantly changing. While nature conservation bodies everywhere must contend with shifting challenges in an increasingly complex world, Israel’s environmental problems appear particularly complicated. Israel faces a number of extraordinary crises and challenges arising from its unique conditions and circumstances. Israel has one of the highest population densities in the Western world and a high rate of population growth that is more typical of a developing country. The country has also had to cope with large waves of immigration and the resulting need to develop rapid housing solutions, a diverse population whose subgroups have different land use needs, a precarious security situation that demands a high budget and creates limitations, and more. The premise is that in view of the scope and severity of these trends, Israel must examine new and innovative tools and methods for nature conservation and habitat rehabilitation. Continuing to rely solely on existing tools, and adopting a “business as usual” attitude, will severely undermine our ability to protect environmental values in Israel. The Society for the Protection of Nature in Israel and the Israel Nature and Parks Authority have created an “hours bank” that can be used for consultants to help develop and run nature restoration and preservation projects.