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**Start Up Nature**

**Grant request: GBP 17,000.00**

The Society for the Protection of Nature in Israel (SPNI) was founded in 1953 by a small group of teachers, scientists and members of the public who were attempting to save the Hula Wetlands that were being drained by the newly founded State of Israel. Although the draining of the Hula swamps could not be stopped at the time, 40 years later the Government finally acknowledged the validity of the protesters' claims when, in the mid-1990s, part of the Hula Valley was re-flooded and returned to its original state.

Today, SPNI is more determined than ever to guard Israel's biodiversity, scant open spaces, protect its coasts and beaches, and promote sustainable development in order to preserve the country's natural resources for future generations.

In this era of global biodiversity loss and climate change and aligned with the UN's declaration of the current decade as the decade of restoration, SPNI has identified the restoration of habitats in Israel, as its crucial priority. SPNI is promoting restoration in Israel both at a national policy level and local and regional action level. SPNI also promotes nature-based solutions as the key to its activities and its climate policy in Israel.

**General description of the project**

In this era of global climate change and biodiversity loss, the millions of migratory birds who on their migratory journey from Europe to Africa and back, are at great risk. In order to sustain these populations of migratory birds, all sections of their life-cycle need to be protected, including their breeding grounds, wintering grounds and stopover sites during migration.

Stopover sites function as resting and refueling sites for different groups of birds. With the widespread loss of wetlands across the Middle East during the last century, many migratory birds, especially water birds, relied on extensively managed fish farms in Israel to refuel during migration. Due to changing economic factors, most of these fish farms ceased operating, depriving the migrating birds of all of the remaining ecological benefits of fish farming.

SPNI's Start-Up Nature model is positioned to revolutionize nature conservation with a nature-based solution for the challenges of climate change that are effecting human economic and social acclimatization to events effecting the planet.

SPNI's has adopted abandoned fish farms and changing their ecological function, creating high-quality wetlands that support rich biodiversity, especially for water bird populations. These wetlands help mitigate climate change and turn the fish farm from carbon producers, to a wetland which stores carbon. The restoration project is carried out in partnership with the land owners and local communities, providing alternative income and generating employment and healthy ecological systems that account for at least an annual 5% reduction of carbon a crucial component of Israel’s climate change objectives.

These restored wetlands will also provide a habitat for flora and fauna, including mammals such as Otters and Jungle Cats, amphibians, fish, aquatic arthropods and plants. SPNI has established its first restoration program at Kibbutz Kfar Ruppin in the Jordan Valley. First, an abandoned fish farm of 50 acres was restored in 2020 and became a biodiverse-rich wetland supporting birds and other aquatic biodiversity, mammals and plants. In 2021 SPNI leased an additional 200 acres of fish farm, adjacent to the existing project.

Natural water resources were secured, vegetation is being managed optimally to create diverse habitats and maximize carbon storage, generating monitoring data that is used for evidence-based management.

This grant will help fund an additional 30 acres of restored fish ponds, increasing the size of the restoration project in Kfar Ruppin. It is not just an extension – this new contribution has a synergetic effect that increases the biodiversity value, allowing shy, habitat-specific species to use the new habitats.

**The grant will fund the following actions:**

* Habitat restoration land work to improve the shape and structure of the wetland.
* The wetland will be connected with an adjacent natural water supply.
* Hazard removal including fences, cables, nets, other infrastructure.
* Vegetation work will include removal of invasive species.
* Application of a monitoring scheme to monitor birds, mammals, dragonflies and amphibians. Monitoring data will be used to evaluate effectiveness of management actions on biodiversity.
* Development of visitor infrastructure including walking trails, hides and signs.
* Public engagement targeting local communities of Kfar Ruppin, adjacent kibbutzim and the city of Bet Shean will increase the appreciation for wildlife and biodiversity.

**Main challenges to be addressed:**

Facing challenges along their entire life-cycle, migrating birds are exposed to risks that change both spatially and temporally. Stopover sites function as resting and refueling sites for different groups of birds, depending on their physical structure and spatial context. Specifically, Israel is at the heart of the East Mediterranean global migration bottleneck, supporting hundreds of millions of migratory birds.

The gap between the increasing need of migratory birds for safe, productive stopover sites, vital for the completion of their annual life cycle in a world of ever-increasing challenges, the reduced availability of such sites, needs to be taken on. Start Up Nature identifies opportunities to recreate lost wetlands, extending their impact on bird populations from local impact to regional and global impact, eventually affecting large water bird populations way beyond the spatial extent of the project. Start Up Nature also contributes greatly to climate change mitigation, engage local communities, and generates data on the effectiveness of rewilding actions for biodiversity, climate and people, that can be replicated elsewhere in Israel and worldwide.

A pilot project was started in early 2020, bringing together the land owners (Kibbutz Kfar Ruppin), government agencies and local communities. It has already rewilded an abandoned fish farm of 12 acres and created a biodiversity-rich wetland that already supports significant bird populations, both migratory and breeding, stores carbon and generates monitoring data. Lessons learned in the pilot project will be applied in the project proposed here.

**Actions:**

Start Up Nature will lease an additional 25 acres of abandoned fish farm, adjacent to the existing pilot project. This will increase the land for rewilding, and importantly allow connectivity between the existing site and the proposed site, to create a continuum of conservation-managed land in an agriculture-dominated landscape.

Management of relationships with our partners is essential to achieve all of the project goals which include a set-up phase and a management phase. In the set-up phase, water sources are secured and connected, vegetation managed optimally to create micro-habitats, hazards removed and infrastructure for visitors laid. In the management phase, water and vegetation are managed to optimize biodiversity function of the wetland, by creating diverse micro-habitats supporting diverse bird groups, e.g. deep water, shallow water, muddy edges, reed bed, scrub.

Critical to the overall success of the project is SPNI's relationship with the local community. These communities act as a hub for green activism and sustainable green living. Through the community SPNI strengthens civil society, trains decision makers, protects open spaces and preserves urban nature sites for the public.

**Proposed Solution**

According to the UN, Israel is located in one of the region's most important to biodiversity in the world. Without Israel’s unique habitats, these birds would not complete their grueling journeys across the desert belt of North Africa and the Arabian Peninsula. In recent decades, human developments in most of these areas in Israel, as well as wetlands in surrounding areas such as Turkey and Jordan, have been lost to development, and Earth is suffering as a result.

Start-Up Nature is setting out to mend this rift by establishing wildlife sanctuaries in densely populated areas, supporting both the ecosystem and the local communities simultaneously. Their rest stops must meet the needs of hundreds of species of birds’ needs for water and food, which requires a complex ecosystem including water, bugs, animals, and plant life. Start-Up Nature draws on decades of experience, research, and partnerships with leading international conservation NGOs, research institutes, universities, and government agencies including Birdlife International, the International Union for Conservation of Nature, and the World Wildlife Fund.

SPNI entered into partnerships with the kibbutzim to lease the fishponds and surrounding land and return them to their natural state. Carefully flooding the areas of the fishponds with water from local natural sources and replanting the vegetation necessary to regenerate the wetlands ecosystems. The rewilded habitat quickly attracted populations of invertebrates, reptiles, amphibians, and small mammals that are integral to the ecosystems. Hundreds of thousands of birds arrived to rest and refuel along their migration routes. Eighty new species have been spotted in the habitats, including endangered species and others of conservation concern, such as Ferruginous Duck, African Swamphen, Greater Spotted Eagle, Purple Heron, Turtle Dove, Roller, and Dead Sea Sparrow.

(See link to video of the wetlands project - <https://www.youtube.com/watch?v=Jg2SrfmaNJo>.

We are using the two sites to develop evidence-based best practices for replicable models of habitat management, for use worldwide. The bird sanctuaries will serve as educational centers, out of the conviction that when people learn about nature. We will offer guided tours and educational visits, and the sites will serve as research centers for Israeli and international researchers.

**Feasibility of the Proposed Solution**

The proposed project is the continuation of an existing project at Kibbutz Kfar Ruppin and as such it will become an extension of an existing, proven project with known partners, secured water sources and practical experience in restoration and management. The project will continue to contribute to local and global actions to address nature and climate actions on multiple levels. Locally, the project will improve habitats for biodiversity. For example, wetland bird species, numbers and breeding productivity are expected to increase with restoration actions. For threatened species, such as Ferruginous Duck (Aythya nyroca), successful breeding or colonization on site might contribute to the national population and improve its global conservation status.

Regionally, the project will create potential for cross-border restoration work that will increase the local impact but will also expand restoration actions in the Middle East, and strengthen civil connections between neighboring organizations and communities.

The carbon stored by the project will contribute locally to mitigate climate change, but more importantly will promote the application of nature-based solutions as a main tool to fight the climate crisis. Provide carbon storage in the ground, aquatic vegetation and terrestrial vegetation on fringes and banks.

Project leaders will evaluate the execution of the conservation strategy in the following ways: Bi-annual reports that include information on development of re-wilded habitat, report on monitoring program, and report on outreach activities, education activities, public events and publications.

The communities that share this living geographical space come from different cultural backgrounds, but their appreciation of nature is the common denominator, the project and the communities will benefit, grow and develop. The diversity and inclusion activities of Start-Up Nature include Israelis of all ages and ethnic groups. Start-Up Nature provides educational packages, tools and instructors for all age ranges, from kindergarten to pensioners, religious and secular and Bedouin and Arab communities around the country and visitors to our project site from the world over.

Thank you

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Resource Development

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