第一展版

國土生態綠網 織出永續未來

Taiwan Ecological Network (TEN) - Weaving a Sustainable Future

臺灣近年面臨開發壓力、生物多樣性下降、棲地破碎化與氣候變遷等挑戰,農業部林業及自然保育署推動「國土生態綠網」政策,盤點生物棲地分布與野生動物活動廊道,透過整合國土資訊、建立生態綠網空間計畫,引導土地利用及建設開發,朝向「以自然為本」的永續發展目標邁進。

In recent years, Taiwan has faced development pressures, biodiversity loss, habitat fragmentation, and climate change challenges. To address these issues, the Forestry and Nature Conservation Agency under the Ministry of Agriculture is promoting the 'Taiwan Ecological Network (TEN)' policy. This initiative identifies habitat distribution and wildlife movement corridors, integrates land information, and establishes spatial plans to guide land use and development toward nature-based sustainability.

本展覽共分5個展版及2個實體展示區域

This exhibition consists of five display panels and two physical exhibit areas.

國土生態綠網簡介

Introduction to the Taiwan Ecological Network (TEN)

臺灣陸域保護區與保育基礎

Protected Areas and Conservation Foundations in Taiwan

- 臺灣自然保護區域 Natural Protected Areas in Taiwan 合計 98 處,陸域總面積為 69.4 萬公頃,占比約 19.18%,大多位於國有林事業區中,形成中央山脈保育軸。
- 國有林事業區 State-owned Forest Areas 面積 153.8 萬公頃,占臺灣陸域面積約 42.5%,國有林事業區一期分區與土地利用限制,形同「野生動物重要棲息環境」。

● 保護區之外的課題

Challenges Beyond Protected Areas

淺山與平原物種未獲足夠庇護,高達 55%保育類野生動物、64% 台灣植物紅皮書物種, 棲息於非保護區,隨著棲地破碎化日益嚴重,國有林區成為孤島,淺山平原重要棲地無法 連結與維持生態功能。

Species in low mountain and plain areas have not received sufficient protection. As much as 55% of protected wildlife and 64% of Taiwan Red List plant species inhabit areas outside protected zones. With increasing habitat fragmentation, national forest lands have become ecological islands, and critical habitats in lowland and plain areas can no longer connect or maintain their ecological functions.

●國土生態綠網:45 條區域保育軸帶

Taiwan Ecological Network (TEN): 45 Regional Conservation Corridors

以關注區域為基礎,考量棲地復育及串聯優先性指認一主要棲地樣態分為 5 類別:丘陵型 12 條、溪流型 14 條、平原型 8 條、海岸型 6 條、其他(離島 5 條)

Based on key focus areas, and considering the priorities of habitat restoration and connectivity, primary habitat types are classified into five categories: 12 hilly-type corridors, 14 stream-type corridors, 8 plain-type corridors, 6 coastal-type corridors, and 5 others (island-type).

策略 Strategies:

●生態植被復育與入侵種移除

Restoration of Native Vegetation and Removal of Invasive Species

●生態廊道串連與動物通道建置

Ecological Corridor Connectivity and Construction of Wildlife Passages

●高風險地區與瀕危物種保育

Conservation of High-Risk Areas and Endangered Species

●友善生產環境之營造

Creation of Eco-Friendly Production Environments

●里山倡議與地景保育推動

Promotion of the Satoyama Initiative and Landscape Conservation

●公眾參與及國土綠網環境教育推廣

Public Engagement and Environmental Education for the Taiwan Ecological Network

●健全國土生態綠網

Strengthening the Taiwan Ecological Network

第二展版

宜蘭分署國土生態綠網保育軸帶特色及策略 Characteristics and Strategies of Taiwan Ecological Network (TEN)

林業及自然保育署宜蘭分署轄區範圍內共劃設 4 條國土生態綠網保育軸帶,包含:北海岸 淺山保育軸帶(丘陵型)、東北角溪流保育軸帶(溪流型)、蘭陽平原濕地暨溪流保育軸 帶(平原型)、南澳溪流保育軸帶(溪流型)。

"A total of four Taiwan Ecological Network (TEN) conservation corridors have been designated within the jurisdiction of the FANCA Yilan Branch.

1. 北海岸淺山保育軸帶(丘陵型)

North Coast Low Mountain Conservation Corridor (Hilly Type)

- **深關注物種:**唐水蛇、臺北赤蛙、赤腹游蛇、冬候鳥
- Key Species: Sinonatrix percarinata (Chinese keelback), Rana taipehensis (Taipei red frog), Rhabdophis tigrinus (Tiger keelback), Winter migratory birds
- ★特色:水圳、水梯田、草澤、溪流鑲嵌地景
- Features: Irrigation ditches, terraced fields, grassy wetlands, and mosaic landscapes
 策略 Strategies:
- 盤點生態資源與困境議題,整合相關單位資源
 Inventory of ecological resources and key challenges; integration of resources from relevant agencies
- 公眾參與×保育共生地 OECMs 潛力點盤點
 Public participation × Identification of potential OECMs (Other Effective Area-Based Conservation Measures) sites
- 國土生態綠網環境教育

Environmental education on the Taiwan Ecological Network (TEN)

• 珍稀物種復育與棲地營造 × 生態給付

Rare species restoration and habitat creation × Payments for Ecosystem Services (PES)

2. 東北角溪流保育軸帶(溪流型)

Northeast Stream Conservation Corridor (Stream Type)

- **潺注物種:**海米、葦草蘭、黃腹細蟌、柴棺龜、食蛇龜、臺灣狐蝠
- Key Species: *Exopalaemon carinicauda* (Coastal prawn), *Arundina graminifolia* (Bamboo orchid), *Ceriagrion fallax* (Yellow-bellied damselfly), *Cuora flavomarginata* (Yellow-margined box turtle), *Heosemys depressa* (Flat-shelled turtle), *Pteropus dasymallus* formosus (Formosan flying fox)
- * 特色:獨流溪河川廊道及水圳、水梯田、草澤、溪流等地景
- Features: Interconnected stream-river habitats, irrigation ditches, terraced fields, wetlands, and streams

- 工程生態友善機制與圖資交流,破除治理框架,溪流河廊暢通 Eco-friendly engineering mechanisms and spatial data exchange to break governance barriers and ensure stream and river corridor connectivity
- 綠網環境教育、生態給付
 Environmental education on the Taiwan Ecological Network (TEN) and Payments for
 Ecosystem Services (PES)
- 公眾參與 × 保育共生地 OECMs 潛力點盤點
 Public participation × Identification of potential OECMs (Other Effective Area-Based Conservation Measures) sites

3. 蘭陽平原濕地暨溪流保育軸帶(平原型) Lanyang Plain Wetland and Stream Conservation Corridor (Plain Type)

- ▼ 關注物種: 冬候鳥、中華青鱂、金絲蛇、大紫蛺蝶、寬尾鳳蝶、臺灣黑熊、臺灣狐蝠
- Key Species: Winter migratory birds, *Oryzias sinensis* (Chinese rice fish), *Elaphe carinata* (King ratsnake), *Sasakia charonda* (Great purple emperor), *Agehana maraho* (Taiwan batwing butterfly), *Ursus thibetanus* formosanus (Formosan black bear), *Pteropus dasymallus* formosus (Formosan flying fox)
- ★特色:沿海水田、冬候鳥度冬棲地及蘭陽溪主支流生物廊道

Coastal paddy fields, wintering habitats for migratory birds, and biological corridors along the main and tributary streams of the Lanyang River.

•牛熊造林 X 銀合歡移除

Ecological afforestation × Removal of *Leucaena leucocephala*

• 珍稀物種復育與棲地營造 × 生態給付

Rare species restoration and habitat creation × Payments for Ecosystem Services (PES)

•動物脫困通道設置 X 溪流縱橫通道

Installation of wildlife escape passages × Stream corridor connectivity

•公眾參與×保育共生地 OECMs 潛力點盤點

Public participation × Identification of potential OECMs (Other Effective Area-Based Conservation Measures) sites

•狩獵組織培力、綠網環境教育

Capacity building for hunting organizations and TEN environmental education

4. 南澳溪流保育軸帶(溪流型)

Nan-ao Stream Conservation Corridor (Stream Type)

- **滿注物種:**冬候鳥、臺灣扁絨螯蟹、日本瓢鰭蝦虎、臺灣黑熊
- Key Species: Winter migratory birds, *Eriocheir formosa* (Taiwan mitten crab), *Tridentiger trigonocephalus* (Japanese trident goby), *Ursus thibetanus* formosanus (Formosan black bear)
- ★ 特色:濱海兩側生態推移帶、河溪及湧泉生物棲地

Coastal ecological transition zones on both sides, along with habitats in rivers, streams, and natural springs.

• 跨域合作河口沙洲棲地維護

Cross-sector Collaboration for Estuarine Sandbar Habitat Conservation

• 生物棲地營造與生態造林

Habitat control, ecological afforestation

• 生態造林

Ecological afforestation

• 狩獵組織培力

Capacity building for hunting organizations

•公眾參與×保育共生地 OECMs 潛力點盤點

Public participation × Identification of potential OECMs (Other Effective Area-Based Conservation Measures) sites

第三展板

東北角溪流保育軸帶:雙溪流域串聯修復

Northeast Coastal Stream Conservation Corridor: Restoring and Linking Shuangxi Watersheds

以東北角溪流保育軸帶的雙溪流域為例,說明在國土生態綠網架構下,如何透過公、私協力跨域合作進行破碎化棲地修復及生物廊道串聯。

Using the Shuangxi watershed within the Northeast Stream Conservation Corridor as an example, this illustrates how, under the framework of the National Ecological Green Network, cross-sect.

☆ 貢寮水梯田及瀕危植物復育

Gongliao Terraced Paddies and Endangered Plant Restoration

- ◇合作單位:狸和禾小穀倉、生物多樣性研究所、人禾環境倫理發展基金會
- Partner Organizations: Lihe-He Small Granary, Taiwan Biodiversity Research Institute, Environmental Ethics Foundation of Taiwan

★ 行動內容 Actions:

- 水梯田生態服務給付
 Payments for Ecosystem Services in Terraced Paddies
- 米糧保價收購
 Guaranteed Purchase of Eco-friendly Rice
- 田區生態調查
 Ecological Surveys of Farmland Areas
- 輔導成立「禾作社」
 Assistance in Establishing a Cooperative
- 水域連通埤塘調查及串聯
 Survey and Connectivity Planning of Irrigation Ponds
- 特殊物種監測與棲地營造
 Monitoring of Key Species and Habitat Creation
- 瀕危植物復育技術
- Propagation Techniques for Endangered Plant Species

Gongliao River Stream Corridor Connectivity

○合作單位:農田水利署北基管理處

Partners: Irrigation Agency, Ministry of Agriculture

★ 行動內容 Actions:

一堰斷面障礙降低

Barrier reduction at three weir cross-sections

乾砌石棲地營造

Dry-laid stone habitat creation

丁壩、石樑、形塑聚魚棲地

Construction of groynes and stone beams to shape fish aggregation habitats

遠端流量監測平台建置

Establishment of a remote flow monitoring platform

上游增加16種魚蝦紀錄

An increase of 16 fish and shrimp species recorded upstream

☆ 田寮洋水鳥關注區保育及棲地串聯

Tianliaoyang Waterbird Concern Area Conservation and Habitat Linkage

○合作單位:新北市政府農業局、人禾環境倫理發展基金會

Partner Organizations: Agriculture Bureau, New Taipei City Government, Environmental Ethics Foundation of Taiwan

了行動內容 Actions:

- 友善水鳥棲地營造及生態服務給付
- 鳥類棲地利用情形:停憩田寮洋數量逐年增加、利用水堤(泥灘)數量增加

☆ 鹽寮沙灘瀕危植物保育推動

Promotion of Endangered Plant Conservation on Yanliao Beach

◆合作單位:東北角暨宜蘭海岸國家風景區管理處、警政署保安警察第七總隊、林業試驗所、生物多樣性研究所、新北市政府、龍門社區、狸和禾小穀倉 Partner Organizations:Northeast and Yilan Coast National Scenic Area, Seventh Special Police Corps, National Police Agency, Taiwan Forestry Research Institute, Taiwan Biodiversity Research Institute, New Taipei City Government, Longmen Community, Lihe-He Small Granary

了行動內容 Actions:

- 棲地管理:車輛管制/堆砂籬設施/架設告示/跨機關聯合巡護
 Habitat Management: Vehicle access control / sand fencing installations / signage setup / joint interagency patrols
- 瀕危植物復育與妻定營造: 堆砂區廢棄物人工撿拾與外來入侵種移除
 Endangered Plant Restoration and Habitat Creation: Manual removal of waste and invasive alien species from sand accumulation zones
- 社區林業計畫推動、培力與營造
 Community Forestry Program Implementation, Capacity Building, and Habitat Creation

第四展板

以國土生態綠網為重要路徑,回應全球生物多樣性目標 Using the Taiwan Ecological Network (TEN) as a Key Pathway to Respond to Global Biodiversity Goals

● 國土生態綠網

Taiwan Ecological Network (TEN)

生物多樣性保育 Biodiversity Conservation

社區林業 Community Forestry

里山倡議 Satoyama Initiative

ESG【環境保護(E, Environmental)、社會責任(S, Social)以及公司治理(G,

Governance]

全球政策連結

Global Policy Connections

聯合國生物多樣性公約《昆明-蒙特婁全球生物多樣性框架》

UN Convention on Biological Diversity: Kunming-Montreal Global Biodiversity Framework (K-M GBF)

- -23 項行動目標(圖示環圖)
- -23 Action Targets (Visualized by Infographic)

聯合國永續發展目標 SDGs

United Nations Sustainable Development Goals (SDGs)

COP16 宣示與全球願景行動參與

Participation in CBD COP16 Vision and Global Initiatives

📽 臺灣生物多樣性 永續願景

Taiwan's Biodiversity, a Sustainable Vision

以國土生態綠網空間藍圖,整合跨部會政策與公私部門協力,落實國土生態作業導向預劃,配合自然性目的對外溝通利用,涵育分享生物多樣性多元價值,共建從森林到海岸人與自然和諧共生的永續生活。

By using the spatial blueprint of the Taiwan Ecological Network (TEN), integrating crossagency policies and public-private collaboration, Taiwan promotes ecological-based land planning. This supports outreach on ecological integrity and cultivates the shared value of biodiversity to build a sustainable lifestyle of harmony between people and nature—from forests to the sea.

第五展板

挙守護里山植物—葦草蘭

Protecting Satoyama Plants: Bamboo Orchid

葦草蘭簡介

Species Introduction

葦草蘭為台灣原生的陸生蘭花,分布於低海拔丘陵、森林或草生地。具有觀賞價值與生態重要性,但因土地開發與環境改變數量減少,加上採集壓力,目前野外原生族群不到200株,已被公告臺灣維管束植物紅皮書名錄之國家極危等級(CR)植物。

The bamboo orchid (*Arundina graminifolia*) is a terrestrial orchid native to Taiwan, found in low-elevation hills, forests, or grassy areas. It holds both ornamental value and ecological importance. However, due to land development, environmental changes, and collection pressure, its population has declined significantly. Fewer than 200 individuals remain in the wild, and it has been listed as a Critically Endangered (CR) species in the Taiwan Red List of Vascular Plants.

花

Flower

兩性花,總狀花序,花由下往上分次慢慢開,花期從初夏到秋季(6-10月)。

Bisexual flowers arranged in a raceme; the flowers bloom gradually from the bottom to the top. The flowering period extends from early summer to autumn (June to October).

果實

Fruit

蒴果期為 7-11 月,近長圓柱形且具 5 稜,成熟後會自動開列,內含大量種子,種子具薄翅。

The fruiting period is from July to November. The capsule is nearly cylindrical with five ridges and splits open naturally when mature, releasing numerous seeds. The seeds are winged with thin membranes.

葉

Leafs

葉二列互生,葉線狀披針形,薄革質或堅紙質,基部具圓筒狀的鞘。

Leaves are distichously alternate and linear-lanceolate in shape, with a thin leathery or firm papery texture, and a tubular sheath at the base.

莖

Stem

莖直立,圓柱形,細竹竿狀,為葉鞘所包,成熟植株的莖節處,有時可能會產生高芽。 The stem is erect, cylindrical, and resembles a slender bamboo stalk, enclosed by leaf sheaths. In mature plants, axillary buds may occasionally develop at the stem nodes.

生長環境

Habitat

陽光充足、排水良好的土壤;常見於路邊、農地與荒野間。

Prefers sunny locations with well-drained soil; commonly found along roadsides, farmlands, and wastelands.

葦草蘭栽培管理

Cultivation and Management

光照:半日照以上的環境。

Sunlight: partial to full sunlight.

水分:喜濕,見土壤快乾就須澆透,低溫冬季休眠期,減少澆水次數。

Water: Prefers moist conditions; water thoroughly when the soil is nearly dry. During the dormancy period in the cold winter season, reduce the frequency of watering.

土壤:需排水良好,不易積水的土壤。

Soil: Requires well-drained soil that does not retain excess water.

里山瀕危植物盆栽展示區

Satoyama Endangered Plant Pots

• 葦草蘭 CR 極危

Arundina graminifolia (CR - Critically Endangered)

• 基隆蠅子草 EN 瀕危

Elatostema keelungense (EN - Endangered)

• 厚葉牽牛 VU 易危

Ipomoea thickleafensis (VU - Vulnerable)

• 密毛爵床 VU 易危

Justicia procumbens var. pilosa (VU - Vulnerable)

• 矮筋骨草 VU 易危

Ajuga pygmaea (VU - Vulnerable)

• 濱旋花 NT 近危

Ipomoea pes-caprae subsp. brasiliensis (NT - Near Threatened)

• 新竹腹水草 VU 易危(特有種)

Lindernia hsinchuensis (VU - Vulnerable, Endemic)

• 石碇佛甲草 VU 易危(特有種)

Sedum sekiteiense (VU - Vulnerable, Endemic)

• 豔紅鹿子百合 CR 極危

Lilium speciosum var. gloriosoides (CR - Critically Endangered)

• 濱防風(社區產業發展潛力物種)

Glehnia littoralis (Potential Species for Community Industry)

→ 友善小農產品展示區

Eco-friendly Products Display

據【來自土地的祝福 → 綠網友善小農特色產品展示區】

在東北角溪流保育軸帶,我們不只守護河溪生態,更支持與自然共生的小農 🔭。這裡的 農產品,不只是味道的記憶,更是棲地修復與社區永續的具體成果!

◎【貢寮水梯田×狸和禾小穀倉工作室】

友善農法栽種的稻米,透過保價收購製成:

「和禾田蠳米」白米、「和禾米香禮盒」、花紫蘇手工餅乾,以及文創產品動物刺繡手, 美味實用,更是支持水梯田維護與生態給付機制的展現。

♠ 【森林的甜蜜×人與土地的共生】

「樹伯分享蜜」這樣的森林蜂蜜,傳遞出「從自然來、回自然去」的循環精神。

據【田寮洋×羽豐米】

沿著溪流與濕地,農民以友善耕作方式推出:米蛋捲、真空包裝白米、米酒製品。 這些在地好物,是維繫生物廊道與地方經濟共好的代表。

→ 一包米、一份餅乾、都是我們守護自然、實踐永續的方式。

支持友善農業,就是支持一條通往生態與生活共好的綠網之路!

- ♥ 誠摯邀請您走訪「綠網友善小農特色產品展示區」,認識這些用心耕耘的成果!
- **[A Blessing from the Land → TEN Eco-Friendly Local Product Showcase]** In the **Northeast Stream Conservation Corridor**, we' re not only protecting rivers and ecosystems we' re also supporting local farmers who live in harmony with nature. **★**

These agricultural products are more than just delicious memories — they represent tangible outcomes in habitat restoration and sustainable community development!

♠ Every bag of rice, every handmade cookie, is a small act of nature conservation and sustainable living.

Supporting eco-friendly agriculture means supporting a path where ecology and livelihoods flourish together through the **Taiwan Ecological Network (TEN)**.

• You' re warmly invited to visit the **TEN Eco-Friendly Local Product Showcase**, and discover these heartfelt, land-rooted creations!