

LANDSCAPE ECONOMY

from systems thinking to systems design

Winter School in Antalya, Turkey
hosted by Akdeniz University
from February 16 - 25, 2024

Case study area: **MANAVGAT**

Final Presentation
SULAC PARK

Ahmet Alperen Dikici, Anahita Najafi, Caroline de Vries, Deniz İncesu,
Karem Zambrano, Valentina Popa

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Funded by
the European Union

SUstainable LAndscape Channels

“su” means water in Turkish

“sulac” means “wet” in Turkish



SULAC Park

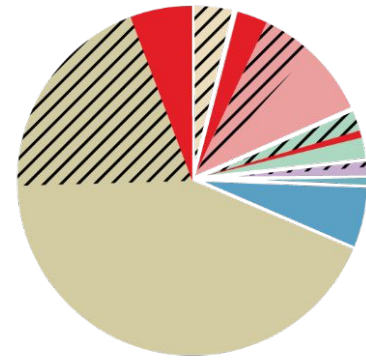
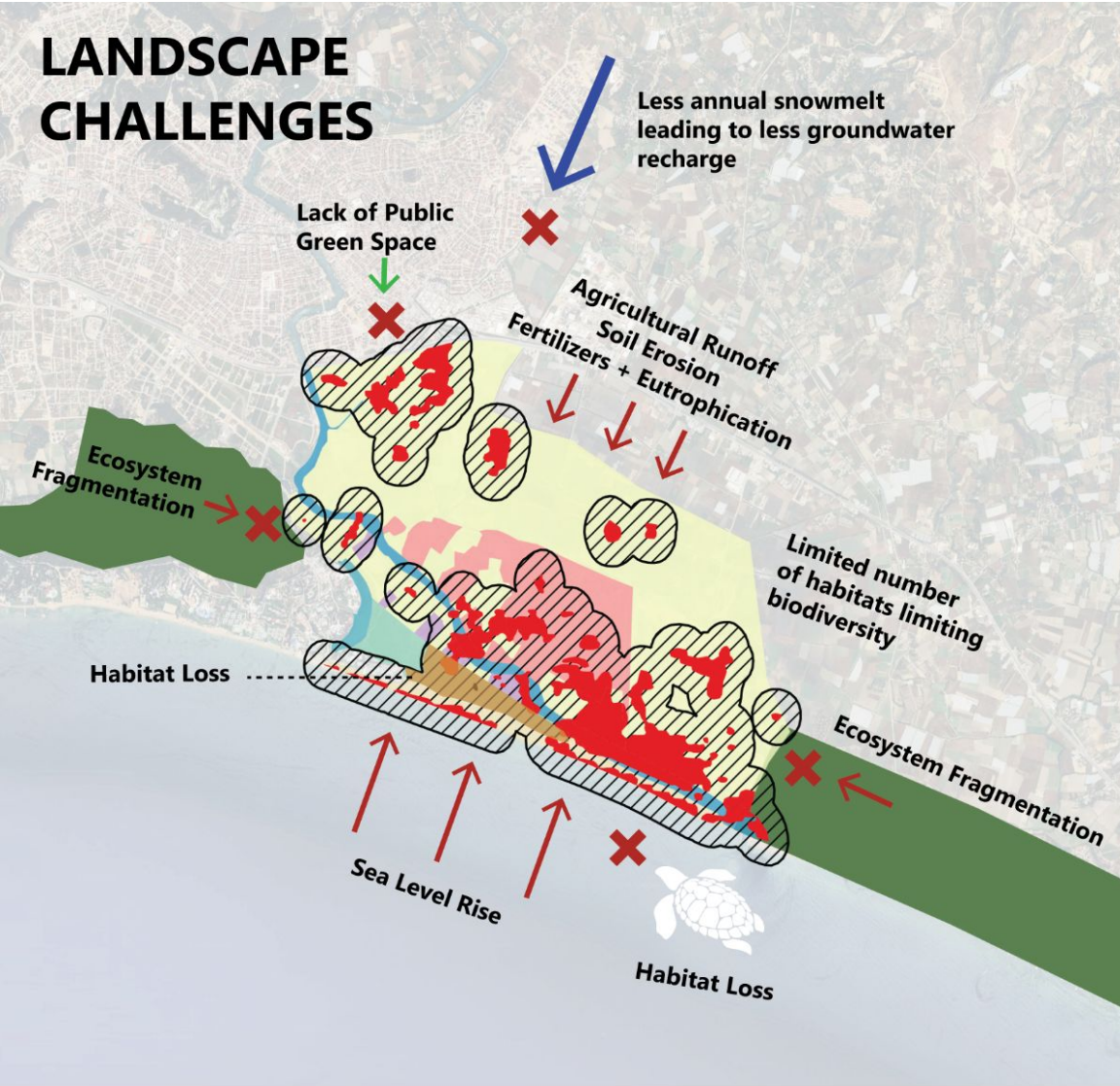
Circular & Regenerative Water Landscapes

22.02.2024

TELOS Winter School Antalya

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LANDSCAPE CHALLENGES

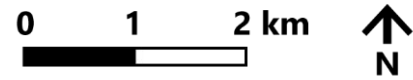


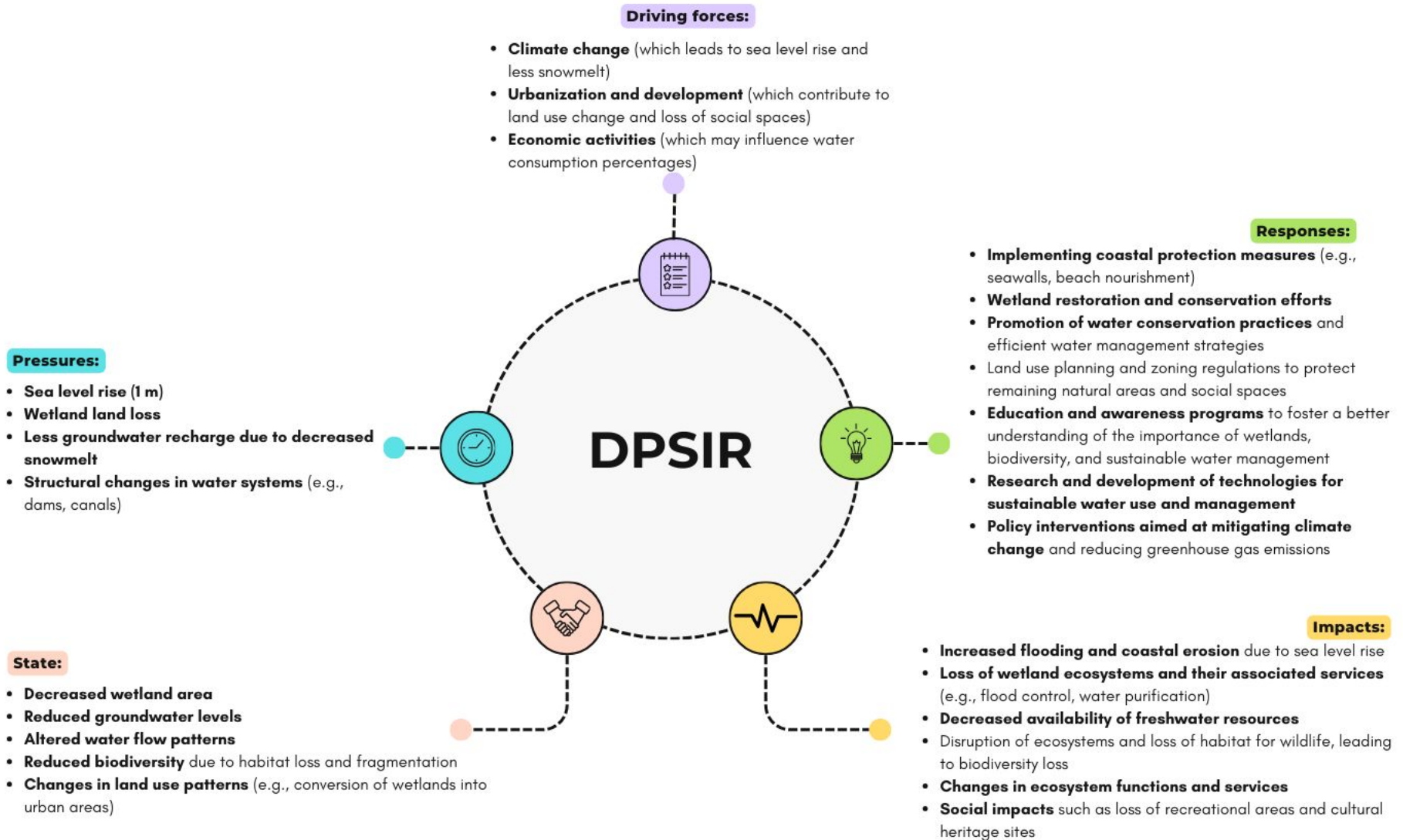
Land Use by Percentage and Sea Level Rise Vulnerability

- Agriculture
- Manavgat River
- Lake
- Hotels
- Existing Wetland
- Conflict Zone
- Beach
- Protected Areas

Agriculture and Tourism consume the highest amounts of water

- +1m Sea Level Rise + (Groundwater) Flooding
- Soil Salinization Risk + Flood Risk Zone





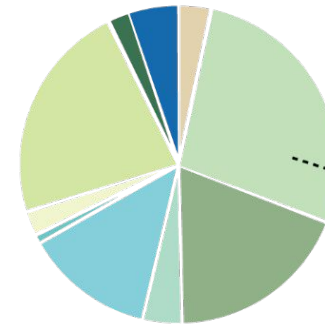
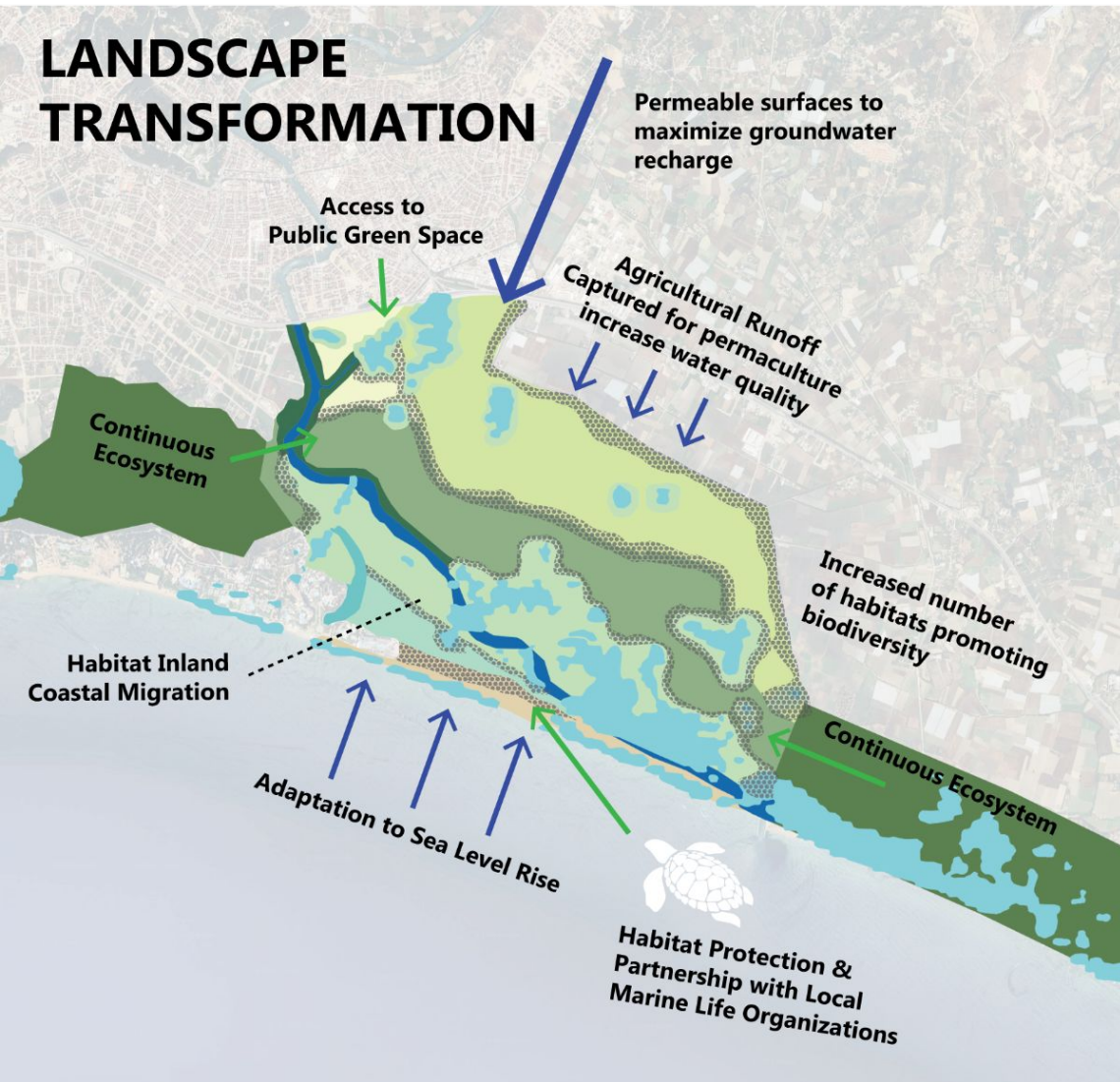
VISION & GOALS



CONNECTING TO THE SUSTAINABLE DEVELOPMENT GOALS



LANDSCAPE TRANSFORMATION



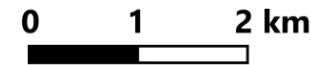
New Land Use by Percentage
Total: 1.440 hectares

400 hectares of coastal wetlands helps retain marsh species

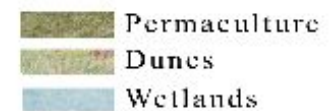
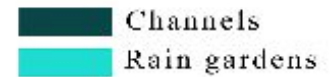
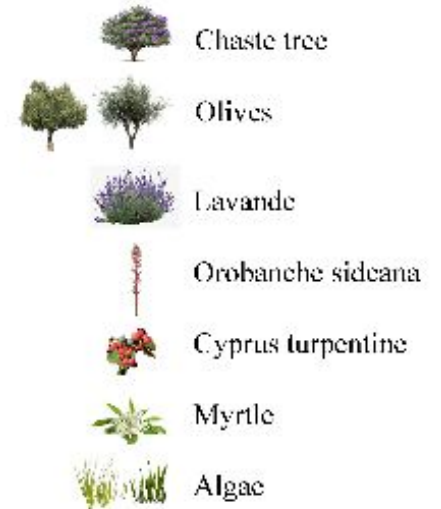
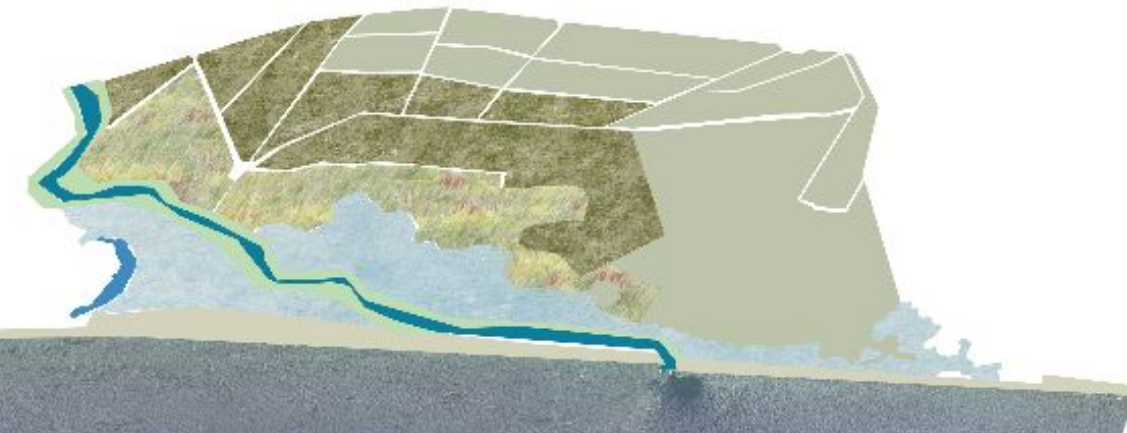
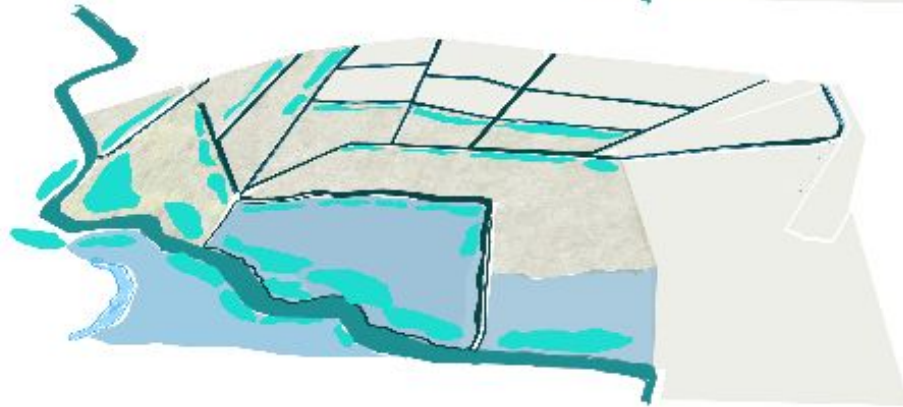
- Permeculture
- Manavgat River
- Lake
- Coastal Wetland
- Brackish Water
- Existing Wetland
- Forest Dunes
- Beach
- Protected Areas
- Transition Zone/Habitat Variation

Permeable Climate Adaptive Landscapes

Transition Zones allow for more habitats and biodiversity



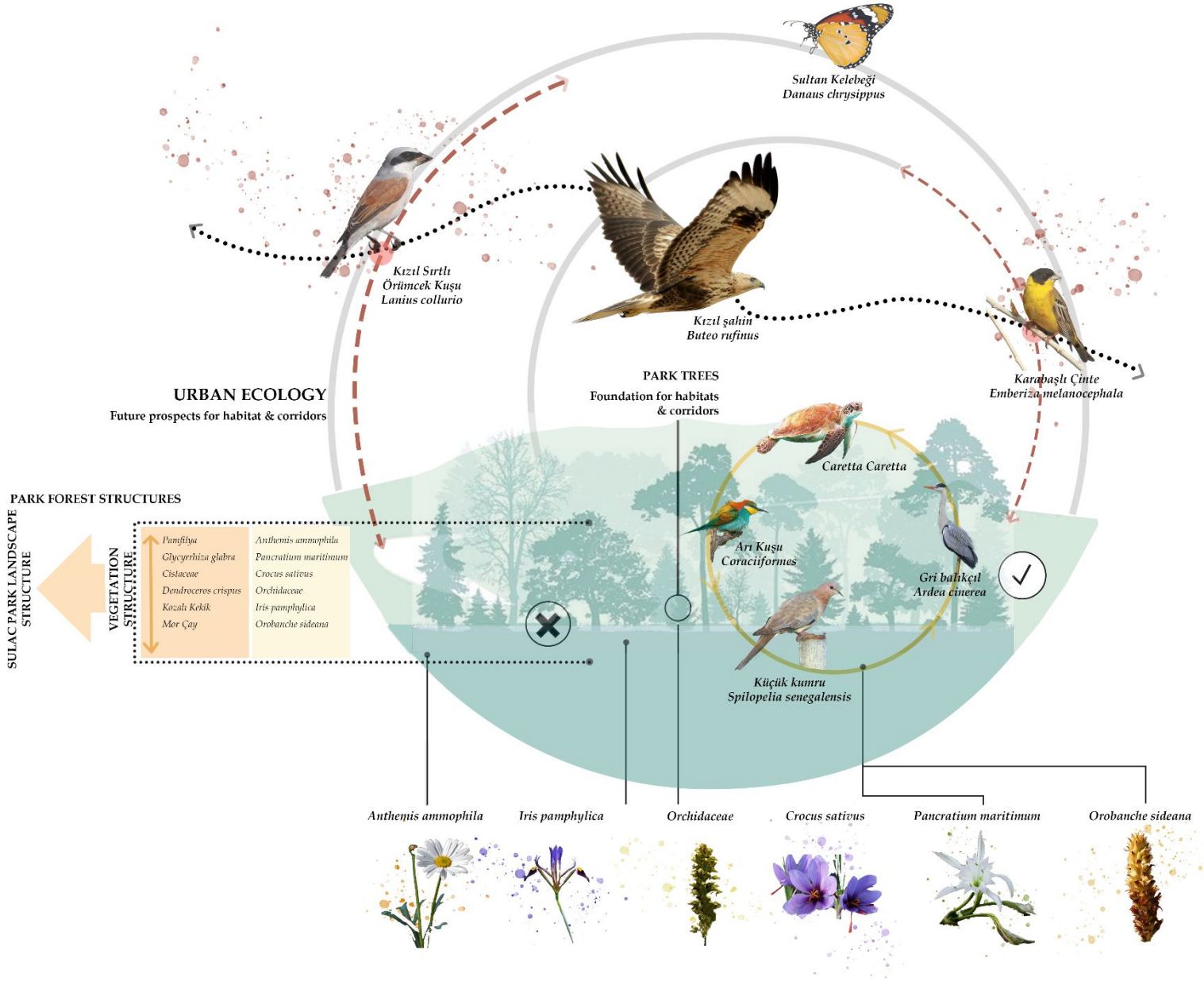
SYSTEM LAYERS



INTEGRATED SYSTEM FUNCTION



INCREASING BIODIVERSITY



(Social) Enterprise or charity / community based organizations

SULAC PARK

Mission Statement SULAC Park is a non-profit organization that manages & coordinares ecological and cultural development for the park that connects Manavgat River to the sea, for regenerative water & biodiversity & public open space for social & touristic amenities as well as climate change adation & restoration

Key-Partners
 Comes together in the council: city reps, tourism board, local community members, local organizations, some members from non-profit

Additionally: sponsorships, municipalities local communities cultural heritage organizations Private donors, funding agencies, universities & schools, sports groups lenders

Key Processes
 Exhibition of local crops
 Research center, visiting researchers
 Participatory, design processes

Key Resources
 Ecological values & watercycles
 Ecosystem services, wetlands
 biodiversity volunteers + members land
 Funding from state & EU
 Water, crowdfunding
 Local funding from city, citizens who wants more space for city

Value Proposition
 We offer a nonprofit organization for the well-organized coordination so that all can pring together

Design a system of green water park /

Key-Products & -Services
 museum tand visitors center
 -research centers workshop area
 tulip festival Seasonal festivals
 mountain to sea triathalon
 habitat restoration researchers and volunteers
 permaculture+ community garden sports

Channels
 Website, newsletters, promo videos
 membership educational / School outreach program / Social media, tourism agencies / Hotels packages

Customers
 Customers
 locals intergenerational space
 tourists who want to see natural beauty
 social gathering dog walking places ecology running
 Sports/recreational groups triathlon regenerative biodiversity-nature groups
 eco-tourists

Beneficiaries
 Species and biodiversity
 Regenerative agriculture
 Cultural groups, musicians, annual festival
 Festival 23. April children day
 tourist tax (seasonal?) - vistorcenter shop
 partnership
 -

Cost-Driver Buying land / developing and designing park / garden supplies and maintenance system, seeds
 Visitor center and museum marketing, website, etc. / Restaurants / Building maintenance / Salaries / Water infrastructure

Revenue-Driver
 Festivals / Sponsorships / Membership and donations / Grants from state and EU / Public funding base
 funding biodiversity / Tourist tax (seasonal) / Visitor center shop / Partnership / Researchers

Customer & Beneficiary Input
 Non-profit / Council, working groups, youth council / Member-based hotel partnerships

KPI (Key Performance Indikator)
 # of annual visitors of users / # of positive reviews. / # of species present / Comparing soil quality / Reduction of meintance costs with company advertisments / # school visits / # membership/ water quality / area of ecosystems / etc

Social & Environmental Impact / Impact on Beneficiaries

Collecting water / Seasonal events calendar / Different ways of the using water increase the vegetation, species on the costal line / Endemic plants / Encourage social interaction & public health / Climate-adaptive coastal development / Lirely & dynamic public space

Climate change adaptation & risk mitigation

open space Park for locafts & tourists with water cycling regenerative 293



SULAC PARK ORGANIZATION

Manages and Coordinates activities within SULAC Park
Receives sponsorships + public support
Supports SULAC Park Membership
Run by a Management board

WORKING GROUPS

For the Continued Development of the Park
Can be joined by SULAC Park Org Members
Examples: Ecological, Water/Geology, Tourism + culture,
Annual festival, Recreation + sports

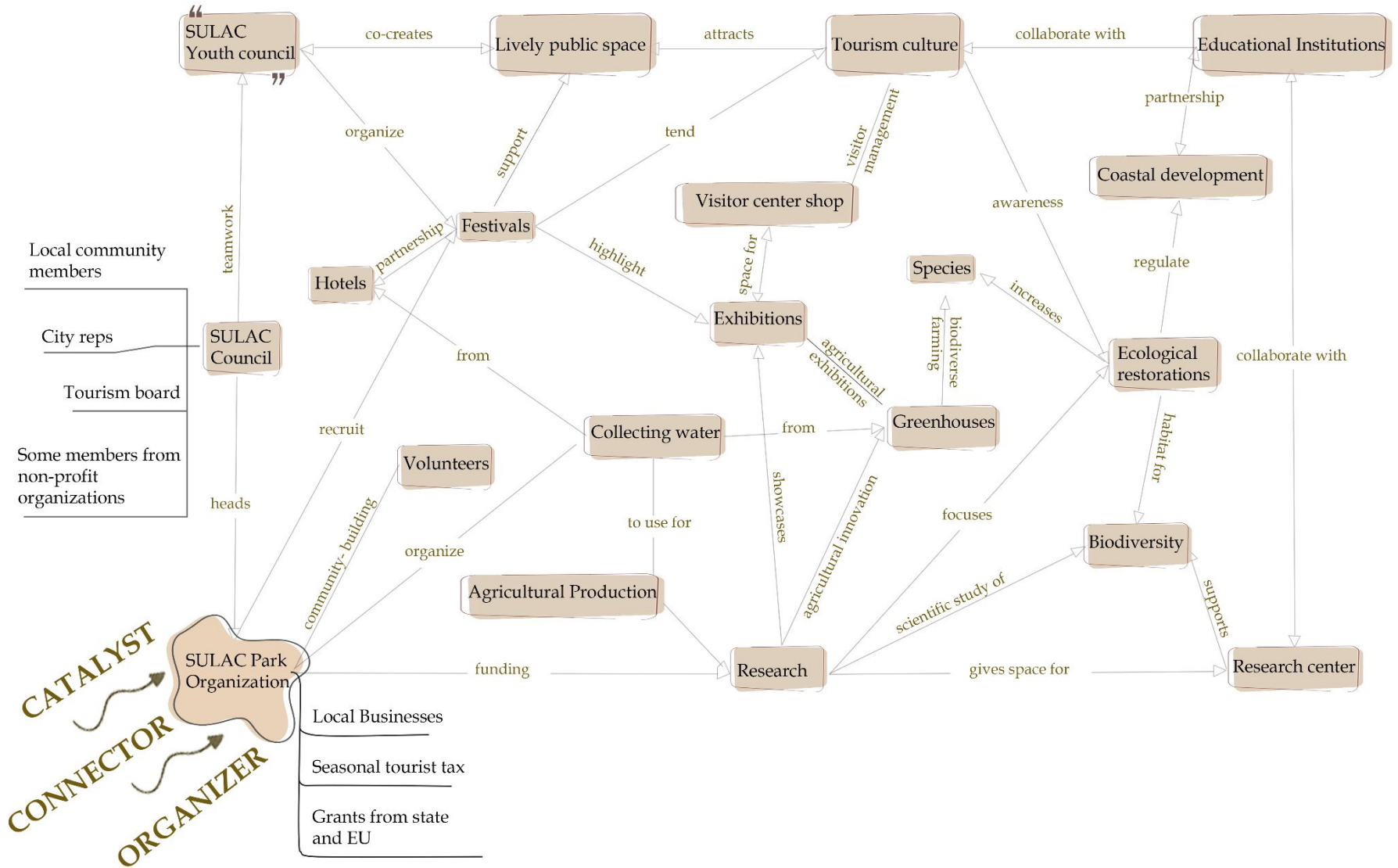
SULAC PARK ADVISORY BOARD

Leadership for SULAC Park
Representatives from Manavgat City,
Touristic Board, SULAC Park Membership,
Local Communities, Interest Groups, Businesses, etc.

SULAC PARK YOUTH COUNCIL

Youth Leadership and Voices
for continued co-creation of SULAC Park
Partnership with schools and universities

VALUE PROPOSITION WEB



KEY PRODUCTS AND SERVICES

Main Product: Facilitation of many groups for the benefit of SULAC Park and Community	
PRODUCT/SERVICE	TARGETED BENEFICIARIES
Museum and Visitors Center	Regional Locals, Tourists, School Groups
Research Centers Workshop Area	Universities, Researchers, Scientific Conferences, Biodiversity Conservation (Local Species)
Tulip Festival Seasonal Festivals	Regional Locals, Domestic & Foreign Tourists, Hotels, Cultural & Ecological Groups
Spring and Fall Triathlons	Athletes, Local Businesses & Vendors, Cultural Groups, City of Manavgat, Hotels & Tourism
Habitat Restoration Researchers and Volunteers	Local community groups, Nature organizations
Permaculture + Community Garden	Local community, agricultural research, restaurant vendors,

CUSTOMERS & BENEFICIARIES

SCHOOLS

RESEARCHERS

HOTELS

YOUTH

UNIVERSITIES

BIODIVERSITY

CITY GOV

The first time I was at to SULAC Park it was because of a school trip - we let local butterflies we raised in our classroom free in the wild!

When my mom picked me up she realized how close it was - now we go all the time and she is a part of the cultural working group

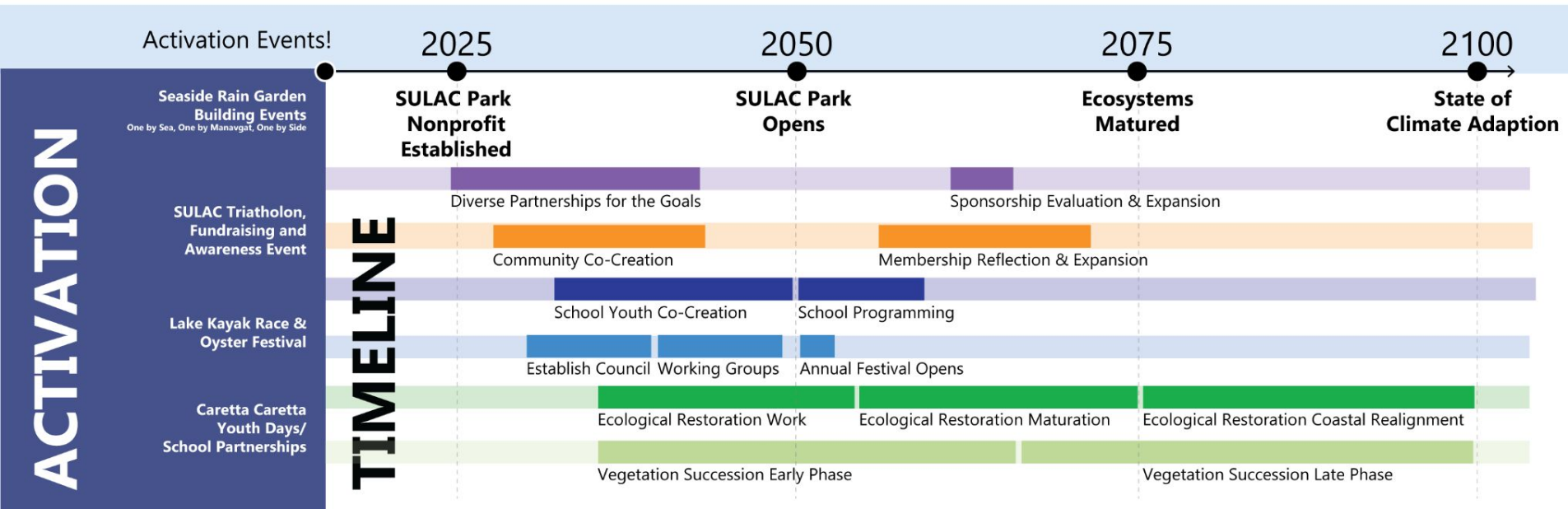
On my birthday we flew kites in the park and my parents bought me ice cream at the SULAC cafe

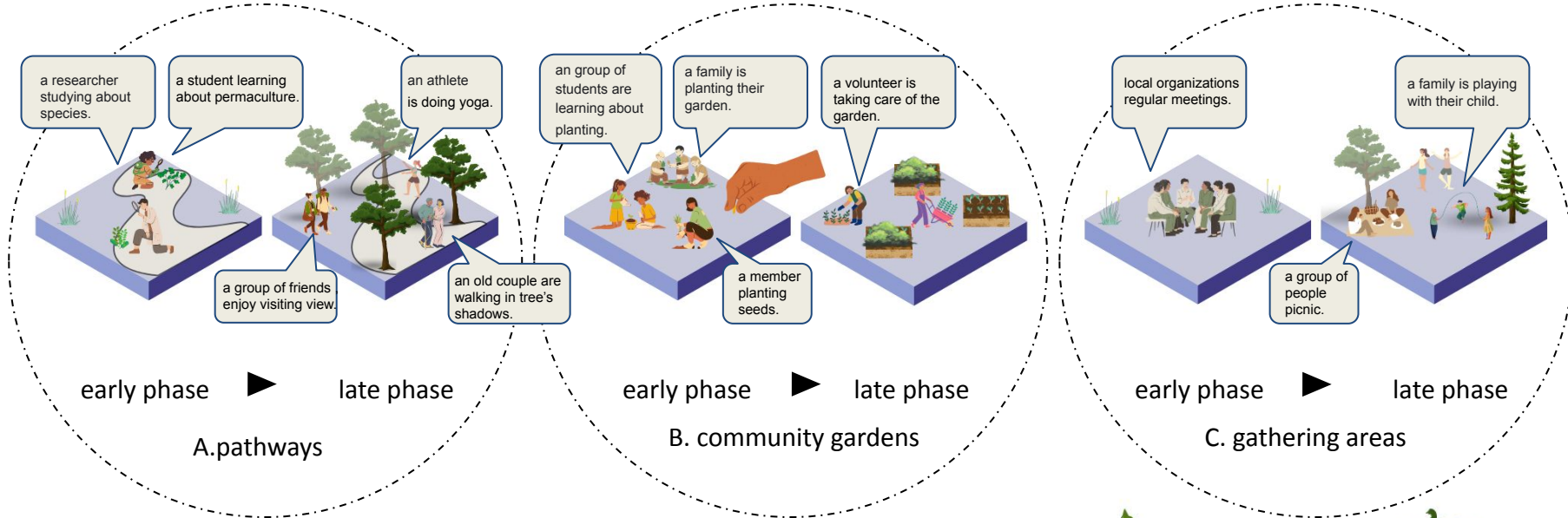
I like riding my bike to the sea through the park from my house. Before I had to go through streets & cars.

When I grow up I want to be a Caretta Caretta saver

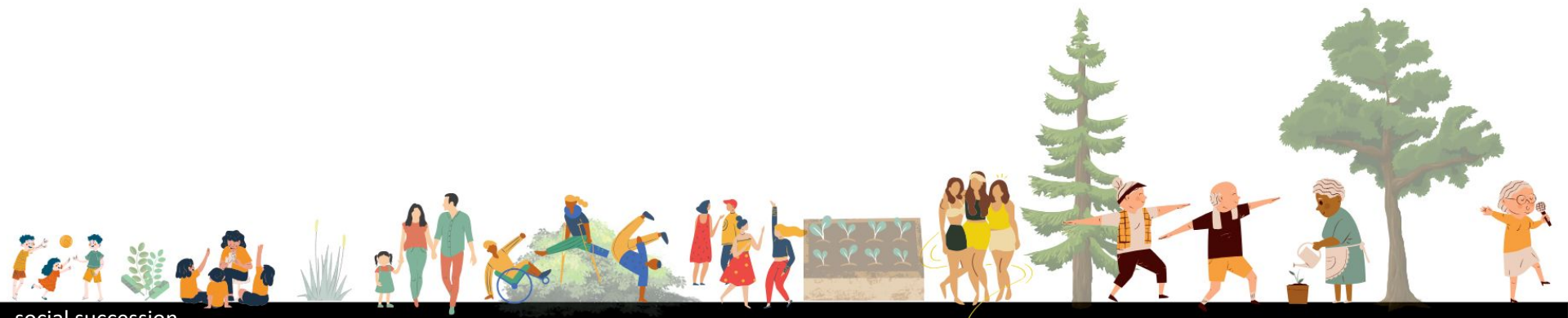
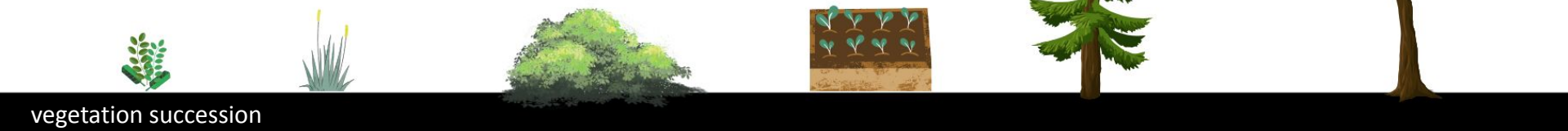


Timeline for Transformation SULAC PARK





A KEY PROCESS: ECOSYSTEM & SOCIAL DEVELOPMENT STRATEGY



CHANNELS OF COMMUNICATION

come to SULAC Park!



- Website & Newsletters
- Promo Videos: IG Live with Scientists
- Membership
- Outdoor Education
- School Outreach Program
- Social Media
- Tourism agencies
- Hotel packages



Many membership packages.
Example: Pay-as-you wish membership for locals helps support the park and invites you to member meetings for future development of the park.

KEY RESOURCES: AMENITIES

Visitor Center with Museum Space for Rotating Exhibitions, Workshop Room, etc.

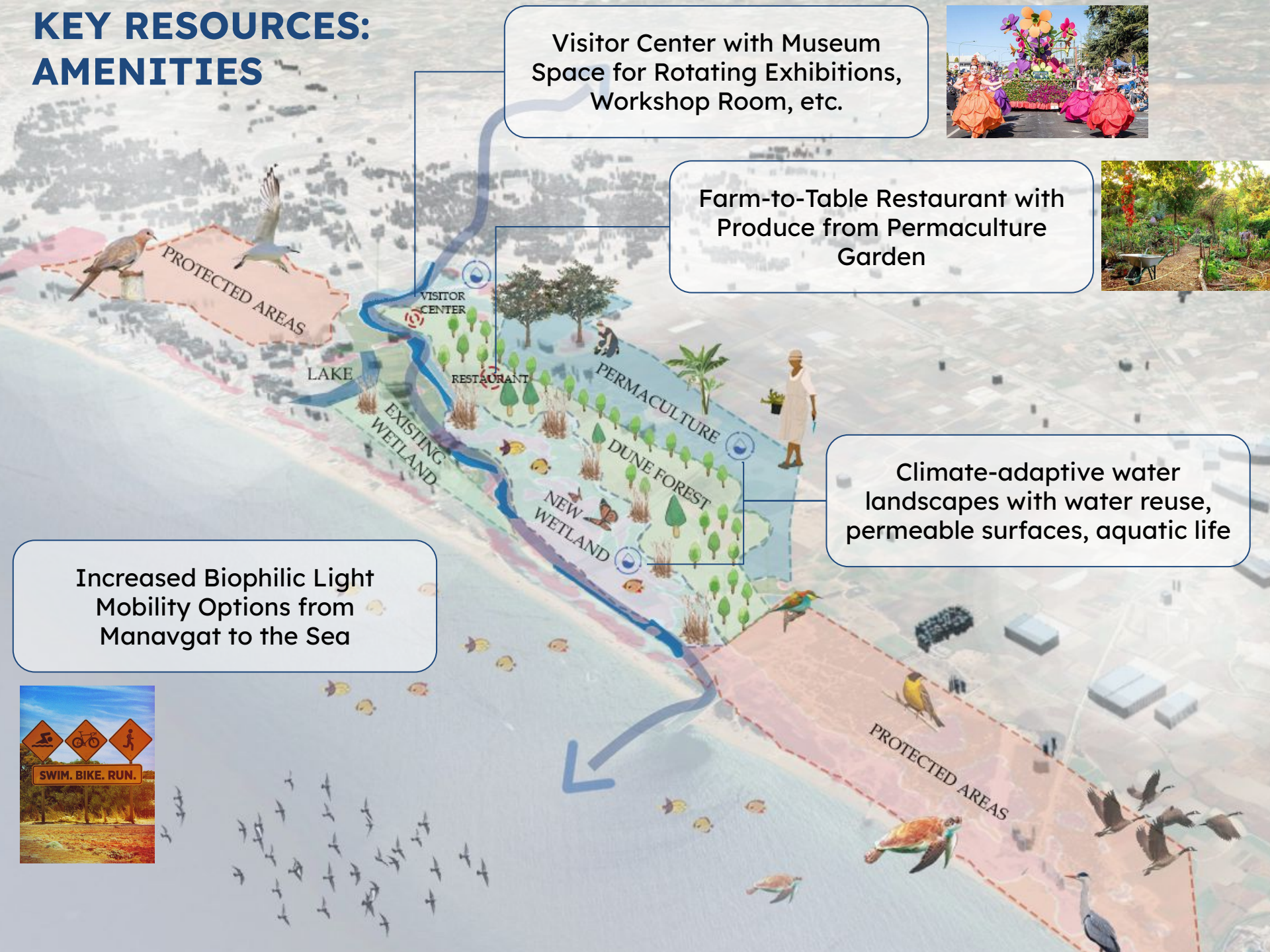


Farm-to-Table Restaurant with Produce from Permaculture Garden



Climate-adaptive water landscapes with water reuse, permeable surfaces, aquatic life

Increased Biophilic Light Mobility Options from Manavgat to the Sea



KEY RESOURCES: FUNDING TO SUPPORT INITIATIVES

FARM-TO-TABLE

Restaurant helps support the permaculture farm and serves local produce

LOCAL MEMBERSHIPS

local residents: pay-what-you-wish to be accessible

FRIENDS OF THE PARK

non-local membership for a fee

GRANTS

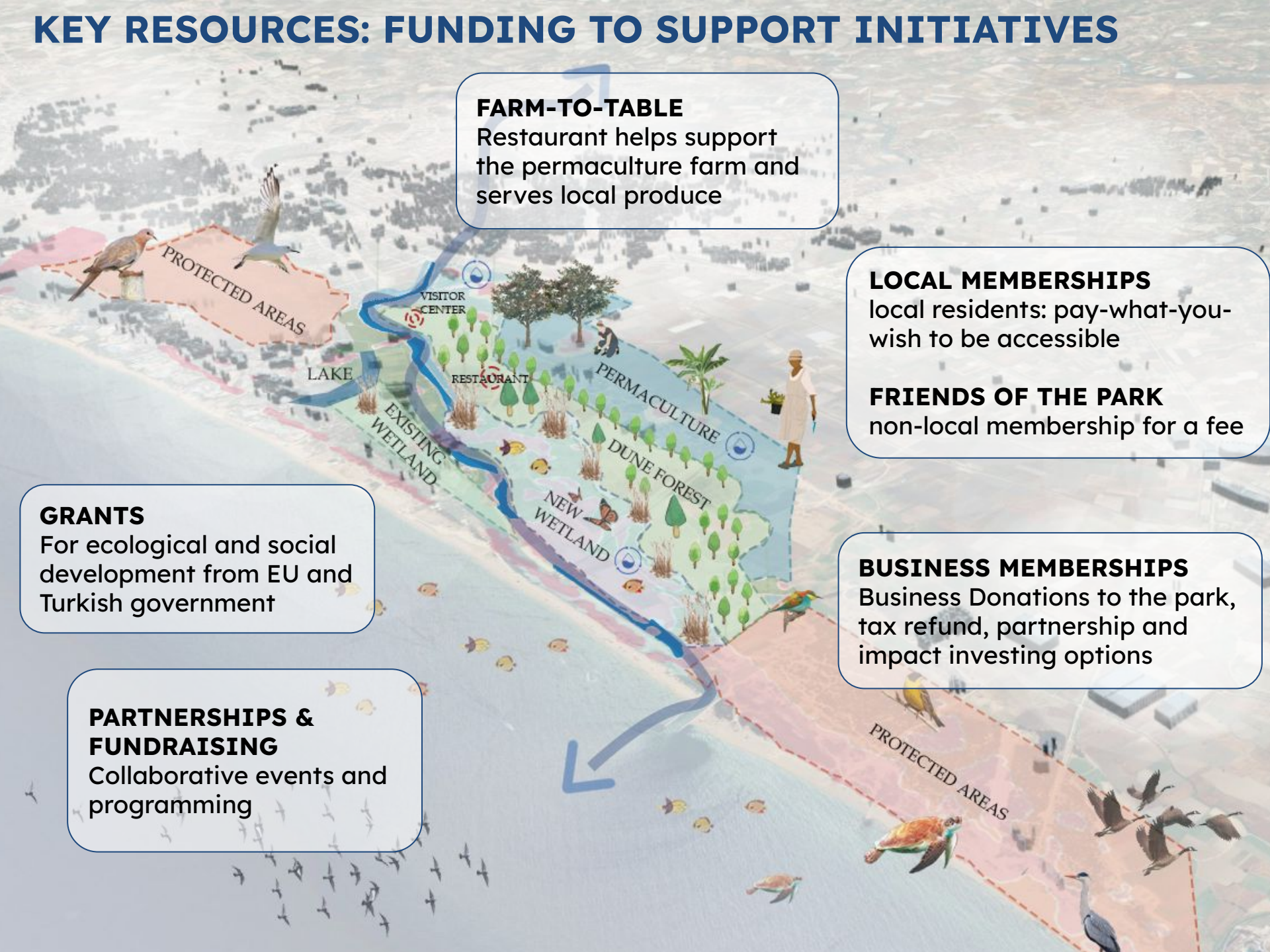
For ecological and social development from EU and Turkish government

BUSINESS MEMBERSHIPS

Business Donations to the park, tax refund, partnership and impact investing options

PARTNERSHIPS & FUNDRAISING

Collaborative events and programming



KEY PERFORMANCE INDICATORS

ECOLOGICAL

- # of species present
- # of protected species
- kg of fertilizers avoided
- # of CO2 emissions sequestered
- kg of permaculture produce produced

SOCIAL

- # of annual memberships
- # of social and cultural programming held annually
- # of annual visitors
- # of community engagement and co-creation events

ECONOMICAL

- # of sponsorship received
- # of EU and regional grants won
- # of revenue from restaurant
- # of reduction of maintenance costs with company advertisements

WATER MANAGEMENT

- # of water filtered
- # of fertilizers in water reduction
- level of soil quality (for water-storage capacity)
- cubic liters of water stored per ecosystem type
- # of aquatic species present

EDUCATIONAL

- # of annual school visits
- # of school outreach events
- # of youth workshops held
- # of adult workshops/classes held
- # of outdoor informational signage in multiple languages

COMMUNITY REINVESTMENT

- # of scholarships provided to youth students in sustainability
- # of community partnership campaigns helped coordinate
- # of impact investing initiatives

KEY PARTNERSHIPS



----- *all partnerships must benefit the tenets of the Park.*

Example:

SULAC PARK ADVISORY BOARD

leads democratic co-development within SULAC Park

roundtable of: city representatives, tourism board, ecological groups, local organizations, local SULAC Park Members, farmers, etc.

major proposals made by board (though members can also submit) and voted on by membership at annual SULAC Congress

PARTNERSHIPS: Activation Event



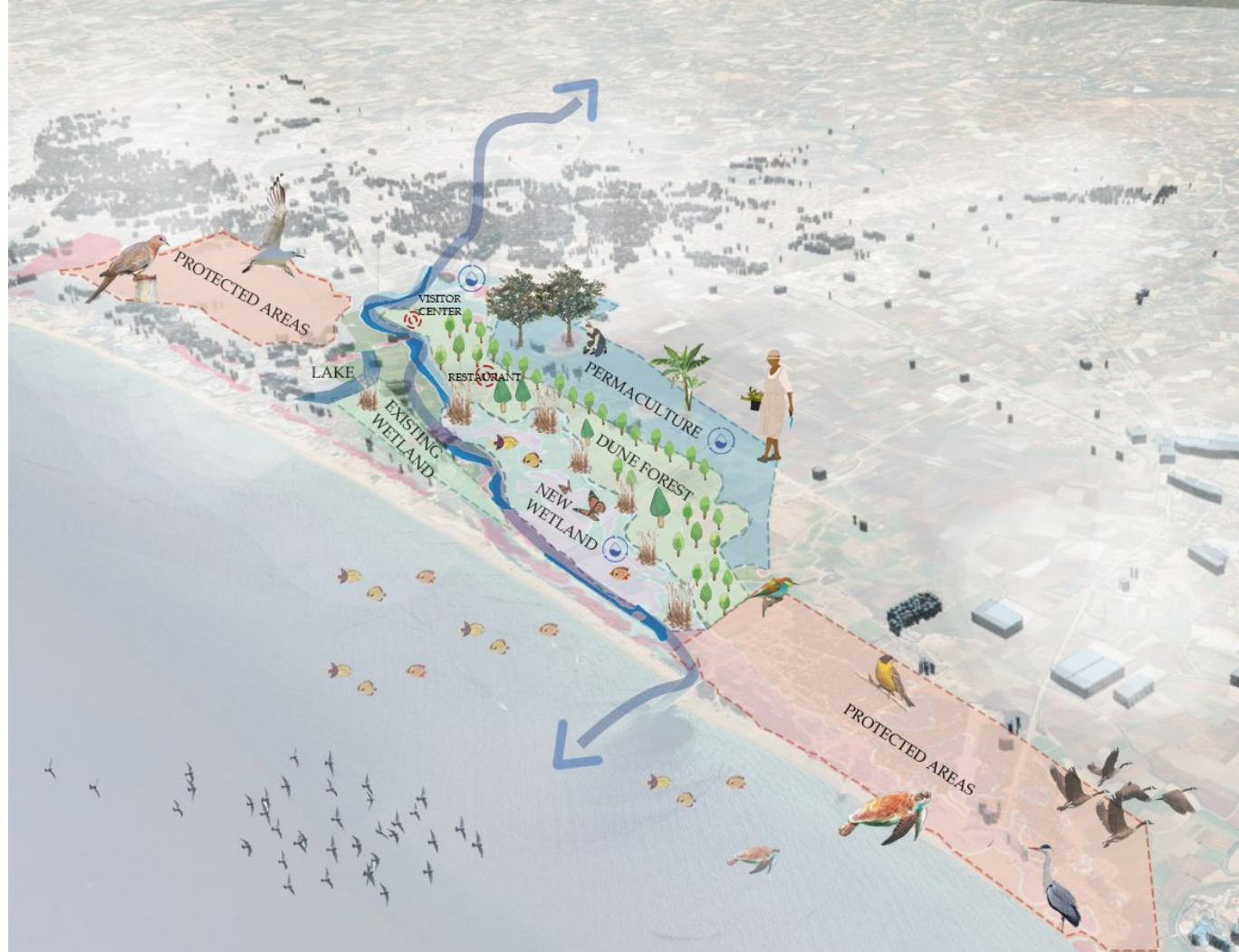
MANAVGAT TRIATHLONS

Activating awareness and collaboration for nature, culture, and economy

- Mountain-to-Sea Spring Triathlon
- River-History-Sea Fall Triathlon

PARTNERSHIPS





Teşekkürler!
Thank you!
Gracias!

Grazie!
Merci!
Danke schön!

Mulțumesc!
متشکرم

