



Ministry of Agriculture & Rural Development

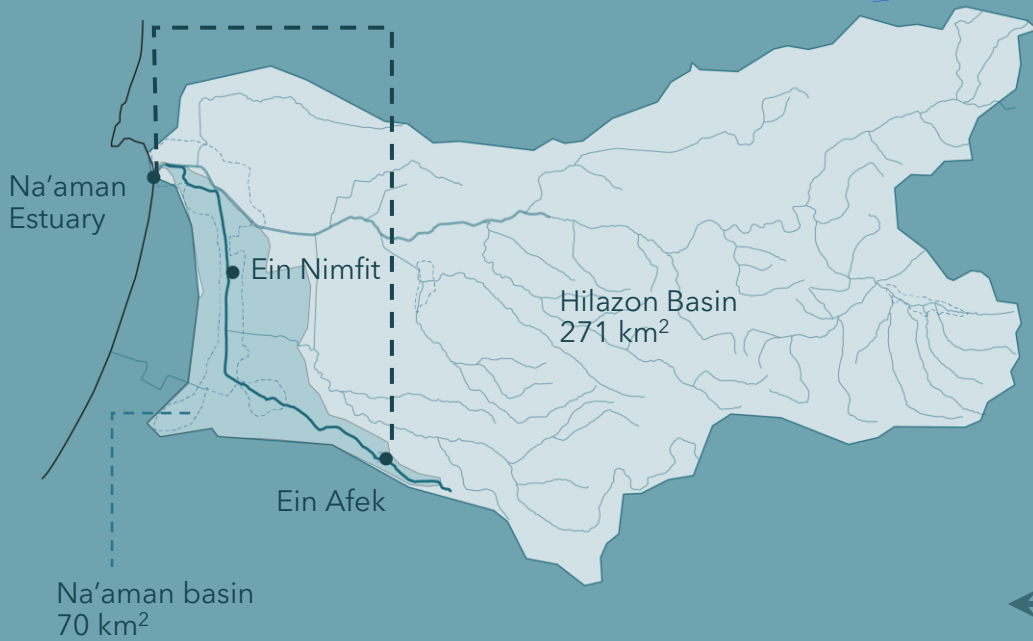
Reviving the Na'aman

Renaissance of River, People and Sea



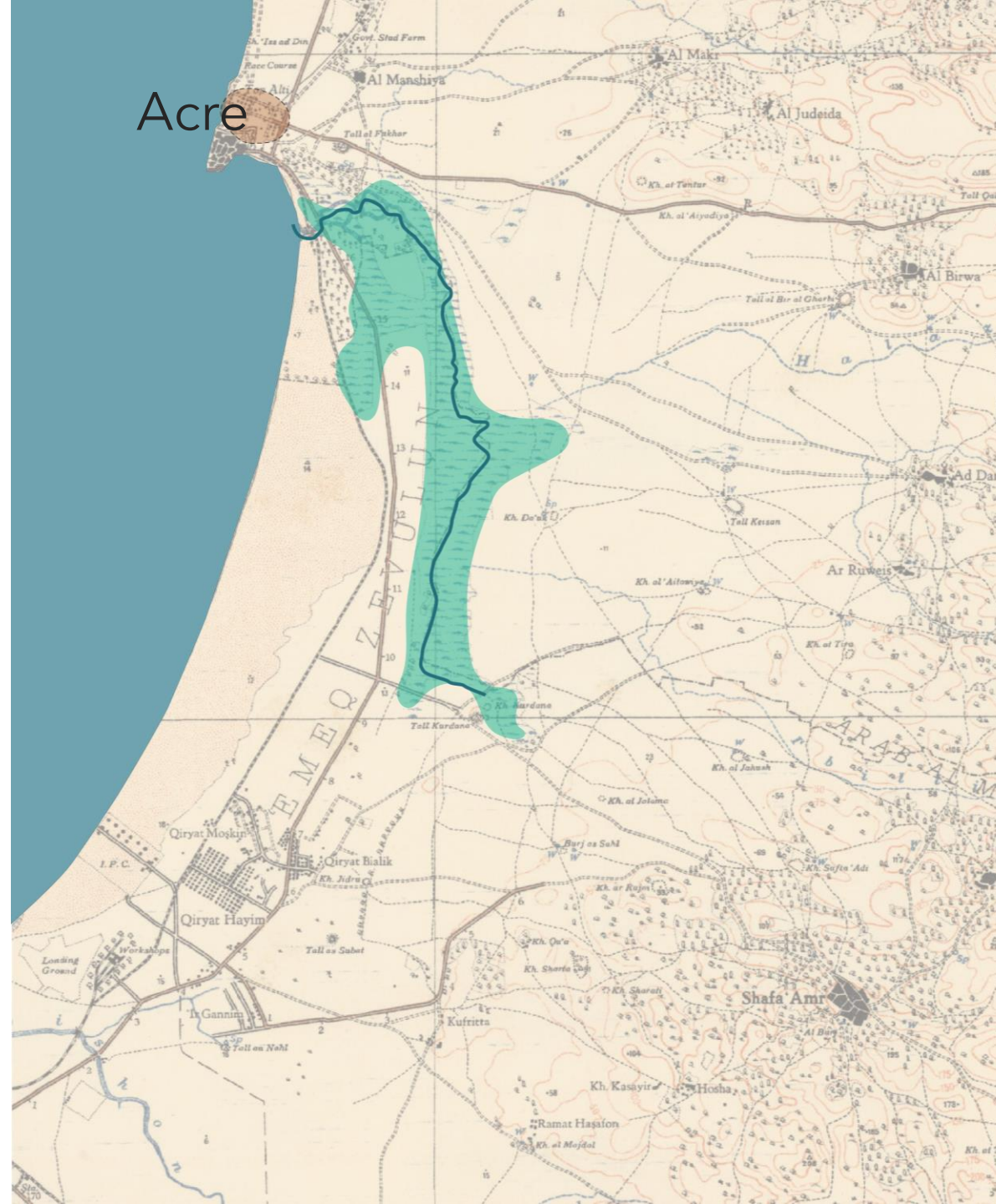
The Na'aman River

River length
11 km



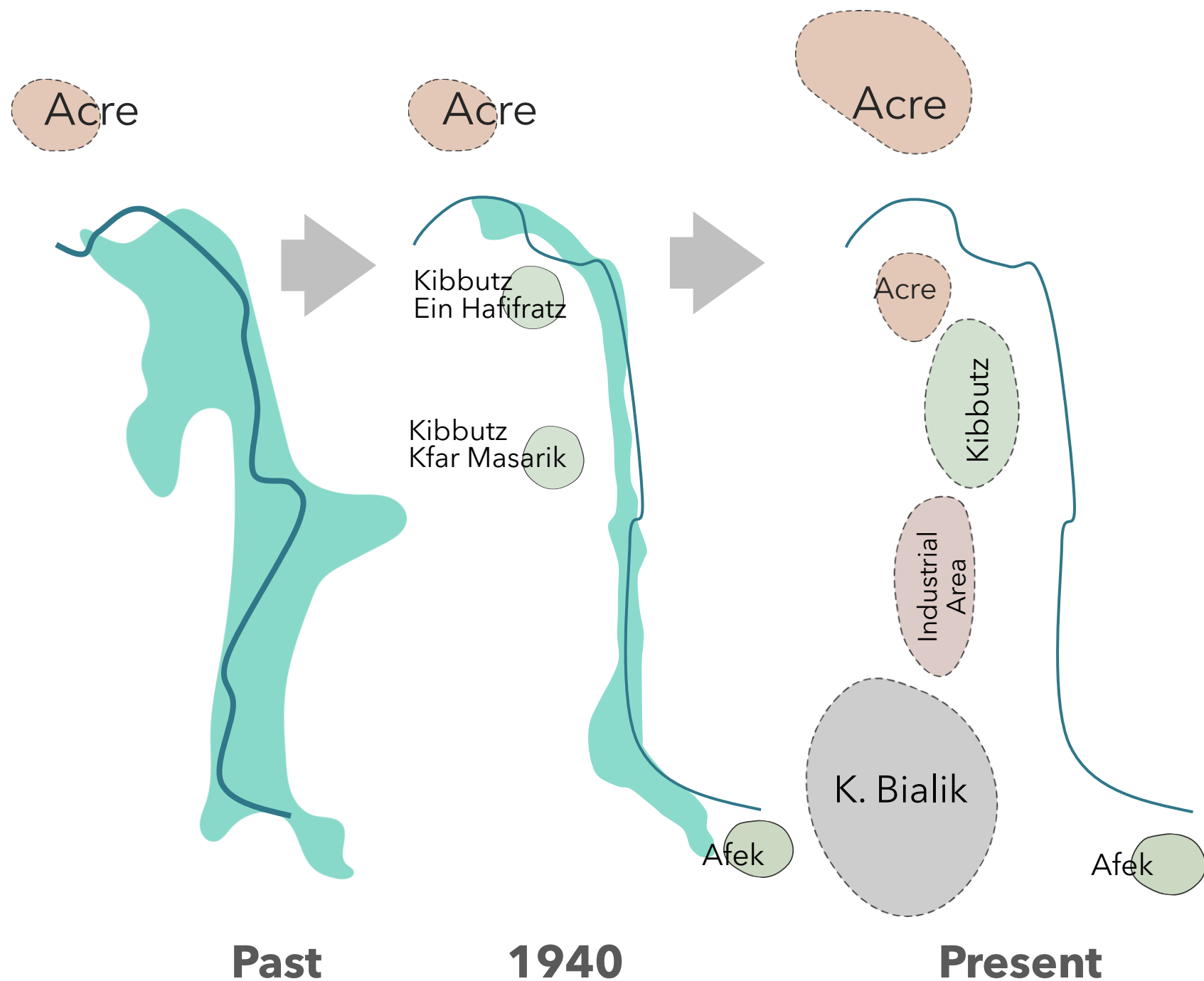
The distant past

The river and its environs were an extensive swampland (the Kurdani Marsh)



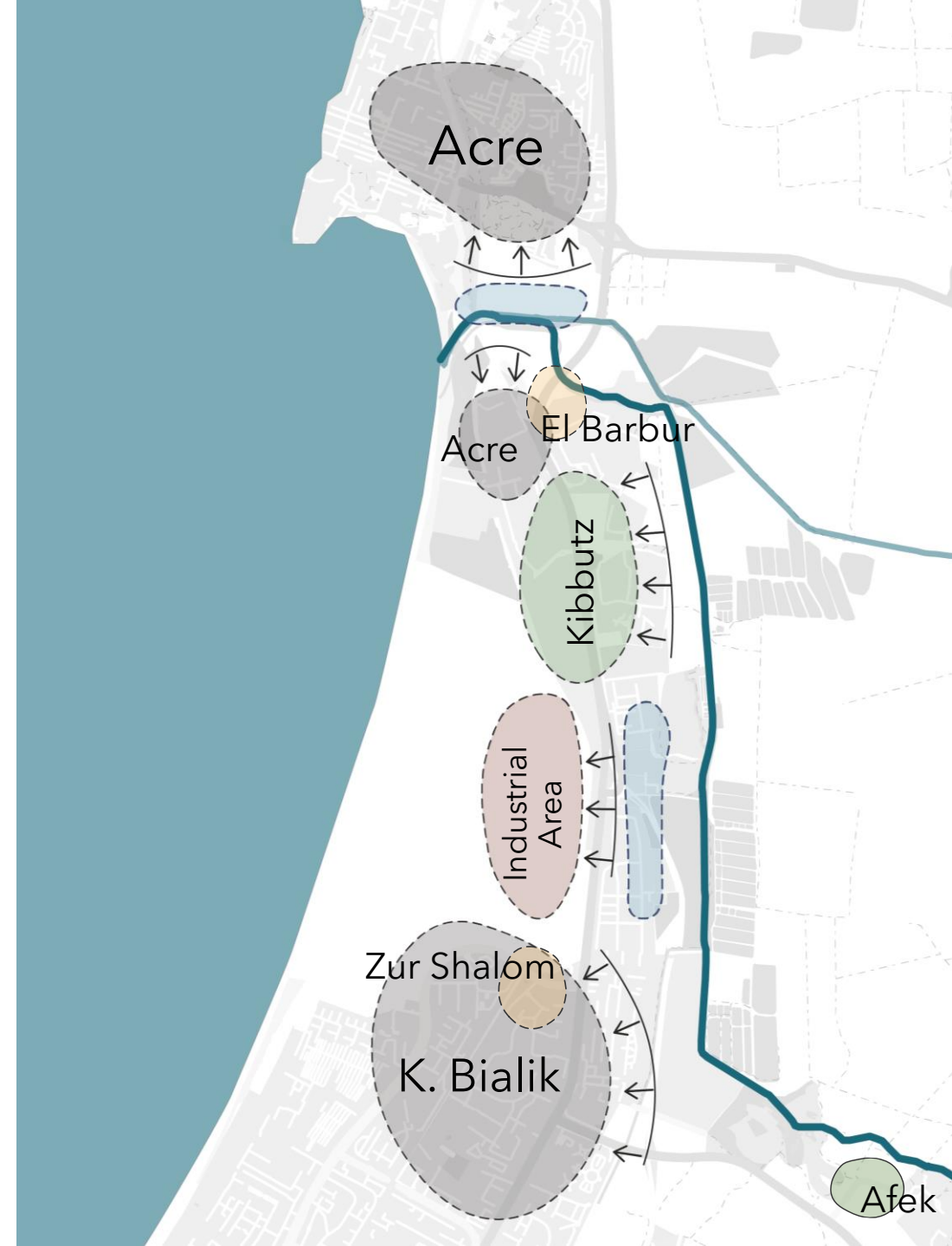
The taming of the river

The landscape was dramatically transformed, and the river's presence was minimized.



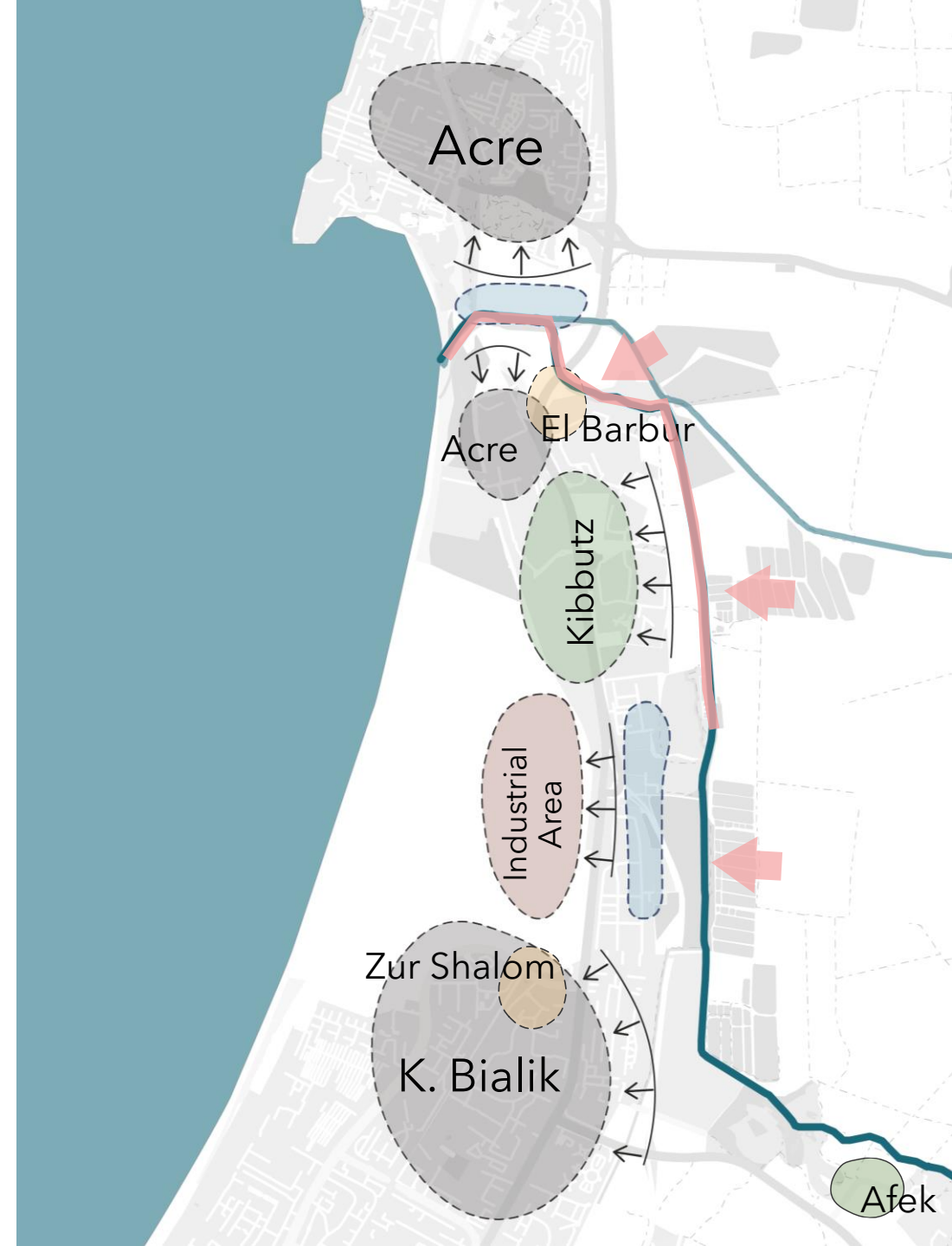
The taming of the river

- Awareness of the river existence slowly faded from the consciousness of its adjacent communities
- Development in the area **“turned its back” on the river**



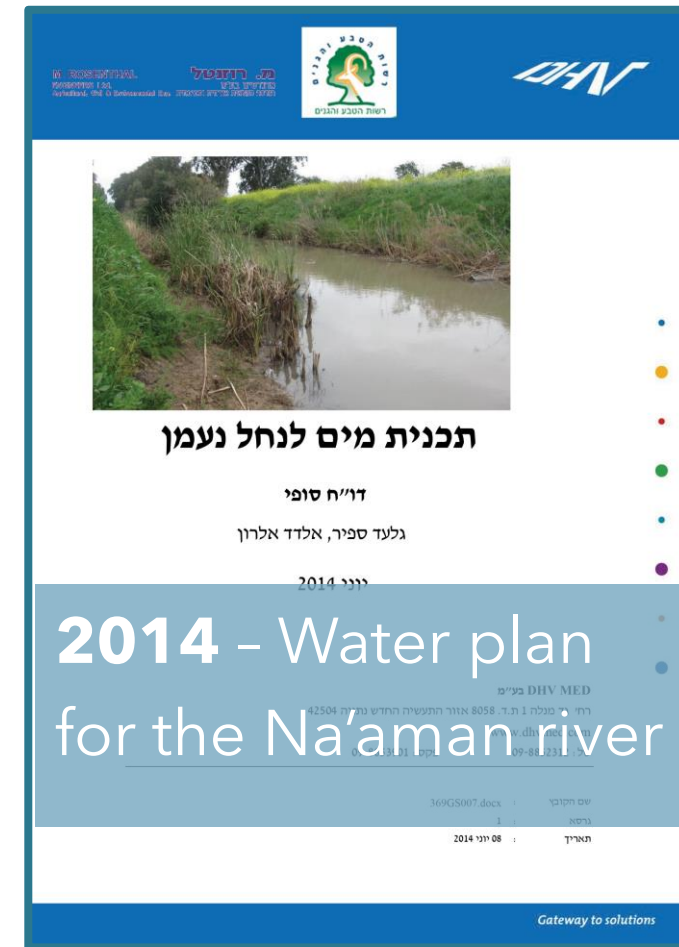
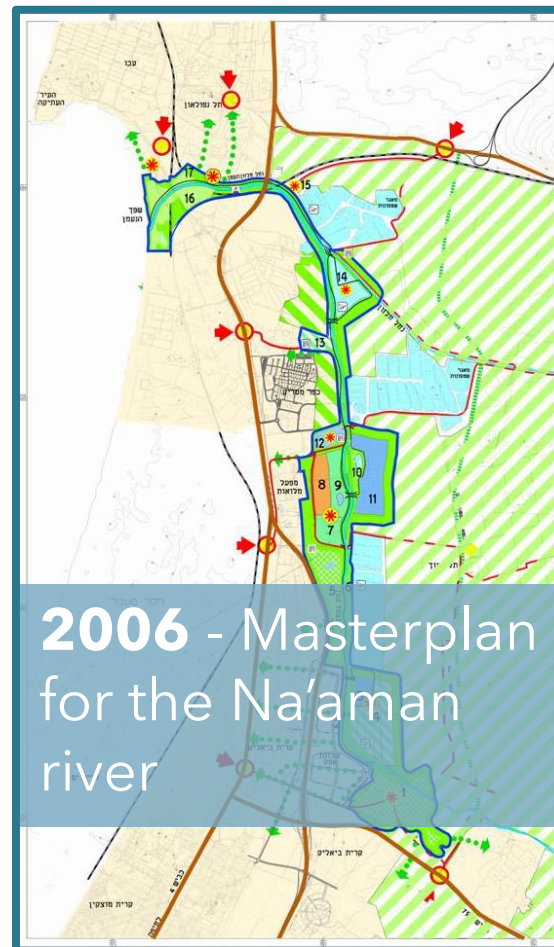
The taming of the river

- Awareness of the river existence slowly faded from the consciousness of its adjacent communities
- Development in the area **"turned its back" on the river**
- Degraded morphological and environmental conditions



A shift in the river's image

1990 A new understanding of the role of rivers in the landscape

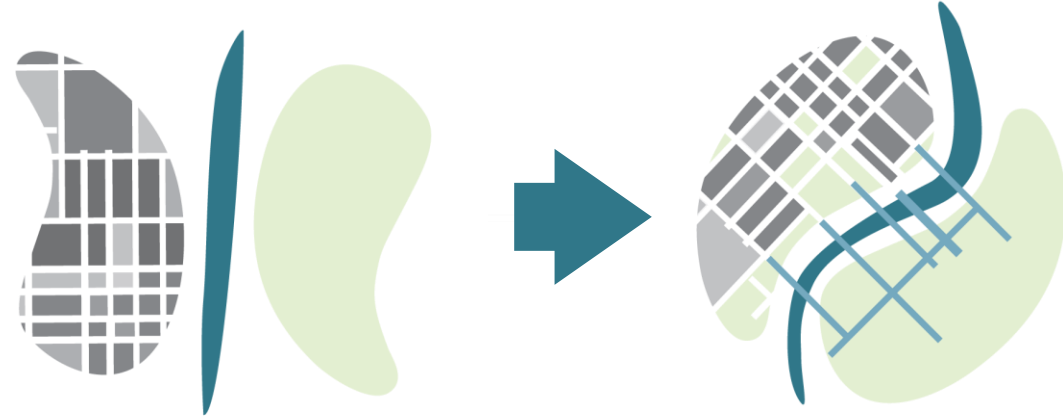


A shift in the river's image

The restoration focused **narrowly** on the river channel itself



The vision



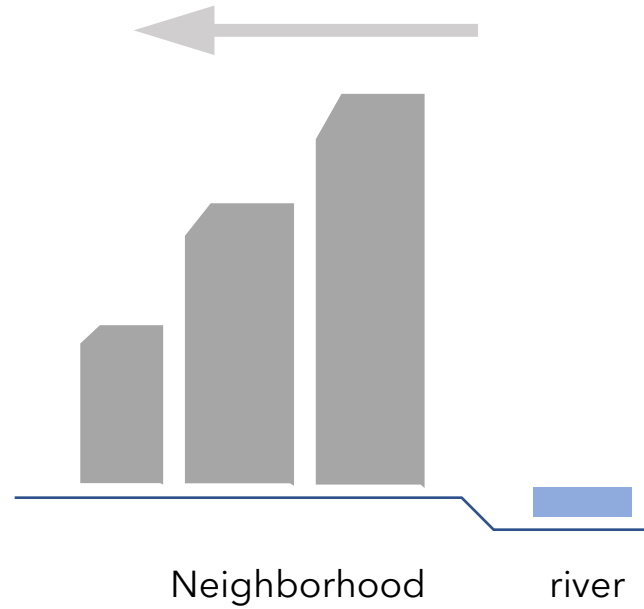
The Na'aman River will become an abundant source of life, majestic and impressive, instilling inspiration, vitality and a sense of pride in local residents and visitors alike. **The river and the dynamic human and natural environment** that surrounds it will coalesce into a continuous, healthy, **living tissue**.

Holistic rehabilitation of the river and melding of its interfaces will transform the river and its environs into an influential steward of human, economic and natural processes in the heart of the region. The river, together with the city of Acre and the sea, will become a **dynamic venue and focal point** in the Western Galilee region and the Haifa metropolitan area.

Seeds of change

The plan for Neot Afeka neighborhood

The original plan



The final plan



Seeds of change

Miluot industrial area

- שטחים פתוחים
- קרקע חקלאית
- שמורת טבע
- נחל/תעלה/מאגר מים
- דרך מאושרת
- דרך מוצעת
- חניון
- תעסוקה, מבנים ומוסדות צבור ותיירות
- קרקע חקלאית ונופש כפרי
- יער נטע אדם קיים
- נטיעות בגדות נחלים
- תחום השפעה
- גשר/מעבר עילי
- הנחיות מיוחדות
- גבול מרחב תכנון
- גבול שטח שיפוט
- ציר נחל
- יעוד מתמא



Ein Nimfit Park



The plan for reviving the Na'aman river

Toolbox



Green Infrastructure



Biodiversity-promoting design details



Detention wetlands for urban runoff



Cycling infrastructure suited to commuting



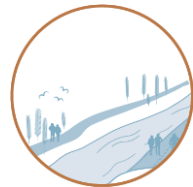
Greentech/agrotech employment hubs



Positioning of educational institutions



Dynamic seating walls



Recreational infrastructure



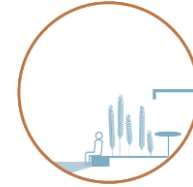
Seasonal flood areas



Restoration of coastal salt marshes

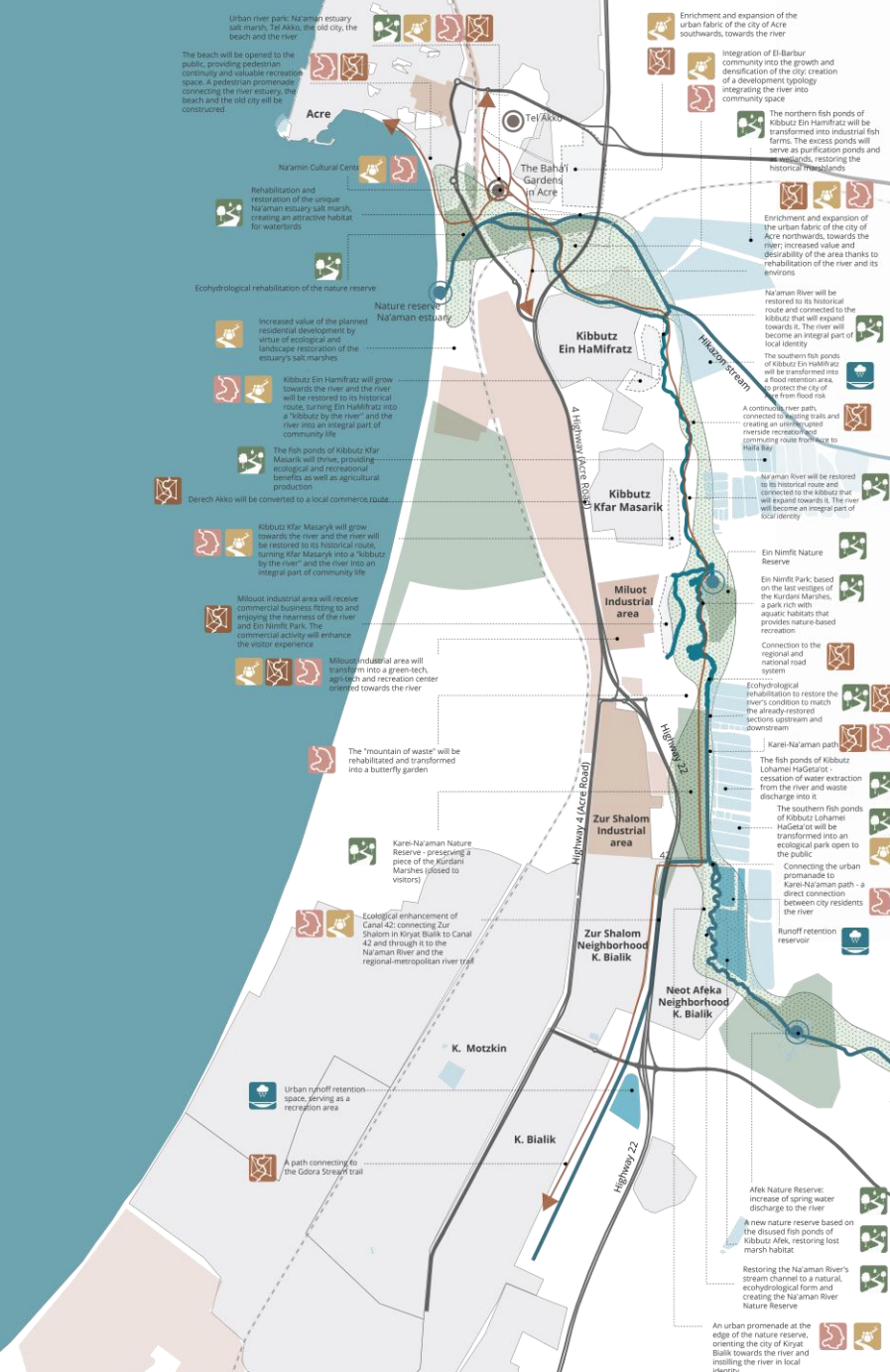


Use of high and low tide to create experiences and sense of place



Incorporation of buildings for commerce

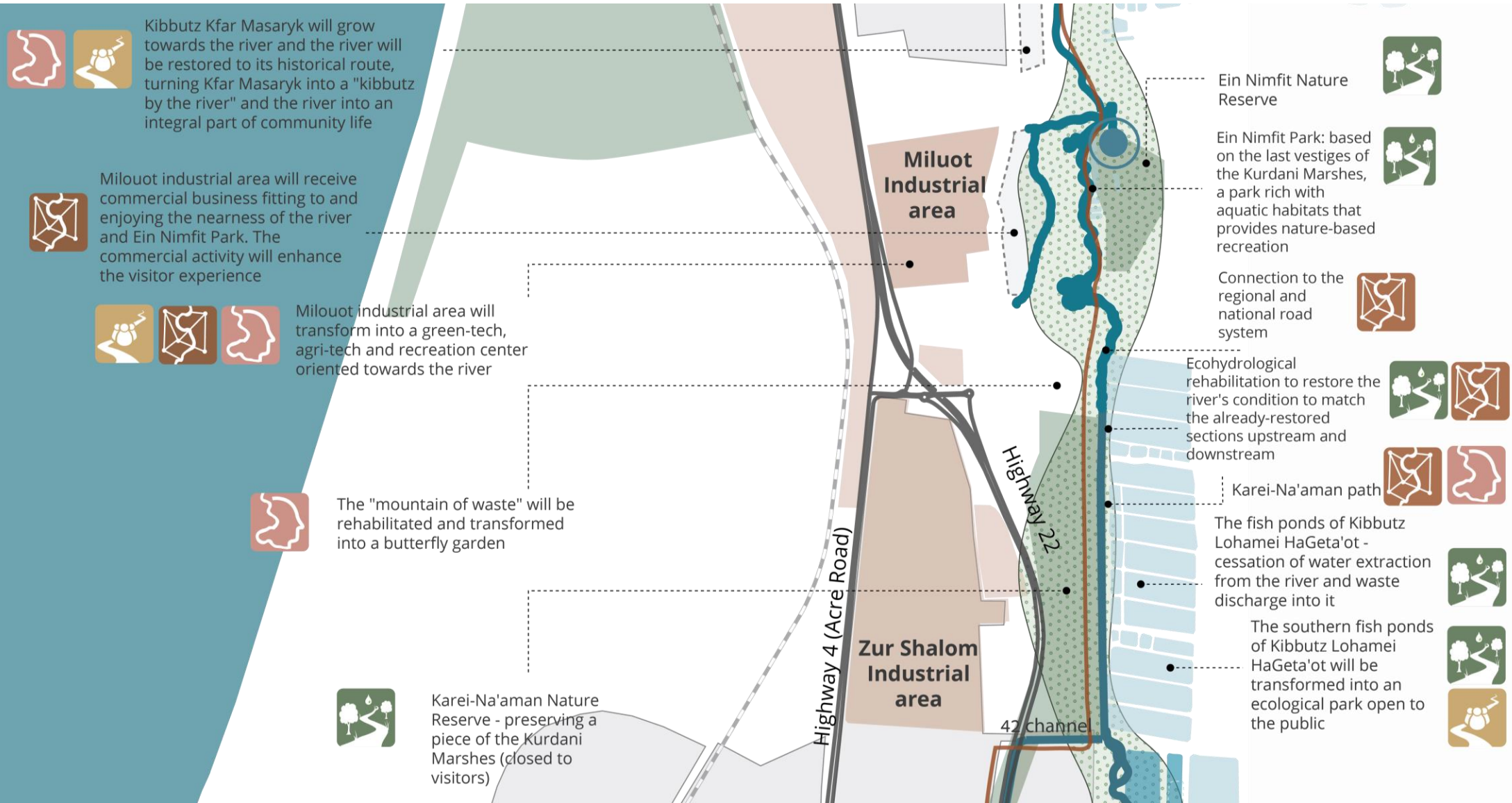
- Basin management
- Ecohydrological function
- Human components
- Public perception of the river
- Role of the river in its environs
- Communities
- Planned residential development
- Industry and commerce zone
- River corridor
- Nature reserve
- Points of interest



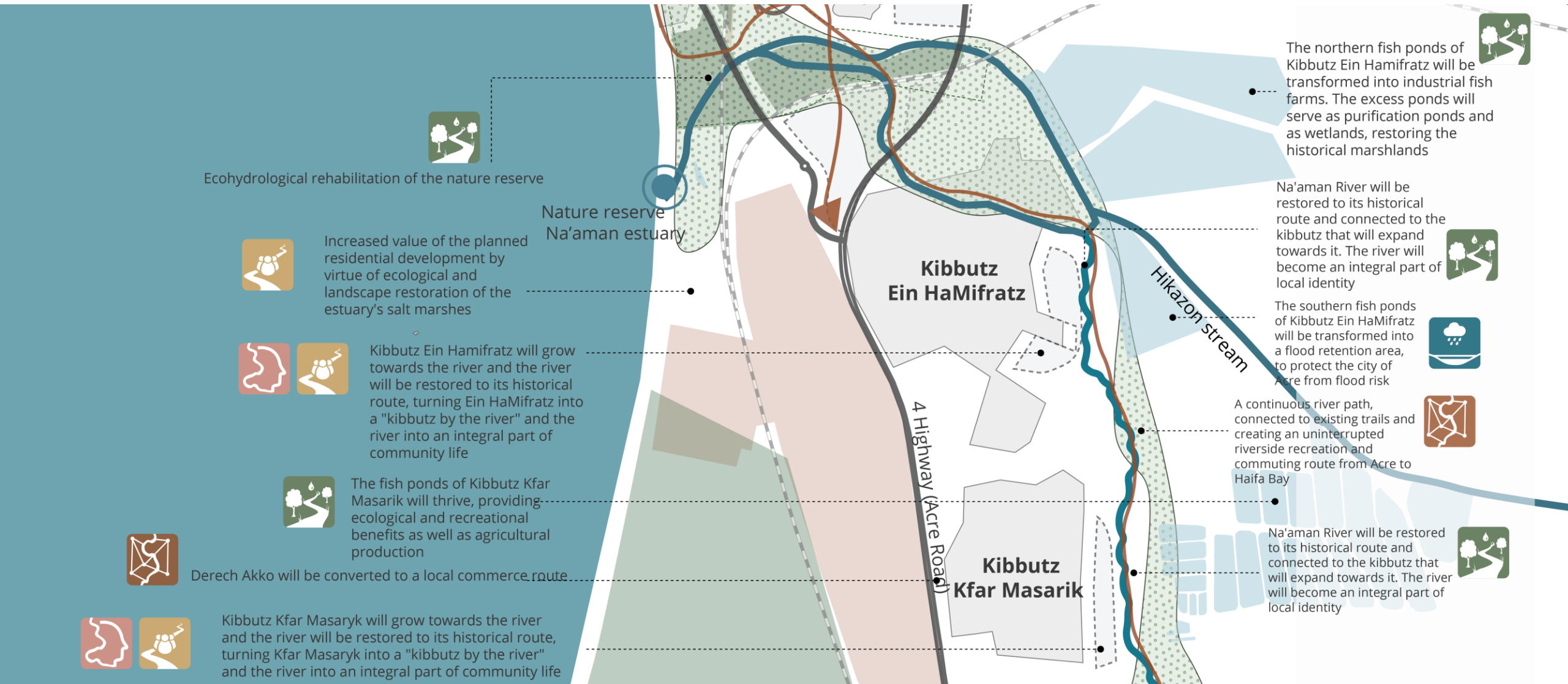
The plan | 1 - Kiryat Bialik



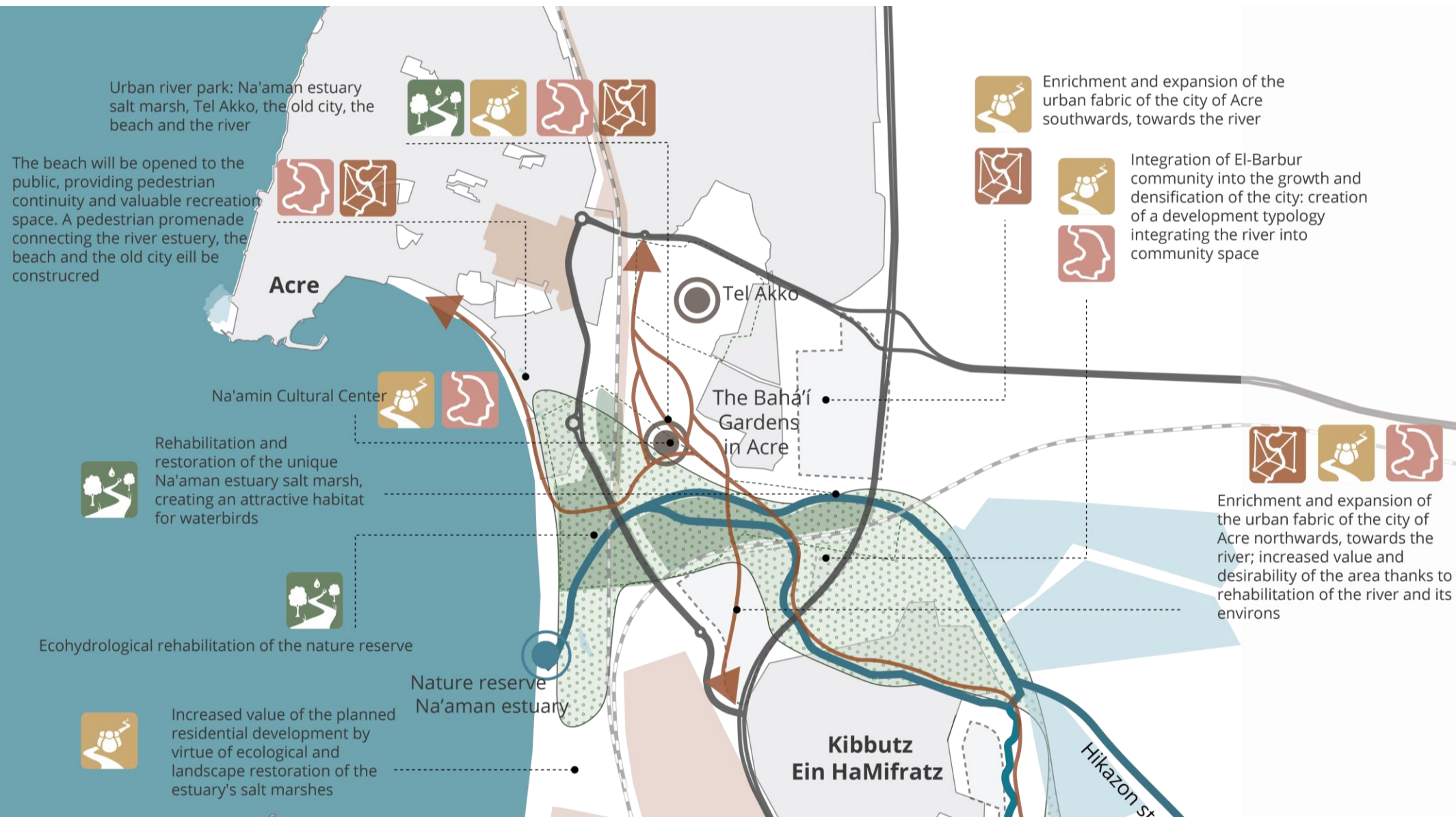
The plan | 2 - Miluot & Ein Nimfit park



The plan | 3 - Kibbutzim



The plan | 4 - Acre



The plan | 4 - Acre



Urban river park; Na'aman estuary salt marsh, Tel Akko, the old city, the beach and the river

The beach will be opened to the public, providing pedestrian continuity and valuable recreation space. A pedestrian promenade connecting the river estuary, the beach and the old city will be constructed

Acre

Na'amin Cultural Center

Ecohydrological rehabilitation of the nature reserve

Nature reserve Na'aman estuary

Increased value of the planned residential development by virtue of ecological and landscape restoration of the estuary's salt marshes



Urban river park
The park will connect the different parts of the city of Acre with Tel Akko, the old city, the beach and the river

The Bahá'í Gardens in Acre

Rehabilitation and restoration of the unique Na'aman estuary salt marsh
The Na'aman estuary salt marsh will become an attractive public space that uplifts the region

"Na'amin" Cultural Center
A center for cultural interaction and activity in the unfolding urban park

Coastal shore
The beach will be opened to the public, providing pedestrian continuity and valuable recreation space

Na'aman River path
The path will connect the different parts of the city of Acre, including the old city, the coastal shore and the Na'aman River, creating a continuous and important park in the city of Acre and the Western Galilee

Acre's southern residential district
A new residential district will be developed on the southern side of the Na'aman River, separated from the current city by the mouth of the river. The new development will become highly desirable by virtue of the ecological and landscape restoration of the estuary's salt marshes.

Beach Sands Park

Na'aman River path
Connecting the new El-Barbur neighborhood to:

Floating trail system
The Na'aman estuary salt marsh trail system will float above the beautiful wetlands

El-Barbur neighborhood, Acre
The El-Barbur community, suffering from frequent flooding and lack of infrastructure, will move to new, permanent riverside neighborhood above flood level





Kibbutz Ein HaMifratz

Railway to Karmiel

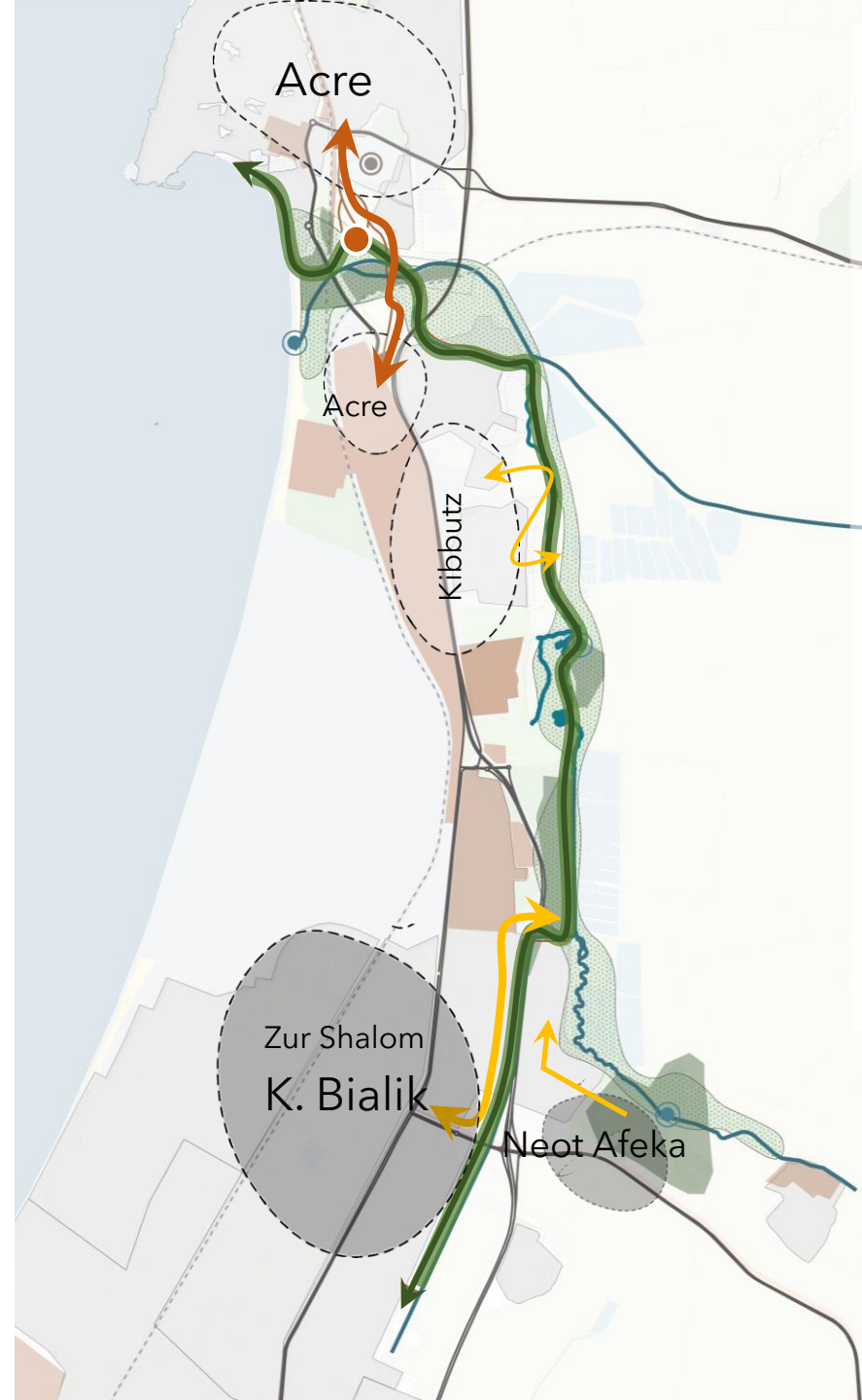
Highway 4

Hilazon Stream

Social benefits

-  Creation of a **living interface** between the residents and the river
-  The river corridor as a **close-to-home and accessible** green lung
-  Green commuting and recreation route for walking and cycling
-  Linking disconnected parts of Acre. a meeting place for Acre communities

Residents identity and regional branding



Toolbox



Cycling infrastructure suited to commuting



Greentech/agrotech employment hubs



Recreational infrastructure



Positioning of educational institutions

Hydro-ecologic benefits

- Rehabilitated, high-quality river environment that preserves **unique habitats for flora and fauna**, the almost vanished from the local landscape
- Presence of fish ponds as a unique habitat and landscape
- ⬡ Mitigating flood risk caused by proximity to the river



Toolbox



Restoration of coastal salt marshes



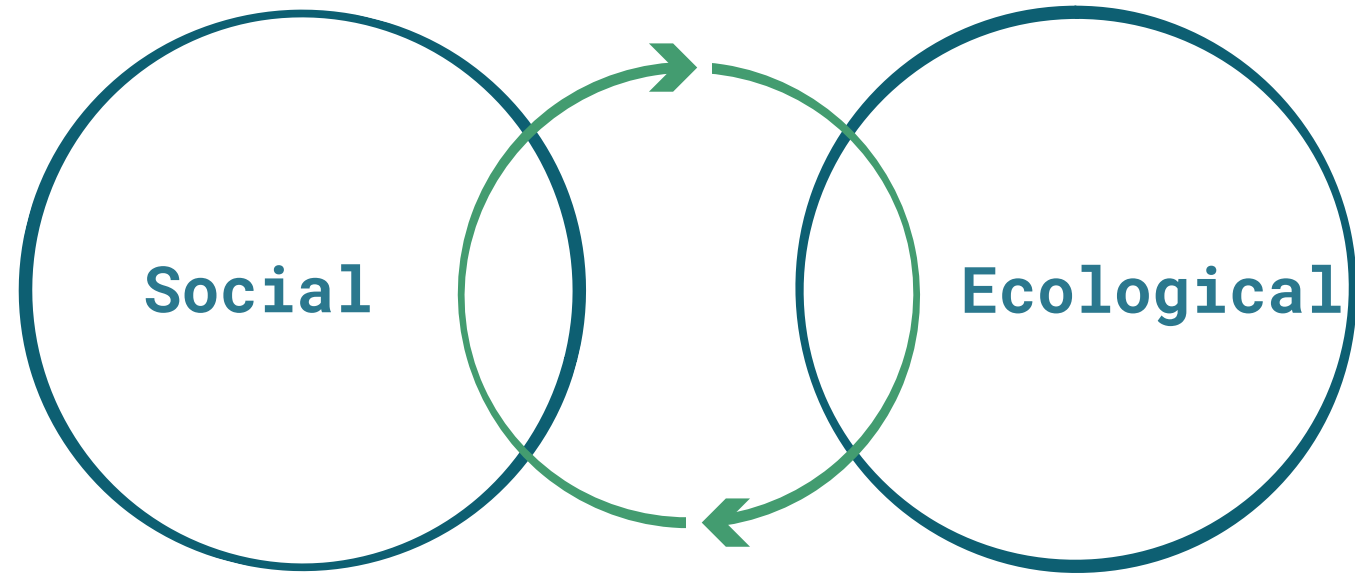
Seasonal flood areas



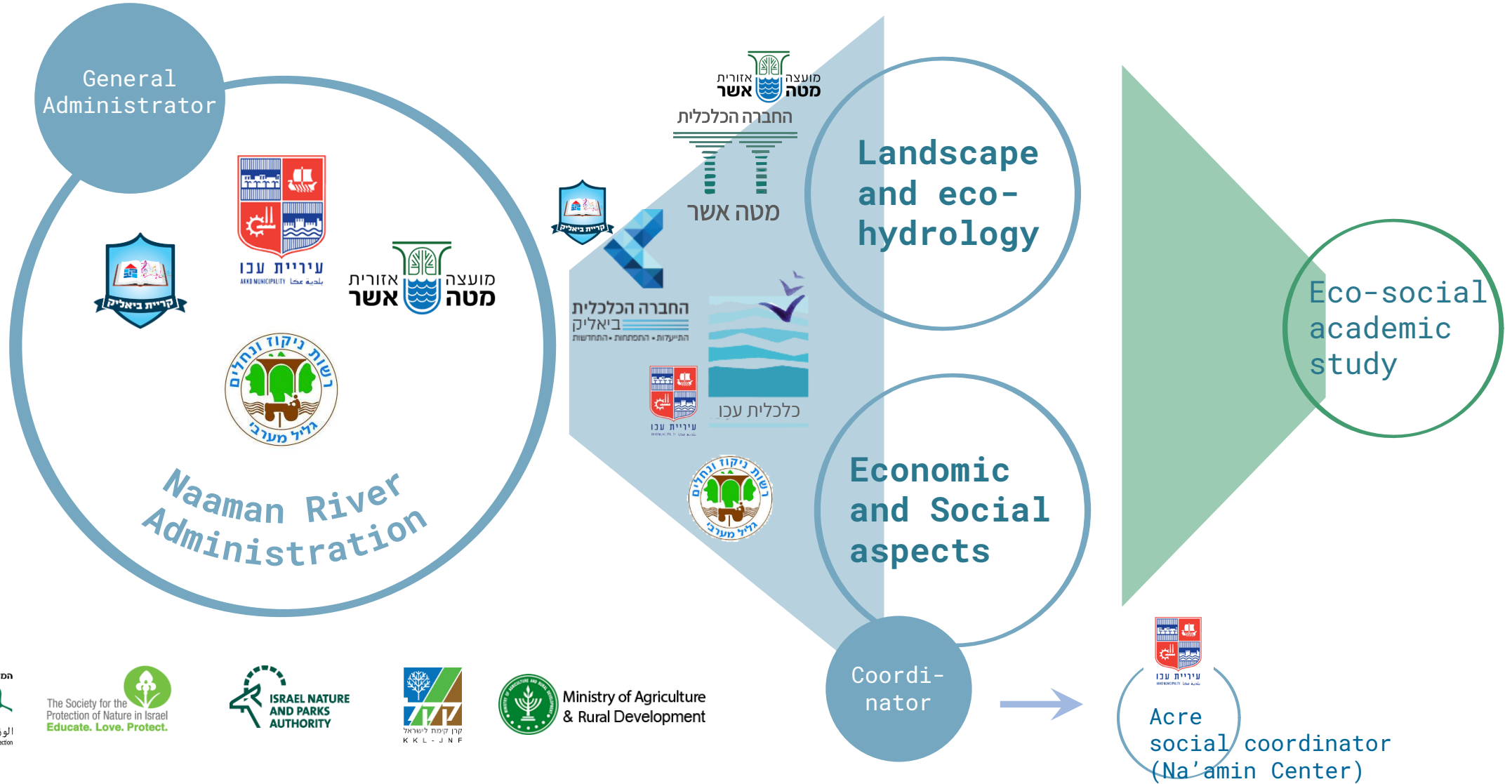
Detention wetlands for urban runoff

Eco-social approach

- Incorporation of different types of knowledge
- A reflective and iterative process
- Accompanied by research



Sustainable management



Thank you!

