Accessing Adaptation Finance for Nature-based Solutions under the Adaptation Fund

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ADAPTATION FUND

Adaptation Fund at a Glance

Mandate to fund **concrete adaptation projects with tangible results on the ground**, in most climate-vulnerable developing countries & communities

Pioneer & leader on innovative **'Direct Access' & 'Enhanced Direct Access' modalities**

(34 National Implementing Entities out of 57 accredited IEs) – only 2 NIEs in the region

As urgency of climate change has risen, it has grown rapidly to over **$1B funding today**

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Key points to keep in mind

Concrete adaptation activities in the most vulnerable communities:

Visible and tangible impacts at the local level that can be scaled up

No prescribed sectors or approaches:

Country-driven process that accommodates countries' priorities and adaptation reasoning

Finances the full cost of adaptation:

No co-financing requirements

Direct Access: Funding can be provided directly to countries through NIEs

Programs submitted by MIEs cannot exceed 50% of cumulative resources

USD 20 million available per country under raised country cap

Other grants available outside of country cap

Theory of Change of the Medium-Term Strategy (2023 – 2027)

GOAL

People, livelihoods and ecosystems are adequately protected from the adverse impacts of climate change with their adaptive capacity enhanced, resilience strengthened, and vulnerability reduced in the context of climate-resilient and sustainable development.

VISION

Developing country Parties are successfully enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change through inclusive and transparent processes consistent with their adaptation needs and priorities under the Paris Agreement.

MISSION

The Adaptation Fund serves the Paris Agreement by accelerating effective adaptation action and efficient access to finance, including through direct access, to respond to the urgent needs and priorities of developing countries. The Fund does so by supporting country-driven adaptation projects and programmes, innovation, and learning with concrete results at the local level that can be scaled up.

OUTCOMES: STRATEGIC PILLARS

Linkages and synergies between support for adaptation action, innovation and learning and sharing are enhanced

CROSSCUTTING THEMES

All of the Fund's activities and processes are designed to:

- Promote locally based or locally led adaptation
- Enhance access to climate finance and long-term institutional capacity
- Empower and benefit the most vulnerable people and communities as agents of change
- Advance gender equality
- Enable the scaling and replication of results
- Strengthen complementarity, coherence and synergies with other adaptation funders and actors

ACTION

Developing countries are supported in undertaking and accelerating high-quality, local-level and scalable adaptation projects and programmes that are aligned with their national adaptation strategies and processes

EXPECTED RESULTS

1. Vulnerability reduced, resilience strengthened, and adaptive capacity enhanced
2. Access to finance and institutional capacities enhanced
3. Evidence for effective action generated and results scaled up

INNOVATION

Modalities for funding the development and diffusion of innovative adaptation practices, tools and technologies are expanded and risk-taking is encouraged

EXPECTED RESULTS

1. New innovations and risk-taking encouraged and accelerated
2. Successful innovations replicated and scaled up
3. Access and capacities enhanced for designing and implementing innovation
4. Evidence base generated and shared

LEARNING & SHARING

Knowledge and evidence on effective and innovative adaptation action and finance, including local and indigenous knowledge, is generated and disseminated with various stakeholders for application

EXPECTED RESULTS

1. Knowledge generation and dissemination of learning on effective, innovative and local adaptation increased and expanded
2. Capacity to capture and disseminate learning strengthened
3. Knowledge partnerships expanded and outreach increased

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Mission of the Fund

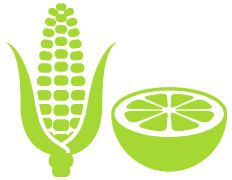
Serve the Paris Agreement by accelerating effective adaptation action and effective access to finance, including through direct access, to meet the urgent needs and priorities of developing countries.

Country Driven Thematic areas

- Disaster Risk Reduction

- Nature-based solutions

- Coastal management



- Agriculture

- Water resources Management

- Forests and Land Use

- Rural development

- Food Security

- Social innovation

- Urban adaptation

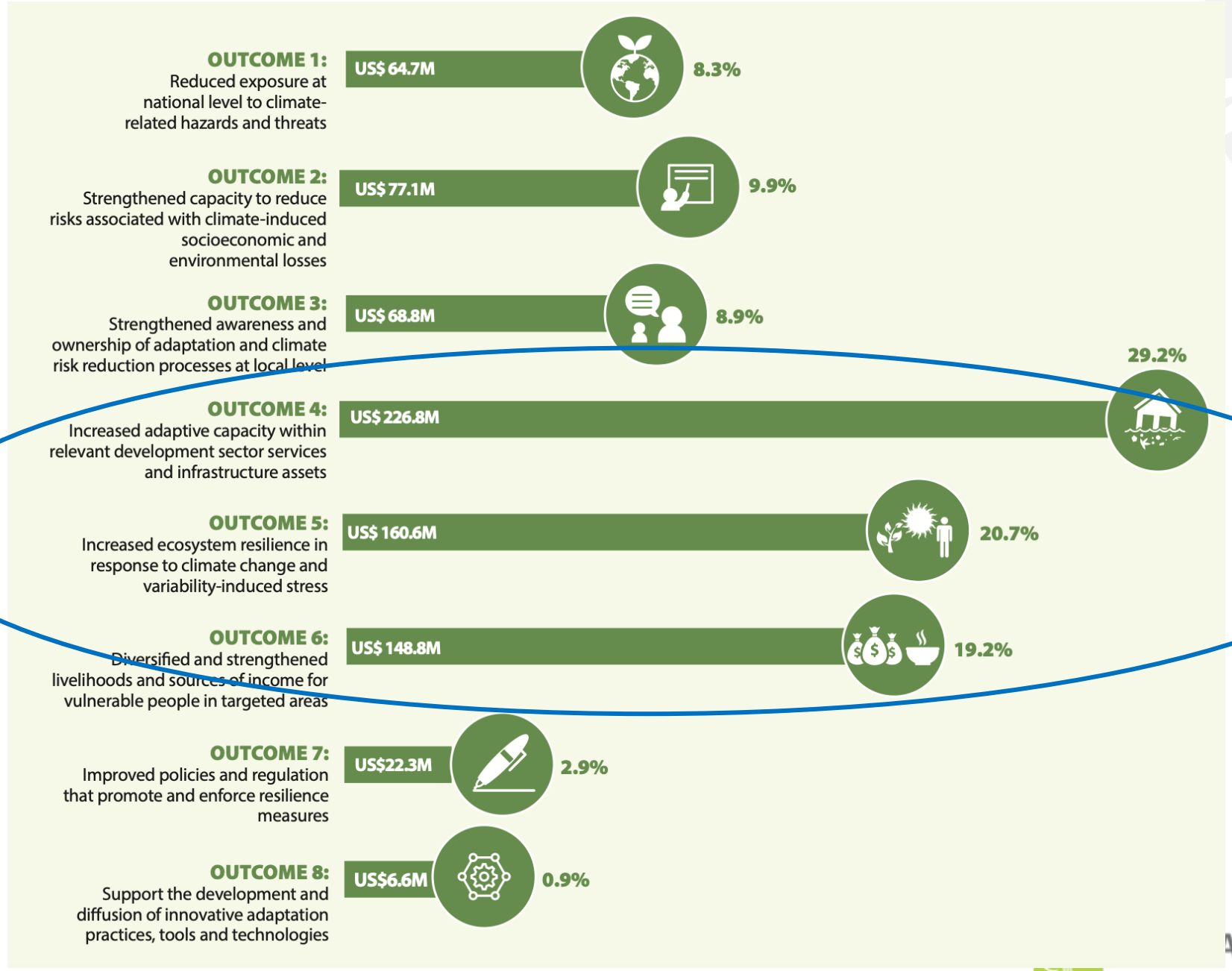
- Advancement of gender equality

- Enhancement of cultural heritage

- Focus on communities

- Inclusion of youth

- Innovative adaptation financing


OUTCOME 1:
Reduced exposure at national level to climate-related hazards and threats
US$ 64.7M
8.3%
OUTCOME 2:
Strengthened capacity to reduce risks associated with climate-induced socioeconomic and environmental losses
US$ 77.1M
9.9%
OUTCOME 3:
Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level
US$ 68.8M
8.9%
OUTCOME 4:
Increased adaptive capacity within relevant development sector services and infrastructure assets
US$ 226.8M
29.2%
OUTCOME 5:
Increased ecosystem resilience in response to climate change and variability-induced stress
US$ 160.6M
20.7%
OUTCOME 6:
Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas
US$ 148.8M
19.2%
OUTCOME 7:
Improved policies and regulation that promote and enforce resilience measures
US$22.3M
2.9%
OUTCOME 8:
Support the development and diffusion of innovative adaptation practices, tools and technologies
US$6.6M
0.9%

- The Adaptation Fund's strategic focus on people, livelihoods, and ecosystems is well aligned with the NbS approach and UNEA agreed definition
- AF funded projects employ a range of NbS to enhance human resilience to climate change through the conservation of ecosystems and use of nature's services.
- The Fund's results framework enables projects to set measurable and time-bound targets and indicators, while its Environmental and Social and Gender policies ensure that projects and programs adhere to social and environmental safeguards and deliver economic, social and environmental benefits to target communities.
- This makes NbS activities funded by the AF in line with the NbS criteria and standards being set (including the global Standard for NbS by IUCN)

Source: Planning nature-based solutions: Principles, steps, and insights - DOI: 10.1007/s13280-020-01365-1

Tangible results

IMPACT 1:
Reduction in vulnerability of communities and increased adaptive capacity of communities to respond to the impacts of climate change

10.65 million

DIRECT BENEFICIARIES

21.17 million

INDIRECT BENEFICIARIES

Number of direct beneficiaries is a conservative estimate, as it is not consistently reported (i.e. some projects report as no. of households)

516

EARLY WARNING SYSTEMS

Includes projects targeting several small scale EWS at the local level as well as those targeting one large regional system

IMPACT 2:
Strengthened policies that integrate climate resilience strategies into local and national plans

99

POLICIES INTRODUCED OR ADJUSTED TO ADDRESS CLIMATE CHANGE RISKS

Includes any policy whether at the local, regional or national level

IMPACT 3:
Increased ecosystem resilience in response to climate change induced stresses

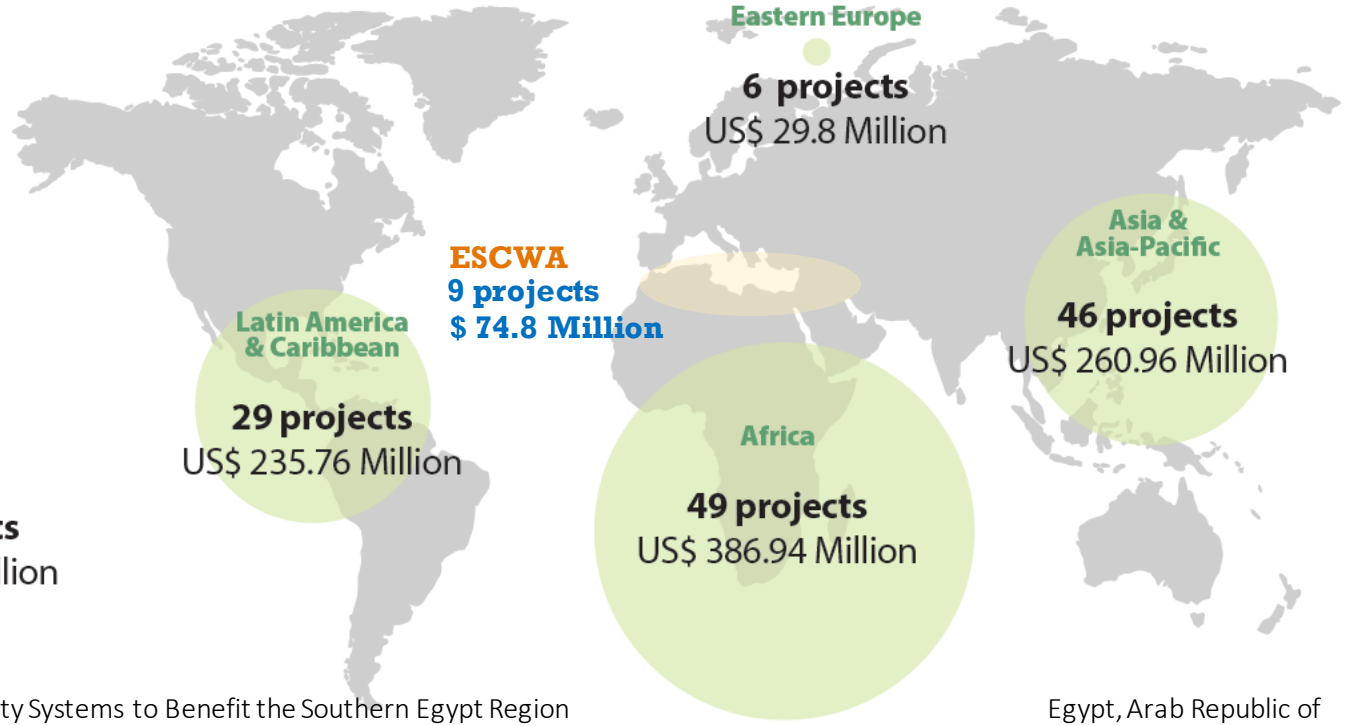
575,699 ha

HA OF NATURAL HABITATS CREATED, PROTECTED OR REHABILITATED RESTORED

162,275 m

M OF COASTLINE PROTECTED

AF portfolio – Regional distribution to date



Building Resilient Food Security Systems to Benefit the Southern Egypt Region	Egypt, Arab Republic of	UNWFP
Climate changes adaptation project in oasis zones - PACC-ZO	Morocco	ADA
Enhancing Resilience of Communities to the Adverse Effects of Climate Change on Food Security in Mauritania	Mauritania	UNWFP
Increasing the resilience of poor and vulnerable communities to climate change	Jordan	MOPIC
Climate Smart Agriculture: Enhancing Adaptive Capacity of the Rural Communities in Lebanon (AgriCAL)	Lebanon	IFAD
Building Resilience of the Agriculture Sector to Climate Change in Iraq	Iraq	IFAD
Economic, Social and Solidarity Insertion for Resilience in the Governorate of Kairouan - IESS-Adapt	Tunisia	IFAD
Increasing the climate change resilience of communities in Eastern Ghouta in Rural Damascus to water scarcity challenges through integrated natural resource management and immediate adaptation interventions	Syrian Arab Republic	UNHAB
Building Resilient Food Security Systems to Benefit the Southern Egypt Region- Phase 2	Egypt, Arab Republic of	UNWFP

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HEAL: Horticultural Entrepreneurship in Adaptive Livelihood for Post-Pandemic Economic Resilience in India (AF-UNDP-EU)

Grantee: South Asian Forum for Environment – USD 125,000

- Floating farms are working with the water - lifting farms onto floating platforms which support sustainability and restore community life and ecosystems.
- Regenerative farming aimed at restoring soil health is transforming areas which constantly battle with the rising tides.
- A variety of seasonal crops grown in grow bags, fed by solar power and a small irrigation unit which removes saltwater from the process.
- Unique structures are also designed to work alongside fish and crab farming and support the restoration of embankments in flooded areas.
- Considerable biodiversity benefits for the mangroves in the area: reduced deforestation and environmental impacts (nutrient runoffs)

India: Conservation and Management of Coastal Resources as a Potential Adaptation Strategy for Sea Level Rise

Project Amount: US$689,264
NABARD

- Project aims to increase resilience to climate change impacts of the coastal communities by restoring the degraded mangrove system to reduce sea water intrusion and prevent flooding from storm surges

- Integrated Mangrove Fishery Farming System (IMFFS) approach;
  - modifying rectangular pond areas previously used for shrimp
  - planting mangroves and other salt tolerant vegetation on top
  - provide nutrients for the shrimp and crab aquaculture systems inside the ponds
  - stabilize the soils

- Villages select landless, assetless, woman-led households who are willing to take up the cage cultures

- The project supports the creation of 'micro plans' prepared by the community members → community members to participate in restoration activities.

- Over 200 ha of mangroves restored and over 400,000 saplings planted; 50 ha of IMFFS farms developed; community is culturing high-value fish and shellfish

Community prepares degraded area for mangrove planting in Andhra Pradesh.

Mauritius and Seychelles: Restoring marine ecosystem services by rehabilitating coral reefs to meet a changing climate future

Project Amount: $US10,000,000
UNDP

- Project aims to enhance food security and resilience against natural disasters by implementing coral reef restoration with thermal tolerant corals as adaptation to climate change
- The restoration of degraded reefs will increase coral cover and help restore fish habitats and spawning/nursery sites
- Resilient corals will be propagated in the ocean nurseries, and eventually get transplanted to the reefs under restoration
- Restoration activities carried out by coastal communities and local NGOs; involvement of tourism enterprises (hotels, dive centers, boat operators)
- **Corporate Social Responsibility (CSR), PES opportunities to leverage funding**
- **The introduction or movement of species is a key consideration when scaling up NbS** → environmental safeguard measures to ensure that will be no introduction of known invasive species into the MPAs.

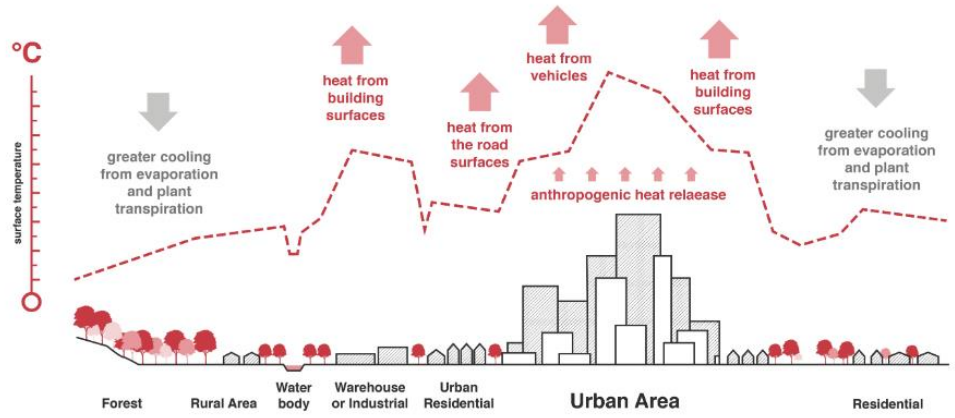
Attaching coral to reef on Cousin Island in Seychelles. Photo By Paul Anstey.

Criteria: Is the Project Adaptation Fund-able

1. The adaptation rationale- the activities chosen will resolve the problem.
2. Maladaption ruled out
3. The objectives have to be aligned with the Adaptation Fund Results Framework and specified at outcome level.
4. Describe how the project / programme provides economic, social and environmental benefits:
   - estimated benefits will have to be quantified, whenever possible
5. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme:
   - logical explanation of the selected scope and approach
   - cost effectiveness demonstrated from a sustainability point of view: alternative options, quantitative estimates of cost-effectiveness are required only where feasible and useful.
6. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.
   - taken solely, without additional funding from other donors, they will help achieve these objectives (under review)
7. Sustainability;

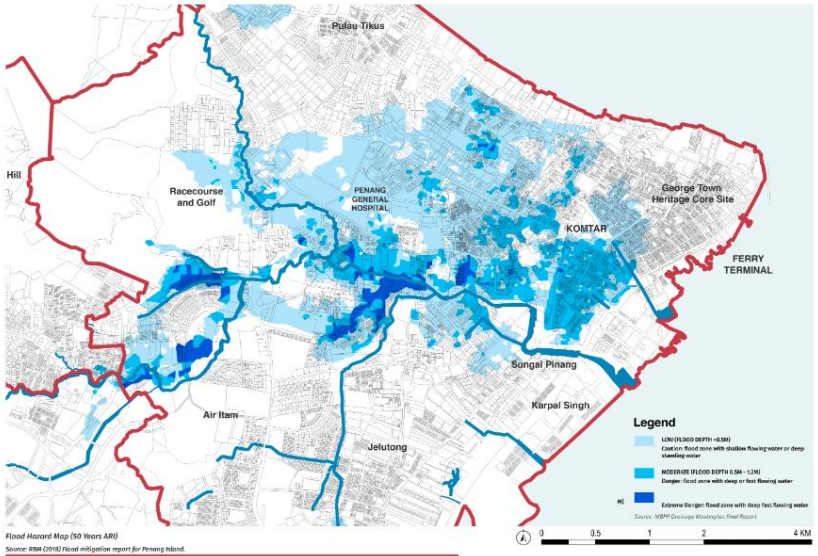
Nature-based Climate Adaptation Programme for the Urban Areas of Penang Island

The main goal of the programme is to enhance urban resilience and reduce human and ecosystem health vulnerability to climate change impacts and extreme weather events by implementing nature-based solutions (NbS) to reduce surface temperatures and storm water runoff, as well as to increase social resilience and build institutional capacity.



The urban heat island effect is related to urban areas having much warmer temperatures than nearby rural or natural areas. The difference in temperature between urban and less-developed rural areas has to do with heat absorption of hard surfaces

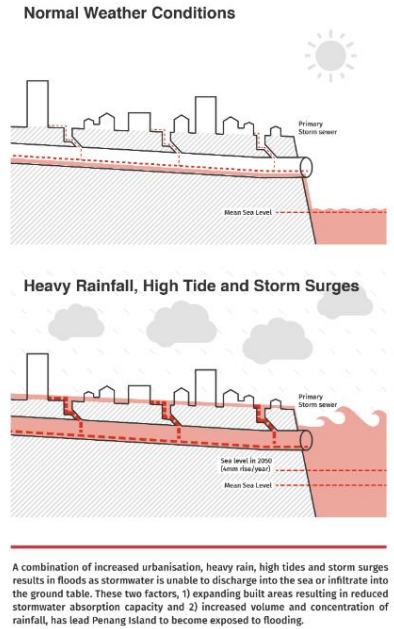
Urban Heat



Flood Hazard Map (50 Years ARI)

Source: RBM (2018) Flood mitigation report for Penang Island.

Flood-risk assessment is an important part of mitigating, controlling and preventing floods. The economic demand for flood control is measured by the difference between expected flood damage before and after flood-mitigation measures are initiated. Without an assessment, floods may cause damage to property, loss of life, disruption to services businesses or agricultural activity.



A combination of increased urbanisation, heavy rain, high tides and storm surges results in floods as stormwater is unable to discharge into the sea or infiltrate into the ground table. These two factors, 1) expanding built areas resulting in reduced stormwater absorption capacity and 2) increased volume and concentration of rainfall, has lead Penang Island to become exposed to flooding.

Urban Flood

Credit: https://thinkcityinstitute.org/PNBCAP/#section=0

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Project outline

programme components

Component 1: Urban greening
- Tree-lined streets
- Pocket parks
- Greening car parks
- Greening built structures
- Urban agriculture
- Climate-resilient street trees' study

Component 2: Stormwater management
- Upstream retention
- Blue-green corridors
- Swales and infiltration wells

Component 3: Social resilience
- Comprehensive social vulnerability assessment
- Youth and schools programme
- Women and girls programme

Component 4: Institutional capacity
- Public health programme
- Knowledge transfer platform
- Penang Climate Board

programme objectives

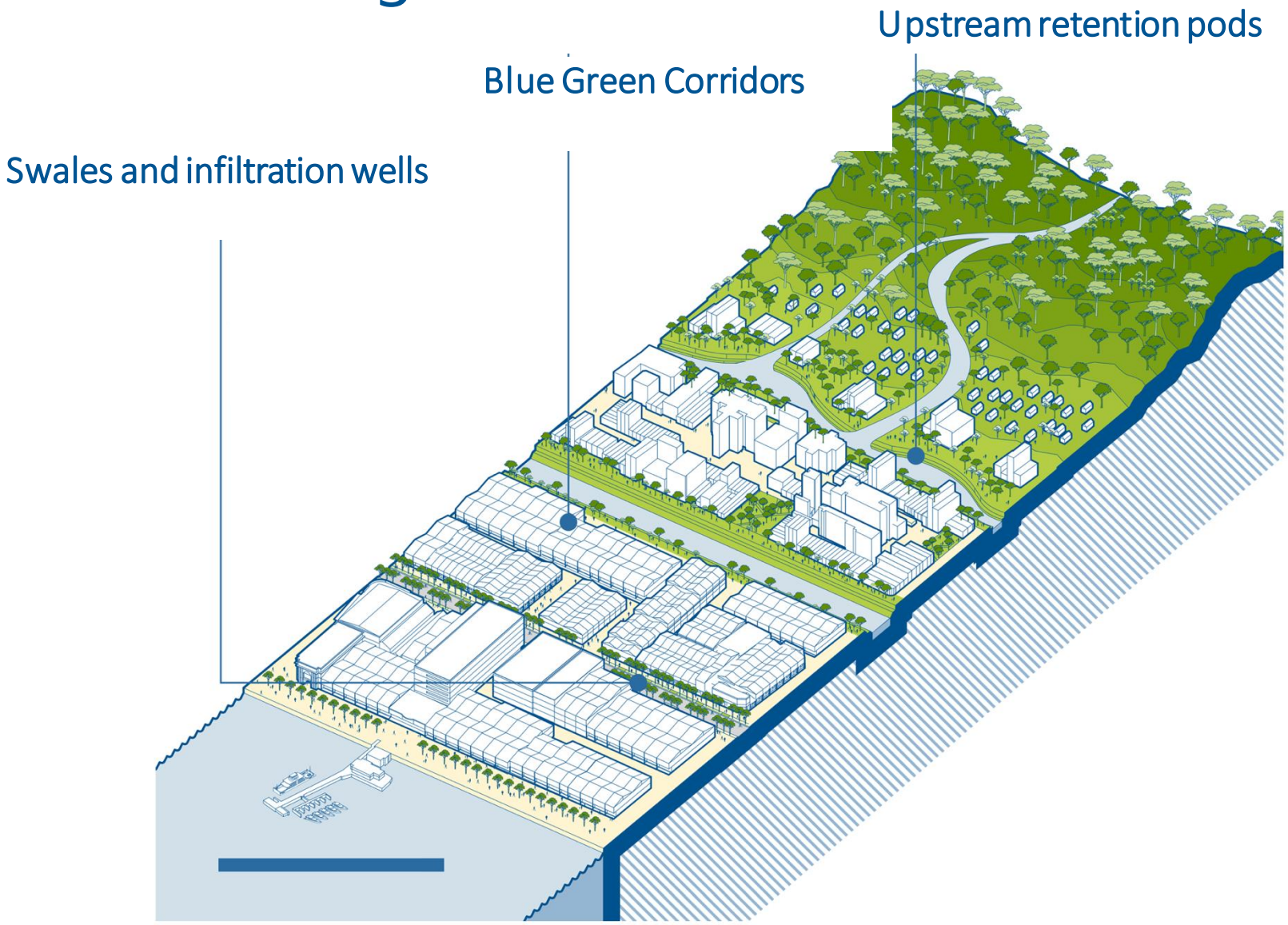
1. To support the implementation of nature-based solutions to reduce flooding and overall urban temperatures
2. To build the resilience of local communities in response to extreme weather events and disaster
3. To empower women, youth, and vulnerable communities through strategic actions
4. To strengthen institutional capacity and coordination between different stakeholders in climate-related decisions
5. To develop the first municipal climate change adaptation programme in Malaysia

Credit: https://thinkcityinstitute.org/PNBCAP/#section=0

The projects aims to benefit 343,739 directly and 311,257 indirectly.

The project will also install an early warning system. In addition, the programme includes a community-focused approach as well as a strong **knowledge transfer component to ensure the methodology can be scaled and adopted in the near future by other cities in Malaysia and the region.**

Storm water management



Climate Resilient Streets' Trees: Opportunities and Challenges

Speed of growth
trees planted in paved locations should have a moderate speed of growth so that the root system has time to develop together with the canopy

Size of canopy
must be appropriate for the scale of the street or specific location

Shape of canopy
must be appropriate for the scale of the street or specific location

Type of leaf
should be appropriate for the location and able to provide good shade

Type and size of fruit
h intensive use such as sidewalks and parking spaces ot be planted with species with fruits which can stain t and property

Allergies' inducing species
species which may induce allergies must not be planted in areas used by people

Prone to major limb tear
species prone to major limb tear should not be planted in areas with intensive use

Prone to developing pests
species prone to developing pests should not be planted in areas with intensive use

Native / exotic species
native species should be privileged over exotic ones

Maintenance level required
species requiring high levels of maintenance should not be planted in areas with intensive use

Tolerance to different types of stress
(including high temperatures; excessive/reduced water)
species must be resilient to temperature and hydric stress and their root system being soaked

Riparian species
important for species to be planted in blue corridors

Tolerance to salt sprays
important for species to be planted in seafronts

Tolerance to different types of soil
species should be planted in appropriate soil types

Structure of the root system
when planting in paved locations, species should have a more vertical-oriented root system

Tolerance to be planted in paved areas
species with aggressive root systems should not be planted in paved locations or near buildings.

Historical/cultural references
species with historical or cultural significance should be planted in context

Ecological significance
species of particular significance to biodiversity and specific urban habitats should be prioritised

Climate-resilient street trees' species study

The Climate-resilient street trees' species study for Malaysia seeks to identify species that will be able to withstand and/or mitigate the coming changes in weather patterns. It will be funded by the Climathon Global Cities Award prize money.

The study consists of the selection of a list of species for street trees, small urban green spaces and urban waterways for cities in Malaysia.

The study will include typical tree pits and other related construction details and specifications for tree planting, as well as a maintenance guide.

Enhance Health and Well-being
Trees and green spaces can improve recovery times from illness, reduce stress and boost mental health

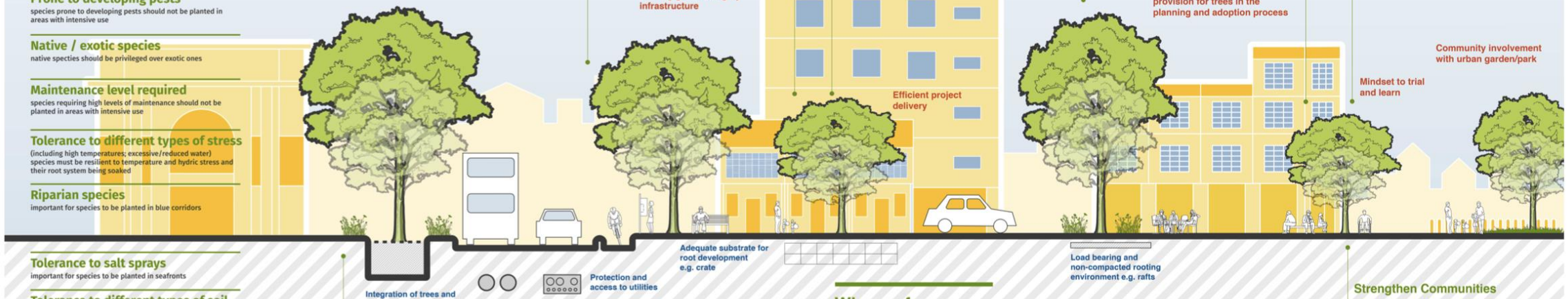
Add Character and Charm
Trees add beauty to their surroundings. They bring colour, soften harsh lines of buildings, screen unsightly views and enhance the character of an area

Conserve Energy
Carefully positioned trees can cut heating and cooling requirements in buildings as well as provide shade for pedestrians

Improve Air Quality
Trees improve air quality and counteract the greenhouse effect by absorbing pollutants and intercepting harmful particles

Support Environmental Education
Tree-planting projects, school gardens and edible playgrounds can help children develop their environmental awareness, conservation skills and knowledge of sustainable food.

Enable Urban Foraging
Trees provide fruits and nuts for wildlife and humans. Community gardens offer health, social and environmental benefits



Reduce Flood Risk
Trees absorb water, lowering stress on stormwater drains and mitigating flood risk. They also improve soil quality and prevent erosion, so more water is held in the ground

Technical design solutions

Design of the below-ground environment is key to achieving long-term compatibility between trees and the built infrastructure that surrounds them in cities

Why we focus on street trees

Trees improve the liveability of our cities for countless reasons. Trees bring long-term benefits to communities, wildlife and the environment.

However, for many years the tree canopy in urban areas has been decreasing

Collaborative process

Weaving natural resources especially trees into the built environment requires a cross-disciplinary approach from project initiation through to design, implementation, maintenance and monitoring

Strengthen Communities
Creating and caring for green spaces helps people reconnect with their neighbours and their surroundings

Time in Years

Some lessons learned from Portfolio

- NbS implemented through **community-based approaches** seem to show better results and have higher success rates.

- NbS adaptation interventions **need to balance short, medium, and long-term needs**

- In some cases, **additional adaptation approaches** are needed to complement NbS.

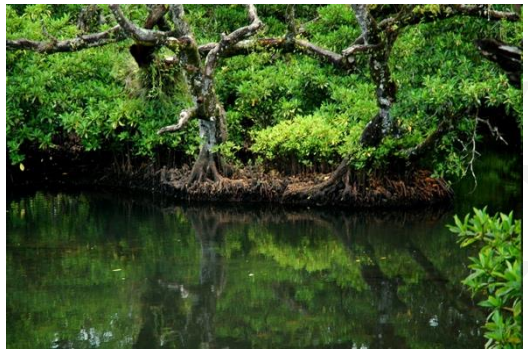
- Ensuring the **enabling conditions for the sustainability of the NbS**, so they can deliver their adaptation benefits in the long-term.

- The **policy and regulatory frameworks are important** to ensure that other threats to the ecosystems are also managed.

- The need for **financial mechanisms and incentives.**

Some Challenges

- GOVERNANCE
- Nascent POLICY environment around NbS
- Inadequate FINANCING for NbS
- PERCEPTION issues
- Lack of STANDARDS / PERMETTING issues
- Climate change IMPACTS ON ECOSYSTEMS – Limit of adaptation
- Integration in multi-hazard risk modeling – estimate AVERTED LOSSES by ecosystems, QUANTIFYING vulnerability reduction
- Documenting the EFFECTIVENESS of the NbS



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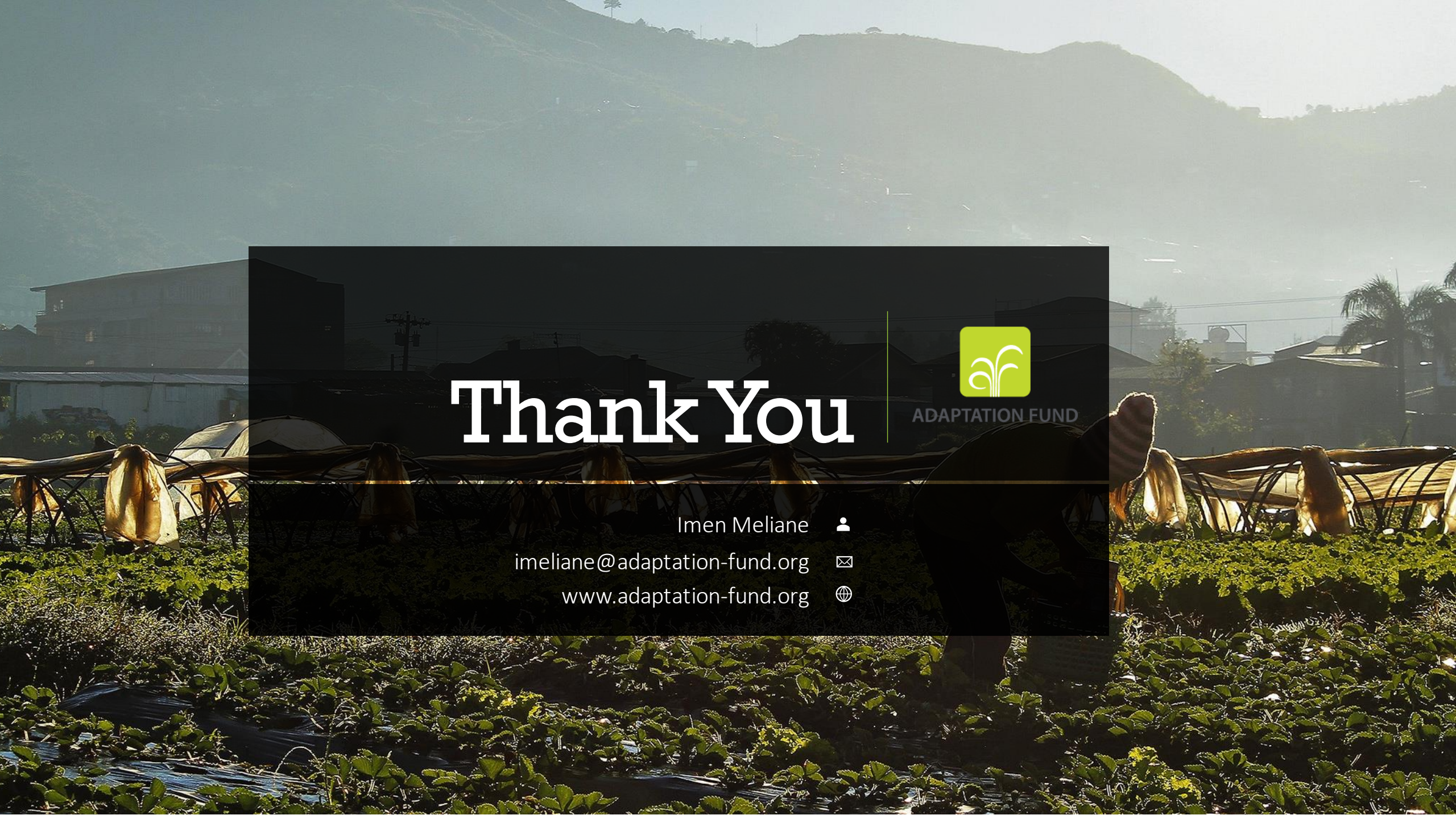

Thank You

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