Urban development fund

Connective Cities Deep Dive

Deep Dive into Heat Challenges in Aswan City - Egypt

A collaboration between:

Urban Development Fund (UDF)

And

Aswan Governorate

Connective Cities Deep Dive Closing Event

12 June 2025

Partners of Connective Cities

Deutscher Städtetag

ENGAGEMENT GLOBAL Service für Entwicklungsinitiativen

with its SERVICE AGENCY COMMUNITIES IN ONE WORLD

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Commissioned by

Federal Ministry for Economic Cooperation and Development

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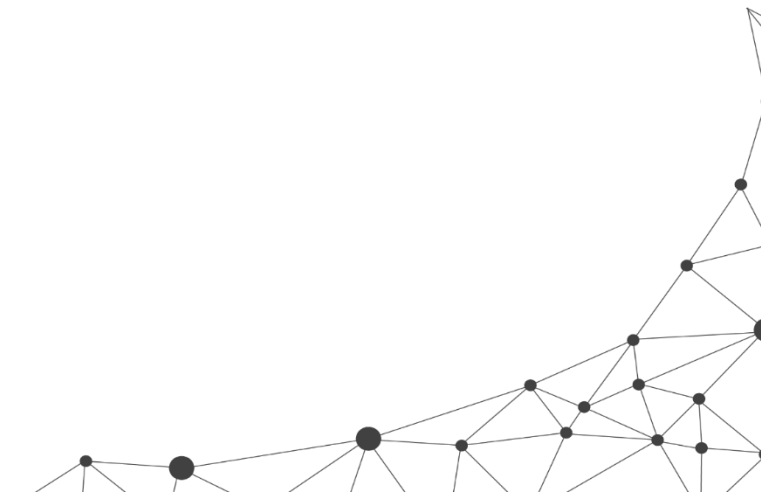


Who we Are?

The Urban Development Fund (UDF)

- Established in 2021, for the purpose of urban upgrading and developing for the existing cities across Egypt's 27 governorates.
- UDF utilizes 4 types of land typologies for its urban development:
  1. **Brownfields**
  2. **Urban extensions**
  3. **Areas of special value or nature**
  4. **Deteriorated areas**
- UDF replaced ISDF – which focused on the upgrading of informal areas and informal markets since 2008.

Aswan city

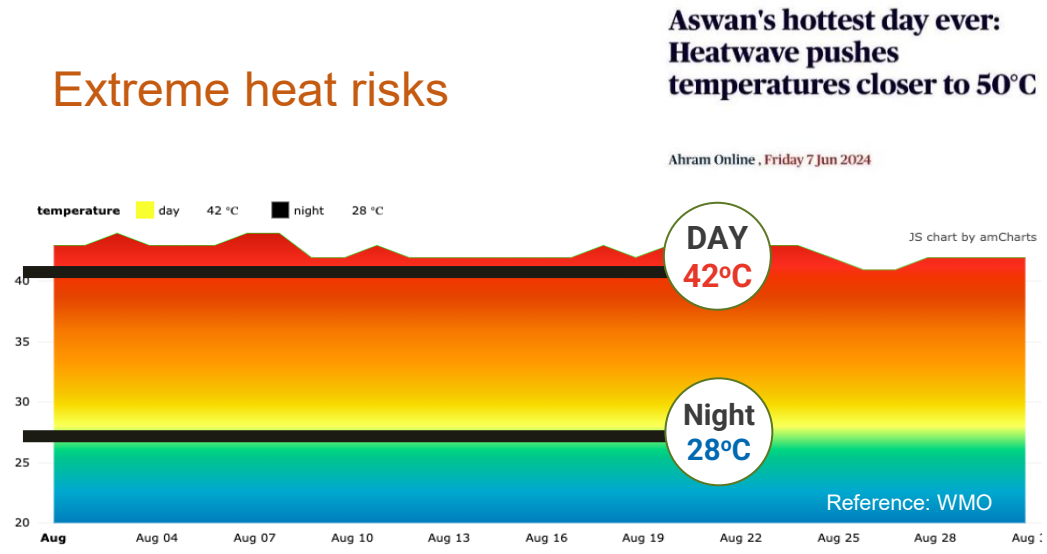
- **Location**: Aswan is located in the southern part of Egypt.
- It is the capital of the governorate and is located approximately **890 km south of Cairo.**

Population 2022 : **371,000** inhabitants

Area: **2600** acres

A Citywide Integrated Development Approach

Extreme heat risks

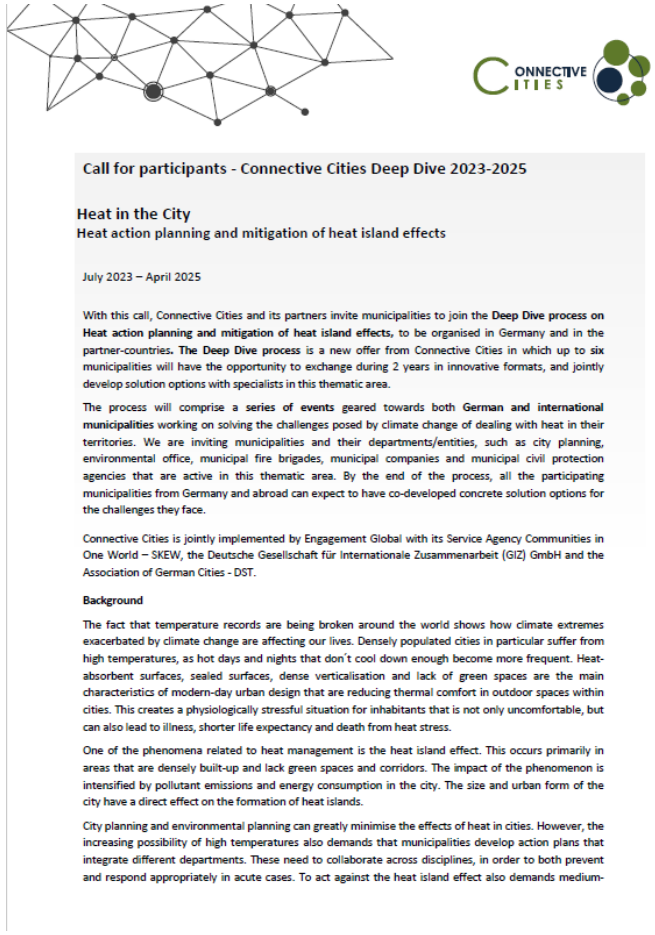


The Beginning of Our Journey

Call for Connective cities

- Share the **Egyptian case** and experience of the topic of the heat island effect with other participants nationally and internationally which can be applied in another context.
- Prevent the upcoming heat stress and make **heat management measures** to the sector of Aswan like technological adaptation, building design or changing working strategies.
- **Raise awareness** among local municipalities about the pressing issue of heat stress and climate change by providing a platform for knowledge sharing.

Call for participants – Deep Dive



Call for participants - Connective Cities Deep Dive 2023-2025

Heat in the City
Heat action planning and mitigation of heat island effects

July 2023 – April 2025

With this call, Connective Cities and its partners invite municipalities to join the **Deep Dive process on Heat action planning and mitigation of heat island effects,** to be organised in Germany and in the partner-countries. **The Deep Dive process** is a new offer from Connective Cities in which up to six municipalities will have the opportunity to exchange during 2 years in innovative formats, and jointly develop solution options with specialists in this thematic area.

The process will comprise a **series of events** geared towards both **German and international municipalities** working on solving the challenges posed by climate change of dealing with heat in their territories. We are inviting municipalities and their departments/entities, such as city planning, environmental office, municipal fire brigades, municipal companies and municipal civil protection agencies that are active in this thematic area. By the end of the process, all the participating municipalities from Germany and abroad can expect to have co-developed concrete solution options for the challenges they face.

Connective Cities is jointly implemented by Engagement Global with its Service Agency Communities in One World – SKEW, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Association of German Cities - DST.

Background

The fact that temperature records are being broken around the world shows how climate extremes exacerbated by climate change are affecting our lives. Densely populated cities in particular suffer from high temperatures, as hot days and nights that don´t cool down enough become more frequent. Heat-absorbent surfaces, sealed surfaces, dense verticalisation and lack of green spaces are the main characteristics of modern-day urban design that are reducing thermal comfort in outdoor spaces within cities. This creates a physiologically stressful situation for inhabitants that is not only uncomfortable, but can also lead to illness, shorter life expectancy and death from heat stress.

One of the phenomena related to heat management is the heat island effect. This occurs primarily in areas that are densely built-up and lack green spaces and corridors. The impact of the phenomenon is intensified by pollutant emissions and energy consumption in the city. The size and urban form of the city have a direct effect on the formation of heat islands.

City planning and environmental planning can greatly minimise the effects of heat in cities. However, the increasing possibility of high temperatures also demands that municipalities develop action plans that integrate different departments. These need to collaborate across disciplines, in order to both prevent and respond appropriately in acute cases. To act against the heat island effect also demands medium-

Expression of interest

EXPRESSION OF INTEREST

Connective Cities Deep Dive process:

Heat in the City
Heat action planning and mitigation of heat island effects
August 2023 - August 2025

The purpose of this document is to get an overview of the prospective participants' professional profile, demands and interests. We would like to know the kind of experience you can contribute and/or the input you would like to request from the other participants in the dialogue event.

Please, fill in all parts of this form and send it to Muna Shalan (muna.shalan@giz.de) Thiago Garcia (Thiago.garcia@engagement-global.de) soonest possible.

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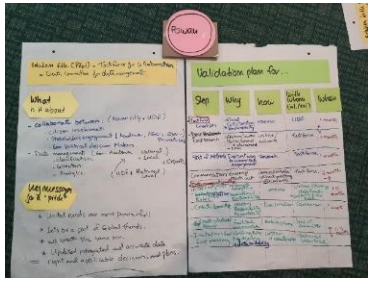
Deep Dive Process



Getting to know each other (transfer-in)

Training participatory research tools

From sensemaking to prioritization

From validation to piloting

From piloting towards optimization

Showassing and celebration

Augst 2023

October 2023

March 2024

June 2024

January 2025

June 2025

Expected Outcomes

An urban heat plan for Aswan

Guideline for interventions

Thematic workshop

Adjust the Idea

Taskforce for collaboration.

Committee for data management.

Final Adjusted Proposal

Develop a General Framework for Heat Measures for Aswan city.

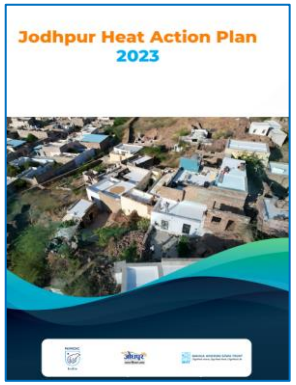
Choose one zone to prepare a Heat Action Plan and develop a list of projects.

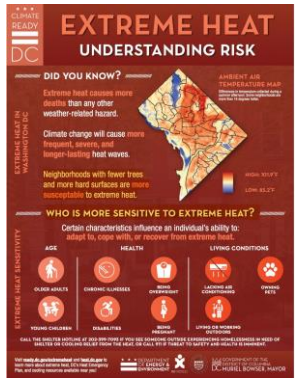
General Framework for Heat Measures For Aswan City

General Framework Focuses on 4 main tracks

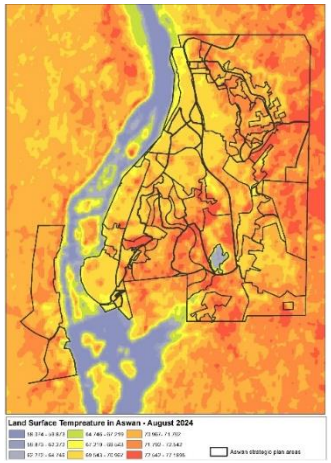
- Adaptation Planning and Implementation
- Preparedness, Communication, and Workers' Safety
- Built Environment, Infrastructure, and Managed Spaces
- Ecosystem-based Adaptation

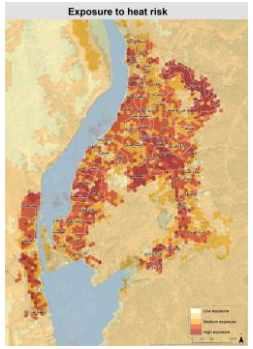
Learning from other experiences

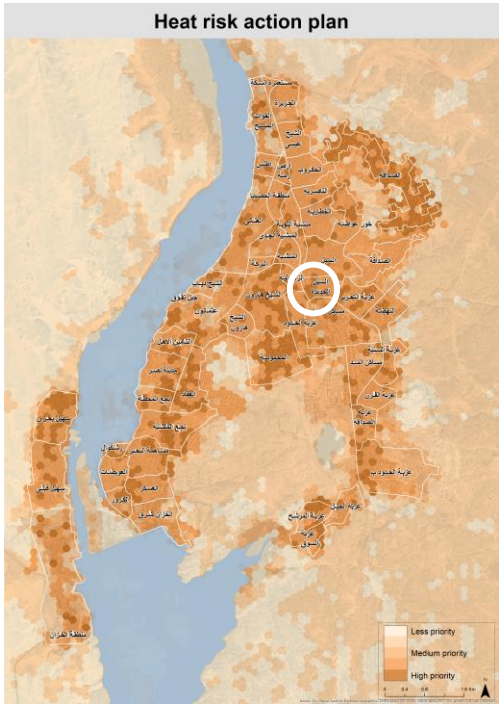




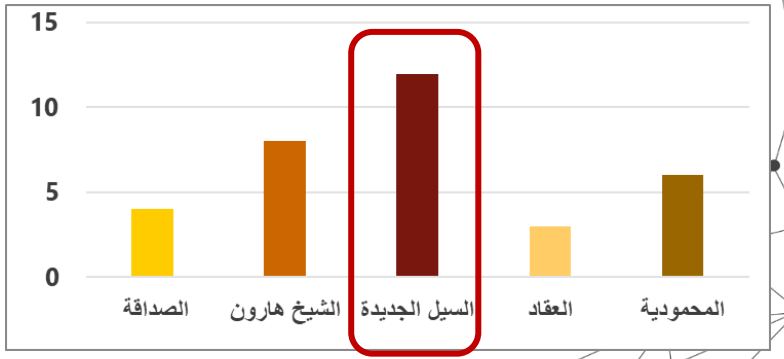
Multiple maps to identify the most vulnerable areas







Voting for area prioritizing and selection



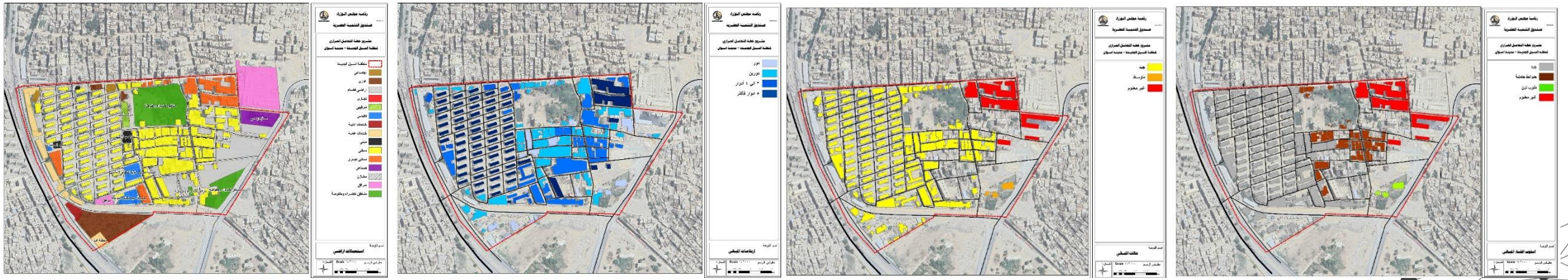
Elsail Elgadid

Developing the Heat Action Plan for “Elsail Elgadid”

Urban Context

The area is primarily residential, featuring a mix of government and private housing that creates a striking contrast in the urban fabric. The government housing follows a grid layout with wide streets and ample open spaces, whereas the private housing is characterized by narrow streets and a lack of open areas.

- Area about: 76.4 acers
- Population about: 12,000 inhabitants



Developing the Heat Action Plan for “Elsail Elgadid”

Mission

Reducing the impacts of extreme heat waves, helping communities adapt to heat waves in the context of climate change, and supporting local capacity to take action.

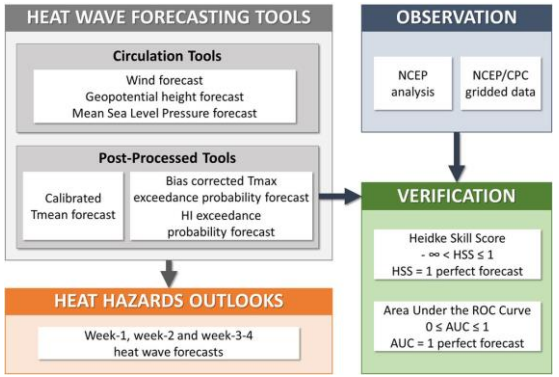
Goals

- Identify recommended solutions to adapt the current and future heatwave conditions.
- Prevent negative impacts on public health.
- Ensure implementing these measures implemented in a coordinated manner.

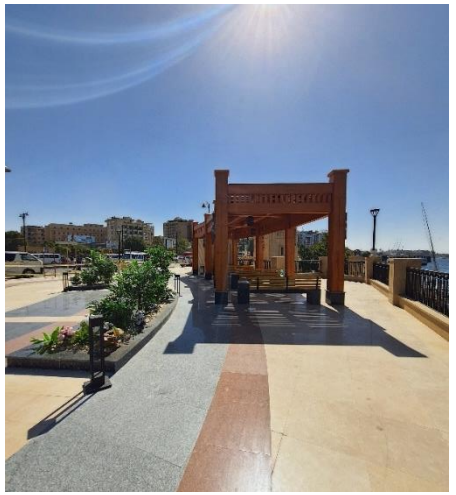
Assessment

Recommended Actions

Integrated the guideline: Climate Resilient Instrument (CRI) that Developed in collaboration between UDF and GIZ Egypt as a part of CBUID project funded by BMZ.



Heat waves early warning systems



Widening planting &shading public spaces

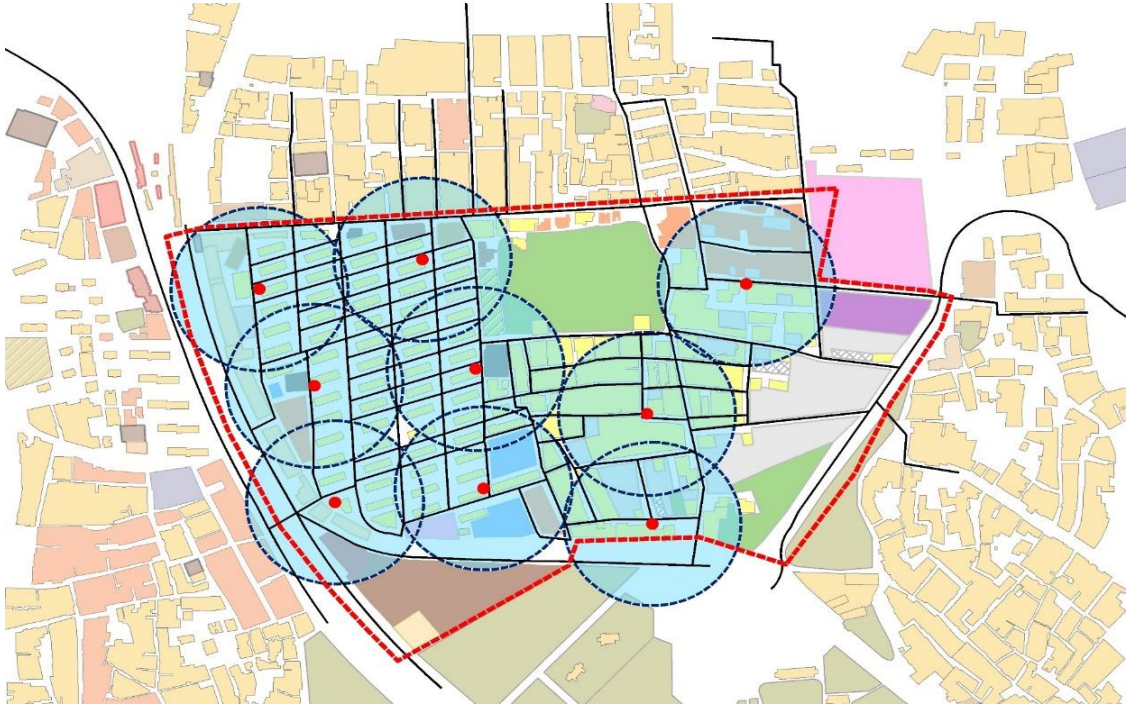
Providing cool drinking water

Shading markets

Developing the Heat Action Plan for “Elsail Elgadid”

Identify Strategic Locations for Small Cooling Stations

- By using GIS to ensure optimal coverage of the entire area, based on an 80-meter walking distance.
- These locations should also be connected to the water network, considering both water consumption and refilling logistics.

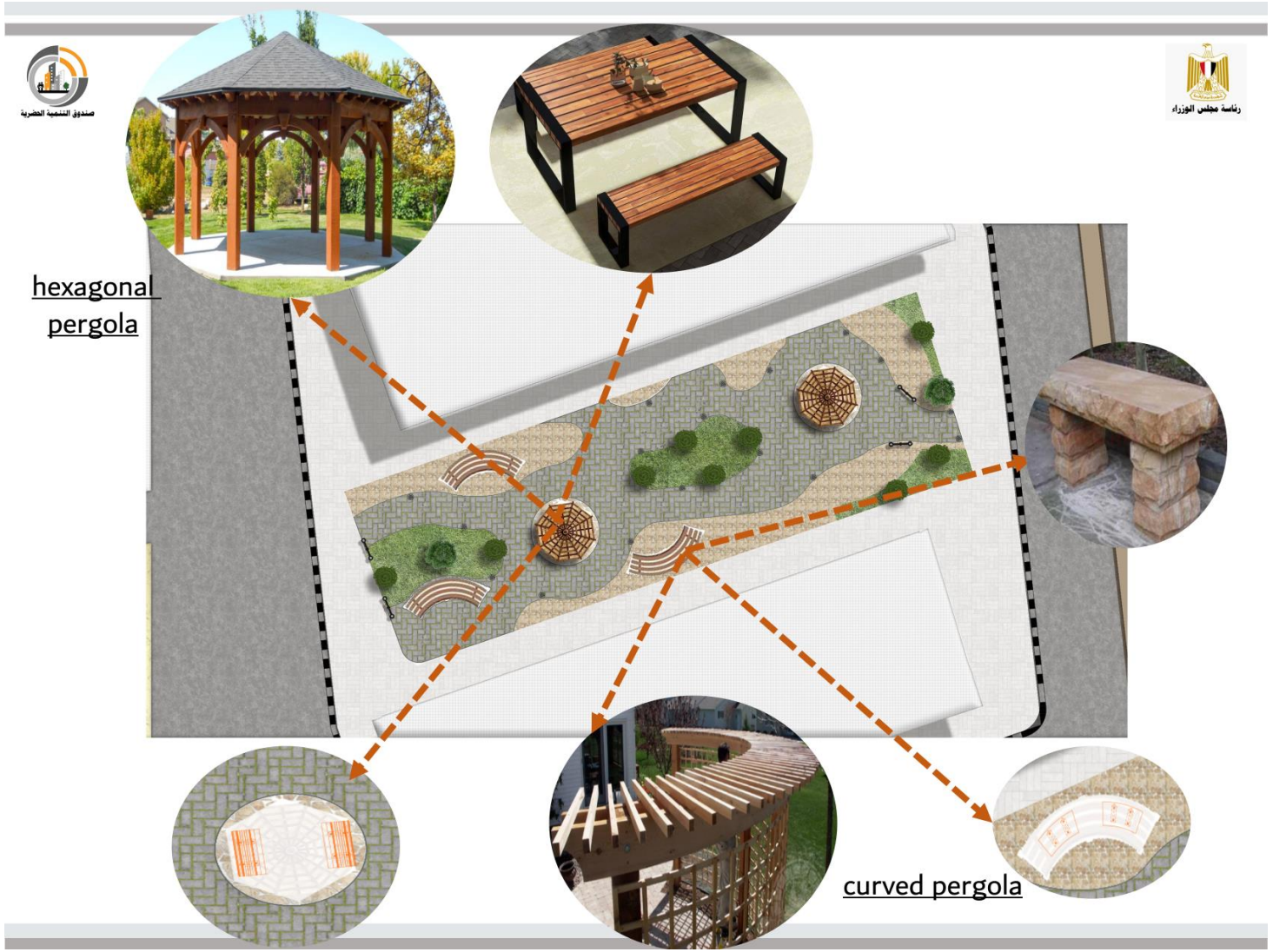


Proposed Three Locations for Place-making (around 500 m2 for each one).

- Public space: open gathering space with different kind of shadings.
- Kids area: shaded kids' area with interactive play structures.
- Women gathering open area.

Developing the Heat Action Plan for “Elsail Elgadid”

Public space



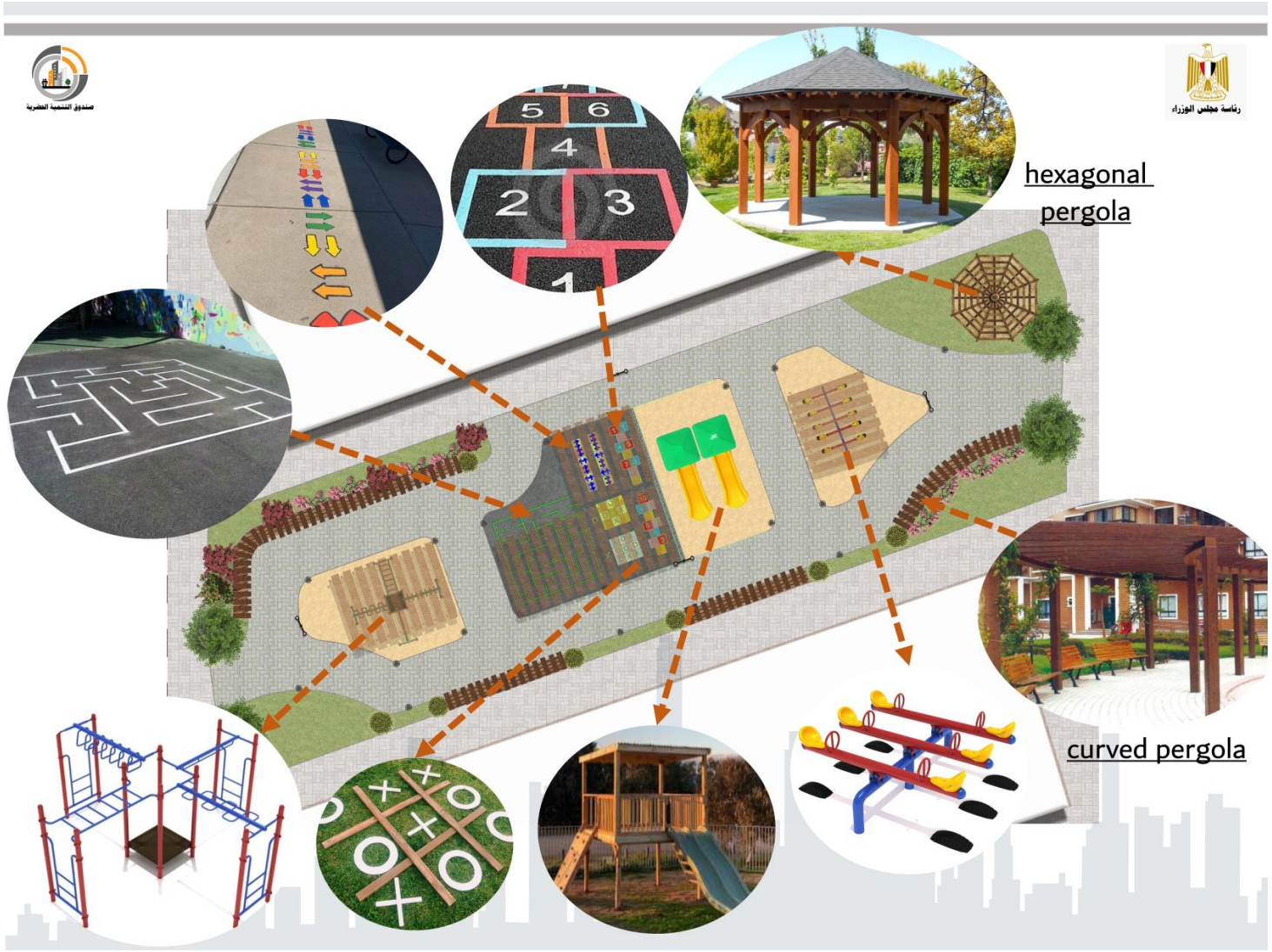
Estimated Cost:

1,980,000 EGP = 35,150 Euro

Phase	Months							
	1	2	3	4	5	6	7	8
Preparing working drawings	■	■						
Tendering & contracting			■	■				
Implementation					■	■	■	
Documentation & Handover								■

Developing the Heat Action Plan for “Elsail Elgadid”

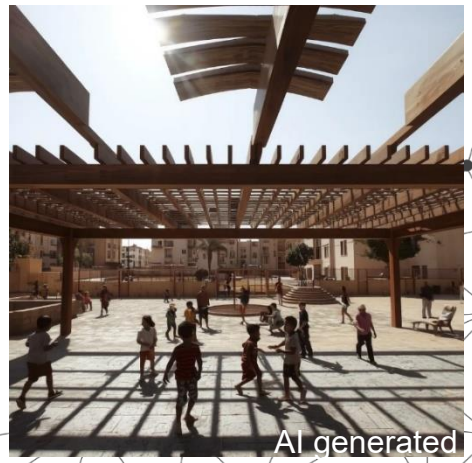
Kids area



Estimated Cost:

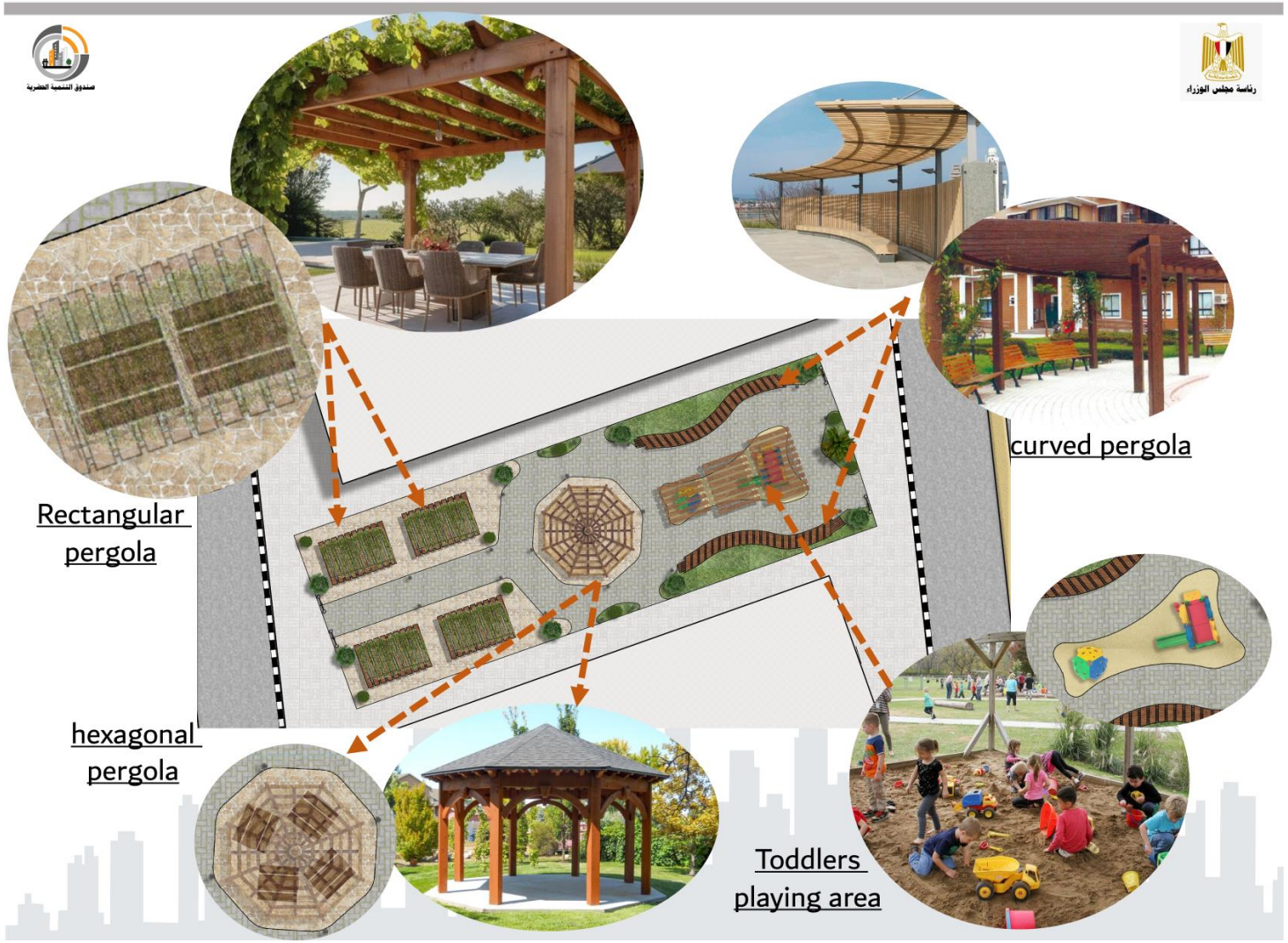
3,850,000 EGP = 68,300 Euro

Phase	Months							
	1	2	3	4	5	6	7	8
Preparing working drawings	■	■						
Tendering & contracting			■	■				
Implementation					■	■	■	
Supply and installation of kids' area equipment						■	■	
Documentation & Handover								■



Developing the Heat Action Plan for “Elsail Elgadid”

Women gathering area



Estimated Cost:

2,470,000 EGP = 43,820 Euro

Phase	Months							
	1	2	3	4	5	6	7	8
Preparing working drawings	■	■						
Tendering & contracting			■	■				
Implementation					■	■	■	
Supply and installation of Toddlers' area equipment							■	
Documentation & Handover								■

Next Steps: Scaling Up the Aswan Experience

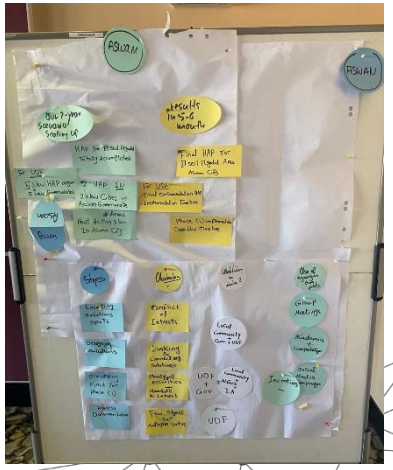
Scaling up the heat action plan and adjusting it for other cities (other governorates)

Effective approach

- **Select specific locations** where the proposed solutions will be applied **based on need, impact, and feasibility**.
- **Design tailored interventions** and implementation strategies for each selected site, **considering the unique characteristics and community needs.**
- List of interventions generated according to best practices and lessons learned.
- **Track and record each stage** of the implementation to ensure transparency, support future scaling, and capture learnings.

Sustainability perspective

- **Taskforce** to follow up, monitoring and feedback loops.
- **Capacity building** and raise awareness on local level.
- **Co-creation** between all relevant stakeholders and **strengthening** local ownership
- **Engage the local community and NGOs** to involve all initiatives.
- **Allocate and mobilize resources** to create a sustained funding pathways



Scalability strategy

- General **mainstreaming by UDF**.
- **Use the UDF guideline**: Climate resilient instrument (CRI).
- **Integrate** the national level with the local level.

Thank You

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