



**27,5 kmq**  
of damaged cropland

**37,614**  
damaged buildings

**601 km**  
damaged roads



Population decline



Damaged facilities



Damaged housings



Environmental contamination



Collapse of the economy



Damaged cropland



Destroyed urban green areas



Food shortage



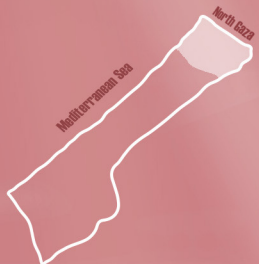
Electricity blackout



Lack of collective spaces



Lack of self-determination

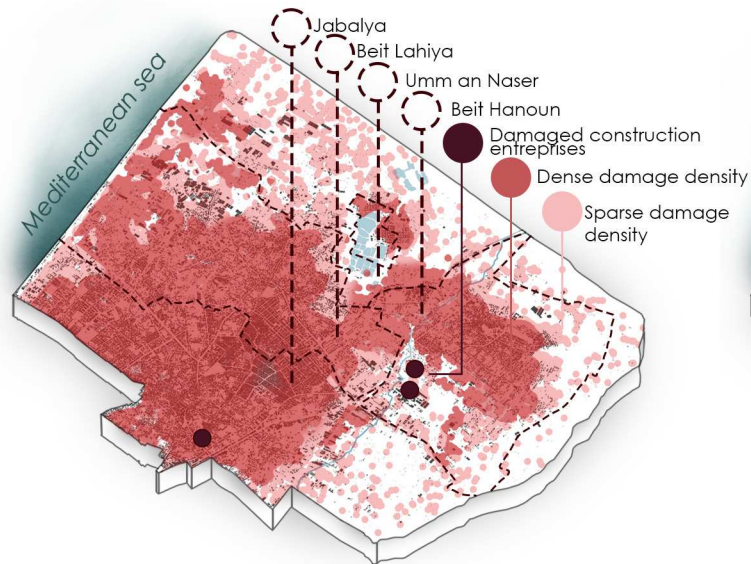


**11th i-Rec student competition**  
University of Florence  
Department of Architecture  
Supervisor: Roberto Bologna  
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Ghitha Daddi  
Italy, May 2025



# Post-war critical issues

## Damaged building assessment

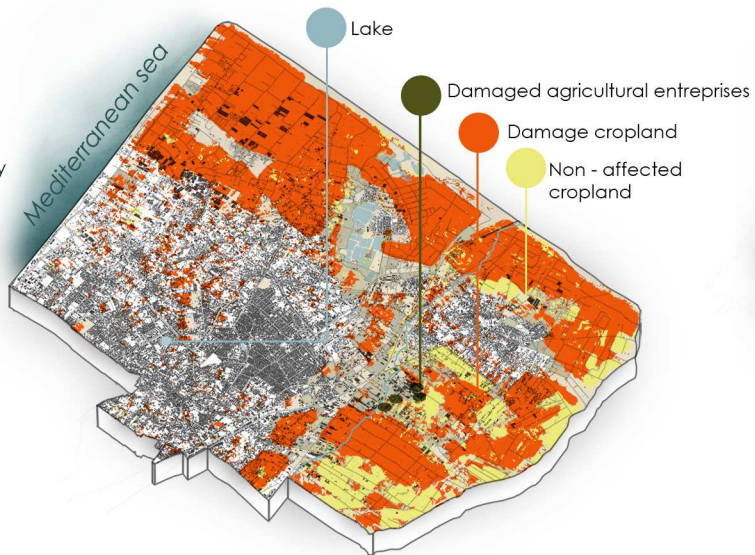


**37 614**  
of damaged  
building

**8701300 t**  
of debris

**3**  
of damaged  
construction  
enterprises

## Damaged cropland assessment

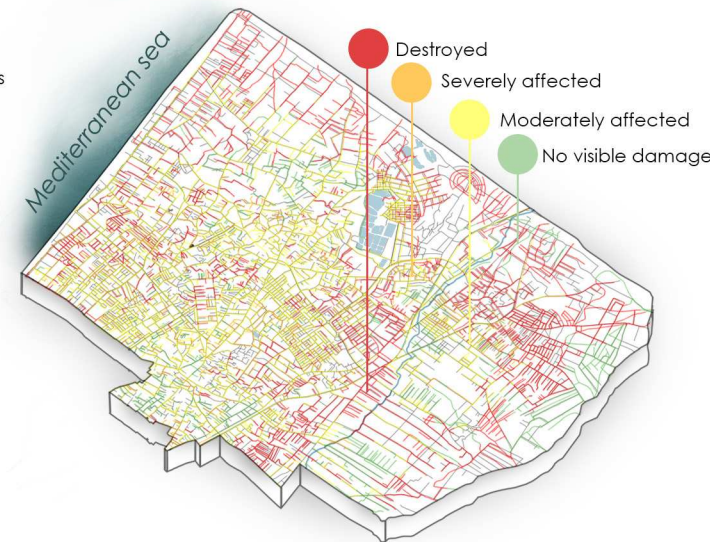


**27,5 kmq**  
of damaged  
cropland

**453**  
of damaged  
greenhouses

**4**  
of damaged  
agricultural  
enterprises

## Damaged road assessment



**601 km**  
of damaged  
roads

**100%**  
of destroyed  
utility  
corridors

Source: Unosat

## "From the fields to the sea, nature will run free"

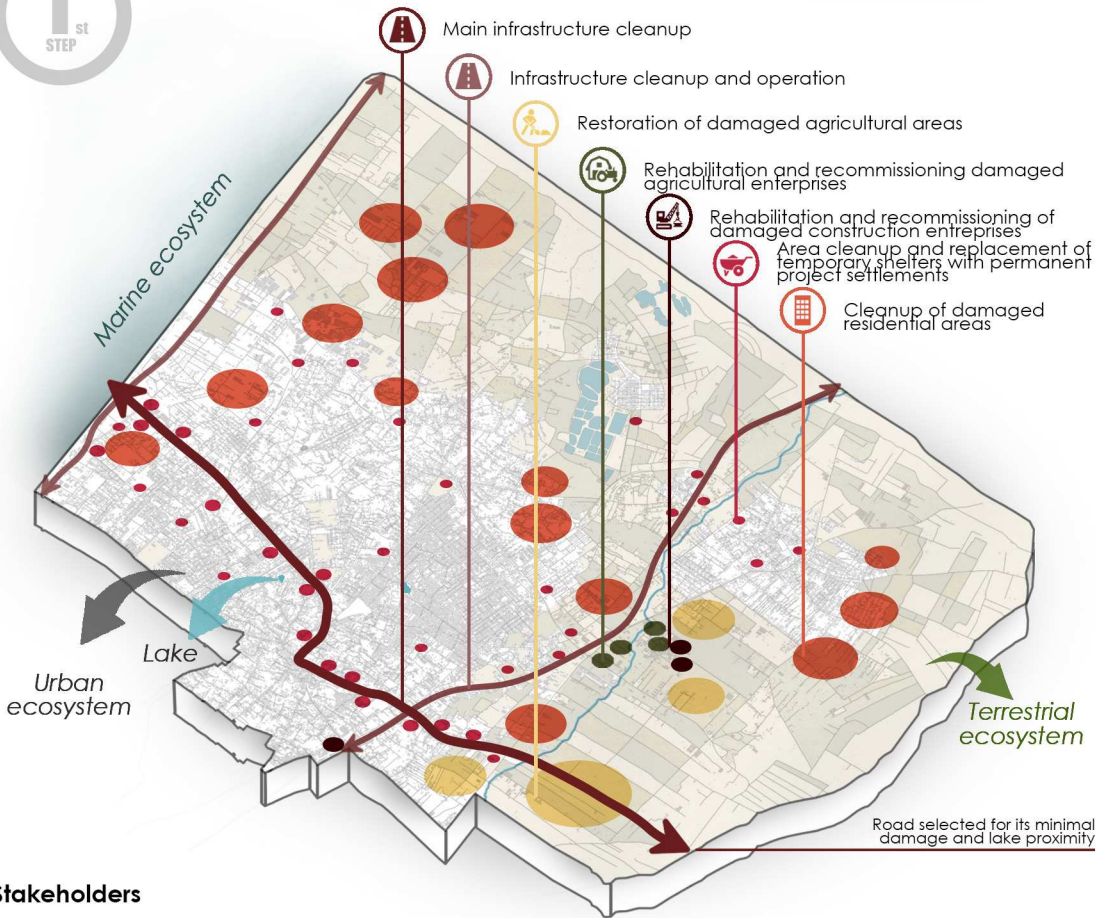
This project envisions the creation of a continuous **ecological corridor** that **reconnects** the agricultural, urban, and marine **ecosystems** once fragmented by war and urban sprawl.





## Debris Removal

1<sup>st</sup>  
STEP



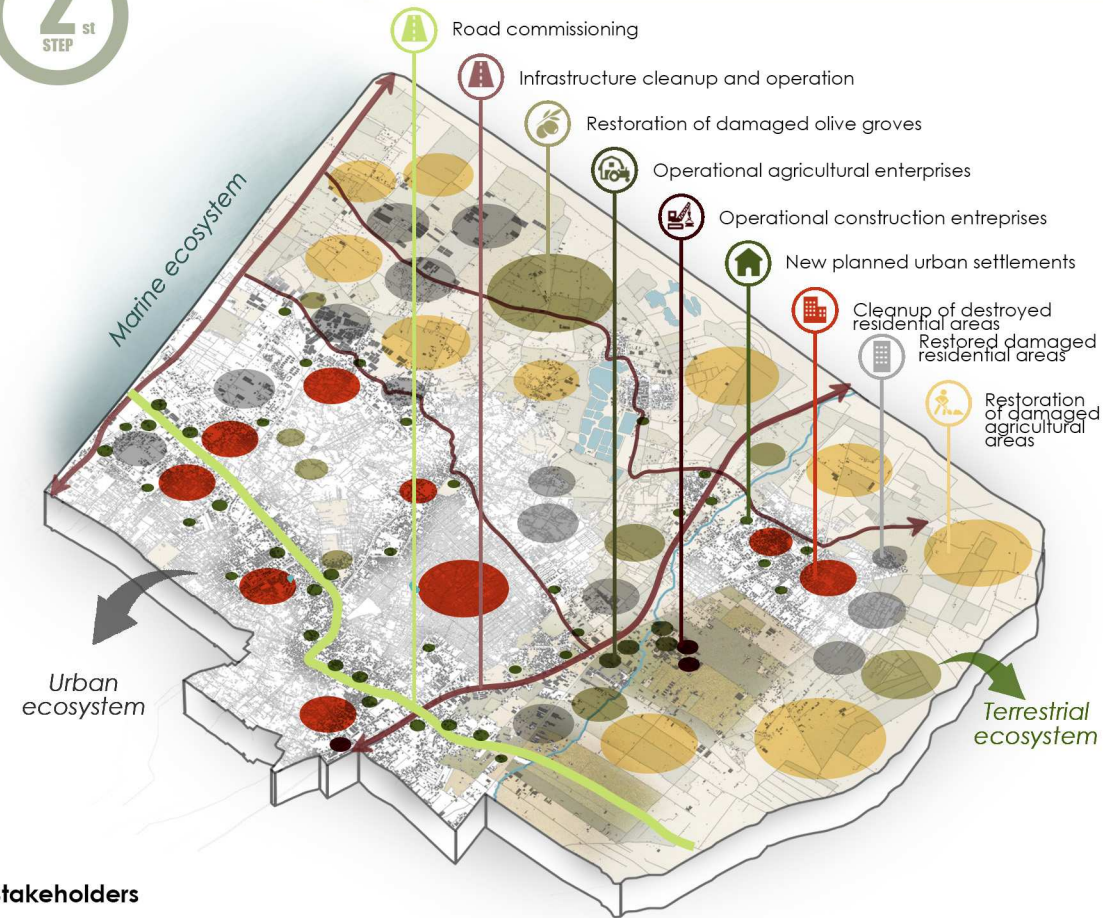
### Stakeholders



2025

## Sowing and harvest operations

2<sup>nd</sup>  
STEP



### Stakeholders



2050

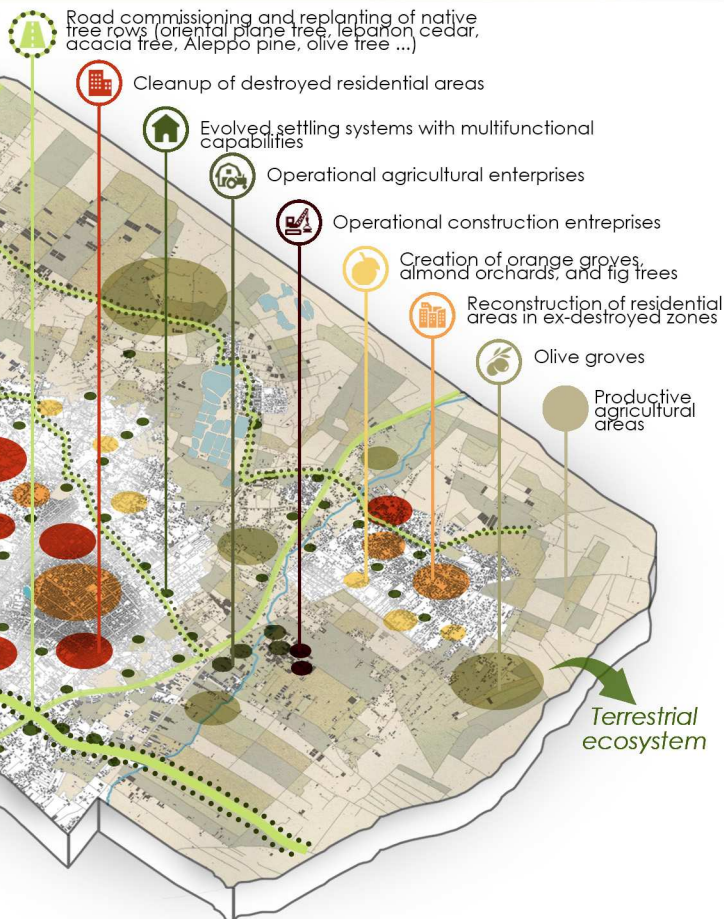
2075





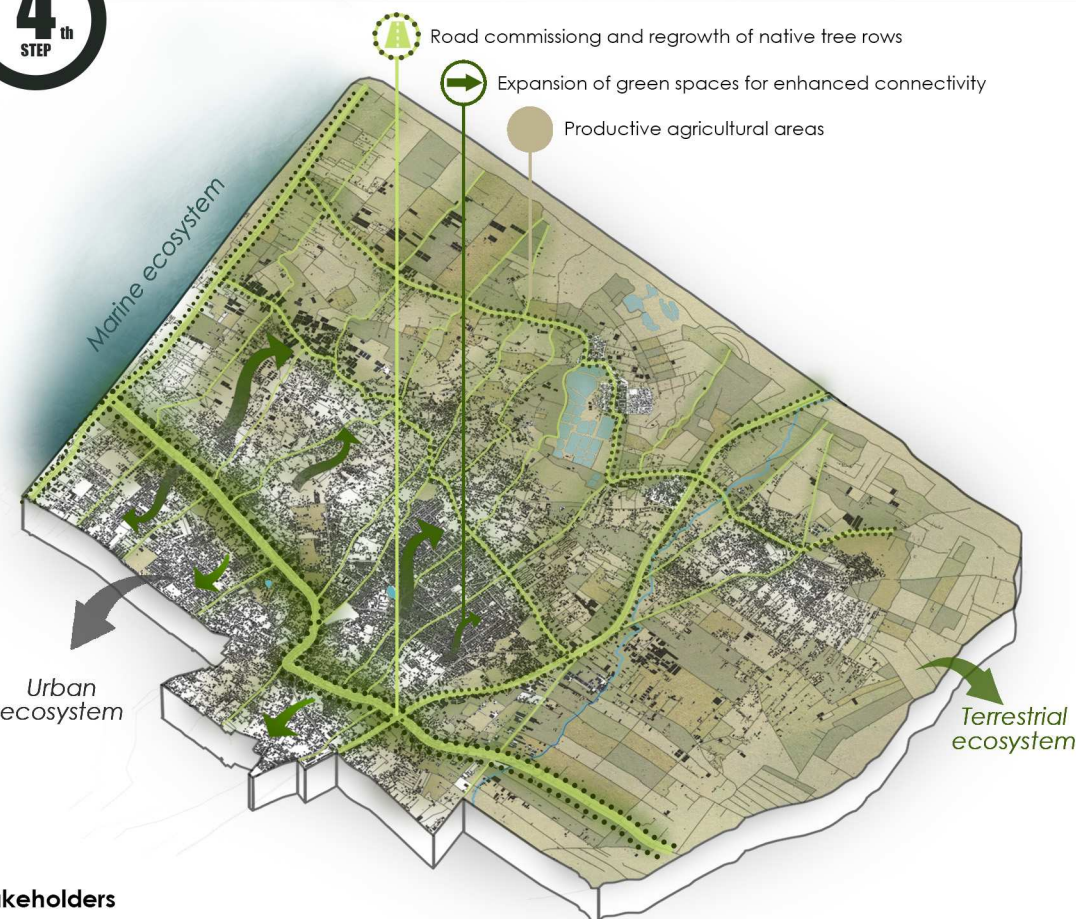
3<sup>rd</sup>  
STEP

## Rebuilding and restoration



4<sup>th</sup>  
STEP

## A Growing vision



### Stakeholders



### Stakeholders



2075

2100





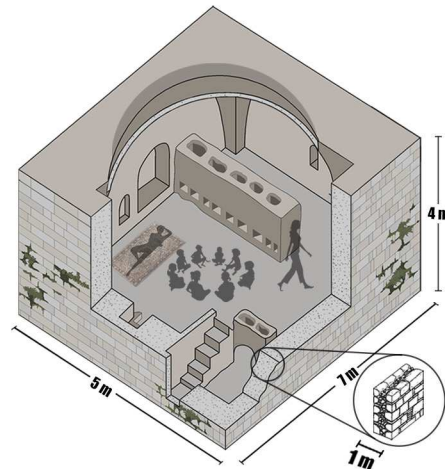
# Settlement evolution

Since 1948, Gaza's urban architecture has shifted from communal, nature-connected settlements with single-room stone dwellings to more restricted developments.

As access to traditional building materials became limited, urban growth became more constrained, leading to significant changes in Gaza's structural and social landscape.

- public square
- places of public utility
- community gardens
- housing area for family units

## Original single habitat cell



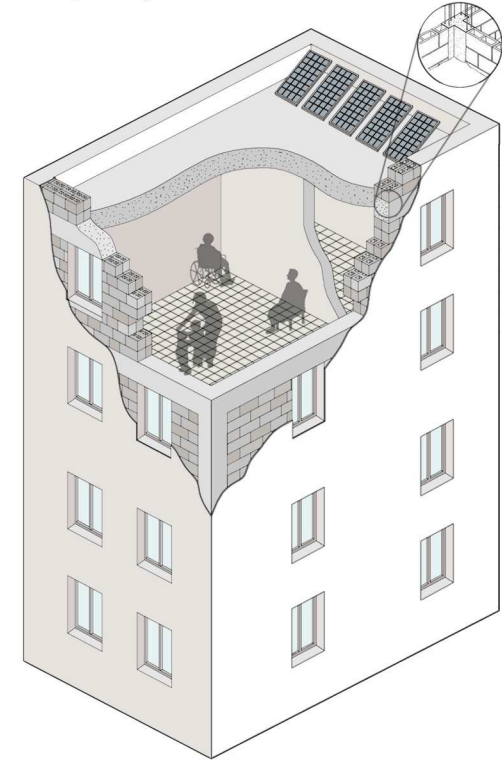
Source: The Palestinian Village Home by Suad Amiry

After 1948, Gaza's population growth led to multi-story buildings. Following the 2023 war, the Gaza Strip was devastated.

Builders rely on limited Israeli-sourced cement, and housing units, often 9 m<sup>2</sup>, expand vertically.

Traditional forms gave way to dense towers, creating urban chaos.

## Contemporary framed structure



1948

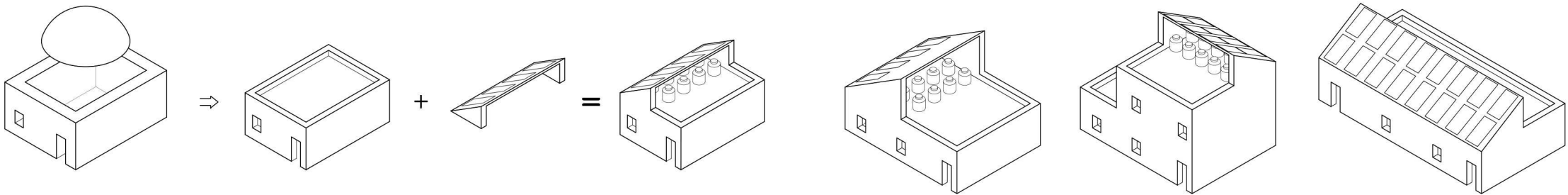




# Design of the base module and settlement strategy

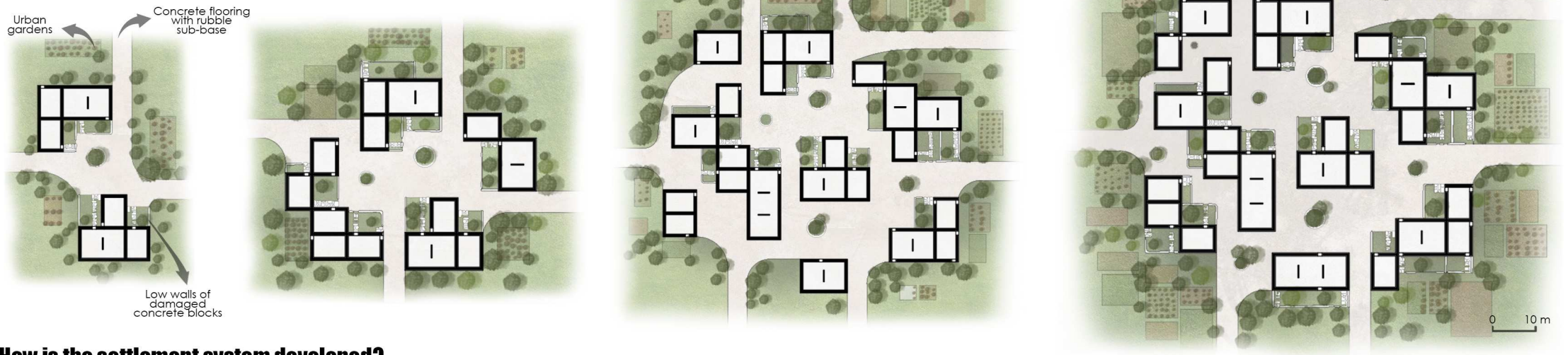
The housing module retains its original design, reinterpreted with available materials, to create a lightweight metal framework that covers the rainwater collection system, with photovoltaic panels on top.

The module serves as a foundation for various housing solutions, adaptable in size once the emergency phase ends, offering flexibility to meet future needs.



## Settlement system

The new settlement system adapts to available space and offers flexibility in size once the emergency phase ends.



## How is the settlement system developed?

2 years

3 years

Since February 2025, UN and Arab League-funded bulldozers and shelters arrived.

Locals are clearing rubble and receiving support to build new settlements and infrastructure.

Locals rebuild homes with rubble, using pre-war construction skills.

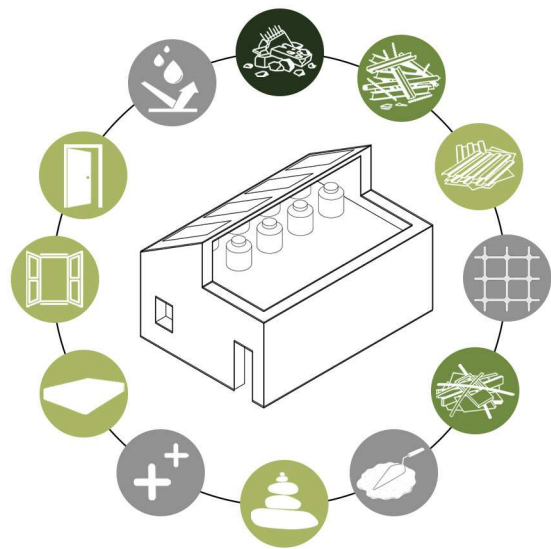
In months, modular units form a sustainable, integrated settlement.





# Recycling to rebuild: the aggregative module built from rubble

In a post-war context, reusing rubble becomes the most sustainable solution—reducing waste while turning debris into architectural expression. Concrete, identified as the most abundant material, is first processed by local communities. Already in the 2021 conflict, they had developed rudimentary machines to roughly crush and reuse it (Source: Al Jazeera).



This section outlines the construction materials used in the housing module.

**Legend**

Concrete

Wood

Mattresses

Reused, recycled, and imported materials

Metal

Cement mortar

Window

Reused and imported materials

Corrugated sheet

Stone

Door

Reused materials

Welded wire mesh

Admixtures

Waterproof membrane

Imported materials

## How and to what extent will the housing module be built?

7 days

The module construction starts with excavation and foundation work, followed by a brief curing period.

14 days

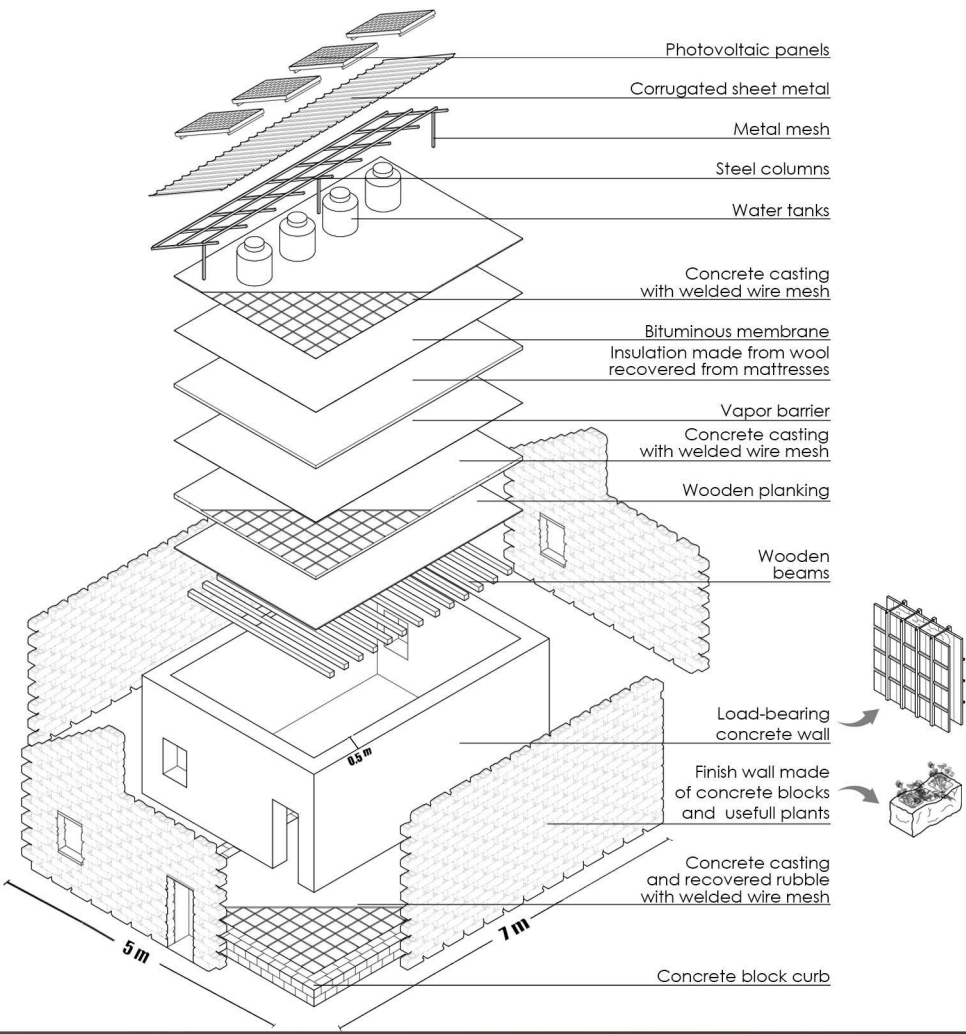
The second phase involves building load-bearing walls.

21 days

The third phase consists of the construction of the roof.

1 month

The final phase involves applying the facade's finishing layer.





After the emergency phase, buildings evolved in size to meet family needs and in function, becoming schools, shops, and other essential community spaces.

