

THE CITY MISREADS ADAPTATION

The Misunderstood Resilience

“In an ever-changing world, why does our infrastructure remain rigidly static?”

THE ROOT CAUSE

Khlong Toei is a vital engine of Bangkok’s informal economy, yet it sits on state-owned land with no land rights.

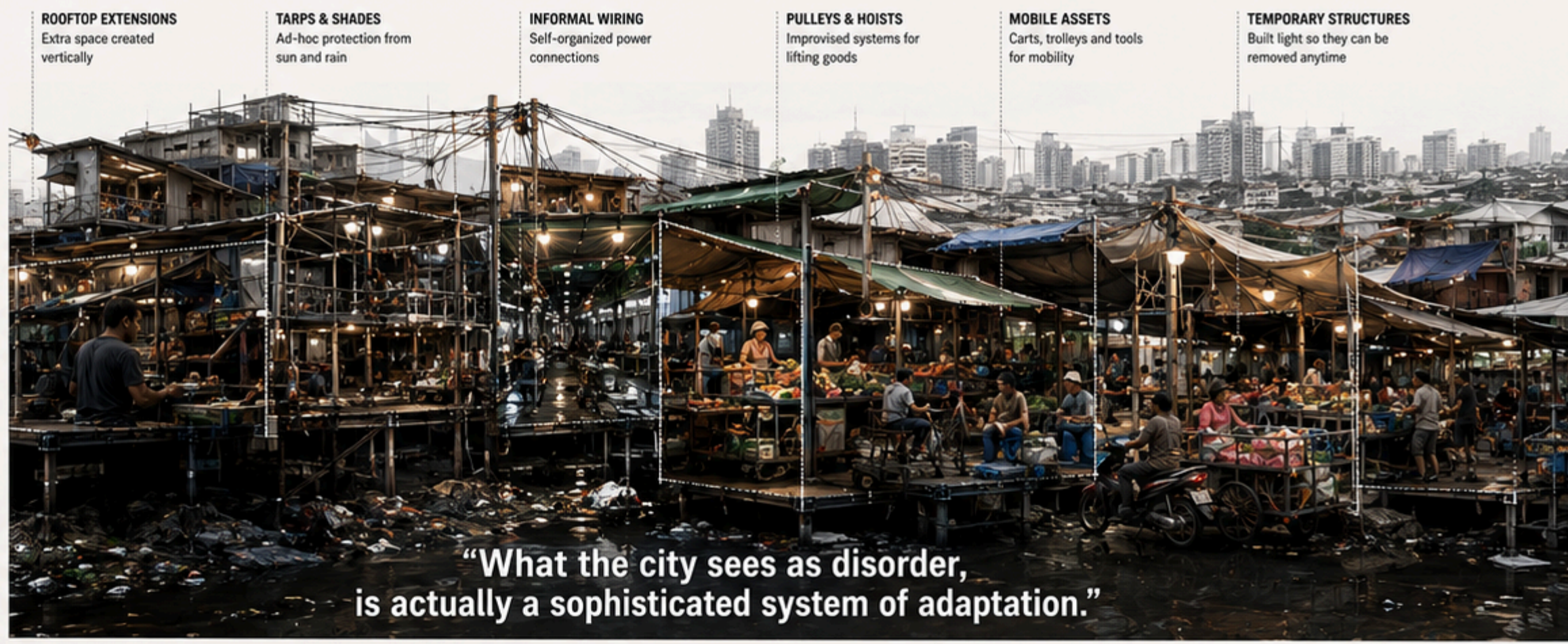
Without rights, the community is denied access to basic infrastructure.

 = **NO LAND RIGHTS**
NO INFRASTRUCTURE



80+ YEARS OF ACCUMULATED ADAPTATION

Layer upon layer of ingenuity. A survival system built by the community, for the community.



ROOFTOP EXTENSIONS
Extra space created vertically

TARPS & SHADES
Ad-hoc protection from sun and rain

INFORMAL WIRING
Self-organized power connections

PULLEYS & HOISTS
Improvised systems for lifting goods

MOBILE ASSETS
Carts, trolleys and tools for mobility

TEMPORARY STRUCTURES
Built light so they can be removed anytime

“What the city sees as disorder, is actually a sophisticated system of adaptation.”

WHAT THE CITY SEES (DEGRADATION)



Unsafe & Illegal Wiring Fire hazard
Street Occupation Blocking circulation
Pollution & Flooding Environmental damage
Informal Structures Lack of order

VS


WHAT IS ACTUALLY HAPPENING (ADAPTATION)







Vibrant Economic Network Supports the city
Adaptive Infrastructure Built for flexibility
Resourcefulness & Recycling Circular practices
Shared Spaces & Systems Community-managed

THE CITY MISTAKES ADAPTATION FOR DEGRADATION.

The problem is not the lack of resilience.
The problem is the absence of infrastructure that supports it.


 **What if infrastructure could adapt as fast as people do?**
This is the question that drives our design.

CASE STUDY KHLONG TOEI, BANGKOK

-  80+ years of accumulated adaptation and community-driven infrastructure
-  Informal economy generating billions for the city every year
-  Continuous threat of eviction and relocation due to land development
-  A living laboratory for resilient urbanism



BEYOND KHLONG TOEI RELEVANT TO CITIES WORLDWIDE

 From Jakarta to Manila, Mumbai to Nairobi.
A framework for communities facing displacement, informality, and uncertainty globally.

This is not just a project for Khlong Toei. It is a model for the future of cities.

ADAPTIVE INFRASTRUCTURE KIT FOR AN UNCERTAIN CITY

A PORTABLE FRAMEWORK THAT SUPPORTS INCREMENTAL ADAPTATION AND SURVIVES URBAN TRANSFORMATION.

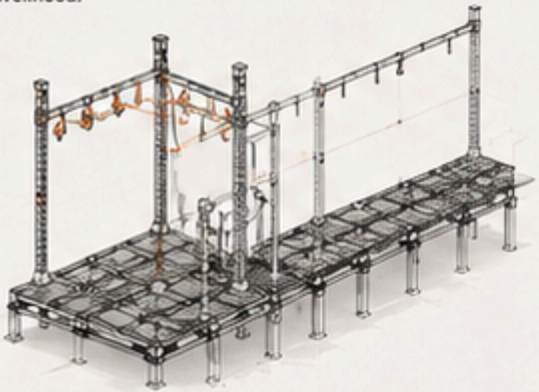
"We don't design the final form. We design the framework. The community completes the architecture."

THE ARCHITECTURE OF THE UNFINISHED

We provide the essential backbone for utilities and structure. The community adapts and completes according to their needs, resources and livelihood.

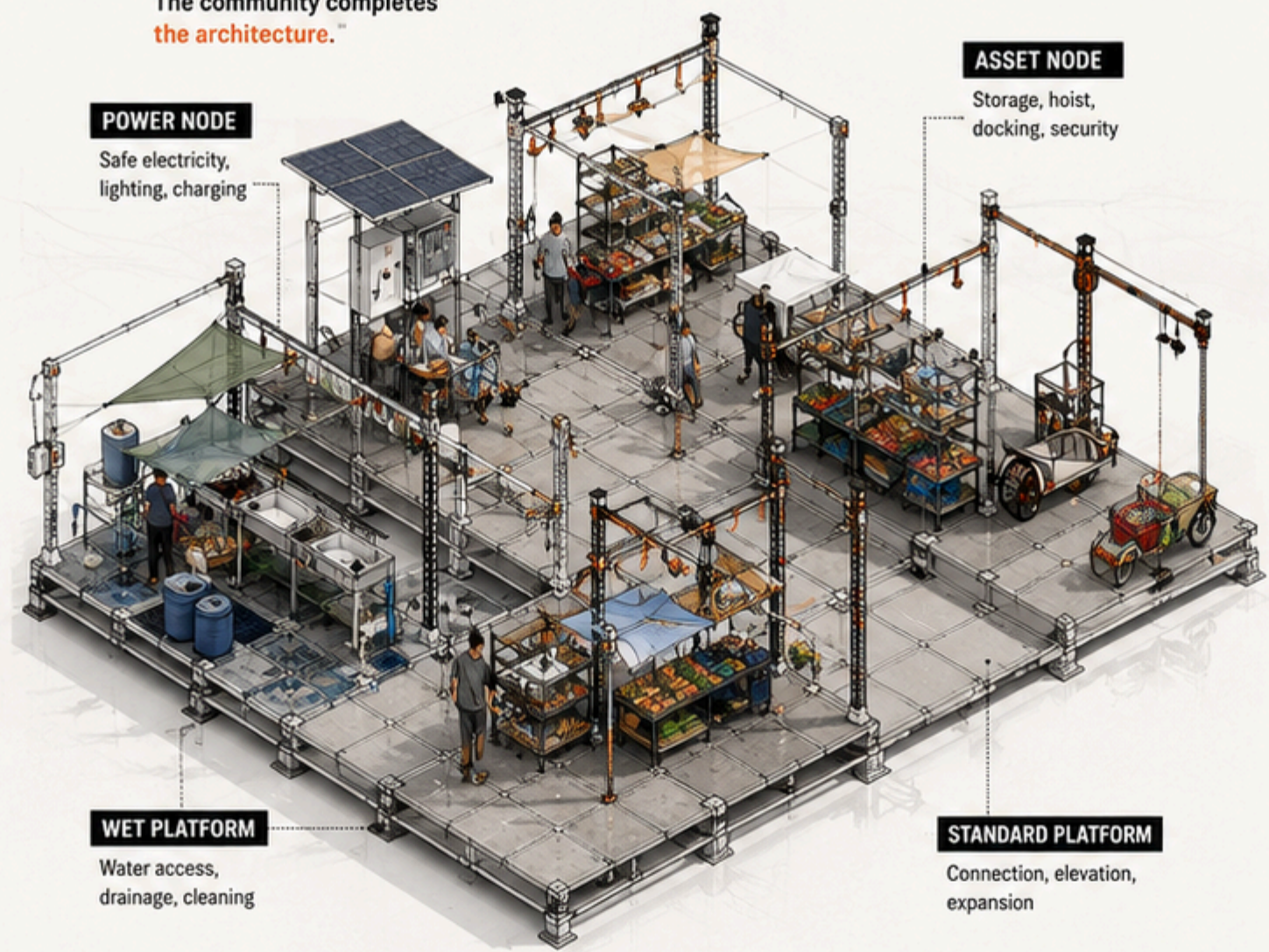
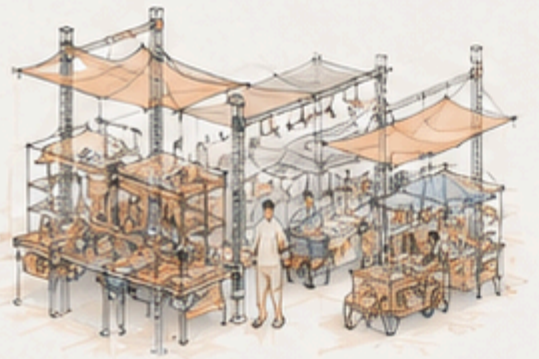
WHAT WE PROVIDE (The Regulating Backbone)

- Elevated Platform adaptable to flood
- Utility Spine water, power, lighting
- Connectors & Rails universal interface
- Structural Frame strong, durable, reusable



WHAT THEY ADAPT (The Incremental Infill)

- Stalls & Shelters food, retail, services
- Storage & Racks tools, goods, materials
- Shades & Tarps climate protection
- Custom Add-ons endless possibilities



POWER NODE
Safe electricity, lighting, charging

ASSET NODE
Storage, hoist, docking, security

WET PLATFORM
Water access, drainage, cleaning

STANDARD PLATFORM
Connection, elevation, expansion

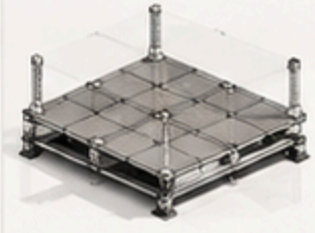
INFRASTRUCTURE KIT

Modular units that plug into the backbone



WET PLATFORM

- Water supply
- Wastewater treatment
- Drainage
- Cleaning station



STANDARD PLATFORM

- Elevated floor
- Flood protection
- Universal connection
- Flexible expansion



POWER NODE

- Safe electricity
- Lighting
- Charging
- Circuit protection



ASSET NODE

- Storage
- Hoist system
- Docking for carts
- Anti-theft

— Backbone (Provided) - - - Infill (Adapted)

THE EVOLUTIONARY MASTERPLAN | ACCUMULATED ADAPTATION OVER TIME

Infrastructure that moves with people. When the city redevelops, the informal economy doesn't die; it **re-plugs** into the new system.

PHASE 1: THE IMMEDIATE CATALYST (NOW)

Supporting life and livelihood in the present context



KHLONG TOEI COMMUNITY
PAT Land / No Land Rights



- Provide essential infrastructure
- Reduce hazard and environmental impact
- Strengthen informal economy

PHASE 2: THE TRANSITION (RELOCATION)

Dismantle, transport, reassemble. No loss of assets, no loss of livelihood.



- Lightweight & modular parts
- Easy to dismantle and transport
- Preserve community's investment

PHASE 3: THE SYMBIOTIC FUTURE

Integrated with formal development, becoming the active ground layer of the city.



- Plugs into new infrastructure
- Continues to support informal economy
- Creates resilient, inclusive urban future

WHY IT MATTERS

- SURVIVABLE**
Infrastructure survives relocation
- ADAPTIVE**
Grows with needs and resources
- INCLUSIVE**
Protects informal economy
- SUSTAINABLE**
Reusable, low-cost, low-waste system
- RESILIENT**
Ready for an uncertain future

INFRASTRUCTURE SHOULD **MOVE WITH PEOPLE**, NOT DISAPPEAR WHEN THE CITY CHANGES.

RELOCATING OPPORTUNITY

INFRASTRUCTURE THAT MOVES WITH PEOPLE, NOT THE OTHER WAY AROUND.

When communities are displaced, their livelihoods are often erased. Our adaptive infrastructure protects what people have built over time—so opportunity can continue, no matter where they are.

“ Cities relocate people. We relocate opportunity. ”

POWER NODE
Safe electricity for lighting, cooking and charging.

ASSET NODE
Store, lift and secure assets. Protects tools, materials and goods during floods or relocation.

WET PLATFORM
Collects, drains and filters greywater. Keeps the ground usable and clean.

BEFORE / AFTER IMPACT

BEFORE

- Unsafe wiring and fire risk
- No proper drainage, flooding and sewage
- Disorganized space, constant conflict
- Vulnerability to eviction, assets lost
- Weak economy, limited growth

AFTER

- Safe shared electricity and lighting
- Managed water system, cleaner environment
- Organized platform, more usable space
- Assets protected, easy to relocate
- Stronger livelihoods, growing economy

PEOPLE. LIVELIHOODS. CONTINUITY.

STREET FOOD VENDOR



USES

- Wet Platform
- Power Node

BENEFITS

- Access to clean water
- Safe electricity for cooking
- Stable place to earn a living

RECYCLER



USES

- Asset Node
- Storage Rack
- Hoist

BENEFITS

- Efficient material sorting
- Protects materials from flood
- Increases daily income

CART VENDOR / RIDER



USES

- Asset Node
- Power Node

BENEFITS

- Secure parking and locking
- Charge devices and tools
- Longer working hours

INFRASTRUCTURE THAT MOVES, LIVELIHOODS THAT CONTINUE.



- 1. CURRENT**
Informal settlement under threat of eviction.
- 2. RELOCATION**
Disassemble nodes and pack on carts.
- 3. MOVE**
Transport to new location.
- 4. RECONNECT**
Reassemble and plug in to existing utilities.
- 5. CONTINUE**
Livelihoods resume. Opportunity continues.

The system is not temporary. It is a framework for continuity.



GLOBAL RELEVANCE

Originally developed for Khlong Toei, adaptable to informal settlements worldwide.



Plug-in to existing infrastructure



Low cost & scalable



Minimal waste, fully reusable



Flexible to different contexts



Supports informal economies



People-centered design

RESILIENCE IS NOT THE ABILITY TO STAY. IT IS THE ABILITY TO CARRY OPPORTUNITY THROUGH CHANGE.

ACCUMULATED ADAPTATION, CONTINUOUS FUTURE.