Affordable Housing in the Urban Global South

- SEEKING SUSTAINABLE SOLUTIONS -

4. BACKING THE SELF-BUILDERS. Assisted self-help housing as a sustainable housing provision strategy

5. THE RESILIENCE OF SELF-BUILT HOUSING TO NATURAL HAZARDS

Content:

• INTRODUCTION
• SELF-MANAGED HOUSING, INCREMENTAL HOUSING
• EXAMPLES of SELF-HELP HOUSING
• PUBLIC HOUSING vs SELF-MANGED HOUSING
• COOPERATIVE HOUSING MODELS
• DURABLE CONSTRUCTION ASPECTS
• SUSTAINABILITY through URBAN PLANNING
• SUSTAINABLE BUILDING MATERIALS

1  INTRODUCTION

- Developing countries: population increase and rapid urban growth almost everywhere.
- Self-managed housing: a phenomenon!
- 100 million people homeless.
- 1 billion people not properly housed: slums.
- 1 billion people earn less than US $2 per day.
- 3 billion people between US $2 – $10 per day.
- Affordable housing strategies needed.
- Affordable housing is public and private task.
2 SELF-MANAGED HOUSING
Self-managed housing in Medellin, Colombia

Photo: Jan Bredenoord
Self-managed housing, a phenomenon in Sri Lanka

Photos: Jan Bredenoord
Self-builders: The People

Photo: Jan Bredenoord
Incidence of self-help housing/ self-managed housing:

- Nicaragua, Malawi, Indonesia: 90% of all houses.
- Mexico: 50% of all houses
- All other countries between 50% and 90% depending on economic development and state housing policies
- China is a different story.
Central statement:

The people (can) do a lot ....
So: work with the people!
In all possible ways.
(= social sustainability)
3 SUSTAINABLE DEVELOPMENT ISSUES

1. Connect location to a city!
2. Tackle the absence of drinking water and power.
3. Urban planning, sustainable design, water management, etc.
4. Land for housing programmes; security of tenure.
5. Safe house construction, affordability for all.
6. Sustainable (local) building materials.
7. Tackle the problem of urban densities.
8. Tackle the unsafety of public spaces.
9. Involve the people in execution of works and the maintenance of public spaces and services.
10. Help the people to help themselves.
(3a) The people, the family; daily struggle for income; housing cooperatives, individual housing.

Photos: Jan Bredenoord
4. EXAMPLES of SHH

a) Self-help housing: Perú
b) Self-managed housing: México
c) Self-managed housing: New Forms
d) Self-help and community: Tanzania
(4a) Initial Self-help Housing, Piura, Perú

Photos: Jan Bredenoord
(4b) Self-help housing / self-managed housing (Nezahualcóyotl, México)

Photos: Jan Bredenoord
Self-managed housing, new forms: core housing, starter dwellings (Elemental), and floors.

Photos ELEMENTAL not available for publication

Photos: Jan Bredenoord
(4d) CCI, Dar-es-Salaam
Chamazi and Dodoma Areas
Community development

Chamazi housing scheme

Community in Toilet building

Miyuji Community Based Housing Scheme - Dodoma

Photos: Centre for Community Initiatives, Dar-es-Salaam
LARGE-SCALE vs SELF-MANAGED SOLUTIONS (Mexico)

Photos: Jan Bredenoord
5 LARGE-SCALE versus SELF-MANAGED SOLUTIONS
(Kenya: Nairobi, Kibera-area)

Photos: Michael Meijer
6a URUGUAY COOPERATIVE HOUSING and INFLUENCES in El Salvador, and Nicaragua.

Photo: Jan Bredenoord
7. SUSTAINABLE BUILDING MATERIALS

- Winning of, and production of low-carbon building materials
- Local environment protected
- Local labour used and education added

Some Examples:
- Bamboo, e.g. in: Costa Rica, Bangladesh
- Compressed Earth Blocks, e.g. in Uganda
Bamboo as construction material

Photos: Jan Bredenoord
Compressed Earth Blocks (CEB)

Sun dried mud bricks

Small Laboratory needed

Interlocking Stabilized Soil Block (ISSB)

Photos taken from UN-Habitat documents
8. DURABLE CONSTRUCTION ASPECTS

- Earthquake resistant constructions
- Tsunami resistant constructions
- Volcano eruptions: zoning

Define Zoning and Building Control herewith.

Safety through zoning: Define urban planning herewith.
8a Earthquake resistant house construction

Photos: Jan Bredenoord

- Bamboo for horizontal and inclined bracing with 58 mm diameter
- Vertical bamboo poles with 75 mm diameter
8b Threats of Flooding

- Flooding of rivers: zoning and defense of river banks
- Threats of tsunamis: zoning and design starting points
- Sea level rising: coastal defense systems
8c  Safety through zoning: first avoiding than protection

- Riverbank zoning
- Coastal zoning
- Coastal defense systems
- Volcano zoning
- Earthquake zoning
Urban densities and future challenges

Nueve Pachacutec, Lima
Incremental housing.
Micro credit for incremental housing.
Technical assistance

Photos: Jan Bredenoord
The Habitat Future