PAST, PRESENT and FUTURE of SOCIAL HOUSING DEVELOPMENT in JAPAN

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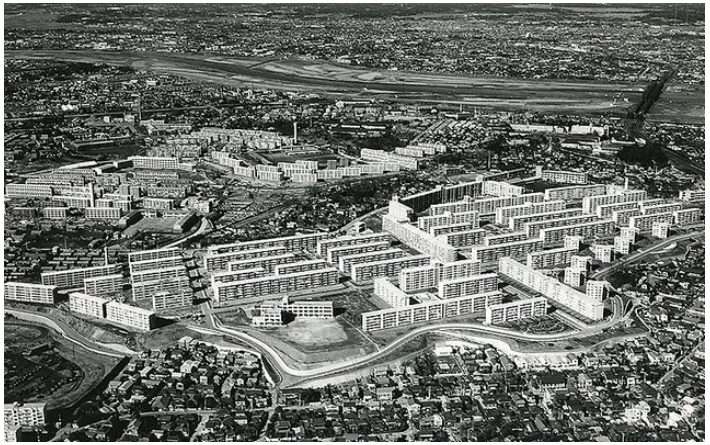
CHAPTER 1: Past and Present of the Japanese Public Housing Development

PAST:

- **1955 - 1980: Japan Housing Corporation (JHC)**
- **1981 - 1998: Housing and Urban Development Corporation (HUD)**
- **1999 - 2003: Urban Development Corporation (UDC)**
- **ROLE:**

➢ **to solve the serious shortage of housing due to the rapid growth of urban population after the World War 2**



Akabane-dai Housing Complex developed by JHC around 1962

PRESENT:

- **2004 - : Urban Renaissance Agency (UR)**
- **SOCIETY:**
  - **a stable and mature stage after going through post-war chaos and the high economic growth period in 1960'**
  - **an aging society with a declining birthrate with environmental issues**
- **ROLE:**
  - **to solve environmental issues like Climate Change or Global Warming with energy conservation and environmental load reduction**
  - **to regard existing housing stock that was built more than 50 years ago**
  - **to perform as a social safety net for the elderly and families with small children**

Akabane-dai Housing Complex Renovated by UR in 2010

CHAPTER 2: Beyond Disaster
An Introduction of Revitalization Public Housing Development in Fukushima

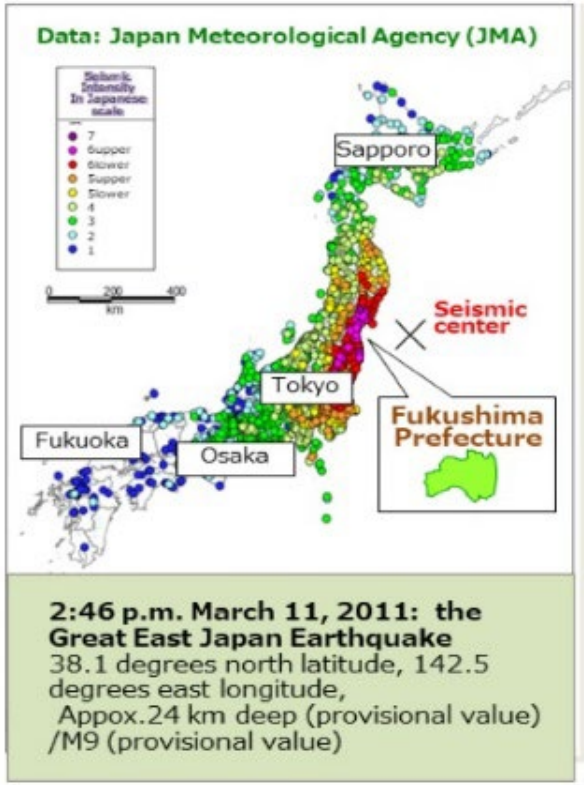
Beyond Disaster:

- **At 2:46pm, on 11 March 2011, Great East Japan Earthquake with Mag 9.0**

◆**Housing damage in Fukushima (as of 8 June 2021)**

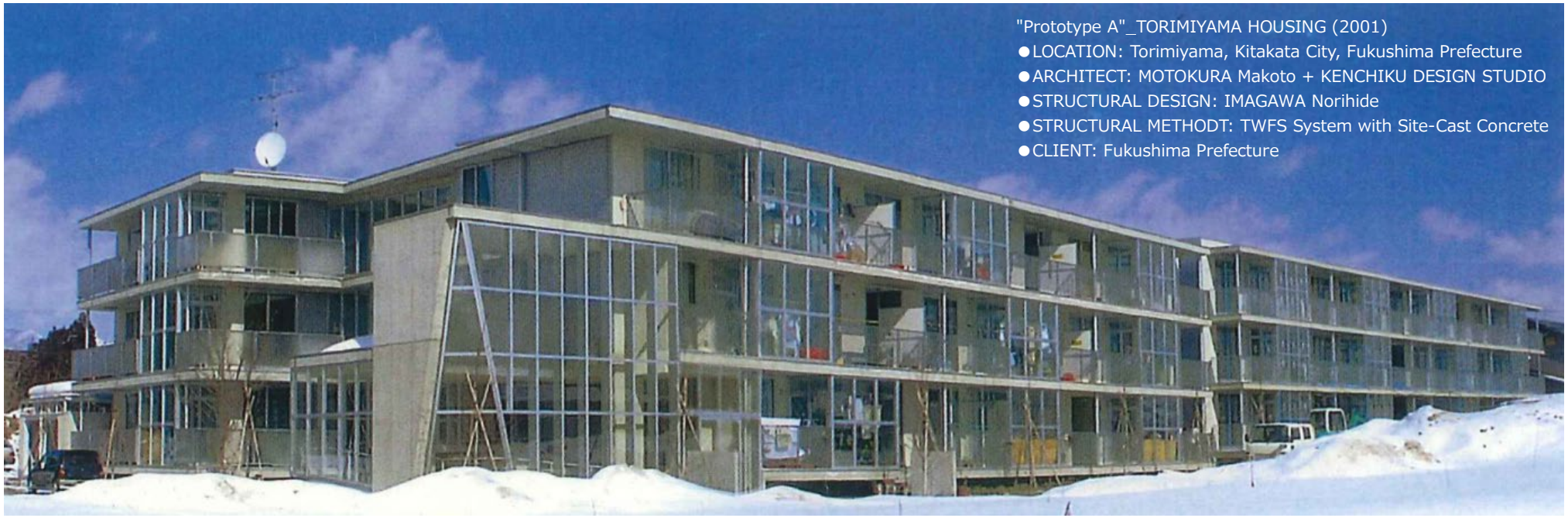
■**Totally destroyed: 15,435 houses**

■**Half destroyed: 82,783 houses**



Houses damaged by earthquake (left) and tsunami (right): Namie Town in Fukushima

- **In the very early stage of the Revitalization Public Housing Development, the Fukushima Prefecture decided to use an existing prototype model, "Prototype A", which they already had as an approved model in a design proposal for their public housing in 1998.**



- **Fukushima Prefecture, depending on "Prototype A", speedily completed a prototype model design for their Revitalization Public Housing, "Prototype B".**
- **The total number of the Revitalization Public Housing constructed with "Prototype B" is 452 units (as of February 2016).**

"Prototype B"_TOMITA HOUSING (2015)

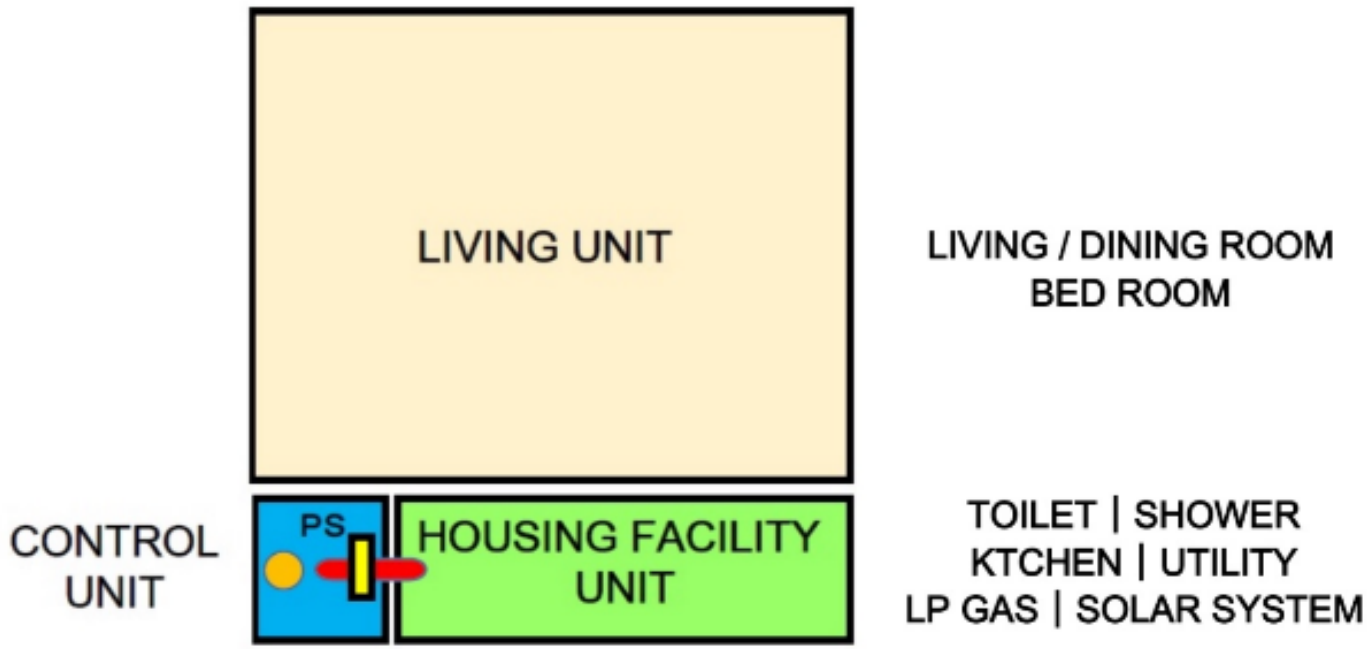
- **LOCATION: Tormita Town, Koriyama City, Fukushima Prefecture**
- **ARCHITECT: TABATA Architect & Design Office**
- **STRUCTURAL METHODT: TWFS System with Site-Cast Concrete**
- **CLIENT: Fukushima Prefecture**

CHAPTER 3: Future Towards Africa

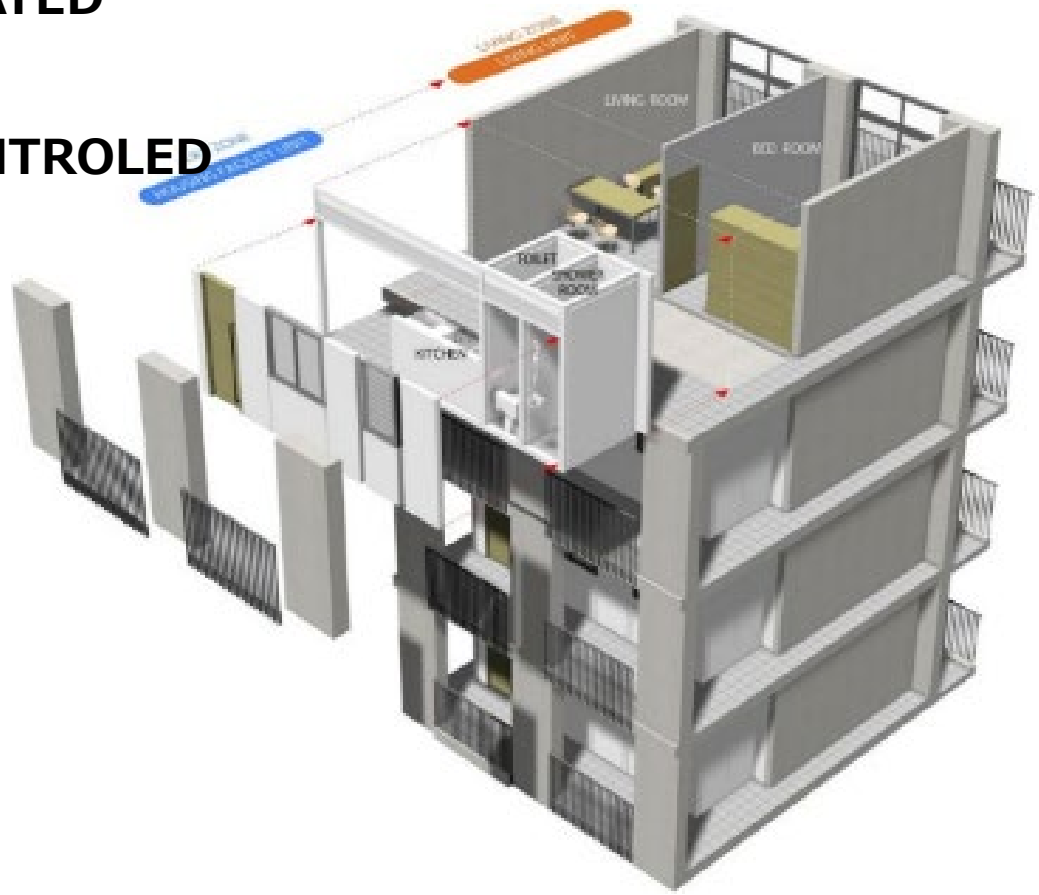
An Introduction of Affordable Housing Project in Kenya developed from Revitalization Housing Model in Fukushima

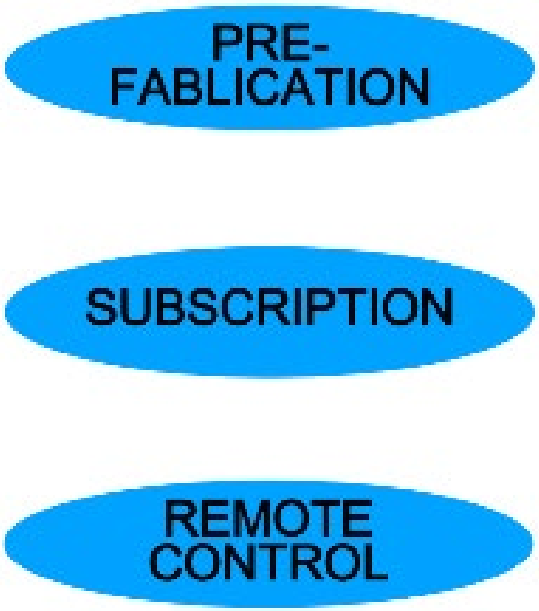
- **"FACILITY SEPARATED HOUSING SYSTEM":**

➢ **"Prototype C", developed as an affordable housing model in Kenya, has "Facility Separated Housing System" which consists of three units;**



- **HOUSING FACILITY UNIT:**
  - **PRE-FABLICATED**
  - **SUBSCRIBED**
  - **REMOTE-CONTROLED**

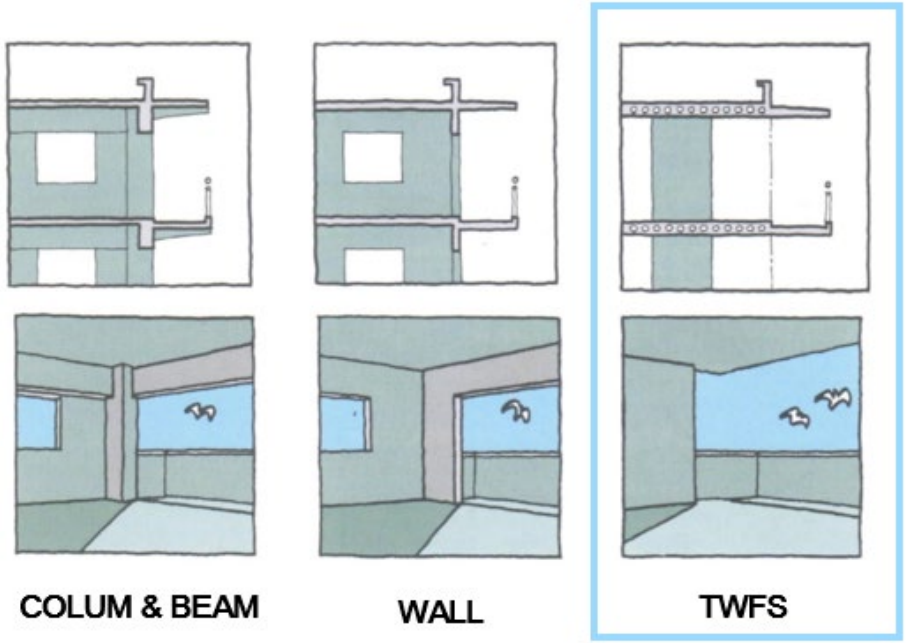




- **STRUCTUAL METHOD :**

  TWFS (Thick Wall and Floor Structure) with Pre-Cast Concrete

- **succeeded from "Prototype A" and "Prototype B" in Fukushima Model**
- **simple and plain comparing with Column & Beam Structure or Wall Structure to make the planning of the housing unit very flexible**



- **TWFS with Pre-Cast Concrete:**

➢ **structural experimentations in the joint parts by a life-size model**

Structure Experimentation of TWFS system with Pre-Cast Concrete (2022) ©FUJITA Corporation

● STANDARD DESIGN of "Affordable Housing Project" in Kenya :

"Prototype C"_AFORDABLE HOUISNG PROJECT in KENYA_FACILITY SEPARATED HOUING SYSTEM (2021)

- ●ARCHITECTURAL DESIGIN: SAKATA Izumi & FUJITA Corporation
- ●STRUCTURAL DESIGN: IMAGAWA Norihide & FUJITA Corporation
- ●STRUCTURAL METHOD: TWFS system with Pre-Cast Concrete

● OUR TEAM:

FUJITA CORPORATION | Prof IMAGAWA Norihide | Arch SAKATA Izumi

Arch SAKATA Izumi
- Chief Architect

FUJITA CORPORATION
- General Contractor

Prof IMAGAWA Norihide
- Structural Design
- Expert of TWFS

- **OUR PARTNER:**

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