

Japan's Housing Provision Initiative

(Covering the policies and experiences of the high growth period)

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Population Composition by Age

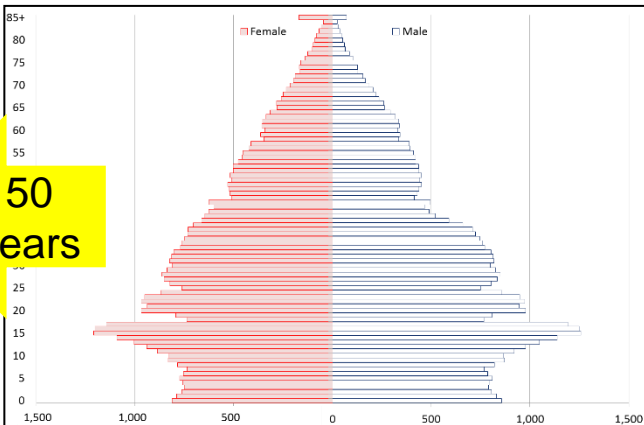
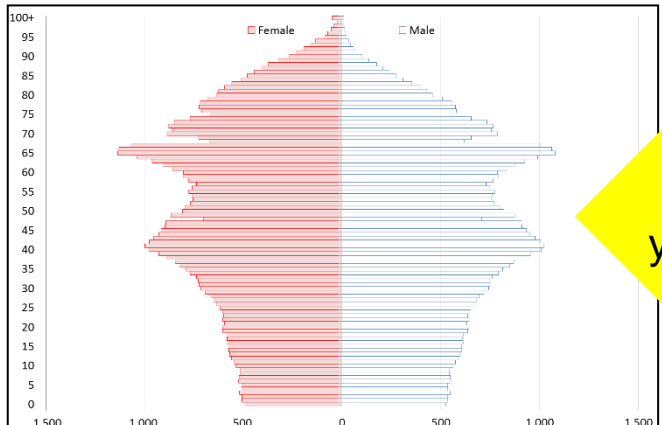
- The current population pyramid of Myanmar is roughly the same shape as that of Japan approximately 50 years ago.
- Japan's population pyramid is becoming constrictive due to the progression of the decreasing birthrate and aging population.

Japan and Myanmar population composition by age

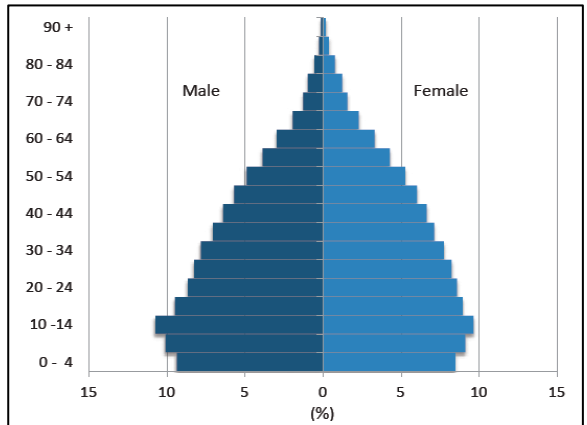
Japan 2014

Japan 1964

Myanmar 2014



50 years



Population	127,083,000
No. of households	52,450,000
No. of dwellings	60,630,000
Electricity coverage rate	100%
Piped water supply coverage rate	97.8%



Population	97,186,000
No. of households	21,820,000
No. of dwellings	21,090,000
Electricity coverage rate	87%
Piped water supply coverage rate	69.4%

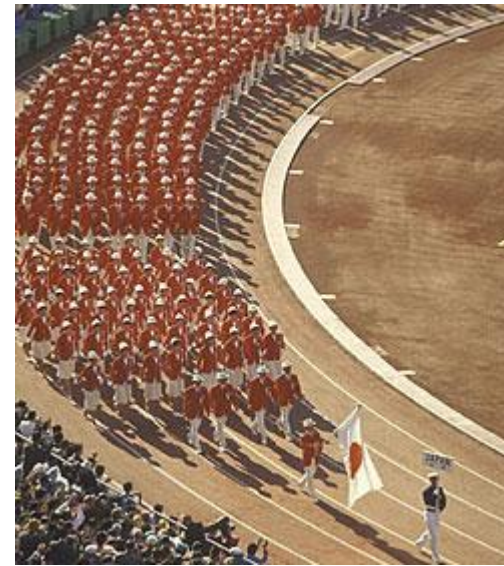
Population	51,486,000	(7,360,000)
No. of households	10,880,000	(1,580,000)
No. of dwellings	8,050,000	(1,170,000)
Electricity coverage rate	32.4%	(69.3%)
Piped water supply coverage rate	12.5%	(13.3%)

Figures in parentheses: Yangon City

[Sources]
 - Japan population/pyramid: Census (MIC), Japan no. of households & dwellings: Housing and Land Survey (MIC) * As the Housing and Land Survey is conducted every 5 years, the data shown is that of 2013 and 1963.
 - Japan piped water supply coverage rate: Changes in piped water supply coverage rate (Ministry of Health, Labour and Welfare) *1965 data is shown for 1964.
 - The data for the electricity coverage rate of Japan for 1964 is taken from The Federation of Electric Power Companies of Japan website. (However, the data is that of 1927.) The data for 2014 is an estimated value.
 - Myanmar population/no. of households/electricity coverage rate (electric light coverage): The 2014 Myanmar Population and Housing Census, Myanmar population pyramid/no. of dwellings: from DUHD documents.
 - The number of dwellings in Yangon City is an estimated value in which the total number of dwellings in Myanmar is multiplied by the household rate.
 - Myanmar piped water supply coverage rate: Tap/piped water rate, water sources other than drinking water, 2014 Census.

Japan in 1964

1964 Hosted the Tokyo Olympic Games



Source :
Japan Olympic
Committee

1964 Opened the Tokaido Shinkansen



Source : Central Japan Railway Company

1962 Opened the Metropolitan Expressway



Source : Metropolitan Expressway Company Limited

Aging Rates in Other Countries

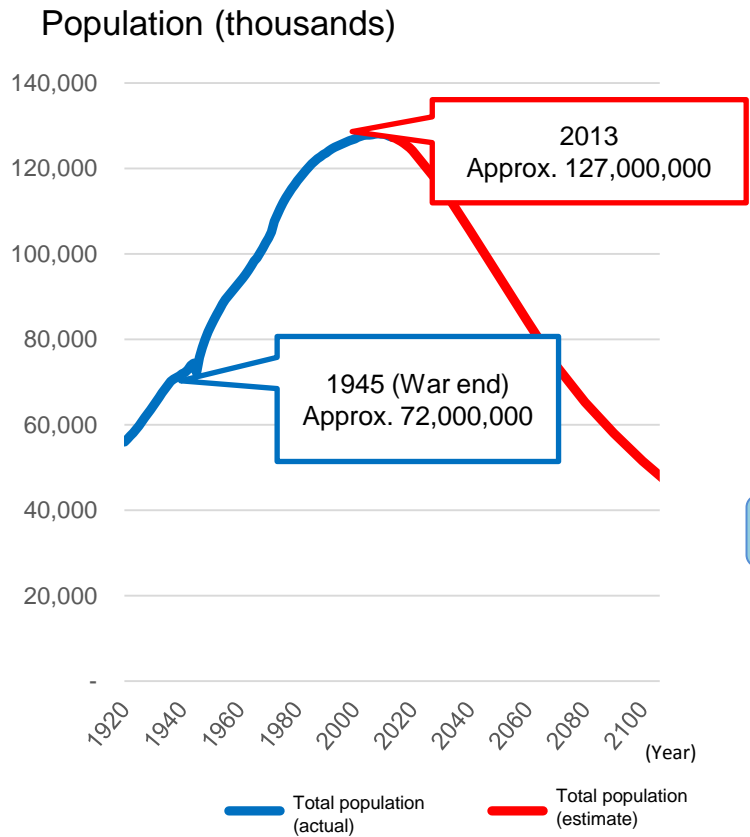
- Compared with France, which took 115 years for the aging rate to double from 7% to 14%, and Germany, which took a comparatively short 40 years, Japan only required 24 years.
- Asia is aging rapidly, however, aging in Japan is the most advanced, and no similar cases exist for reference.

Country	Population aging rate		No. of years for aging rate to double
	7%	14%	
			7%→14%
Japan	1970	1994	24
Germany	1932	1972	40
UK	1929	1976	47
USA	1942	2015	73
Sweden	1887	1972	85
France	1864	1979	115
South Korea	1999	2017	18
Brazil	2011	2032	21
Thailand	2003	2025	22
Tunisia	2009	2032	23
China	2001	2026	25

Population Changes

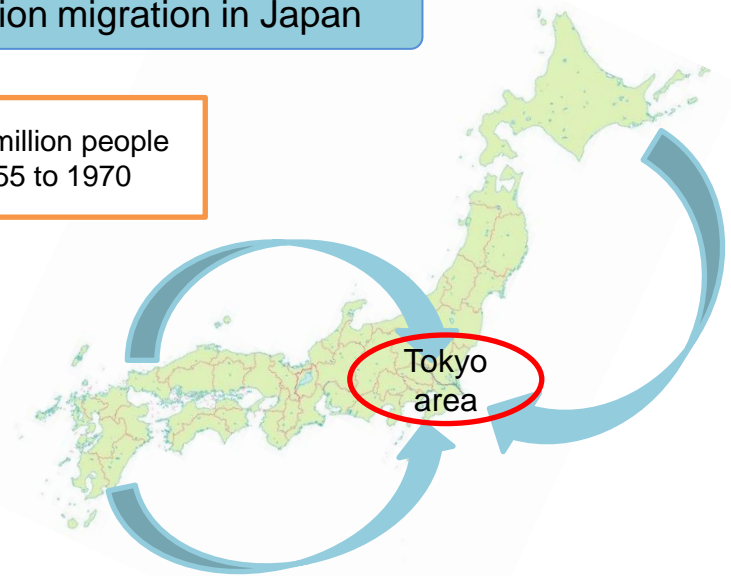
- The population of Japan grew until 2008.
- Between 1955 and 1970, approximately 5 million people migrated to the Tokyo metropolitan area from provincial regions, and population concentration in the capital continued.

Population change in Japan

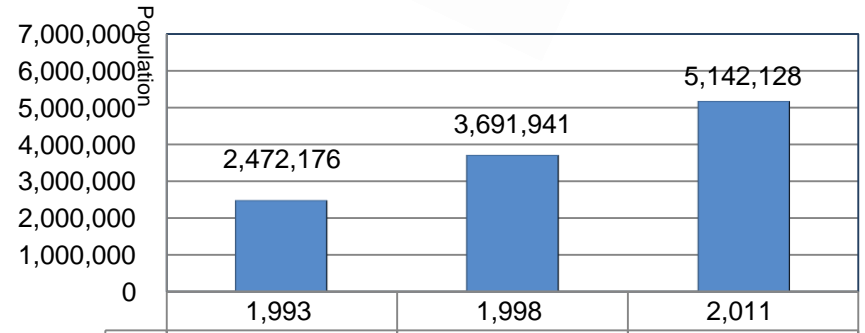


Population migration in Japan

Approx. 5 million people from 1955 to 1970



(Reference) Yangon population increase



Source: Created from National Institute of Population and Social Security Research "Latest Demographic Statistics (2015)"
 Future population: 2013 population by gender and age (general population) is taken as standard, and the following assumed fixed : 2013 female age-specific fertility rate (total fertility rate: 1.43), sex ratio (female 100:105.1 male) , life table mortality rate (average life span: male: 80.21, female: 86.61). International migration: zero.

Diagram: Yangon City population change
 Source: The Project for the Strategic Urban Development Plan of the Greater Yangon (JICA)

Three Pillars of Japan's Housing Policy

Japan Housing Corporation (1955 -)

Mainly rental housing and housing land development for main body of workers in metropolitan areas

Public housing (1951 -)


Local authorities supply low-rent housing for low-income people

Government Housing Loan Corporation (1950 -)

Provision of affordable housing through public financing

* Housing Construction 5-Year Program (1966 -)

A plan which establishes housing construction aims over terms of every 5 years



Realization of rapid economic growth and healthy and cultural lifestyles

* 1945 Shortage of 4.2 million housing units due to war damage.

1968 Total number of housing units exceeds total number of households nationwide.

1973 The total number of housing units exceeded the total number of households in every prefecture.

Outline of Master Plan for Housing Development in Myanmar

DUHD

One million housing plan for 20years

The 1st Five year Plan (2011-2015)	0.10 million
The 2nd Five year Plan (2016-2020)	0.18 million
The 3rd Five year Plan (2021-2026)	0.30 million
The 4th Five year Plan (2026-2030)	0.42 million
20 years total	1.00 million

Yuzana low cost housing (1,2,3)



6U 4S/ 8U 4S (Total 864 units)
(464/484 Sqft)

Shwe Lin Pann low cost housing



8U 4S (496 units)
(618.25 Sqft)

Dagon Seikkan affordable housing



24U 18S (total 4000 units)
(average 600 Sqft)

Japan Housing Corporation (1955 -)

Mainly rental housing and housing land development for main body of workers in metropolitan areas

Publicly-operated Housing (1951 -)

Local authorities supply low-rent housing for low-income people

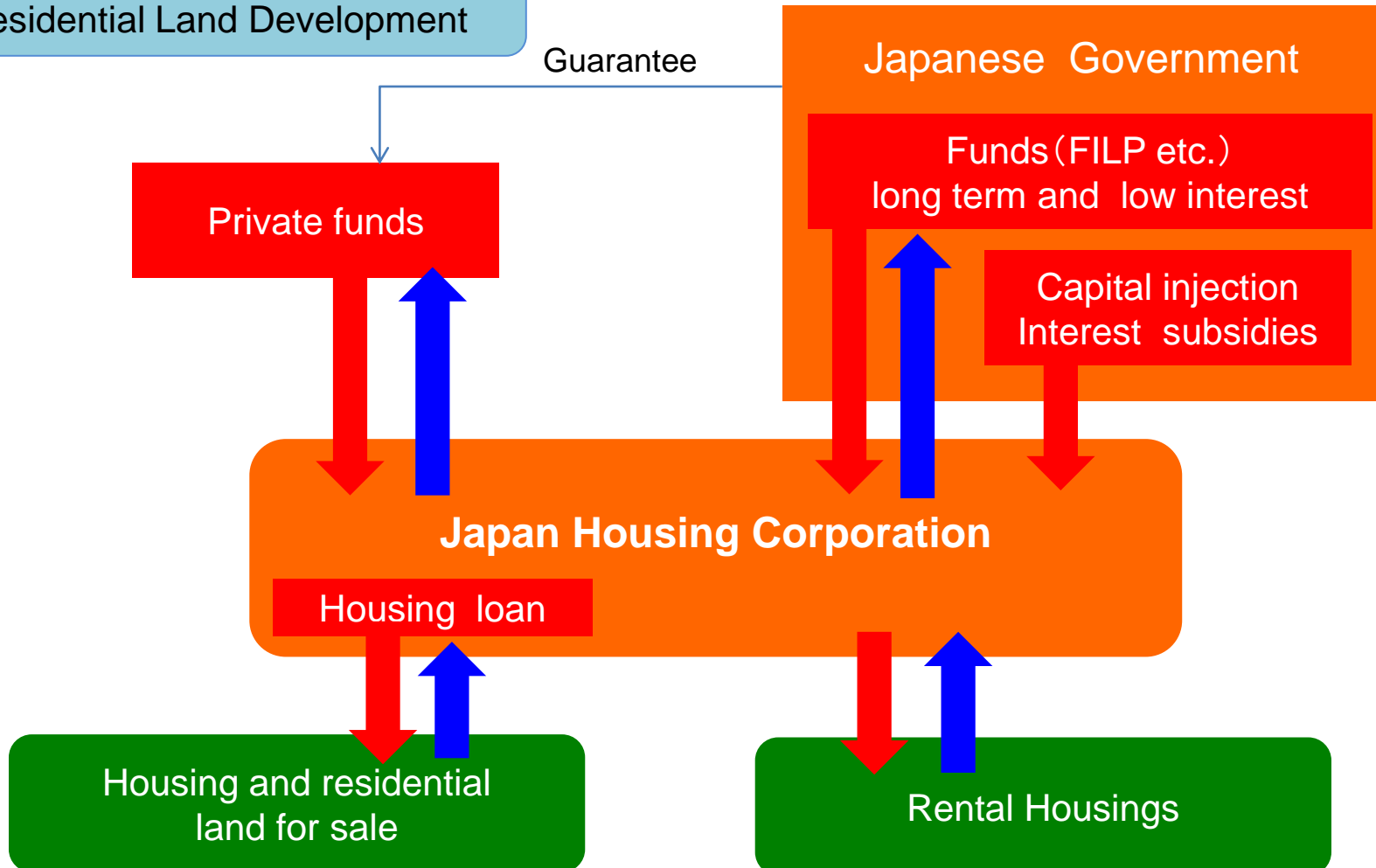
Government Housing Loan Corporation (1950 -)

Provision of affordable housing through public financing

Japan Housing Corporation (JHC)

○ To deal with huge mitigation to metropolitan area, JHC supplied large number of collective housings and residential land mainly for middle income people in major urban areas

Scheme of Housing Supply and Residential Land Development



Devices for mass supply of housing in Japan

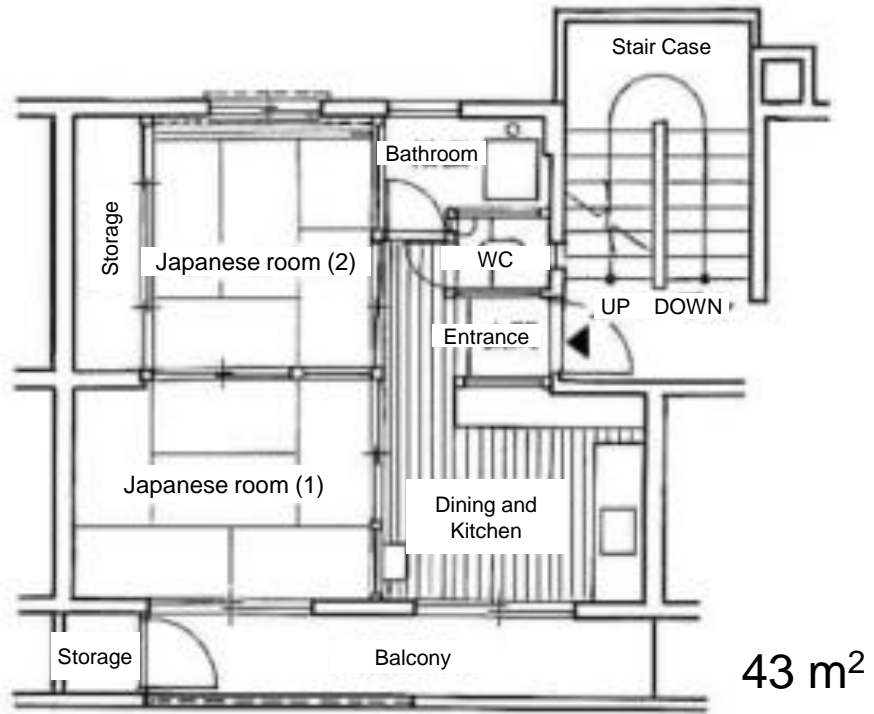
○With the nationwide unified standard design, standardization of modules/housing components, the mass and efficient supply and industrialization of housing units became possible

Development of the nationwide unified standard design (plan)

Standardization of modules / housing components

Huge supply to resolve the housing shortage (high-volume production, standardization)

Massive supply of DK (dining room + kitchen) plan by Japan Housing Corporation <nationwide unified standard design: 63 Type>



BL(Better Living) components (1974~)

BLマーク証紙
品名
一級 財団 **ベストリビング**
Tel.03-5211-0680
瑕疵保証・賠償責任保険付



Housing supply by Japan Housing Corporation

- Mass supply of same unit plan
- Supply at same time
(as a result, residents are in same generation)
- Most projects are consisted of housings

Example of New Town development



Tama New town (Tokyo) 【1971】

Number of housing units : 58,239

(supplied by UR : 10,954 (rent) 16,659 (sale))

Example of large-scale housing complex



Kori Danchi (Osaka) 【1958】

Number of units : 4,881 (rent) 172 (sale)



Soka Matsubara (Saitama) 【1962】

Number of units : 5,926 (rent)



Chigusadai Danchi (Chiba) 【1965】

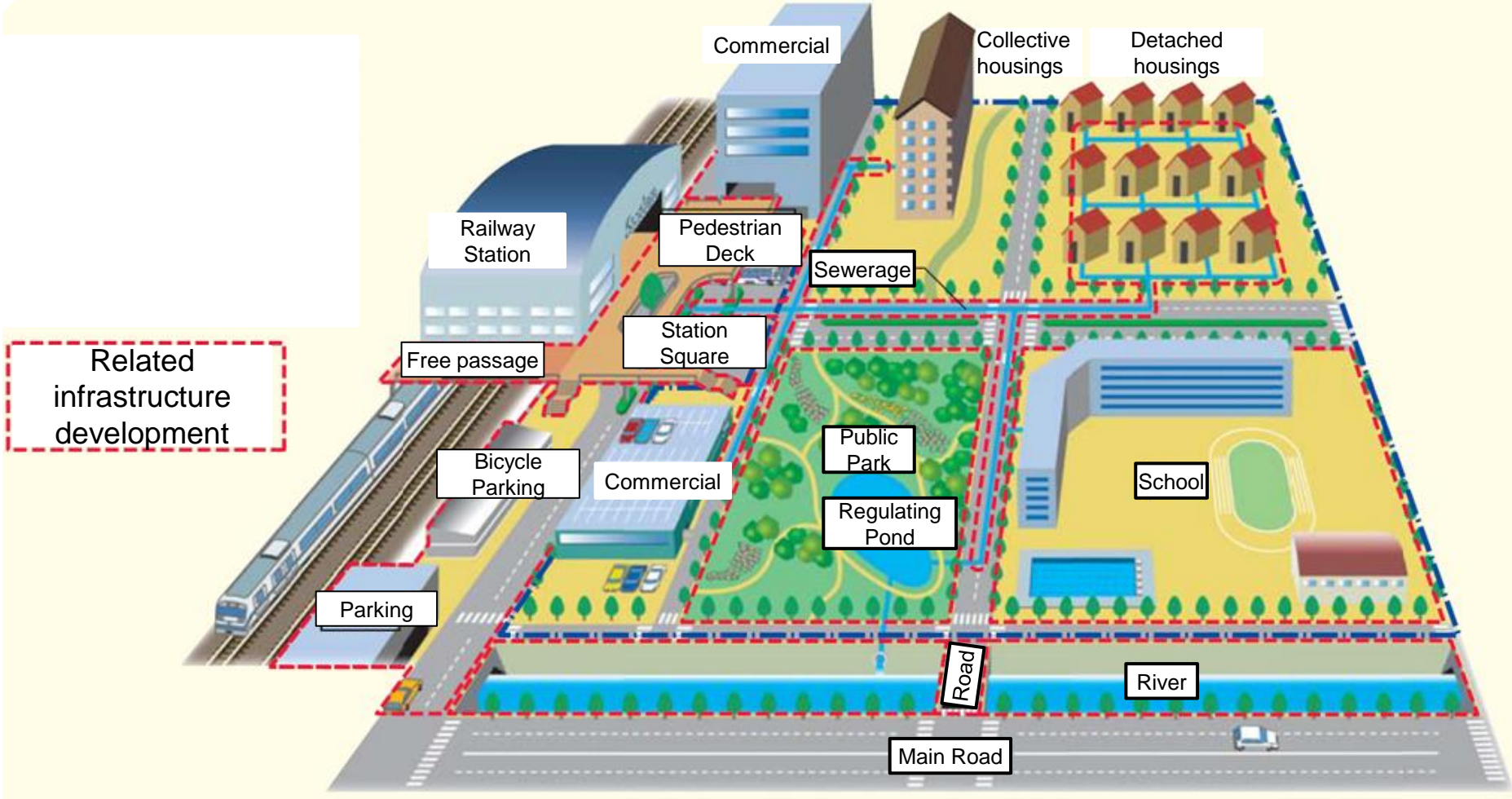
Number of units : 2,099 (rent)

YADANAR HNINSI RESIDENCE



Installation of housing related Public Facilities in Japan

- On supplying housings in large scale, related public facilities such as schools, parks, roads, sewers, etc. are also developed.
- Such public facilities are supported by national and local governments.



Age bracket in housing complex in Japan

○ As a result of the large number of housings being supplied at the same time, the age bracket of the households was extremely biased.

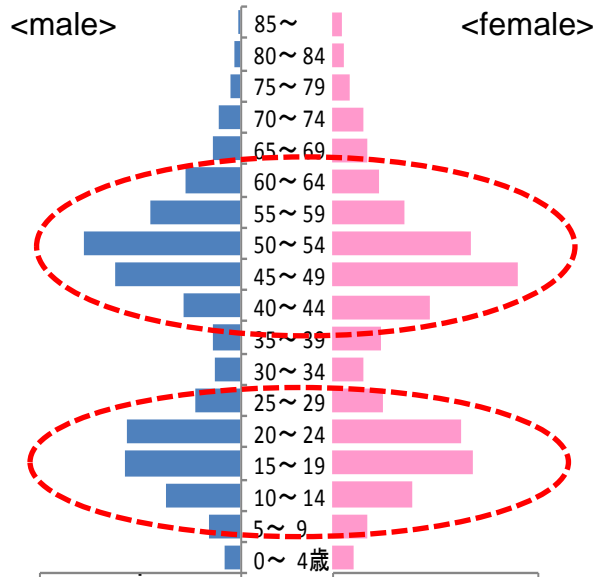
【Image of the transition of the age bracket in residential complexes】

Moving in



Approx. 20 years from moving in

The age of parent and child generation is extremely biased

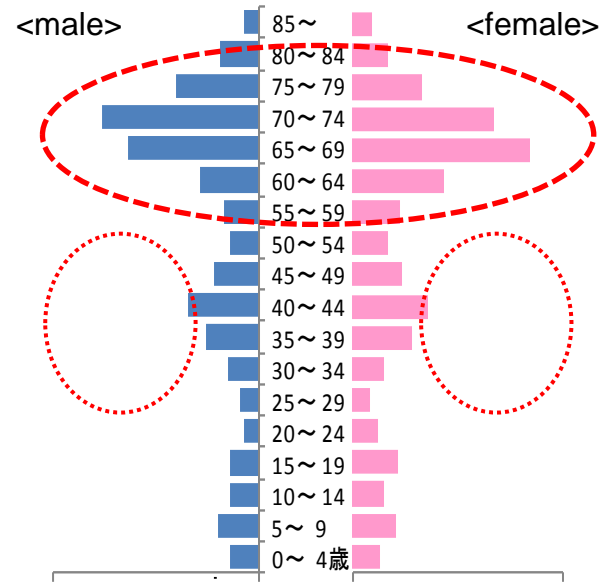


Family of 3 to 5 person with parent and child



Approx. 30-40 years from moving in

Parent generation being aged



Becomes only two person by household separation
Increase of elderly couple households

Based on Japan's experience ① Town planning

- Uniform: All housing plans are the same
- Single use: only residential area
- Same time occupancy: results same generations



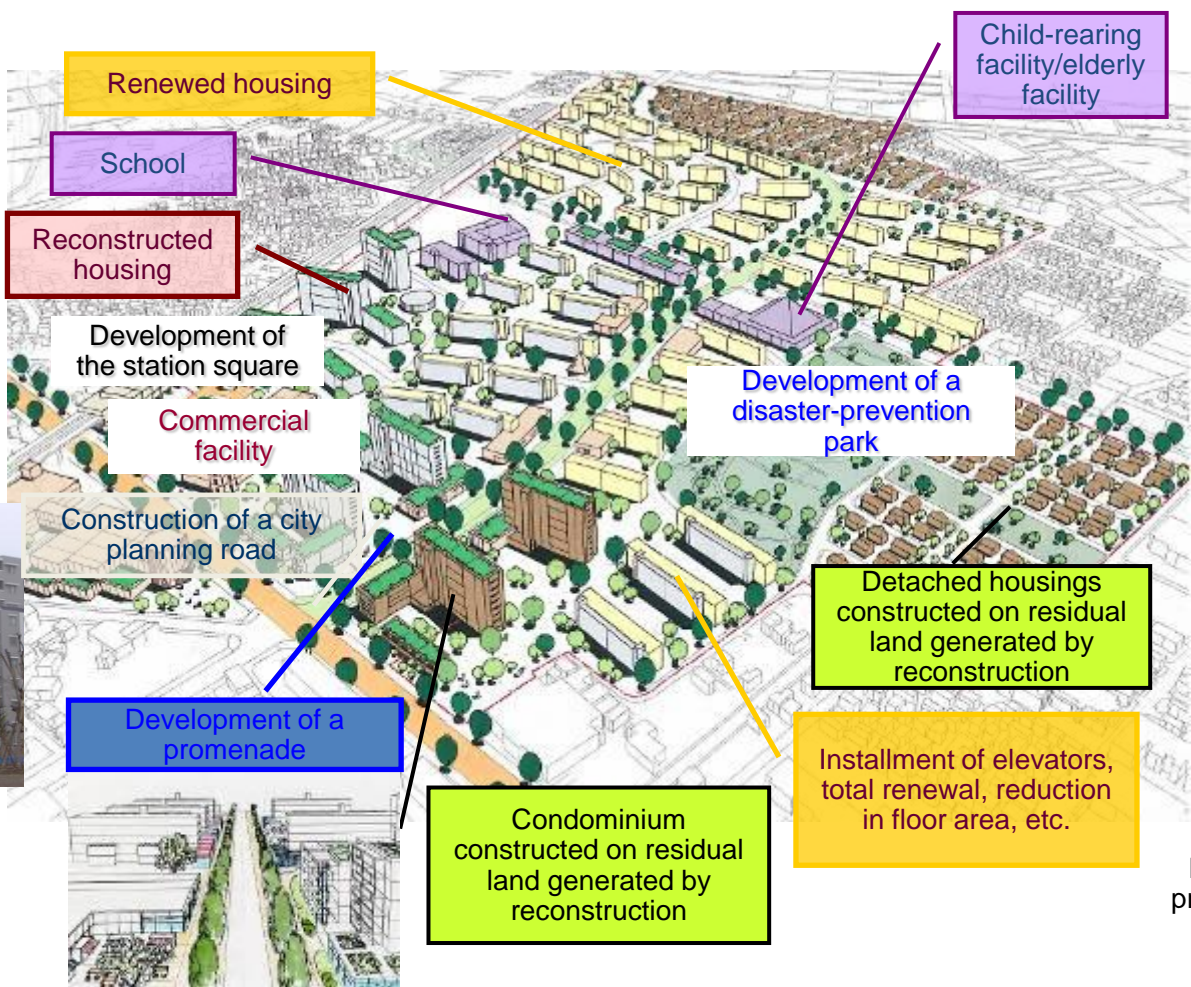
- Wide variety of building design (height, area, type of plan, etc.)
- Mixed land use with commercial facilities, child rearing and welfare facilities etc.
- Phased development



Station square and reconstructed housing complex



Private condominium on residual land generated by reconstruction



Child-rearing facility



Elderly facility

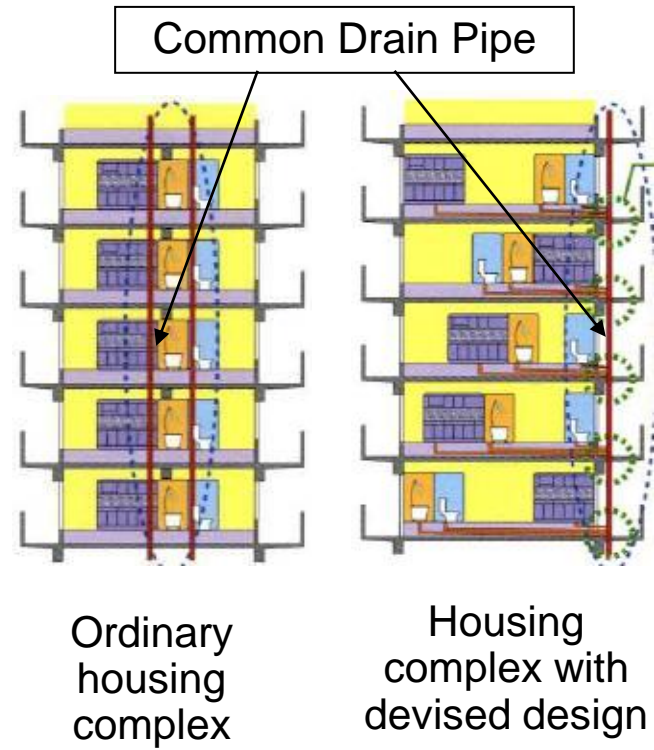
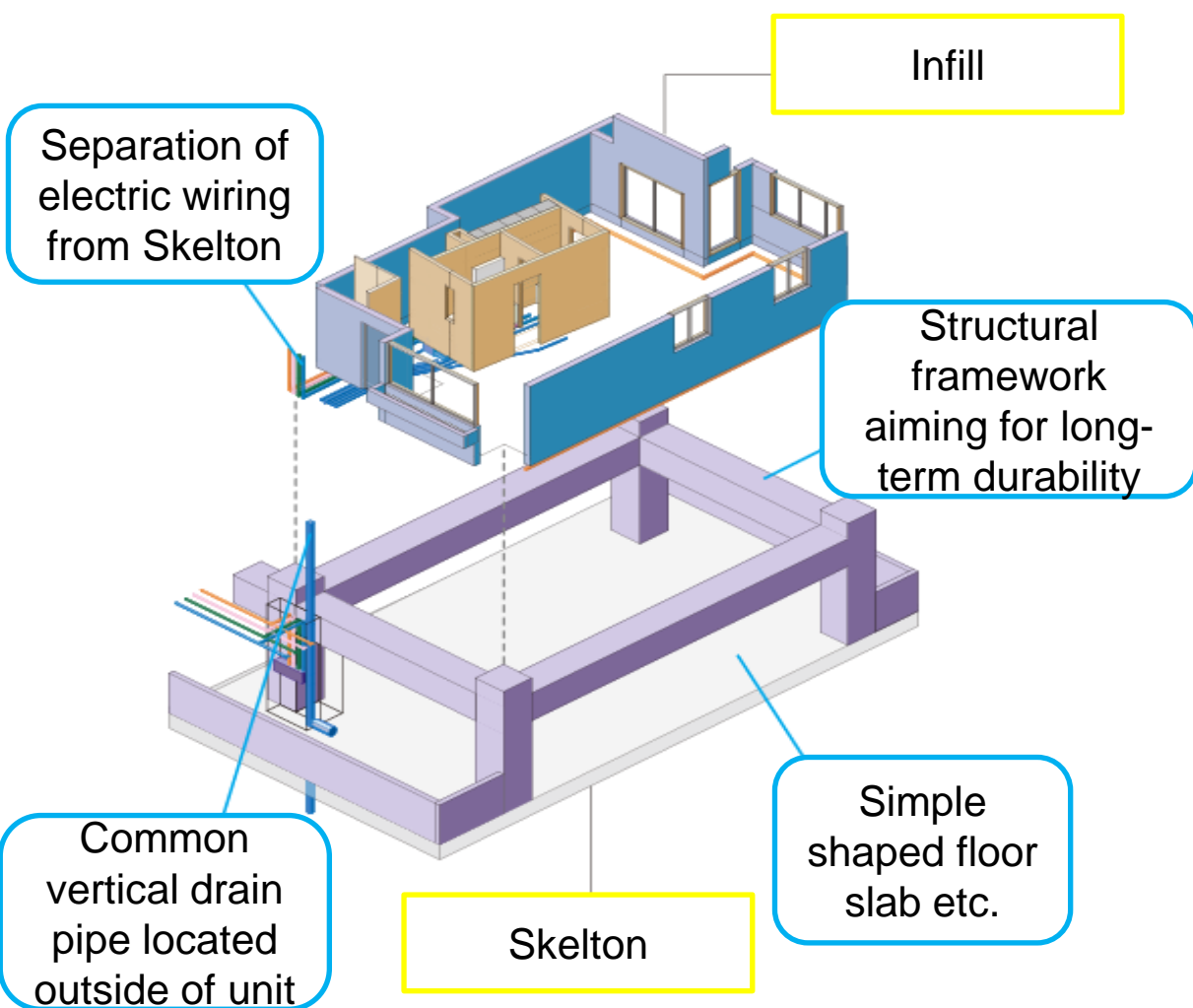


Redevelopment of disaster prevention parks, etc. utilizing existing greenery

Based on Japan's experience ② Maintenance and Management

○Classification of components by the service life

Interior components and equipment which has short service life was designed to make replacement possible without modifying the frame part such as pillar, beam, floor etc.



Three Pillars of Japan's Housing Policy

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Mainly rental housing and housing land development for main body of workers in metropolitan areas

Publicly-operated Housing (1951-)

Local authorities supply low-rent housing for low-income people

Government Housing Loan Corporation (1950 -)

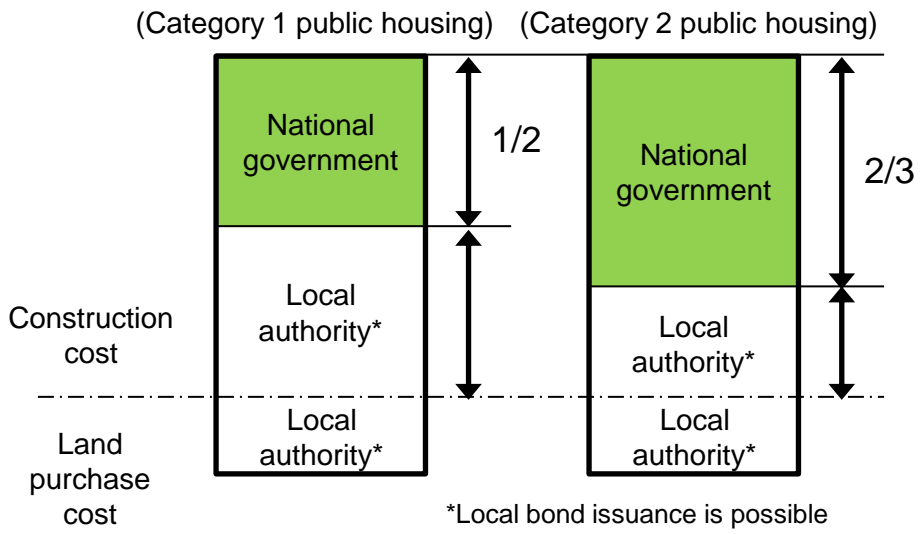
Provision of affordable housing through public financing

Public Housing

- A system in which low-rent housing is provided to low-income people in housing difficulties.
 - As a rule, dwellings are built and managed by local authorities.
 - Construction costs are subsidized by the national government, reducing the burden on residents.
 - The following people are eligible:
 - Category 1 public housing: income quantile 17-40%*
 - Category 2 public housing: income quantile 0-17%*
 - As a rule, households of 2 or more people
- *The standard from 1968 to 1971 when the greatest amount of public housing was supplied

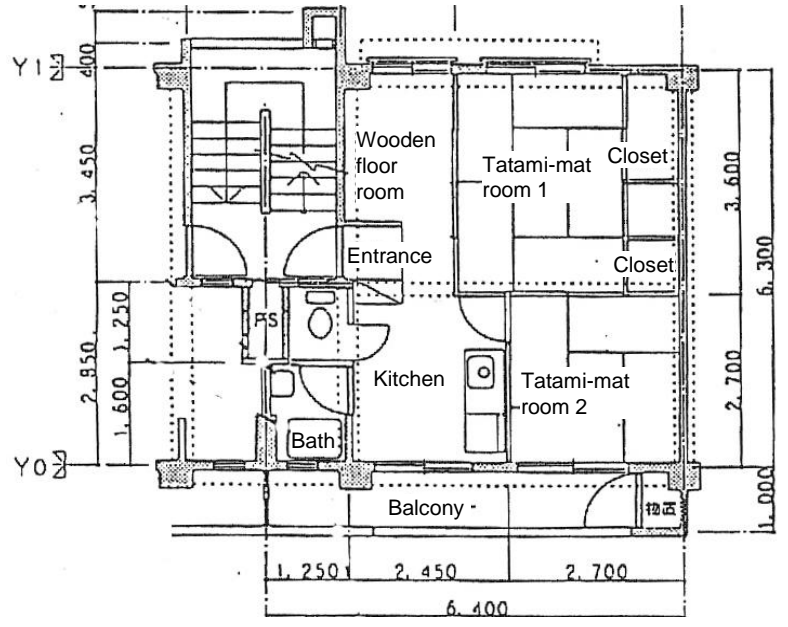
Public housing national support scheme

[Costs required for provision]



Public dwelling layout

<A 1965 standard 2DK public dwelling>



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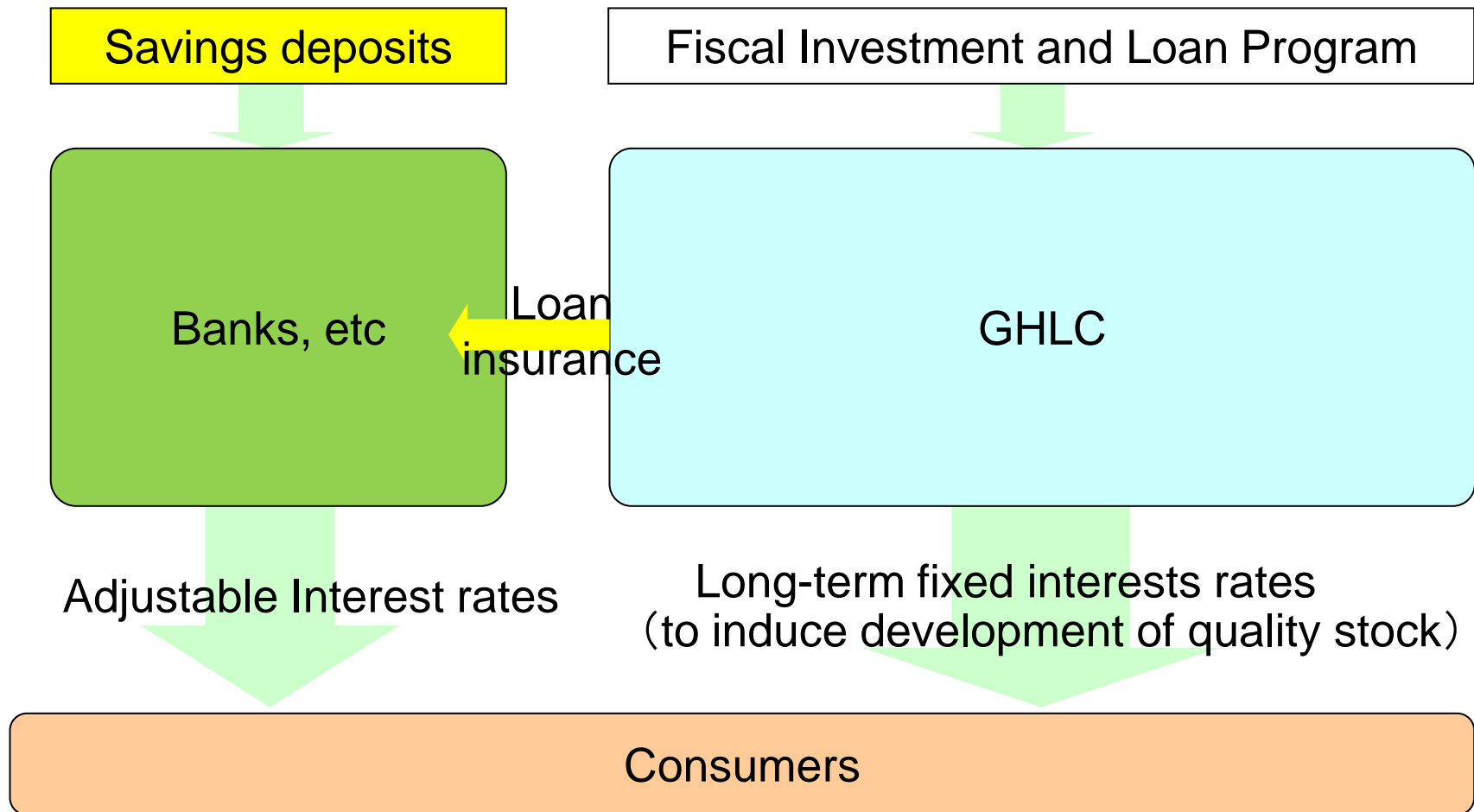
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Framework of GHLC (~2007) ※



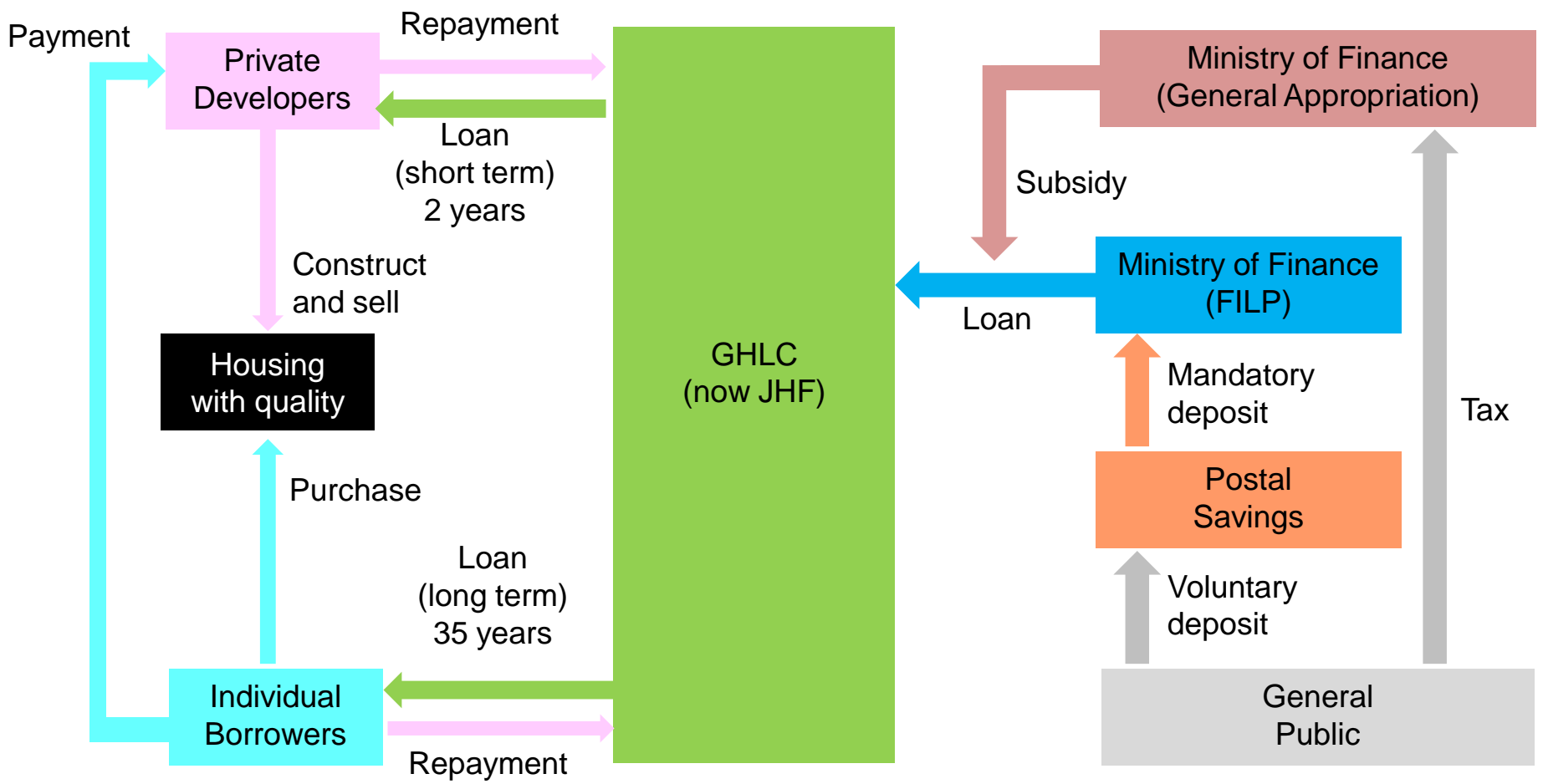
※ From 1950 to 2007

- “GHLC (Government Housing Loan Corporation)” provided long term fixed rate housing loans directly to “Individual Borrowers”
 - Necessary fund was raised through the Ministry of Finance (MOF), including from “Postal Savings (Deposit from General Public)”
- In accordance with development of Financial Market, the scheme was shifted to the following in 2007:
- Private Financial Institutions provide Housing Loan (not directly by JHF)
 - JHF purchases Housing Loans from Private Financial Institutions, securitizing them into MBS (Mortgage Backed Securities) and selling MBS to Financial Market (Funds of Private Financial Institutions are raised from Financial Market through securitization by JHF)

The Role of GHLC ① Long term and fixed rate public housing loans

- Long term (35 years) and low interest rate (reduced with subsidies from General Appropriation) public housing loans had been provided.
- The share of GHLC financed houses among owner-occupied houses had been around 50% in the 1980's and 1990's.

The scheme of housing loans for individuals and construction loans



The Role of GHLC ① Long term and fixed rate public housing loans

The average attribution of housing loan borrowers as of around 1970

(Suppose the price of the house is 1 0 0 .)

- Downpayment 4 0
- Borrowings 6 0 (GHLC Loan 3 0 , Private Loan 3 0)

(The outline of GHLC loans as of around 1970)

○ Maximum Loan Amount

- Maximum loan amount varied by structures, sizes and locations of houses.

(The average LTV (Loan To Value) ratio of GHLC loans had been about 30%.)

○ Loan Maturity

- Wooden, etc. : 18years
- Semi-Fireproof : 25years
- Fireproof : 35years

○ Eligibility of Borrowers

- Monthly income should have been more than 6 times as much as monthly installment.

(The criterion was equivalent to 16.7% DTI (Debt To Income) ratio and only for the amount of GHLC loan.)

【The detached house at that time】

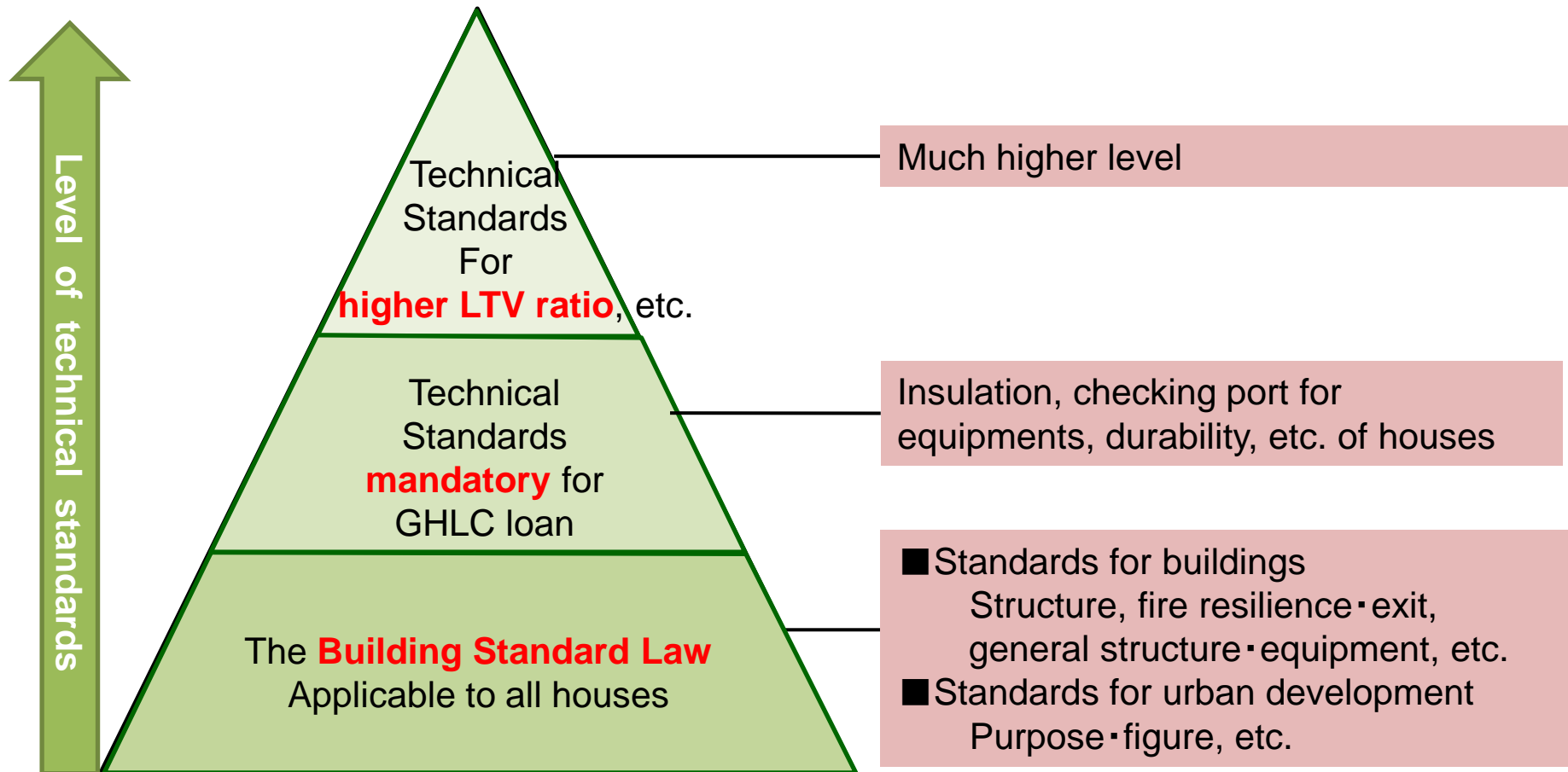


The Role of GHLC ② Securing high quality of houses

- Higher technical standards (ex. Structure easy to check equipments, energy efficient performance, etc.) than those of the Building Standard Law[※] which are minimum standards for all buildings had been required as GHLC underwriting criteria.

※ Applies to all buildings. Inspection for the earthquake resilience performance, etc. is implemented.

Relevance of Underwriting Criteria and the Building Standard Law



(As of 1997)

The Role of GHLC ②Securing high quality of houses

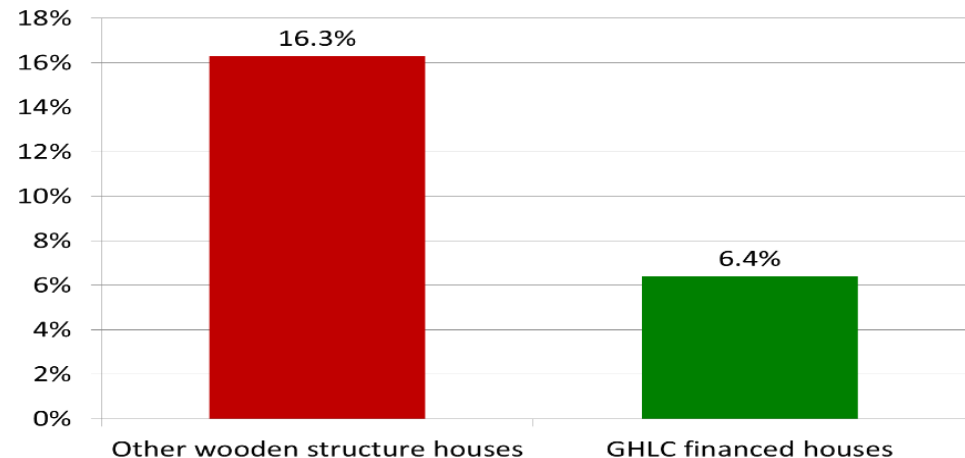
- GHLC had inspected the houses to secure the adaptation to technical standards with enforcement of interim inspection during construction.

More GHLC financed houses survived the Great Hanshin-Awaji Earthquake (1995).^{※1}
(^{※1} Nearly 6,500 were dead or missing)



(Source: Building Research Institute, Report on the damage of the Southern Hyogo Prefecture Earthquake in 1995)

Ratio of houses destroyed or heavily damaged^{※2}



^{※2}

- Other wooden structure houses : Based on an analysis of 3,953 houses in Chuo-ku, Kobe city
- GHLC financed houses : Based on an analysis of 1,068 houses in the area which vibrated to the extent of 7th degree on Japanese earthquake scale in Takarazuka City, Nishinomiya City, Kobe City, etc.

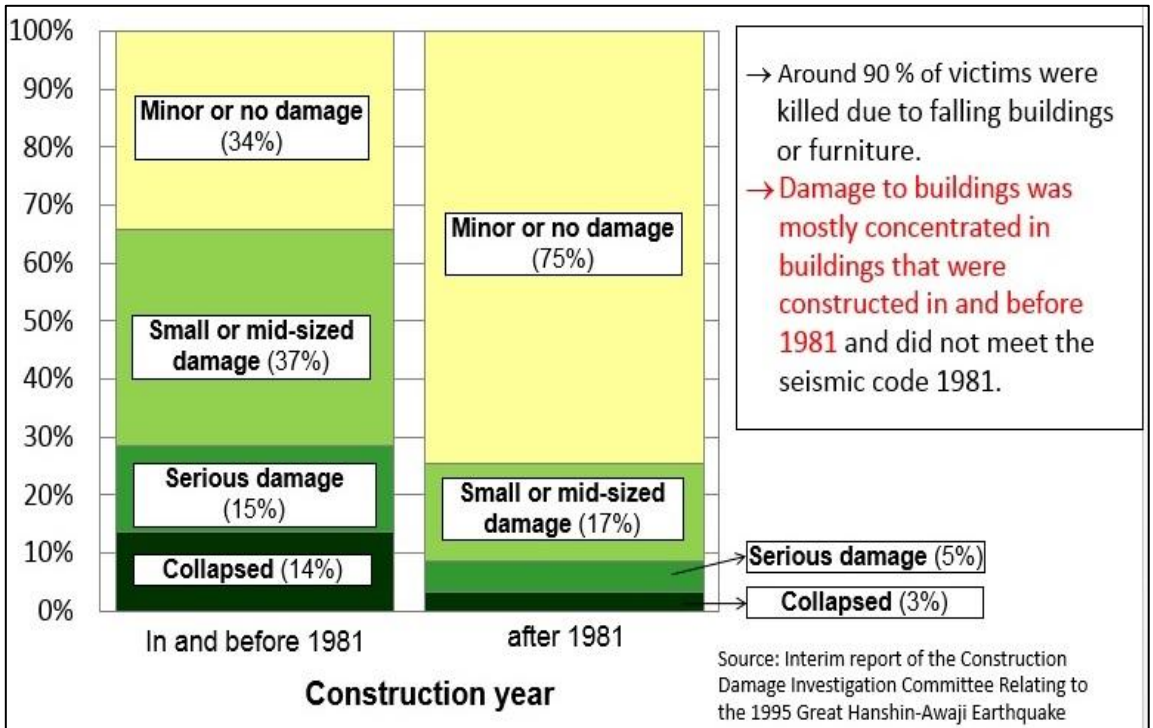
(Source) Survey on the damage of the Southern Hyogo Prefecture Earthquake on houses built with loans from Government Housing Loan Corporation in 1995
Report by the committee for the survey of the building damage of Hanshin-Awaji Earthquake, which occurred in 1995

Improvement of Earthquake Resistant Performance of Existing Buildings

[Major events]

- 1950 Enactment of The Building Standard Law (BSL)
- 1981 Wide amendment of seismic code
- 1995 Great Hanshin-Awaji Earthquake
Enactment of The Act of Promotion of Seismic Retrofitting of Buildings (APSRB)
- 2011 Great East Japan Earthquake
Amendment of APSRB
(Mandatory seismic assessment of Large scaled hospitals, department sores, hotels, schools, etc.)

Comparison of the damages of buildings in Great Hanshin-Awaji Earthquake



Examples of seismic retrofitting

Source; Japan Building Disaster Prevention Association



Additional Sheer wall



Jacketing of columns



Additional steel braces

Housing Construction 5-Year Program

Enactment of housing construction programs

Mass supply of public housing

Change from quantity-oriented to quality-oriented

Response to diverse housing needs

Enactment of Housing Construction Planning Law (1966)



1st Housing Construction 5-Year Program (1966–1970)
“A housing unit for every household”



Nationwide, the total number of housing units exceeded the total number of households (1968)

2nd Housing Construction 5-Year Program (1971 ~ 1975)



The total number of housing units exceeded the total number of households in every prefecture (1973)

3rd Housing Construction 5-Year Program (1976–1980)



- Establishment of housing standard which should be guaranteed to all citizens (minimum housing standard) and housing standard which should be guaranteed to average households (average housing standard)

4th to 7th Housing Construction 5-Year Program (1980 ~ 2005)



- Establishment of living environment standard
Earthquake resistant, energy saving, barrier-free support, etc.

Enactment of the Basic Act for Housing (2006)

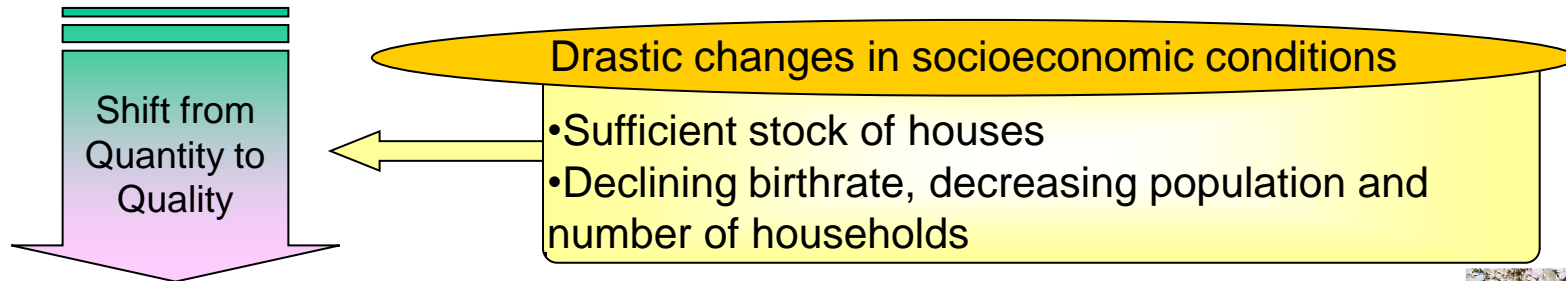
The Basic Act for Housing (2006)

Stipulates policies and basic principles to ensure and improve stable housing, clarifies the responsibilities of the public sector, including the National Government, and stipulates the formulation of basic plans for houses and other fundamental matters to enable citizens to lead enriched lifestyles.

Background

Housing Construction 5-Year Program (formulated 8 times since 1966; 8th program ended in 2005)

◇ Targets were set for numbers of houses to be constructed by public organizations, the Housing Loan Corporation and the Japan Housing Corporation, every five years.



Shift to a new housing policy

Policies related to ensuring and improving stable housing

- Provision of safe, secured and high-quality housing stock and living environment
- Housing market environment improvement for optimization of housing transactions and facilitation of distribution
- Establishment of housing safety nets for people having difficulty to secure a house



Overview of Basic Plan for Housing(2016-2025)

Issues for the next 10 years

Population aging

Vacant houses

Housing environment

Declining birthrate

Circulation of existing houses

Housing stock management

Plan points

Create housing which offers peace of mind to young people, households with children, and the elderly

Promote distribution of existing houses and use of vacant properties

Revitalize the housing industry which supports housing and the actualization of a strong economy