

50 YEARS OF PUBLIC HOUSING IN SINGAPORE

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Abstract

The Housing and Development Board (HDB) is the public housing authority in Singapore. It was established in February 1960 to tackle Singapore's acute housing shortage then. Today, HDB has successfully housed about 82 percent of Singapore's 3.79 million residents in its public housing or HDB flats.

To provide a total living environment for residents to live, work, play and learn, HDB carries out comprehensive planning of HDB Towns. The town planning models, principles and processes that we practice today have evolved over the decades to suit the requirements of the changing needs and aspirations of Singaporeans. HDB's mission is not only to provide a quality living environment, but also promotes the building of active and cohesive communities.

To ensure that HDB towns remain sustainable and vibrant, town plans are constantly reviewed and towns are rejuvenated through a comprehensive upgrading programme where improvements made to HDB flats as well as to the environment and all supporting facilities. This is a collaborative effort that is carried out in partnership with government agencies and the people sector.

To cater to different family needs and affordability, HDB provides a wide range of public housing flats of different sizes. With limited land, and a need to build higher, HDB has introduced new ideas in housing which includes an award-winning 50-storey development called The Pinnacle@Duxton.

HDB needs to cater to a rapidly-ageing population, by providing homes suited to their needs and a barrier-free living environment. HDB is now developing Punggol Town which is Singapore's very first Eco-Town with eco-friendly homes, lush landscaping with water-sensitive urban design features and use of new green technologies.

1 Background

Singapore is a small country, with a total land area¹ of about 712.4 km². As at October 2011, the recorded total population² of Singapore is about 5.18 million. Comparing with the other countries of the world, the population density³ of Singapore, at 7,126 persons per km², is ranked the second highest⁴ amongst the countries in the world, after Monaco which has a population density⁵ of about 17,647 persons per km². Given its size and the lack of dramatic natural landscapes, such as mountains and lakes etc., Singapore's environment is usually perceived to be more city-like. Comparing with the densities of some metropolitan cities⁶ in the world, such as New York City⁷ (about 10,349 persons per km²) and Seoul⁸ (about 17,240 persons per km²), it can be seen that Singapore, which does not have its own hinterland, is very dense. For comparison, Brunei Darussalam has a population density⁹ of about 70 persons per km². In this context, the need to optimize land and house a growing population is more critical in Singapore than other countries with less land constraints.

2 Role of HDB

HDB is the public housing authority in Singapore. It was formed on 1 February 1960 as a statutory board of the Ministry of National Development. To date, HDB has successfully housed about 82 percent¹⁰ of Singapore's 3.79 million residents¹¹ in its public housing. Of the people living in public housing, about 95 percent own their homes. HDB's vision is "An outstanding organization with people committed to fulfilling aspirations for homes and communities all are proud of". This

¹ Department of Statistics, Singapore, <http://www.singstat.gov.sg> (September 2011)

² Total Population comprises of Singapore residents and non-residents. Department of Statistics, Singapore, <http://www.singstat.gov.sg> (October 2011)

³ Department of Statistics, Singapore, <http://www.singstat.gov.sg> (September 2011)

⁴ 2011 World Population Data Sheet, Population Reference Bureau, USA, <http://www.prb.org> (July 2011)

⁵ Bureau of European and Eurasian Affairs, U.S. Department of State, <http://www.state.gov> (May 2011)

⁶ Some examples of metropolitan cities are New York City, Tokyo, Seoul, Hong Kong, Sydney, etc.

⁷ Population density derived from New York City's total population of 8,175,133 (as at end 2010) and land area of 305 square miles. Department of City Planning, New York City, <http://home2.nyc.gov/html/dcp/home.html> (May 2011)

⁸ Population density derived from Seoul's total population of 10,439,326 (as at end 2010) and land area of 605.41km². Seoul Metropolitan Government, <http://english.seoul.go.kr/>

⁹ Bureau of East Asian and Pacific Affairs, U.S. Department of State, <http://www.state.gov> (May 2011)

¹⁰ Housing & Development Board Annual Report (2009/2010)

¹¹ Department of Statistics, Singapore, <http://www.singstat.gov.sg> (September 2011)

vision, together with HDB's mission¹², emphasizes the importance of not only providing affordable homes, but also to create well-planned towns and develop communities.

(a) Developing Vibrant Towns

(i) Comprehensive Town Planning

Through the decades, the physical planning of HDB towns has evolved in tandem with the changing socio-economics and demographics of Singaporeans. *Annex A* gives an overview of the evolution of HDB towns, in terms of planning and design. To ensure sustainability of HDB towns, we have developed the Comprehensive Town Planning Principles that help address the constraints we face, and fulfill our vision.

- *Planning for Self-Sufficiency*

Our towns are planned and developed as a total living environment for people to work, live, play and learn. Facilities such as schools, shops and markets, polyclinics as well as recreational facilities such as sport complexes, and parks are planned for. To meet social needs, community centres, and places of worship are provided. Employment opportunities are found in commercial centres that are well-distributed in the town, as well as in industrial parks, which are located at the periphery of the town.

- *Neighbourhood Concept*

From 1960s to mid 1990s, towns were planned with neighborhoods of around 4,000 to 6,000 dwelling units. Each Neighbourhood is served by a neighbourhood centre which is its commercial hub, and a whole range of facilities such as schools, community centres, social and institutional centres and recreational areas. Several neighbourhoods would be located around the Town Centre which is usually in the geographical centre of the town. This is where the main transport hub is located together with key commercial, entertainment and social facilities.

- *Concept of Hierarchy*

¹² HDB's mission: We provide affordable homes of quality and value/ We create vibrant and sustainable towns / We promote the building of active and cohesive communities / We inspire and enable all staff to give of their best

To provide a sense of structure and order within the town, HDB has adopted the concept of hierarchy in the planning of towns. We have seen how several neighbourhoods make up a town. Each neighbourhood in turn comprises of smaller precincts of around 400 to 800 dwelling units each, allowing for a better sense of identity with place and neighbours in order to foster sense of ownership and pride. The smaller precincts are more conducive for social interaction. Commercial facilities are also planned on a hierarchy system where the town centre is the main commercial, transport, activity hub for the town. On a smaller scale are the neighbourhood centres with neighbourhood shops and marketing facilities, while smaller clusters of precinct hops serve local needs.

- *Planning for Connectivity*

The transportation network for the new town is a critical element in the town as it is planned from the outset together with land use. The network of roads and rail connects the town to the other parts of the country and ensures good circulation within the town. A hierarchical concept is also applied to road planning, where major roads that carry through-traffic do not cut through a town and interfere with its local traffic, but is located at the periphery of the town. Bus interchanges and mass rapid transit stations are located in the town centre which is the activity hub for the town. Every town is linked by an island-wide network of rapid transit lines.

- *Checkerboard Concept*

To optimize land use because of the constraint of land scarcity, a high-rise, high density model has been adopted right from the beginning. To help reduce the sense of crowdedness, high-rise high density housing developments are interspersed with low-rise developments such as schools and parks to provide visual and spatial relief, in a checker-board pattern. With such a checkerboard concept, facilities are also brought closer to the residents.

(ii) Rejuvenation

HDB has existed for more than 50 years, and some of our developments preceded HDB. Hence, it is necessary to continually ensure that old towns and developments do not lag behind newer towns. We do this with a regular review town development. We listen to feedback and upgrade our towns and flats to meet the people's rising aspirations. As new towns spring up, we ensure that the old towns do not lag behind. Rejuvenation is brought about in several ways. New facilities are added, existing ones being upgraded. Where there is an opportunity, some areas would be re-planned and redeveloped to optimize land use.

The Estate Renewal Strategy (ERS) was announced in Sep 1995 to systematically redevelop the older towns/estates and blend in new developments. It helps to bring the towns/estates to the latest standards and improve the living environment for residents. The objectives of ERS are:

- Bring Mature Estates to a standard comparable with Young Estates
- Upgrade living environment and facilities to meet rising expectations
- Retain family ties and community spirit
- Keep the town rejuvenated, vibrant and sustainable

The current key programmes of ERS are as follows:

- *Home Improvement Programme (HIP)*

This programme focuses on improvements within the flats and it aims to help flat owners address common maintenance problems in ageing flats in a systematic and comprehensive way. It comprises of Optional Improvements such as upgrading of toilets, changing of refuse hopper, doors and front gate. Residents can choose and only pay for what they want, and this is highly subsidized, up to 95 percent for Citizen households living in smaller flats. The programme also upgrades for free items deemed necessary for public health, or safety. These are termed as Essential Improvements and include repair of spalling concrete, replacement of waste pipes and racks for hanging laundry.

- *Neighbourhood Renewal Programme (NRP)*

This programme offers improvements to the blocks and the environment around the blocks, i.e. the precinct. Residents are actively engaged in shaping their environment, thereby building a greater sense of ownership and participation in the community. Each NRP project will benefit families living in an average of 2000 flats. This area is large enough to ensure that facilities can be planned across a large area to provide facilities that residents want. This programme is fully funded by the government.

- *Lift Upgrading Programme (LUP)*

In the earlier days of development, HDB focused on developing flats quickly to meet the housing shortage and improve living conditions. Many blocks were provided with lifts that stop every 4 or 5 floors, which meant that residents had to walk a maximum of **2 floors** to a lift stop. However with an ageing population, the Lift Upgrading Programme to allow residents without a lift landing on their floor to enjoy direct lift access to their homes. LUP brings added convenience and improved mobility to HDB residents in the old apartment blocks. It comprises, where feasible, upgrading of existing lifts and/or new lift shafts and lifts to serve every floor. This \$5.5 billion programme benefits some 500,000 families, ensuring that they do not have to move out as they age. The Government subsidises up to 90 percent of the lift upgrading costs and the respective Town Council managing the area shares the remainder costs with the Singapore Citizen households.

- *Selective En bloc Redevelopment Scheme (SERS)*

To complement the upgrading programmes, the SERS was launched in August 1995. Under the scheme, selected old blocks of sold flats are redeveloped en bloc in order to put land to more optimal use. The vacated sites will eventually be developed to much higher densities. The flat lessees are compensated for the acquisition of their existing flats at the prevailing market values and given a package of rehousing benefits. They will be offered new flats at a nearby site. The residents are therefore able to upgrade to new and better flats without having to leave the existing neighbourhood which they are

accustomed to. SERS also helps to preserve the family and community ties built over the years.

(b) Providing Affordable Homes

(i) Home Ownership in Singapore

Our public housing policy encourages home ownership rather than rental. Home ownership gives every citizen a stake in Singapore. Homeownership instills pride and ensures that the home and the environment is up kept and well maintained. Homeownership also fosters an industrious work force, where each person works and aspires to own his or her flat.

To enable Singaporean to afford ownership of HDB flat, the Home Ownership Scheme was introduced in February 1964. In 1968, the use of compulsory savings from the Central Provident Fund (CPF) was allowed in the purchase of HDB flats. Since then, amongst 82 percent of the resident population in Singapore who live in HDB flats, some 95% own their own flats. Some areas of assistance for people to own a HDB home are.

- *Assisting Lower-Income Families*

Singapore citizen households with average gross monthly household incomes not exceeding \$5,000 per month is entitled to Additional CPF Housing Grant on top of the existing housing subsidies.

- *Promoting Family Ties*

A higher CPF Housing Grant of \$40,000 is given to married eligible applicants who buy a resale flat with or near to their parents or married child. Married children will also be given additional chances in the ballot under the various HDB sales exercises if they apply for a flat to live near to together with their parents and vice versa.

- *Giving Incentives to Singles Living with Parents*

To encourage singles to take care of their elderly parents, with effect from 1 Apr 2008, singles aged 35 years and above who buy an HDB resale flat to live together with their parents may apply for a higher CPF Housing Grant of \$20,000.

- *Providing more Options for the Elderly*

The Studio Apartment (SA) Scheme launched in 1998 provides another housing option for the elderly. SAs, which are sold on 30-year leases, are specially designed with elderly-friendly features and offer convenient access to amenities and facilities

- *Helping Singles*

Singles are able to purchase their own HDB home either on their own via the Single Singapore Citizen Scheme, or with other Singles under the Joint Singles Scheme.

(ii) Wide Range of Housing Choices

Besides financing needs, HDB offers a wide range of options to meet the varied housing needs of Singaporeans.

- *For All Pockets*

There are six different flat types to choose from, ranging from 1-room to 5-room flats and executive flats. We also offer premium apartments, with more quality finishes that require minimum renovation. To encourage innovation in design and create better value for money for buyers, HDB invites private sector involvement to develop and sell its new housing projects under the Design, Built and Sell Scheme. To cater for the low-income families, they will receive an Additional Housing Grant to buy their first flats, over and above the existing housing subsidies. Some low-income families which cannot afford to own homes, HDB rental flats are offered to them at heavily subsidized rates.

- *For Different Life Stages*

Recognising the ageing population in Singapore, SAs are provided for the elderly where the homes are specially customized for older people. SAs also allow the elderly

to move into smaller apartments while still remaining part of the community, close to families and friends. Alternatively, home buyers have the option of getting a flat from the secondary market, and with a housing grant if they are eligible.

- *New Typologies*

Faced with challenges such as land scarcity in Singapore, a high-rise high density approach has been adopted for public housing in Singapore. With more housing sites being intensified, HDB is conscious of the built environment and has been putting in effort to help mitigate the sense of “crowdedness”. To keep HDB homes attractive to Singaporeans, HDB puts in effort to continuously introduce innovative ideas in tackling the land scarcity in Singapore. One such project is Central Horizon in Toa Payoh. It was the first HDB precinct that has a garden located at the mid level (12th storey) which spans across five blocks of flats over a total distance of 240m. Another such project is The Pinnacle@Duxton which HDB held its first international architectural competition for the design of public housing. Aimed at creating a housing design that is distinctive and liveable, the winning design of The Pinnacle@Duxton provided a variety of interesting communal spaces for interaction, such as skybridges and sky gardens at the 26th and 50th storeys. These communal spaces are also lookout points with panoramic views of the city.

(c) Cohesive Communities

HDB does not just develop towns but integrated communities that people feel part of. Being a multi-cultural nation, we recognize the need for social harmony and racial integration. To ensure our communities remain cohesive, we consciously work towards building vibrant communities through the provision of “hardware”, “software” and “heartware”.

(i) Hardware

Given the diverse nature of Singapore’s society, it is crucial to integrate these communities of different backgrounds. The planning and design of our towns, neighbourhoods, precincts and blocks plays an important role in the shaping of cohesive communities, providing

opportunities for social interaction within the total living environment. Our precincts are designed to incorporate varying types and sizes of flats so that households of different income and social profiles are given the opportunity to mingle and live together.

A unique and defining feature of HDB flats is the void deck. The ground floor of high rise blocks of flats are intentionally kept open or “void” to allow residents to use the space for casual meeting or planned functions. Some of the space is also used for social community facilities such as child care centres, kindergartens, social welfare agencies or elderly day care centres. One such facility is the Residents’ Committees (RCs) Centre. RCs will help organize residents’ parties and other neighbourhood activities to establish good communal relations amongst the residents. Some void decks also have Senior Citizens Corners for the elderly to gather, rest and chat. These corners are equipped with facilities like toilets, wash basins, storeroom, pantry and even a television set.

Flats in a precinct also share common spaces and facilities such as playgrounds, fitness corners and precinct pavilions, which help to facilitate interaction and enhance neighbourliness in the community.

A comprehensive range of commercial and recreational facilities such as neighbourhood markets, shops and parks are places that residents get to meet familiar faces on a daily basis. Town plazas and open spaces are located at high human traffic areas and near commercial facilities to encourage interaction among residents. Events are also held at such locations to bring the crowds together to participate in various community activities.

(ii) Software

Our housing policies are also geared towards encouraging married children to live near their parents, promoting extended family living, upholding Asian family values. HDB has provided many incentives such as priority flat allocation or additional housing subsidies to multi-tier families and married children who are living together with or near to their parents for mutual care and support. Some of these policies are Joint Selection Scheme, Multi-Tier Family Housing Scheme, Married Child Priority Scheme, high income ceiling for extended

families and higher-tier Housing Grant. Policies like the Third Child Priority Scheme also help in encouraging Singaporeans towards family formation and having more children.

As Singaporeans consist of a multi-racial community, HDB also implements the Government's Ethnic Integration Policy (EIP) in maintaining racial harmony in public housing estates. The EIP was implemented in 1989 and is aimed to prevent the formation of racial enclaves in public housing by setting the maximum allowable proportion of each ethnic group living in each HDB neighbourhood and block. This creates a balanced mix of residents from various ethnic groups which helps to foster ties within the community, and hence promoting ethnic integration.

(iii) Heartware

To enhance the sense of belonging in HDB towns and instilling a stronger sense of ownership in residents, we encourage our residents to be actively involved in the management of HDB estates through Town Councils, Citizens' Consultative Committees or Residents' Committees. The primary role of Town councils is to maintain the common property within HDB estates. Getting the residents involved in Town Councils allows them to participate and contribute in the decision making process in the management of their estate.

Residents are also encouraged to be involved in shaping the physical environment of their estate. Platforms like regular briefings to grassroots leaders, community forums and consultation exercises, and regular surveys allow residents to express their views and provide feedback on their preferences. Not only would this allow our standard of our physical environment to meet the expectations of HDB residents, it helps to promote community bonding and a sense of identity as well.

HDB also organizes welcome parties and key handover/completion ceremonies to welcome new residents into the community. These parties allow existing and new residents to get to know each other and also a good platform for residents to befriend each other, fostering a close-knitted community in HDB towns.

3 Going Ahead

Singapore faces the challenge of optimizing the scarce land available to meet the needs of a large population. With the current population at 5.18 million and 3.79 million Singapore residents, Singapore's population and number of residents is expected to continue to grow. As our city faces the impending need to be further intensified, strategies are required to maintain the quality of life in Singapore. HDB plays a crucial role in ensuring the sustainability of our towns, as it houses 82 percent of Singaporeans.

New planning ideas and urban forms

One such example is the My Waterway@Punggol, Singapore's first man-made waterway that meanders across Punggol town, which was declared open by Prime Minister Lee Hsien Loong on 23 October 2011. The 4.2km waterway gives the opportunity to introduce a waterfront lifestyle and unique experience for Punggol residents. Residents will get to enjoy various recreational activities, ranging from water sports to a leisure walk along the landscaped promenade on both banks of the waterway.

New housing typologies

To meet higher aspirations of Singaporeans, new typologies for public housing are continuously being formulated to give our residents better and more attractive living environments.

Along the Punggol Waterway, HDB had recently launched Waterway Terraces, HDB's first waterfront housing project, in June this year. In Dawson, we launched various projects that had sky terraces and roof top gardens.

Eco-friendly design

With Punggol Town being positioned as Singapore's very first Eco-Town, eco-friendly features are also incorporated in the design of Waterway Terraces. HDB has been actively test-bedding eco-friendly features in our public housing design.

Some of these environmentally friendly features were piloted in our first Eco-Precinct, Treelodge@Punggol, which was developed in 2007. To promote sustainable living environment, elements of nature, such as wind, daylight, rainfall and greenery, are harnessed in the design of the eco-precinct, wherever possible. Green building technologies are also adopted to help promote energy conservation, efficient use of resources, recycling efforts and reduce maintenance cost.

With Punggol as Singapore's first Eco-Town, it will also double up as test beds for new, innovative and emerging green technologies for future public housing projects.

With the continuous demand for good quality, value for money housing, and with an increasing portfolio of properties that need to be refreshed, HDB will continue to have a major role to play in Singapore's development.

Annex A

Evolution of HDB Towns

Since the formation of HDB in 1960, 23 towns have been developed. Initially, basic and functional, low-cost housing was the priority for HDB. This was to house the increasing population in 1960s. Planning to ensure that towns are home to communities however was deemed an important. Hence in the **1960s**, HDB planned its first town Toa Payoh Town. This first town had the features of a comprehensively planned town where facilities like commercial centres, industrial areas, parks and sporting facilities and schools were planned and developed.

In the 1970s, the planning concepts were refined and more developed. More attention was being paid to the quality of HDB living environment. In that decade, New Towns were being planned with identity, and a fuller range of facilities and amenities planned for.

During the 1980s, the emphasis was on the urban form, and the provision of regional facilities that serve several towns was developed. For example, Regional Parks would offer a greater variety of recreation space to residents. The Precinct concept was also established in the 1980s to provide a more conducive setting for community interaction.

1990s was the period which focused on the character and identity of HDB towns. There was emphasis on community development, architectural and environmental quality. Towns were also developed with stronger identities to promote a sense of belonging for the residents.

Since 2000, HDB has not stopped innovating, bringing public housing to new heights. Having established the 'Punggol 21' planning concept, HDB also developed new housing typologies, to address the need to build taller and denser. An example is our very first 50-storey development, The Pinnacle@Duxton. While we have been adopted many principles of sustainability, we are also making more efforts are being made to promote sustainable development and housing. Last year Punggol was identified as the first Eco-Town in Singapore.