

# *National Housing Authority Sustainable Finance Framework*

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AUGUST 2021

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**National Housing Authority**



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National Housing Authority

## **ABOUT THIS DOCUMENT**

*The National Housing Authority Sustainable Finance Framework has been developed to demonstrate how the NHA may issue Sustainability finance instruments and any related future transactions that adhere to its core organizational mission, the 20-Year National Strategy (2018-2037) on Social Cohesion and Just Society, and its commitment and contributions to the UN Sustainable Development Goals.*

*An electronic copy of the Framework is available at <http://www.nha.co.th>*

*We welcome any feedback/queries on the document.*

*Please contact : **Mrs. Premkamon Thongsri**, Director of Finance and Budget Administration Department, National Housing Authority  
[premkamom.paew@gmail.com](mailto:premkamom.paew@gmail.com)*

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## 1. Introduction

The National Housing Authority (NHA) is a state-owned enterprise attached to Thailand's Ministry of Social Development and Human Security. Its major mission is to develop affordable housing within a livable and cohesive community/town context. Since its establishment, the NHA has adopted the Sufficiency Economy Philosophy<sup>1</sup> developed by King Bhumibol Adulyadej as a unique philosophical framework for sustainable development and has been promoting well-managed growth across its departments. NHA is taking significant steps to reduce the environmental footprint, and improve the energy efficiency of its housing, as part of its vision to become a 'green' organization.

The NHA operates under the National Housing Authority Act B.E. 2537 and the National Housing Authority Act B.E. 2550 (the 2nd amendment of the Act), and has adopted a Strategic Plan B.E. 2560 – 2565 (B.E.2562 Revision), under which it aims to achieve the vision of being “a high performance organization for urban housing and community development for people particularly from low income households, to help them have a better quality of life and living environment.” To realize this vision, the NHA has been entrusted to carry out the following activities: 1) provide housing to people, especially for low income households 2) redevelop urban communities for a better living environment, together with developing new towns to serve sustainable urban growth, and 3) develop communities to be cohesive and capable of self-management. These align with its mission to enhance the provision of residential security and better quality of life for Thai people, especially those in the low- to middle- income categories, and those in need of housing assistance,

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<sup>1</sup> The Sufficiency Economy is a philosophy based on the fundamental principles of Thai culture. It is a method of development based on moderation, prudence, and social immunity, and one that uses knowledge and virtue as guidelines for living. Significantly, there must be intelligence and perseverance which will lead to real happiness in leading one's life. <https://www.chaipat.or.th/eng/concepts-theories/sufficiency-economy-newtheory.html#:~:text=Sufficiency%20Economy%20is%20a%20philosophy,virtue%20as%20guidelines%20in%20living>

and contribute to the 20-Year National Strategy (2018-2037)<sup>2</sup> on Social Cohesion and Just Society, and on Sustainable Development and Growth.

Additionally, providing affordable housing within cohesive communities will also help reduce the impact of COVID-19 and increase resilience to future pandemics, which will be felt most devastatingly in poor and densely populated urban areas, especially for those living in informal settlements and slums, where overcrowding also makes it difficult to follow recommended measures such as social distancing and self-isolation.

In its continuing effort to become a ‘green’ organization, NHA has adopted environmental protection and conservation-related government measures and policies in its approach to developing affordable housing and management sustainable communities. The Bio-Circular-Green economy (BCG) model developed by the Thai Government<sup>3</sup> has been incorporated by NHA into its NHA Strategic Plan 2017-2027 (B.E. 2560-2570, 2564 Revision). It is anticipated that the BCG model will help to create economic wealth, social welfare and security, a more sustainable environment, and contribute to the UN’s Sustainable Development Goals. As part of its vision for sustainability, NHA has incorporated eco-efficiency principles into the design of its housing, and has begun to build a significant share of its housing to the Thailand energy-efficiency standard (EGAT Label No. 5). Based on these interventions for the green portion of the portfolio, the energy-efficient houses will reduce energy consumption by an average of 25% compared to NHA’s standard, business-as-usual housing.

### 1.1 Objectives of the National Housing Authority.

The NHA was created on February 12, 1973 in compliance with the National Executive Decree No. 316. Its major objectives are:

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<sup>2</sup><http://nscr.nesdb.go.th/%E0%B8%A2%E0%B8%B8%E0%B8%97%E0%B8%98%E0%B8%A8%E0%B8%B2%E0%B8%AA%E0%B8%95%E0%B8%A3%E0%B9%8C%E0%B8%8A%E0%B8%B2%E0%B8%95%E0%B8%B4/>

<sup>3</sup> See, for example, <https://www.nxpo.or.th/th/en/7106/>

- 1) to provide housing and basic services for people who are in need (especially low and middle income households<sup>4</sup>),
- 2) to render financial assistance to those who want to own housing and private developers who want to cooperate with NHA to provide affordable housing,
- 3) to deal with the business of building construction and acquiring land,
- 4) to upgrade, demolish, or relocate congested communities so that people can achieve better living, social, and economic conditions, and
- 5) to do other business supporting or relating to the objectives including ad hoc project work in response to the government's policy.

### **1.2 Achievements of National Housing Authority in Housing Development.**

Since its establishment, the NHA has developed 745,180 units of housing (as of June 30, 2021). These were newly created or improved under several projects and programs, including the Slum Problem Solving Project (233,964 units), Baan Eua Arthorn Housing Program (280,567 units), and Housing and Community Service for Mixed- Income Group Project ( 229,599 units) . Consequently, the NHA's target group of more than 2.98 million people, comprising low-middle income households and junior level government officials were able to gain access to affordable housing; through either the rental housing scheme or sale/hire-purchase scheme. They now have residential security and enjoy a better quality of life with decent and an affordable housing in a good living environment and a community equipped with adequate infrastructure.

### **1.3 Looking Ahead to the Coming Decade: Sustainable and Affordable Green Housing**

Thailand is aligning its new urban housing development plan with the UN Sustainable Development Goals (SDGs).<sup>5</sup> The government, through the Ministry of Social Development and

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<sup>4</sup> A low income household is defined as a household whose gross monthly income is under 60 percentile of income distribution bracket specified by NHA based on the National Statistical Office's Housing and Population Census.

A middle income household is defined as a household whose gross monthly income is under 80 percentile of income distribution bracket specified by NHA based on the National Statistical Office's Housing and Population Census.

<sup>5</sup> Sustainable Development Goals. <https://www.un.org/sustainabledevelopment/>



Human Security has developed a 20-Year Master Plan for Housing Development B.E. 2560 - 2579 (2017 - 2036). The Master Plan has the vision of “Housing for All.” It states, “by 2036, all Thai people are to have access to decent and affordable home and to have a better quality of life.” It aims to provide home ownership to 5.87 million households living in inferior housing conditions or informal settlements, or those without home ownership.

In addition, Thailand has adopted a New Urban Agenda (NUA),<sup>6</sup> a new shared vision for cities and municipalities to achieve a better and more sustainable future. It adheres to the main principle of “Leave No One Behind” by ending poverty, and most importantly, providing safe and equal access for all, to physical and social infrastructure and basic services, as well as adequate and affordable housing that would contribute to the accomplishment of SDG Goals 5, 10 and 11.

Furthermore, NHA is embarking on accelerating the construction of green housing units for low- and middle-income dwellers through an integrated strategy covering: 1) an energy-efficient green home design and labeling scheme, 2) incentive mechanisms for promoting energy efficient homes, and 3) awareness raising and capacity building for promoting energy efficient homes. The key objectives include reduction of emissions from the residential sector and increasing the quality of life for low- and middle-income residents, while also ensuring a reduction in environmental impact and greenhouse gas emissions through a standardized process for building, efficient green housing.

More recently, NHA will be an executing partner working with United Nations Environment Programme (UNEP) as part of the Global Environment Facility’s (GEF) “Accelerating construction of energy efficient green housing units in Thailand” programme. This is a key part of NHA’s initiative to “build energy efficient green homes and address the greenhouse emission reduction goal of Thailand and enhance the comfort and living space for low and middle income populations living in low rise housing units”.<sup>7</sup>

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<sup>6</sup> Habitat III. The New Urban Agenda. <http://habitat3.org/the-new-urban-agenda/>

<sup>7</sup> <https://www.thegef.org/project/accelerating-construction-energy-efficient-green-housing-units-thailand>

#### 1.4 NHA Activities to Develop Green Housing

In accordance with the requirements and guidelines for the development of the NHA housing project, the design and construction of residential units and project components must comply with globally recognized standards or the NHA's housing development standard, the “Eco-Village Standard” which provides guidelines and standards for the design and construction of environmentally friendly housing project developments. NHA has also recently launched housing projects that are designed and constructed based on the 4E Concept of Energy Efficiency, which covers eco-design, building envelope, electrical equipment, and energy management. These projects are certified by the Electricity Generating Authority of Thailand (EGAT) as energy efficient homes and qualify for the No.5 Label.<sup>8</sup> NHA's residential units thus aim to be affordable, self-sufficient, and eco-friendly.

In its development of this Sustainable Finance Framework, NHA has partnered with the Asian Development Bank (ADB) to receive technical assistance, in particular with regards to third party verification and enhancement of the framework. ADB is continuing to support NHA to develop a sustainability roadmap for its future bond issuances framework, as well as in the possible development of a future pipeline of green projects, the engagement of appropriate independent external reviewers, or the development of reporting systems, as required by NHA.<sup>9</sup>

Based on a mapping of the asset pool in NHA's Sustainability Bond issuance, NHA concludes that the “green housing” portion:

- accounts for 11.4% of the number of units in the bond asset pool (2,956 out of 25,846 housing units);

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<sup>8</sup> Electricity Generating Authority of Thailand. <https://www.egat.co.th/en/news-announcement/news-release/the-3-electric-utilities-pilot-eers-measures-to-conserve-energy-in-2019-over-20-million-units>

<sup>9</sup> During the period February through August 2021, ADB and its consulting team worked with NHA's management team to support NHA's efforts to develop green housing and quantify its impact. ADB consultants met with NHA management to understand NHA's strategy of developing themed bonds, including social, sustainability, and eventually green bonds, to refinance its existing assets as well as future expansion. The ADB team reviewed building energy standards in Thailand, and their potential relevance to a green bond certification by a certifying agency such as the Climate Bonds Initiative; and also carried out site visits to five NHA developments in Ayutthaya, Nonthaburi, and Bangkok (Lat Krabang).



- accounts for 15.0% of the value of the asset pool (THB 315 million out of THB 2.1 billion); and
- can reduce energy consumption of the asset pool by 2,357,000 kWh a year, or 117,866,000 kWh over the lifetime (50 years) of the housing assets. This translates into a savings value of THB 412,000,000 (at THB 3.50/kWh), with the benefits being enjoyed by the families that are living in NHA housing.

## 2. The National Housing Authority's Commitment to Sustainability

NHA's operations adhere and correspond to government policy in reducing inequality in people's access to housing. According to the 20-Year National Strategy Framework (2018 – 2037), the government has accelerated efforts to enhance urban development for the well-being of the Thai people. Thailand commits to providing adequate housing and land tenure for people in need, thereby providing affordable housing and basic services contributing to SDG 11:<sup>10</sup> Sustainable Cities and Communities with target 11.1, which targets ensuring access for all to adequate, safe, and affordable housing and basic services and upgrade slums by 2030. It is expected that good housing contributes toward inclusive growth and supports the development of a sustainable future. In addition, investment in affordable housing will have an impact on other SDGs, including SDG1: Reducing Poverty,<sup>11</sup> SDG 3: Good Health and Well-being,<sup>12</sup> SDG 10: Reducing Inequality,<sup>13</sup> and SDG 7: Affordable and Clean Energy,<sup>14</sup> derived from the environmentally-friendly housing and community of the NHA, and by extension, SDG 13: Climate Action.<sup>15</sup>

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<sup>10</sup> Sustainable Development Goals. Goal 11: Make cities inclusive, safe, resilient and sustainable. <https://www.un.org/sustainabledevelopment/cities/>.

<sup>11</sup> Sustainable Development Goals. Goal 1: End poverty in all its forms everywhere. <https://www.un.org/sustainabledevelopment/poverty/>.

<sup>12</sup> Sustainable Development Goals. Goal 3: Ensure healthy lives and promote well-being for all at all ages. <https://www.un.org/sustainabledevelopment/health/>.

<sup>13</sup> Sustainable Development Goals. Goal 10: Reduce inequality within and among countries. <https://www.un.org/sustainabledevelopment/inequality/>.

<sup>14</sup> Sustainable Development Goals. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy. <https://www.un.org/sustainabledevelopment/energy/>.

<sup>15</sup> Sustainable Development Goals. Goal 13: Take urgent action to combat climate change and its impacts. <https://www.un.org/sustainabledevelopment/climate-change/>.

Further, NHA strives to ensure that affordable housing and basic services provided by NHA are accessible by all gender groups in aligning with SDG 5.<sup>16</sup> NHA’s initiatives will range from empowerment of vulnerable groups through the provision of various vocational training courses to build capacity for income generation. This will, in turn, help them maintain home ownership sustainably as well as stimulate and encourage women leaders participating in community management and committees.

**Table 1. How NHA’s Focus areas and Social Commitments Align with the UN’s Sustainable Development Goals**

FOCUS AREAS	Affordable Housing	Green Building	Community Well-Being
<p><b>Core Focus</b></p> <ul style="list-style-type: none"> <li>- Affordable Housing</li> <li>- Green Building</li> </ul>	<p>SDG 11</p> 	<p>SDG 7</p> 	<p>SDG 11</p> 
<p><b>Commitments</b></p> <ul style="list-style-type: none"> <li>- Reducing Inequality</li> <li>- Reducing Poverty</li> <li>- Gender Equality</li> </ul>	<p>SDG 1, SDG 10</p>   <p>SDG 5</p> 		
<p><b>Contribution</b></p> <ul style="list-style-type: none"> <li>- Health and Well-being</li> <li>- Responsible Consumption and Production</li> <li>- Climate Action</li> </ul>	<p>SDG 12</p> 	<p>SDG 13</p> 	<p>SDG 3</p> 

<sup>16</sup> <https://www.un.org/sustainabledevelopment/gender-equality/>

## 2.1 Rationale for NHA’s Social and Sustainable Agenda

In accordance with the 20-Year Master Plan for Housing Development B.E. 2560 - 2579 (2017 - 2036), the strategy of which is “SMART” (see Figure 1 below), NHA was entrusted to provide affordable housing for all groups of people, especially the 2.27 million low- to middle-income earners, through four work plans. These are:

1. **Rental Housing Plan.** This will provide residential security and raise the quality of life of low-income households through the provision of 117,471 units of affordable rental housing.
2. **Sale/Hire-Purchase Housing Plan.** This will enhance residential security of low- to middle-income households through the provision of 530,609 units of affordable housing.
3. **Housing for Government Officials Plan.** This will provide 123,000 units of affordable housing and welfare housing for junior government officials.
4. **Public- Private Partnership Plan ( Baan Pracha Rat) .** This will launch housing development schemes to provide 1,500,000 units of affordable housing.

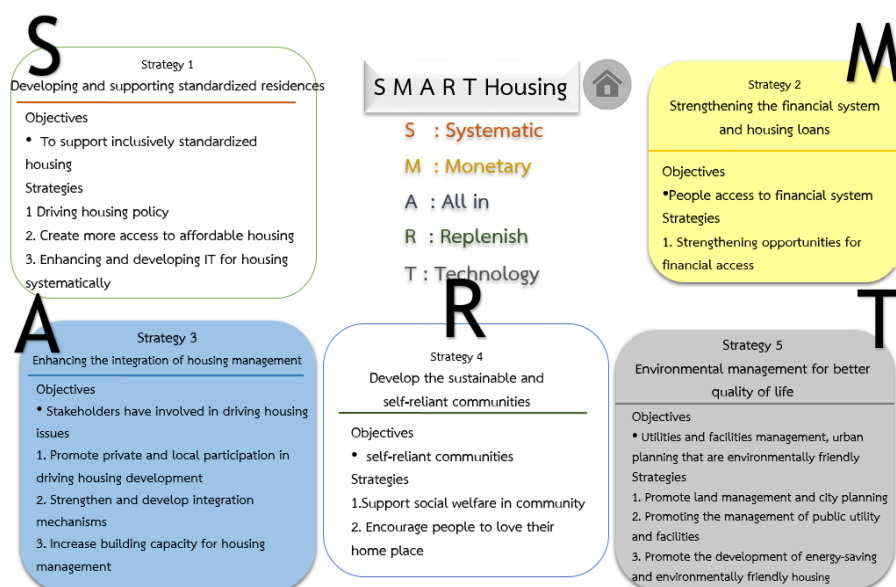


Figure 1. NHA’s Vision for SMART Housing

The ultimate goal of community management is to establish a sustainable, cohesive, and self-reliant community. In addition to the development of affordable housing projects, the NHA addresses the improvement of the living quality of the community residents by creating livable

communities equipped with the necessary living facilities and utilities. The development is, therefore, inclusive of physical, economic, and environmental aspects. The community residents are empowered to build a cohesive community and have the capacity for self-management. Establishing community organizations or committees is encouraged. Various vocational training courses have been conducted to enhance the residents' employability and capacity to earn more income. This will, in turn, enhance their access to own housing or retain ownership of housing. Environment management for the community is also promoted, through the dissemination of knowledge and practices of environment protection and conservation, such as solid waste management, wastewater management, and energy saving practices. The elderly, disabled, and less fortunate in the communities are the beneficiaries of the development.

NHA has adopted environmental protection and conservation-related government measures and policies in its approach to developing affordable housing and the management of sustainable communities. As noted above, NHA has incorporated the Bio-Circular-Green economy model (BCG) into its NHA Strategic Plan 2017-2027 (B.E. 2560-2570, 2564 Revision). It is anticipated that the BCG model will help to create economic wealth, social welfare and security, a more sustainable environment, and contribute to the UN's Sustainable Development Goals.<sup>17</sup> Development based on the BCG Model will help reduce climate change risks, reduce consumption of natural resources, and reduce pollution and environmental impact.

Because of the multiple environmental, energy, social, and economic benefits of the BCG Model, NHA is integrating it into its housing development process, as well as in its approach to community management. For example, NHA has set a 5-year plan to develop the Sook Pracha Affordable Rental Housing Project, with 100,000 units. The houses will be built with an eco-friendly and energy saving design, and there will be provision of space for tenants to run small businesses and engage in gardening as part of their daily lives. With regard to community management, NHA has promoted an approach it calls “Smart Sustainability Community” development, which aims

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<sup>17</sup> In fact the BCG model can contribute to 14 of the 17 SDGs—namely SDG 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 17.

to enhance sustainable community development in four aspects: physical, social, economic, and environmental. For example, community residents are encouraged to manage their waste to achieve “zero waste” and to think in terms of “Waste-to-Wealth”.

## **2.2 Financial Assistance to Low- to Middle-Income Households to Increase Access Affordable Housing.**

Since its establishment, the NHA has rendered financial assistance to low- and middle-income earners in more than 370,000 households. As of June 30, 2021, there were 33,171 clients of the hire-purchase scheme repaying their loans in regular installments to the NHA. This housing finance scheme enables those who are ineligible for home loans from regular financial institutions to own houses. Although the hire-purchase scheme is considered a significant source of finance/loan for the low- to middle-income earners to access affordable housing, additional recourse may be needed from the construction investment pool to help bridge the gap for the low-income residents until they are able to access mortgages from financial institutions and banks. NHA will fund this by rolling over or refinancing the debt allocated to project construction and/or investments. Based on data from the 20- Year Master Plan for Housing Development B. E. 2560 – 2579 (2017 – 2036) , NHA will provide financial assistance to about one-third of the targeted group of 2.27 million households or approximately 650,000 households who cannot access housing financing from regular financial institutions.

Although NHA has mainly provided affordable housing to low- to middle-income earners, it has also provided affordable housing to upper- to middle-income earners within the same project. The purpose of building a mixed-income housing project, apart from a mixed-use project, is to create inclusive communities and build in well-balanced socio-economic aspects into the project. The aforementioned implementation is also an instrument for cross-subsidy among groups where income earned from upper- to middle-income earner is used indirectly to subsidize the low-income earners, and to make the project financially viable.

### 3. Sustainable Finance Framework of the NHA

#### 3.1 NHA's Sustainability Framework

To implement the NHA's social and sustainability agenda of enhancing people's accessibility to affordable and energy efficient housing, especially the low- and middle-income earners, the NHA is establishing a Sustainable Finance Framework ("the Framework"), to guide the issuance of relevant financial instruments by the NHA. The Framework is designed in compliance with the Social Bond Principles 2021 (SBP), Green Bond Principles 2021 (GBP), Sustainability Bond Guidelines 2021 (SBG) and The Sustainability-Linked Bond Principles (SLBP) of the International Capital Market Association (ICMA)<sup>18</sup>, the ASEAN Sustainable Bond Standards 2018 (ASEAN SUS)<sup>19</sup> of the ASEAN Capital Market Forum (ACMF) as well as the Loan Market Association's Green & Social Loan Principles consisting of the following core components:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Under this framework the NHA may issue the following instruments as part of its ongoing commitment to social and Sustainable goals as aligned to the 20-Year National Strategy (2018-2037), New Urban Agenda (NUA) and the UN's Sustainable Development Goals (SDGs).

Social Bonds

Green Bonds

Sustainability Bonds

Sustainability linked Bonds

Gender Bonds

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<sup>18</sup> <https://www.icmagroup.org/green-social-and-sustainability-bonds/social-bond-principles-sbp/#:~:text=ICMA%20News%20Archive&text=Social%20Bonds%20are%20use%20of,recommend%20transparency%2C%20disclosure%20and%20reporting.>

<sup>19</sup> <https://www.theacmf.org/initiatives/sustainable-finance/asean-social-bond-standards>

Social Loans

Green Loans

Sustainable Loans

Sustainability linked Loans

### Excluded Categories

NHA will not willingly finance or refinance assets that do not comply with its eligibility criteria (see Table 2 below).

This framework may be updated from time to time based on developments in the market, updates to the ICMA principles as well as the ASEAN Standards, and any amendments to the Eligibility Criteria or Target Population where appropriate.

### *3.2 Use of Proceeds*

Proceeds will be used to finance new and/or existing eligible affordable and green housing projects aiming to create a “ Smart Home, Smart Community and Smart City for Sustainable and Better Wellbeing” or to refinance NHA debt from development of eligible affordable housing projects.

In compliance with its 20-Year Master Plan for Housing Development B.E. 2560 – 2579, affordable housing, both for rent and for sale/hire-purchase will be gradually developed. The funds will be utilized for four purposes:

1) to directly finance or invest in the development of either affordable public housing or environmentally-friendly, energy-efficient or green public housing for rent and sale or hire-purchase for all groups of people who want to own homes or are in need of housing assistance, especially the low- and middle-income earners;

2) to restructure (roll over or refinance) NHA debt of investment in housing projects and hire-purchase housing finance schemes. This will help NHA clients who are mostly low- and middle-income households repay installment debt from their hire-purchase contract with the NHA or to purchase more affordable homes;




3) to finance the “Housing Fund for the Low Income” of NHA, which will directly provide home loans to NHA buyers, allowing them access to affordable housing; and

4) to finance social projects/expenditures that contribute to improving the quality of life of the residents, such as vocational training, etc.

### 3.3 Eligibility Criteria

The NHA Sustainability bond eligible categories are defined within the Social Bond Principles 2021 (SBP) and Green Bond Principles 2021 (GBP), as well as Sustainability Bond Guidelines 2021 (SBG) and may be expanded over time. Table 2 summarizes the eligibility requirements for NHA’s housing development, and their alignment with the UN’s Sustainable Development Goals (SDGs).

**Table 2. NHA Eligibility Requirements for its Affordable and Sustainable Housing.**

Eligible Categories	Eligibility Criteria and example Projects	Benefit/Impact	UN SDG Alignment and Commitments/ Contributions
<p><b>Affordable Housing</b></p>	<p>Financing of construction, retrofit, modernization of public housing or roll over/ refinancing public housing project and assets associated with affordable housing e.g.</p> <ul style="list-style-type: none"> <li>● Development of new or retrofit of existing public housing. This includes upgrades to provide better health and well-being outcomes for the dwellers.</li> <li>● Redevelopment of NHA’s public Housing Project. (Urban Renewal Project.)</li> <li>● Development of accessible units according to universal design principle in new home/building as well as for redevelopment for the elderly and disabled people.</li> </ul>	<p>Increase in number of affordable and decent homes available for target populations.</p>	

Eligible Categories	Eligibility Criteria and example Projects	Benefit/Impact	UN SDG Alignment and Commitments/ Contributions
<b>Socioeconomic Advancement and Empowerment</b>	Financing Social and Economic activities to enhance quality of life of people e.g. <ul style="list-style-type: none"> <li>● Implementing of vocational training projects, environmental management training projects, capacity building projects, etc.</li> <li>● “Waste-to-Wealth” Project: the project turns trash into money resulting in zero waste in the community.</li> </ul>	<ul style="list-style-type: none"> <li>○ Empowering target populations especially women to capable to generate income for their living and paying for affordable housing.</li> <li>○ Good community’s environmental management.</li> </ul>	    
<b>Green Building</b>	Financing the construction of green building e.g. <ul style="list-style-type: none"> <li>○ energy-efficient housing, using the EGAT Building No. 5 efficiency benchmark.</li> <li>○ eco- friendly building using eco-friendly construction materials sourced sustainably, contributing to the acceleration and high growth in the eco-friendly construction material industry and sustainable consumption.</li> </ul>	<ul style="list-style-type: none"> <li>○ Increase in number of energy and water efficient homes available for target population.</li> <li>○ Contribution toward zero carbon society.</li> <li>○ Reduction of Greenhouse Gas emissions.</li> <li>○ Increase number of eco-friendly construction products and/or appliances to market.</li> </ul>	   

All proposed projects and assets will align with NHA’s 20-Year Master Plan for Housing Development, the New Urban Agenda (NUA), and the SDGs alluded to in section 2 of this document in achieving positive social outcomes for the target population of beneficiaries as outlined below.

The **Target Population** are people in need of housing and basic services around the country. It will include, but will not be strictly limited to, the following:

- low-income earners;
- low- to middle-income earners;
- excluded and/or marginalized populations and/or communities;
- vulnerable groups, including victims of natural disasters;

- people with disabilities;
- migrants and/or displaced persons;
- undereducated;
- underserved; and
- unemployed.

While the eligibility criteria and target population are based on the ICMA and ASEAN Social Bond Principles and Standards, they may be expanded or amended according to project requirements and market developments.

### ***3.4 Process for Project Evaluation and Selection***

The NHA will adhere to the eligibility criteria in all financing or refinancing transactions and ensure that the use of proceeds as described above will be followed. To this end, the NHA has established a dedicated "Working Team" that consists of representatives from related in-house departments- Policy and Planning, Finance and Budget Administration, Accounting, Project Development, Marketing and Sales, Housing Credit and Loans Management, and Community Management.

This helps ensure governance over the process and that the proposed housing projects fit within the eligibility criteria.

Project evaluation and selection is a key process and the ongoing review and governance cycle is outlined below.

#### ***1) Evaluation***

Initially, the Working Team for Green Bonds, Social Bonds, and Sustainability Bonds/Loans. (chaired by the Deputy Governor assigned by the Governor) will review and evaluate the use of proceeds against the eligibility criteria and eligible projects as outlined in section 3.2.

#### ***2) Approval***

After the initial assessment of eligible social or sustainable (green) project by the Working Team, the shortlisted housing/ social or sustainable (green) project will be submitted to the Governor for approval, based on the eligibility criteria for formal approval.

### 3) Notification of the Proceeds Allocation to the NHA’s Board of Directors

Upon approval of the NHA Governor, the eligible social or sustainable (green) housing projects will be submitted to the NHA’s Board of Directors for notification of the proceeds allocation based on the framework.

Figure 2 outlines the evaluation and the end to end governance process through the life of the process, both pre- and post-issuance.

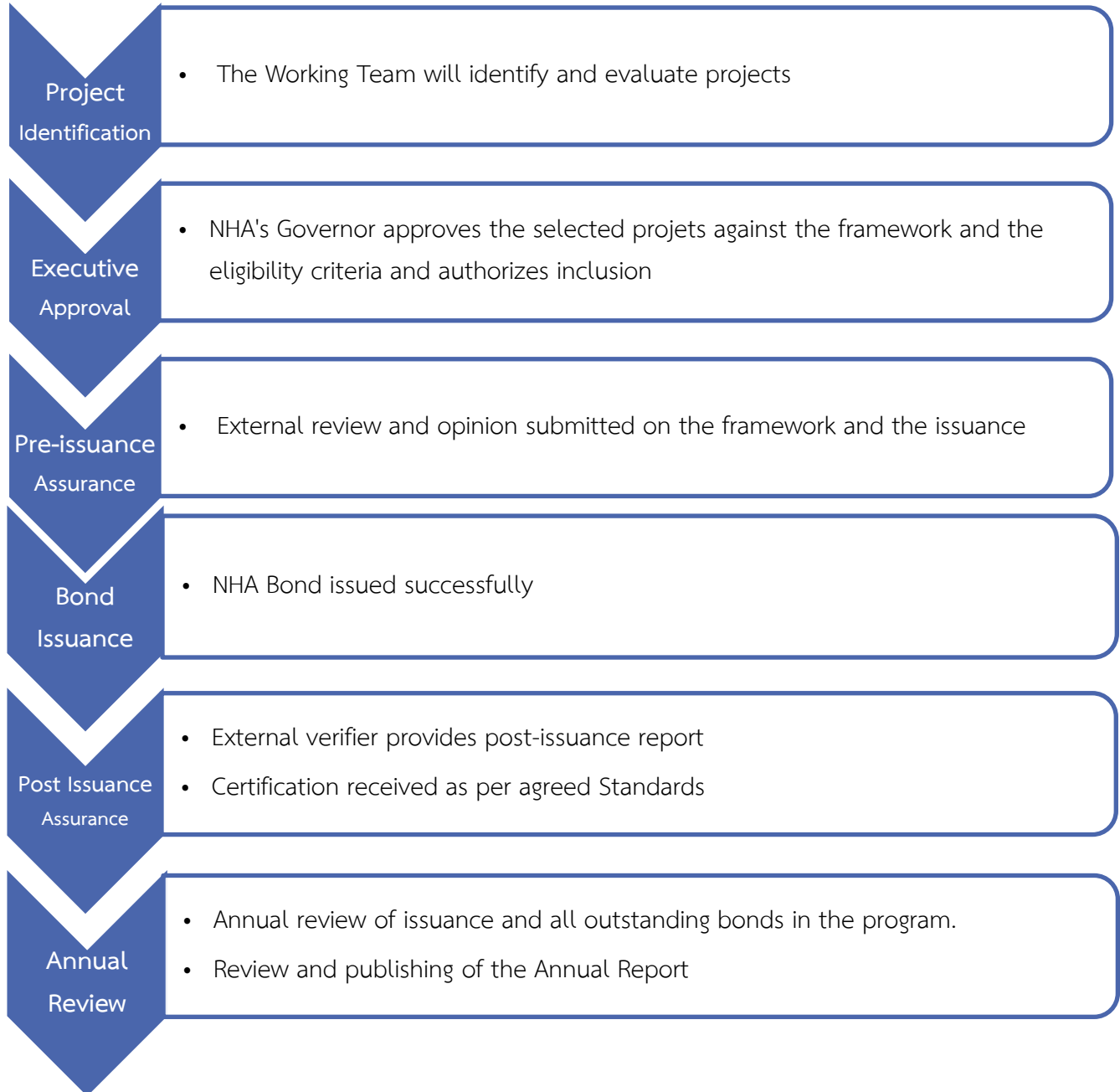


Figure 2. Process for Evaluation and Governance of Housing Included in the NHA Bond.

### *3.5 Management of Proceeds*

All bonds/loans issued by the NHA will have an equivalent amount to the net proceeds of each bonds/loans issuance booked within their systems in a specific ring-fenced account. The receipt and use of proceeds will be tracked via the NHA's internal reporting systems ensuring that the assets are appropriately identified in line with the process described in Figure 2.

The proceeds from the issuance of NHA's Sustainable Finance instruments will be separately deposited in NHA's specific account managed by Finance and Budget Administration Department. The use of Sustainable Finance proceeds will be reported quarterly to the Working Team for Green Bond, Social Bonds and Sustainability Bonds, and annually to the Governor and the NHA's Board of Directors, respectively.

However, if there are any changes in projects, the Working Team has the mandate to make decisions and primarily select the eligible housing project to match the allocation of the proceeds based on the criteria set, before submitting the shortlisted projects for approval of the Governor and notifying Board of Directors.

#### **Other Requirements**

The NHA commits that any proceeds of the bond/s will be allocated to the assets within a period of 24 months of issuance. Any unallocated proceeds may be temporarily held in cash or cash-equivalent securities and/or other eligible assets pending allocation, provided they satisfy the exclusion criteria.

In the event that all or some of the proceeds are being used for refinancing projects or assets, the NHA will disclose the proportion or an estimate thereto, of the financing versus refinancing allocation along with the relevant assets, and the expected look-back period for any refinanced projects. The working team will evaluate the look back period for refinancing within reasonable limits based on the nature of the projects and lifetime of assets.

### ***3.6 Reporting***

The NHA will publish updates of the allocation of the proceeds throughout the term of the social or sustainable bond/loan until the proceeds have been fully allocated to projects meeting the eligibility criteria. The updates will be reported publicly on the NHA website at <https://www.nha.co.th>.

The report content will consist of the following information.

#### ***3.6.1 Summary of All Bond/Loan Transactions During the Year***

The NHA will publish details of the bond/loan issued during the reporting period including key information such as transaction date, principal amount of proceeds, maturity date, and interest rate or coupon and ISIN number.

#### ***3.6.2 Sustainable Finance Proceeds Allocation Reporting***

The NHA will publish an annual Sustainable Finance Report as Allocation Reporting, which will include the following information:

- a list of the eligible projects earmarked for funding by the transactions,
- a description of the major eligible projects,
- a summary of housing projects financed by each Bond/Loan,
- a summary of the allocation of the proceeds with clarification of its proportion to finance and/or refinance housing projects, and
- a summary of unallocated proceeds of Bond/Loans and its management, etc.

#### ***3.6.3 Impact Reporting***

Apart from disclosing the detailed allocation of the proceeds, the NHA will also report the assessment of direct/indirect impact of the proceeds represented with, where possible, both qualitative and quantitative parameters outlining key performance indicators including, but not limited to, the satisfaction of community residents on aspects of social, economic, and environmental development of the project. Appendix A provides sample reporting parameters.

To the extent possible, the NHA will align with the reporting guidelines published by the ICMA SBP Working Group and other contemporary best practices emerging in the market based on the nature of assets and projects and subject to the availability of information and any confidentiality provisions.

### 3.6.4 Report Publication Scope and Frequency

As shown in Table 3 and Table 4 below, NHA will have a clear framework for disclosure and assurance reporting, and these reports will be made regularly available on its website.

**Table 3. Summary of NHA Pre-issuance Reporting.**

Disclosures	Timing
Finance Framework	At issuance of first bond and any other updates in future as required
Pre-issuance Assurance Report	<ul style="list-style-type: none"> <li>● Opinion on the framework by external reviewer</li> <li>● Assurance at issuance of the first bond and any other bonds under this framework (if applicable)</li> </ul>
Certification (if applicable)	At the point of successful certification, if applicable

**Table 4. Summary of NHA Post-issuance Reporting.**

Report Outputs	Frequency
Post-issuance Assurance Report	Annually for any outstanding bonds/loans or any other interim point as applicable and required
Annual Report including the allocation and impact reports	Annually for any outstanding bonds/loans



## **4. External Review**

### **4.1 Pre-issuance Report**

The NHA will engage an external reviewer to provide assurance on its Sustainable Finance Framework and proposed issuance to confirm alignment with the ICMA Sustainable Bond Principles and ASEAN Sustainable Bond Standards. The external reviewer's report will be made available on the NHA website.

### **4.2 Post Issuance Report and ongoing review**

The NHA will engage an external reviewer to conduct a post-issuance review of each issuance to confirm allocation of proceeds to the nominated projects and assets and any periodic ongoing review of all outstanding bonds/loans against the Sustainable Finance Framework and the relevant standards. The review will also be made available on the NHA website.

## Appendix A : Impact Reporting

Eligible Categories	Potential Impact Indicators
<b>Affordable Housing</b>	<ul style="list-style-type: none"> <li>○ Number of households housed with new and /or retrofit affordable housing provided by the NHA.</li> <li>○ Number of households who own homes under hire-purchase housing scheme with the NHA.</li> <li>○ Number of Urban Housing Redevelopment Projects financed.</li> <li>○ Number of new and/or upgraded facilities financed that were designed under the Universal Design Principle.</li> </ul>
<b>Socioeconomic Advancement and Empowerment</b>	<ul style="list-style-type: none"> <li>○ Number of dwellers who attended the training provided e.g., vocational training, environmental management training, community management training, etc.</li> <li>○ Number of women led-household who have access to affordable housing.</li> <li>○ Number of women who lead community committee.</li> </ul>
<b>Green building</b>	<ul style="list-style-type: none"> <li>○ Green certification obtained using the EGAT Label No. 5 efficiency benchmark</li> <li>○ Energy/CO2 savings from renovations and upgrades</li> <li>○ Materials sourced sustainably</li> <li>○ Number of people housed by NHA in energy-efficient, environmentally-friendly buildings.</li> </ul>

## Appendix B: Examples of NHA Affordable Housing Projects

### Appendix B.1 - Sample NHA Affordable Housing Project with Basic Infrastructure.



Appendix B.2 - Sample NHA Affordable Housing Project with ECO-Village Standard Certify Level.

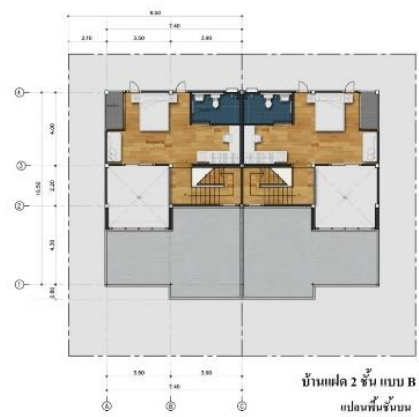
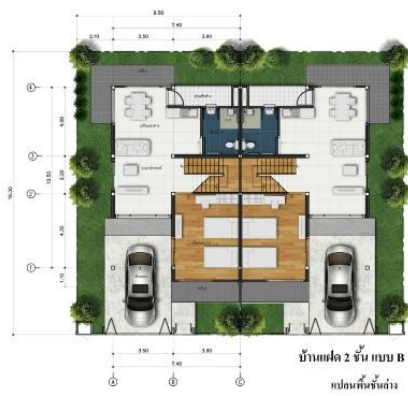


*Schematic of Khlong Luang Housing Project for the Elderly, Pathumthani Province*



*A 1-storey, semi-detached house*





2-Storey Semi-detached House

Appendix B.3. Sample NHA Affordable Housing Project with Housing Built to EGAT Label No. 5 Efficiency Levels





Appendix B.4 – Example of vocational training, environmental management training and other capacity building training programs in community. These social projects aim to improve the quality of life of residents and the socioeconomic condition of the community.

These social projects aim to improve the quality of life and socioeconomic condition of residents.



*Training for producing and utilizing EM for soil fertility*



*An example of vocational training in an NHA community*





*Training on safety measures and healthcare activities in an NHA community*



*Urban Farming on rooftop of Din Daeng G Building*

## Appendix C : Contacts

**Mrs. Premkamon Thongsri**, Director of Finance and Budget Administration Department

[premkamom.paew@gmail.com](mailto:premkamom.paew@gmail.com)

**Mrs. Rudeekan Sakeaw**, Director of Finance Administration Division

[rudeekan\\_s@hotmail.com](mailto:rudeekan_s@hotmail.com)

**Mr.Sarawut Supasorn**, Finance and Accounting Officer, Finance Administration Division, Finance and Budget Administration Department

[saravut.sup34@gmail.com](mailto:saravut.sup34@gmail.com)





**National Housing Authority**

**905 Nawamin Street,  
Khlong Chan, Bangkok**

**Bangkok, Thailand**

**T : +66 2 351 6775**

**W : <http://www.nha.co.th>**