

**Sustainable Cities Strategy:
Financing Solutions for Developing Sustainable Cities in Asia**

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1. Background

- 1.1. Asia has been urbanizing at an unprecedented scale and speed, and this trend is expected to continue. By 2050, an additional 1.2 billion people are projected to live in Asian cities, and Asia's urban population will account for more than half of the world's urban population.¹ The Asian region is also increasingly affected by climate change and natural disasters. A third of the world's natural disasters that occurred in the last three decades took place in Asia, and many of Asia's coastal cities are expected to be among the worst affected by rising sea levels due to global warming.²
- 1.2. Infrastructure investment to support the rapid growth of Asian cities under climate change is urgent. As more Asian cities become engines of economic growth and hubs of trade, infrastructure will be a key contributor for ensuring the connectivity, productivity, efficiency and overall competitiveness of these cities. As Asia's urban population grows, not only will new cities and new urban districts need to be developed, but existing cities will also need to be retooled to improve livability. The residents of many Asian cities today experience inadequate access to water and sanitation, unreliable power supply, traffic congestion, air and water pollution and a lack of decent shelters especially for the low-income group, among others. The lack of adequate infrastructure in Asian cities can be attributed in part to the small fiscal revenue base, poor access to finance and weak planning and management capacity of local administrations.
- 1.3. In view of Asia's urgent need for infrastructure investments in cities and its strong alignment to the Asian Infrastructure Investment Bank's (AIIB) mandate,³ AIIB has identified financing infrastructure for the sustainable development of cities in Asia as a key priority. AIIB views infrastructure investments in cities to be distinctive from sectoral infrastructure investments, as they are often multisectoral in nature, require spatial integration and have strong area impacts. These distinctive characteristics also create possibilities to utilize more innovative financing approaches, such as

¹ United Nations. 2014. "World Urbanization Prospects."

² Asian Cities Climate Change Resilience Network of the Rockefeller Foundation, and United Nations.

³ AIIB's Articles of Agreement states that "The purpose of AIIB is to foster sustainable economic development, create wealth and improve infrastructure connectivity in Asia by investing in infrastructure and other productive sectors ...".

financing by land value capture,⁴ for infrastructure investments in cities. Nevertheless, AIIB also recognizes that infrastructure investments in cities have interlinkages with sectoral infrastructure investments such as energy and intercity transport. AIIB has thus developed and will implement its Sustainable Cities Strategy in close coordination with its other sector and thematic strategies.⁵

2. Objectives, Comparative Advantages and Guiding Principles

- 2.1. AIIB recognizes that the sustainable development of cities requires a balanced integration of many economic, financial, environmental and social considerations. AIIB aims to support cities in Asia to be sustainable by promoting the objectives of green, resilient, efficient, accessible and thriving (Table 1). These objectives are consistent with many Asian cities' aspirations and the broader global goals, such as the Sustainable Development Goals, New Urban Agenda, Paris Agreement on Climate Change and Sendai Framework for Disaster Risk Reduction.

Table 1: Description of objectives that contribute to sustainable cities

Objectives	Description
Green	Protect and enhance environmental sustainability (e.g., pollution reduction, climate mitigation, conservation and sustainable management of natural resources and biodiversity)
Resilient	Develop the ability to withstand both sudden shocks (e.g., natural disasters) and slow-onset impacts (e.g., through climate adaptation)
Efficient	Deliver the best possible outputs with the least possible inputs (e.g., reduce congestion) and minimize waste generated during the process (e.g., heat, wastewater)
Accessible	Provide households (especially low-income and vulnerable groups) and firms with easier access to infrastructure and social services
Thriving	Contribute to sustained economic growth and job creation

- 2.2. AIIB is well-positioned to support the sustainable development of cities given its ability to directly finance not only national governments, but also subnational entities, including provincial and city governments and agencies, as well as state-owned and municipal-owned enterprises. In addition, AIIB's considerable financial resources, ability to provide sovereign-backed and nonsovereign-backed financing within the same balance sheet and priority to mobilize private capital into infrastructure development will enable the bank to support urban public-private partnerships (PPP) and commercially financed solutions.

⁴ Financing by land value capture is premised on the principle that the benefits of infrastructure projects are capitalized into land values and refers to tapping into the increments in land values to fund the respective infrastructure projects.

⁵ Notably, urban transport is covered under AIIB's Sustainable Cities Strategy, rather than AIIB's Transport Sector Strategy. Notwithstanding this, AIIB will encourage the urban transport projects that it finances to be integrated with both the urban transport network and the national/intercity transport network where possible.

- 2.3. Taking into consideration AIIB's primary focus on infrastructure financing and its comparative advantages, the bank's long-term aspiration is to **provide financing solutions, with distinct capabilities in supporting subnational entities and mobilizing private capital, for developing sustainable cities that are green, resilient, efficient, accessible and thriving in Asia.**
- 2.4. AIIB will be guided by three principles in its infrastructure investments in cities: client-driven; outcome-driven; and financial viability-driven.
- 2.5. **Client-driven:** AIIB recognizes that subnational governments are increasingly responsible for providing urban infrastructure and services. Their in-depth knowledge of local conditions can also facilitate the testing and refinement of the implementation of innovative solutions locally. Nevertheless, AIIB is also cognizant that urban governance structures vary considerably across countries in Asia, and that national governments continue to play an important role in urban development, including in coordinating the overall national development agenda. In addition, while some subnational governments have relatively strong creditworthiness and are able to tap into domestic financial markets, many subnational governments continue to have a small own-source revenue base that is supplemented by intergovernmental transfers and grants. In view of these considerations, AIIB will proactively seek to build trusted client relationships with subnational entities, and maintain the flexibility to work with national governments and private sponsors for financing infrastructure investments in cities.
- 2.6. **Outcome-driven:** AIIB's infrastructure investments in cities will be delivered mainly within the geographical boundaries of cities to largely benefit urban populations. Given the importance of spatial integration in cities, AIIB will proactively seek to support infrastructure projects that adopt a more holistic/integrated approach, such as by being part of a city masterplan and/or by considering strategic/efficient land-use. Notwithstanding the multiple economic, financial, environmental and social considerations that contribute to the sustainable development of cities, AIIB will proactively seek to invest in infrastructure projects that promote the objectives of green, resilient, efficient, accessible and thriving.
- 2.7. As set out in AIIB's Environmental and Social Framework and Policy, AIIB will seek to ensure environmental and social soundness and sustainability in all its projects, including its infrastructure investments in cities. During the identification, preparation and implementation of AIIB's projects, the bank will aim to address environmental and social risks and impacts, including for vulnerable groups. In supporting green economic growth, the bank will encourage making the best use of low-carbon technologies, renewable energy, cleaner production and energy efficiency, promote the conservation and sustainable management of natural resources and biodiversity, and support sustainable land-use management.
- 2.8. In addition, AIIB will be supportive of social development and inclusion that are critical for sound development in a manner consistent with the bank's Articles of Agreement. In particular, AIIB recognizes that selected urban infrastructures, such as urban transport, can have significant potential to improve economic inclusion and

social outcomes. The bank will encourage the infrastructure projects that it finances in cities to build in such considerations where possible.

- 2.9. **Financial viability-driven:** In line with AIIB's mandate to adopt sound banking principles,⁶ the bank will prioritize infrastructure investments in cities that are financially sound and viable. This is also consistent with AIIB's priority to mobilize private capital into infrastructure development, including in cities. Notwithstanding this, to the extent that AIIB's financial sustainability is preserved, the bank will maintain the flexibility to selectively support infrastructure investments in cities that do not initially offer sufficient financial returns to attract stand-alone private financing but present significant economic benefits with high social value.

3. Implementation Approach and Priorities

- 3.1. AIIB recognizes that the complexity of infrastructure investments in cities is heightened by their multisectoral and multi-stakeholder nature. Given that AIIB is still a relatively young institution, the bank will adopt a gradual and focused approach in its infrastructure investments in cities. Over time, the bank will build trusted client relationships and partnerships, strengthen its institutional capacities and proactively learn from its growing operational experiences.
- 3.2. **Cities:** AIIB is open to working with cities of all sizes, from small cities to megacities. Notwithstanding this, in the short term (three years), AIIB will seek to invest in a selected group of cities with higher implementation capacity, particularly where there are established city masterplans and where project sponsors have sound financial positions and robust governance. Over the medium term (five years), AIIB will gradually widen its engagements across a larger group of cities, including those with more challenging circumstances.
- 3.3. **Investment areas:** Infrastructure investments in cities can be broadly categorized into four areas based on their functions:
- (a) Enhancing urban mobility: These projects generally contribute to better physical access and more efficient connectivity between residential, commercial and industrial areas as well as social services within urban boundaries, which in turn support trade, economic development and poverty reduction. They may also promote green outcomes by incorporating low-carbon elements where possible. Examples include: metro systems; bus rapid transit; infrastructure supporting electric vehicles; pedestrian and non-motorized transport facilities; multimodal hubs; transit-oriented developments; and traffic management systems.
 - (b) Improving basic infrastructure and city resilience: These projects generally aim to: (i) provide better access to and improve the efficiency of basic infrastructure and services; (ii) promote green outcomes by reducing pollution, incorporating

⁶ AIIB's Articles of Agreement states that "The resources and facilities of the Bank shall be used exclusively to implement the purpose and functions set forth, respectively, in Articles 1 and 2, and in accordance with sound banking principles."

low-carbon elements and protecting the urban environment where possible; and (iii) enhance resilience against climate change and natural disasters, including through nature-based solutions where feasible, within urban boundaries. They may deliver multiple benefits and contribute to the overall sustainability of cities. Examples include: solid waste management, water supply; sewerage; wastewater treatment; urban drainage; flood protection; energy efficiency; and green buildings.

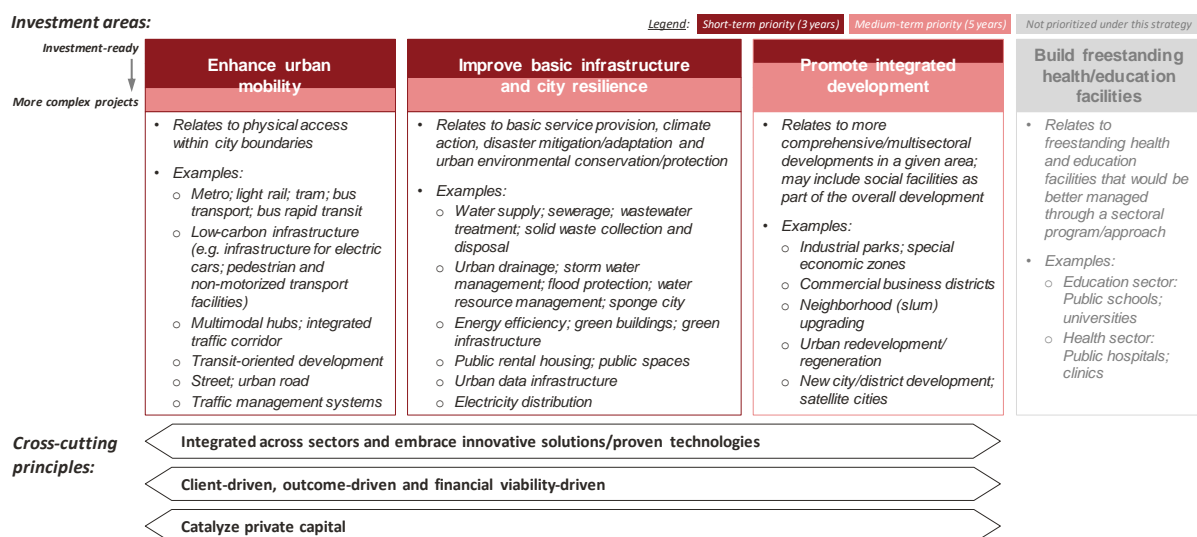
- (c) Promoting integrated development: These projects generally relate to more comprehensive and multisectoral development initiatives in a given urban area or sub-area, where social facilities such as public housing, hospitals and schools may also be part of an overall development initiative. They encourage more efficient land-use, which in turn supports trade and economic development, and provide better access to livable areas and social services, thereby improving people's quality of life. Examples include: industrial parks; special economic zones; commercial business districts; neighborhood (slum) upgrading; urban redevelopment/regeneration; new city/district developments; and satellite cities.
 - (d) Building freestanding health and education facilities: These projects relate to the development and improvement of freestanding health and education facilities within urban boundaries. Examples include freestanding public: schools; universities; hospitals; and clinics.
- 3.4. AIIB will prioritize investments in three of the above-mentioned areas under this strategy (Figure 1). They are (a) enhancing urban mobility, (b) improving basic infrastructure and city resilience and (c) promoting integrated development. While AIIB recognizes that health and education facilities are important for the sustainable development of cities, it is viewed that such facilities are better managed through a sectoral program/approach given the high degree of specialized expertise and policy dialogue required in these sectors. Nevertheless, where health and education facilities are part of a more comprehensive/multisectoral integrated development that AIIB is considering to finance, AIIB will support the building of such facilities under this strategy as part of the broader integrated development.
- 3.5. AIIB recognizes that the nature of urban population growth (e.g., rural-urban migration, natural growth) and changing economic structures have long-term implications on the spatial transformation of cities. Once built, the physical forms and land-use patterns of cities will likely be locked in for several decades. Taking this into account, AIIB will consider investing in urban real estate developments to the extent that they clearly contribute to achieving one or more of AIIB's identified objectives (green, resilient, efficient, accessible, thriving), present significant public benefits beyond private benefits and are part of the city's integrated masterplan. In particular, given the large and growing need for more sustainable and more affordable housing in Asia, AIIB will support the development of residential housing with significant social value, such as public rental housing and affordable housing. This is especially where the housing developments require investments in basic infrastructure and/or are part of a broader integrated development (e.g., new

city/district development). AIIB will, however, not prioritize investments in residential housing and commercial developments that have largely private benefits and little social value, such as luxury villas.

3.6. AIIB will gradually progress from financing relatively investment-ready projects to financing more complex projects across the three priority investment areas. Taking into consideration AIIB’s prevailing client demand and institutional capacity during its early years of operation, in the short term (three years), AIIB expects its infrastructure investments in cities to be largely focused on investment-ready projects that (a) enhance urban mobility (such as metro systems) and (b) improve basic infrastructure and city resilience (such as water supply, sewerage, wastewater treatment and flood management). As AIIB learns from more experienced project partners and its growing operations, over the medium term (five years), AIIB expects that its projects within each investment area of cities will increase in complexity, and that its portfolio of infrastructure investments in cities will broaden across the three priority investment areas and their respective subsectors.

3.7. In addition, AIIB recognizes that there is an increasing number of city-based initiatives to adopt innovation and digitization to help improve economic, financial, environmental and social outcomes in cities, such as smart cities. These innovations and technologies may be applied across the three priority investment areas that AIIB has identified, such as intelligent traffic and transit, e-road pricing, smart outdoor lighting, environmental monitoring and smart grid and metering. Where they have shown to be beneficial for the sustainable development of cities and are scalable in Asian cities, AIIB will also support investments in such innovations and technologies.

Figure 1: AIIB’s priority areas for infrastructure investments in cities



3.8. **Financing instruments:** AIIB will aim to offer a variety of financing instruments that can support government financing, private financing and PPPs to deliver the best development outcomes for cities. With regard to government finance, in addition to providing sovereign-backed financing, AIIB will initially seek to support subnational

entities with higher implementation capacity through subnational finance without sovereign guarantee. Over time, AIIB will seek to widen its range of nonsovereign-backed financing instruments and develop scalability in its more innovative financing instruments, such as local currency financing, credit enhancements for municipal bonds and green finance. As appropriate, financing to subnational entities will be conducted in consultation with relevant national authorities. On private financing, AIIB will make efforts in accordance to the priorities set out in its Strategy on Mobilizing Private Capital for Infrastructure. AIIB will also use its Special Fund to support project preparation for its infrastructure investments in cities, especially where there is clear potential to improve project bankability and catalyze private investments.

- 3.9. **Strategic partnerships:** AIIB will continue to work closely with its existing partners and build new strategic partnerships. The bank will work with other financial institutions, including multilateral development banks (MDBs), bilateral aid agencies and organizations providing concessionary finance, to cofinance projects. This will help clients to overcome financing challenges for more complex projects and help AIIB to strengthen its institutional capacity. The bank also recognizes the importance of upstream engagement and the efforts being undertaken by development partner institutions and initiatives. In addition to the MDBs, the bank will seek to collaborate with international and regional urban initiatives, such as 100 Resilient Cities, Global Green Growth Institute (GGGI), Local Governments for Sustainability (ICLEI) and the United Nations Human Settlements Programme (UN-Habitat), to identify projects in the early stage and complement the bank's lean business model where possible. AIIB will build on these partnerships to develop a more granular understanding of and deepen its expertise in areas that are within the bank's mandate and where the bank has the potential to add significant value.

4. Results Monitoring Framework

- 4.1. All of AIIB's investments, including those in cities, will be prepared and implemented with the aim to ensure high quality and a focus on delivering results, while ensuring cost-effectiveness to clients and maintaining the bank's lean business model. AIIB will gradually build the capacity to monitor the results of each of its infrastructure investments in cities towards achieving one or more of the identified objectives (green, resilient, efficient, accessible, thriving) as relevant. The bank recognizes that such project-level approach to results monitoring is more suitable for some of its identified objectives, such as accessibility which includes equality of opportunity across gender and income groups, and for the multisectoral nature of infrastructure investments in cities, where challenges due to cross-sectoral aggregation may arise. The bank will seek to learn from the experiences and good practices of other MDBs and the private sector. Key indicators will be selected on the basis that they are clear, relevant and monitorable. Examples of project-level outcome measures related to the identified objectives that are used by other institutions are provided in Annex A. Where possible, AIIB will seek to develop aggregates of selected project-level indicators and incorporate them into the portfolio-level results monitoring framework over time.

- 4.2. At the portfolio level, AIIB will monitor its investments in cities towards achieving the identified objectives (green, resilient, efficient, accessible, thriving) by investment amount and by share of its sustainable cities portfolio (Table 2). Where relevant, the bank will also apply its results monitoring frameworks for individual sectors, such as energy and transport, to its infrastructure investments in cities. AIIB will also monitor its capacity to provide financing solutions for developing sustainable cities, including its capacity to support subnational entities and to mobilize private capital into infrastructure investments in cities. These indicators will be revisited and refined as the bank gains more operational experience over time.

Table 2: Results monitoring framework for AIIB’s Sustainable Cities Strategy

Objectives	Indicators
Green	<ul style="list-style-type: none"> • USD and percent of financing for projects in cities that promote green development.
Resilient	<ul style="list-style-type: none"> • USD and percent of financing for projects in cities that promote resilience.
Efficient	<ul style="list-style-type: none"> • USD and percent of financing for projects in cities that promote efficiency.
Accessible	<ul style="list-style-type: none"> • USD and percent of financing for projects in cities that promote accessibility.
Thriving	<ul style="list-style-type: none"> • USD and percent of financing for projects in cities that promote economic growth.
Capacity to provide financing solutions for developing sustainable cities, including: <ul style="list-style-type: none"> • Supporting subnational entities • Mobilizing private capital 	<ul style="list-style-type: none"> • Number of cities in which AIIB has invested in projects towards achieving one or more of the identified objectives (green, resilient, efficient, accessible, thriving). • Percent of projects in cities in which financing is provided to subnational entities. • USD and percent of financing for projects in cities in which financing is provided to the private sector. • Private capital mobilized.⁷

- 4.3. As AIIB gains more operational experience and builds deeper institutional capacity, the bank will periodically review and refine the Sustainable Cities Strategy as appropriate. The timing of such reviews will be agreed with the bank’s Board of Directors in the context of the bank’s annual Business Plan.

⁷ Cross-reference to indicators as set out in AIIB’s Strategy on Mobilizing Private Capital for Infrastructure.

Annex A:
Examples of project-level outcome indicators

Objectives	Description	Illustrative project-level outcome indicators (unit)
Green	Protect and enhance environmental sustainability (e.g., pollution reduction, climate mitigation, conservation and sustainable management of natural resources and biodiversity)	<ul style="list-style-type: none"> • Greenhouse gas emission reduced (tons of CO₂ equivalent per year) • NO_x and/or SO₂ reduced (tons per year) • Particulate matter (e.g. PM₁₀, PM_{2.5}) reduced (micrograms per cubic meter) • Chemical oxygen demand reduced (milligrams per liter)
Resilient	Develop the ability to withstand both sudden shocks (e.g., natural disasters) and slow-onset impacts (e.g., through climate adaptation)	<ul style="list-style-type: none"> • People benefitting from disaster and/or climate resilient projects (number)
Efficient	Deliver the best possible outputs with the least possible inputs (e.g., reduce congestion) and minimize waste generated during the process (e.g., heat, wastewater)	<ul style="list-style-type: none"> • Travel time reduced (minutes) • Industrial or municipal waste reduced or recycled (tons per year)
Accessible	Provide households (especially low-income and vulnerable groups) and firms with easier access to infrastructure and social services	<ul style="list-style-type: none"> • Households provided with improved urban living conditions, such as improved water supply, improved sanitation, regular solid waste collection, all-season roads, electricity (number and percent) • Public transport trips by gender (number and percent)
Thriving	Contribute to sustained economic growth and job creation	<ul style="list-style-type: none"> • Private capital mobilized⁸ (USD) • Direct employment generated during construction and during operation (number)

⁸ Cross-reference to indicators as set out in AIIB's Strategy on Mobilizing Private Capital for Infrastructure.