

SECTOR ASSESSMENT (SUMMARY): URBAN INFRASTRUCTURE

Sector Road Map

1. Sector Performance, Problems, and Opportunities¹

1. **Growth of urban slum settlements.** Rapid urbanization has accompanied the growth of the economies of Indonesian cities.² The country's urban economy has been a major contributor to overall gross domestic product (GDP), with metropolitan cities contributing 27.96%, large cities 6.01%, and medium-sized cities 6.55%. The pull factor of these cities has motivated more rural people to migrate. The country's urban population currently exceeds 50% of the total population, up from 48% in 2005, and is projected to reach about 68% by 2025, with an estimated annual urbanization rate of about 4%.³ The growing number of migrants increases the challenge for cities to provide adequate services, particularly basic services such as adequate housing and settlement infrastructure that is affordable for the poor. In 2010, about 31.02 million of the national population were living below the poverty line, with around 10.65% of these living in cities. The growth of urban informal settlements or slums compounds the issues of increased urbanization; high number of poor migrants; and the limited capacity of local governments to provide affordable land, services, and housing for poor migrants and city dwellers. In 2011, only 40% of urban households had access to an improved water source and about 12.5% of the urban population is estimated to live in slums.⁴ These conditions are far from meeting the Millennium Development Goals (MDGs) for 2015.⁵ While MDG reports indicate a declining proportion of households living in urban slums (20.75% in 1993 to 12.12% in 2009), urban slums are reportedly growing in population and area (57,800 hectares in 2009 and projected to reach 67,100 hectares in 2020, with an annual growth rate of 1.37%).

2. **Characteristics of slums.** Settlements labeled as slums are characterized by inadequate basic facilities, and limited accessibility to the city's basic infrastructure, including clean water resources, sanitation, roads, drainage, electricity, and other public facilities. The quality of houses tends to be low, with poor durability of residential roofing materials, unpaved floors, and high occupancy per household, with less than 7.2 square meters of floor area per occupant. With these living conditions, slum dwellers are constantly exposed to diseases driven by inadequate sanitation: typically diarrhea, endemic cholera, and other waterborne diseases. Living in slum settlements not only has severe consequences for residents' health, but also increases the risk for further poverty. Lack of access to piped water leaves slum dwellers with no option but to buy clean water from unofficial vendors, at a price 10–20 times the price set by municipal water utilities. Poor urban neighborhoods with high population density are more exposed to the negative impacts of poor sanitation. In such confined spaces, human excreta that is not properly disposed of or treated will pollute water resources, spread disease, and increase health risks among neighborhood residents. Without adequate health protection, slum residents have to use their already limited savings for

¹ This sector assessment is consistent with the draft assessment, strategy, and road map for Indonesia's urban development drafted in August 2013, covering the Asian Development Bank country partnership strategy, 2015–2019 for Indonesia.

² In 2013, Indonesia's GDP grew by 6.7%.

³ The average annual urbanization rate during 1993–2007 was 4.2%.

⁴ From a baseline rate of 27.25% in 1993. The rate indicates a decline by 8.63% (National Survey Census data, Susenas) due to various government pro-poor housing programs. The National Statistics Board uses four indicators to estimate the proportion of urban slums: (i) lack of access to a protected source of drinking water, (ii) lack of access to basic sanitation, (iii) minimum floor area per occupant, and (iv) durability of building materials of place of residence.

⁵ Indonesia's targets for MDG 7: Achieving significant improvement in the lives of slum dwellers (MDG target 7D), and halving the proportion of households without sustainable access to safe drinking water and basic sanitation (MDG target 7C) are far from being met. The MDG target for the proportion of the urban population living in slums is 6%; this was 12.6% in 2011. The MDG target for the proportion of households with sustainable access to an improved water source is 75.5% by 2015; in 2011, only 40.5% of urban households had access to an improved water source.

health expenses, increasing their vulnerability.⁶ Most are vulnerable to eviction and loss of property as formal land rights are lacking. Many slum settlements are located in unsafe areas, along riverbanks and near the seashore, and face higher risk of environmental hazard, such as floods.

2. Government's Sector Strategy

3. **Slum upgrading.** Indonesia's slum upgrading programs and policies started in 1969 with the Kampung Improvement Program, the embryo of community-based approaches for slum upgrading and low-income housing provision initiatives. This was followed by initiatives such as the Integrated Urban Infrastructure Development Program (P3KT), Housing and Settlement Improvement (P2LK), Community Based Housing Development (P2BPK), National Movement for One Million Houses (GNPSR), Decent Housing for People (RSS), affordable vertical housing for ownership or rent (Rusunawa and Rusunami), Regional Based Slum Upgrading (PLP2K-BK), the World Bank-funded Urban Poverty Project, and the Asian Development Bank (ADB)-funded Neighborhood Upgrading and Shelter Sector Project. In early 2000, the government launched the Cities without Slums Initiative,⁷ under the auspices of the Directorate General of Human Settlements of the Ministry of Public Works (MPW), to accelerate efforts to reduce slums and achieve the MDG target 7D. To address poverty and the lack of basic infrastructure in poor neighborhoods, the government launched the National Program for Community Empowerment (PNPM) in 2006. The program is the government's ongoing flagship program for poverty reduction with the commitment to reduce poverty by adapting a community-driven development approach and providing direct support to poor communities to improve essential social services and basic infrastructure. The program has an indicative budget allocation of \$6,754 million for 2010–2014 and includes a specific scheme for urban slums.⁸ In 2011, the government introduced Law No. 1 to govern housing provision. The law supports the principle that every person is entitled to live in prosperity and in a good living environment, and that the government is responsible for managing settlements that permit residents to live in decent and affordable homes. In addition to slum upgrading, the Ministry of Housing introduced several financially inclusive schemes⁹ as part of the government's housing strategy for the poor. To accelerate progress in eradicating poverty and achieving MDG targets, the recent presidential directive Cities without Slums is to be achieved by 2020.

4. **Need for guided land development.** Policy interventions have kept up with the urbanization rate. The steady increase of slum settlement growth and unmet housing backlog indicate a need for preventive measures that contain control over urban growth and the proliferation of slums using a guided land development approach rather than merely being responsive.¹⁰ Guided land development refers to cities directing city development by being actively engaged in land management through measures such as land banking, land readjustment, and land consolidation. It can be used to control physical urban growth or to guide development of settlement sites intended

⁶ An assessment carried out for the Asian Development Bank-financed Metropolitan Sanitation Management and Health Project estimates the avoided health costs of having access to sewerage systems at Rp47,500 per person per year for urban households in densely populated neighborhoods.

⁷ As stipulated in the National Long Term Development Plan, 2005–2025, Law No. 17, 2007.

⁸ Indonesia's National Program for Community Empowerment is the world's largest community development program. During 2007–2008, the government launched PNPM Urban, a scaling up of the World Bank-funded Urban Poverty Project. The program consolidated existing government programs aimed at providing basic urban services at cheap prices under a single framework. By doing this, the government can create a unified design for program delivery, avoid overlapping and duplication of programs and activities, formulate better national targeting for the poorest, and directly transfer funds to villages for better poverty reduction efforts.

⁹ Housing Construction Financing Facility for low-income people, housing credit without down payment, and intermediary financing institute for the nonbankable community.

¹⁰ In addition to the challenge of reducing slum settlements, Indonesia needs to address the housing backlog, reportedly 13.6 million units per annum during 2012–2014, and estimated housing need growth of 800,000 units/year on average.

for the urban poor.¹¹ These approaches can be used to make land available for families who cannot afford land elsewhere. The development of new sites can be used to relocate slum dwellers from extreme high-density slum locations, or to cater for newly arriving families.¹² Ideally, new site development is undertaken on sites where the land is leveled and equipped with infrastructure (water, sanitation, drainage, roads, electricity, social, and health facilities), and are close to major markets and job opportunities. With increased population and number of slum settlements, cities will need to adopt a proactive approach for slum prevention that complements the upgrading of existing slums.¹³ Realizing this need, the current draft of the urban and water sector assessment highlights ADB support for urban slum reduction through a series of community-driven development programs to support PNPM Urban.¹⁴ This project and the proposed Neighborhood Upgrading and Shelter Project (Phase 3) (2016–2019) aim to contribute to the continued long-term agenda of settlement upgrading and new sites development.

5. Mainstreaming of innovation. With decentralization in place, cities have the authority to prepare their own development plans.¹⁵ These plans can be either strategic or sectoral, and usually are based on directives from the central government, intended for a specific national target like the PNPM or other line ministry programs. Unfortunately, central slum upgrading efforts seem to be fragmented between various programs and agencies, and lack coordination. This requires increased local government efforts to synchronize planning documents and monitor the implementation of projects that are not linked. In response, the Directorate General of Human Settlements issued a directive that each city government must prepare a strategic plan for prioritized urban settlement development (SPPIP) aligned with the city's spatial plan and the long-term development plan. The SPPIP will be the reference in preparing a 5-year citywide slum alleviation action plan, which will include the development of new sites as part of city investment plans. The project will assist local governments of about 20 large and medium-sized towns in developing slum alleviation action plans and revisit the SPPIP to ensure consistency. The purpose of the SPPIP is not to introduce new policies, but to harmonize the city's development and spatial plans. Given the long-term nature of the SPPIP, the approach would enable sustainable measures to upgrade existing slums, and develop new sites to contribute to the prevention of new slum development. The political commitment of local governments is key to these measures.

6. Capacity development. Local government capacity requires improvement. This includes technical capacity to develop technocratic documents and the capacity to engage communities in the planning of on-site physical upgrading activities. Communities will require greater awareness on environmental quality (water, sanitation, waste management, flood management), project management (planning for implementation, procurement of works, community contracting), and operation and maintenance. Local governments must be able to facilitate on-site upgrading activities and required collaborative mechanisms for local community groups and communities. Local governments must be able to ensure that physical improvements are demand-driven and to identify if they are strategic investments that can significantly leverage the slum dwellers' quality of

¹¹ R.W. Archer. 1996. Land Management for Integrated Urban Development in Asian Cities: Implementing the Formula L+P+F+NI=SUD. In K. Sing, F. Steinberg, N. Von Einsiedel, eds. *Integrated Urban Infrastructure Development in Asia*. New Delhi: Oxford. pp. 395–415.

¹² ADB has been promoting the guided land development approach since the 1980s: Asian Development Bank. 1986. *Pedoman Guided Land Development (vol. I and II)*: Jakarta (Loan 1077-INO A Guided Land Development Project in Indonesia. Ministry of Public Works); Jakarta has also been engaged in piloting the guided land development approach: Provincial Government of DKI Jakarta- Regional Development Planning Board. 1984. *GLD – Guided Land Development for DKI Jakarta*. Jakarta.

¹³ Ministry of Public Works, ed. 2012. *New Sites Development—The New Atmosphere of Indonesia Settlements*. Jakarta.

¹⁴ ADB. 2013. *Indonesia Urban Sector Assessment, Strategy, and Road Map*. Unpublished draft.

¹⁵ In 1999, Indonesia was decentralized through enactment of Law 22 (1999) on Local Governance, amended to Law 32 (2004). The law stipulates a large transfer of the central government's functions to local governments, including management of their local territory.

life, ensuring connectivity with the city's basic infrastructure, like piped water networks and disposal spots. The project will introduce specific training aimed at increasing technical skills of the local government in pro-poor spatial planning, community-based approaches, and other forms of capacity building identified during project implementation. Local governments must have the capacity to establish new settlement sites. The project views the strengthening of local government skills as a strategic investment; capacity development will be a key project output. To address poverty issues beyond infrastructure upgrading, the project will support city administrations in preparing citywide, multisector slum improvement action plans. The plans will represent an attempt to combine physical environmental improvements with other support mechanisms requiring collective efforts from entities beyond MPW.

7. **Private sector incentives.** Government cannot address the challenges of the fast-growing urbanization alone. Combined public–private efforts and innovative approaches are required to complement government policies. The project will establish models of partnerships between central government, local administrations, developers, and commercial banks to develop new housing sites for poor people whereby (i) local governments will provide land from their own resources and issue land titles for potential new house owners (titles are required as collateral to receive loans from commercial banks); (ii) MPW will establish the basic infrastructure (roads, water and electrify supply, sanitation facilities); (iii) private developers will prefinance the house construction, and coordinate connections to the main networks of service providers; and (iv) local commercial banks will provide loans to poor families.

3. ADB Sector Experience and Assistance Program

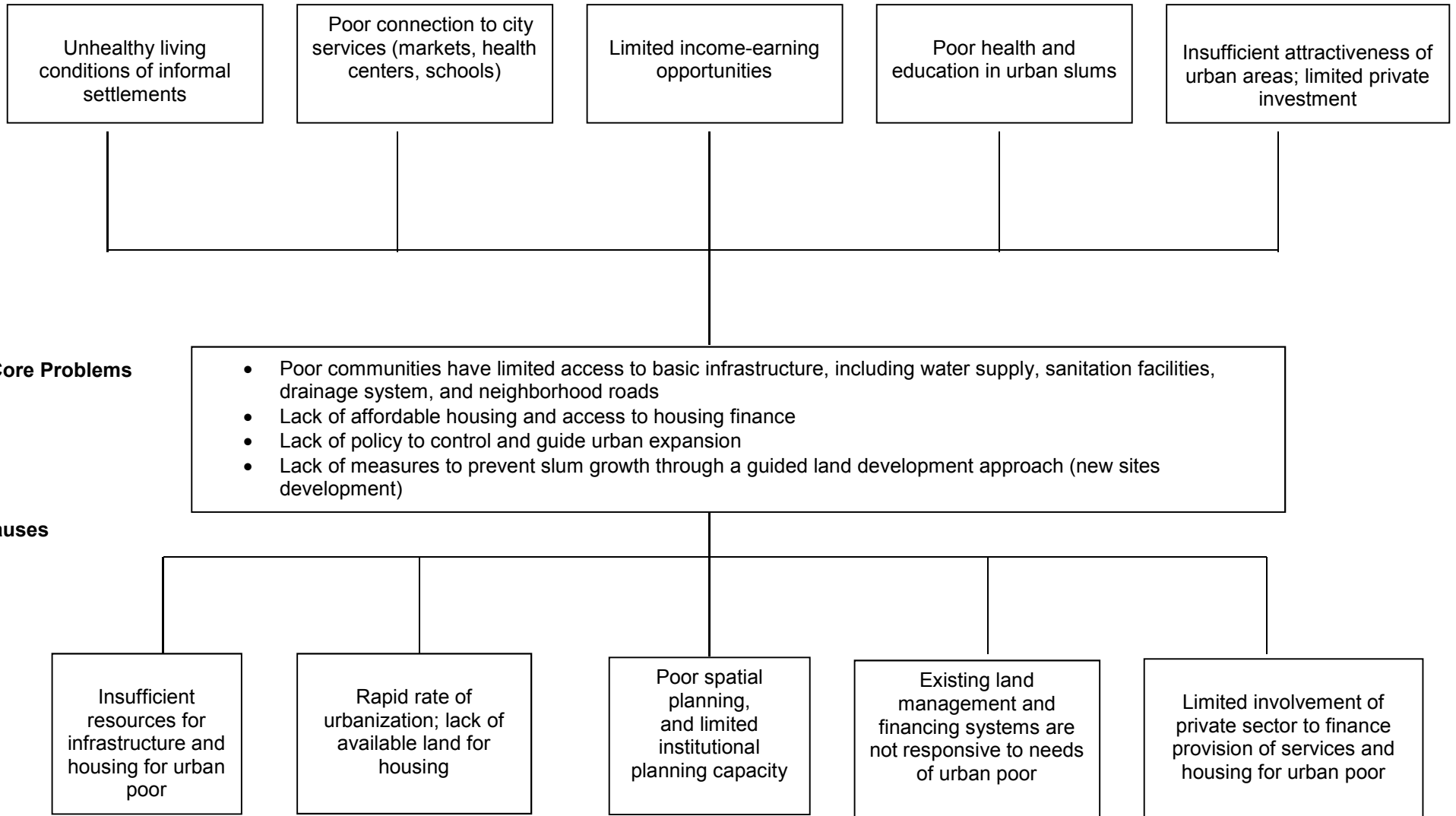
8. **Alignment of programs.** The project is aligned with the Water Supply and Other Municipal Service Assessment Sector Result, 2012–2014 and the forthcoming ADB country partnership strategy, 2015–2019 for Indonesia. It builds on ADB-financed loan projects providing assistance to community-based development in slums in urban and rural areas. The Neighborhood Upgrading and Shelter Sector Project, completed in September 2011, is rated *successful*.¹⁶ Lessons from the project, particularly from its new sites development component, include (i) involve beneficiaries at all stages of planning and implementation of upgrading activities, and promote inclusive community empowerment; (ii) ensure clearly defined landownership and strong political commitment to support pro-poor urban development; and (iii) promote integrated approaches and link upgrading investments of individual communities with overall city development planning. The project incorporates lessons from the Rural Infrastructure Support to the PNPM Mandiri Project¹⁷ and complements the Urban Sanitation and Rural Infrastructure Support to PNPM Mandiri Project.¹⁸ Lessons incorporated into project design are (i) support community control of decision making over resources and investment choices, (ii) develop simple and transparent funds flow arrangements with direct transfers to community accounts, (iii) ensure strong accountability procedures, such as public disclosure of budgets and contracts, (iv) establish village management of funds and procurement matters, and (v) provide training for communities to establish effective mechanisms to operate and maintain new infrastructure.

¹⁶ ADB. 2011. *Completion Report: Neighborhood Upgrading and Shelter Sector Project in Indonesia*. Manila.

¹⁷ ADB. 2012. *Completion Report: Rural Infrastructure Support to the PNPM Mandiri Project in Indonesia*. Manila.

¹⁸ ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Technical Assistance Grant to the Republic of Indonesia for the Urban Sanitation and Rural Infrastructure Support to PNPM Mandiri Project*. Manila.

Problem Tree for Urban Infrastructure



Sector Results Framework: Urban Infrastructure 2015-2019

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Outcomes with ADB Contribution	Indicators with Targets and Baselines	Outputs with ADB Contribution	Indicators with Incremental Targets	Constraints to Output Delivery	Main Outputs Expected from ADB Interventions
<p>CPS, 2015–2019</p> <p>Water supply and other municipal infrastructure services (Strategy 2020 Core Area 1: Infrastructure; Core Area 2: Environment)</p> <p>Source: CPS INO 2012–2014 ADB</p> <p>Source: Report on the Achievement of the MDGs in Indonesia, <i>Bappenas</i> 2011</p> <p>Source: MDGs Target Report 2009, <i>Bappenas</i> (slum dwellers)</p>	<p>CPS:</p> <p>Percentage of urban slum dwellers reduced from 12.26% in 2011 to 6.5% in 2019 (baseline: 12.12% in 2009)</p> <p>Access to adequate drinking water increased from 45.5% in 2011 to 57% in 2019 (baseline 45.5% in 2011)</p> <p>Access to adequate sanitation increased from 49.5% in 2013 to 54.5% in 2019 (baseline: 51.2% in 2009)</p> <p>Percentage of women trained in development, implementation, and operation and maintenance of infrastructure increased from 20% in 2014 to 30% in 2019 (baseline: 0% in 2013)</p>	<p>CPS:</p> <p>NLTDP (2005–2025): Cities Without Slums</p> <p>MDG 2020: Slums reduced by 50%</p> <p>Stakeholders in urban development able to achieve agreed goals</p> <p>City governments able to manage urban development</p> <p>Adequate shelter and infrastructure for low-income people</p> <p>Healthy, clean, and green environment provided</p> <p>Affordable public transport and improved urban mobility provided</p>	<p>NUSP-2:</p> <p>Capacity of 20 city governments to manage urban development improved</p> <p>8,000 ha of slum areas in 20 cities improved</p> <p>New sites developed in 12 cities (34 ha)</p> <p>2,210 housing units built</p> <p>NUSP-3: As for NUSP-2</p> <p>Indonesia Green Cities Program:</p> <p>IGI fund supports green cities and competitive investment in 20 cities (drainage, flood control, improved waste management, improved urban mobility)</p> <p>10% decrease in toxic emissions in selected urban areas in 2019 (baseline: 0% in 2013)</p> <p>10% increase in urban mobility in 2019 (baseline: 0% in 2013)</p> <p>5% increase in green public space in 2019 (baseline: 0% in 2013)</p> <p>10% increase in private participation in green city development in 2019 (baseline: 0% in 2013)</p>	<p>Lack of finance for design, construction, O&M</p> <p>Weak city revenues</p> <p>Weak management capacity</p> <p>Restrictive regulations</p> <p>Lack of affordable land for housing and infrastructure in urban fringe areas</p> <p>Urban environmental contamination by micro, small, and medium-sized enterprises not considered municipal responsibility</p> <p>Green city development is multisector responsibility</p>	<p>(i) Planned Key Activity:</p> <p>Urban sanitation improved in up to 12 cities</p> <p>Governance in water utilities strengthened</p> <p>(ii) Pipeline Projects:</p> <p>About 500,000 households gain access to improved sanitation</p> <p>Water supply systems in 100 IKKs</p> <p>Water utilities reforms leading to improved performance and lending capacity</p> <p>(iii) Ongoing Projects:</p> <p>Up to 10 PDAMs supported in implementing reform, improving governance, and expanding customer base</p> <p>Provision of improved sanitation for up to 250,000 people in urban and rural areas</p> <p>Increases in the share of women in urban sanitation committees</p> <p>30% of staff trained in development, implementation, and O&M of waste water works are women</p>

ADB = Asian Development Bank, AusAID = Australian Agency for International Development, CDTA = capacity development technical assistance, CPS = country partnership strategy, ENV = environmental sustainability, GEN = gender equity, ha = hectare, IGI = Indonesia Green Investment, MDG = Millennium Development Goal, NLTDP = National Long Term Development Plan, NUSP = Neighborhood Upgrading and Shelter Project, O&M = operation and maintenance, PPTA = project preparatory technical assistance, PSD = private sector development, R-CDTA = regional capacity development technical assistance, REG = regional, TASF = technical assistance special fund, USRI = Urban Sanitation and Rural Infrastructure Project

^a Interventions approved prior to ADB. *Country Partnership Strategy: Indonesia, 2015–2019*. Manila.

Source: ADB. 2013. *Indonesia Urban Sector Assessment, Strategy, and Road Map*. Unpublished draft. Manila.