Bridging Cities, People and Sustainable Development

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Cities Development Initiative for Asia (CDIA)

CDIA is a regional initiative that works closely with medium-sized cities in Asia and the Pacific to address gaps in infrastructure development and financing. It uses a demand-driven approach to support infrastructure projects that emphasize poverty reduction, environmental improvement, climate change mitigation and/or adaptation, and good governance.

CDIA is currently implemented by the Asian Development Bank (ADB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German government, and Agence Française de Développement. It receives funding support from the governments of Austria, Sweden, Switzerland, the United Kingdom and the United States of America, as well as the European Union and The Rockefeller Foundation. It was established in 2007 by the ADB and the German government with the intent of improving the lives of 1.6 billion people in Asia and the Pacific.

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Message

Dear Cities, Partners and Friends,

We are keen to introduce to you the CDIA publication titled “Bridging Cities, People and Sustainable Development,” which showcases some of our efforts and success stories over the past 11 years.

The story of CDIA is one of the fruitful partnerships between the Asian Development Bank (ADB) and the German development cooperation. Together, we have created something very unique and helpful in addressing the challenges of providing better infrastructure to cities and thereby improving people’s lives.

Due to rapid urbanization, which is one of the most impactful developments affecting Asia and the Pacific, the relevance of our work in helping cities cope with related impacts and problems grows every day.

Our special demand-driven approach in helping our partner cities to prioritize and identify their own infrastructure needs, carry out project preparation studies and subsequently assist in linking their projects, has proven to be a very successful approach.

In addition, the technical assistance we provide through our capacity development activities have enhanced the capabilities of local government units, city officials and other partners in increasing their ownership and responsibility of future projects, and have created lasting partnerships.

With CDIA now entering a new phase as an ADB-managed Trust Fund, the direct engagement of the German technical assistance represented by the Gesellschaft für Internationale Zusammenarbeit (GIZ) will come to an end. However, we have left a footprint in creating partnerships and synergies with local and regional development and government agencies that will remain relevant in the future of CDIA.

We would like to express our sincere gratitude to all our funding and implementing partners for the consistent support and the enduring cooperation. We are now looking forward to seeing CDIA continue its successful path for many years to come.

Eva Ringhof
CDIA Program Coordinator

Neil Chadder
CDIA Program Manager
CDIA: Bridging Gaps in Infrastructure Development and Financing

Why do people move to cities? Common answers could be for better opportunities, employment, lifestyle preferences, or easier access to amenities like education and healthcare. What seems to be a personal decision has driven a global phenomenon called urbanization, such that more than half of the world’s population now lives in cities.

Asia is one of the epicenters of urbanization, where the number of people living in towns and cities is rapidly increasing. Despite being less urbanized than most other regions, Asia hosts today 2.3 billion people or 54% of the world’s urban population.1
The $1.7 Trillion Infrastructure Gap Every Year

The investment in infrastructure needed to support urbanization is massive and many cities cannot cope with this challenge. A recent Asian Development Bank report states that:

“Developing Asia will need to invest $26 trillion from 2016 to 2030, or $1.7 trillion per year if the region is to maintain its growth momentum, eradicate poverty, and respond to climate change.”

City governments with its leaders and city planners must face the colossal task of providing the necessary infrastructure and services for their growing population.

Where to begin? How to prepare for urban infrastructure projects? How to make these projects attractive to financiers? These are complex issues and many cities are facing huge gaps in terms of management, human resource capabilities, and financing.

Understanding this situation, the Cities Development Initiative for Asia (CDIA) works closely with medium-sized cities in Asia and the Pacific to bridge the gap between their development plans and the implementation of their infrastructure projects.

CDIA is an international partnership initiative established in 2007 by the Asian Development Bank and the German Government with the intent of improving the living conditions in Asia-Pacific cities.

CDIA is currently implemented by the Asian Development Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Agence Française de Développement (AFD). It receives funding support from the governments of Austria, Sweden, Switzerland, the United Kingdom and the United States of America, as well as the European Union and The Rockefeller Foundation.

City governments have visions and aspirations for their city. However, they often do not know how to translate these into actual projects. Similarly, financing agencies want to invest in cities, but they cannot find bankable projects to finance.

By providing assistance in infrastructure project preparation and linking cities to finance, we at CDIA become the bridge through which the cities' infrastructure projects can be actualized.

Supporting Cities in Infrastructure Development and Financing

Our demand-driven approach is used to support urban infrastructure projects that emphasize Poverty Reduction, Environmental Improvement, Climate Change Mitigation or Adaptation, and Good Governance.

To facilitate these initiatives at the city level, CDIA brings in a range of international and domestic experts who provide technical assistance in structuring project preparation studies for high priority infrastructure investments and link city partners with potential financiers.

Congruently, as our way of ensuring sustainable measures, we provide tailor-made capacity development. In particular, CDIA provides learning series that help city leaders and administrators enhance their skills and competencies. These are measures that strengthen individual responsibility, intensify awareness, and reinforce responsiveness that ensure a more durable outcome in dealing with future development challenges.

3 Broadly defined as functional urban areas with population between 250,000 and 5 million people.
Aligning Cities with the United Nations Sustainable Development Goals

As CDIA’s development approach intersects various relevant issues such as poverty reduction and environmental improvement, our projects are also directly and indirectly linked to the United Nations Sustainable Development Goals (SDGs). We are particularly focused on SDG 11 – Make cities and human settlements inclusive, safe, resilient and sustainable.

Our Achievements: Engagement, Collaboration and Knowledge Sharing

From 2007 to June 2018, CDIA has worked with 94 cities in 19 countries in preparing infrastructure investment projects. Out of 78 completed project preparation studies (PPS), 66 studies in 71 cities have been linked to finance with estimated infrastructure investment value of USD 9.5 billion.

Figure 1: CDIA projects in Asia-Pacific cities (as of June 2018)
Fig. 2: Distribution of Completed PPS by Infrastructure Sector
Figure 2 shows that as of June 2018, more than half of our projects is focused on urban transport, wastewater management, and flood and drainage management.

Fig. 3: Distribution of Completed PPS Linked to Finance by Funding Institution
Figure 3 shows that as of June 2018, almost half of our projects is linked to the Asian Development Bank funding. Yet, a significant number of projects is likewise channeled through national/local financial institutions, the World Bank, and other agencies.

In terms of capacity development, we have trained over 2,870 partners in 116 training activities. It’s a people to people relationship we have built over the years, a network of sharing best practices and knowledge, and offering toolkits that strengthen skills and competencies of partners in cities.
Sustainable Development in Cities: Bridging People to a Future Worth Living

“2015 is a year of historic opportunity. We are the first generation that can end poverty, and the last one that can take steps to avoid the worst impacts of climate change. With the adoption of a new development agenda, sustainable development goals and climate change agreement, we can set the world on course for a better future.”

-Ban Ki Moon, former Secretary-General of the United Nations
The 2030 Agenda for Sustainable Development

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted in 2015 at the United Nations summit, which gathered 193 world leaders to set the roadmap towards a better future for all. They build on the works and successes of the Millennium Development Goals as well as balance three dimensions of sustainable development: economic, social and environmental.

The scale and scope of the new universal Agenda comprises 17 SDGs with 169 targets that address the global challenges as well as shape the policies and actions across the world over the next 15 years.

The fulfillment of all SDGs is interconnected, and the key to success in achieving one goal is to go hand in hand in addressing the issues of another. With this, the SDGs serve as a universal call to action for people, planet, prosperity and peace – achieved through partnerships that will ensure that truly, there will be no one left behind.

---

**People**
Determined to end poverty and hunger in all forms and dimensions, and to ensure that all human beings can maximize their potential with dignity and equality in a healthy environment.

**Planet**
Determined to protect the planet from degradation, particularly through sustainable consumption and production, managing the planet’s natural resources and taking urgent action on climate change, so that it can sustainably support the needs of the present and future generations.

**Prosperity**
Determined to ensure that all human beings are enabled to enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

**Peace**
Determined to foster peaceful, just and inclusive societies which are free from fear and violence, affirming that there can be no sustainable development without peace and no peace without sustainable development.

**Partnership**
Determined to mobilize the means required to implement this 2030 Agenda based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders, and all people.


CDIA’s Role in Achieving Sustainable Development Goals

By bridging the gap between the development plans and the implementation of infrastructure investment in cities, we become a primary partner in ensuring an inclusive, resilient and sustainable urban development, thereby contributing to the achievement of the SDGs and the improvement of living conditions in the Asia-Pacific region.

Through our monitoring tool, the Initial Development Impact Assessment (IDIA), we looked closely at 40 projects implemented since 2015, the year the SDGs were adopted. Since then, we have been tracking how we work with cities in aligning projects with the global goals.

In an overview, our infrastructure investment projects have been designed to contribute to various SDGs.
Designing a 24x7 water supply project in Pimpri, India will ensure continuous availability of clean water from the tap, benefiting women and their families.

Focusing its work in cities, CDIA has mainly endeavoured to contribute to SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Beyond SDG 11, CDIA’s projects with partner cities have been aligned to the following five SDGs:

- **SDG 1**: End poverty in all its ways and forms;
- **SDG 5**: Achieve gender equality and empower all women and girls;
- **SDG 6**: Ensure availability and sustainable management of water and sanitation for all;
- **SDG 9**: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; and
- **SDG 13**: Take urgent action to combat climate change and its impacts.

Figure 7 indicates that CDIA projects since 2015, which are expected to contribute to SDG 11 are mainly in Cambodia, Indonesia and Pakistan. On the other hand, Figure 8 indicates that the expected beneficiaries of SDG 11-aligned interventions are highest in Bangladesh, followed by Pakistan and India.

Designing a 24x7 water supply project in Pimpri, India will ensure continuous availability of clean water from the tap, benefiting women and their families.
Zooming in further to SDG 11 sub-goals, Figure 9 shows that CDIA projects are contributing the most to the following:

Reducing Environmental Impacts in Cities

SDG 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

Disaster Risk Management towards Resiliency

SDG 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

Inclusive Urban Development with No One Left Behind

SDG 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

Figure 10 and 11 indicate that Cambodia, followed by Indonesia and Pakistan are expected to benefit the most from projects that have been aligned with the sub-goal of reducing the adverse environmental impact in cities through air quality and waste management. Specific impacts envisaged include decreased flooding, reduced air pollution and CO2 emissions, improved sanitary and drainage conditions, and overall improvement of human health conditions.
Figures 12 and 13 show that Cambodia, followed by Pakistan and the Philippines have the most number of projects focusing on decreasing casualties and economic losses brought by disasters especially to vulnerable populations such as poor, women, children, senior citizens and persons with disabilities.

Disaster Risk Management towards Resiliency

The fear of flood is gone. About 20,000 households, including vulnerable groups are now benefiting from the river revitalization project in Naga City, Philippines.

Figures 14 and 15 show that Cambodia, followed by Indonesia and Pakistan are the primary recipients of projects aligned with ensuring inclusiveness in the planning and management of urban development. While the inclusiveness of CDIA projects will benefit women the most among the vulnerable populations, achieving sustainable development also entails making them active participants in charting an urban future where no one is left behind.

Inclusive Urban Development with ‘No One Left Behind’

Women actively participating in stakeholder consultations to identify potential projects toward building resilient and inclusive cities in Khyber Pakhtunkhwa, Pakistan.

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Women actively participating in stakeholder consultations to identify potential projects toward building resilient and inclusive cities in Khyber Pakhtunkhwa, Pakistan.
Yangzhou is a city rich in history and cultural heritage that dates back to over 2,500 years. It is home to 5 million people.

Preserving Yangzhou’s cultural heritage while upgrading urban areas can be a challenging task. The city has not been able to upgrade its outdated infrastructure or restore the deteriorating housing stock in the city’s old town, leading many residents to move out and leave behind the decaying urban centre. Another issue is the city’s water pollution caused by the industries along the city’s ancient canal.

In 2009, CDIA partnered with the Yangzhou Construction Bureau to design its urban renewal project with an integrated approach. To put Yangzhou on the right track towards achieving the SDGs, pre-feasibility studies were prepared for three projects: 1) Preservation of the city’s old town; 2) Development of the San Wan Wetland Park and 3) Completion of the water treatment plant.

“The integration of open spaces in old city development and the adoption of participatory approaches in planning are examples of good practices introduced by CDIA.”

-Xue Bin Kuan, Deputy Director, Yangzhou Construction Bureau.

Nine years later, CDIA has seen significant progress in implementing the first two projects. The old town, previously in decline due to lack of infrastructure, and the San Wan Wetland Park, once a dumping ground for industrial waste, are now bustling with locals and tourists enticed by the attractive sites and activities that both places offer.

The projects have assured the people of Yangzhou that their wealth from the past can be enjoyed by the present, as well as future generations.

The city’s initiatives have paved the way for Yangzhou to make a clear progress towards SDG 11 – sub-targets 4 and 7.

SDG 11, Target 4: “To strengthen efforts to protect and safeguard the world’s cultural and natural heritage”

SDG 11 Target 7: “To provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities”

Residents in Yangzhou City became a key partner in planning for the old town preservation.

Wang Lumen Residence will soon serve as a museum to display Yangzhou’s salt merchant culture.

The ecological value of the San Wan Wetland Park has been realized with the sighting of at least 40 species of birds that have returned to the park.
Moving People through Safe and Inclusive Transportation System
Yogyakarta, Indonesia

Yogyakarta is a populous, bustling city in Indonesia. It is a city where mobility and accessibility are among its major concerns, particularly for women.

CDIA supported the city in upgrading and expanding the services of its bus system called Transjogja, to provide safe and affordable mobility for all of its citizens.

When Transjogja started making rounds in the city in 2008, poor conditions of public transport prevailed – long waiting times in unsafe and poorly lit areas, and the high incidence of pickpocketing even inside buses discouraged many passengers, particularly women from riding public buses. Realizing that the expansion of the Transjogja system could address these poor conditions, the city government sought the help of CDIA to develop an integrated urban transport strategy.

The expansion and inclusiveness of Yogyakarta’s transport system has steered the wheel towards achieving the SDG 11 sub-target 2.

The expansion and inclusiveness of Yogyakarta’s transport system has steered the wheel towards achieving the SDG 11 sub-target 2.

Among the measures proposed by CDIA included the enhancement of bus terminals, establishment of priority lanes, increasing the number of buses and bus stops with improved pedestrian conditions, a fleet maintenance depot, an intelligent transport system and inclusive bus features for women, the elderly, and other vulnerable individuals.

SDG 11 Target 2: “By 2030, provide access to safe, affordable, and sustainable transport systems for all, improving road safety, notably expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.”

“It is more comfortable, convenient, secure, and with air conditioner. If I don’t know the right bus stop, I can always ask the officer inside the bus,” said one female commuter, whose opinion was shared by other passengers – students, workers, or persons with disabilities – who are equally satisfied with Transjogja for their daily commute.

The expansion and inclusiveness of Yogyakarta’s transport system has steered the wheel towards achieving the SDG 11 sub-target 2.
No matter what the infrastructure blueprint may be, whether it be to improve drainage, reduce flooding, rejuvenate a city’s river or perhaps regenerate a historic site, subsequently, people are the direct beneficiaries of a better, well-planned city.

Thus, we make certain that all our work is geared towards improving peoples’ lives. At the end of every pipe laying, bus lane design, or any other urban support system we help set up are families whose health and well-being we hope to have a positive impact on. And while we endeavor to build the capacities of city planners – ultimately, we are eyeing these improved capacities to make a difference on how people will live their lives in the city.
Our Contributions to Key Development Impacts

Even before the sustainable development goals were adopted in 2015, there are four development impact pillars that guide our every infrastructure project:

**Poverty Reduction and Enhancing Inclusiveness.** As we target economic opportunities and improve livelihoods through infrastructure provision, we help reduce poverty. By equally giving value to the role of women, children, the elderly or people with special needs – and including them in the planning and implementation stages, we likewise help to enhance their lives.

**Environmental Improvement.** As we aim for environmental improvement in areas such as transport or waste management, we contribute to reducing environmental degradation, help improve people’s mobility and provide a healthy and safe life.

**Climate Change Mitigation and / or Adaptation.** As we face the challenges and hazards of severe weather conditions, we assist to build the city’s defense mechanism to improve its resiliency and give people the protection and security they need.

**Good Governance.** As we help to empower people and give them a voice in decision-making, we hope to create opportunities for people to be more engaged in the development of their city.

We aim at an integrated approach by designing infrastructure projects with targeted results that mainly contribute to at least two of the four development impacts. Figure 16 shows a strong orientation towards environmental improvement, with majority of CDIA projects centering on transport, wastewater management, and flooding and drainage improvement.

Behind Figure 16 are principles, strategic approaches and activities that ensure the highest possible quality from our projects to maximize their development impacts. Yet, as CDIA is into project development, we look to our partners to actualize the impacts we have anticipated from our joint intervention/s. At the end of the day, it is our partners who hold the key to ensuring the sustainability of their infrastructure projects.
Urban poverty is a complex phenomenon that varies from country to country, city to city throughout Asia and the Pacific. It is a tangled maze of issues in varying degrees - from unemployment and poor housing to lack of basic infrastructure and public services. To help reduce poverty, CDIA adopts a pro-poor development approach.

Pro-poor development is understood as aiming improvements not just in one, but several aspects of poverty. It is also strategic and focused, as it encompasses an inclusive approach to gender equality.

We commit to ensuring that all our projects aim at inclusiveness and poverty reduction by improving:

- **Access to municipal services** such as water, sanitation, waste management, transport, shelter, electricity, and protection against man-made or natural hazards.

- **Access to resources** that generate employment. Targeted investments in strategic infrastructure provision for instance can stimulate pro-poor economic growth and development leading to income generation and improved livelihoods. Inclusive infrastructure investments also enhance accessibility of the poor to key assets such as land and property titles.

- **Access to decision making** that brings about participation and empowerment. Generally, the poor are not actively involved in urban planning and infrastructure development. While participation provides a way for promoting gender equality and inclusiveness, community empowerment on the other hand, is a key outcome of a well-managed project development process.

How We Target Results and Impacts for Poverty Reduction and Inclusiveness

An analysis of 39 projects from 2015 until June 2018 provides an overview of intended impacts from design features that ensure CDIA’s pro-poor approach is integrated into infrastructure projects.

**Anticipated Positive Impacts**

This section discusses anticipated direct positive impacts on the poor, including women as it relates to enhancing inclusiveness, adding gender-impacts and gender-related design features.

Most urban infrastructure projects will lead to general improvements in overall economic development, which in turn will benefit the population at large. In the short term, it is assumed that most investments will generate employment opportunities as part of implementation. However, while this is important, indirect or temporary impacts are not the primary focus of CDIA’s interventions. It rather concentrates on direct impacts on poverty reduction and addresses the key infrastructure-related poverty concerns with our partner cities.
As can be seen in Figure 17, the anticipated impacts on poverty are primarily targeting an “improved access to basic infrastructure,” which is not surprising given our mandate in supporting infrastructure development. These results are in line with CDIA’s strategy on “Poverty Reduction and Enhancing Inclusiveness” as the primary focus is on providing the urban poor with access both in terms of physical access to basic infrastructure and services and ensuring financial accessibility. Congruently looking at anticipated positive impacts on gender, Figure 18 reflects that while the gender aspects could not be ensured in all projects, CDIA has a strong focus on ensuring “improved health of women & children” and “improved access of women to social services.”

In line with the analysis of anticipated impacts to the poor, Figure 19 echoes a similar pattern regarding the pro-poor design features, in that the primary goal of CDIA’s projects is to ensure “access to basic infrastructure services.” Several other design features are also deemed relevant, like ensuring affordability of services, employment opportunities and accessibility to infrastructure services.

CDIA’s inclusive design features also target that the projects benefit the urban poor and promote gender inclusiveness. For projects to contribute to poverty reduction and social inclusiveness, the 5 A’s must be pursued: Availability of services for all settlements; accessibility of infrastructure services; affordability of services provided; acceptability of the infrastructure and service standards; and adaptability to local and lifestyle circumstances.
Similarly, regarding the gender-equality design features, the previous pattern can be confirmed as Figure 20 shows. While specifically considering women, the focus is still on providing access to infrastructure services. Other features such as ensuring access to soft infrastructure services like health care and education, and affordability of infrastructure services are deemed relevant as well. It can be noted however, that only a small fraction of the projects specifically aims to improve awareness on gender issues.

Figure 20: Gender Equality Design Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve awareness of gender issues</td>
<td>5%</td>
</tr>
<tr>
<td>Ensure participation of women during capacity building events</td>
<td>13%</td>
</tr>
<tr>
<td>Enhance employment opportunities for women</td>
<td>15%</td>
</tr>
<tr>
<td>Ensure accessibility of women to use basic infrastructure services</td>
<td>18%</td>
</tr>
<tr>
<td>Ensure access of women to soft infrastructure services</td>
<td>21%</td>
</tr>
<tr>
<td>Ensure access of women to infrastructure services</td>
<td>28%</td>
</tr>
</tbody>
</table>

Khulna is the third largest city in Bangladesh. Its poverty incidence is high with most residents living as slum-dwellers along the banks of the rivers Rupsha and Bhairab. The city’s location makes it vulnerable to flooding. Women, children and the elderly are mostly defenseless as flooding cripples their everyday life routine and makes commuting unsafe. Furthermore, flooding makes the city susceptible to economic losses. Damage to infrastructure and property, loss of assets and income are the usual aftermaths the city faces.

Road flooding, a high health risk. The poor people living along the riverbanks are vulnerable to water-borne diseases such as malaria, diarrhea and dengue fever. Where there’s flooding, there’s contaminated drinking water. Where there’s stagnant water, there’s a potential breeding ground for mosquitoes to become carriers of communicable diseases.

Road accidents at a high. In 2011, road accidents were recorded at a high with pedestrians and non-motorized rickshaws being involved in 14% of all road accidents, while representing 30% of the fatalities by mode of transport.
Khulna’s Partnership with CDIA

In 2009, Khulna City, with support from CDIA completed the Medium-Term Prioritized Urban Infrastructure Program with corresponding sector studies in transport, drainage and solid waste management. CDIA further carried out a preparatory work entitled “Pro-Poor and Green Urban Transport in Khulna” in 2011 and developed the findings of the 2009 Infrastructure Program’s Transport Sector Study.

Aside from climate-proofing urban infrastructure, overall, the Khulna project is a good example of how inclusive infrastructure projects safeguarded public health, ensured adequate road safety measures, improved flood management, and provided better drainage systems tailor-fit to the needs of Khulna’s city residents, specially the poor.

Since road infrastructure improvements have been realized, the people of Khulna are safely walking around the city, and risks to road accidents have been reduced. Today, there are lanes designated for non-motorized transport such as rickshaws. People are walking along footpaths. There are pedestrian ramps that prevent trip hazards. At night, streets are lit up with new solar-powered street lamps, a welcome relief for women, children, and the elderly. They can now walk around the city – safe and secure.

Moreover, flooding has been diminished. Altogether, the riverbank protection and roadside drainage made a huge difference for the people of Khulna.

“Clearly, the pro-poor and green urban transport project has effectively met the transport and mobility needs of the City, as well as helped climate-proof our road infrastructure.”

- Mr. Abir u Labbar, Chief Planning Officer of Khulna City Corporation (KCC).

Environmental Improvement: Healthier, Cleaner, Safer and More Sustainable Cities

Rapidly urbanizing cities face the risk of a deteriorating physical environment. People usually have large negative impacts on the environment within urban areas, as they are often not aware to which extent their actions may result in the degradation and pollution of natural resources. Irresponsible human activities therefore lead directly to the city’s environmental degradation.

At the top of the list of environmental problems and challenges Asian cities face are: inadequate waste management, air pollution, river pollution, and depletion of natural resources.

Environmental improvement is thus crucial in the technical assistance we provide to our city partners. Together with the city’s decision-makers, we ensure that the proposed projects have positive impacts on the environment and communities. These positive impacts are sustained in the project design and implementation by considering the potential environmental harm, and identifying mitigation or compensation measures.

Likewise, the project design is carried out mindful of the associated effects to the environment such as risks from natural hazards including climate change, the attributes of the receiving environment particularly the physical conditions and site characteristics. All these, which may substantially change components, schedules or costs, are taken into consideration.
How We Target Results and Impacts for Environmental Improvement

When projects are realized through CDIA’s project preparation studies, cities and their people will benefit from a healthier, cleaner and safer environment as improvements in the delivery of basic urban services are initiated.

Figure 21: Anticipated Positive Impacts on the Environment

<table>
<thead>
<tr>
<th>Impacts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural or natural heritage protected</td>
<td>2%</td>
</tr>
<tr>
<td>Reduced water losses</td>
<td>2%</td>
</tr>
<tr>
<td>Improved treatment of waste</td>
<td>4%</td>
</tr>
<tr>
<td>Improved mobility</td>
<td>5%</td>
</tr>
<tr>
<td>Reduced pollution</td>
<td>10%</td>
</tr>
<tr>
<td>Improved treatment of wastewater</td>
<td>11%</td>
</tr>
<tr>
<td>Improved flood protection</td>
<td>14%</td>
</tr>
<tr>
<td>Cleaner surroundings</td>
<td>16%</td>
</tr>
<tr>
<td>Water sources protected</td>
<td>16%</td>
</tr>
<tr>
<td>Reduced exposure to health risk</td>
<td>19%</td>
</tr>
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Figure 21 shows that addressing key environmental issues such as solid waste management, water supply and drainage improvement results in reduced health risks, reduced exposure to water-borne diseases and respiratory illnesses. Likewise, from the adversities of flooding, a cleaner surrounding with proper gathering and disposal of wastewater and solid wastes will provide protection for the people’s business or livelihood activities as well as their assets. Water supply and solid waste management projects of cities aiming to raise the quality of water and effluents have a positive effect on water resources. Together, creating healthier, cleaner and safer environment are the topmost impacts that CDIA hopes to achieve from its projects.

Additionally, our projects have features designed to benefit the environment. Notable are environmentally sustainable measures, either as single/individual projects or mainstreamed into the design features of our projects. For example, flood management projects adopt traditional drainage infrastructure such as a dike, and may include nature-based solutions, particularly sponge measures and river rehabilitation.

Sponge measures are meant to absorb, store and filter rainfall runoff which replenish groundwater and at the same time harvest rainfall runoff to reduce the volume of water reaching the drainage system. Sponge measures include artificial wetlands, permeable pavements and vegetation buffers, among others.

Moreover, river rehabilitation has multiple benefits – they increase the flood retention function of the rivers while helping maintain the ecological integrity of these water bodies.

Both the traditional and nature-based solutions provide flood mitigating functions and at the same time help improve the quality of the environment.

Decreasing public health risk and water-borne diseases is the primary objective of water supply projects in India.
Pu’er is a city in Yunnan Province which is developing into a modern urban center. In 2012, along with population growth, the city was facing challenges from encroachment of development along the 15-km long Simao River. This limited the environmental services of the river - a vital tributary serving as a drainage channel for the city and a habitat for wildlife and vegetation to grow along its shores. Notable in large sections of the river were also solid waste and aquatic plants, which impeded the water flow. A foul odor permeated, and informal settlers occupied some parts of the riverbanks.

CDIA’s Partnership with Pu’er
By focusing on reduced flooding and a cleaner environment, CDIA’s urban development plan with Pu’er city aimed at improving the living conditions of low-income people residing along the river. On the other hand, reducing water pollution through a separate rain sewerage system was also expected to result in an upgrade of the river’s water quality.

By 2018, CDIA’s project with Pu’er is at 85% completed. In particular, •Flooding has been reduced and controlled in flood-prone sections of the city.
•The Simao River is expected to prevent a 50-year rainfall event to cause flooding while the eight river tributaries will prevent a 20-year rainfall event to cause flooding.
•The foul odor that used to permeate from the river is gone.
•The fish population has increased, a vital sign of improved water quality.

With nature-based solutions such as re-vegetation, the ecological restoration of the riverbanks coupled with the development of wetlands gave the river’s ecology system a new lease on life to thrive on.

CDIA provided technical assistance in designing the rehabilitation of the Simao River. This resulted to the finalization of a feasibility study and preliminary design of the project. While the city meted out their fund contribution, CDIA provided the link to KfW development bank for an additional loan. Thereafter, the project was implemented.

Pu’er, A Green City Rising
Today, the people of Pu’er are enjoying the green spaces designed for quiet recreation and social interaction. Many informal settlers have been relocated to newer homes with improved amenities.

Pu’er’s Simao River is rejuvenated, its water quality much improved. As a result of flood control development measures, the city is protected. People’s livelihood and businesses are thriving in a green and clean environment.

And perhaps, from a vantage point, whilst sipping a cup of Pu’er’s world renowned tea, a local (or a tourist) is out there enjoying the green serenity that surrounds the Simao River today.
Climate Change Adaptation and/or Mitigation: Flexing and Strengthening Resilience

Many of Asia-Pacific cities today are facing the challenges of climate change. Sadly, the hazards of pollution and pollutants are brought by human and economic activities. Transport and solid waste sectors contribute the most to the greenhouse gases emitted by a city.

Corollary, the reasons why Asia-Pacific cities are vulnerable to the impacts of climate change are due to any of the following:

- the city’s location is along the coast or in flood plains;
- the spread of urban development is along rivers; and
- vulnerability of a rapidly growing population due to poor capacity of cities to meet basic needs.

The increasing shocks and stresses that cities are vulnerable with, and the resilience component commonly sought by financiers have prompted CDIA to focus its attention on building resilient cities through its infrastructure projects.

In real terms, this includes conducting urban resilience assessments by identifying climate-related shocks and stresses side by side with natural hazards that may affect the resilience of cities as well as socioeconomic development challenges, and organizational capacity gaps.

Our primary goal is for our partner cities to acknowledge and understand their city’s vulnerabilities via climate change projections and vulnerability assessments.

Specific to water supply and flood control, the design of our adaptation projects are guided by climate risk and vulnerability assessments carried out by partners such as the Asian Cities Climate Change Resilient Network (ACCRN) and the Asian Development Bank’s Urban Climate Change Resilience Trust Fund (UCCRTF). Both have undertaken these activities in several cities which were then mainstreamed into project pre-feasibility studies.

Figure 22 indicates that we help cities combat climate change mostly by ensuring that projects derive multiple benefits, i.e. decreased exposure to the impacts of climate change, engineered to better cope with future climate variability, and etc. that integrate climate change adaptation and mitigation with providing urban services. For example, our transport and solid waste management projects are expected to reduce greenhouse gas emissions while improving mobility of people and reducing environmental risks.

CDIA also helps cities prepare climate-resilient infrastructure projects that could withstand extreme weather events like flooding. Our project preparation studies have helped design new roads, drainage canals, water supply systems and flood protection structures in line with the expected increase, frequency and intensity of severe weather events connected to climate change. These studies are targeted to help cities cope with climate change impacts by reducing exposure and vulnerability, while increasing adaptive capacity.
In recent years, the water supply and sanitation systems of Dushanbe have undergone significant deterioration due to a combination of age, a lack of further capital investment, and a lack of preventive operation and maintenance. The water supply system is managed by the Dushanbe Vodakanal (DVK), the city’s authority in water supply and sanitation. Intermittent operation, high non-revenue water (NRW), low pressure, and low energy efficiency characterize DVK’s services.

As a consequence, when water supply is intermittent, public health is affected and rated as generally poor in Dushanbe. Compounding further is the city’s vulnerability to severe weather conditions.

While making the city resilient to climate change is vital, improving the city’s water supply system, particularly the skills of people behind DVK’s operation, is equally imperative.

Dushanbe is our first city partner to adopt a participatory approach to urban resilience. A capacity development workshop was included in a comprehensive preparation study planned for Dushanbe. It aimed at improving Dushanbe’s water supply and sanitation infrastructure. It detailed as well, a development roadmap from preparing an engineering design, electrical and mechanical equipment required, to distribution of water to end consumers.

CDIA’s Partnership with Dushanbe

Dushanbe is the first CDIA partner city to adopt a participatory approach to urban resilience. In a workshop conducted by CDIA for Dushanbe, participants gained skills in managing their water infrastructure, and learned how to face all sorts of shocks and stresses, reduce water disruption, limit damage, and shorten recovery time.

Conclusions from the climate modeling done by the study team until 2070 as compared to 1980-2010 average reveal:

- Possible increase in rainfall between December to February
- Significant increase in temperature by 1.5 to 3 degrees year-round, bringing more heat waves and increased evaporation from water surfaces and the ground.
- River runoff will significantly diminish
- Hydrological droughts will become more frequent
- Extreme precipitation becomes more frequent and intense, increasing damage potential of river floods, flashfloods as well as landslides and mudflows. River erosion turbidity will also increase.


The adaptation measures included are:

- Building a pipe bridge that can resist a 100-year flood;
- Reengineering of infrastructure near major flash flood runoff channels;
- Rehabilitation of wells to prevent flood water intrusion; and
- Protection of riverbanks from river erosion to withstand a major flood.

Improved Water Quality, Water Access and Infrastructure Resilience

Only when water flows 24 hours a day, seven days a week in Dushanbe that residents are assured of improved health and sanitation. When water is equitably distributed and easily accessible, the poor are most likely to benefit.

There are resilience measures incorporated in the project, some of which directly respond to the expected impacts of climate change, making the project eligible for climate specific funding.
Good Governance: Improving Results by Strengthening Structures

Good Governance is an often used but rarely defined term in international politics and development. Main principles of good governance include public participation, cooperation, transparency and accountability.

Our approach on good governance is to promote financially and institutionally sustainable urban infrastructure investments that meet the needs of citizens in cities, and is conscious of social, political and economic dimensions.

We therefore aim to meet good governance by strengthening the individual and collective capacities and capabilities of city officials and administrators in urban infrastructure planning, and in linking their project to downstream financing.

The governance structure of organizations is enhanced by providing focused capacity development measures. CDIA’s support to capacity development on the level of organizations, targets its institutional partners, cities, urban service providers, and project development facilities. It addresses structures, rules, processes and rituals.

As organizational learning takes place by incorporating newly gained experiences and knowledge, CDIA is generally facilitating changes in the following areas:

- **Restructuring processes** by adapting or introducing organizational structures;
- **Value creation process** by adjusting and optimizing the way of doing business as whole;
- **Quality management systems** by ensuring the compliance to agreed standards;

• **Learning systems** by identifying and addressing gaps. Some of the projects CDIA supports require strong institutional changes for a successful implementation e.g. water supply projects. These institutional changes at the local level (public administration and/or urban service provider) need time to be implemented.

CDIA’s focused capacity development approach also addresses institutional challenges during the project preparation phase. Activities within this context are intended to strengthen capacities by addressing capacity needs of our local partner institutions. Successfully piloted approaches are institutionalized through vertical upscaling within the cooperation system.

How We Target Results and Impacts on Good Governance

Figure 24: Anticipated Positive Impacts on Good Governance

The strongest effects on good governance can be observed in bridging the gap between the planning processes of the city and the actual needs of the citizens, which is shown towards aiming at a “better customer orientation of city services,” a more “strategic orientation of city government” and “participation in decision-making and planning.” Overall, Figure 24 also shows that the anticipated impacts on good governance are much wider and less focused than in other impact areas. The reason behind is that, good governance is often an intended positive side benefit and less often the primary focus of an infrastructure investment. Nevertheless, it is a positive sign that there are benefits which can be linked to CDIA’s support to cities.
Attached to the National Economic Development Authority (NEDA) of the Philippines is CDIA’s partner organization, the Public-Private Partnership Center (PPP Center). It facilitates and assists Public-Private Partnership (PPP) programs and projects in the Philippines at national, regional and local levels. This includes all arrangements under the Philippine Build-Operate-Transfer Law and Joint-Venture Agreements.

CDIA and PPP Center: Sharing a Common Objective

CDIA and the PPP Center both share a common objective of supporting cities and municipalities in the Philippines called local government units (LGUs). As the role of the private sector is increasing, advisory services, technical assistance and capacity development are provided to LGUs in order for them to meet the demands of urban infrastructure projects and their implementation in the Philippines.

Since June 2017, Mr. Gebhard Ott works for the PPP Center as Development Advisor on behalf of CDIA.

It was observed that LGUs in the Philippines tend to do more and more PPP projects via Joint-Venture Agreements. For many local governments, especially the ones with very limited personnel, this can be a big challenge and risk. Lacking for example expertise on Joint-Venture Agreements while also having not enough staff trained in legal matters may result in an imbalance between the private sector proponent and the LGU as the public partner.

Strengthening good local governance

CDIA and the PPP Center have established recently a training program for relevant personnel in the LGUs to build their capacity on Joint-Venture Agreements in PPP projects.

By implementing and scaling up the training, it is expected to improve PPP Center’s services, resulting in better handling of Joint-Venture projects at the local level through LGU personnel in the Philippines.

“The capacity building activities that CDIA and the PPP Center provide to LGUs in the Philippines can improve how public resources are managed at the local level when it comes to projects with the private sector.”

- Mr. Gebhard Ott, CDIA Development Advisor at the PPP Center.

“PPP Center’s immediate clients are the LGUs. Through CDIA’s assistance, LGUs in the country are gaining better understanding on how to develop and implement infrastructure projects especially through PPPs. It has also given LGUs the opportunity to increase their competence, enhance their skills, and adapt new strategies and ideas on how to pursue PPP projects that will greatly benefit its constituents and other stakeholders.”

- Jomel Anthony V. Gutierrez, Director III, Capacity Building and Knowledge Management Service, PPP Center.

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Iloilo City, located in the center of the Philippines is a gateway to other provinces in the Visayas group of islands. Specifically, it is connected to the touristy Province of Guimaras through a ferry system, which extensively transport tourists, employees, students and traders. A decade ago, the terminals in Iloilo and Guimaras were in a bad shape. There were only cramped spaces for queuing and waiting passengers, insufficient or absence of protective cover from the sun and rain, poorly maintained toilets, and even inefficient and unsafe docking areas. Similarly, in the downtown area of Iloilo, one could have easily noticed the state of poor public infrastructure facilities. Heritage buildings were dilapidated or were poorly maintained. Streets were also congested with traffic and sidewalk vendors.

**Good Governance Leads to City Transformation**

Iloilo City is connected to other provinces in the Visayas group of islands through a ferry system.

**CDIA’s Partnership with Iloilo City**

In January 2008, CDIA approved an application from the Metro Iloilo Guimaras Economic Development Council for technical assistance in the planning, development and implementation of two priority infrastructure projects namely:

- The Guimaras-Iloilo Ferry Terminal System (GIFTS) Project and
- The Iloilo Downtown Central Business District (IDCBD) Revitalization Project.

CDIA conducted pre-feasibility studies for both projects. Specifically for the GIFTS, the study aimed towards a three-port system servicing Iloilo and the towns of Buenavista and Jordan in Guimaras Province. On the other hand, the IDCBD recommended a pilot downtown revitalization project with the redevelopment of the 1.4 hectare Iloilo City Central Market property and the pedestrianization of certain night market streets. Included in the studies was the enhancement of the project preparation skills of Iloilo’s key officials.

The project aimed for good governance not only in ensuring inclusive urban development planning but also in enhancing the in-house capacities of city personnel on sustainable resource management and optimization, innovative project financing and improving revenues. It likewise widened their understanding of the public-private partnership (PPP) guidelines and enhanced their skills in managing public consultations.

“One key result of our engagement with CDIA is raising the capacity and improving the capabilities of city planners to bridge the gap between planning and implementation.”  
- **Mr. Jose Roni Peñalosa**, Iloilo City Planning and Development Officer

Vital to the success of the projects were measures undertaken by the city government in the passage of resolutions that institutionalized the PPP mechanisms such as joint venture agreements. For one, the City Council passed a resolution allowing the city mayor to enter into an agreement with the private sector. In turn, the mayor created a Joint Venture Selection Committee to oversee the PPP tendering processes.

With improved knowledge and capacities on PPP, the city government embarked on their first PPP project, which was the modernization of Parola Ferry Terminal. Under a Joint Venture Agreement with Double Dragon Properties Corporation, they sought to transform the Parola compound into a mixed-use commercial complex.

In 2017, the modern terminal complex finally opened to the public and has since then provided a better way to travel to at least 3,500 daily passengers between Iloilo and the towns of Buenavista and Jordan in Guimaras Province. The terminal is equipped with air-conditioned lobby, ticketing area, canopied loading arcades, clean public toilets, and designated parking areas and drop-off points. It has also CCTV cameras, baggage scanning machines and metal detectors for the safety of the passengers. Best of all, these amenities are available to all travelers for free!

Congruently, the city government is making headway in revitalizing their downtown central business district via proposed joint venture agreement with a private developer. It is expected that this project will likewise achieve its objective as envisaged in the CDIA study.

By and large, the assistance of CDIA was viewed to be beneficial in terms of strengthening the capacity of Iloilo City officials in urban infrastructure planning and linking projects to downstream financing, in this case, public-private partnership.
How CDIA Tackles Social and Environmental Safeguards

CDIA aims to avoid or minimize negative impacts to the extent possible and to safeguard negative impacts where unavoidable. In a project preparation study, discussing and exploring options for mitigating negative impacts is a first step.

Flagging issues at an early stage: dealing with negative impacts on people

It is important to flag at the earliest possible stage the negative issues that will need to be further studied in the feasibility study. This constitutes a clear description of the issues, their implications on the financial feasibility of the project/component, and the recommendations.

Notably, negative impacts that may particularly occur with infrastructure investments are when the poor are not the direct or even indirect target beneficiaries. Or when they are subjected to involuntary relocation.

The most common negative impacts of infrastructure projects on the poor are the loss of assets, jobs, and livelihoods. CDIA carefully endeavors to investigate the following areas:

- **Resettlement and relocation** as part of the project impacts. Here, participatory onsite and in-city relocation approaches that do not disrupt the lives of people, their place of work or the social links of the poor are recommended. If relocation is unavoidable, voluntary relocation should be sought by offering adequate compensation, so living conditions do not get worse.

- **Negative impacts on formal and informal employment.** Predetermine increased distance to work opportunities caused by resettlement, for this means increased transport cost, loss of employment, or restrictions on small business operations.

- **Negative impacts on assets and access to services.** The consequences of relocation are seen in reduced access to land, housing, green areas, infrastructure and social services. In settlement upgrading and urban revitalization projects, gentrification can be caused by the application of higher standards than those affordable to the poor, resulting in higher income groups moving in. Increased demand for services in industrial areas, for instance for water and electricity, may result in shortage of those services in low-income residential areas.

- **Negative impacts on safety.** Widening of roads and simultaneous creation of narrow sidewalks may encourage more speed on roads and an increase in accidents; at the same time, informal modes of transport may be marginalized or pushed out.

- **Negative environmental impacts.** Occupation of fringe land can trigger increased vulnerability to disasters like floods, increased noise, air pollution, etc.

Dealing with negative impacts on the environment

At the stage of the project’s pre-feasibility study, environmental safeguards are integrated, and at the very least, at the level of environmental categorization based on the Asian Development Bank’s Safeguards Policy Statement (2009) or the country’s own safeguards policies. Environmental safeguards ensure the environmental soundness and sustainability of projects and support the integration of environmental considerations into the project decision-making process.

A rapid environmental assessment and an initial climate change screening is undertaken to help identify the potential adverse environmental impacts and the mitigation measures. From this tool, projects are classified as:

- (i) **Category A** - likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented.
- (ii) **Category B** - potential adverse environmental impacts are less adverse than those of category A. An initial environmental examination is required.
- (iii) **Category C** - likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications need to be reviewed.

CDIA projects generally have **moderate environmental impact**, as they are mostly falling under Category B.

Furthermore, a significant number of infrastructure projects undertaken are backed up by initial environmental examination and recommendation in the preparation of environment management plans. Environmental assessments identify potential risks to physical, biological, socioeconomic and cultural resources in the context of the project’s area of influence. Mitigation and management strategies for adverse impacts are determined and applied throughout the design, construction, operation, and even up to the closure phase.

Measures undertaken by CDIA and city partners include maintaining the quality of the environment by reducing air or noise pollution, adopting proper waste disposal, and traffic management. Additionally, during construction, the safety and health of workers and the community are ensured.
Valenzuela is a city that has been vulnerable to flooding for years. The problem is compounded by the city's location and topography. A quarter of the city is below sea level causing year round flooding during high tide. With tropical cyclones frequently occurring, runoff water from two major rivers endanger properties as well as the lives of Valenzuela residents. Furthermore, the existing drainage and flood infrastructure are inadequate, improperly designed and constructed.

“Flood does not respect city boundaries. It is a common problem shared by contiguous cities in Metro Manila and requires a coordinated approach to address it.”
- Brian Capati, CDIA's Urban Infrastructure Engineer

These measures will lead to a smooth implementation of the land acquisition and resettlement process. By informing and consulting with the people affected by the process, conflicts and grievances will easily be resolved. When resettlement is required, compensation options will be discussed. Where livelihoods are affected, enhancements will be made, if not restored to pre-project status – thereby improving the standard of living of everyone displaced, as well as other vulnerable groups.

CDIA has strengthened the capacity of the technical staff of the City and barangay officials. Assuredly, the planned programs on flood risk mitigation (nonstructural interventions), land acquisition and resettlement, and environmental impact mitigation, were properly and carefully implemented.

When everyone gets together to talk and participate in the decision making-from barangay officials, residents, affected persons, other LGUs, representatives from NGOs, business organizations, to national government agencies, and service providers – that's how good governance works.

In terms of making sure that the environment will not be worse off as a result of the project, an initial environmental examination was conducted. It showed that impacts to the environment will be minimal (Category B) during construction, operations and closure of facilities. Additionally, the environmental resources which will be mostly affected by the environmental impacts are land from the generation of solid and hazardous wastes, air from dust, and water from stormwater runoff and generation of water, siltation and increased turbidity.

Mitigating measures have been identified to avoid these impacts which will be detailed in the environmental management plan during implementation. Waste shall be managed through segregation and recycling; dust propagation shall be minimized through watering of construction sites and establishment of buffer zones and containment barriers; and stormwater runoff shall be avoided by avoiding long exposure of excavated soil to rain.

Furthermore, the design of the flood risk management project has adopted a future climate lens to better withstand impacts of climate change by 2050 i.e. the projected 1.47 degrees rise in temperature, the 24 meter sea level rise and the increased intensity of rainfall per event of 11.9 percent. These projections have influenced the project design such that the pumping capacity, size of drainage and the land area to be acquired for those works have been increased. While the project is not expected to totally mitigate flood-related damage, the quantified benefits of the project will be far less than 100% of the flood damage to be inflicted on 20 barangays without the project.

To date, Valenzuela is one of 11 cities in the National Capital Region (NCR) that benefited from the USD 207.6 million World Bank loan, allowing for the construction and modernization of five pumping stations within the city.

The Philippine National Government has likewise allocated Php 1 billion ($ 19.2 M) for the modernization of the Wawang Pulo Pumping Station. The construction and upgrade of the pumping station is progressing well and is expected to be operational by the end of 2018.

It’s no wonder then that the residents of Valenzuela take pride in their local government's timely delivery of quality public service which has already earned four awards for the city.

Preventing Undue Harm to People and the Environment
Valenzuela, Philippines

Partnership with Valenzuela

In 2015, CDIA worked with the city’s planners and engineers in the preparation of a pre-feasibility study for an integrated flood risk management for Valenzuela. Potential physical and nonphysical interventions for flood mitigation and drainage improvements were identified, as well as possible financing for the proposed interventions. Additionally, the capacity of the city administration’s staff in dealing with the various aspects of flood risk management was strengthened through the identification of the most affected areas.

To deal with the adverse negative impacts and risks of the proposed structural and nonstructural interventions, CDIA's Social Mitigation Plan was set into motion. Mitigating measures were identified at various stages and phases of the flood mitigation and drainage improvements.

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It’s no wonder then that the residents of Valenzuela take pride in their local government’s timely delivery of quality public service which has already earned four awards for the city.
Our involvement in local matters is relatively a short-term one. The entire process from our first contact with a city until linking it to a financier with the completed project preparation study takes less than a year. Thereafter, other institutions, financiers and implementing agencies take forward the work that we have started.

Investment in capacity development is therefore, crucial to ensure that city partners can carry on preparing and implementing their respective infrastructure projects beyond our assistance.

CDIA’s Capacity Development is implemented at city, country and regional stages to help people, organizations and societies manage their own sustainable development processes and adapt to changing circumstances and frameworks.

As current infrastructure and service provision across Asia-Pacific is insufficient, the existing knowledge and skills of city personnel, together with supporting organizational set up and institutional cooperation need to be reviewed and enhanced. Hence, our support in the field of capacity development includes addressing competencies in a threefold way: (1) individual competence, (2) organizational performance and (3) institutional cooperation, systems and societal frameworks.
Training Activities: Results and Impacts

Our project preparation studies include capacity development assessment, and based on it specific recommendations are drawn on how each city would strengthen their capacities relative to implementing their respective infrastructure investment/s. These initiatives are augmented by conducting training activities across Asia to mainstream topics relative to project preparation and implementation.

We traced back the 116 training courses for the 2,870 participants since 2008 and the outcomes of our study has confirmed our close collaboration with cities and partner organizations in bridging capacity gaps and enhancing the knowledge and skills, particularly for city representatives. Resulting evidence proved as well that we have adjusted our focus over time to alter our own learning curve. In recent years, we have introduced a focused capacity development approach where capacity development interventions are systematically linked to project preparation.

Additionally, the impact survey responded to by 26% of the 1,000 participants with access to email (excluding People’s Republic of China due to insufficient participants’ information) provided insights as to how cities, national partner organizations and other organizations found value in, and encountered challenges beyond the training activities.
During its first few years, efforts were focused on developing courses, manuals and tools that introduced specific knowledge and technical assistance related to the project development cycle. These courses sought to target evident gaps and enhance respective capacities at the local level.

Over time, these knowledge materials have been developed jointly with partners:

- Pre-Feasibility Studies Training Course
- Public-Private-Partnership Course
- Linking Cities’ Infrastructure
- Investments to Finance Course
- CIIPP Toolkit – City Infrastructure Investment Prioritization and Programming Toolkit
- Financial Modeling Course (jointly with PPP Center of the Philippines)
- Effective Urban Infrastructure Programming Course (jointly with the Ministry of Foreign Affairs of Singapore)
- Pro-Poor Infrastructure Course, Inclusive Cities Course
- Cities & Climate Change Resilience and Adaptation (jointly with USAID)
- Wastewater Management Course (jointly with the Ministry of Public Works and Transportation of Cambodia)
- How to Implement the SDGs at the City-level Training (jointly with UCLG ASPAC and Turboclic)

Over the years, three courses were conducted the most:

1. Private-Public Partnerships (PPP): Introduction for local governments to the options and potential of the PPP model and related procurement and implementation for urban infrastructure.
2. Linking Urban Infrastructure Projects to Financing (L2F): Introduction to available financing sources, financial composition of an investment project, and its marketing to financiers.
3. Effective Urban Infrastructure Programming (EUIP): Introductory overview onto the infrastructure project development and management process, and different financing options.
In support to the initiative’s core sets of orientation as stated in its Strategy 2013-2017, capacity development activities have further been organized along three pillars, which are usually described as building “bridges”:

1. Bridging the Capacity Gap by building human resource skills regarding project management and specific sector knowledge.

2. Bridging the Planning-Financing Gap by equipping cities with technical skills to define a project, including the know-how needed to package projects, and gain approval from financiers.

3. Bridging the Institutional Gap by offering opportunities for cities to exchange and learn from each other in a wider national or regional setting.

Figure 26 depicts a predominance in tackling topics relative to bridging the planning-financing gap. This pillar encompasses well-established training modules such as Linking to Finance, Public-Private Partnership (PPP), as well as tools such as Guidelines to Pre-Feasibility Studies (PFS), City Infrastructure Investment Prioritization and Programming (CIIPP), and Effective Urban Infrastructure Programming (EUIP).

Participants from cities who attended these courses found value in identifying donors, defining financing schemes, prioritizing projects, and preparing loans.

“The methodology of the [CIIPP] tool is very helpful for the local government to analyze their surrounding and current situation on economy, politics, and environment, etc. as they relate to the infrastructure project. After the training, they [cities] develop project proposal(s) on infrastructure investment to be submitted to the donor/infrastructure funding institution...” – Aris Chorul Anwar, Urban Development Institute (URDI), Indonesia. Participated in: City Infrastructure Investment Prioritization and Programming (CIIPP), Bangkok, Thailand. May 2011.

“In 2012, we worked with CDIA to apply the CIIPP tool and conduct PFS for the Flood Management and Climate Change Adaptation project in Kongmujiang. In 2013, we were invited by CDIA to attend the Global Energy Basel (GEB) Summit, the leading event on Sustainable Infrastructure Financing, to present our project to potential investors. ” – Erik Yan, City of Xinyu, People’s Republic of China. Participated in: GEB Summit, Basel Switzerland. January 2013

As mentioned in the preceding chapter, CDIA supports the identification and development of urban investment projects that emphasize at least two of the following impact areas: environmental improvement, climate change mitigation or adaptation, poverty reduction and good governance. Consequently, our training activities have been guided by the four development impact pillars.

We have heavily invested in courses that encourage good governance, focusing on measures that yield more permanent and long-term positive returns for the cities and other partners. We believe that infrastructure investments can only be planned and implemented sufficiently by well-trained personnel.
Who We Trained All Over Asia and the Pacific

A total of 2,870 participants from 25 countries have attended our training activities. They mainly came from People’s Republic of China, Indonesia and the Philippines.

People’s Republic of China stood out in both number of events and participants. A single event, Chongqing Green Transformation Training conducted in May 2018 was attended by 600 participants who were engaged in industrial transformation topics, and exchanged with CDIA experts on the ongoing project preparation studies for the Yangtze River Economic Belt Green Transformation Development Project.

Where information about the sex composition of participants was available, we looked at how men and women were represented in our training activities over time. As shown in Figure 30, female trainees accounted for 10% in 2008, whereas in 2018, women representation went up to 30% of total trainees. However, the overall number is still far from optimum standard of 50/50.
Differences can be pointed out countrywise. The Philippines, Indonesia and Vietnam have higher percentages of women delegates attending our courses - 38%, 34% and 32% respectively. Despite efforts in initiatives such as strengthening gender equality in national governments, and promoting participation of women in politics, our training courses have indicated that there is still more to do to increase representation of women in governance.

The typical gender composition in city governments and national partner organizations in many Asian countries with primarily male employees is clearly reflected in the composition of delegations appointed in CDIA trainings.

Furthermore, sectors addressed by our project preparation study e.g. urban transport, wastewater management and solid waste management have traditionally been dominated by male professionals, which stresses the importance of reinforcing gender balance in our capacity development activities to come.

Women participation in our activities has increased over time, yet more efforts are still needed to ensure a more gender-balanced approach in capacity development. Taken during a field trip in Naga City, Philippines by participants of Good Practice Laboratory Seminar.

### Figure 31: Demographics of Survey Respondents

Beyond the Training Room: How Participants Applied their Knowledge

<table>
<thead>
<tr>
<th>Survey Description</th>
<th>Notes:</th>
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<tbody>
<tr>
<td>Targeted Group: ca. 1,000 participants</td>
<td></td>
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<tr>
<td>E-mails bounced back: ca. 350</td>
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<td>Although participants from 2008-2017 accounted for 2,870 people, e-mails were only available to 1,000 participants.</td>
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</tbody>
</table>

**Survey Description**

**Targeted Group:** ca. 1,000 participants

**E-mails bounced back:** ca. 350

**Response rate:** 26% (170 responses)

**Notes:**

- Participants from 2018 were not included in the analysis since impacts can only be traced 3 to 6 months after the training activity.
- Although participants from 2008-2017 accounted for 2,870 people, e-mails were only available to 1,000 participants.

**Figure 32: Key Questions and Responses on Knowledge Application**

**How Did Trainees Apply the Knowledge and Tools Learnt?**

**Yes** | **No** | **NA**
---|---|---
92% | 6% | 3%

- Did you learn new knowledge and tools from the CDIA training event you attended?

**Yes** | **No** | **NA**
---|---|---
75% | 17% | 8%

- If yes, have you applied the knowledge and tools learned from the training?

The second question (Figure 32) was further analyzed according to the three levels of Capacity Development espoused by CDIA:

- Individual competencies
- Organizational performance
- Cooperation and policy level
Individual Competencies and Ownership

Responses were mainly related to stronger communication skills, enabling participants to understand and address stakeholders’ needs in a more responsive way. Participants considered joint learning, knowledge creation and dialogues as activities that enabled them to perform better at work.

“My learning during the course helped me to develop knowledge products and other communication materials that are more attuned to the actual needs of the local government units.”
- Darwin John A. Soneja, PPPC

“Steps of Story Structure and Key elements in Communication Strategies and Tools helped us to design presentation materials that capture the attention of our target audience while I was still working at General Santos City. (This) ... helped me to be more effective in accomplishing our projects i.e. Strategic Tourism Development Plans of some LGUs in Region 12.”
- Darlon Dominic Solana, Q&T Minds Consultancy Group, Inc.

Organizational Performance

Results in this area reaffirmed what lies at the heart of CDIA – promote organizational learning and raise the capability, performance and flexibility of organizations to better design and manage urban infrastructure projects and successfully ensure their financing.

Representatives from local governments mentioned project prioritization, project proposals, and downstream financing as knowledge they successfully applied in their workplaces.

“[I] used the CIIPP toolkit for seven project prioritization, which was identified by the Negombo Municipal Council NMC. The projects ranged from solid waste management to commercial infrastructure and eco-friendly infrastructure for tourism.”

“The knowledge I gained during the workshop helped me to participate in [the] establishment of Ulaanbaatar Development Corporation JSC (UBDC). Its mandate is to introduce PPP more ambitiously and bring private sector financing and capacity into the implementation of major projects. We are using the tools to screen and prioritize projects using CDIA and other institution tools.”

In terms of methodologies or approaches, respondents found the following useful: 1) participatory approach; 2) multi-criteria analysis; 3) cost-benefit analysis; 4) vulnerability assessment, and; 5) effective communication methods.

In terms of practical application, knowledge on climate change (i.e. green growth concept) and wastewater management were mentioned most frequently.

On the other hand, representatives from national partner organizations and regional organizations applied the knowledge from the training events by providing advisory and technical guidance to local governments, and leading other capacity building activities. Supporting communication channels between local governments and different stakeholders – community or potential investors was also mentioned.

“The knowledge concept learnt was shared and applied in our Squatter Settlement Upgrading Projects. The training helped the Ministry of Housing to upgrade the infrastructure and services of 25 settlements. Applying the same mechanisms and concept, we have focused on developing informal/squatter settlements on Native Land which now currently comprise 28 full upgrading projects.”

Specifically, national partner organizations found the capacity development assistance useful when:

1) Setting up projects (project proposal and readiness);
2) Evaluating project proposals submitted by cities; and
3) Considering further financial schemes such as PPP (i.e. develop logical frameworks, identify partners, etc).
Societal Dimension: Cooperation and Policy

While local governments are CDIA’s primary clients, national and regional partner organizations on the other hand are recognized as collaborators in vertically scaling up experiences and lessons learnt from certain city interventions, and horizontally scaling up approaches and tools.

In terms of cooperation among cities, respondents from regional and multilateral organizations were highlighted as multipliers of knowledge products, training activities and toolkits.

“Between 2014 and 2015, we applied the CIIPP Tool in three Indian cities, namely Shimla, Bhubaneswar, and Mysuru. The tool was used to prioritize infrastructure projects and undertake a financial assessment of the three cities. Based on this assessment in Mysuru, in collaboration with CDIA and USAID Asia, a PFS on the restoration of natural watersheds for enhancing the climate resilience of the city was undertaken. In the other two cities, the identified projects were not found to be robust enough for pre-feasibility studies.”
- Representative from ICLEI

“We used this toolkit for the technical support to both cities of Tam Ky and Quy Nhon in 2014 for the prioritization of the city investment programming under the technical support project for City Development Strategy.”
- Representative from UN-HABITAT

In terms of policy support enabling legal, political and socioeconomic frameworks, respondents from local governments mentioned that the training activities, particularly the topics on urban resilience and risk management have impacted local strategies, plans and policies.

“Since 2015, The City Planning and Development Office (that I head) is the lead department in revising the city’s Comprehensive Land Use Plan (CLUP) where it is now a national requirement that climate change and disaster risk management be mainstreamed into the plan. The CDIA training and knowledge gained helped us in clarifying the city’s development direction. We intend to submit the final plan for national approval this year.”

Likewise, national partner organizations have applied their knowledge through their contributions to national policy frameworks as well as strengthening/updating projects.

“Knowledge from CDIA helped me to coordinate and guide in preparing the ‘PPP Financing Policy and Guidelines’ for Town Development Fund (TDF) in Nepal – currently under discussion for approval. We also conducted trainings for municipal officers in which PPP, project prioritization, financial and technical appraisal of the projects were discussed”
- Sushil Gyewali, Strategic Principal Advisor, Engineering Resource and Management Consultancy (ERMC), Nepal

“I was able to learn about international best practices in transport planning e.g. bus franchising. I was a part of a Technical Working Group that drafted policy documents on the implementation of the Public Utility Vehicle (PUV) Modernization Program in the Philippines. This is the first time that a program so comprehensive such as the one we are attempting to implement has been done so we are in need of reliable references.”
Spreading the Lessons from Training Activities

Some participants have articulated that they have further disseminated the knowledge learnt in universities, scientific papers, book chapters, newspaper columns, conferences and seminars, among other means. For instance, two universities related to Architecture (Hanoi, Vietnam) and Infrastructure Planning (Ahmedabad, India) included the CIIPP tool as part of their curriculum.

Challenges in Applying the Knowledge and Tools

While majority of our participants attested to having applied the knowledge they gained from various capacity development activities, there were also those who encountered challenges with regard to knowledge and tools application. Some of these were:

- **Skills and capacities.** Lack of strategic vision and regional approaches were repeated issues under this category.
- **Financial engagement.** Responses in this field varied. Financial resources at the city level were constrained by, or too dependent on provincial and state levels. On the other hand, it was mentioned that local governments lacked interest when exploring new financial models and schemes.
- **Political will and leadership.** The main challenge here was change in leadership and administration as it hampered in taking forward the cooperation which was initiated during the training event. Also, aside from financial constraints, political support is contingent on the kind of project, wherein, the more visibility the intervention offers, the greater is the political engagement.
- **Organizational aspects.** Bureaucratic procedures towards project realization were defined as too long, specifically the approval phase. Also, the different legal frameworks across countries were especially addressed by the NPOs, making it difficult for them to disseminate CDIA practices among their cities.
- **Training themes.** Relative to climate change training events, some participants have mentioned that the projected scenario differed considerably from the actual ecological context of some cities.
- **Limitations in Applying CDIA toolkits.** Participants found specific tools to: 1) have weak link to other sectors, 2) have better application when linked to actual projects; and 3) specifically the Effective Urban Infrastructure Programming, traditional and linear.

CDIA’s Learning Curve: Adapting to Focused Capacity Development

Prior to 2017, the training courses for partner cities were not necessarily parallel to, or supportive of project preparation interventions, as revealed in an in-depth survey conducted in five countries where participants largely came from.

Although there were instances when the number of trainees in partner cities increased with the number of preparation studies or prioritization exercises, such as in the case of the Philippines, deriving an overall picture of their correlation was difficult to establish.

However, one very important value of the in-depth analysis was its ability to provide a strong case for CDIA’s direction to adapt to a focused capacity development approach starting 2017.

The Focused Capacity Development Approach is a systematic linking of infrastructure project preparation with targeted capacity development activities. As one of CDIA’s recent innovations, it aims to enhance the capacities of partner institutions during and after project preparation intervention/s. By conducting capacity development activities targeted towards specific topics and competencies, we hope to strategically address gaps that might hinder project implementation.

Linking Capacity Development and Project Preparation Studies

Figure 33: Flowchart of Integrated Capacity Development – Project Preparation Studies

Figure 33 depicts that capacity development is now deep-seated in our project preparation studies. Significantly, this means that the time a study is initiated is also when capacity development needs are being assessed. Thereafter, a tailor-made capacity development program is designed based on specific and institutional needs of local institutions towards developing and implementing their urban infrastructure project as recommended by CDIA’s project preparation study.
“The present situation of sewerage and drainage in Cambodia is alarming, particularly with flooding, which puts climate resilience into focus for urgent interventions. At present, there is no sewerage and drainage sector master plan for Cambodia and its towns. There is also the challenge of inadequate human resources, capacities and financial resources. These are challenges which prompted the Ministry of Public Works and Transport (MPWT) to seek for CDIA assistance in both project development and capacity building,” said His Excellency Vong Pisith, Deputy Director General of MPWT.

CDIA has supported the cities of Kampong Chhnang, Battambang, Serei Saophoan, and Stung Sen in the sectors of sewerage management, solid waste management, drainage, and flood protection through the “Tonle Sap - Project Preparation Study - Integrated Urban Environmental Management.”

Having a common project for all four cities, CDIA conducted a capacity needs assessment to identify gaps of officials not only from the affected cities but also from MPWT. As a result, a two-part wastewater management training was implemented for officials of the local governments, Department of Environment, Department of Public Works and Transport, and MPWT.

“The wastewater management training activities conducted by CDIA definitely helped the officials of the Cambodian cities. Issues were identified, solutions were defined, capacities were enhanced, and the staff of all cities was fully engaged in all stages of the CDIA interventions,” added His Excellency Vong Pisith referring to the focused capacity development support of CDIA for the four cities.

With positive results from these pilot initiatives, CDIA and MPWT signed in March 2018 a memorandum of understanding to further strengthen their partnership in scaling up the capacity development activities to more Cambodian cities.

Since then, the ownership of the training has been transferred to MPWT, whose staff took over the responsibility to organize these activities and train municipal technical staff. One of the organizers/trainers is Mr. Lun Heng, who underwent training with CDIA under its Young Asian Professionals program.
CDIA contributes to our work in addressing institutional gaps which include the lack of wastewater master plans, staff capacities, and financial resources. By providing us assistance in capacity development such as wastewater management trainings, the knowledge and skills of MPWT staff were well enhanced, and we are able to further fulfill our national mandate to guide and support more cities in Cambodia on wastewater management. Gaining more appreciation from the subnational level, the joint efforts of MPWT and CDIA focused their attention to coming up with institutional plans and solutions to address challenges in wastewater management in the country," says MPWT Sewerage Management and Construction Department Director Mr. Chao Phibal.

With financial support from CDIA, MPWT delivered in 2018 two training activities on wastewater management for 12 Cambodian cities - Svay Rieng, Ratanakiri, Prey Veng, Stung Treng, Preah Vihear, Siem Reap, Battambang, Sihanoukville, Koh Kong, Kep, Takeo, and Kratie.

All training activities covered technical topics including wastewater treatment technologies, septic tank design, sludge management, wastewater system operation and maintenance, culvert design, community awareness, and featured site visits of the participants to identified wastewater treatment plants.

“We believe that our MPWT staff engaging with CDIA has definitely improved their skills and knowledge on planning, implementation and operation of wastewater management projects. We look forward to further strengthening the cooperation between MPWT and CDIA for long term capacity development in the wastewater management sector in Cambodia," said Mr. Phibal, in recognition of the successful cooperation of CDIA and MPWT, which was the fruit of the focused capacity development approach.

Site visit was a key component of the wastewater management training for Cambodian cities.
Connecting with Cities through Strategic Partnerships

Our core partners are medium-sized cities in Asia and the Pacific. Yet, we also recognize the great value of collaborating with a wide range of stakeholders such as the national, regional and local institutions, the private sector, financiers, international organizations, NGOs, and the academia.
Stakeholders and Advisory Panel Members: The Pillars Behind CDIA Initiatives

For nearly a decade up until 2017, CDIA had the honor of having an Advisory Panel who provided substantive advice on strategic directions to the initiative. The Panel consisted of a group of eminent persons who served as our ambassadors in their respective countries, institutions and professional circles. Similarly, we had Stakeholders Forum – Expert Group members who provided demand-side insights based on cluster representation. They are composed of representatives of select cities, concerned national/regional agencies, private sector co-financers, and broader regional organizations such as CityNet, United Cities and Local Governments (UCLG), UN-Habitat, Cities Alliance, Clean Air Initiative for Asia and others.

Starting 2018, CDIA has transitioned into the ADB-managed Trust Fund, which shifted the governance structure of the initiative. Before completing the transition, we wish to express our gratitude to the Advisory Panel and Stakeholders Forum Members who have helped steer the initiative to where it is now. It is through their expert advice and strategic guidance that CDIA has been able to successfully lay out its transition into the new structure, while maintaining its core qualities and processes.

We express our appreciation to the Advisory Panel Members

- **Dalgon Lee**
  Professor of Public Policy and Chairperson of Vision and Strategy at Gachon University; Member of the Board of Directors (non-executive) at Hynix Semiconductor Inc., Korea; Former Minister of Public Administration and Security.

- **Dr. Qui Baoxing**
  Former Vice Minister of Housing and Urban-Rural Development, China; Counsellor of the State Council, China; President of Urban Planning Society of China; Chairman of IWA China Committee

- **Liu Thai-Ker**
  Founding Chairman of Morrow Architects & Planners Pte Ltd; Former Director of RSP Architects Planners & Engineers Pte Ltd. Adjunct Professor of the School of Design and Environment and The Lee Kuan Yew School of Public Policy, National University of Singapore; Chairman of the Advisory Board of the Center for Liveable Cities (CLC); Former Chief Executive Officer and Chief Planner of Urban Redevelopment Authority.

- **Om Prakash Mathur**
  Senior Fellow and Head of Urban Studies at the Institute of Social Sciences, New Delhi; Former Director and Distinguished Professor of Urban Economics, National Institute of Urban Affairs; Former IDFC Chair in Urban Economics and Finance at the National Institute of Public Finance and Policy.

- **Yumiko Noda**
  President and Representative Director of Veolia Japan K.K, and former Head of PPP and Infrastructure at PwC Japan; Head of Cities Solution Centre, Japan; Head of Cities Infrastructure Solutions Centre for PwC Global, Singapore; Former Deputy Mayor of Yokohama City

- **Austere A. Panadero**
  Undersecretary for Local Government of the Department of the Interior and Local Governments (DILG), Philippines

- **Erna Witoelar**
  Former Indonesian Minister of Human Settlements and Regional Development; Former UN Special Ambassador for MDGs in Asia Pacific; Former Commissioner of the Commission for Legal Empowerment of the Poor; Founder of the Indonesian Environmental Forum
Professor Om Prakash Mathur is one of the longest serving members of our Advisory Panel. In 2007, Prof. Mathur took part in a conference held by the Asian Development Bank where the proposal for CDIA as a regional urban development partnership program of ADB and GIZ was developed. The urban expertise of Prof. Mathur has been greatly valued in charting the strategic direction of the initiative.

“There is a huge gap between local demand for and supply of technical and financial support to urban infrastructure projects. CDIA has done very well in filtering the ‘effective’ demand, such as the most needed investments that pay off economically, socially and environmentally. PFS, in almost all cases very well done by the consultants, led to better projects through CDIA.”
- Prof. Mathur

As we transition into a trust fund, the guidance and strategic inputs of our Advisory Panel members such as Prof. Mathur has remained to be instrumental in maintaining the essence of CDIA, while steadily progressing to support more cities in broader sectors of urban development in Asia.

“CDIA should continue working on what it has learned – detailing what works where, but keeping flexibility in meeting the conditions on the ground. More CDIA-like projects are so much needed in Asian cities!”
- Prof. Mathur

In gratitude as well to our valuable stakeholders

- Youngmin Chang, Director, CITYNET
- Zaenal Ariffin, Deputy Director for Urban Affairs, Ministry of National Development Planning (BAPPENAS), Indonesia
- Bernadja Tjandra Dewi, Secretary General, United Cities and Local Governments – Asia Pacific (UCLG-ASPAC)
- Darwin Djajawinata, Director for Project Development and Advisory, PT Sarana Multi Infrastruktur (PERSERO), Indonesia
- Vo Nguyen Khanh Duyen, Foreign Economic Division Officer, Da Nang City, Vietnam
- Maria Adelaida Antonette Mias-Cea, Regional Coordinator, Cities and Climate Change Initiative (CCCI) Asia Pacific, UN-Habitat
- Tsedendorj Enkhbayar, Executive Director, Urban Development Resource Center, Mongolia
- Kirtee Shah, Chairman, KSA Design Planning Services Pvt Ltd, India
- Leo Zhang, Managing Director, Jumbo Consulting Co. Ltd, China
- Nilsanth Poman, Lead for JNNURM and Head of e-Governance Department, Pimpri Municipal Corporation, India
- Pisith Vong, Deputy Director General, Ministry of Public Works and Transport, Cambodia
- Kirttee Shah, Chairman, KSA Design Planning Services Pvt Ltd, India
- Nilsanth Poman, Lead for JNNURM and Head of e-Governance Department, Pimpri Municipal Corporation, India
- Leo Zhang, Managing Director, Jumbo Consulting Co. Ltd, China
- Nilsanth Poman, Lead for JNNURM and Head of e-Governance Department, Pimpri Municipal Corporation, India
- Pisith Vong, Deputy Director General, Ministry of Public Works and Transport, Cambodia
- Kirttee Shah, Chairman, KSA Design Planning Services Pvt Ltd, India
- Nilsanth Poman, Lead for JNNURM and Head of e-Governance Department, Pimpri Municipal Corporation, India
- Leo Zhang, Managing Director, Jumbo Consulting Co. Ltd, China
- Nilsanth Poman, Lead for JNNURM and Head of e-Governance Department, Pimpri Municipal Corporation, India
- Pisith Vong, Deputy Director General, Ministry of Public Works and Transport, Cambodia
Our National Partner Organizations: From Sharing Good Practices to Enabling Frameworks for Cities

National partners have been valuable to secure support from national government levels on proposed infrastructure projects, and understand national contexts and establish important contacts. Beyond this, national partners have provided the platform for adapting and sharing of good practices, networking with cities, capacity development activities, and creating enabling frameworks for cities. We have so far worked with 24 national partner organizations in 10 countries. Jointly, we have helped mainstream topics such as capacity building, infrastructure investment programming, linking to finance, framework regulations and conditions for local governments, among others.

Over time, CDIA had difficulty managing a high number of cooperation partners all over Asia. Hence, we shifted our focus to having closer cooperation with select institutions on a more constant basis. To date, CDIA has been collaborating closely with at least two NPOs, namely PT Sarana Multi Infrastruktur (Persero), the Indonesian infrastructure financing company; and the Public-Private Partnership Center of the Philippines. However, our traditional NPOs are still occasionally involved when CDIA is working in their respective country.

Dr. Bernadia Tjandradewi

Dr. Tjandradewi has been our Stakeholders’ Forum member since 2007. In the same conference participated in by Prof. Mathur, Dr. Tjandradewi contributed in formulating the concept of the initiative. Previously, Dr. Tjandradewi was with another CDIA-partner – CITYNET – serving as its Program Director. Upon taking over the position of UCLG-ASPAC Secretary General, Dr. Tjandradewi has been an important member of CDIA’s Stakeholders Forum.

I really like the objective of CDIA as it bridges cities with financiers through sound infrastructure investments; not many institutions in Asia has such an objective. The interventions of CDIA are also demand-driven through applications from cities, hence are tailor-made to the context and needs of the cities, and at the same time are relevant to the works of funding institutions. Beyond project development, the activities of CDIA in terms of capacity development is also a highly positive aspect of the institution,” – Dr. Tjandradewi

The valuable advice of Stakeholders’ Forum members such as Dr. Tjandradewi continue to help in the outreach and networking of CDIA.

“I am happy with the activities achieved through the partnership of UCLG-ASPAC with CDIA. As it transitions into a new structure with the trust fund, UCLG-ASPAC would like to further strategize its partnership with CDIA. The sustainability of CDIA’s great work in capacity development would be good to be continued by engaging training institutions and other partners who may take these initiatives forward.” – Dr. Tjandradewi.
One of the series of ‘Linking Cities’ Infrastructure Investment Projects to Finance’ in Balikpapan, Indonesia co-organized with PT SMI.

An initial learning exchange workshop on how to improve project preparation and institutional set-up has been conducted between two of CDIA’s National Partner Organizations – PT SMI and Public-Private Partnership Center of the Philippines.

PTSMI, the Indonesian State Owned Infrastructure Financing Company has been a key partner since 2012. The cooperation covered, among others capacity development in a way that the city is able to identify and prioritize infrastructure investments, as well as support them in creating project preparation studies.

Every year, PTSMI and CDIA run the course Linking Cities’ Infrastructure Investment Projects to Finance for participants from Indonesian cities with project investment ideas. The contents were originally developed by CDIA but have been modified over time, aiming to disseminate knowledge about project development and financing at the local levels and on the other hand feeding the project pipelines of both institutions.

“The Linking to Finance course is especially helpful to Indonesian cities in preparing their infrastructure projects for financing. It is true that it is not the lack of funding that is usually the issue, but rather the lack of sound projects. This course with CDIA helps to bridge that gap,” emphasized by Mr. Pradana Murti.

As a result, Balikpapan, a host city of the said course in 2017 turned out to be one of the cities CDIA supported with a water supply study. As PTSMI is a possible financier of the future investment, it collaborates with CDIA in missions and information sharing.

Aside from the support given to cities through the partnership, Mr. Murti said that CDIA activities have also contributed to the knowledge and skills development of PTSMI staff. “Participating in CDIA capacity building activities really helped my team to enhance their capabilities and mindset into the field of development. Personally, participating and providing strategic inputs through the stakeholders’ Forum meeting allowed me to network with other experts in Asia, and to learn their best practices.” said Mr. Murti.

Moving forward, PTSMI hopes to strategically strengthen its partnership with CDIA to support more cities in Indonesia through capacity development, exchange programs, and project development.

Regional Partner Organizations: A Network of Mutual Support

Our cooperation with regional partners has centered on various topics. Usually, these partners maintain a large network of cities they are working with either for dissemination of good practices, advocacy of global goals and agenda, networking, or mutual support on projects.

Throughout the years, CDIA has worked jointly with regional organizations like UN-Habitat, CityNet, UCLG-ASPAC, Ministry of Singapore, Clean Air Asia, the Global Green Growth Institute (GGGI), ICLEI Local Governments for Sustainability, the National Institute of Urban Affairs (NIUA) and many others.
United Cities and Local Governments Asia-Pacific (UCLG-ASPAC): Expanding City-to-City Cooperation

“Definitely, we are happy with the long-term partnership of UCLG-ASPAC with CDIA. Through the partnership, we are able to conduct more training programs together, reaching more cities and partner institutions like PTSMI. Being part of the CDIA Stakeholders Forum also allowed me to take part in the strategic direction of CDIA,” said UCLG-ASPAC Secretary General Dr. Bernadia Tjandra Dewi.

UCLG-ASPAC and CDIA have been partners since 2009. The cooperation has paved the way for various capacity building activities, publications, and learning exchanges between cities. Specifically, in providing mutual input and advice on the implementation of medium and long term plans, advocacy activities, supporting cooperation among Asian cities, involving local government associations in policy dialogues, developing and disseminating tools and best practices for cities, joint monitoring and evaluation of the impacts of capacity development activities, and fundraising.

Two landmark publications have been made out of the cooperation of UCLG-ASPAC and CDIA, jointly with other partners: Local Governments’ Best Practices on financing for Sustainable Development; and City Enabling Environment Rating: Assessment of the Countries in Asia and the Pacific. The first publication formulated key recommendations towards increasing the bankability of infrastructure projects, while the second publication provided a comparative overview of the performance of 28 Asian countries on criteria such as constitutional framework; legislative framework; local democracy; financial transfers from central to local governments; local government’s own revenues; capacity building of local government administrations; transparency; citizen participation; local government performance; urban strategy; and environmental and climate change governance.

“We hope to further strategize our partnership with CDIA in the coming future - strengthening our support such as the city-to-city cooperation for urban development in Asia,” said Dr. Tjandra Dewi.

SPECIAL FEATURE:
Young Asian Professionals Program: Helping to Build a Career in Urban Development

In 2010, CDIA introduced the Young Asian Professionals (YAP) Program, which aims to help enhance capacity among Asia’s qualified young urban practitioners who are committed to support city governments in accomplishing their development agenda.

YAPs were national staff from partner organizations or cooperating institutions and were selected due to their achievements and upon nomination. The YAP program offered practical opportunities for the participants to work as part of CDIA at the regional level, enabling them to broaden their project management and specific technical skills within the urban development field.

Our 12 YAPs came from Vietnam, Pakistan, India, Sri Lanka, Mongolia, Cambodia and the Philippines and worked for a wide range of partner organizations. Within these organizations, the participants held positions like project leaders or technical advisors.

The most important task of our YAPs was the identification of opportunities for future cooperation between CDIA and their home institution. Additionally, they assisted in conducting pre-feasibility studies, took part in international events and workshops like the CIIPP exercises by NPOs in Sri Lanka and Vietnam, as well as assisted learning exchanges in various countries. They have further worked on pilot studies and assessments for new projects and infrastructure needs of potential partner cities.

By being involved in CDIA’s work, the YAPs were able to gain a deeper understanding of the conceptualization of new project proposals and strategies. As some participants have reported, the opportunity to work in the context of a developing country has widened their perspectives, helped them further develop their skillset and grow professionally, as well as to a certain extent, funnel their respective careers.

“I certainly had a very positive experience coming out of CDIA, because it gave me an international exposure, a chance to work in a developing country (…), get familiar about ADB processing (…) it [also] rounded up my profile, made me stand out in terms of my academic, [and] in terms of getting my foot into a competitive business school.”

– Ali Malik, former YAP, currently working as an Infrastructure Specialist at the Asian Development Bank (ADB) as an Infrastructure Specialist.

“YAP program provided me an interesting and exciting platform to enhance and leverage my skills while also helped me to acquire hands-on experience. It gave me a peek into the region’s infrastructure development and financing challenges and opportunities. Mentoring, training and development opportunities helped me to grow professionally and personally.”

– Ritu Thakur, former YAP, currently working at the South Asia Office of the ICLEI Local Governments for Sustainability.
In cities, planning for the future is crucial. It allows them to not only anticipate the upcoming needs of their people, but also capitalize on trends that would shape their development in the future.

While CDIA cannot tell what the future holds, through its technical expertise, tools and 11 years of experience, it works side by side with cities in translating their development plans into actual infrastructure investments. In this respect, CDIA supports cities to enhance their power as engines of growth and sustainable development.
Based on our experience working with cities and other partners, we wish to offer the following key insights:

**Going Local**
Cities can have a major impact on implementing the global agenda. Similarly, global agenda are driven by them. Cities therefore must be able to tailor fit the global goals to their respective local circumstances, needs, constraints, capacities and resources. It is likewise important that their goals are fed into the planning frameworks and development priorities at both regional and national levels. Doing so will help them strengthen development outcomes and bring about greater transformative results.

The Sustainable Development Goals (SDGs) of the 2030 Agenda offer a lot of development opportunities to cities. To make use of them, it is important to enhance their ‘enabling conditions’ – mainly related to good governance – so that they can systematically link their efforts to the global goals and more importantly, work to achieve the SDGs at the local level. Many cities have started to recognize the SDGs as a global agenda are driven by them. Cities therefore must be able to tailor fit the global goals to their respective local circumstances, needs, constraints, capacities and resources. It is likewise important that their goals are fed into the planning frameworks and development priorities at both regional and national levels. Doing so will help them strengthen development outcomes and bring about greater transformative results.

**Supporting Holistic and Integrated Infrastructure Development**
A city forms a complex puzzle of land-uses with various sectors as layers. To safeguard an integrated and sustainable approach, CDIA targets results that contribute to at least two of four defined development impacts: poverty reduction, environmental improvement, climate change mitigation or adaptation, and good governance. In addition, we help ensure a holistic approach by often addressing several infrastructure sectors. The solution to one development issue can provide an answer to another.

CDIA’s engagement with the city comprises no more than 10% of the total project life cycle. As such we can only anticipate future development impacts from our recommended interventions and rely on our city partners to actualize them way after our engagement is complete. Therefore, CDIA uses the opportunity to engage closely with stakeholders so that key development principles are embedded in infrastructure preparation, project requirements are explicitly defined, and potential risks are identified and reduced. This is the unique value proposition that we wish our partner cities could benefit from.

**Providing Focused Capacity Development**
CDIA has focused its efforts in building the institutional capacities of its partner cities in developing and implementing infrastructure investments, so that they won’t need to rely on external support in the future. By addressing project preparation gaps in 94 cities, CDIA has realized the need to employ a more targeted approach to capacity development.

In 2017, CDIA has started to embark on what we call as the Focused Capacity Development Approach. The value of this approach lies in the ability not only be able to plan for the infrastructure investment projects; but simultaneously with project development, cities are being put into the drivers’ seat to implement efficiently the proposed infrastructure investments.

To enable upscaling and rolling-out, CDIA’s capacity development endeavors to go beyond those cities we work with in project preparation. Networking and knowledge sharing are likewise important in delivering insights and experiences on infrastructure development and financing to stakeholders.

**Enabling Competition and Livability through Inclusivity**
Business opportunities and social and economic benefits come from investing in socially oriented infrastructure and from a sustainable city environment. To be competitive and inclusive, cities need to provide a good business environment – one that harmonizes social, economic, and environmental development with fast-tracked and transparent procedures conducive to doing business. Leaving no one behind – meaning also investing in vulnerable groups, such as disadvantaged women, children, elderly and people with disabilities – ensures a safe environment and triggers a lot of investments. Healthy city environments, with provision of good and inclusive basic services, are an important ingredient of business-friendly cities.

As mentioned in the Chapter on “Bridging Capacity Gaps in Cities and People,” we found out that gender balance is one of the most challenging issues relative to good governance in cities. Involving both men and women in an equal way improves not only development effectiveness and accountability, it also creates a holistic concept understanding, ensures acceptability of project design by all user groups, enables a better targeting of priorities and optimizes transfer of knowledge and experiences. Thus, cities must strive harder to encourage a more gender-balanced approach in decision making and participation.

**Engaging with Key Partners**
If there’s one word that can sum up what CDIA is, it is “partnership.” When CDIA engages with the city, it does so without bringing any political agenda – only the genuine objective of working closely with the city. Creating long lasting partnership has always been at the heart of CDIA, and our broad range of partners has helped tremendously in realizing infrastructure projects and enhancing capacities in cities.

Donors and partners have created an ADB-managed CDIA Trust Fund to ensure the long-term financial sustainability of the initiative. With CDIA now entering this new phase, the direct engagement of GIZ will come to an end in December. Changes in how CDIA operates are expected, but work with cities are set to continue.
The Future CDIA

CDIA remains critical in the midst of great demand for infrastructure. As ADB report, Meeting Asia’s Infrastructure Needs (2017) puts it, “Asia’s infrastructure has improved rapidly but remains far from adequate. Better access to infrastructure has driven growth, reduced poverty and improved people’s lives. Yet over 400 million Asians still lack electricity; roughly 300 million have no access to safe drinking water and 1.5 billion lack basic sanitation. Poor quality remains a problem. In many countries, power outages constrain economic growth. And city traffic congestion alone costs economies huge amounts daily in lost productivity, wasted fuel, and human stress.”

Guided therefore by its Strategy 2018-2022, CDIA will work more closely with cities to achieve higher development impacts. Along this line are five key innovative measures that will guide its future:

- Systematic linking between infrastructure project preparation and capacity development initiatives to increase impact and sustainability;
- Broader scope and greater depth of project development support to improve responsiveness to cities’ and financiers’ needs and to enhance quality and innovative capacity of the prepared projects;
- In selected cities, engagement over a prolonged period of time to be able to address the needs of cities as complex socio-economic systems;
- Early assessment of the potential for financing projects and working with a wide range of financial institutions to improve the chances of successful project implementation; and
- Collaboration with selected national project development facilities based on transparent criteria, and mutually reinforcing the capabilities to accelerate project preparation.

These measures will shape the future of CDIA, introduced by both ADB and GIZ as close partners, and we look forward to continue creating inclusive, resilient and sustainable cities in the Asia-Pacific, together with our partners in the years to come. Looking at the various potentials change can bring to cities, CDIA is confident that its change in governance will also bring opportunities. The collaboration of ADB and GIZ in working with cities and supporting each other’s urban activities will remain.