

TC Document

I. Basic Information for TC

▪ Country/Region:	TRINIDAD AND TOBAGO
▪ TC Name:	Smart Town Arima
▪ TC Number:	TT-T1115
▪ Team Leader/Members:	Rajack, Robin Michael (CSD/HUD) Team Leader; Chona, Gilberto E. (CSD/HUD) Alternate Team Leader; Ali, Faz (CCB/CTT); Arti Ramdhanie (INE/TSP); Avila, Francy Dianela (CSD/HUD); Bouskela, Mauricio Simon (CSD/HUD); Garcia Sierra, Ana Cristina (CSD/HUD); Garcia Zaballos, Antonio (IFD/CMF); Henriquez Revoredo, Patricia (VPS/ESG); Iglesias Rodriguez, Enrique (IFD/CMF); Jimenez De Arechaga, Pilar (LEG/SGO); Johnson, Jodi (VPS/ESG); Kim, Kidae (CSD/HUD); Lopez Aragon, Carmen Carolina (VPC/FMP); Louis-Grant, Paula (VPC/FMP); Maharaj, Kavita (CCB/CTT); Maria Alejandra Villota Coral (CSD/HUD); Ramsumair-John, Priya Elizabeth (CCB/CTT); Silvia Perez (CSD/HUD); Wilks, Jason Malcolm (IFD/ICS); Dookiesingh, Vashtie K., Robin Michael (CSD/HUD) Team Leader; Chona, Gilberto E. (CSD/HUD) Alternate Team Leader; Ali, Faz (CCB/CTT); Arti Ramdhanie (INE/TSP); Avila, Francy Dianela (CSD/HUD); Bouskela, Mauricio Simon (CSD/HUD); Garcia Sierra, Ana Cristina (CSD/HUD); Garcia Zaballos, Antonio (IFD/CMF); Henriquez Revoredo, Patricia (VPS/ESG); Iglesias Rodriguez, Enrique (IFD/CMF); Jimenez De Arechaga, Pilar (LEG/SGO); Johnson, Jodi (VPS/ESG); Kim, Kidae (CSD/HUD); Lopez Aragon, Carmen Carolina (VPC/FMP); Louis-Grant, Paula (VPC/FMP); Maharaj, Kavita (CCB/CTT); Maria Alejandra Villota Coral (CSD/HUD); Ramsumair-John, Priya Elizabeth (CCB/CTT); Silvia Perez (CSD/HUD); Wilks, Jason Malcolm (IFD/ICS); Dookiesingh, Vashtie K (DIS/CTT).
▪ Taxonomy:	Operational Support
▪ Operation Supported by the TC:	TT-L1056
▪ Date of TC Abstract authorization:	14 Feb 2022
▪ Beneficiary:	
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Korea Poverty Reduction Fund(KPR)
▪ IDB Funding Requested:	US\$450,000.00
▪ Local counterpart funding, if any:	US\$50,000.00 (In-Kind)
▪ Disbursement period:	24 months (includes the execution period)
▪ Required start date:	June, 2022
▪ Types of consultants:	Firms; and Individuals
▪ Prepared by Unit:	CSD/HUD-Housing & Urban Development
▪ Unit of Disbursement Responsibility:	CCB/CTT-Ctry Off Trinidad & Tobago
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Second Update to the Institutional Strategy 2020-2023:	Social inclusion and equality; Productivity and innovation; Climate change; Environmental sustainability; Gender equality; Diversity

II. Description of the Associated Loan/Guarantee*

- 2.1 This TC will support the execution of the Urban Regeneration Component of the US\$32.5 million Trinidad and Tobago Urban Upgrading and Revitalization Program (UURP) (TT-L1056; 5048/OC-TT), approved by the IDB Board in June 2020 and currently under disbursement.

- 2.2 The general objective of the Program is to contribute to the improvement of the quality of the urban built environment. The specific objectives include to: (i) improve the habitability in urban settlements on State-owned lands; and (ii) improve the physical quality and economic performance of urban public spaces. Component 2 (US\$15.5 million), which focuses on Urban Regeneration, will finance a cohort of independent urban regeneration initiatives of similar scope, with an emphasis on improving the physical quality, social inclusion, and economic performance of urban public spaces. This component's specific investments will include building refurbishment, site and streetscaping infrastructure, and landscaping to increase the attractiveness, resilience, and sustainable use of urban public spaces and facilities by all social groups.
- 2.3 Eligible projects under Component 2 must comply with the following Eligibility Criteria: (i) be focused on the rehabilitation or construction of buildings or public space in an urban center; (ii) have a significant commercial land use element (either on-site or directly adjacent); and (iii) cannot be classified as Category A according to Bank's Environmental and Social Safeguards Compliance Policy (OP-703). One such candidate project under design is the "Connected Arima Project", the design of which is to be supported by this TC. The Environmental and Social Impact Assessment and Environmental and Social Management Framework that is required for this sub-project will be financed by the UURP.

III. Objectives and Justification of the TC

- 3.1 **Objective.** This Technical Cooperation (TC) aims to support the design of an urban regeneration solution in the Borough of Arima in Trinidad & Tobago, centered on smart and climate-resilient urban infrastructures to improve local economic activity, and low-carbon mobility and accessibility, and social interactions. This TC will finance the investigations and design work to ensure a comprehensive formulation of the Connected Arima urban regeneration sub-project of the UURP to respond to the gaps affecting Arima's potential to be a more socially and economically vibrant and inclusive place, characterized by better and more sustainable urban mobility, and digital connectivity. The expected results of this TC are a good and sustainable design of the Connected Arima urban regeneration project under Component 2 of the UURP and a strengthened capacity of national and municipal government personnel to utilize urban designs, data, and information technology to manage the Borough better.
- 3.2 At the heart of the proposed initiative is an emphasis on the urban planning concept of Placemaking. Placemaking attempts to uncover the potential of public spaces to attract and welcome all people to spend time in safe, comfortable, vibrant, accessible, digitally connected, and aesthetically pleasing surroundings.
- 3.3 **Background.** The Borough of Arima, with 34,000 inhabitants at the 2010 Census and located at the eastern end of the main public transport route and a mere 8km from the Piarco International Airport, has a rich cultural heritage, diverse ethnic makeup, is home to the nation's First Peoples, and boasts some unique public facilities in the sporting and health arenas. These include the Larry Gomes Stadium, the Arima Velodrome, the Arima Health Facility, and a state-of-the-art Arima General Hospital. The hospital aside, in recent decades, public spaces, services, and infrastructure have seen little investment or adaptation to respond to changing demographics and economic and climatic factors, despite flash flooding in low-lying

areas at the foothills of the Northern Range being a growing concern¹. This was reflected in the 2022 IDB--financed Arima Public Perception Survey by about a third of respondents whose dominant view of the Borough was that the infrastructure and assets need better protection and maintenance. The Survey also demonstrated an appetite for a more pedestrian-focused, walkable environment in the town center, with 80% of respondents supporting at least experimenting with solutions that involve slower vehicular speeds and more walking and cycling. These preliminary indicators require more detailed investigations in scoping an urban regeneration initiative for the Borough.

- 3.4 According to the 2022 Public Perception Survey, most people like Arima, but few love it. Most respondents to the 2022 Survey (49%) indicated that they mostly visit Arima to shop or do business. Only about one in five respondents who sometimes go through Arima for a connecting bus or maxi-taxi frequently conduct any other business or shop in the town center. Despite existing sporting infrastructure, few visitors come for social or recreational reasons, including sporting events, indicative of untapped potential. 2022 Survey respondents strongly desired more culinary, cultural, and recreational activities. A better understanding of what is currently offered, and patronage patterns and motivations is essential to developing a plan to capitalize on the untapped demand.
- 3.5 Despite being an intersection point for main east-west transit routes along the most-populated corridor in the country, the East-West Corridor, the Arima city center lacks a dedicated transit hub. Prior studies have shown that public transportation use is highest on that corridor. The 2022 Survey confirmed that visitors widely use public transportation to Arima, with only 57% of the respondents indicating that they usually use a private car when they visit. Most public transport to and from the town center is provided by private mini-buses (maxi-taxis), which operate unscheduled without a dedicated facility. For example, there are no dedicated public washrooms or pick-up/drop-off platforms for passengers. Addressing these deficiencies is vital to successful urban regeneration, as mobility facilitated by well-functioning public transportation and public spaces is key to successful placemaking and low-carbon urban development.
- 3.6 Smart city solutions by businesses and government services in the Borough are not widely adopted. As a baseline, only 19% of Micro, Small, and Medium-size Enterprises (MSMEs) in Arima had access to the internet in 2014. The 2022 Survey confirmed strong interest in free public Wi-Fi in the town center, with more than half of respondents expressing a strong preference for this feature in redevelopment activities. Although fewer than 10% of respondents to the Survey expressed feeling either unsafe or very unsafe when visiting the Borough, a significant proportion (41%) were undecided. Moreover, the business community and farmers in the outlying areas of the Borough regularly cite the need for increased security, including Closed -Circuit Television (CCTV), most recently in a February 2022 virtual Public Consultation hosted by the Member of Parliament. This is consistent with Arima's recent ranking as the number one location nationally for violent crimes².

¹ The incidence of flash flooding is likely to grow more frequent unless there is some adaptation in the drainage infrastructure and land use patterns, given the increasing frequency of high-intensity rainfall events associated with climate change.

² Approximately one in every 11 murders, sexual offences, break-ins or robberies committed in the 6-month period starting in November 2021 took place in Arima—233 cases of a total of 2,505 cases, according to

- 3.7 **Gender, Diversity, and Inclusion (for the First Peoples, women entrepreneurs, the elderly, and disabled) are significant concerns.** A 2018 IDB study indicated that close to one in three women experienced sexual violence nationally, including rape, attempted rape, unwanted touching, and reported sexual violence.³ This is likely to affect women and girls' comfort levels when using urban public spaces and facilities, including public transportation. Although men and women in the 2022 Survey did not express significantly different perceptions of their security when visiting the Borough, such disparities are likely to surface with deeper analysis that considers, for example, nighttime vs. daytime visits, safety in different parts of the Borough, and public transportation vs. private car users. Beyond security, gender inequalities are observed with a more detailed analysis of participation in business, access to training, knowledge, technology, access to finance, and unpaid care work.⁴ In 2013, 23% of adult men were trying to start a business or own a young business compared to 16% of adult women.⁵ These differences involve not having the required knowledge/skills to start a business and fearing failure. More training for women is needed in terms of entrepreneurship skills, mentoring, and start-up financial support guidance. A systematic assessment of infrastructure, public spaces, and public services is also required from a universal accessibility perspective. It is made more pertinent with an aging national population and around 5% of the country's adult population living with a disability.⁶ Additionally, the Borough is home to the nation's First Peoples and historically to significant Spanish-speaking migrant populations, requiring careful consideration in designing project interventions to strengthen inclusion in the urban realm.
- 3.8 **Justification.** The national and local governments are committed to addressing these constraints related to local economic activity, urban mobility and accessibility, flooding, and social interactions (including citizen security), emphasizing digital transformation through an urban regeneration program called Connected Arima. In this regard, the agendas of three national Ministries converge. The Ministry of Planning and Development and the Ministry of Digital Transformation are keen on the success of Arima, both as a pilot for a broader smart city and community connectivity agenda being planned by the Government, as part of its Vision 2030. The Ministry of Housing and Urban Development (MHUD), as executing agency for the UURP (TT-L1056 and TT-L1057), is also committed to the success of this urban regeneration sub-project both from the perspective of the Program's outcomes as well as from the perspective of its broader mandate for urban development.
- 3.9 The chances of success for Connected Arima can be enhanced by learning from the experiences of other countries, of which the Korean experience is very pertinent. Korea has significant expertise in addressing the challenges of developing new towns and innovating smart city solutions, especially those solutions directed at improving mobility, accessibility, and connectivity in dense urban areas. The Bank has collaborated with Korea on the issue of smart cities since 2011 through Korea's Knowledge Sharing Programs (KSP). In 2015, the Korean Research Institute for

data from the Trinidad and Tobago Police Service reported by the Sunday Guardian <https://guardian.co.tt/news/arima-chaguanas-pos-hotbed-for-crime-6.2.1498974.5f9ad6e0f3>

³ Pemberton, C. & Joseph, J. (2018). National women's health survey for Trinidad and Tobago: final report. Inter- American Development Bank.

⁴ Hofman, Irene (2019). [More female entrepreneurs please.](#)

⁵ [Global Entrepreneurship Monitor Trinidad and Tobago National Report \(2013\).](#)

⁶ Seetahal, K., & Charran, C. (2018). The unknown and unemployed masses with disabilities in Trinidad and Tobago. Texas Education Review, 7(1), 130-139. <http://dx.doi.org/10.26153/tsw/20>.

Human Settlements (KRIHS) and the IDB co-sponsored the Knowledge Sharing Forum on Comparative Development Experiences from Korea, Latin America, and the Caribbean. This initial collaboration was followed by financing critical smart city feasibility studies and knowledge sharing. A more vital collaboration on smart city solutions and urban regeneration was consolidated by establishing the Korea-IDB Urban Development Academy (KIUDA), which engages urban professionals from Korea and LAC in peer-to-peer knowledge exchanges. The Korean experience is valuable given that Korea addressed its urban regeneration and smart city solutions needs by a systematic consolidation of several agencies (MOLIT, LH, LX, KRIHS, Korean Association of Spatial Information, Surveying & Mapping (KASM)) dedicated to geomatics and developed the prototype of the Digital Twin City, which allows for better urban planning and management. This outstanding experience could be applied to intelligent urban regeneration in Arima.

- 3.10 **Strategic Alignment.** The TC is aligned with the Second Update to the Institutional Strategy – UIS (2020-2023) (AB-3190-2) through the development challenges of: (i) Social Inclusion and Equality by promoting enhanced social interactions and economic opportunities; and (ii) Productivity and Innovation by the development of a plan that seeks to improve e-commerce adoption, patronage of existing businesses, and attracting new enterprises. Also, this TC is consistent with the cross-cutting issues of: (i) Climate Change and Environmental Sustainability by strengthening resilience through new and rehabilitated [infrastructures](#); and (ii) Gender Equality and Diversity by supporting the collection of gender and diversity-disaggregated data to inform designs. This TC is also aligned with 4 of the 5 opportunities for lending and technical assistance that are part of Vision 2025: (i) the digital economy; (ii) support for SMEs; (iii) gender and diversity; and (iv) climate change action. Additionally, this TC is aligned with the IDB Group Country Strategy with Trinidad and Tobago (2021-2025) (GN-3071), in its objective of enhancing the digital delivery of services.

IV. Description of Activities/Components and Budget

- 4.1 **Component I. Diagnostic Assessments (US\$150,000).** This component will support diagnostic studies and consultation processes benchmarking cases of smart Korean cities and other urban regeneration experiences, producing gender and diversity-disaggregated data and recommendations to address the gaps between where Arima is today and the aspiration for urban regeneration that includes more climate-resilient, low-carbon, efficient and convenient urban mobility, more productive and dynamic economic activity, more diverse and inclusive offerings for social interaction and inclusion, and high digital connectivity. Specifically, it will finance the following:
- a. **An urban mobility, accessibility, and connectivity diagnostic.** A study covering the mobility around, accessibility of, and safety and connectivity within Arima's town center from public transportation, pedestrian, women, children, older adults, people with disabilities, and private car/parking perspectives, with a focus on transforming the current car-oriented roadways into streetscapes that prioritize spaces for people to interact and recreate, active (low-carbon) modes of transport, the principles of universal access, and digitally connected facilities. The study will also consider climate threats and potential climate impacts in the target area and propose recommendations to increase the resiliency of the infrastructure assets. The study will also investigate whether traffic calming measures (speed/volume control) can be successfully

implemented in the town center. In terms of digital connectivity, the assessment will include current coverage in all the network segments: backbone, backhaul, and last-mile networks, with the emphasis being on the user-experience.

- b. **An urban economy diagnostic.** A study that includes an urban economy analysis including women's participation in economic activities and entrepreneurship, financial assessments of a sample of prominent economic centers (e.g., Queen Street, the public market), and proposed investments intended to stimulate local economic development (e.g., night market/food truck court) including possible adjustments to land use and land assembly regulations. The Study will also include an analysis of the available recreational opportunities in the intervention area (to be defined during the course of the diagnostic and which will build on the finding that most respondents to the Public Perception Survey preferred that urban regeneration efforts start in an area within a 5-minute walk of the [Princess Royal Park](#)), spatial patterns of preferred recreational activities, typical levels of patronage (and factors such as perceived sense of personal safety that affect it), and the gaps in available options from an active user demand perspective. This study will also include an analysis of the current and projected demand for broadband services at all levels (institutional, commercial, and household)⁷.
- c. **A digital infrastructure assessment.** A study assessing user experience as it relates to the availability, bandwidth, and signal strength of Wi-Fi in and around the intervention area, the extent of e-commerce and integrated marketing, and the constraints to expanding digital connectivity in the intervention area.

4.2 **Component II. Infrastructural Designs (US\$200,000).** This component will finance the conceptual, architectural, and engineering designs of critical pieces of climate-resilient infrastructure recommended from the diagnostic assessments to be completed under Component I. Specifically, it will finance:

- a. Conceptual renders and urban architectural designs for infrastructure – including pedestrian, cycling, public transport, drainage, and vehicular corridors, incorporating Universal Design to accommodate a diverse population. Infrastructure specifications will also cover recommendations for the expansion of the existing broadband infrastructure to fulfill the demand requirements, identified in the previous component as well as recommendations to increase the resiliency of the infrastructure to cope with anticipated climate change effects.
- b. Detailed engineering designs for the above infrastructure.

4.3 **Component III. Capacity Building and App Development (US\$100,000).** This component will finance the development of a technological application, equipping of key local stakeholders, as well as dissemination of the diagnostics and knowledge exchanges with international partner institutions (for example, the Korean Ministry of Land, Infrastructure, and Transport (MOLIT), KRHIS, Land and Housing Corporation (LH), etc.). It would finance the following:

⁷ This will be a deep dive for Arima, building on a higher-level analysis that is expected to be completed under TT-T1127.

- a. Mobile app development that will facilitate a single access point for a digital experience of Arima and provides links to other applications that can be crowd-sourced and conceptually refined with support from Korean counterparts. The App will likely facilitate more linked bookings, promote e-commerce expansion, generate new business opportunities, improve mobility, reinforce accessibility, increase safety, and help to create a sense of a familiar place – placemaking.
- b. E-commerce training that develops the local capacity for introductory training to MSMEs using a train-the-trainer methodology will directly target closing gender gaps in e-commerce and other business practices. This training will also cover entrepreneurship skills, mentoring, and start-up financial support guidance, and will be designed and executed in partnership with IDB Lab.
- c. A government-to-government knowledge-sharing event that would involve KIUDA and other Korean counterparts sharing lessons with MHUD, MDT, and municipal government colleagues on Smart city development.

4.4 The indicative budget to finance the above components amounts to US\$500,000, distributed between US\$450,000 in cash to be funded through resources from the Korean Poverty Reduction Fund (KPF) and US\$50,000 as an in-kind counterpart contribution. There is no local cash counterpart funding⁸.

Indicative Budget

Activity/ Component	Description	IDB/Fund Funding	Local Counterpart	Total Funding
Component I. Diagnostic Assessments	Diagnostic studies and consultation processes with recommendations to address the gaps in urban regeneration	US\$150,000.00	US\$20,000.00	US\$170,000.00
Component II. Infrastructural Designs	Conceptual, architectural, and engineering designs for climate-resilient infrastructure based on findings in Component I	US\$200,000.00	US\$20,000.00	US\$220,000.00
Component III. Capacity Building and App Development	Technological application, equipping of stakeholders, and dissemination activities including international knowledge exchanges	US\$100,000.00	US\$10,000.00	US\$110,000.00
Total		US\$450,000.00	US\$50,000.00	US\$500,000.00

V. Executing Agency and Execution Structure

5.1 At the request of the Government of Trinidad & Tobago, the IDB will execute this TC through the technical supervision of the Housing and Urban Development Division (CSD/HUD), working closely with the administrative supervision of the IDB's Country Office in Trinidad & Tobago (CCB/CTT)⁹. The letter of request is in Annex I.

⁸ Rather the counterpart contribution will be primarily in the form of the value of staff time of personnel from the key government Ministries and the Arima Borough Corporation, who will lead consultations with key stakeholders and review consultant outputs.

⁹ Execution will be done in close coordination with the Ministry of Housing and Urban Development, the Ministry of Digital Transformation, the Ministry of Planning and Development, and the Ministry of Local Government (through the Arima Borough Corporation).

- 5.2 The Bank is currently working by invitation of the Government of Trinidad & Tobago across sectors with the leading local development partners for the Connected Arima Project. The Bank's reputation for innovation, convening power, multi-sectoral expertise, and strong local presence is essential for executing this TC. The above factors justify the request for the IDB to be the executing agency. The IDB also believes that disseminating knowledge and technical skills in this TC will be more efficient if executed by the IDB. Public consultation and dissemination activities with key stakeholders will be part of the process of the development of products under this TC to facilitate sustainability and ownership of the products.
- 5.3 The activities to be executed under this operation have been included in Annex IV (-Procurement Plan) and will be carried out in accordance with the Bank's established procurement policies, namely: (a) hiring of individual consultants, as established in the regulation AM-650, (b) hiring of consulting firms for services of an intellectual nature according to the Bank Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-4) and its associated operational guideline (OP-1155-4), and (c) hiring of logistics services and other expenses related to non-consulting services, according to the Corporate Procurement Policy (GN-2303-28).

VI. Major Issues

- 6.1 The main risk to this TC is that stakeholder efforts to improve the understanding and functioning of the Borough may be inadequately coordinated, leading to either duplication or incongruent outcomes. This risk is mitigated by active coordination by the IDB with the three key local Ministries (see paragraph 3.8) and by positioning this TC as operational support to the UURP, which is already financed and under implementation. The latter ensures a coherent focus on urban regeneration and an incentive for all significant stakeholders to align their efforts to give them a higher prospect of financing.

VII. Exceptions to Bank policy

- 7.1 The project does not require exceptions to Bank policy.

VIII. Environmental and Social Strategy

- 8.1 This TC will not finance feasibility or pre-feasibility studies of investment projects with associated environmental and social studies; therefore, it falls outside the scope of the Bank's "Environmental and Social Policy Framework (ESPF)".

Required Annexes:

[Request from the Client - TT-T1115](#)

[Results Matrix - TT-T1115](#)

[Terms of Reference - TT-T1115](#)

[Procurement Plan - TT-T1115](#)