TECHNICAL COOPERATION ABSTRACT (TC-ABSTRACT)

BRAZIL

I. BACKGROUND

Country:	Brazil
TC Name:	Design of the Technical Specifications for the pilot implementation of an "Integrated Operating Control Center" for the municipality of Goiania – Brazil
TC Number:	BR-T1281
Team Leader/Members:	Mauricio Bouskela (IFD/CTI), Team Leader; Marcia Casseb (FMM/CBR) Alternate Team Leader; Jiyoun Son (IFD/CTI); Vanderléia Radaelli (CTI/CBR); Marcelo Bessa (FMM/CBR); Maria Teresa Soto-Aguilar (VPC/FMP); Felipe Capella (LEG/SGO) and Cecilia Bernedo (IFD/CTI).
TC Taxonomy:	Client Support (CS)
Reference to request:	IDBDocs#37783905
Date of TC Abstract authorization:	May, 2013
Donors providing funding:	Knowledge Partnership Korea Fund for Technology and Innovation (KPK)
Beneficiary:	Municipality of Goiania, Brazil
Executing agency and contact name:	Inter-American Development Bank, Competitiveness and Innovation Division (IFD/CTI) Mauricio Bouskela (mbouskela@iadb.org)
IDB Funding Requested:	IDB: US$150,000
Local counterpart funding:	Local: US$ 40,000
	Total: US$190,000
Execution period:	18 months **Disbursement period:** 21 months
Required start date:	August 1, 2013
Types of consultants:	Consulting firm and individual consultants
Prepared by Unit:	Competitiveness, Technology and Innovation Division (IFD/CTI)
Unit of Disbursement Responsibility:	IFD/CTI
TC included in Country Strategy:	Yes **TC included in CPD:** No
GCI-9 sector priority:	Infrastructure for competitiveness and social welfare

II. OBJECTIVES AND JUSTIFICATION OF THIS TC

2.1 In 2010, the Inter-American Development Bank (IDB) created the Emerging and Sustainable Cities Initiative (ESCI), which aims to support and assist Latin American intermediate cities in steering urban development in three dimensions: (i) environmental sustainability and climate change; (ii) sustainable urban development; and (iii) fiscal sustainability and governance. ESCI focuses on

medium-sized cities in the Region, and proposes a methodology for identifying and prioritizing bottlenecks that may affect the long run objective of building urban spaces that hold high standards of living, environmental balance and fiscal capacity.

2.2 The city of Goiania, Brazil, was selected as one of the five pilot cities of the ESCI Initiative. Thus, in 2011 the Bank applied the ESCI methodology to identify Goiania's challenges in the three above-mentioned areas. The application of the ESCI methodology led to the definition of priorities and strategic actions compiled in the "*Plano de Ação Goiânia Sustentável*".[1]

2.3 Within the sustainable urban development area, in particular the broadband connectivity, the action plan for Goiania included a variety of studies funded by the Ministry of Strategy and Finance (MOSF) of the Republic of Korea, via the Korean Knowledge Sharing Program (KSP) of the Korea Export-Import Bank (KEXIM), in accordance with the Memorandum of Understanding (MOU) signed between the IDB and MOSF. These studies were developed by the Korean Research Institute for Human Settlements (KRIHS) [2] and were supervised by IDB's Competitiveness and Innovation Division (IFD/CTI), within the Broadband Special Program, and in collaboration with the Fiscal Municipal Management Division (FMM).

2.4 The KSP studies for 2011 (KSP-1),[3] executed by KRIHS focused on identifying Information and Communication Technology (ICT) projects that would leverage the necessary broadband connectivity to enable development of integrated solutions aimed at the promotion of urban sustainability in the municipalities of Goiania, Montevideo and Santa Ana (RG-T1990). The KSP-1 studies carried out four major activities: (i) technical study (diagnosis and recommendation, comprising the collection of data, site surveys in the cities and the identification of priority projects); (ii) study tour in the Republic of Korea to learn the best practices in the usage of ICT and broadband in Korean cities; (iii) action plans for each city; and (iv) workshop with key stakeholders, held at the IDB in Washington, D.C. As a result of the KSP-1 studies, twelve potential projects were identified for the three cities. From the twelve projects identified in the KSP-1, one project from Goiania and one from Montevideo were selected to receive continued support from the KSP program in 2012 (KSP-2).

2.5 The KSP-2 program aimed at developing detailed Technical Project Designs with Implementation Plans for Integrated Operation and Control Center (IOCC) solutions for Goiania and Montevideo. In the case of Goiania, the IOCC solution was focused on urban mobility, crime prevention and natural disasters management and it was aimed at allowing the municipality to: (i) collect real time information on the city from digital devices, such as sensors and surveillance

---

1 Published in 2012 - http://www.iadb.org/document.cfm?id=37017386

2 Korea Research Institute for Human Settlements (KRIHS) was established in 1978 to comprehensively undertake research and planning activities for efficient, equitable, and sustainable use, development and conservation of the territorial resources, thus contributing to the balanced development of the country's cities and regions, and the enhancement of the quality of life.

3 KSP-1 refers to the KSP executed in 2011, KSP-2 refers to the KSP executed in 2012.

cameras, displaced within the city and connected to the Internet; (ii) process and manage the collected data to support the decision making process from authorities and the dissemination of information to the citizens; and (iii) integrate, in one site, the different municipal entities to cooperate and to make decisions as part of the daily management of the Goiania's occurrences and emergencies in urban mobility, crime prevention and natural disasters management.

2.6 The KSP-2 studies, executed by KRIHS, contemplated five major activities: (i) research and field survey; (ii) identification of IOCC's functional requirements; (iii) identification of best practices in implementing IOCCs; (iv) development of the technical solutions and implementation plans; and (v) presentation of the studies and action plan in final workshop in Goiania. The project's output included a document containing the technical solution for a multi-phased and multi-year implementation plan for the seven subsystems: (i) advanced traffic signal system; (ii) advanced traveler information system, (iii) automatic enforcement system; (iv) incident management system; (v) bus information system; (vi) criminal prevention system, and (vii) disaster prevention system. The report also included the proposed layout for Goiania's IOCC site and the broadband network infrastructure.

2.7 In February 2013, during the final workshop in Goiania, the action plan was presented to Goiania's authorities and it was widely praised by the government and the community. Furthermore, the IOCC was considered an essential tool for improving the overall quality of life in the city, as it will allow for more efficient mobility, enhance citizens' sense of security and greatly affect the ability of authorities to respond to natural disasters through the concentration of monitoring and response facilities in one place.

2.8 As a result of the discussions held during the final workshop, the Mayor of Goiania expressed an interest in implementing the pilot phase for the IOCC in the near future. For that purpose, he requested support from the IDB and the Government of the Republic of Korea to deepen the KSP-2 studies in particular areas such as systems integration, pre-requirements, budget, legal documents, etc., to design the complete technical specifications and terms of reference, which would allow Goiania's municipality to procure and implement the IOCC pilot project in the near future.

2.9 **Objective:** The objective of this Technical Cooperation is to refine the KSP-2 studies as indicated above and design the complete Technical Specifications to allow Goiania to procure and implement a pilot project for an "Integrated Operating Control Center" (IOCC) for the municipality.

2.10 The implementation of ESCI's connectivity dimension in the city of Goiania, and more specifically the construction of the IOCC, is strictly aligned with the Bank's country strategy in Brazil as stated in section C, sub-sections (i) and (ii), which comprises support of "sustainable urban growth of cities in Brazil through interventions to improve the urban habitat and increase capacities for urban management and service delivery in medium-sized cities and metropolitan

areas".[4] Moreover, the implementation of the IOCC is also consistent with the priorities set out by the GCI-9, especially section "(b) Infrastructure for competitiveness and social welfare".[5] In addition, the project also falls within the specific themes with strategic value to the Region, such as the "prevention and effective of natural disasters and the effects of climate change", areas mentioned as of emerging demand and business development for the Bank in GCI-9.[6]

III. DESCRIPTION OF COMPONENTS, ACTIVITIES AND BUDGET

3.1 **Component 1. Design of the technical specifications for the procurement.** The objective of this component is to support the authorities of Goiania to design the complete technical specifications required to purchase, implement and maintain the pilot phase of an "Integrated Operating Control Center" (IOCC) for the municipality of Goiania, focused on urban mobility, crime prevention and natural disasters management. This component will finance the hiring of an international consultancy firm to carry out the following activities: (i) review the reports from previous KSP consultancies for Goiania; (ii) discuss and confirm the scope for the IOCC pilot project with Goiania's authorities; (iii) design the IOCC action plan for the pilot implementation, which includes construction work, goods, connectivity infrastructure, equipment and services; (iv) establish the operational and maintenance plan; (v) develop the complete technical specifications documents for the IOCC pilot project and all subsystems[7]; (vi) recommend the methodology and criteria to evaluate the proposals for the pilot procurement; (vii) deliver the results in a final workshop with Goiania's authorities.

3.2 **Component 2. Consulting services**. The objective of this component is to support the consulting firm with the specific local activities required to prepare the IOCC procurement documentation, such as the revision of Goiania's procurement processes, legal and institutional reviews related to the IOCC implementation, site surveys, etc. This component will finance the hiring of consulting services to carry on the following activities: (i) review the KSP-1 and KSP-2 documents; (ii) identify the areas which require further analysis (legal, institutional, site survey, etc.; and (iii) support the consultancy and local authorities with the required information to prepare the complete technical documentation.

[4] BID Brasil. Estratégia País 2012-2014, p. 26.
[5] IDB. Report on the Ninth General Increase in the Resources of the Inter-American Development Bank, p. 8.
[6] IDB. Report on the Ninth General Increase in the Resources of the Inter-American Development Bank, p.10.
[7] The final report will be delivered in Portuguese.

Table 3.1: Indicative matrix of the results

Suggested indicator	Baseline	Target at the end of the TC	Means of verification
Output Indicators: products			
Document establishing the agreed scope of the IOCC pilot project	0	1	Document with the agreement from Goiania's authorities
IOCC pilot Action Plan	0	1	Electronic copy of the report
Complete technical specification for the IOCC pilot procurement	0	1	Electronic copy of the report
Workshop for the dissemination of the results from the consultancy presented to Goiania's authorities	0	1	Attendance report
Outcome Indicators:			
Goiania has the complete technical documents and is ready to procure the IOCC pilot project	Goiania is not ready	Goiania is ready to procure the IOCC pilot	Acceptance of the technical documents by Goiania's authorities

Table 3.2: Budget of reference (in US$)

Activity/Component	IDB/Fund Funding	Counterpart Funding (in kind)	Total Funding
1. Design of the technical specifications for the procurement of the IOCC Pilot	**120,000**	**40,000**	**160,000**
2. Consultancy Services	**30,000**	**-**	**30,000**
Total	**150,000**	**40,000**	**190,000**

3.3 The project will be executed in 18 months.

IV. EXECUTING AGENCY AND EXECUTING STRUCTURE

4.1 According to the request from the Municipality of Goiania, the Inter-American Development Bank will be the executing agency for this project, which will allow a faster and more effective execution compared to the procedures from the municipality. Additionally, the execution will allow the Bank to generate best practices and replicate the lessons learned in other projects. The execution will be done through the Competitiveness, Technology and Innovation Division (IFD/CTI), in collaboration with Fiscal Municipal Management Division (IFD/FMM) and the ESCI team in Brazil. The CTI Division will be responsible for hiring the consultancy firm, supervising the execution of this technical cooperation, interacting with the consultants and Goiania's technical team, and reviewing the deliverables. The ESCI team in Brazil will be responsible for

following up the execution of activities, participating in technical visits and reviewing preliminary reports and products. Both divisions will have the responsibility for approving the final reports. The municipality of Goiania will create a Coordination Unit to support the consultancy firm with the activities required for the successful execution of this program. Furthermore, the Coordination Unit will mobilize and allocate the appropriate resources from Goiania's municipality different teams involved with the IOCC, such as technology and innovation, transit, public transportation, environment and social defense. As a way to supervise this consultancy work the Coordination Unit will establish frequent coordinating meetings with the consulting firm and the different stakeholders.

4.2 **Contracting of consultants.** The procurement processes of this TC will be carried out according to the policies of the Bank. For the contracting of individual consultants the policies of the Human Resources Department (HRD) will be applicable; for the contracting of consulting firms, the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (GN-2350-9); and for the contracting of services different from consulting (catering, printing, etc.) the policies of corporate procurement. The project team recommends the contracting of the consultancy firm KRIHS based on Single-Source Selection (SSS). This modality qualifies as the most appropriate contracting for a number of reasons, namely: (i) the services to be hired represent a natural continuation of the KSP-1 and KSP-2 consultancies, which were successfully executed by KRIHS in 2011 and 2012 awarded based on competition and are in line with the Bank's guidelines as set in paragraph 3.10 (b) of GN-2350-9; (ii) KRIHS qualifications can be attested by the Municipality of Goiania and with satisfaction to the Bank; (iii) the SSS offers a clear advantage *vis-à-vis* competition in this case, since the experience of KRIHS has shown that the complexity of the coordination needed among stakeholders in order to advance the construction of the IOCC is extremely high and it would lead to consume unnecessary time, increase transaction costs when the ultimate award would fall on the same firm in view of acquired knowledge and experience or the risks of not generating adequate outputs.

V. PROJECT RISKS AND MAJOR ISSUES

5.1 The execution of this project will require an intense and continued interaction between the consultancy firm and Goiania's teams, which could imply in an execution risk. To mitigate this risk, Goiania will create an executing committee to work actively with the consultancy firm and local consultants and respond to the project's requirements. Additionally, prior to the beginning of the project execution the consultancy firm will discuss their requirements with Goiania's authorities and agree on their work plan.

5.2 **Data security and privacy.** Since the IOCC project will collect and store digital images and videos from its surveillance cameras, there is the risk of exposing private information (license plates, people's faces, etc.) to inadequate audiences.

To mitigate this risk, KRIHS will provide technical recommendations on data storage and access; the municipality Goiania will consult with legal services to establish the legal procedures for storing data and for sharing the information to the appropriate recipients (police, justice department, etc.).

VI. EXCEPTIONS TO THE POLICY OF THE BANK

6.1 There are no exceptions to the policy of the Bank.

VII. ENVIRONMENTAL STRATEGY

7.1 Due to the nature of the TC which involves a comprehensive design of IOCC implementation, there are no expected environmental and social risks associated with it. This operation is classified as a Category "C" according to the classification toolkit of the Bank (see the link: IDBDocs#37657368).