

## Technical Cooperation Abstract

### I. Basic information

- Country/Region: República Oriental de Uruguay
- TC name: Improvement of the Locational Accuracy of the Cadastral Map
- TC number: UR-T1135
- Team Leader/Members: Emilio Pineda (FMM/CUR) Team Leader; David Salazar (FMP/CUR); Nadia Rauschert (FMP/CUR); Matilde Peñagaricano (CSC/CUR); y Diana Champi e Ida Fernández (IFD/FMM).
- Taxonomy: Client support
- Reference to Request: [IDBDocs#39785239](#)
- Date of TC Abstract: August 2015
- Beneficiary: Ministry of Economy and Finance
- Executing Agency: Project Coordination Unit of the Ministry of Economy and Finance
- IDB Funding Requested: US\$600,000
- Local Counterpart: US\$42,000
- Disbursement period: 36 months; execution: 24 months
- Required start date: October 2015
- Type of consultants: Firms and individual consultants
- Prepared by unit: FMM/CUR
- Unit of disbursement responsibility: FMM/CUR
- Included in Country Strategy: Yes
- Included in CPD: No
- GCI-9 priority sector: Institutions for growth and social welfare

### II. Objective and Justification

- 2.1 In recent years the National Cadaster (NC) has undertaken a series of reforms aimed at modernizing the cadastral registration and management, both from a technological and organizational standpoint, with a strong element of openness of information and ease of access to the public.<sup>1</sup>
- 2.2 At the same time, progress has been made in updating the cadaster's economic information in particular in Canelones and Montevideo. New value assessments were done for all properties of the Department of Canelones, and for all land units of the Department of Montevideo, all in all representing an update of approximately 40% of the country cadastral units.<sup>2</sup>
- 2.3 The NC has also taken decisive steps to develop a unified virtual system that integrates the different services already deployed while incorporating new services – both at headquarters and decentralized offices. With the support of the IDB Technical Cooperation UR-T1103 and the Korea Land / Geospatial Informatix Corporation (KLGIC) the NC has: (i) produced a detailed diagnosis and

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<sup>1</sup> A number of initiatives related to the provision of web-based services have been undertaken including: (i) the creation of a public system of cadastral values; (ii) the issuance of cadastral registries through the web; (iii) the electronic application for certification of cadastral values; (iv) the issuance of provisional values for condominium units; (v) the affidavits of urban characterization sent via email; (vi) the electronic consulting of census data; and (vii) the consulting via web the Geographic Information System of rural units, among others.

<sup>2</sup> Canelones and Montevideo concentrate around 55% of the national population and 50% percent of property tax revenues.

proposal to improve and unify the virtual services provided by the National Cadaster; (ii) initiated the development of the Electronic Office of the National Cadaster,<sup>3</sup> and (iii) realized a seminar and training program with the Korean Land/Geospatial Informatix Corporation on international best practices of Cadastral Management Systems.

- 2.4 As a result of the seminar and training program with the KLGC it was detected that one of the constraints that still undermine the proper functioning of cadastral services is the relative inaccuracy of the Cadastral Maps. The Cadastral Maps were developed 40 years ago, and since then the urban and rural landscape have suffered important modifications and changes.<sup>4</sup> Furthermore, new technologies make it possible to produce significantly more precise cadastral maps than with the traditional aerial surveillance methods. In the same line the Uruguayan National Institute of Spatial Data (IDE) has also considered that improving the locational accuracy of the Cadastral Maps is a priority.
- 2.5 The purpose of the Technical Cooperation (TC) is to improve the location accuracy of Cadastral maps in Uruguay, by upgrading as a pilot case the maps of the Department of Canelones. The Department of Canelones has been selected since it is considered a representative case of the national reality and has shown the political disposition to collaborate.

### III. Description of the activities and outputs

- 3.1 The TC will have the following components: (i) mapping of the Department of Canelones; and (ii) capacity building.
- 3.2 **Component 1. Mapping of the Department of Canelones (US\$510,000).** Finance the hiring of KLGC to upgrade cadastral maps for the Department of Canelones. The activities to be financed include: (i) UAV image; (ii) satellite image; (iii) vectorising and mapping; and (iv) local surveying. As a part of this component, and making use of the pilot case of Canelones, a new methodology will be developed to guide future upgrade efforts in the rest of the country.
- 3.3 **Component 2. Capacity Building(US\$90,000).** This component will finance a training program to be conducted in Korea, by the KLGC, for the national cadaster officials.

### IV. Budget

- 4.1 The total cost of this operation has been estimated at US\$642,000, which include US\$600,000 financed by the Korean Poverty Reduction Fund, and US\$42,000 by the counterpart provided in kind (which correspond to time of public officials).

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<sup>3</sup> The Electronic Office is expected to be operating by the end of 2016.

<sup>4</sup> The analysis done by the KLGC has shown that 31% of rural measurements have an error of 5% or more, while 14% of urban measurements have an error of 10% or more. Outdated maps with these types of errors reduce the potential revenues by not incorporating new developments or properties' upgrades, and by making more difficult the tax administration due to a lack of transparency and accuracy.

**Table 1. Indicative Budget (US\$)**

Activity/Component	Description	IDB Funding	Local Counterpart	Total Funding
<b>Component 1. Mapping of Canelones</b>		<b>510,000</b>		
	Image Acquisition and Mapping	166,000		
	Consulting	272,000		
	Local Surveying Fees	72,000		
<b>Component 2. Capacity Building</b>		<b>90,000</b>		
	Overseas training in Korea	90,000		
<b>Administrative expenses and evaluation</b>			<b>42,000</b>	
<b>Total</b>		<b>600,000</b>	<b>42,000</b>	<b>642,000</b>

## V. Executing agency

- 5.1 The executing agency will be the Ministry of Economy and Finance, through its Project Coordination Unit.<sup>5</sup> This technical team will be headed by the National Cadaster Director whom will be responsible for: (i) the liaison with the Bank in all aspects related to the TC; and (ii) coordinating the different activities of each component. While the Project Coordination Unit will be responsible for: (i) realizing the different acquisitions; (ii) acting as the counterpart in the auditing of the TC; and (iii) financial supervision of the execution of the program.

## VI. Risks associated to the Project

- 6.1 The main risk associated with the implementation of the TC is that improvements in management practices require changes in organizational culture that may face resistance. To minimize this risk the TC will hire consulting services to facilitate the monitoring and dissemination of the products of the TC.

## VII. Social and environmental strategy

- 7.1 By its nature, the components financed this operation will not have negative environmental or social impacts. This CT classification receives the [C](#).

<sup>5</sup> This unit has several experiences implementing IDB programs and Technical Cooperations.