Inter-American Development Bank

Simplified Procedure

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To: The Board of Executive Directors

From: The Secretary

Subject: Colombia. Proposal for a loan for the 2005 General Census program

Basic Information:

Borrower	……...…..…….…..……...	Republic of Colombia
Amount	……..……..….	up to US$48,000,000
Source	…...…..……	Single Currency Facility of the Ordinary Capital

Inquiries to: Mr. Raimundo Arroio (extension 2455)

Remarks: This operation was included in the country strategy update, approved by the Board of Executive Directors on 22 June 2005 (see document GN-2257-10), and its amount does not exceed the ceiling established for Group B countries.

References: GN-1838-1(7/94), DR-398-5(5/03)

Other distribution: Representative in Colombia

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

COLOMBIA

2005 GENERAL CENSUS PROGRAM

(CO-L1008)

LOAN PROPOSAL

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Annex I Logical framework

Proposed resolution

Electronic Links and References	
Basic Socioeconomic Data	http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata
Portfolio in execution and approved loans	http://ops/approvals/pdfs/COen.pdf
Tentative lending program	http://opsgs1/ABSPRJ/tentativelending.ASP?S=CO&L=EN
Information available in the RE3/SC3 files	Information available in the RE3/SC3 files
Procurement plan	http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=601002
Supporting documentation for direct contracting	Supporting documentation for direct contracting
Supporting documentation for direct contracting	Supporting documentation for direct contracting

ABBREVIATIONS

CELADE	Latin American and Caribbean Demographic Centre
DANE	Departamento Administrativo Nacional de Estadística [National Administrative Department of Statistics]
ECAPS	Training entities
ECLAC	Economic Commission for Latin America and the Caribbean
IGAC	Instituto Geográfico Agustín Codazzi [Agustín Codazzi Geographic Institute]
PDAs	Personal Digital Assistants
UBN	Unmet basic needs
UNFPA	United Nations Population Fund
UROs	Regional operational units

PROJECT SUMMARY

COLOMBIA
2005 GENERAL CENSUS PROGRAM
(CO-L1008)

Financial Terms and Conditions[1]

Borrower:	Republic of Colombia		Amortization period:	25 years
Executing agency:	Departamento Administrativo Nacional de Estadística [National Administrative Department of Statistics] (DANE)		Grace period:	3 years
			Disbursement period:	3 years
			Interest rate:	Adjustable
Source	**Amount**	**%**	Inspection and supervision fee:	0%
IDB (Ordinary Capital)	US$48.0 million	69.9	Credit fee:	0.25%
Local	US$20.7 million	30.1	Currency:	U.S. dollars from the Single Currency Facility
Total	US$68.7 million	100.0		

Project at a glance

Project objective:

The general objective of the program is to support the Colombian government in conducting the 2005 General Census, such that the quality of the census, in terms of efficiency, coverage, transparency, and timeliness, meets recognized international standards, making available pertinent, precise, timely, reliable, and integrated information on the size, geographic distribution, composition, and primary characteristics of Colombia's population, households, and housing units, as well as basic census frames for economic establishments and agricultural units.

Special contractual conditions:

See paragraphs 3.3 and 3.9

The contracting of an individual expert to provide support to the census coordinator in the implementation of the activities contemplated in the program and the presentation of the final version of the annual work plan for the first year.

Exceptions to Bank policies:

A revolving fund of up to 10% of the loan proceeds is requested (see paragraph 3.12).

Project consistent with country strategy: Yes [X] No […]

Project qualifies as: SEQ […] PTI [...] Sector [...] Geographic […] Headcount […]

Procurement:

See paragraph 3.10

All goods and related services will be procured in accordance with the Bank's new procurement policies and procedures. International competitive bidding will be used to procure goods and services that cost more than US$250,000 and to engage consulting services that cost more than US$350,000.

Environmental and social review: See paragraph 4.4

Verified by CESI on: 22 July 2005

[1] The interest rate, credit fee, and inspection and supervision fee mentioned in this document are established pursuant to document FN-568-3 Rev. and may be changed by the Board of Executive Directors, taking into account the available background information, as well as the respective Finance Department recommendations. In no case will the credit fee exceed 0.75%, or the inspection and supervision fee exceed 1% of the loan amount.*

* With regard to the inspection and supervision fee, in no case will the charge exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. FRAME OF REFERENCE

A. The sector

1.1 Colombia has ample experience in conducting population censuses. Since its creation in 1953, the National Administrative Department of Statistics (DANE) has been responsible for carrying out census projects, guaranteeing the production, availability, and quality of strategic statistical information, and evaluating the production and dissemination of basic official information, including the Summary of National Accounts. It has conducted the past four population and housing censuses.

1.2 DANE is also responsible for controling the production and dissemination of strategic official statistics and establishing mechanisms for the coordination and integration of national and subnational statistical services in accordance with the principle of regulatory centralization and administrative decentralization.

1.3 DANE has ministerial rank and reports directly to the Office of the President of the Republic. It oversees two agencies: the DANE Revolving Fund and, since 1999, the Instituto Geográfico Agustín Codazzi [Agustín Codazzi Geographic Institute] (IGAC), which is responsible for the country's official cartography.

1.4 The organizational structure of DANE consists of a director, a technical deputy director, who oversees five divisions (geostatistics; censuses and demography; regulation and policy-setting; national accounts; and methodology and statistical production), a general secretary who reports to the director, and six regional divisions.[1] DANE employs approximately 500 people, most of whom have extensive experience in the sector and some of whom have worked directly on national censuses. Special funds have been allocated for the census program, which will be covered in part by the loan proposed herein.

B. The importance of censuses

1.5 A general census that includes components on demographics, housing, economic establishments, and agricultural units is defined as the series of operations conducted to gather, collect, record, analyze, and publish or disseminate demographic and socioeconomic data on a country's inhabitants, including housing and occupant data, and basic information on economic establishments and agricultural units.

1.6 The information provided by a general census is important for various purposes, including: (i) to describe the socioeconomic conditions of the population and to identify its highest-risk groups, in order to obtain indicators such as unmet basic

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[1] Barranquilla, Bogota, Bucaramanga, Cali, Manizales, and Medellín.

needs (UBN); (ii) to understand the conditions, trends, prospects, and location of the workforce; (iii) to observe the dynamics of the population in terms of its composition by gender and age, ethnicity, geographic distribution, and growth; (iv) to assess the quality of life, based on housing size, layout, and space in relation to the number of people; and (v) to identify economic establishments and agricultural units at the municipal level, as a sampling frame for sector-based surveys. The census also provides information for the productive, business, and farm sectors; academia; research institutes; and civic and community organizations.

1.7 Colombia has sociodemographic data from 1993, economic data from 1990, and data on the agricultural sector from 1970, which constitutes the body of information used in public administration. Since the last population and housing census, Colombia has undergone profound transformations that have significantly altered the distribution of the population, economic establishments, and agricultural units. The armed conflict, the difficult sociopolitical situation, the major recession of the past decade, and the crisis in the regional economies have put pressure on the urbanization and displacement of the population, including an international exodus. This mobility and displacement have affected subnational agencies by causing the populations they serve to expand or shrink. These fluctuations cannot be reflected in projection models, and there is no system for tracking such changes between censuses. In addition, since 1993, at least 65 municipios have been created and/or modified, a process that has affected more than 100 communities nationwide and has an impact on the political representation of governing bodies, members of the Chamber of Representatives, deputies, and council members.[2] At the same time, census data affects the classification of municipios, which is based on number of inhabitants in Colombia, and by extension, the amount of money allocated by the national government to the departments and municipios (General Revenue-sharing System).[3]

1.8 With regard to economic data, the frames of economic units have been supplemented with information from administrative records, but given the dynamics of the economy, it is impossible to guarantee the accuracy of the frame or the data generated from it. In response to this weakness, the general census calls for a survey of all economic units, an expansion of their thematic content, and integration with the other observation units.

1.9 Lastly, with respect to agricultural units, it has been 35 years since any survey incorporating the level of detail and coverage of a census has been done, making it difficult to measure and profile agricultural activity, which has resulted in an inadequate sector statistical system. As is the case with the economic census, the

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[2] Article 176 of the National Constitution (There shall be two representatives to the Chamber for each territorial designation and one more for each 250,000 inhabitants or fraction over 125,000…").

[3] Law 715 of 2001.

surveys that have been conducted are limited, particularly when it comes to calculating estimates on small administrative units, or sample sizes for small or very dense communities.[4] This requires adopting a new frame, developed using the results of a survey of all agricultural units associated with a housing unit, involved in farming, livestock, or forestry activities.

C. Basic features of Colombia's 2005 General Census

1.10 With the 2005 General Census, Colombia is conducting a novel experiment that is not without certain risks. Significant changes are envisioned in this census with regard to previous censuses conducted in the country, as noted in the following table:

Table I-1. Basic Characteristics of the Census
Comparative Analysis

	Methodology	
	Previous	**New[5]**
Thematic coverage	Population and housing	Population and housing. Basic information on economic establishments and agricultural units.
Questionnaire	One type	Basic and expanded versions for population and housing. Specific for the rest.
Census period	1 day	1 year (22 May 2005 to 22 May 2006)
Data collection	1 day (urban); 60 (rural)	150 days (urban and rural)
Immobilization	Total; 1 day for urban areas	Partial by zone
Capture material	Paper (single use only)	PDAs (reusable)
Human resources	1.5 million (most were students and professors)	43,000 (hired coordinators, supervisors, and enumerators)
Release of census results	Once the data was consolidated	Days after the census is conducted in a given area

1.11 This new census-taking method has significant advantages over the traditional data collection method. These include: (i) The national economy is not partially paralyzed on the day of the census; (ii) Mistakes can be corrected as soon as they are detected; (iii) Census workers are paid, trained professionals, instead of volunteers; (iv) Far fewer workers are required, which streamlines the human resources management and training process; and (v) The use of Personal Digital Assistants (PDAs) turns an expense into an investment, unlike in the case of paper,

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[4] For example, at the level of type of annual crops and productive activities involving high concentrations of animals, such as feedlot ranching, pig farming, and industrial aquaculture.

[5] The Executive Branch issued a decree in April 2005 setting forth the basic features of the new Census.

which can be used only once. For the first time ever, Colombia has replaced the massive use of paper with mobile data collection devices, transmission through data networks, and consolidation in centralized databases, with all electronic security precautions, reduced times and costs, and enhanced overall efficiency of census operations. This will streamline data validation and processing and will make it possible to release census results a few weeks after field operations have been completed.

1.12 These changes have led to new institutional challenges. In areas such as long form sampling and the use of professional enumerators, other countries in the world have had successful experiences. However, several areas, such as the combination of three data collection activities, the extension of the data collection period in urban areas, and the use of new technology, have required a careful pilot program, and the lessons learned, which came about through the application of a testing system (paragraph 2.16), were essential to the planning and implementation of this census operation.

D. The Bank's strategy with the country and the sector

1.13 The Bank's strategy with Colombia (document GN-2267-1) identifies three primary objectives: (i) lay the foundations for economic expansion and revitalization; (ii) foster social progress and make sure society's most vulnerable groups are protected; and (iii) strengthen governance and support modernization of the State. The proposed program contributes to the fulfillment of all three objectives. Information generated by the general census is a key element for the first objective insofar as it will help the public and private sectors understand not only the conditions and requirements of the demand for goods and services, and carry out national development projects and plans that are better scaled and targeted, but also the basic census frames for in-depth research on economic and agricultural issues. It is also essential for the fulfillment of the second objective since information on individuals, housing, and households helps elucidate the socioeconomic conditions of the population, identify the most vulnerable groups, and obtain indicators such as the UBN, which are indispensable for better targeting social spending in the country. Lastly, the program will promote the governance of the country (third objective) inasmuch as, for some elected offices, the number of representatives is proportional to the population of the municipios.

1.14 In the Modernization of the State strategy (OP-1004), the Board of Executive Directors recommended supporting the development of data collection and analysis capacity for policy making and evaluation, as well as implementing instruments to prioritize investments. Census data is essential for both activities.

E. The country's strategy in the sector

1.15 Since 1997, DANE has been preparing for the XVII National Population Census and the VI Housing Census (now known, together, as the 2005 General Census), based on recommendations and decisions approved by the Consejo Nacional de Política Económica y Social [National Council on Socioeconomic Policy], whose latest document recommended that census operations begin on 22 May 2005. To that end, DANE has reformulated the census strategy to incorporate changes to the data collection methodology that will broaden the scope of the census, without impinging on the fulfillment of its original objectives.

1.16 The strategy pursued by the country was to ensure, from the preparatory phase, compliance with international quality standards, and to do that, it followed the Bank's suggestion to initiate census operations by conducting a pilot project that would allow it to test all of the census instruments and make any necessary adjustments before launching the definitive census.

F. Program strategy

1.17 Unlike most Bank-financed programs in which the projects are designed, approved, and then executed, in this case, Colombia's request for Bank financing for the program arrived after the preparatory work for the census was already under way. This is why the strategy that was adopted consisted in supporting the entire process (preparation and concomitant execution), for which a decision was made to: (i) provide comprehensive support to DANE, drawing on the experience of the Bank's team and international experts, thus ensuring the compliance of all pre-census activities with international standards; (ii) accept the government's decision to complete the entire census between May 2005 and May 2006, and to give very high priority to census preparations, with a larger number of missions and timely, ongoing monitoring of international bidding processes by the Bank's Country Office in Colombia; (iii) prepare and approve, in a brief period of time, a technical cooperation project (ATN/SC-9190-CO), which has been financing a portion of the preparatory activities; (iv) guarantee ongoing support for the entire census process and coordinate with respected international institutions, such as the Latin American and Caribbean Demographic Center (CELADE) and the United Nations Population Fund (UNFPA), for the purpose of securing their technical assistance and agreement; and (v) conduct joint missions with these institutions, including joint aide-mémoires, to ensure consensus-based positioins vis-à-vis DANE.

G. Lessons learned

1.18 The Bank has amassed a wealth of experience with programs to strengthen statistical systems and support the preparation and execution of censuses.[6] This program draws on that experience and the lessons learned, which suggest that census operations should incorporate: (i) conceptual aspects in their design and identification of the topics to survey; (ii) operational aspects, which have to do with managing a census in all of its phases; and (iii) technological aspects, generally related to information technology, digital cartography, processing, and dissemination through electronic media. In addition to incorporating these three considerations, the operation drew on the latest lessons compiled by the Economic Commission for Latin America and the Caribbean (ECLAC) based on the 2000 censuses,[7] such as the advantages of de jure over de facto censuses;[8] the difference between "household" and "housing unit";[9] the domestic and international mobility of the population; information on ethnic identity based on culture, village, or physical traits; information on mortality, fertility, and disability rates; and implementation of a system to track and monitor administration and execution to guarantee the quality of the census.

1.19 The Bank has supported the country through the various phases of the census process since August 2004, which has made it possible to: (i) impress upon local authorities the importance of conducting a pilot census to test all of the instruments and logistics to be applied under the new methodology; (ii) revitalize and assign a more active role to the Consultative Technical Committee, improving its dialogue with DANE authorities; (iii) reduce the enumeration period from one year to four months, mitigating the effects of migration on census results; and (iv) coordinate the international cooperation provided by entities specializing in population issues, such as CELADE and the UNFPA. Lastly, the successful application of these new methodologies/technologies will enable the Bank to promote them in other countries that request its technical assistance in this area.

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[6] The Bank has financed projects to support population and housing censuses and/or to strengthen national statistical systems in: Bolivia (1046/SF-BO) and Ecuador (1296/OC-EC) in 2000; Honduras (HO-0206) in 2001; Paraguay (1301/OC-PR), Suriname (1446/OC-SU), and Guatemala (GU-0170) in 2002; and Nicaragua (1535/SF-NI) in 2004.

[7] ECLAC, United Nations, Latin America: Conceptual aspects of the 2000 censuses (LC/L.1204-P).

[8] De jure censuses survey individuals at their place of habitual residence, whereas de facto censuses survey individuals where they are when the census is being taken.

[9] "Household" refers to the consumer units within a housing unit, that is, the individuals who share a grocery budget, whereas "housing unit" refers to a physical unit bounded by walls and a roof that has an independent entrance.

II. THE PROGRAM

A. Objectives

2.1 The general objective of the program is to support the Colombian government in conducting the 2005 General Census, such that the quality of the census, in terms of efficiency, coverage, transparency, and timeliness, meets international standards, making available pertinent, timely, reliable, and integrated information on the size, geographic distribution, composition, and primary characteristics of Colombia's population, households, and housing units, as well as basic census frames for economic establishments and agricultural units.

2.2 The specific objectives of the program are: (i) to facilitate the effective, timely preparation of pre-census activities; (ii) to promote the quality of census date collection activities in urban and rural areas; and (iii) to ensure the widespread validation, dissemination, and use of census information and generate baseline information for use in other censuses or specific surveys.

B. Description and structure of the program

2.3 The program consists of three components: (i) pre-census activities; (ii) pilot test and census operations; and (iii) post-census activities.

1. Component 1: Pre-census activities (US$7.8 million)

2.4 In preparation for the census, the national government—through DANE—performed tasks related to census design, adaptation of the legal framework for conducting the census, the creation of working groups, a partial update of the country's maps, the formulation of census questionnaires, and the formation of partnerships with universities and international agencies. The program will recognize part of the costs already incurred for these activities and will consider as part of the financing or local counterpart funds the activities mentioned in paragraph 3.8, which are related to the preparation and design of the census.

2.5 **Census design:** Consulting services were engaged to complete the methodological and conceptual design of the census, as well as to conduct validation tests for subsequent implementation of the census. In addition, a call for bids was issued for the procurement of equipment for the tests and the refurbishing of some DANE facilities related to the census.

2.6 **Creation of clusters:** This was one of the most important methodological aspects in the development of the census.[10] Through proper design, distortions attributable to factors associated with fluctuations in the resident population in each of the geopolitical units were minimized.

2.7 Based on information about population changes, birth and death statistics, municipal population projections, primary and secondary school enrollment, relocations, number of voters, and municipal tax revenue, six clusters of municipios were identified according to population dynamics (areas of net population gain or loss), as was an area where the census will be conducted by path. Because the census will be conducted in each cluster at a different time, census results will be adjusted to reflect a census moment, for which a specific methodology has been developed that the United Nations, the Latin American and Caribbean Demographic Center (CELADE), and the Bank's team have reviewed.

Table II-1. Classification of municipios for the census

Group	Population change	% Population	Municipios
C5	Special	18	25
C4	High	21	38
C3	Intermediate-High	21	116
C2	Intermediate	17	259
C1A	Low	13	402
C1	Low-Low	6	181
Paths		4	98
Total		100	1,119

Note: C5 is Bogota and the surrounding area, C4 are the main metropolitan areas, and C3 are medium-sized cities.

2.8 **Questionnaires.** As part of the data collection process, three integrated questionnaires were developed. Questionnaire content has been organized according to the individual responsible for its completion: (i) *Urban environment*, completed by the field supervisor through observation at the city block level for the purpose of surveying the predominant urban environment, based on primarily physical habitat criteria; (ii) *Census units*, completed by the interviewer using information reported directly by the qualified respondents in such units. This questionnaire has been divided into the following sections: housing units, households, individuals, economic units, and agricultural units; and (iii) *Special group quarters*, such as military barracks and prisons, completed by resident staff trained for this purpose by the municipal coordinator. In addition to the urban environment component, these questionnaires are used for two types of enumeration: (i) universal enumeration, using a set of basic questions, which are applied to the entire universe of housing units, households, and individuals, both in the municipal seat and in the rural area of every municipio in Colombia; and

[10] The Bank supported the country in this process through technical assistance from the UNFPA.

(ii) partial enumeration,[11] using a set of structured questions, in addition to the basic questions, applied to a probabilistic parallel household survey that is representative of each of the medium and large municipios[12] and to the households surveyed in very small municipios, as well as on indigenous community lands [*resguardos*] and land owned collectively by black communities, in order to determine unmet basic needs and other variables indicative of living conditions.

2.9 In accordance with Colombian law, DANE is required to register the population according to the different legally constituted ethnic groups.[13] To this end, it assembled a group of experts within the Census and Demography Division to work on this full time. The group's primary responsibility has been to liaise with all the indigenous, Afro-Colombian, *Raizal* [Creole-English speaking inhabitants], and Roma organizations, for the purpose of generating strategic and statistical information essential to formulating public policy. To encourage these communities to participate in the conceptual overview of census categories under the ethnic identity module, a "Workshop to Evaluate the Question regarding Ethnic Self-Identification" was held in Bogota last year and was attended by indigenous, Afro-Colombian, *Raizal*, and Roma social organizations.[14] Based on the inputs produced with the findings, pilot tests were conducted in the context of specialized surveys, such as the Quality of Life Survey and the Ongoing Household Survey of the second quarter of 2004. Under this framework, an ethnic participation work plan has been consolidated, through national, regional, and local panels, as a strategy to connect with the census process. It is in these forums that the participation methodology and dynamics are generated under the headings of awareness-raising, personnel and operational management, and use of results in the post-census studies.

2.10 **Cartography.** A current digital cartographic database is an essential tool for efficiently assigning census data collection, minimizing omissions or duplication of information during the census, tracking geographical coverage in each of the municipios, and presenting the results of the census. This information will also provide DANE with the basic cartographic data needed to update the National

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[11] The questionnaire for this enumeration (long form) was discussed in detail with UNFPA and CELADE experts, the Bank's team, and the Consultative Technical Committee, in addition to various organizations representing ethic groups and other civil society organizations. Many of their suggestions were incorporated into the final versions of these questionnaires.

[12] The municipal seat and the rest of the municipio, and in some cities, at the level of locality.

[13] Colombian law recognizes indigenous nations, the Afro-Colombian or Afro-descendant population, the Raizales of San Andrés and Providencia, and the Roma or Gypsy Nation.

[14] Movimiento Nacional Cimarron [National Cimarron Movement], Sociedad Caboverdiana [Cape Verdean Society], Proceso Organizativo del Pueblo Rom [Organizational Process of the Roma Nation], Organización de Pueblos Indígenas de la Amazonia Colombiana [Organization of Indigenous Nations in the Amazon Region of Colombia], Organización Nacional de Indígenas de Colombia [National Indigenous Organization of Colombia], among other organizations.

Geostatistical Frame, a fundamental platform for establishing the area frames used to select samples for ongoing research. With this in mind, DANE and the Agustín Codazzi Geographic Institute drew up a technical cooperation agreement to provide the 2005 General Census with the necessary maps.

2.11 IGAC was contracted and equipment was procured in order to proceed with field updates, the digitization of cartographic information, and the organization and generation of the various cartographic products required for the census[15] in accordance with the schedule established for data collection, which is broken down into phases and geographic zones. This also pave the way for the development of cartographic products according to the schedule.

2.12 **Personnel management.** The 2005 General Census requires hiring more than 43,000 qualified, trained individuals to conduct census operations. DANE set up a personnel management system in three stages: (i) **recruitment**: Announcements will be carried by the mass media so that interested individuals can register to participate in census training. These announcements will specify the various job profiles, functions, and registration dates by zone; (ii) **training**: Applicants who meet the established requirements and are preselected will participate in a specific training course designed by DANE in collaboration with training entities (ECAPs). These ECAPs offer courses in various places around the country.[16] Individuals who complete the training will receive an academic certificate that makes them subsequently eligible for positions related to data collection processes; (iii) **assignment**: Once training has been completed, the ECAPs, under the supervision of DANE, will administer written tests for the final selection of personnel, who will preferably be residents of the municipio in which the field work is to be conducted. A monetary stipend is awarded for fieldwork, but this stipend does not constitute an employment relationship with DANE.

2.13 In areas where ethnic groups reside, DANE has stipulated that locals be selected as interviewers. Thus, the training system will select individuals who are members of the ethnic groups to be surveyed or, in the case of individuals who do not belong to the ethnic group, demonstrate an in-depth understanding of the general conditions and characteristics of the target population. Once these individuals have been selected and trained, members of the various communities will be trained in data collection and coordination activities, the most skilled of whom will be selected to conduct the census.

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[15] The cartographic products generated for the General Census were: urban context map, general urban context map, map of towns and comunas (special category i, ii, and iii), municipal map with information from the house-by-house sweep rural geostatistical frame, house-by-house sweep general rural context map, house-by-house sweep geographical rural map, general rural context map by path, path map.

[16] The training schedule is coordinated with the census data collection schedule.

2.14 **Awareness-raising.** Preparing and monitoring the public for the actions and activities related to the census is important to its success. It will also be important to work with the population to ensure the safety of DANE personnel and the interviewers as they go about their work. With this in mind, an awareness-raising plan was developed, targeting four different groups:

a. **The general public**: The plan for the general public consists of: (i) *a public relations campaign*, targeting opinion shapers and organizations that are collaborating on and facilitating the census; (ii) *a census kick-off*, targeted especially towards opinion shapers, the media, mayors, and government entities; (iii) *a free press campaign*, to familiarize the public with the census, with the media providing free support since this is a matter of national public interest; and (iv) *a publicity campaign*, divided into two phases: (1) an initial informational campaign, the purpose of which will be to educate people about the census and provide information on the census methodology and the census dates for the initial line-up of large cities; and (2) an ongoing campaign to report census dates for the subsequent large cities, as well as to disseminate census contact information (call center, Web site, public service lines) and initial results, to maintain enthusiasm among people who have not yet been polled and keep the public's interest.

b. **Community organizations** (societal oversight networks, community action boards, campesino organizations, civic organizations, youth groups, and religious groups): This includes holding awareness-raising workshops, informational meetings, and forums, for the purpose of creating opportunities for social ownership of the project and providing information on the importance of the census in analyzing local problems, and attacking some of them.

c. **Municipal authorities** are notified of the date on which the census is to take place in their municipio, the importance of the census, and options for collaboration. Municipal authorities are also asked to appoint a delegate, and the importance of creating a municipal census board to oversee the process is emphasized. An awareness-raising handbook for municipal boards and a portfolio of census products that will be available to the mayors' offices have been prepared.

d. **Ethnic groups**: The goal is to recruit ethnic communities to be active participants and facilitators during the project's fieldwork phases, to guarantee legitimate results. The strategy seeks to reach the communities and their closest representatives, who are the leaders of indigenous *resguardos*, the traditional authorities and legal representatives, by establishing regional panels in order to later convene seminars and workshops on the census and its importance. A self-registration method will be used and memoranda of intent will be drawn up to establish the ways in which the ethnic groups' legal and traditional authorities will provide cooperation, verification, and support for the activity in their

respective areas of influence and administration. To date, meetings to present the project have been held with indigenous and Afro-Colombian organizations at the national and regional level to secure their support for the process and cooperation in eliciting participation at the regional workshops.[17] The primary outputs from these meetings are the use of self-registration forms, validation of access paths, time, costs, means of transport, ethnic personnel qualified to use census instruments in the field, and a promise of cooperation, support, and oversight from the main ethnic/social stakeholders.[18] To this end, 45 intent agreements have been signed with the indigenous organizations and traditional authorities, or 75 percent of the consolidated total of the national indigenous population. It is important to emphasize that, with these intent agreements, the census fulfills its responsibility with respect to protecting the projects, creating the necessary conditions for dissemination, assembly, oversight, and commitment that the census will be implemented with all the guarantees in terms of reliability of the information supplied and the complete confidentiality, security, and civic participation of all the communities in this socially relevant project.

2.15 With program resources, financing will be recognized for the costs associated with pre-census activities related to the conceptual and methodological design, the design and printing of forms, the design of the staff selection and training process, and the hiring of consultants and a firm specialized in communications and awareness-raising campaigns that designed the entire campaign for subsequent implementation.

2. Component 2: Pilot test and the census (US$54.4 million)

a. Testing system and pilot test

2.16 Given the complex structure of the General Census, mechanisms have had to be put into place to ensure that all the instruments and procedures developed to implement each census component function properly and meet required standards of performance. With this in mind, a general testing system was designed and implemented. The system consists of: (i) **desktop tests**, to check the design, construction, integrity, and fulfillment of established requirements, based on the systematic application of logic or conceptual tests; (ii) **simulation tests**, in which models or simulations were conducted to reproduce as closely as possible actual field conditions; (iii) **field tests**, which consisted of trial runs that involved real respondents but were not as comprehensive as an actual census; and (iv) **pilot tests**,

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[17] This process was coordinated with the Ministry of the Interior, the Office of the Ombudsperson, the Instituto Colombiano de Desarrollo Rural [Colombian Rural Development Institute], the Ministry of Education, as well as with the mayors and governors of municipios and departments with large ethnic populations.

[18] National, regional, and local organizations; traditional authorities, leaders of indigenous *resguardos*; and legal representatives of the communities.

which are similar to actual census operations, but involve smaller, less complex populations.

2.17 Given the methodological, conceptual, and technical characteristics mentioned in the frame of reference, a pilot test was conducted between 22 May and 7 June to try out all of the instruments to be used.[19] This test, called Phase 0, complemented the aforementioned partial tests that had been conducted earlier, covered six municipios in six different departments (Oiba, Santander; Jericó, Antioquia; Buenos Aires, Cauca; Viterbo, Caldas; Chocontá, Cundinamarca; and Piojó, Atlántico), and involved a total of 73,248 residents, 20,208 housing units, and 18,366 households, which constituted a broad, diverse sample.[20]

2.18 The sample was selected on the basis of the following criteria: (i) one municipio per regional division; (ii) that did not serve as an anchor municipio[21] within the existing clusters; (iii) for which suitable maps for data collection already existed; (iv) that included at least one municipio with an indigenous *resguardos* in its rural section; and (v) that had varying characteristics with regard to climate, size, geographic relief, number of population centers, etc.

2.19 The test revealed, *inter alia*: (i) a shortfall in projected productivity rates equivalent to 10 percent, in the municipal seats; (ii) the need to make corrections to the latest version of the census database consolidation software, which presented the biggest obstacle during the test; (iii) the inadvisability of using PDAs in some rural areas, particularly where there are indigenous settlements, for reasons related to climate, terrain, area, and limited access. The following table presents the main results of the pilot test, including flaws and changes that have already been made or will be made in subsequent phases:

Table II-2. Pilot test results

RESULTS	CHANGES
Conceptual design	
The questionnaire generally worked properly, but problems related to comprehension of several questions were detected, demonstrating the need to modify some questions and improve the training provided to interviewers.	Several unclear questions were rephrased to help respondents understand them and to improve the enumeration process. The basic and long forms of the questionnaires were reviewed by the IDB team and the United Nations Population Fund (UNFPA) and changes were made.

[19] Questionnaires (basic and long) for the various activities (population, housing, agricultural units, economic units), use of portable equipment and printed forms, data collection times, public response to the awareness-raising process, field logistics, personnel training, data processing and validation, etc.

[20] These results will be confirmed in the coverage survey that will be conducted in the six municipios.

[21] Municipio that agglomerates a number of municipios located in its vicinity.

RESULTS	CHANGES
	A system was implemented to control data recorded in the field with portable devices and monitor the devices in the data collection centers, until delivery to DANE headquarters. Required controls (coverage, backup records, synchronization, quality checks, and transmission of information to DANE).
Cartography	
A need was identified to provide more intensive training in the area of cartography, complemented by field tests, to impart the skills needed to use maps and georeferencing.	A very instructive presentation was prepared, focusing on reading and using each of the cartographic products generated for the 2005 General Census.
Thirty percent of the maps used were out-of-date to some degree with regard to rural roads and new city blocks. The analog maps, in some cases, do not have current information on rural roads, which is due to local changes.	Preliminary work was done by municipal operation coordinators, who compiled information identifying housing clusters, new access routes, and new or changed place names, to supplement the census maps.
It was difficult to read maps in the field because the lines used to represent roads were hard to differentiate.	The number of conventions used to indicate roads was reduced from seven to two, in order to make it easier for the interviewers, supervisors, and field coordinators to read the maps for georeferencing work.
Awareness-raising	
The support provided by municipal authorities and community organizations was generally positive, but in specific cases, there were people who participated in the various preparatory meetings, but did not follow through on their commitments.	Promotion activities for local authorities were stepped up and enhanced, with greater emphasis on the benefits for municipal planning and development. Efforts should be made to track commitments and reinforce community work.
Several business owners did not authorize their employees to miss work on the scheduled test date.	Awareness-raising and informational activities were stepped up, with mass media communication strategies and eye-catching ads. Greater attention was paid to business associations and other entities, and on communicating the fact that Colombian law supports the process.
The allocated budget cannot cover the costs associated with using the mass media.	Action was taken to obtain additional resources and sponsorship under the Social Marketing Program.
In several cases, people did not receive complete information about the scope of the census. Some people in the participating municipios were surprised when they compared notes with relatives or friends, because some were asked few questions and others were asked many.	Greater emphasis was placed on informing people that a basic questionnaire is being used for the census and a long form is being used for the parallel survey.
The local population was informed about the partial immobilization required for the census. The strategy used to partially immobilize the population functioned at a success rate of 80%.	Emphasis was placed on the obligation to provide information, the legal basis for the process, and the benefits for the community. In several cases, the police will be called on to support the immobilization.

RESULTS	CHANGES
Personnel management	
The personnel recruitment and selection process functioned transparently through five ECAPs, and 250 people were hired on schedule and as planned.	A decision was made to expand the participation of the population, while maintaining the criterion that participants must come from the municipio.
The cascade training was generally positive although in certain cases some conceptual problems were detected as well as in the use and handling of the maps in general by interviewers and even supervisors. The interviewers quickly learned how to use the personal digital assistants (PDAs), but they had trouble solving technical glitches that they should be able to handle easily on their own.	The improvements revolved around three basic elements: (i) the generation of a set of teaching tools with clear and detailed information on census concepts; (ii) instructions for using the PDAs, with illustrations on how to access and record data on the PDA or software; and (iii) a more instructive presentation, focusing on interpreting and handling each of the cartographic products. Training in interviewing techniques will also be strengthened.
Software and technology engineering	
A stabilized version of the questionnaire for census units was developed, but checks need to be improved and flows need to be guaranteed upon initiating new census units.	Control will be guaranteed by performing technical tests, which was an evaluation condition stipulated in the new call for bids. Emphasis will be placed on technical support throughout the census.
At the beginning of the operation, there were some problems related to the synchronization and transmission of census data. Once the application was stabilized, these problems worked themselves out.	The national provider was instructed to complete installation well in advance of the census. Contingency plans for synchronizing and transmitting data will be implemented in the municipios that do not have the necessary infrastructure.
Distribution of materials	
In general, the distribution of materials met time and quality requirements. However, there were shortages, particularly of notifications, self-adhesive labels, and census certifications. The quality of the adhesive should be improved.	In order to improve on-time delivery rates, a company with logistics experience was hired to distribute the materials to municipios. The quality of the adhesive was improved.
Data collection operation	
The projected workloads for each interviewer were not met. The interviewers conducted between 6 and 18 interviews each day, spending an average of five minutes per person. The average number of completed long forms was 10 per day.	Interviewer productivity goals were adjusted by reducing workloads. The hands-on component of training was strengthened to improve the average interview time, particularly for the long questionnaire.
In rural areas, there were problems with locating individual interviewers, following up on one survey per interviewer, and re-interviews.	The means of communication and portable devices were improved to ensure permanent contact and continually track the status of the operations. Rural field coordinators were placed in every municipio in the country. Daily and online monitoring of all census activities, based on the modules of the census monitoring and control system.

2.20 After evaluating the results of this test, a decision was made to perform a field check of the improvements and adjustments made to each of the instruments. Between 1 and 23 August, the test was conducted in another six municipios,

selected using the same criteria adopted for the pilot test. As a result of this solid field experience, there will be fewer risks associated with the actual census, to be launched in October.

b. Census operations

2.21 Based on the above, the following strategies for the operation were identified:

a. The same model will be used to control the mobility rate between communities, taking into consideration the following: (i) in 2005, data collection will take place in large cities (clusters 4 and 5) and medium-sized cities (cluster 3), as well as in all municipios with small populations (cluster 1) that are near these cities, which will account for 79% of the population. These municipios form the main corridors of transportation between capital cities with high and intermediate mobility rates, from the north to the south and the east to the west; and (ii) in 2006, data collection efforts will continue in small municipios (clusters 1 and 2) distant from conglomerate municipios and in some municipios with their area of influence, which due to their geographical location, are marked by mobility patterns that occur wholly within their subregion;

b. Improvements will be made to census procedures: fewer number of training cycles, reduction in the distribution of equipment, addition of a rural field coordinator where none was previously assigned;

c. The same for the models for training, awareness-raising (particularly with regard to the immobilization of the population to survey), technical support, and security for the teams, in order to boost productivity;[22]

d. Four new DANE regional offices have opened. The offices were established in geographic areas of high population density that did not previously have a DANE office.[23] In addition, 106 regional operational units (UROs)[24] with more narrowly defined duties were established.

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[22] In urban areas, from 18 surveys per day in special category municipios to 7 (large and medium-sized cities), 10 for all of the municipios where the long form is used, and 11 for those where the long form is not used exclusively. In rural areas, 6 surveys in municipios along major roads and 7 in the rest of the municipios.

[23] Santa Marta (Atlantic coast); Bogota (support for DANE headquarters); Villavicencio (Orinoquía region); and Neiva (east-central region).

[24] **Regional operational units**: These are groups of contiguous municipios with easy intra-municipio access. Each URO has a maximum of 15 municipios and is home to approximately 500,000 people.

2.22 Both the urban census[25] and the rural census[26] will utilize **house-by-house sweep** data collection, by which a qualified respondent who lives in the municipio will directly interview a qualified respondent in each of the units being surveyed. For the rural census, house-by-house interviews will be supplemented by an enumeration process conducted **by path**, in order to cover certain regions in the country that are difficult to access, have low population density, and involve great travel distances. Along these paths, printed questionnaires will be used.

2.23 **Data capture and validation:** DANE decided to use new data collection technologies based on PDAs. To that end, the scope[27] and processes of the data collection system were defined and an international call for bids was issued to procure equipment and software, which will be financed with program resources.

2.24 Data will be entered directly onto the PDAs. As the first step in this process, georeferenced information in digital format (for urban areas, city block maps with property-level information will be uploaded, and for rural areas, geographic information at the rural section level will be uploaded), electronic questionnaires, basic information about the interviewers, and basic information for the control of census operations will be loaded onto the portable devices.

2.25 The information recorded by the interviewers will be compiled at data collection centers set up in each municipio and transmitted on a daily basis to DANE headquarters using dedicated, switched, or satellite frequencies, depending on the availability of the communications provider in each municipio. These transmission methods guarantee that the information remains secure through encryption. Lastly, new information will be loaded onto the PDAs for the next day's activities.

2.26 Upon completion of this stage, the process of consolidating census data at the local level begins. This consists of aggregating the results for the respective municipio and performing final checks and updates of the information to assess its consistency. At DANE headquarters, the information gathered is then processed for subsequent dissemination. Processing includes the codification of information for the open-ended questions (indigenous or Afrodescendent territories or reserves, ethnicity, occupation, and area of activity), for which there will be computer-

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[25] The **urban census** refers to data collection activities in the municipal seats. Estimated population of municipal seats as of 30 June 2005: 33,464,182; estimated households in municipal seats: 8,218,604; estimated economic units: 1,800,000.

[26] The **rural census** refers to data collection activities in areas located outside the municipal seats, consisting of population centers and rural communities in the municipio: Estimated rural population as of 30 June 2005: 12,580,955; estimated rural households: 2,727,426; estimated economic units: 300,000.

[27] Data will be recorded directly on the PDAs and will be checked for consistency vis-à-vis the set of questions programmed onto the devices. This model guarantees the security, control, tracing, accuracy, and timely delivery of information, minimizing the time and cost associated with the paper-based methods used in previous censuses.

assisted codification software, and then updating of the original files in the database.

2.27 **Control systems.** Operational control of the census is guaranteed by three systems:

a. **Census monitoring and control system.** To ensure that every instrument, as well as the entire operation, meets quality and efficiency standards, an ongoing control and monitoring system has been implemented. The system, which takes the municipio as the basic unit, is composed of the following three subsystems: (i) a pre-census subsystem, which determines whether all of the pre-census elements in each municipio are in place to initiate the data collection process; (ii) a census subsystem, which tracks the status of the census operation in terms of quality and coverage, so that appropriate decisions can be made to improve and fine tune the process, in an ongoing effort to meet the established quality and coverage standards; (iii) a post field collection subsystem: once the data collection process has been completed and the corresponding adjustments have been made, the census data consolidation process at the local level begins, which consists of aggregating the results in each municipio. During this phase, final checks and updates of the information are done to analyze it against real conditions, as established by available external statistics, checking its consistency with anticipated results.

b. **Equipment tracking and control system.** The purpose of this system is to aid the management and control of equipment (PDAs, laptops, global positioning system, servers), through an ongoing inventory of the equipment, with information on technical features, physical location, administrative information, and information on the person responsible for the equipment. The system includes equipment inventory modules with equipment history files (repairs, technical problems, activity) and records of transfers, loans, and consultations. The equipment will also be programmed for exclusive use for census data capture purposes, and all other uses will be blocked, thus reducing the temptation to steal them.

c. **System to track personnel connected to the census.** This system will make it easier to track personnel connected to the general census beginning with the selection process through training, assignment, and hire, for the purpose of tracking hires, their date of hire, and their census duties.

2.28 **Organization of census operations:** The organizational structure set up by DANE for the census has four major components:

a. **Census management:** To implement the census program, DANE formed a census management team led by the director of DANE, with the support of a general project coordinator. This team works directly with each of the work contingents and DANE technical, administrative, and support divisions.

b. **Regional divisions:** The organization of census operations is supported by six established regional DANE divisions, in addition to four new ones (see paragraph 2.21), which are responsible for steering, managing, coordinating, and monitoring census operations in the municipios under their jurisdiction. An operations officer and an administrative officer will be hired to support these divisions, who are responsible for imparting the technical guidelines identified in the designs for the different census processes and monitoring and controlling logistical, personnel management, administrative, and awareness-raising and data collection processes.

c. **Regional operational units (UROs):** Each of these units is headed by an individual who is responsible for monitoring, verifying, evaluating, and controlling census activities in each of the municipios that make up the unit and remaining in continual contact with the municipal coordinators.

d. **Municipios:** The management unit for the general census is at the municipio level. Each municipio has a team consisting of a coordinator, heads of urban coordination, field coordinators, and supervisors. In addition, municipal boards have been set up that are comprised of the mayor and other local authorities, including civil, religious, and military authorities, as well as representatives from community organizations. The general municipal coordinators are responsible for convening and staffing these boards, which assist with coordination and encourage the active participation of the municipio.

2.29 **Delivery of notices to census units.** With two days' advance notice, the households and other units to be surveyed are informed of the date on which a DANE interviewer is scheduled to visit. The position of enumerator has been created for this purpose. Enumerators are the officials responsible for counting the observation units in each city block or geographical area in advance. On the basis of this, the daily roster of interviews to be conducted by the census staff collecting data can be scheduled with the supervisor and notices can be delivered to the households and other units to be surveyed. This sets up a way to verify and ensure complete coverage. In rural areas, the functions of the enumerator are performed by the municipal coordinator. This recounting methodology allows for better planning of the operation and for verification as a technical and methodologically effective procedure to ensure full coverage.

2.30 During this phase, the program will finance: (i) the procurement and distribution of the electronic equipment needed to do field work, as well as the hardware and software needed to transmit and process the information; (ii) the cost of hiring heads of the UROs, municipal general coordinators, interviewers, supervisors, coordinators, and assistants, as well as part of the associated management and training costs and their travel expenses; (iii) the procurement of staff kits (jackets, hats, raincoats, clipboards); (iv) the management costs associated with the regional operational units (transportation, distribution of materials); (iv) part of the cost of

the awareness-raising campaign to be conducted during census operations; and (v) the cost of supplies for printing census materials, and printed questionnaires and associated processing costs in the areas where the census will be conducted house-by-house.

3. Component 3: Post-census activities (US$500,000)

2.31 **Report and evaluation of the process:** Program resources will be used to finance the preparation of a census report, which will include an evaluation of the entire process, taking into consideration the new methods, the questionnaires used, the technology to collect and validate information, the quality and reliability of information, logistical processes, etc., in order to generate lessons learned for incorporation into future census operations.

2.32 **Dissemination of census results:** This consists of disseminating and promoting the results of the general census. Census data will be disseminated at various levels of presentation, as well as in various formats. The tabulations will be produced at the national level and for each of the 1,098 municipios in the country and the 21 departmental corregimientos. These files will be produced in Bogotá and sent via Internet to each corresponding municipio. Program resources will be provided to engage the services of a consulting firm that will work with DANE to develop and deploy a dissemination and promotion strategy that takes into account the different users, as well as to publish and disseminate the results of the census.

C. Cost and financing

2.33 The total estimated cost of the program, including the local counterpart contribution, is US$68.7 million, of which the Bank's contribution will be US$48 million in Ordinary Capital resources and the local counterpart's contribution will be US$20.7 million, at an exchange rate of 2,300 Colombian pesos to US$1.

Table II-3. Program costs (in millions of U.S. dollars)

Component	Bank		Local		Total	
	US$	%	US$	%	US$	%
I. DIRECT COSTS	**47.4**	**69.0%**	**15.3**	**22.3%**	**62.7**	**91.3%**
Component 1. Pre-census activities	5.9		1.9		7.8	**11.3%**
Component 2. Census activities	41.2		13.2		54.4	**79.2%**
Component 3. Post-census activities	0.3		0.2		0.5	**0.7%**
II. PROJECT MANAGEMENT	**0.0**	**0%**	**4.6**	**6.7%**	**4.6**	**6.7%**
III. AUDITS AND EVALUATION	**0.2**	**0.3%**	**0.0**	**0%**	**0.2**	**0.3%**
IV. CONTINGENCIES	**0.4**	**0.6%**	**0.7**	**1.0%**	**1.1**	**1.6%**
TOTAL	**48.0**	**69.9%**	**20.7**	**30.1%**	**68.7**	**100%**

III. PROGRAM EXECUTION

A. Borrower and executing agency

3.1 The borrower will be the Republic of Colombia. The National Administrative Department of Statistics (DANE) will be responsible for executing the various program components.

B. Project implementation and management

3.2 For the formulation and design phase of the census, DANE's organizational structure has been strengthened by a **census management team**, consisting of a general manager,[28] a census coordinator, and five technical support teams: (i) design and methodology; (ii) awareness-raising; (iii) census operations; (iv) software engineering and technology; and (v) logistical support. During the preparation and construction phase, the management team had the support of the following teams: (i) personnel management; (ii) software engineering and technology; (iii) awareness-raising; (iv) project insurance; (v) administrative and financial support; and (vi) conceptual and methodological design. During the census operations phase, in addition to the six aforementioned teams, the management team will have the support of the following teams: (i) census operations; (ii) quality management; (iii) census evaluation; (iv) conceptual control; (v) preventive support; and (vi) administrative coordination; and (vii) financial coordination. These support teams are made up of staff from DANE's own technical divisions, especially those related to the actual census operation, which have been reinforced, as the needs of each case dictate, with external experts. Their primary responsibility is to work on the technical aspects of the census operation, which includes everything from planning the conceptual and methodological design of the census and developing the awareness-raising campaign and the training plan to preparing the terms of reference/technical specifications for the program's major items of procurement. These technical areas have been rounded out by a logistical support area, which will handle administrative-financial and legal arrangements and the procurement of goods and services.

3.3 Because Bank operations require specific procedures and activities, an expert will be hired to support the management team, who will report directly to the census coordinator and will perform the following tasks: (i) coordinate the preparation, monitoring, and evaluation of annual work plans; (ii) ensure compliance with Bank operating procedures and contractual conditions; (iii) draft any technical reports required by the Bank; (iv) oversee and monitor the indicators set forth in the logical framework; (v) commission the program audit; and (vi) liaise between DANE and

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[28] The general manager is the director of DANE.

the Bank. **Hiring this expert will be a condition precedent to the first disbursement of the Bank's loan.**

3.4 Financial management activities will be supported by an expert with experience in Bank operations, who will perform the following tasks: (i) prepare and deliver to the Bank disbursement requests and supporting documentation for eligible expenses, semiannual reports on the revolving fund, audited financial statements on the program, and any other reports required by the Bank; (ii) maintain an adequate filing system for documentation supporting eligible expenses, for verification by the Bank and external auditors; (iii) keep separate records of program operations, to allow for the accounting and financial management of Bank and local counterpart resources, in accordance with Bank requirements; and (iv) keep separate, specific bank accounts for managing Bank and local counterpart resources.

3.5 Furthermore, given the intricate coordination efforts required for the census and the importance (in terms of both number and complexity) of the contracting involved, DANE has drawn up agreements with, *inter alia*: (i) the Fondo Financiero de Proyectos de Desarrollo [Financial Fund for Development Projects] (FONADE); (ii) the Asociación Colombiana para el Avance de la Ciencia [Colombian Association for the Advancement of Science]; (iii) Colombia Telecomunicaciones, S.A. ESP–TELECOM; (iv) Alma Mater; and (v) the Politénico Colombo Andino. In compliance with Bank policies, these entities will help streamline the contracting and resource management process, efforts to establish connectivity with the municipios, the distribution of materials, personnel management activities, and payments of allowances and transportation.

3.6 DANE also signed an agreement with the Agustín Codazzi Geographic Institute to produce the basic digital maps needed to conduct statistical surveys and censuses. Another agreement was signed with the Marketing and Publicity Department of the Grancolombiano Polytechnic University to "strengthen mutual cooperation between the two entities, in academic, scientific, and technological activities related to the 2005 General Census and, in particular, with the awareness-raising, marketing, and dissemination process."[29]

3.7 **Consultative technical committee:** As stipulated in Articles 2 and 3[30] of the decree that established it, the consultative technical committee will provide support throughout the census process. In addition to the committee, DANE will also receive support from the Latin American and Caribbean Demographic Center

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[29] Translated text from the signed agreement.

[30] "Evaluate proposed content of the questionnaires… assess the proposed methodologies… examine the selected techniques… study adjustment methods… **monitor census operations in order to make recommendations for maintaining the quality and coverage of the information**… further relations with international entities…," etc.

(CELADE) and the United Nations Population Fund (UNFPA), which are already providing technical assistance to the various teams working on the census.

C. Recognition of expenditures

3.8 DANE has requested that the Bank recognize, as local counterpart or against the proceeds from the Bank's loan, expenditures made in the 18 months prior to approval of the loan that basically pertain to a series of pre-census activities that are part of this operation. The estimated value of expenses to be recognized would be about US$16 million in local counterpart resources, or 78% of the local counterpart contribution, and US$34 million from loan proceeds, equivalent to 70% of the Bank's loan. Charging such expenses to the local counterpart contribution is entirely consistent with Colombian law, which is acceptable to the Bank. In the case of expenses from loan proceeds, the Bank will verify that contracting procedures complied with the new policy. It should be noted that the Bank, through its Country Office in Colombia, monitored the major contracting processes and verified their compliance with Bank procurement policies. Although the total amount for which recognition of expenditures is being requested is large, the Bank has monitored the entire census design and fieldwork planning process through its specialists and by coordinating international technical cooperation.[31]

D. Operating procedures

3.9 For program execution, an **annual work plan** will be prepared that provides detailed information on and schedules for the activities to be performed during the year, establishing goals and indicators in line with the program's logical framework. Annual work plans will also contain detailed information on the execution of the budget, indicating financing sources, terms of reference for the main contracts, and specifications for the bids to be let. Lastly, beginning with the second year of program execution, the annual work plans will include an evaluation of the previous year's plan. **The Bank's no objection to the final draft of the annual work plan for the first year is a condition precedent to the first disbursement.**[32]

E. Procurement

3.10 The procurement of goods will be done in accordance with the provisions set out in document GN-2349-4 ("Policies for the procurement of works and goods financed by the IDB"), dated 19 January 2005. For goods and services, international competitive bidding will be used when the cost is greater than US$250,000 equivalent. National competitive bidding and other procedures envisaged in the

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[31] ECLAC-CELADE, UNFPA, technical cooperation (ATN/SC-9190-CO).

[32] DANE, with the Bank's assistance, has prepared a first draft of the annual work plan.

Bank's policy will be used for procurement involving amounts below US$250,000 equivalent per contract, according to the procurement plan agreed upon with the borrower. The selection and contracting of consultants will comply with the provisions set out in document GN-2350-4 ("Policies for selection and contracting of consultants financed by the IDB"), dated 19 January 2005. For the contracting of consulting services, the quality- and cost-based selection procedure will be used, as established in the Bank's policy for consultants. As mentioned previously, this operation is being prepared as it is being executed. Therefore, a large percentage of the goods and services have already been procured, with the support and supervision of the Bank. The executing agency has demonstrated its capacity to handle this process effectively and transparently. The Bank will conduct a post review of processes for the procurement of goods and related services as well as consulting services.

F. Disbursement schedule

3.11 The estimated disbursement period is up to three years, beginning on the date on which the loan contract enters into force. The table to the right presents the disbursement schedule for Bank and local counterpart resources. It should be noted that the 2005 column (to be recognized) pertains to expenses incurred from May 2004 through part of 2005, and that their recognition by the Bank will be requested.

Table III-1. Disbursement schedule
(in millions of U.S. dollars)

Source	2005 to be recog-nized	2005 disburse-ment	2006	2007	Total	%
IDB	34.0	11.1	2.0	0.9	48.0	69.6
Local	16.0	4.2	0.5	0.3	21.0	30.4
Total	**50.0**	**15.3**	**2.5**	**1.2**	**69.0**	**100**
%	72.5	22.2	3.6	1.7	100	

G. Revolving fund and review of disbursements

3.12 **Revolving fund.** A revolving fund with up to 10% of the proceeds of the Bank's loan will be established for program disbursements.

3.13 **Accounting.** The census management team will maintain a program accounting system developed in accordance with Bank requirements and will keep accounting records for all items of expenditure. The team will consolidate the accounting records and deliver semiannual reports on the revolving fund to the Bank.

3.14 **Review of disbursements and procurements.** An ex post review will be conducted of all contracting procedures and substantiation of disbursements for procurement of goods and services and consulting services involving amounts below the thresholds for international competitive bidding.

H. Supervision, monitoring, and evaluation

3.15 Monitoring and evaluation activities will serve to identify problems in program execution and propose any necessary changes. The Bank, through its Country Office in Colombia, will monitor the overall progress of the program. Monitoring and control of the operation will be based on the indicators identified in the logical framework.

3.16 **External audits.** Program operations and finances will be subject to external audits. Financial statements will be audited in accordance with the terms of reference previously agreed with the Bank, which will include unannounced visits and reviews throughout the year. The external audit of the program will be conducted by a firm of independent auditors approved by the Bank (documents AF-400 and AF-500). To select and hire the firm, the Bank's standard procedures for selecting external auditing services (document AF-200) will be followed. Annual financial statements will be delivered within 120 days after the end of the fiscal year. The final audit will be delivered within 120 days after the last disbursement. Audit costs are included in the cost of the program and will be financed with loan proceeds.

3.17 **Midterm evaluation.** Because more than 60% of program resources will have been committed by the time the operation is approved by the Board of Executive Directors, a midterm evaluation will not be necessary.

3.18 **Final evaluation.** Once 90% of program resources have been disbursed, a consulting firm will be hired to do a final evaluation, which will analyze the results of the various components and the degree to which the indicators/targets set forth in the logical framework were met.

IV. FEASIBILITY AND RISKS

A. Institutional feasibility

4.1 The government has placed the utmost priority on the 2005 General Census, laying the necessary legal[33] and organizational groundwork and allocating resources to implement it. The National Administrative Department of Statistics (DANE) has the technical capacity to administer the census successfully and, with the support of this program, it will have the necessary operational capacity. DANE's technical capacity is assured by its extensive experience with ongoing statistical activities, including the organization and implementation of the last national population and housing census. Furthermore, using its own resources, it has contracted a number of experts in administrative, financial, and operational procedures, enabling it to form technical support teams for the census (design, awareness-raising, training, operations, procurement, etc.) and consolidate the institutional capacity needed to carry out the census.

4.2 In fact, DANE has been preparing for this census since 1997 and began the activities directly related to the census, which is now under way, over a year ago. Based on this and the good results it is obtaining, it has demonstrated through its practices that it has the institutional and technical capacity to bring this effort and this program to a successful end. Furthermore, the technical support provided by the Bank, UNFPA, and CELADE has enabled it to strengthen its built-in capacities.

B. Financial feasibility and sustainability

4.3 From a financial point of view, so far DANE has had sufficient resources to pursue program activities without interruption. With proceeds from the Bank's loan and the resources committed by the government, the program will have the financing it needs to meet the execution schedule, in terms of both amount and timeliness. At present, DANE has US$10 million from fiscal year 2004, US$55.2 million for 2005, and US$3 million earmarked for 2006.[34] A portion of the resources for 2005 will be financed by this operation.

C. Social and environmental impact

4.4 The program is not expected to generate any negative environmental or social effects. Conversely, although the operation does not entirely qualify as a poverty-targeted or social equity enhancing investment, it is expected to have a significant

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[33] Decree 1100, of 12 April 2005, ordering that a general census be conducted; Law 79, of 1993, stipulates that DANE is responsible for conducting population and housing censuses.

[34] Exchange rate: US$1 = 2,300 Colombian pesos

positive impact on Colombia's poverty reduction policies and program, inasmuch as the information gathered and processed for the census will aid in the identification of impoverished areas or areas of particularly dire poverty and places where there is a high demand for, or a deficit of, public services of all types. This will enable the State and civil society to prioritize these areas and target their resources and efforts on them. It should be noted that during the awareness-raising phase, workshops have been held with groups representing minorities and these groups have helped develop the form to be used during the census.

D. Benefits

4.5 A census is an essential tool of government and documents the size and distribution of a country's national and foreign population, as well as a country's main social, economic, cultural, and habitational characteristics. This information is key for the planning, formulation, and evaluation of public policy, political representation, and resource allocation. The information generated during this census will reveal the size, rates, trends, and characteristics of population movements in Colombia, both in areas of net population loss and areas of net population gain. Moreover, it will help guarantee a more equitable distribution of fiscal transfers to regional entities, inasmuch as DANE conducts an annual certification of the size, spatial distribution, and social composition of the population in every municipio and indigenous community in the country, to determine the distribution of resources under the General Revenue-sharing System.

4.6 Civil society, in general, and the productive sector, in particular, will also benefit greatly from the program, because they will have access to current census data broken down by social group and region that will allow them to design projects and make investment projections for the provision of goods and services at the sector and local levels, determine the availability of labor by locality, and obtain information for scientific and academic studies and research, among many other benefits.

E. Expected results

4.7 As a result of this program, Colombia is expected to have current, reliable information on population and housing, the spatial distribution of the population, and its main social and demographic characteristics; up-to-date frames for ongoing research conducted by DANE; and new and/or updated frames for economic and agricultural units. This is indispensable information for improving the decision-making process and better targeting public spending. In particular, the census will provide a broad set of elements that will help authorities properly assess needs in poor sectors and plan social spending more efficiently, as well as develop higher-quality economic indicators. It will also reveal the distribution, spatial mobility, and composition of the population in every municipio and indigenous

community in the country, which is the basis for equitable revenue-sharing to subnational entities.

F. Risks

4.8 **Schedule.** The entire census cycle, not just the pre-census activities, is on an extremely tight schedule. Consequently, a very detailed, exhaustive schedule has been prepared for all census activities and a team has been assembled to ensure that deadlines are met. One of the most critical of these was the deadline for signing the contract with the company that won the bid to provide the PDAs, which was met. However, the other deadlines must also be met, as the success of the plan to conduct the General Census between 1 August 2005 and 28 February 2006 will depend on it.

4.9 **Acceptance of program results by Congress, mayors, and civil society.** The data from the pilot censuses conducted by DANE for the 2005 General Census confirm what several experts have already suggested: it is very likely that projections have overestimated the total population of the country in general and the population of many municipios in particular. Because this information affects revenue-sharing and electoral seats, mayors or political leaders who stand to be negatively affected may question the information and even seek to invalidate it. With this in mind, quality-assurance mechanisms have been built into the entire census process, and the technical consultative committee, on behalf of Colombia's civil society, will provide its support and assistance, as will specialized international entities such as CELADE and the UNFPA. It should be noted that Article 7 of the aforementioned Law 79 stipulates that Congress must pass or reject a bill **adopting**, as opposed to simply validating, the results of the census. In other words, if Congress fails to adopt the results, the current distribution of seats in governing bodies will remain unchanged, but the calculations for fiscal transfers (General Revenue-sharing System) to subnational entities will be based on the new census data.

4.10 **Census security.** A key element to the success of the census is the guarantee that census takers in both urban and rural areas will have access to the different zones in the country. In the specific case of Colombia, and particularly in the areas of armed conflict, this constitutes a major challenge. The strategy for meeting this challenge is based on selecting personnel from the area to be surveyed, as a way of ensuring that the interviewers have in-depth knowledge of the region and will be recognized by the community. As demonstrated in pilot censuses, this heightens the local population's inclination to cooperate and diminishes the chance that interviewers will be turned away, simplifying supervision and logistics. This risk will further be mitigated by the support and participation of local organizations and law enforcement agencies, which, will identify areas, if any, in which the security of field personnel cannot be guaranteed, and interviews will not be conducted in those areas.

4.11 **Institutional capacity for conducting the process.** Although DANE has extensive experience conducting censuses, a General Census that folds nearly three censuses into one, in addition to the methodological changes and the institutional changes in DANE management that took place during the preparation stage, constitute a risk to the program. To mitigate this risk, DANE has assembled a census management team consisting of technical personnel from DANE and experts contracted on an ad hoc basis. In addition, so as not to create a cumbersome contracting structure, DANE has signed cooperation agreements with the Fondo Financiero de Proyectos de Desarrollo [Financial Fund for Development Projects], the Asociación Colombiana para el Avance de la Ciencia [Colombian Association for the Advancement of Science], Alma Mater, and TELECOM to conduct the contracting processes involving the main procurements. Although this system strengthens the organizational structure of the census, it requires DANE to comply with the rules, procedures, and contract periods that govern the cooperating entities. In addition, the project team has closely monitored the census operation currently under way, provided technical assistance, reviewed the specifications for the major bids, and held workshops on the Bank's new procurement policies, in addition to other services.

4.12 **Methodology.** Although multiple tests of each new instrument being tried for the General Census have been run, the lack of similar experiences, at either the national or international level, with a census of this magnitude and this type of technology entails some degree of uncertainty with regard to the actual census. To mitigate this risk, DANE conducted a comprehensive pilot test of the operation in six municipios in the country and has made contingency plans for any eventuality, such as printing paper census tickets in case of problems with the PDAs.

2005 GENERAL CENSUS PROGRAM
(CO-L1008)

LOGICAL FRAMEWORK

Narrative summary	Indicators/ Targets	Means of verification	Assumptions
Goal			
To make available pertinent, accurate, timely, reliable, and integrated information on the size and composition of Colombia's population, households, and housing units, as well as basic census frames for economic establishments and agricultural units, in order to make the subnational distribution of public resources more equitable, improve the design of public policies, particularly social and poverty reduction policies, and clarify the political representation of subnational entities.	Subnational equity index on the distribution of resources from the General Revenue-sharing System drops 10 percentage points between 2005 and 2007.[1] Key up-to-date socioeconomic indicators based on the 2005 census published officially by program completion, to include, at a minimum, rates of infant mortality, fertility, disability, literacy, and unmet basic needs at the national, departmental, and municipal levels. Georeferenced sample frames for economic establishments and agricultural units by program completion.	General Budget of the Nation and Financial Information System for 2007 and subsequent years. Reports from the Sistema Nacional de Evaluación de Resultados de la Gestión Pública [National Public Administration Evaluation System-Sinergía] and the Sistema de Programación y Gestión de Metas Presidenciales [Planning and Administration System for Presidential Goals-SIGOB]. Reports from the 2005 General Census.	National and local authorities validate and approve the census data.

[1] This indicator is a numerical measure of inequality in subnational spending per poor person on a scale between 0 (absolute equality) and 1 (absolute inequality), following the methodology used to calculate the Gini coefficient. A higher number indicates higher inequality in the distribution of public resources, while a lower number would indicate lower inequality in the distribution of resources. The baseline can be calculated once 2005 census data becomes available.

Narrative summary	Indicators/ Targets	Means of verification	Assumptions
Purpose			
To help the Colombian government conduct the 2005 General Census, such that the quality of the census, in terms of efficiency, coverage, transparency, and timeliness, meets recognized international standards.	At least 95%[2] of the census units visited are enumerated by the end of the census.	Indicators from the census monitoring and control system.	The operating strategy and plan function according to design.
	Official 2005 General Census data on, at the least, the total population, age structure, sex structure, ethnicity, and geographic distribution (national, departmental, and municipal) available in 2006.	Reports on progress, analysis, evaluation, and dissemination of census results.	Resources become available when they are needed in 2005 and 2006.
	Official data on location and identification for economic and agricultural units available in 2006.		
	Recognition of compliance with standards by international organizations (UNFPA and CELADE) by the end of 2006.	UNFPA and CELADE report.	
Component 1. Pre-census activities			
A. Accurate official maps and generation of up-to-date cartographic products for the General Census.	A.1 By September 2005, at least 75% (close to 65% of the population) of all municipios have the cartographic information needed to implement census operations.	Initial report. Maps and cartographic products and digital cartographic data, delivered by the Agustín Codazzi Geographic Institute (IGAC).	The IGAC has sufficient resources and meets its schedule.

[2] The undercoverage of censuses in the region oscillates between 5% and 7% on average.

Narrative summary	Indicators/ Targets	Means of verification	Assumptions
B. Personnel management and training.	B.1 By 30 September, 80% of the staff for the 2005 enumeration trained and hired. B.2 By 31 January, 100% of the staff for the 2006 enumeration trained and hired.	Training certificates and hiring of census personnel.	
C. Procurement and distribution of equipment and materials.	C.1 By September 2005, 90% of bidding processes are under way. C.2 By 30 September, 80% of the equipment and materials for 2005 census activities available. C.3 By 31 January, 100% of the equipment and materials for 2006 census activities available.	Number of bidding processes under way, according to report from the Fondo Financiero de Proyectos de Desarrollo [Financial Fund for Development Projects]. Number of teams and quantity of material distributed to each region during each phase, according to DANE report.	
D. Awareness-raising activities.	D.1 National awareness-raising campaign commissioned before the end of July 2005. D.2 Agreements signed with civil society organizations and local authorities by 30 September 2005 for 2005 census activities and by 15 January for the 2006 operation.	Awareness-raising materials available for the various target populations. Media programs to raise awareness about the census among the general public, according to DANE report and budget performance.	Civil society organizations and local authorities agree to enter into strategic partnerships with DANE to support the campaign to raise awareness.
Component 2. Census operation			
A. Urban census.	A.1 At least 75% of the estimated total number of housing units and households surveyed by 31 December 2005. A.2 At least 80% of the estimated total number of economic establishments surveyed by 31 December 2005.	Number of units surveyed, according to reports on census coverage from municipal coordinators. Detailed report on areas not covered, housing units, and economic establishments.	

Narrative summary	Indicators/ Targets	Means of verification	Assumptions
B. Rural census.	B.1 At least 95% of the estimated total number of rural housing units and households surveyed by 28 February 2006. B.2 At least 95% of the estimated total number of agricultural units and economic establishments surveyed by 28 February 2006.	Number of census units, according to reports from municipal coordinators on census coverage in these areas. Detailed report on areas not covered, housing units, and agricultural units and economic establishments in rural areas.	In areas affected by armed conflict, local organizations and law enforcement agencies provide support to guarantee the safety of field personnel.
C. Recovery of census equipment and materials.	C.1 At least 95% of materials and equipment recovered by March 2006. C.2 All completed paper questionnaires collected by March 2006.	Number of devices and amount of material recovered as of December 2005, according to DANE report. Number of questionnaires incorporated into the system as of March 2006, according to DANE report.	Participants in the census operation take responsibility for the equipment they use and return it to DANE authorities upon completion of their duties.
Component 3. Post-census phase			
A. Processing, analysis, and production of results.	A.1 At least 95% of the data verified and validated by July 2006. A.2 At least 95% of the information is available on the Internet by October 2006.	DANE reports on verification and validation processes. Microdata database, according to DANE report.	
B. Dissemination of census results.	B.1 Documents, compact discs, brochures, with the consolidated results of the census available by October 2006. B.2 At least one packet of specific products related to the census activities edited upon program completion for distribution to each municipio in October 2006.	Workshops held and material produced, according to DANE report and budget performance.	

Narrative summary	Indicators/ Targets	Means of verification	Assumptions
	B.3 At least six workshops and other events held to disseminate the results of the census by October 2006.		

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/05

Colombia. Loan ____/OC-CO to the Republic of Colombia
2005 General Census Program

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Colombia, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the 2005 general census program. Such financing will be for an amount of up to US$48,000,000 from the Single Currency Facility of the Ordinary Capital resources of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

LEGIII/CO-580283-05
CO-L1008