



Report No: PAD4969

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED LOAN

IN THE AMOUNT OF US\$ 80 MILLION

TO THE

REPUBLIC OF ECUADOR

FOR A

STRENGTHENING THE NATIONAL STATISTICAL SYSTEM IN ECUADOR PROJECT

June 10, 2022

Poverty And Equity Global Practice
Latin America And Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective {May 16, 2022})

Currency Unit = US\$

US\$1 = US\$1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

AWPs	Annual Work Plans	NADA	Microdata Cataloging System
BCE	Central Bank of Ecuador <i>in Spanish</i>	NSDS	National Strategy of Statistical Development
BI	Business Intelligence	NSOs	National Statistical Offices
CPI	Consumer Price Index	NSS	National Statistical System
CFB	Basic Family Basket <i>in Spanish</i>	MEAD	Machinery, Equipment, Assets, and Decision-making
CIET 19	Labor Statistics International Conference 2019	MEF	Ministry of Finance
CIET 20	Labor Statistics International Conference 2020	M&E	Monitoring and Evaluation
CGE	General Comptroller of the State <i>in Spanish</i>	OECD	Organization for the Economic Cooperation and Development
CPF	Country Partnership Framework	Paris21	Partnership in Statistics for Development in the 21st Century
DA	Designated Account	PDO	Project Development Objective
ENCIET	New Labor Force Survey <i>in Spanish</i>	PME	Production Methods and Environment
ENIGHUR	National Household Income and Expenditure Survey <i>in Spanish</i>	PMU	Project Management Unit
ESCP	Environmental and Social Commitment Plan	POM	Project Operations Manual
ESPAC	Land and Agricultural Production Continuous Survey <i>in Spanish</i>	PPI	Producer Price Index
ECLAC	The Economic Commission for Latin America and the Caribbean	PPSD	Project Procurement Strategy for Development
FMA	Financial Management Assessment	PSC	Project Steering Committee
FM	Financial Management	RREE	Statistics Records <i>in Spanish</i>
FAO	Food and Agriculture Organization	RRAA	Administrative Records <i>in Spanish</i>
GDP	Gross Domestic Product	SCI	Statistical Capacity Indicator
IFR	Interim Financial Report	SDGs	Sustainable Development Goals
ICLS	International Conference of Labor Statisticians	SPI	Statistical Performance Indicator
IBRD	International Bank for Reconstruction and Development	STA	Single Treasury Account
IDA	International Development Association	SBU	Unified Basic Salary <i>in Spanish</i>
ILO	International Labor Organization	UNFPA	United Nations Population Fund
IPEX	Export Price Index <i>in Spanish</i>	UNECE	The United Nations Economic Commission for Europe
INEC	National Institute of Statistics and Censuses	WB	World Bank
IPCEG	Galapagos Spatial Consumer Price Index	WBG	World Bank Group
LPI	Information Processing Laboratory <i>in Spanish</i>		
LV	Virtualized Laboratory <i>in Spanish</i>		



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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Ecuador	Strengthening the National Statistical System in Ecuador Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P178564	Investment Project Financing	Moderate

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
05-Jul-2022	28-Jul-2027

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The Proposed Project Development Objective is to improve the national statistical capacity of Ecuador in the production and dissemination of timely and high-quality economic and sociodemographic statistics for evidence-based policymaking.



Components

Component Name	Cost (US\$, millions)
Project management, monitoring, and evaluation	1.58
Enhancing demographic information with the new Housing and Population Census	56.49
Strengthening the statistical production from surveys	17.71
Strengthening the statistical production from Administrative Records and INEC managerial capacity	4.22

Organizations

Borrower:	Republic of Ecuador
Implementing Agency:	Instituto Nacional de Estadística y Censos (INEC)

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	86.79
Total Financing	80.00
of which IBRD/IDA	80.00
Financing Gap	6.79

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	80.00
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Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027
Annual	52.17	9.71	11.67	6.28	0.18
Cumulative	52.17	61.87	73.54	79.82	80.00



INSTITUTIONAL DATA

Practice Area (Lead)

Poverty and Equity

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Substantial
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Low
9. Other	
10. Overall	● Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No



Does the project require any waivers of Bank policies?

[] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank’s due diligence assessment of the Project’s potential environmental and social risks and impacts, please refer to the Project’s Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Schedule 2, Section I.A.2 of the Loan Agreement: Project Management Unit.

The Borrower, through INEC, shall:

- (a) maintain at all times during implementation of the Project a project management unit within INEC (the “PMU”) with functions, responsibilities and resources, and staffed with personnel in number and with qualifications, experience and functions acceptable to the Bank, including, inter alia (i) a Project coordinator, (ii) a technical specialist, (iii) a financial management specialist, (iv) an environmental and social specialist, (v) a



procurement specialist, (v) a monitoring and evaluation specialist, (vi) at INEC's headquarters, three Project analysts, and (vii) at each of INEC's south, central and littoral regional offices, one administrative analyst and one financial management analyst, all as further detailed in the Operational Manual; and

(b) without limiting the generality of paragraph (a) above, ensure that the environmental and social specialist financial management officer and financial analysts are hired no later than thirty (30) days after the Effective Date.

Sections and Description

Schedule 2, Section I.B. of the Loan Agreement: Other Institutional and Implementation Arrangements

1. Inter-Institutional Agreements. To facilitate the carrying out of Part 1 of the Project, the Borrower, through INEC, shall enter into, and thereafter maintain in full force and effect during the implementation of the Project, (a) in connection with Part 1 of the Project, by the Effective Date, an inter-institutional agreement (consisting of a specific agreement) with MIDENA under terms and conditions acceptable to the Bank, which shall include, inter alia, the Borrower's and MIDENA's responsibilities under Part 1 of the Project, Sections I.B.4, I.C, and I.D.6 of this Schedule 2, and the ESCP (the "MIDENA Inter-Institutional Agreement"), (b) in connection with Part 1 of the Project, by the deadlines and otherwise in accordance with the applicable provisions of the Operational Manual, administrative acts with each of the Ministry of Education, MINTEL, and the Ministry of Labor, including, inter alia, the terms and conditions of arrangements for the sharing of information between each such Ministry and INEC (the "Administrative Acts"), and (c) by the deadlines, with the entities, and otherwise in accordance with the applicable requirements specified in the Operational Manual, information transfer agreements, each to be approved by the National Directorate of Public Data Registries (DINARDAP), as needed for the implementation of Part 3 of the Project ("Information Transfer Agreements" and, together with the MIDENA Inter-Institutional Agreement and the Administrative Acts, the "Interagency Agreements").

2. The Borrower, through INEC, shall exercise its rights under the Interagency Agreements in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan. Except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive any Interagency Agreement or any of its provisions.

3. Project Steering Committee.

(a) The Borrower, through INEC, shall maintain or cause to be maintained, throughout Project implementation, a project steering committee with an adequate institutional framework, composition, functions, and resources, including competent personnel in adequate numbers as applicable, satisfactory to the association as shall be required for purposes of Project implementation.

(b) Without limiting the provisions of paragraph I.B.4(a) of this Schedule 2, the Project Steering Committee shall be chaired by INEC's Executive Director or his/her delegate and shall be comprised of, inter alia, (i) INEC's General Technical Coordinators, General Financial Administrative Coordinator, Financial Director, Director of Information Technology, and the Technical Directors involved in this project (Directorate of Sociodemographic Statistics, Directorate of Administrative Records, Directorate of Agricultural and Environmental Statistics), (ii) representative(s) of the Ministry of Economy and Finance who will participate as a permanent guest, and (iii) as



relevant for the topics of the meetings to be discussed, representatives of other public institutions, international organizations or thematic experts, and (iv) the Project Steering Committee’s secretary, which will be appointed by INEC’s Executive Director.

(a) The Project Steering Committee shall meet at least once every calendar quarter and shall be responsible for providing guidance and direction during Project implementation. The PMU will report each calendar quarter on the progress of the Project to the Project Steering Committee.

4. The Borrower through INEC shall ensure that the collection, processing and storage (including transfers to third parties) of any Personal Data collected under the Project shall be done in accordance with applicable Ecuadorian law, including but not limited to the Organic Law on Protection of Personal Data (Ley Orgánica de Protección de Datos Personales), as published in the Official Register, Fifth Supplement, on May 26, 2021.

Sections and Description

Schedule 2, Section I.C of the Loan Agreement: Use of Armed Forces

1. Without limiting the provisions of Section E of this Schedule, the Borrower shall:

(a) ensure that all activities carried out by armed forces under the Project are under the control of the Borrower through INEC, are undertaken exclusively for the purposes related to the Project, and are carried out in accordance with this Agreement, the ESCP, and the MIDENA Inter-Institutional Agreement;

(b) ensure that the Loan proceeds are not utilized for the purchase of arms, weapons, ammunition, or other lethal equipment, or to train any personnel in the use of arms, weapons, ammunition, or lethal equipment; and

(c) ensure that all goods and services financed by the Loan proceeds that may be used by armed forces are used under the direction and control of INEC and strictly in accordance with this Agreement, the MIDENA Inter-Institutional Agreement, the Operational Manual, and any other arrangements or protocols that the Bank may require for carrying out these activities.

2. Except as the Bank may otherwise agree, the Borrower shall ensure that the ownership of any assets generated, goods procured, and works constructed by the military or security unit referred to in paragraph 1 of this Section out of the Loan proceeds shall be transferred to, or shall vest with, INEC or any equivalent or appropriate line ministry or agency agreed with the Bank.

Sections and Description

Schedule 2, Section I. D 2 of the Loan Agreement: Environmental and Social Commitment Plan.

Without limitation upon paragraph 1 above, the Borrower shall ensure that the Project is implemented in accordance with the Environmental and Social Commitment Plan (“ESCP”), in a manner acceptable to the Bank. To this end, the Borrower shall ensure that:



- (a) the measures and actions specified in the ESCP are implemented with due diligence and efficiency, and as provided in the ESCP;
- (b) sufficient funds are available to cover the costs of implementing the ESCP;
- (c) policies and procedures are maintained, and qualified and experienced staff in adequate numbers are retained to implement the ESCP, as provided in the ESCP; and
- (d) the ESCP, or any provision thereof, is not amended, repealed, suspended or waived, except as the Bank shall otherwise agree in writing, as specified in the ESCP, and ensure that the revised ESCP is disclosed promptly thereafter.

Sections and Description

Schedule 2, Section I. D 6 of the Loan Agreement: In case armed forces of the Borrower are used in the implementation of activities under Part 1 of the Project and/or for provision of security to Project workers, sites and/or assets, the Borrower shall ensure that such armed forces are deployed in accordance with the relevant requirements of ESSs and the ESCP.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Article IV, 4.01 (a) of the Loan Agreement: the Operational Manual has been finalized and, thereafter, adopted by INEC, in a manner acceptable to the Bank.
Effectiveness	IBRD/IDA	Article IV, 4.01 (b) of the Loan Agreement: the Labor Management Procedures have been prepared, consulted upon, disclosed and adopted by INEC all in form and substance satisfactory to the Bank.
Effectiveness	IBRD/IDA	Article IV, 4.01 (c) of the Loan Agreement: the PMU has been established in accordance with Section I.A.2 of Schedule 2 to this Agreement.
Effectiveness	IBRD/IDA	Article IV, 4.01 (d) of the Loan Agreement: the MIDENA Inter-Institutional Agreement has been entered into between INEC and MIDENA under terms and conditions acceptable to the Bank, which shall include, inter alia, the Borrower's and MIDENA's



		responsibilities under Part 1 of the Project, Sections I.B.4, I.C, and I.D.6 of Schedule 2 to this Agreement, and the ESCP.
Type Disbursement	Financing source IBRD/IDA	Description Schedule 2, Section III, part B of the Loan Agreement: no withdrawal shall be made for payments made prior to the Signature Date, except that withdrawals up to an aggregate amount not to exceed sixteen million Dollars (\$16,000,000) may be made for payments made prior to this date but on or after January 1, 2022 (but in no case more than one year prior to the Signature Date), for Eligible Expenditures under Category 1, provided that an environmental and social evaluation has been carried out with respect to such Eligible Expenditures in accordance with the ESCP and in form and substance satisfactory to the Bank.



I. STRATEGIC CONTEXT

A. Country Context

1. Ecuador is an upper-middle-income country with a dollarized economy and rich natural endowments, but it is currently struggling under unprecedentedly adverse global and domestic pressures. After sustaining more than a decade of rapid growth, Ecuador has seen a marked slowdown since oil prices plummeted in mid-2014. The Gross Domestic Product (GDP) growth averaged 4.5 percent between 2001 and 2014 as stabilization reforms, including dollarization, triggered a recovery in the early 2000s. Real GDP increased 79 percent during this period, while real GDP per capita increased by 43 percent. High economic growth and changes in income distribution helped lift 1.4 million people out of poverty. Also, the commodity boom enabled an expansion of the public sector from the mid-2000s onwards, with public spending doubling between 2004 and 2014, particularly in public investment and wages. Yet, structural vulnerabilities emerged during this period and remained hidden by favorable external conditions during the commodity boom. The plunge in oil prices unveiled deep-rooted challenges, such as macroeconomic imbalances, public sector inefficiencies, weak competitiveness, and an underinvested private sector. In addition, the dismantling of oil funds, a selective external debt default, high external financing, and a non-conducive investment climate hampered the country's ability to respond to the decline in oil prices. Between 2015 and 2019, economic growth averaged a mere 0.5 percent. A modest private investment recovery only partially offsets the rapid reduction of public expenditure. Foreign investment has remained low and highly concentrated in extractive industries. Moreover, with little room for a fiscal stimulus, Ecuador struggled to mitigate the economic impact of the COVID-19 pandemic. In 2020, output decreased by 7.8 percent, pushing a million people into poverty and deepening inequalities by curtailing access to education and job opportunities, mainly for women, the youth, and low-skilled workers.

2. The economy is expected to recover in the coming years, following a successful vaccination campaign and a solid economic rebound, but households have been exposed to shocks over the last two years with long-term impacts. In 2021, the economy grew by an estimated 4.4 percent due to better external conditions, a relaxation of mobility restrictions, a successful vaccination campaign, and an expansion of domestic credit. These factors supported the recovery of most sectors despite the oil output stagnation. The ongoing recovery and high oil prices will allow Ecuador to grow 4.9 percent in 2022. Then, it is expected to slow to 2.9 percent in the medium term while structural growth-enhancing reforms bear fruit. Although the Russia-Ukraine conflict could cause a hike in inflation and is likely to affect banana, flower, and shrimp exports in 2022, total exports will increase due to high commodity prices and growing volumes.¹ The bottom of the distribution will also recover as labor market conditions improve due to faster economic growth. However, this improvement will be insufficient to help most people rebound to their pre-pandemic status due to higher inflation. More importantly, households have been affected by high levels of food insecurity and low access to education and health services since the onset of the pandemic, foreshadowing long-term impacts on human capital.²

¹ World Bank (2022), Macro Poverty Outlook – Spring meetings, forthcoming

² World Bank (2020) and World Bank and UNDP (2021), High-Frequency Phone Surveys, different survey rounds



3. The World Bank (WB) has been supporting the Government of Ecuador to mitigate the adverse effects of the COVID-19 pandemic on poor and vulnerable households through financial support and technical assistance.³

Between May and June 2020, the government implemented an emergency cash transfer program for vulnerable households that did not benefit from existing social assistance programs. Technical assistance from the WB developed the methodology for identifying beneficiaries and estimating the number of emergency transfers reaching more than 400,000 households. The World Bank also supported the inclusion to the social registry of nearly half of households that benefit from the emergency transfers (those in the poorest three deciles), enabling them to qualify for regular cash transfers through the IBRD project (Ecuador Social Safety Net- P167416). Women represented 90 percent of beneficiaries. In addition, two Development Financing (P171190 and P174115) loan operations totaling around US\$1 billion were approved during 2020 to respond to the impacts of the COVID-19 crisis to protect the vulnerable. These measures focused on removing barriers to private-sector development, supporting economic recovery, and promoting public-sector efficiency and fiscal sustainability post-crisis. In addition, the WB implemented the Ecuador COVID-19 Emergency Response Project (P173773) for US\$150 million to support the government's vaccination campaign and finance medical and non-medical equipment and medical devices.

4. Ecuador's development and health efforts are also challenged by the observed and anticipated impacts of climate change, which may further exacerbate the effects of COVID-19.

Ecuador is at risk of a variety of natural hazards, including floods, landslides, droughts, and earthquakes. After floods, which are often associated with the El Niño phenomenon, landslides are the most frequent natural hazard. These events are expected to increase in frequency and intensity as a consequence of climate change and compound existing constraints on Ecuador's efforts to reduce poverty and inequality. Such events have clear links to human health through direct exposure (e.g., heat waves, floods, and droughts) as well as indirect pathways (e.g., climate impacts on water, food production, agriculture, and air quality). These threats have historically entailed high economic and social costs. Between 1900 and 2009, 65 major disasters were recorded, 60 percent of which were caused by hydrometeorological phenomena (droughts, floods, landslides) and the rest by geophysical events. These impacts can negatively affect the government's ability to ensure the continuity of social and health services when natural disasters occur. Counting reliable and updated data on the population's structure and regional hydrological characteristics is key to identifying climate-vulnerable populations and improving the targeting of support, as well as designing climate-informed development strategies. In addition, census data provide a granular demographic picture of a region that is crucial to emergency preparedness in the event of climate-induced disasters.

B. Sectoral and Institutional Context

5. The National Statistical System (NSS) in Ecuador, with the National Institute of Statistics and Censuses ('INEC' for its Spanish acronym) as the leading official statistics provider, shows important strengths and critical challenges.

INEC has a solid technical reputation reflected in considerable improvements in the coverage and accuracy of the last two censuses, quality enhancement of its data products, and its effective coordination of the NSS. However, the design and development of effective social policies requires improvements in the country's statistical data base. The Basic Family Basket ('CFB' acronym in Spanish) created 40 years ago (1982) does not reflect current consumption patterns, thus affecting the quality of policy design. The poverty line, which is the basis for evaluating and designing social

³ As of June 7, 2022, there were around 885,000 confirmed cases and more than 35,600 deaths. By the same date, across Latin America and the Caribbean, there are 695 million confirmed cases of COVID-19 and 1.7 million deaths. Source: COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University as of June 8, 2022, available at: <https://ourworldindata.org/coronavirus/country/ecuador>



protection interventions, is estimated using data from 2006, thus limiting any distributional reform analysis (such as tax reform), or any design or evaluation of social programs. INEC is supported by the National Council of Statistics, which comprises representatives from the National Planning Secretariat (which acts as chair), the Sectoral Cabinets, and INEC (which serves as the technical secretary. Another coordination mechanism is the Strategic Committees. INEC has the faculty to create these Committees, which are auxiliary bodies and act as advisers to INEC. Currently, there are 13 active Committees, 11 of which are thematic and two of which are designed to address specific areas of interest under Ecuador's statistical priorities.

6. The National Strategy of Statistical Development (NSDS) is presently in the design phase and the National Statistical Program 2021-2025 is being implemented. With the support of Partnership in Statistics for Development in the 21st Century (Paris21), some awareness actions were carried out with main stakeholders of the NSS, its user community, and data producers in order to start a strategic dialogue that could, in turn, help define the vision of the NSDS. This led to the identification of four strategic work areas: (i) statistical coordination; (ii) statistical production; (iii) statistical innovation; and (iv) statistical culture. In 2021, INEC developed the National Statistics Program 2021-2025 that established a roadmap for guiding the production of national statistical data that can be used to meet national planning needs and international commitments.

7. The legal framework governing the national statistical system is outdated. Adjustments to the 1976 Statistics Act are needed to align with technological advances in the field of information and communications, as well as emerging international and regional best practices in statistical management. The current Act does not clearly create the framework for the coordination of INEC with the NSS or with other producers of information outside the NSS, such as producers of Administrative Records (RRAA) and non-traditional sources of information. The shortcomings of the outdated legal framework have been partially resolved through the issuance of Executive Decree No. 77 (August 15, 2013), which established INEC's coordination role within the NSS, especially as related to: (i) the planning of statistical production; (ii) the implementation of a quality certification system; and (iii) the innovation in data collection and analysis. In addition, the Decree allows for the collection of administrative registers for statistical purposes by INEC. If the contents of the Executive Decree were to be raised to level of Law, this would create better conditions for strengthening the national statistical system.

8. Recent updates to the 1976 Statistics Act provide for data protection and anonymization, although the associated regulations have yet to be issued. The May 2021 Personal Data Protection Law guarantees the right to data protection. It includes provisions about access to, and decisions about, information and personal data, as well as corresponding measures for the protection of such data. This law also provides definitions related to personal data, anonymization, and confidentiality of information. Finally, it creates a system for data protection and establishes sanctions for non-compliance with established protocols. However, the regulations implementing this law have not yet been issued, and its sanction regime will not go into effect until May 2023. This law supplements, but does not supersede, Ecuador's existing legal framework for the protection of personal data, and a specific regulation is needed.

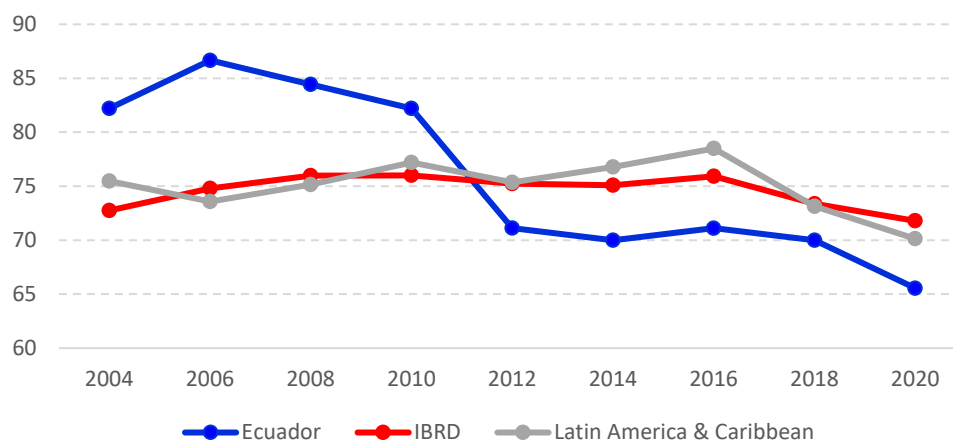
9. Ecuador's statistical capacity has been eroding over the last decade.⁴ According to the World Bank Statistical Capacity Indicator (SCI), the country's performance score is now lower than the average for Latin America and the Caribbean, as well as below the average for IBRD countries, while it had been significantly higher from 2004 to 2011 (Figure 1). The main weaknesses of Ecuador's statistical capacity comprise: the outdated base year of the national account system, the Consumer Price Index (CPI), and the Producer Price Index; the out-of-date methodologies for the

⁴ It is relevant to clarify that some statistical operations are managed by the Central Bank of Ecuador, such as the National Account System.



import and export prices indexes and government finances accounting; the outmoded nature of the Agricultural Census and Health Survey; and the weak vital statistics system. The WB’s new Statistical Performance Indicator (SPI), a more comprehensive indicator than the SCI, places Ecuador favorably vis-à-vis the regional average, while detecting data infrastructure as a key weakness (e.g., statistical legal framework; standards and methods addressing compliance with recognized frameworks and concepts; statistical literacy; and financial mobilization, both domestically and from donors). This proposed project will address most of these weaknesses, building on progress made to (i) improve agricultural surveys through innovative modular surveys that, among others, allow producing and monitoring environmental indicators; (ii) capitalize on administrative data for statistical production, an area in which INEC is a regional leader; and (iii) adopt organizational best practices and innovative technologies for data management.

Figure 1 Statistical Capacity Indicator – Ecuador



Source: Own estimations based on data from the WB's SCI, site <https://datatopics.worldbank.org/statisticalcapacity/scidashboard.aspx>

10. Gender data gaps hinder Ecuador’s effort to track progress towards gender equality over time and design policies to address it. Gender data provides insights into differences in wellbeing across women and men, and girls and boys, as well as actionable information for policy to address disparities. The Sustainable Development Goals (SDGs) include a broad set of gender-related targets — including valuing unpaid work, eliminating child marriage and violence against girls and women, increasing participation of women in public life and institutions, promoting equal rights to economic resources and assets, and using information and communications technology to help empower women. For each of the SDG targets, the UN Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) proposed a set of indicators that were approved by the UN Statistical Commission at its forty-seventh session in March 2016, including sex-disaggregated and gender-specific indicators that rely on labor force and agricultural surveys, among others, as data sources. In the context of Ecuador, gender indicators are reported based on household surveys, but they do not cover all the requirements to monitor SGD 5. In addition, an increasing focus exists on enhancing the quality of gender data, an area where there is room for improvement in Ecuador. An example is the measurement of women’s productive work across paid and unpaid activities through the implementation of new definitions of work and employment, as put forward by the 19th International Conference of Labor Statisticians (ICLS) in the Labor Force Survey.

11. The project includes documenting lessons learned, updating quality control and data dissemination protocols, and redesigning some managerial and organizational processes following the United Nations Economic Commission



for Europe (UNECE) models. The project will promote the systematization of the learning processes derived from its implementation and incorporate these processes into INEC’s organizational and managerial model. It will include documenting lessons learned from innovations and improvements in data production; the elaboration of case studies; the implementation of learning-by-doing processes; and the development of statistical quality protocols and procedures. As a result of these lessons, some managerial and organizational processes will be redesigned in line with the UNECE models. The project will align with activities currently led by INEC under the work plans of the United Nations Statistical Conference of the Americas, and those of the Regional Strategy of Statistical Development of the ANDEAN countries.

C. Relevance to Higher Level Objectives

12. The proposed statistical operation is aligned with the objectives of the Country Partnership Framework (CPF) for Ecuador (FY19-23)⁵. In particular, the proposed project aligns with CPF Objective 6 to “strengthen evidence-based policymaking and transparency.” This signals that the WB will focus on enhancing data collection at the national level to inform the CPF programs, thus increasing the government's capacity to design and implement evidence-based policies. The project will also contribute indirectly to monitoring the indicators proposed under CPF Objective 5: "Strengthen the efficiency and effectiveness of social programs." Results from the Housing and Population Census and from the National Household Income and Expenditure Survey will enable the government to update the Poverty Maps aimed to improve the targeting of programs and access to services for vulnerable individuals. The project is strongly aligned with the National Development Plan 2021-2025, which seeks to strengthen and modernize official statistical production in the country.

13. Additionally, the project is in line with the WB climate change commitments, as it will support the government in collecting data, particularly those related to undercounted and vulnerable communities to climate change impacts. The project’s assistance in identifying Ecuador’s most disaster-prone areas through the use of geographic data will be critical in this regard. Additionally, innovation in household surveys could support a better understanding of agricultural household adaptation to climate change, such as water stress and variability of rainfall. This will help inform climate policies and development strategies, as well as address the country’s adaptation and mitigation needs. Finally, it will assist the implementation of early warning systems for climate disasters. Thus, having better data will inform policies aiming to attend needs to vulnerable groups, reduce poverty, and promote shared prosperity in Ecuador.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

14. The Proposed Project Development Objective (PDO) is to improve the national statistical capacity of Ecuador in the production and dissemination of timely and high-quality economic and sociodemographic statistics for evidence-based policymaking.

⁵ Ecuador’s CPF FY19-23 (P168810) was approved by the board on June 11, 2019.



PDO Level Indicators

15. The achievement of the PDO level results will be measured by eight PDO indicators. The proposed indicators assess: (i) progress in overall statistical capacity to produce quality core statistics by the NSS; (ii) the dissemination and use of statistics; and (iii) the availability of sectoral administrative data for statistical purposes.

16. The eight PDO indicators are listed below:

1. Improved statistical capacity as measured by a composite score derived from the World Bank Statistical Performance Indicator (SPI) methodology. This indicator is aimed to measure the attribute of improvement the national statistical capacity of Ecuador.
2. Increased use of statistics as measured by the number of downloads of datasets supported by the project.
3. Increased transparency on data production methodologies and the quality of analysis measured by the publishing of 12 relevant reports based on statistics supported by the project.
4. Increased availability of sector administrative data for statistical purposes.
5. Number of gender indicators produced using recently adopted international standards on labor statistics and enhanced measurement.
6. Number of Risk and Climate Change indicators produced using recently adopted international environmental standards.
7. Satisfaction rate of statistical users of the statistics produced within the framework of the project.
8. Percentage of adoption by INEC of relevant recommendations made by users of the statistics produced within the framework of the project aimed to increase their timeliness, coverage, and relevance.

17. Related to the first PDO level indicator, rather than directly using the SPI, the project proposes to use a simplified composite score created specifically for this program that will be measured and monitored in real-time by the project team. Composite indicators like the SPI are useful for international benchmarking and monitoring, but their complexity presents a significant risk to effective project monitoring. The proposed indicator is the sum of 10 sub-indicators included in the SPI, covering four out of the five pillars ([Table 1](#)). Its baseline score, obtained from the 2020 SPI, is 5.97 out of 10. This project is expected to improve directly or maintain the score of each of these indicators, achieving an end-of-project target of 9.3.



Table 1. List of SPI indicators included in the PDO indicator

SPI Indicator	Link with the project	Baseline 2020	Target 2026
Dimension 2.2: Online access	Communication Strategy - Data dissemination	0.70	1
SPI.D2.2. Metadata available	Communication Strategy - Data dissemination	0.52	1
Dimension 3.1: Social Statistics	Components 1 to 3	0.90	1
GOAL 5: Gender Equality (five-year moving average)	Component 2	0.75	0.8
Dimension 4.2: Administrative Data	Component 3	0.50	1
Agriculture Survey (Availability score over 10 years)	Component 2	1	1
Dimension 4.1: Censuses and Surveys - Surveys only (Household and Labor Surveys)	Component 1	0.80	1
Dimension 4.1: Censuses and Surveys - Censuses only (Population Census 2022)	Component 1 and 3	0.80	1
CPI base year	Component 2	0	0.75
Classification of status of employment	Component 2	0	0.75
Total		5.97	9.3

*Note: Further descriptions of each indicator could be found in the following link <https://worldbank.github.io/SPI/index.html>
Source: Own estimations.*

18. Twelve relevant methodological and analytical reports will be produced and released based on the statistics created under the project. The relevant PDO indicator number 3, is: “Increased transparency on data production methodologies and the quality of analysis measured by the publishing of 12 relevant reports based on statistics supported by the project.” These reports will be produced and delivered based on the statistics included in components 1 and 2. (See the list of reports in Annex 2).

19. Following the PDO indicator number 5, the project will support the design and implementation of 14 new gender indicators in three key areas: (i) labor statistics using recently adopted international statistical standards; (ii) agriculture statistics with enhanced measurement of ownership and control of land; and (iii) administrative records focused on access to economic opportunity. (See the list of indicators in Annex 2).

20. Innovations introduced by the project in the areas of citizen engagement and climate change risk will be measured by the PDO level indicators numbers 6, 7 and 8, given that they are linked to several activities in components 1, 2 and 3. These indicators are: (i) Satisfaction rate of statistical users of the statistics produced within the framework of the project; (ii) Percentage of adoption of relevant recommendations made by users of the statistics produced within the framework of the project; and (iii) Number of Risk and Climate Change indicators produced using adopted international environmental standards.

21. In addition to the eight PDO indicators above described, the timeliness of data produced under the project will be tracked through INEC’s statistical calendar compliance.⁶ INEC adopted this statistical good practice (statistical calendar) more than a decade ago. The level of compliance with the calendar will be reported in the

⁶ https://www.ecuadrencifras.gob.ec/documentos/web-inec/Calendario_Estadistico/Calendario_estadistico_2021/



Implementation Status and Results (ISR) documents, the mid-term review report, and be explicitly included in the Implementation Completion and Results report (ICR).

22. The project includes international benchmarks, standards, and good practices for quality assurance of the Population Census, surveys, and administrative data under its scope. For the Population Census, the omission rate will be estimated through a post census survey. The Whipple index⁷ will also evaluate the 2022 Housing and Population Census accuracy. The different surveys' quality will be assessed through sampling and non-sampling errors and the WB quality assurance protocols for household surveys. The quality of the administrative data will be measured through the World Bank's quality standards and INEC's assessment tools. These elements are considered in the intermediate indicators, including specific targets. In addition, the project will use standards and international best practices.

B. Project Components

23. The proposed project aims to improve the quality and the efficiency in producing three fundamental sources of information for basic statistics: (i) census, (ii) surveys, and (iii) administrative records. These statistics will consolidate the national statistical infrastructure needed to support the improvement of aggregated data and reach relevant statistical milestones, such as rebasing the CPI and updating the monetary poverty lines. The project will be structured in four components: *(i) Enhancing demographic information with the new Housing and Population Census.* The VII Housing and VIII Population Census will be collected through a multimodal approach (tablets, telephone, Web, and paper). It will gather personal identification information to link the census information with other data sources, such as administrative records, among other innovations; *(ii) Strengthening the statistical production from surveys.* This component aims to improve data production and dissemination covering the Income and Expenditure Survey, the Labor Force Survey, and the Agricultural Integrated Survey, plus updating statistical products based on their results. This component will cover main data gaps for proper design of social programs and policies; *(iii) Strengthening statistical production from Administrative Records and INEC's managerial capacity.* This component will enhance the statistical production, accessibility, and dissemination of administrative records; and *(iv) Project management, monitoring, and evaluation.* The project components and subcomponents (Table 2) were identified through discussions with INEC and consultation with key stakeholders of the NSS, civil society, non-governmental organizations (NGOs), and development partners. This approach will strengthen citizen ownership to support the sustainable implementation of the project. The total cost for this project is \$ 86.79 million of which \$ 80 million will be financed by IBRD and the financial gap will be financed by the Government of Ecuador.

24. The communication strategy financed by the project is a cross-cutting element for the project's first three components. The objective of the communication strategy is to promote statistical culture and the use of information to support an evidence-based policy approach. The plan under the project's framework has three specific points: (i) to support the data production function of statistics; (ii) to raise awareness of the need for the updating of the legal

⁷ The Whipple's index is a method to measure the tendency for individuals to inaccurately report their actual age or date of birth. Respondents to a census or other survey sometimes report their age or date of birth as a round number (typically ending in 0 and 5), or to be more culturally favorable, for example, so that they appear younger or to have been born on a date considered luckier than their actual date of birth. The index score is obtained by summing the number of persons in the age range 23 and 62 inclusive, who report ages ending in 0 and 5, dividing that sum by the total population between ages 23 and 62 years inclusive, and multiplying the result by 5. Restated as a percentage, index scores range between 100 (no preference for ages ending in 0 and 5) and 500. (all people reporting ages ending in 0 and 5). Demographic Yearbook 1988 (United Nations: New York, 1990. United Nations Sales No. E/F 89.XIII.1)



framework of the NSS; and (iii) to promote statistical culture. Concerning the data production function of statistics, the communication strategy will inform people about the relevance of statistical operations, the timing of data collection, and INEC's statistical confidentiality principle. The communication strategy will adjust messages and instruments according to areas (i.e., urban and rural) and population groups considered in the project, such as Indigenous peoples (IP), Afro-Descendants, Montubios,⁸ migrants, people with disabilities, and children. It will inform these audiences about the relevance of receiving interviewers, understanding the questionnaire contents, and answering honestly. Particularly for Component 1, the strategy will educate and motivate people living in Ecuador to participate in one of the country's most relevant civic events; namely, the Housing and Population Census. The publication of each set of statistical operation results forms part of the strategy, as does sharing knowledge about the degree of satisfaction of different data users through telephone surveys, social networks, and focus groups. Another aspect of this strategy will be to inform the debate about changes in the legal framework of the statistical system, including the data privacy principle. Finally, INEC will promote a greater statistical culture by celebrating World and National Statistics Day, building statistics awareness in classrooms, and conducting similar outreach events.

25. The communication strategy will cover different angles. This plan will include workshops, billboards, infographics, and radio and television messages, among other activities. When relevant, social networks will also be used as critical communication pieces. INEC will contract specialized services to carry out awareness campaigns before data collection. It will apply international standards to document and disseminate micro and metadata. Finally, responsibility for the communication strategy will fall under the Directorate of Information and Communication Technology.

Table 2: Components and subcomponents of the project

Component	Description	
Component 1:	Enhancing demographic information with the new Housing and Population Census	Communication strategy
Activity 1.1	Completion of preparatory activities and cartography	
Activity 1.2	Data collection and data curation	
Activity 1.3	Innovations in the Housing and Population Census	
Activity 1.4	Quality in the Housing and Population Census	
Component 2:	Strengthening the statistical production from surveys	
Activity 2.1	Implementing the National Income and Expenditure Survey and updating the poverty lines	
Activity 2.2	Changing the base year of price indexes and updating basic family baskets	
Activity 2.3	Implementing the new Labor Force Survey	
Activity 2.4	Incorporating the rotating modules of the Agricultural Survey	
Component 3:	Strengthening the Statistical production from Administrative Records and INEC's managerial capacity	
Activity 3.1	Strengthen the architecture and infrastructure for capturing processing, storage, and visualization	
Activity 3.2	Create primary and complementary records - Data warehouse	
Activity 3.3	Construct an inter-thematic viewer - Data Ecuador	
Activity 3.4	Make a virtual information laboratory for INEC	
Activity 3.5	Strengthening INEC's managerial capacity	
Component 4:	Project management, monitoring, and evaluation	

Source: Own elaboration

⁸ Montubians are an ethnic minority of rural Mestizos known for their ranching and farming activities, rodeos, rites, music, and distinctive attire. They are legally recognized as "Indigenous People" in Ecuador's 2008 Constitution.



COMPONENT 1. Enhancing demographic information with the new Housing and Population Census (US\$ 56,49 M)

26. As part of ongoing efforts to close Ecuador's sociodemographic data gaps, this component will support the implementation of the 2022 Housing and Population Census. The project will support different phases of the life cycle of the Housing and Population Census (i.e., completion of preparatory activities and cartography, data collection, and data curation), considering INEC's very recent advances as well as its progress in 2019 and early 2020 prior to COVID-19-related interruptions. The census information provides wide geographic disaggregation, thus supporting the identification of specific population groups and clarifying their particular needs for services, such as housing, education, health, drinking water, electricity, and drainage. In Ecuador, census data are used as an input for fiscal coordination with territorial entities, and help facilitate the definition of electoral districts, the preparation of demographic projections, and the development of sampling frameworks for household surveys and poverty measurement. The census will provide information on the number of people and their spatial distribution in the national territory, as well as their composition by age and sex. It will also generate statistical information to support the targeting of populations of interest for the design, monitoring, and evaluation of programs and public policies. In addition, as the primary input to estimate population projections, it will generate inputs for the construction of sampling frameworks for household surveys. Finally, it will be used to monitor international commitments, such as the SDGs.

1.1 Completion of preparatory activities and cartography

27. This subcomponent will provide technical assistance to INEC to finalize the programming and testing of the CAPI/CAWI/CATI questionnaire, the final completion of the cartography, and the pilot of the *de jure* modality census.⁹ Preparatory activities require the purchase of office supplies and IT equipment such as tablets, computers, and printers, and the hiring of specialized consultants (i.e., Survey Solutions programming specialists, sampling experts, post-census survey specialists, etc.). Fieldwork activities require the employment of enumerators, training and workshops for enumerators, payment of transportation tickets for enumerators and supervisors, per diem and lodging for enumerators, supervisors, and fieldwork personnel, etc.

1.2 Data collection and data curation

28. This subcomponent will include the collection of census data through a multimodal approach (CAPI, CAWI, CATI)¹⁰ for six weeks. This activity will involve purchasing around 18,000 tablets, hiring around 19,000 enumerators, conducting trainings, purchasing transportation, clothing, per-diem and lodging, etc. Data collection will be followed by the implementation of data processing and curation activities.

1.3 Innovations in the Housing and Population Census

29. The project will innovate with the implementation of the VIII National Population Census and the VII Housing Census through the realization of a *de jure* census and the use of most recent technologies. The process of updating

⁹ The *de jure* population is a concept under which individuals (or vital events) are recorded (or are attributed) to a geographical area on the basis of the place of residence. Source: Handbook of Vital Statistics Systems and Methods, Volume 1: Legal, Organizational and Technical Aspects, United Nations Studies in Methods, Glossary, Series F, No. 35, United Nations, New York 1991.

¹⁰ Computer Assisted Personal Interview (CAPI), Computer Assisted Web Interview (CAWI), Computer Assisted Telephone Interview (CATI).



the cartography will be completed using the most recent technologies. These include the use of satellite images to update dynamic zones and the generation of cartography with georeferencing for census enumerators, and non-traditional data collection approaches (multimodal: tablets, telephones, and Web). In addition, a self-reported census will be implemented. Likewise, this will support the documentation of microdata through the DDI, plus the cataloging of data through the international standard Microdata Cataloging System (NADA). It will be accompanied by the implementation of a quality framework to evaluate the census's coverage and accuracy based on international standards. The census will include the collection of individuals' personal identification documents to advance towards the integration of information sources whose unit of analysis is the individual person. In this way, it will help consolidate one of the pillars of the Administrative Records along the lines of the Nordic model that has been adopted as a long-term strategy in Ecuador.¹¹ In addition, an evaluation of Ecuador's vital statistics will be carried out under the project. This will be used to facilitate the reconciliation and harmonization of different demographic data sets. Personal information could also be used to inform climate-dedicated public policies, such as early warning systems and emergency preparedness in the event of climate-related disasters. Here, INEC could provide continuous support to the National Risk and Emergency Management Service. Additional actions to strengthen these data sets may also be considered as part of the strategic goal of closing gaps in Ecuador's sociodemographic data. For instance, the census will differentiate between sex (biological characteristic assigned at birth) and gender identity (how a person identifies).

1.4 Quality in the Housing and Population Census

30. The 2022 Housing and Population Census will be implemented following international standards and best practices. In addition to quality control mechanisms during the data collection stage, a post-census survey will be designed and implemented to estimate the omission rate (coverage) and the accuracy of the census.¹² The project will finance the post-census survey that will require typical expenses in hiring enumerators, conducting trainings, transportation, and per-diem and lodging, among other items.

31. The payment of small expenses related to fieldwork (such as flight and boat tickets, personal local guides, ground transportation, paperwork shipments, and other services) allocated across the territory to enumerators will use the “revolving fund financial mechanism” (*fondos rotativos* in Spanish). INEC has successfully used this financing mechanism in the census cartography stage and other surveys (i.e., labor force, enterprise, etc.). This mechanism will be activated and closed according to the implementation timeline of activities included in each component. For instance, in the census, these funds will be available between November and December 2022, when the data collection will occur. The revolving funds for Component 1 will be around US\$ 339,850 and will be reimbursed after being approved by INEC.

COMPONENT 2: Strengthening the statistical production from surveys (US\$17,71M)

32. The updating and surveying of all the fundamental sources of information mark an effort to improve the knowledge base needed for policy making. This effort is a high priority for the NSS. The commitment is to guarantee that all populations and territories are captured. Their statistical visibility is the first step to knowing more about, and attending specifically to, their diverse realities, thus helping to ensure that no one is left behind.

¹¹ For further information about this model see Wallgren, A. & Wallgren, B (2012) Estadísticas basadas en registros, aprovechamiento estadístico de datos administrativos. Mexico.

¹² The Whipple Index will be used for estimating the accuracy of the census 2022.



2.1. Implementing the National Income and Expenditure Survey and updating the poverty lines

2.1.1 Implementing the National Income and Expenditure Survey

33. The project will finance the new round of the National Household Income and Expenditure Survey. This activity will be completed in three years through different stages (i.e., planning, socialization workshops, questionnaire design, training, field operations, data processing, etc.). To ensure high quality, all data collection and entry stages will be accompanied by intensive supervision, control, monitoring, and follow-up processes. During this timeframe, the databases and main statistics results will also be delivered and published (after documentation and anonymization processes) and the final report will be prepared. Support and technical assistance from international experts will be available throughout these three years. This survey will provide representative data at three levels: national, urban, and rural areas; 24 provinces; and 10 self-represented cities (Ambato, Cuenca, Loja, Quito, Esmeraldas, Machala, Manta, Guayaquil, Santo Domingo de los Tsáchilas, and the Galapagos). To carry out this survey, the proposed project will finance from the sample design until the publication of main results and datasets by hiring experts to support the questionnaire and sampling design, employing enumerators, conducting trainings, and purchasing transport, per diem and lodging, etc.

34. The National Household Income and Expenditure Survey provides detailed information on the amount, distribution, and structure of income and expenditure of urban and rural households. This survey collects detailed information on three main areas: the demographic, educational, and occupational characteristics of household members; household income levels; and the allocation of household income to different expenses. This information allows for the analysis of the factors underpinning diverse living standards in a given society. These types of surveys are usually implemented over a 12-month period. They have been carried out in Ecuador since 1975, with the last round occurring between 2011 and 2012.¹³ This survey also provides an opportunity to directly improve the collection of data on gender gaps. This data will enable sex-disaggregated analysis on welfare and access to economic opportunity, as well as some human capital indicators. These efforts will provide decision-makers with better information about the nature and scale of the barriers holding back women and girls and, in turn, will inform policies to narrow and monitor gender gaps. A new round of this survey will allow INEC to update the base year of the CPI (2014, current base year), the Producer Price Index (PPI) (2015, current base year), the CFB (1982, current base year), and the Monetary Poverty Line (2014, current base year). In so doing, it will enable an accurate estimate of the final consumption and disposable personal income of households for National Accounts. Additionally, this instrument represents a fundamental input for quantifying the potential distributional impacts (for example, on inequality, poverty, the bottom 40 percent, etc.) of policy reforms with respect to taxes and to direct and indirect government spending.

2.1.2 Updating the monetary poverty lines

35. The project will finance three lines of action: methodological review and assessment; technical analysis and implementation; and training, discussion, and dissemination events. The first contemplates a literature review of poverty lines' methodologies, plus the evaluation of INEC's current methodology and the proposal for its updating.

¹³ INEC, Income and Expenditure Survey in urban and rural areas 2011- 2012 (https://www.ecuadorencifras.gob.ec//documentos/web-inec/Estadisticas_Sociales/Encuesta_Nac_Ingresos_Gastos_Hogares_Urb_Rur_ENIGHU/ENIGHU-2011-2012/Metologia_ENIGHUR_2011-2012_rev.pdf)



The second line of action includes the development of the new consumption aggregate, a review and potential update of energy requirements, the identification of the reference population, an assessment of the food basket (i.e., extreme poverty line), and estimations of the extreme and moderate poverty lines.¹⁴ In these two lines of action, the project will finance hiring international experts on consumption and poverty measurement. The third component includes training events for the technical team, closed discussion events on progress, and the final dissemination of results. Thus, the project will finance training for INEC's staff and dissemination events, plus workshops and specialized consultants to implement these lines of action.

36. This activity is programmed to be completed in 14 months. An estimated five months will be required for the methodological component, seven months for the technical and implementation component, and two months for the training, discussion, and dissemination events. This activity will have technical support from in-field experts. Training events will be delivered with technical assistance from international organizations. Finally, three closed discussion events and one dissemination event are planned.

2.2. Changing the base year of price indexes and updating the Basic Family Baskets

37. Updated price indicators with current consumption and production patterns will allow for the accurate monitoring of market dynamics and the reliable evaluation of public policies. The change of the base year entails updating the structures (or weights) of consumption and production. From the *consumption side*, this process begins with the construction of the basket and weights of the national CPI¹⁵, the regional Consumption Price Index for Galapagos (IPCEG), and the national CFB¹⁶ based on the last National Household Income and Expenditure Survey. This entire process will be completed in three months, which will require the technical support of international experts, the hiring of consultants, the training of INEC's technical team, and the acquisition of IT equipment, etc. Once the new list of goods and services has been defined, the base prices, characteristics, and source locations will be recorded. A three-month pilot test will then be carried out to assess the whole process, from the instruments to the computer system. The pilot duties will demand hiring enumerators, purchasing uniforms, transportation, training of enumerators, and other fieldwork expenses. Contained within this process are the price base and calculating indices. Once the testing stages have been completed, the official price-base period for the new CPI, CFB, and IPCEG baskets will begin. This corresponds to a year, which will require hiring enumerators and other fieldwork expenses. During this period, the estimation and imputation module of the computer system will be finalized, as will the structure of the baskets. Official methodological documents will then be prepared and published once the base year is over. The results of the three indices will be socialized and published during the following quarter. From the *production side*, the basket identification task for the Producer Price Index (PPI) will run for three months and requires acquiring IT equipment such as computers and printers and hiring specialized consultants.¹⁷ The PPI needs to build a

¹⁴ The extreme poverty line reflects only dietary energy requirements, while the moderate poverty line includes needs for other goods and services (such as clothing, transportation, and other non-food goods).

¹⁵ This index is one of the leading indicators of the country's economy and measures inflation. It is part of INEC's economic statistics since 1950. and has served as a key input for many policy decisions, from the design of adjustment pensions and the definition of the Unified Basic Salary (SBU acronym in Spanish) to the update of the poverty line and the setting of the consumption deflator in the National Accounts.

¹⁶ This basket is a descriptive indicator of the relationship between wages and inflation and its contribution to decision-making has mainly been in terms of salary indexation and the definition of the country's SBU. This basket was created in 1982 and has remained the same since then.

¹⁷ The producer price indices will be based on the National Accounts System from the Central Bank of Ecuador, which has the inputs for defining the basket of products based on their relevance to the whole economy. It measures the average change over time in the selling prices received by domestic producers of goods and services in the first link of the market chain for the manufacturing, agriculture, livestock, forestry, and fishing



producer price registry and pilot it. These tasks will be carried out in six months, and then a producer price survey will be conducted throughout the following year. The producer price survey duties will involve hiring enumerators, purchasing uniforms, transportation, and other fieldwork expenses. While PPI gathers information by interviewing firms, the Export Price Index (IPEX) uses Ecuador National Customs Service's administrative records (SENAE). To do so, the project will finance specialized consultants in building IPEX, IT equipment, etc. Once previous stages are completed, results will be socialized and published in the following two to three months.

2.3 Implementing the new Labor Force Survey

38. The project will finance the survey design and fieldwork activities to implement the first year of the new Labor Force Survey ('ENCIET' acronym in Spanish) round. This process will require typical survey design and fieldwork expenses such as hiring specialized consultants for sampling and questionnaire design, employing enumerators, conducting training, purchasing transportation, per-diem and lodging, etc. This survey will incorporate the latest Housing and Population Census sample frame and will present results at the national, urban, and rural levels. The purpose is to obtain the broadest possible conclusions and evaluate the CIET 19 and CIET 20 recommendations for their subsequent incorporation into the official statistics. In addition, starting with the 2023 survey, which will be carried out in parallel with the current National Survey of Employment, Unemployment, and Underemployment Survey (ENEMDU acronym in Spanish) for one year, the labor market indicators will be spliced so as to avoid losing the historical comparability of the figures.¹⁸ The new information will be properly documented through the DDI and published in INEC's catalogs following proper anonymization protocols and procedures. The production of these surveys includes innovative collection technologies and the reinforcement of data security, preservation, and integration mechanisms.

39. The new survey will update labor market monitoring indicators disaggregated by sex and will help evaluate public policies in order to close gender gaps, cut youth unemployment, and reduce informality. The 1982 recommendations currently govern the ENEMDU. In 2016, INEC, with the support of the International Labor Organization (ILO) and the Inter-American Development Bank's Regional Public Goods Program, carried out pilot surveys to identify harmonization gaps for the Labor Statistics International Conference 2019 (CIET 19) recommendations. These tests determined the need to update the ENEMDU. The new survey will thus collect for the first time nationally representative data on women's productive work across paid and unpaid activities, based on the definitions of work and employment adopted by CIET 19. This will contribute to improving the availability and quality of sex-disaggregated labor market indicators to understand women's experience in unpaid but productive activities, such as subsistence agriculture and family work, as well as entrepreneurial activities. The proposal is for a pilot test of the Labor Statistics International Conference 2020 (CIET 20) recommendations to be carried out in the second half of 2022. The results of this test will help inform questions for the ENCIET and other household surveys aimed at the systematic collection of statistics on employment, the underutilization of the labor force (CIET 19), and statistics on labor relations (CIET 20). The proposed pilot will also contribute to better understanding the implications for how women's work is measured. These standards have important implications for measuring the activities that women and men undertake, not least because they make a clear distinction between "employment" (which is defined as

sectors. Currently, the PPI is estimated with an outdated basket of products built in 2015 based on the Supply-Use Table of the 2013 National Accounts System. The Intermediate Demand Producer Price Index and Final Demand Producer Price Index are a subset of the PPI and will also be updated.

¹⁸ This survey collects data at the individual and household level for the labor market, labor and non-labor income, education, demographics, housing, etc.). Leading indicators are elaborated based on this survey like activity, unemployment, informality rates, and poverty indices.



work performed for pay or profit) and “work” (which includes household chores and production for own consumption). Results will inform subsequent data collection to improve the quality of gender statistics in terms of labor market outcomes. Finally, the ENCIET, which provides regular welfare monitoring, will be used to identify and map areas of higher vulnerability to poverty. These are valuable inputs to target climate-informed interventions with a view to financing mitigation and to preparing a humanitarian response in the event of localized weather shocks.

2.4 Incorporating the rotating modules of the Agricultural Survey

40. The project will finance the implementation of three modules of the Agricultural Survey. The project will cover the rotating modules of production methods and environment (PME), economy, and machinery, equipment, assets, and decision-making (MEAD). The financing will cover the cost of enumerators, training events, workshops, transportation, per diems, and vehicle maintenance, among other expenses needed to implement every module. The PME module collects vital data necessary to assess the impact of agricultural activities on the environment, the social and economic sustainability of farming, and greenhouse gas (GHG) emissions, among other data points, and the impacts of climate related events on agricultural activities. This information can be used as input in the models used to compile GHG emissions inventories or other agri-environmental indicators, as well as climate adaptation plans. The Economy module measures key aspects of agricultural incomes and expenditures, as well as provides information on productivity at the agricultural holding level. Finally, the MEAD module measures the types, numbers, age, and ownership of the machinery and equipment used on farms. For household-sector farms, the survey also measures key assets and their ownership, as well as providing information to help diagnose and monitor gender gaps. In this way, it complements or further details the corresponding sections of the Core Module that will be financed by the government.¹⁹

41. INEC has successfully implemented the revolving financial fund mechanism to cover small fieldwork expenses. This mechanism is typically used during data collection of surveys, such as the Labor Force, Income and Expenditure, and Enterprise Surveys, among others. This mechanism will be activated and closed according to the implementation timeline of activities included in this component. For instance, in the Income and Expenditure Survey, these funds will be available throughout the year when the data collection will occur. The total revolving funds for Component 2 will be around US\$ 250,000. These will be reimbursed after being approved by INEC.

42. The Land and Agricultural Production Continuous Survey (‘ESPAC’ acronym in Spanish) allows the monitoring of the SDGs and labor market indicators. ESPAC includes rotating modules that respond to Ecuador’s agricultural economy, workforce, machinery, equipment, and assets. Through the integration of these modules, it is possible to obtain information that contributes to the calculation of numerous SDG indicators, such as 2.3.1, 2.3.2, 2.4.2, 5.a.1, and 12.3. This is an important source of information to monitor gender gaps in access and control over land and other productive assets. Finally, the ESPAC employment module is conceived as complementary to the Labor Dynamics Laboratory.

¹⁹ FAO (2018) Handbook on the Agricultural Integrated Survey (AGRIS), <https://www.fao.org/3/ca6412en/ca6412en.pdf>.



COMPONENT 3: Strengthening the statistical production from Administrative Records and INEC’s managerial capacity (US\$ 4,22 M)

43. INEC seeks to strengthen statistical production based on Administrative Records within its digital transformation strategy. The transformation of Administrative Records (‘RRAA’ acronym in Spanish) into Statistics Records (‘RREE’ acronym in Spanish) will expand the scope of the information generated by public institutions. It will also increase access to the general public through easy-to-use and understandable means. Likewise, the construction of virtual laboratories will integrate the sectorial data. These laboratories will allow interactions between INEC, statistical producers, and researchers, and will improve user accessibility to RRAA. They will be reinforced in their data security and their management strategy, mechanisms, platform, and approach to dissemination. Finally, the interoperability infrastructure (data collection), data processing, and visualization will be strengthened. Boosting statistical production from RRAA requires the following steps:

3.1 Strengthen the architecture and infrastructure for capturing, processing, storage, and visualization

44. Access to information in an agile, secure, and transparent manner requires a robust technological infrastructure. In other words, virtual spaces for consulting and specialized data analysis or an inter-thematic and interactive display of information need to be accompanied by a solid technical framework.

3.1.1 Assessment and infrastructure design

45. To identify needs related to processing and to the management of data and security infrastructure, a baseline evaluation of data governance is required.²⁰ The project will finance the hiring of specialized consultants to carry out an assessment of INEC’s IT system and infrastructure. From the study of the current situation, roadmaps and action plans are proposed for the medium and long term. The project will also finance consultancies or technical assistance to INEC’s team to assess and define how INEC will manage its information holistically and effectively. With a view to ensuring continuous management of data quality, the following outputs will be generated:

1. Assessment and hardware growth plan for processing and services, including adjustments, acquisitions, and improvements of servers, security equipment, storage, backups, and peripheral equipment. The IT growth plan considers energy efficiency of the equipment as one of its technical criteria.
2. Software growth plan for processing and services, including subscriptions, licenses, and tools necessary to comply with virtual space implementations and minimum operating requirements for data use.
3. Operations architecture for:
 - a. collecting new sources of RRAA
 - b. data processing (in the Cloud or within INEC)
 - c. developing and testing environments
 - d. storing the data, plus backup schemes and availability
 - e. creating ecosystem to build data warehouses
 - f. developing the data viewer

²⁰ Data governance is a set of good practices and standards that allows an institution to manage its data based on a proper information life cycle. This cycle begins with collection (interoperability), information transformation, analysis, and visualization processes.



- g. building the virtualization environment for data laboratories

3.1.2 Implementation of the architecture

46. Once the needs have been identified, the project will finance the IT equipment required. The full IT infrastructure will be put in place. Similarly, the information and computer security schemes will be finalized in line with the government's policy of access to information. In a complementary manner, backup and information access schemes will be put in place to guarantee data availability at all levels and at any time. At the end of this implementation phase, personnel at INEC will have access to four servers for use in data development, tests, and production.

3.2 Create primary and complementary records – data warehouse

47. The creation of the base registries has been the objective of the INEC for several years. The idea is to create the Housing and Population Census base structure with RRAA. For this, the inventory will be updated and the current RRAA will be strengthened. In addition, the coverage of the RRAA will be improved through thematic settings and the use of an established management model. A verification process will check if the registration data obtained from administrative sources are comparable with traditional statistical operations, such as the traditional 2022 Census, and if they evidence the same trends. For this, comparisons must be made at the aggregate, variable, and individual levels. The activities carried out in this process are the following:

3.2.1 Identification of new sources of Administrative Records

48. The project will support workshops with INEC's team and line ministries to identify and improve data sources. The assessment and redesign of RRAA into RREE imply that new data sources could be transformed into statistical data and could contribute to constructing the base and complementary records. For this, it is always necessary to define the documentation and methodologies that can be replicated, revised, and improved.

49. The project will also finance technical support from database specialists to develop the data warehouse. The first inputs for the data warehouse are current and historical data that are structured and coherent. This subcomponent intends to implement this activity for each new topic and, above all, for constructing the Base Records. Additionally, this activity will automate the processing and updating of the master data, historical data, and the data warehouse.

50. Finally, the project will support the production of maps and the hiring of international consultants (i.e., geographers, geo specialists, etc.) to develop risk maps. Updated National Risk Secretary RRAs with the 2022 Housing and Population Census will allow mapping risks across Ecuador. The administrative records of natural events, such as volcanic eruptions, earthquakes, landslides, floods, etc., jointly with the Census data, facilitate the analysis of the population's exposure to such risks. In other words, the risk exposure can be estimated using data on the geographic location of dwellings, people, infrastructure (schools, health centers, bridges, roads, etc.) as well as data on the number and intensity of such events by geographical area. This information will be critical for designing rapid response and prevention interventions.



3.2.2 Processing of RRAA to RREE

51. The RRAA go from collection to processing as the “Guide for transforming administrative records into statistical records” is applied.²¹ This sequence will be necessary for the base registries: population, firms, activities, real estate, and complementarity. This activity comprises the following five primary objectives: the statistical processing of RRAA, the construction of historical records, the evaluation of the quality of the data, the improvement of RRAA processes and statistical information, and the opportunity to critique and compare Statistical Operations (‘OE’ acronym in Spanish) vs. RRAA.

52. To fulfill these objectives, it is first necessary to achieve the processing environment defined in the design and implementation phase. For this, it is vital to have qualified personnel to operate and manage what is proposed. The project will finance hiring consultants with expertise in these topics and the Cloudera²² license that currently controls Hadoop, the Big Data processing environment used by INEC. In parallel, support will be required in the form of technical assistance from international organizations or National Statistical Offices (NSOs) of other countries that have successful and replicable experiences in Big Data processing. Licenses and training to use the relevant software and programming required will be funded by the project.

3.2.3 Implementation of thematic data warehouse

53. There are multiple objectives for implementing the data warehouse. First, it is necessary to have a technological and logical ecosystem in operation, where the warehouse for the different thematic data can coexist and build new interactions (inter-thematic information cubes). Second, it is important to ensure that the enhanced database repositories and their latest database management system versions are on stable and secure servers.²³ Finally, the data warehouse must be defined, structured, and operationally fed by processed information from its own collection or from INEC’s statistical procedures.

54. The project will finance hiring international consultants and the appropriate personnel for INEC’s technical team with data warehouse management knowledge, and training in software for data management and programming.

3.2.4 Security Access and Use of Information

55. The issue of data security is relevant to the entire project and will be managed as an efficiency indicator. Security is a crucial indicator when designing and implementing a solution, when identifying an information source, and when creating the collection scheme and the virtual means. At all these stages, it is necessary to check security issues related to the means of access, the information use, the data interaction, and the viewer.

56. Enhancing confidentiality in data management is critical. This improvement will not only increase security levels at all the above-mentioned stages but it will also guarantee information security for the source and the

²¹ The Transformation Guideline of Administrative Records in the statistical records, forthcoming, INEC.

²² <https://www.cloudera.com/>

²³ The DataBase Management System is a collection of very specific software, oriented to database management, whose function is to serve as an interface between the database, the user, and the different applications used.



consumer through automation processes, which implies the request for access, the oversight of access and schedules, and the delivery of the processed information.

57. Various specialized tools will be implemented. Firstly, information security will be enhanced through tools in static and dynamic analysis of technological applications and services, the depersonalization (data disturbance) of the information in the databases, the monitoring of alerts and analysis of events relating to computer security, and automation processes. A second set of tools relates to the anonymization of data.²⁴ Anonymization mitigates the risks posed by the massive collection and processing of personal data. It consists of a process that hides sensitive information and only allows it to be disclosed in a way that does not violate the data protection rights of individuals and organizations. Thirdly, the project will provide specialized tools for reviewing application codes and monitoring access to application servers, files, databases, networks, workstations, switches, routers, and firewalls, etc., as well as tools for assessing the vulnerabilities of published web applications in the production environment. Finally, there will also be a Management-Viewer System that monitors the network and its applications, as well the activities of internal users and the behavior of computer resources, and then provides alerts to take preventive and corrective actions.

58. The project will finance hiring of consultants with expertise in data security knowledge.

3.3 Construct an inter-thematic viewer – Data Ecuador

59. The information will have a more significant impact if it is integrated into a system where the data banks interact with the presentation tool. At present, once the data collection and processing processes have been implemented, the information is often not presented in suitable tools and software (e.g., PDFs, presentations, images, etc.) that are user-friendly and helpful for analysts and researchers. Creating an effective, friendly, safe, and timely visualization requires enormous work. Although this work is usually undertaken behind the scenes, it is vital for keeping the visualizer afloat and functioning correctly. This can be represented in the scheme of an iceberg: the part of the iceberg above the water represents information from official indicators obtained with business intelligence (BI) tools; the part below the water represents the much larger structure (capture, processing, integration, security, automation, etc.) and infrastructure that supports the visible part of the iceberg.

3.3.1 Definition of platform, users, and roles

60. INEC has already adopted the Power BI tool to visualize and present statistical information. This platform offers essential characteristics when extracting, transforming, and loading data, and then showing these data in a dynamic and agile way. This facilitates user access and permits timely and safe use of the data. For this, the different thematic data warehouse will be built and integrated, which the user will be able to explore and analyze through an integrated viewer. The data warehouse of the ENEMDU has already been developed. The presentation of the different labor indicators was carried out in the Power BI tool that will be available soon.

61. The second step is identifying the audience with access to the information. The segmentation of the data users (i.e., public institutions, academia, officials within INEC, specialized consultants, international organizations, the

²⁴ <https://biblioguias.cepal.org/c.php?g=495473&p=4961125>



media, and Ecuadorian citizens) will determine the level of disaggregation of information, variables, and security. These definitions will be made after the design of the platform.

62. The objectives of this activity are the following: to establish the target public, the interface correspondence matrix, and the credentials and access validity for the case of non-public data; to define the technical and methodological documents that describe the useful data life; and, to include the mapping of actors, information users, data access, and use policies, etc. The project will finance the IT equipment investments defined in the design, implementation, and security phases and the personnel already in place, including experts on data governance.

3.3.2 Production of the visualizer interface

63. Visualizers are the centerpiece of the interface. Visualizers determine what to communicate and how to choose the most appropriate tools to get the information across. They make it possible to contextualize the information, help convey a structure, and present the data more quickly than in reports. Visualizers are often accompanied by widgets that allow users to interact with the data and discover the questions they should be asking.

64. Once the target audience has been defined and the mode of information delivery has been decided, a friendly interface for showing the data must be drawn up. The design of this interface must contemplate usability, agility, security, and aesthetics. A poorly defined interface can often lead to the abandonment or failure of a project with extensive and vital data. Considerable attention will be given to the manner in which the information is shown so as to guarantee a satisfactory user experience.

65. The objective is to develop a public viewer for access to information, a viewer with roles and user credentials for access to specialized audiences, and a working viewer (information cube) with access to the data warehouse ecosystem for officials at INEC through Power BI. Again, to achieve these objectives, it is necessary to have the IT Equipment investments defined in the design, implementation, and security phases. The hiring of essential technical staff to design the viewers (i.e., a User Experience Specialist, at least three senior Power BI experts, and support staff for the general public) will be financed by the project.

3.4 Make a virtual information laboratory for INEC

66. The demand from users to access information from INEC is increasing at all levels; local, national, and international. This growth in demand has given rise to the need for a new Virtualized Laboratory ('LV' acronym in Spanish). The objective of the LV is to implement an environment of specialized users who have remote and secure access to statistical information, and to ensure that this is provided in an agile and timely manner.

67. The project will finance the Information Processing Laboratory ('LPI' acronym in Spanish) improvement at INEC (Central Plant) by purchasing a physical server that will store the statistical information according to the local demands. In this environment, the user will be able to carry out explorations, treatments, analyses, and the presentation of data with the help of specialized tools (i.e., R, SPSS, Stata, Power BI).

68. Cloud services provide cost savings, flexibility, speed, scalability, quality control, and loss prevention. The system applies to the data storage space needed to provide the service, using exactly as many resources as required. Through the Cloud, it is possible to offer accessible information to the target audience without supplying the demand with a complex and expensive IT equipment.



69. The project will finance a Cloud service with particular characteristics (Storage and Processing) that will meet the demand of national and international users. This virtualized environment will require innovative tools (hardware and software) to store and transfer large volumes of information (Big Data Technology), as well as to perform data exploration, analysis, and integration (R, SPSS, Stata). These results can be viewed in specialized BI tools (e.g., Power BI), guaranteeing the information's availability, integrity, and confidentiality. Likewise, purchasing specialized software that monitors the events on users' remote connections will allow greater control and guarantee security in line with standards and reasonable information security practices.

70. The strengthening of the LPI (INEC – Cloud server) is expected to take between six to nine months and will entail updating and improving the current processes of use and access (Regulations, Computer Systems, Information Catalog). It is essential to highlight that the user will have access to microdata when creating the LV. This data can be processed, transformed, synthesized, tabulated, and analyzed but under no circumstances will there be a possibility for downloading as the data contain confidential information.

3.5 Strengthening INEC's managerial capacity

71. INEC's methodological, technical, and research units will be reinforced during project implementation to support INEC's technological modernization. The modernization includes: (i) modern information technology expressed in current IT strategy, IT systems, IT equipment, and specialized personnel: the IT modernization is embedded in the first three components of the project; (ii) statistical legal framework update: under the proposed project, an assessment of the statistical legal framework will be carried out, as well as a technical note with specific recommendations to update the statistical legal framework; and (iii) training for INEC staff to reinforce their knowledge, skills, and abilities for producing basic statistics (censuses, surveys, and RRAA).

72. The proposed project will support the technical discussion and analysis to update the statistical legal framework. An in-depth assessment of the existing statistical law (1976), its regulations, and the 2013 Executive Decree 2013 will be carried out with other relevant and related laws and regulations, such as the Personal Data Protection Law (2021). The assessment will include interviews with crucial statistical data users and producers. As a result of the assessment's findings, a technical note will be produced considering international standards and best practices, such as the UN's Fundamental Principles of Official Statistics (first adopted in 1994 and revised in 2013). This technical note will consider confidentiality, data privacy, microdata access, data anonymization, effective coordination mechanisms among data producers, and the empowerment of INEC to collect data from NSS producers. Specialized consultations with national and international experts, workshops, and expert consultants will be funded by the project.

COMPONENT 4: Project management, monitoring, and evaluation (US\$ 1,58 M)

73. Project Management and Planning will be supported by providing technical advisory services, training, operating costs, and the acquisition of goods. The successful implementation of the project calls for the establishment of a Project Management Unit (PMU) that includes a Project Coordinator and a Technical Specialist, as well as Specialists in Financial Management (FM), Procurement, Safeguards, and Monitoring and Evaluation (M&E). Additionally, the PMU will include nine Project Analysts Level 2 to support administrative and financial



management tasks²⁵. These Analysts will be distributed as follows: INEC HQ (three Analysts), South Regional Office (two Analysts), Center Regional Office (two Analysts) and Litoral Regional Office (two Analysts). The PMU will: (i) prepare annual work plans (AWPs) and budgets; (ii) monitor the execution of disbursements, plus any FM activities and implement procurement following the rules and procedures approved by the WB; (iii) prepare and consolidate periodic progress reports; and (iv) monitor and evaluate project activities. The PMU will also report each quarter on the progress of the project to the Project Steering Committee (PSC). The execution of disbursements and other operational aspects will be carried out by the respective administrative units within INEC. The project will fund all PMU staff, yearly external audits, and all the expenses related to PMU's regular operation.

74. Careful sequencing and complementarity of project activities are essential to the project's success. The priority is to establish a solid foundation for project management, including strengthening the necessary fiduciary and management functions in the PMU, establishing coordination and oversight bodies, and instituting an annual cycle of planning, implementation, and reporting with a set of annual plans and quarterly financial and progress reports. A Project Operations Manual (POM) will be developed and adopted prior to project effectiveness to facilitate and guide daily operations.

C. Project Beneficiaries

75. INEC is the main direct beneficiary of the project. It will benefit from direct investments in its human capital and equipment. It will receive training and technical assistance, as well as financing to undertake statistical operations and prepare and publish updated statistics. Other project beneficiaries will be the producers of administrative data, policymakers in line ministries and agencies, and other members of the NSS. These beneficiaries will provide support to deliver the outputs (quality statistics, M&E indicators, economic analysis) required by the government to inform and underpin planning and decision-making processes, to monitor performance, and to evaluate the impact of public projects and programs.

76. Other beneficiaries of the project will be a diverse group of data users. These include data users: in the public and private sectors; in civil society, which needs statistical information and economic analysis for advocacy and holding governments to account; in academia, which requires data for research and teaching purposes; and in development partner organizations and multilateral agencies, which will make use of data for assessing requirements for assistance and/or participation in development initiatives for a variety of purposes. Interested and engaged citizens will also benefit from better access to information.

D. Results Chain

Theory of Change

77. This project follows a transparent model of the theory of change to support Ecuador's NSS (Figure 2). Specifically, it begins with the identification of critical challenges, namely: a limited capacity to monitor economic progress and to inform national policy decisions; data production gaps; obstacles to implementing updated statistical framework; limited statistical legal framework; insufficient use of RRAA to inform public policies; and limited use of

²⁵ The Analysts will: (i) monitor compliance with the Bank's regulations in the contracting and payment processes that will be carried out by the Regional Offices; (ii) prepare inputs for the monthly, quarterly and/or semi-annual reports; (iii) verify compliance with standards for registration and filing of documents; and (iv) monitor and deliver inputs considered necessary under the ESCP, the SEP, and the LMP.



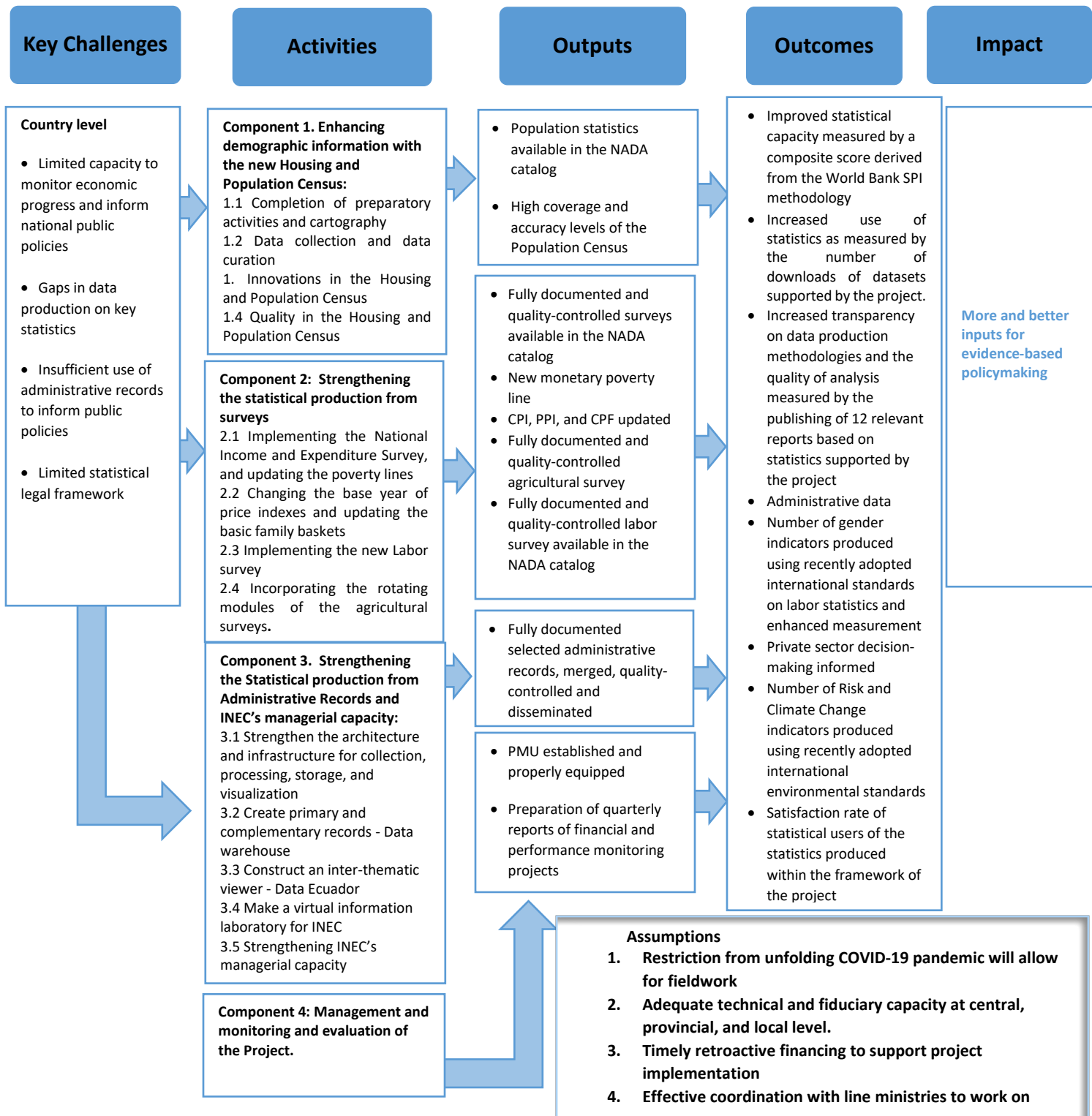
data for monitoring public policies. The activities supported by the proposed project, detailed in section A, tackle these challenges from multiple angles. Beyond financing necessary surveys, the project also invests in greater capacity of INEC and line ministries working on RRAA. This broader approach is reflected in improving administrative data for statistical use and through innovations in the census population data collection. These activities will produce specific outputs to increase statistical capacity and inform public policy. Expected outcomes are improvements in statistical capacity, plus the increased availability and dissemination of basic statistics (census, surveys, and administrative data). Fourteen gender indicators based on the data sources supported by the project will also emerge in the implementation stage.²⁶ Collectively, these improvements will increase public confidence in official statistics.

78. The project also provides the inputs necessary for the successful implementation of climate change mitigation and adaptation strategies. Specifically, the project supports the preparation of survey instruments designed to assess household vulnerability to climate change (including droughts, floods, and increased temperature). It also supports the preparation of outputs and reports that will inform mitigation and response strategies, including an updated vulnerability map (under components 1 and 2), a map of agricultural vulnerability to climate change and adaptation actions (under subcomponent 2), and an updated household map of the country (prepared as part of the cartography update supported under subcomponent 1). This output will result in updated housing maps to identify the number and location of households exposed to localized shocks, enabling better and more targeted policy responses to climatic shocks or natural disasters. Increasing the quality of administrative data in these topic areas will help track the progress made in these programs. It will also potentially bring to light new data that can be used systematically to identify the vulnerability of different regions and sectors to climate disaster and, in turn, inform targeted government policies and responses. These outcomes will be measured by an intermediate indicator tracking the preparation and publication of reports and briefs directly relevant to climate change adaptation and mitigation strategies.

²⁶ The project will support the design and implementation of 14 gender indicators in three areas: labor, agriculture, and RRAA. Examples of these indicators include the application of a gender lens to employment by occupation, the proportion of agricultural producers with access to land disaggregated by sex, and formal labor remuneration by type of career and by sex among recent graduate students.



Figure 2. Theory of Change





E. Rationale for Bank Involvement and Role of Partners

79. The World Bank Group (WBG) has a comparative advantage as an established global leader in the funding of large projects for statistical capacity building and in the design and implementation of effective NSSs. The WBG leads efforts to develop statistics that meet international quality standards (for example, the World Development Indicators) and supports Paris21 which produces NSDS guidelines. Through the design, implementation, and review of previous statistical capacity-building operations, the WBG has deep knowledge on what works, what does not, and what it will take to successfully support regional and national statistical projects in the developing world. Additionally, the WB has a proven track record in convening development partners to discuss and unite efforts in pushing forward the agenda on national, regional, and global statistics.

80. The WB is remarkably well-placed to support the Government of Ecuador in continuing its agenda of NSS modernization and in improving the quality of its information to inform public policies. The WB has already been actively working with INEC and Ecuador's NSS to support statistical capacity building. This project is based on the positive results of previous WB interventions and on a close and continuous dialogue to improve the measurement of well-being. More broadly, the WB's engagement in data and statistics is well articulated in the "Data for Better Lives",²⁷ "Data for Development",²⁸ and WB (2019) reports.²⁹

81. Moreover, the WB has become an active development partner in the country since its re-engagement back in 2016. Dozens of technical assistance and analytics projects have been implemented by the WB in Ecuador. In the area of statistics specifically, the WB has provided technical assistance for: The Poverty Maps and Consumption Inequality report from the Poverty Global Practice;^{30, 31} the Water, Sanitation, and Hygiene project from the Water Global Practice;³² the Data, Diagnostics, and Institutional Innovations for Jobs in Ecuador report from the Social Protection and Jobs Global Practice³³. Transitioning from analytics to lending in this area signals the WB's commitment to closing data gaps for evidence-based policymaking in Ecuador.

82. This project builds on the experience obtained from INEC's partnerships with other international organizations. INEC receives technical assistance on an ongoing basis from the United Nations Population Fund (UNFPA), the Organization for the Economic Cooperation and Development (OECD), The Economic Commission for Latin America and the Caribbean (ECLAC), Paris21, the Food and Agriculture Organization (FAO), and the ILO, with the objective of strengthening the technical and methodological capacities of its different areas. For instance, for Component 1 of the project, the UNFPA will provide technical assistance through regional experts to ensure adherence to international standards in each phase of the Housing and Population Census. ECLAC will collaborate closely with INEC in the modernization of the National Household Income and Expenditure Survey (ENIGHUR in Spanish), and the ILO with the ENCIET. OECD/Paris21 will support activities on data documentation and dissemination as well as on the updating of the NSDS. Additionally, North-South knowledge exchanges on the establishment and operation of Virtual Labs are being considered to complement INEC's plans to create a similar facility.

²⁷ World Bank. 2021. "World Development Report 2021: Data for Better Lives" Washington, DC: World Bank.

²⁸ World Bank. 2018. "Data for Development: An Evaluation of World Bank Support for Data and Statistical Capacity." Independent Evaluation Group, Washington, DC: World Bank.

²⁹ World Bank. 2019. "A Review of ICRs and ICRRs of a Selected Sample of Statistical Capacity Building Operations."

³⁰ <https://www.ecuadrencifras.gob.ec/documentos/web-inec/Bibliotecas/Libros/reportePobreza.pdf>

³¹ <https://www.ecuadrencifras.gob.ec/documentos/web-inec/Bibliotecas/Libros/mapaLibro.pdf>

³² https://www.ecuadrencifras.gob.ec/documentos/web-inec/Bibliotecas/Libros/Diagnostico_ASH_pobreza_INEC_BM.pdf

³³ <https://www.ecuadrencifras.gob.ec/trabajo-y-empleo/>



F. Lessons Learned and Reflected in the Project Design

83. The project draws upon lessons learned from World Bank statistics projects, mainly in Africa³⁴. National-level statistics projects have been implemented in Africa and Latin America for decades, with a surge of International Development Association (IDA)-funded projects beginning in 2015 in response to the data deprivation agenda. These early national projects demonstrated the benefits of transitioning from Pen-and-Paper Interviewing (PAPI) to Computer Assisted Personal Interviewing (CAPI) for data collection. These benefits included the strengthening of data anonymization protocols (including a gender perspective in the project design) and, more generally, the positive impacts of timely, high-quality data for evidence-based policymaking.

84. The proposed statistical project takes stock of the successes and setbacks from previous StatCaps, as well as introducing some significant innovations. Innovation on the life cycle of the statistical operations provides a case in point. An example of this is the population census's process of updating the cartography, which will be completed utilizing the most recent technologies, such as satellite images to update dynamic zones and the generation of cartography with georeferencing for census enumerators. In addition, the data collection of the census and household surveys will be carried out under a multimodal approach (i.e., using tablets, telephone, and the Web). All statistics supported under this project will also be documented through the DDI, while data will be cataloged through the international standard NADA, as well as through the open data portal developed by INEC. Finally, the project will assess improvements in the quality of relevant sector RRAA and the promotion of their use through an innovative and modern "data virtualization" process whereby national and international users can download and analyze statistics derived from administrative data.

85. Efforts to support the modernization of the statistical laws will be focused on providing technical assistance to identify gaps rather than including the enactment of a new law as a project result. In the past, a small number of first-generation StatCaps have included technical assistance in their project design as a means of assessing the shortcomings of existing laws and evaluating new potential statistical legislation to enable a more modern authorizing environment for the NSOs. Due to political developments outside the control of the projects in question, these proposed laws sometimes failed to materialize, thus negatively impacting project results at the intermediate and PDO levels. With this in mind, this particular project does not include the enactment of any laws as part of the results framework. Instead, it proposes the delivery of a technical assessment that identifies gaps in current laws and proposes approaches towards their modernization.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

86. INEC will be the agency responsible for implementing the project. As the official provider of statistics in Ecuador, INEC is the main beneficiary of the project. Therefore, INEC is the implementing agency for the project to ensure ownership as well as an efficient project implementation and on-the-job capacity building for project management. INEC's management will have overall responsibility for the project, while the PMU will implement its day-to-day activities. Annex 1 provides more detail on implementation arrangements.

³⁴Updated list of active StatCaps: P160717, P133731, P153702, P157473, P157671, P157987, P159434, P159954, P160977, P162621, P164243, P165062, P168122, P169265, P171160, P171377, P171380, P173450, P173977, P174986, P176371, and P178043



87. INEC will lead the coordination with the National Council of Statistics, the Strategic Committees, and the other agencies that comprise the NSS in Ecuador. INEC is supported by the National Council of Statistics, which is made up of representatives from the National Planning Secretariat (which acts as chair), the Sectoral Cabinets, and INEC (which serves as the technical secretary). The Council will advise on INEC's workplan and play an important role setting up the authorizing environment for the Housing and Population Census. Another coordination mechanism is the Strategic Committees, which INEC creates as advisory bodies. They comprise delegates from the institutions that produce and use statistical information for specific sectors. These Committees have two types of working groups – strategic and technical – both of which are created by INEC (which acts as their chair), the National Planning Secretariat, the Sectoral Cabinet(s), and the ministries or sector-executing agencies related to the main objective of the Committee in question. Currently, there are 13 active Committees, 11 of which are thematic and two of which are designed to address specific areas of interest under Ecuador's statistical priorities. The PSC will be established following this auxiliary body structure, with participation of governmental and non-governmental stakeholders. Its objective will be to advise INEC's team and to ensure delivery of the project outputs and the achievement of project development objectives. Annex 1 explains the characteristics of the PSC in more detail.

88. The PMU will be staffed with the purpose of strengthening INEC's capacity to implement the project and fulfill its fiduciary responsibilities. INEC has little experience implementing WB-financed operations. Therefore, the timely recruitment of qualified Specialists and Analysts will be essential for building management capacity in the PMU. Specialists will be required in the following areas: Technical, FM, Procurement, M&E, and Environmental and Social (E&S). Additionally, the WB will provide occasional training on project management to ensure compliance with policies and procedures.

89. The INEC recognizes the importance of implementing an inclusive approach for collecting disaggregated data and statistics on vulnerable groups to reflect their interests in policymaking. The dissemination strategies for the Population Census, the Labor Force Survey, the Integrated Agricultural Survey, and other statistical exercises included in this project will include tools and methodologies to: (i) obtain feedback from beneficiaries (users) and stakeholders; and (ii) incorporate said feedback in future activities within the purview of the project. Consultations with stakeholders from the government, civil society, and the private sector will be held regularly through the life of the project.

B. Results Monitoring and Evaluation Arrangements

90. The PMU will regularly monitor the PDO and intermediate indicators to assess progress against the results framework developed during project preparation. Additionally, semi-annual implementation support missions will take place during the lifetime of the project to evaluate progress towards the PDO and find joint solutions to implementation challenges. A Mid-Term Review will also take place in 2024 to determine the need for structural corrective measures in the project.

91. Regarding the financial reporting and auditing, the WB standard requirements for Investment Policy Lending apply. INEC will provide interim unaudited financial statements as per the form and substance acceptable to the WB, covering the periods indicated in the agreement. INEC will also organize an external independent review of project resource management in accordance with audit standards acceptable to the WB during the periods specified in the agreement. Audits will be conducted at the expense of the project. These requirements are detailed in Annex 1.



C. Sustainability

92. The long-term sustainability of these efforts depends on a continued flow of resources to the statistical system. The project aims to provide a solid statistical infrastructure that can be maintained with limited resources after project closure. The project will contribute to sustainability by creating user demand for statistics in Ecuador within and outside the government. The increased user demand will help justify additional funding from the government and development partners to sustain funding of statistics beyond the end of the project.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic, and Financial Analysis (if applicable)

Economic Analysis

93. INEC's efficiency as the primary data producer of the NSS will increase due to the project. The unit cost of data production will decrease due to organizational and technological innovation and implementing best practices and higher standards. Efficiency will be expressed by estimating statistics unit costs and their quality.³⁵ The unit cost will be estimated considering full costing that comprises all direct and indirect costs, and it will apply accrual accounting methods such as the depreciation of capital goods and other adjustments. Efficiency gains will represent savings in the fiscal resources needed for data products that could be reallocated for more and better statistics.

94. The proposed project will introduce free World Bank CAPI software that can be used for all basic statistics produced by INEC and the main data producers of the NSS. The Survey Solution (SuSo) toolkit will be implemented during the project and could be adopted by INEC for regular use, thus reducing the costs related to licensing, consultancy advice, and maintenance. This toolkit could be disseminated to the NSS by INEC, which could represent a significant saving.

95. Project outcomes include enhanced statistics on employment, agriculture, household welfare, and sector administrative data. These will improve evidence-based policymaking by providing information on priority areas of intervention as well as improving the ability to monitor the government's development agenda. Good quality data is expected to strengthen governance and accountability as well as decision-making for agents in the private sector.

B. Fiduciary

(i) Financial Management

96. As part of the preparation process of the Strengthening the National Statistical System in Ecuador Project, the World Bank's FM team performed the financial management assessment (FMA) of INEC in February 2022. The assessment reviewed INEC's organizational structure and financial management capacity and experience to

³⁵ The quality of statistics will be measured through international benchmark and standards for population censuses (coverage or omission rate estimated through a post-census survey; accuracy estimated by Whipple, Myers, and United Nations gender ratio). Survey quality will be estimated through an assessment of the most common sampling and non-sampling errors. The quality of RRAA will be measured through specific tools developed by INEC for this purpose.



implement the proposed project. The assessment concluded that INEC, as a central government entity, applies country systems, including the financial management information system e-Sigef, local financial management rules, and the Single Treasury Account. INEC's FM installed capacity is acceptable; however, INEC's financial management team will require to be reinforced to respond better to project demands and Bank requirements. Although INEC has previous experience implementing Bank fiduciary requirements as a co-implementing entity in other WB-financed projects, INEC has some knowledge gaps. Thus, it will require to get rapidly acquainted with disbursement financial reporting and auditing requirements. Additionally, training provided by the Bank on fiduciary requirements will be essential.

97. Based on the FMA, INEC (as the project-implementing entity) will be responsible for FM arrangements, including budgeting, recording, controlling payments, disbursements, financial reporting, and auditing responsibilities. Project implementation will rely on existing operational capacity of INEC's Administrative and Financial team supported by the soon-to-be-established PMU, which will include a FM Specialist at central level and FM Analysts in each regional office. The project will follow local regulations, including the COPLAFIP³⁶ established by the Ministry of Finance (MEF), as well as internal control norms issued by the General Comptroller of the State (CGE, by its name *in Spanish*). Central and regional offices will be responsible for timely recording of the approved budget, commitments, and accruals (all of them) carried out through e-Sigef³⁷ and with the use of an accrual basis. Project disbursements of loan proceeds include advances to the Designated Account (DA), reimbursements, and direct payments. Under the advanced method, a segregated DA in US Dollars will be opened in the Central Bank of Ecuador (BCE) and maintained by the MEF. All payments under the project will be performed through the Interbank Payment System. The DA ceiling for the loan will be variable and expenditures will be documented on a quarterly basis. INEC will prepare semi-annual interim financial report (IFR) for Bank's review and annual project financial statements subject to external financial audits submitted to the Bank within six months of the Borrower's fiscal year.

98. Detailed risks and mitigation actions described under Annex 1 of FM and Disbursement Arrangements conclude that the project's FM residual risk is Moderate.

99. Considering the progress reached so far, the proposed FM arrangements are considered acceptable to the Bank, subject to compliance of the following actions:

- *By negotiations:* Submission of a draft POM reflecting FM and disbursement arrangements agreed for project.
- *By effectiveness:*
 - Submission and adoption of a POM reflecting FM and disbursement arrangements agreed for project.
 - The recruitment of a project FM Specialist at central level and a financial Analyst in each regional office under terms of reference acceptable to the Bank, financed through loan proceeds.

(ii) Procurement

100. Procurement will be conducted using the World Bank's 'Procurement Regulations for IPF Borrowers, first published July 1, 2016, Fourth edition November 2020, for the supply of works, goods, and non-consulting and consulting services. The World Bank's Standard Procurement Documents will govern the procurement of World

³⁶ Public Finance Planification Code.

³⁷ Ecuadorian Governmental Financial Management Information System.



Bank-financed Open International Competitive Procurement. Mandatory Procurement Prior Review Thresholds, as detailed in Annex I of the Bank's Procurement Procedure, will be observed. For bidding processes with a national market approach, the practice of bidding and the request of quotations documents will use standard procurement documents acceptable to the WB. These will be included in the POM.

101. The procurement capacity assessment of INEC was carried out by the World Bank's procurement team in February 2022. The assessment mainly reviewed the organizational structure for implementing the project, and the experience of the existing procurement staff. The assessment concluded that INEC has little experience in implementing World Bank-financed projects and that it currently lacks experienced procurement staff with knowledge of WB procurement procedures.

102. The Procurement Unit in INEC's organizational structure will be responsible for the procurement function. This unit is organized in three regional sub-units and the Central Administration, which is responsible for planning, budgeting, and monitoring progress. Although some of the procurement processes for the project will be carried out in a decentralized manner, the main procurement processes related to the Housing and Population Census will be executed at the centralized level (Central Unit) to ensure consistency, uniformity, value for money, and economy of scale.

103. A Project Procurement Strategy for Development (PPSD) was prepared in May 2022 by the Borrower, which describes how procurement in this operation will support the PDO and deliver value for money under a risk-based approach. The PPSD provides adequate supporting market analysis for the selection methods detailed in the Procurement Plan. All procurement procedures, including roles and responsibilities of the involved units, will be defined within the POM. The PPSD has been developed considering the objective of INEC to launch the Housing and Population Census in early November 2022. Part of the essential procurement processes foreseen for the census will be carried out prior to the signing of the Legal Agreement following national procedures. In this sense, INEC would request a possible retroactive financing if such procurement processes comply with the provisions of the Procurement Regulations, among other applicable WB policies, and if they are within the limits established in the Legal Agreement. For that reason, the Bank Team reviewed the national procedures applicable to such processes and a detailed analysis is included in Annex 1. The PPSD, together with a procurement plan covering at least the first 18 months of project implementation, was prepared by the Borrower and was agreed before negotiations.

104. The proposed procurement processes to be financed by the project include the following:

1. *Goods.* "Goods" here include tablets, IT equipment, uniforms, and office equipment, among other items.
2. *Non-consulting services.* "Non-consulting services" refer to services include the hiring of service delivery contractors, vehicle rental, printing services, communication campaign implementation services, and telecommunication services, among others.
3. *Selection of consulting services.* "Consulting services" comprise services related to Web design and the creation of a development training platform, among other services.
4. *Operating costs.* "Operating Costs" means the reasonable costs of incremental recurrent expenditures (other than for consulting services and staff training) related to project implementation that would not otherwise have been incurred. Examples includes, inter alia, consumable items, utilities and supplies, office supplies, communications expenses, salaries of contractual and temporary staff, and accommodation, transport, and per diem for fieldworkers. Operating costs do not cover salaries, fees,



honoraria, bonuses, and any other salary supplements of members of the Borrower’s civil service.

- 5. *Training Costs.* “Training Costs” relates to expenditures (other than those for consulting services and Operating Costs) for training activities under the project that are attributable to seminars, workshops, and study tours, along with travel and subsistence allowances for training participants, payment of participation fees, rental of training facilities, preparation and reproduction of training materials, and other activities directly related to course preparation and implementation.

105. As per paragraph 5.9 of the Procurement Regulations, the World Bank’s Systematic Tracking and Exchanges in Procurement (STEP) system will be used to prepare, clear, and update Procurement Plans and conduct all procurement transactions for the project.

106. Frequency of Procurement Supervision. In addition to prior review supervision to be carried out by the WB, the Bank will perform supervision missions and procurement post-review missions, selecting a sample in accordance with the procurement risk determined at such time.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

107. The project’s environmental risk rating is Moderate, and its social risk rating is also Moderate, making for a Moderate risk rating overall. The main environmental risks and impacts associated with the project are related to the potential mismanagement of a significant volume of computer tablets to be purchased and used throughout the project’s implementation. Measures for the proper management of technological equipment will be addressed in the POM. In addition, the Environmental and Social Commitment Plan (ESCP) will establish a specific commitment related to adequate e-waste management. Under ESS3, on “Resource Efficiency and Pollution Prevention and Management”, information linked to the potential risks and impacts caused by the handling and disposal of electronic equipment and hazardous materials is included. The main social risks and impacts link to two main areas: (i) community health and safety during census execution, including risks for health (COVID-19) and the participation of military forces on the field data collection campaigns in conflictive areas. The risk associated with the use of military forces for data collection for the census in border areas is low, and mitigation measures are included in the Environmental and Social Commitment Plan (ESCP) and the Operations Manual (a risk assessment has been conducted following paragraph 16 of the FCV Policy, see Annex 3); and (ii) occupational health and safety for the project’s numerous workers. (See the section on ESS2, “Labor and Working Conditions”, in the Appraisal Stage Environmental and Social Review Summary (ESRS) for more information.) Measures related to the management of environmental issues will be incorporated in the POM (as a condition of effectiveness), and some measures are also included in the negotiated version of the ESCP dated May 20, 2022. In addition, two environmental and social instruments are required:



- (i) Stakeholder Engagement Plan: consulted between April 8 and 14, 2022 and published in April 2022³⁸.
- (ii) Labor Management Procedures: Document under development, will be ready as a condition of effectiveness.

108. The Project involves retroactive financing, including for, the acquisition of electronic devices, and for labor contracting. An ex-post E&S assessment will be carried out prior to disbursement to confirm that activities during the retroactive period have been implemented in accordance with the relevant Environmental and Social Standards (ESSs). The terms of reference for such an assessment were developed and agreed between INEC and the WB prior to negotiations. They will also be included in the POM to be developed as an effectiveness condition. Among the main topics to be considered are: (a) verifying how waste management measures resulting from the disposal of electronic devices are identified and adopted; (b) labor management procedures implemented in the labor hiring process (including information regarding the Good Labor Practices Form included in the bidding documents); and (c) the handling of complaints and claims up to the date of disbursement.

109. The completion and acceptance by the Bank of this assessment will be a disbursement condition. Additionally, its results used will be used to inform the preparation of a corrective action plan if necessary.

V. GRIEVANCE REDRESS SERVICES

110. Communities and individuals who believe that they are adversely affected by a WB-supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of non-compliance by the WB with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. To learn how to submit complaints to the WB Inspection Panel, please visit <http://www.inspectionpanel.org/>.

VI. KEY RISKS

111. The overall project risk is rated Substantial, mainly due to political and governance, and technical design risks. Political and governance risks: Substantial, given the sensitivity of new population, poverty, and CPI data and the impact its publication could have on key policy decisions (such as subnational allocation of resources, the definition of electoral districts, and design of social programs, among others) in the current critical political climate. To mitigate this risk, INEC will carry out a communications strategy following best international practices to ensure transparency, accessibility, ease of understanding, and independence of the data.

³⁸ Available at: <https://www.ecuadorencifras.gob.ec/institucional/proyecto-fortalecimiento-del-sistema-estadistico-del-ecuador/> and <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099250004262240813/p1785640b002a00280b1360b0ca097cc888>



112. Technical Design is rated Substantial due to the potential obstacles the ongoing COVID-19 pandemic presents for data collection in the field. To mitigate this risk, INEC will adjust the census methodology as needed to allow for more flexibility in completing the fieldwork. It will also increase the number of enumerators to finalize data collection for the surveys more rapidly.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Ecuador

Strengthening the National Statistical System in Ecuador Project

Project Development Objectives(s)

The Proposed Project Development Objective is to improve the national statistical capacity of Ecuador in the production and dissemination of timely and high-quality economic and sociodemographic statistics for evidence-based policymaking.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Statistical Capacity				
Statistical Capacity (Number)		5.97		9.30
Gender indicators				
Number of gender indicators produced using recently adopted international standards on labor statistics and enhanced measurement (Number)		0.00	5.00	14.00
Improved use of statistics measured by the number of downloads of datasets supported by the project				
Improved use of statistics measured by the number of downloads of datasets supported by the project (Number)		0.00	15,000.00	30,000.00
Improved use of statistics measured by the publishing of twelve relevant reports				
Improved use of statistics measured by the publishing of 12 relevant reports based on		0.00		12.00



Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
statistics supported by the project. (Number)				
Increased availability of sector administrative data for statistical purposes.				
Increased availability of sector administrative data for statistical purposes. (Number)		0.00	10.00	20.00
Risk and Climate Change				
Number of Risk and Climate Change indicators produced using recently adopted international environmental standards (Number)		0.00		5.00
Satisfaction rate of statistical users of the statistics				
Satisfaction rate of statistical users of the statistics produced within the framework of the project (Percentage)		91.70		95.00
Percentage of adoption of relevant recommendations made by users				
Percentage of adoption of relevant recommendations made by users of the statistics produced within the framework of the project. (Percentage)		0.00		80.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Enhancing demographic information with the new Housing and Population Census				



Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Population Census Omission Rate (Percentage)		5.70		5.00
Population Census Accuracy-Whipple Index (Text)		105.30		100<=I<=105
Documented and quality-controlled population statistics available in the NADA catalog (Text)		No		Yes
Strengthening the statistical production from surveys				
Monetary Poverty Line base year (Text)		2,006.00		2,024.00
Consumer Price Index base year (Text)		2,014.00		2,025.00
Producer Price Index (Text)		2,015.00		2,024.00
Basic Family Basket base year (Text)		1,982.00		2,025.00
Documented and quality-controlled Agricultural Surveys in the INEC's catalogs (Number)		0.00	1.00	3.00
Documented and quality-controlled Labor Force Survey in the INEC's catalogs (Text)		No		yes
Documented and quality-controlled income and Expenditure Household Survey in the INEC's catalogs (Text)		No		Yes
Strengthening the Statistical production from Administrative Records and INEC managerial capacity				
Approved improvement plans of Administrative Records (Text)		0.00	4.00	10.00
Administrative records improved in quality (Number)		0.00	10.00	20.00
Administrative data available through virtualization process (Text)		No		Yes

**Monitoring & Evaluation Plan: PDO Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Statistical Capacity	Statistical capacity improvement is measured by a composite score derived from the WB SPI methodology	Annual	The World Bank Group. Development Economics Data Group (DECDG)	Statistical Performance Indicator (SPI)	The WBG https://www.worldbank.org/en/programs/statistical-performance-indicators
Number of gender indicators produced using recently adopted international standards on labor statistics and enhanced measurement	The project will support the design and implementation of 14 new gender indicators in three key areas: i) labor statistics using recently adopted international statistical standards; ii) agriculture statistics with enhanced measurement of ownership and control of land; and iii) administrative records focused on access to economic opportunity.	Annual	INEC Web portal	Estimation of indicators based on the databases produced under the project	INEC
Improved use of statistics measured by the number of downloads of datasets supported by the project	Datasets supported by the project downloaded through the NADA and Open Data catalogs	Annual	INEC Data catalogs	Annual review of the number of downloads of datasets in the counters of the portals	INEC https://anda.inec.gob.ec/anda/index.php/catalog



					og https://datosabiertos.gob.ec/dataset/
Improved use of statistics measured by the publishing of 12 relevant reports based on statistics supported by the project.	Analytical and methodological reports produced with the statistics supported by the project and published on the INEC website	Annual	INEC Web portal	Annual review of the number of reports released in the INEC portal	INEC https://www.ecuadorencefiras.gob.ec/institucional/home/
Increased availability of sector administrative data for statistical purposes.	Sector administrative data available through virtualization processes	Annual	INEC and Lines Ministries related to indicators selected	Annual review of available administrative data through virtualization processes	INEC
Number of Risk and Climate Change indicators produced using recently adopted international environmental standards	Specific climate change and risks indicators that could be produced directly through the statistics produced under the project or in combination with other sources of information.	Annual	INEC, Secretaria de Riesgo		
Satisfaction rate of statistical users of the statistics produced within the framework of the project	Satisfaction rate will be estimated through a continuous survey applied to statistical users that use the INEC's portal and/or contact INEC by email.	Yearly	INEC	<i>The satisfaction rate will be estimated annually. Surveys will be carried out throughout the year to the users registered of the "data visualizers"</i>	INEC



				<i>and the information laboratory that INEC will implement within the framework of the project, and an annual estimate of the value of the indicator will be produced.</i>	
Percentage of adoption of relevant recommendations made by users of the statistics produced within the framework of the project.	Proportion of relevant recommendations adopted by INEC related to the total number of recommendations received by users.	Yearly	INEC	N/A	INEC

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Population Census Omission Rate	Population census coverage error.	Every 10 years	INEC	Post Census Survey (PCS)	INEC
Population Census Accuracy-Whipple Index	Its a method to measure the tendency for individuals to inaccurately report their actual age or date of birth. Respondents to a census or other survey sometimes report their age or date of	Every 10 years	INEC	The score is obtained by summing the # of persons in the age range 23 and 62 inclusive, who report ages ending in 0 and 5, dividing that sum by	Estimation by INEC



	birth as a round number (typically ending in 0 and 5). This is often for cultural reasons.			the total population between ages 23 and 62 years inclusive, and multiplying the result by 5.	
Documented and quality-controlled population statistics available in the NADA catalog	WB-NADA Catalog is an open source software designed for researchers to browse, search, compare, and apply for access and download research data.	Every 10 years	INEC	Census microdata dataset must be documented using the DDI standard, and uploaded into the NADA Catalog	INEC
Monetary Poverty Line base year			INEC		INEC
Consumer Price Index base year	CPI is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.	Every 7 years	INEC		INEC
Producer Price Index	The Producer Price Index (PPI) program measures the average change over time in the selling prices received by domestic producers for	Every 7 years	INEC		



	their output				
Basic Family Basket base year		Every 7 years	INEC		INEC
Documented and quality-controlled Agricultural Surveys in the INEC's catalogs	WB-NADA Catalog is an open source software designed for researchers to browse, search, compare, and apply for access and download research data.	Annual modules	INEC	Agricultural modular surveys based on FAO initiative 50x2030. Environmental impact; economic impact, and agricultural machinery and equipment	INEC, with TA support of FAO
Documented and quality-controlled Labor Force Survey in the INEC's catalogs	WB-NADA Catalog is an open source software designed for researchers to browse, search, compare, and apply for access and download research data.	Every 4 years	INEC	Labor force survey microdata dataset must be documented using the DD standard, and uploaded into the NADA Catalog	INEC
Documented and quality-controlled income and Expenditure Household Survey in the INEC's catalogs	Open Data Catalog is a list of datasets available in an Open Data initiative	Every 4 years	INEC	Income and expenditure microdata dataset must be documented using the DD standard, and uploaded into the NADA Catalog	INEC
Approved improvement plans of Administrative Records	Improving plans based on INEC technical assessment	Annual	INEC and Line		INEC



	of administrative data.		ministries		
Administrative records improved in quality	Quality assessment of administrative records	Every two years	INEC	WB Administrative Records Quality Assessment Tool (HECRA)	WBG assessment
Administrative data available through virtualization process	Accessibility of admin data statistics through virtualization process	Every 2 years	INEC	Verification of the virtualization process	INEC



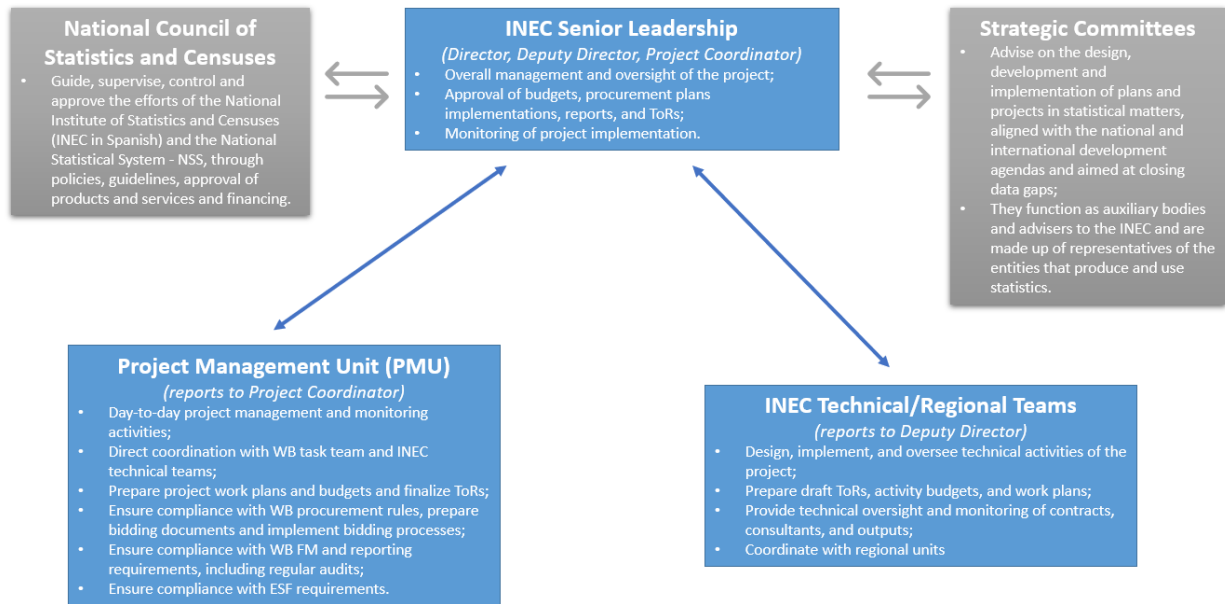
ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Ecuador

Strengthening the National Statistical System in Ecuador Project

1. INEC will be the agency responsible for implementing the project. INEC’s Senior Leadership will have overall management and oversight responsibilities of the project (Figure 3). They will be supported by the PMU and Regional Offices, plus the technical teams that implement the activities financed under this project. The proposed implementation arrangements are designed to ensure cross-departmental coordination both internally (within INEC) and externally (with key government stakeholders responsible for high-level policy and strategic direction, as well as ministries and agencies).

Figure 3: Implementation Arrangements



2. The PMU will be responsible for the day-to-day implementation of the project. The Unit will include a Project Coordinator and a Technical Specialist, Specialists in FM, M&E, Procurement, and Safeguards and Project Analysts to focus on FM and administrative tasks. The PMU will: (i) prepare AWP and budgets; (ii) monitor the execution of disbursements, plus any FM activities, and implement procurement in accordance with the rules and procedures approved by the WB; (iii) prepare and consolidate periodic progress reports; and (iv) monitor and evaluate project activities. The PMU will also report each quarter on the progress of the project to the PSC. The execution of disbursements and other operational aspects will be carried out by the respective administrative units within INEC.

3. The PSC will be created under the figure of the "Strategic Committees" already existent in the current statistical regulatory framework of Ecuador. The objective of this Committee, created to deal exclusively with project matters, will be to advise and coordinate technical, administrative, and budgetary aspects, thus guaranteeing the delivery of the project outputs and the achievement of the project’s development objectives. INEC



will issue an internal resolution to create the Committee and *inter alia* specify the Committee's composition, frequency of meetings, attributions, and the Chair and Secretary roles.

4. The Committee will be comprised of governmental stakeholders and will meet once every quarter. The Committee will be chaired by the highest authority of INEC (Executive Director) or its delegate, who will assign Secretariat functions. INEC's General Technical Coordinators, the General Financial Administrative Coordinator, the Financial Director, the Information Technology Director, and the Technical Directors of the areas involved in this project (Sociodemographic Statistics Directorate, Administrative Records Directorate, Agricultural and Environmental Statistics Directorate) will be permanent members of the Committee, as well as a delegate from the Ministry of Economy and Finance. Other public institutions, international organizations, or thematic experts will be invited according to the topics under discussion in the meetings. The PMU will report to the PSC on the progress of the project on a quarterly basis.

5. The project will be implemented following the POM, which will be developed and adopted before project effectiveness. The POM will lay out the project's overall implementation arrangements, as well as its operating, fiduciary, and decision-making procedures, plus its results monitoring arrangements. The POM will set the framework of rules based on which INEC will manage the project according to the WB regulations for FM and procurement. The POM will also include written job descriptions for each member of the PMU team that clearly define responsibilities, lines of supervision, and limits of authority. Additionally, the POM will include the TORs for the environmental evaluation required for retroactive financing. The POM will be revised throughout the life of the project as necessary. Other operating costs such as office supplies, communications, and so on will also be covered by the project.

6. The WB will complement the project's technical and implementation support with additional technical assistance. The World Bank's Task Team will provide implementation support and follow-up. It will also work closely with INEC's technical teams on census and survey design, implementation, and analysis. Additionally, the Task Team will provide implementation support through bi-annual implementation support missions and regular meetings between missions, including project management check-ins with the PMU and Directorship of INEC. In this way, the WB will ensure that timelines and budgets are being followed, as well as providing regular Environmental and Social Framework, procurement, and FM supervision.

Financial Management and Disbursement Arrangements

7. As part of the preparation process for the Strengthening the National Statistical System in Ecuador Project, the FM team has performed a FMA. This FMA was performed to determine the adequacy of INEC's FM arrangements to support project implementation, following the Investment Project Financing, Policy and FM Manual. This FMA spells out the main issues regarding FM arrangements, including the necessary mitigating measures agreed with INEC to address the project needs.

8. According to institutional arrangements, INEC will be the project implementing entity responsible for FM arrangements, including budgeting, recording, and controlling payments under the DA, disbursements, financial reporting, and auditing responsibilities.



9. Based on the FMA, the following risks have been identified: (i) INEC has previous experience implementing similar activities as those intended under the project, however, their staff has some knowledge gaps on the Bank's fiduciary requirements which may impact on FM arrangements; (ii) project design is straightforward; however, due to the nature of the project activities, three regional offices will also be responsible for contracting some activities, administration of contracts, and payments; (iii) the project foresees the implementation of a large volume of small transactions, including contracting short-term staff for surveys and revolving funds to manage some operating expenditures. Thus, it will be necessary to have suitable mechanisms and tools for recording, controlling, reporting, and effectively monitoring the use of funds; and (iv) the most recent Public Financial Management Assessments (PEFAs) pointed out some deficiencies in the need to strengthen the budget management and control framework. Such shortages may delay getting the budget approved in time and processing timely payments of expenditures.

10. Considering the above-described risks, the FMA identified the following mitigating measures: (i) INEC's key FM staff have participated in a recent online training to reinforce knowledge on the Bank's FM and Disbursement requirements. The Bank will continue training INEC's project staff on its financing requirements; (ii) INEC's central and regional offices will use country systems comprising the Single Treasury Account (STA) and the country Information Financial Management System (e-Sigef). The PMU will comprise a FM Specialist at the central level and a FM Analyst in each regional office to better respond to project-associated challenges; (iii) INEC follows adequate and documented accounting and internal control procedures to control of the hiring and payment of temporary staff. INEC will use the reimbursement method to document operating expenditures under revolving funds; (iv) INEC has confirmed the project has priority approval to ensure MEF's timely budget allocation for Component 1 (implemented during 2022) and is working to obtain priority approval for the other components before implementation begins in 2023. The project should carry out continuous monitoring, flagging any potential budget delays to the corresponding authorities and to the Bank.

11. Based on the risks identified and mitigating measures, the Project's FM residual risk is considered Moderate.

12. Considering the progress reached so far, the proposed FM arrangements are considered acceptable to the Bank, subject to compliance of the following actions:

- *By negotiations:* Submission of a draft POM reflecting FM and disbursement arrangements agreed for project.
- *By effectiveness:*
 - Submission and adoption of a POM reflecting FM and disbursement arrangements agreed for project.
 - The recruitment of a project FM Specialist at central level and a financial Analyst in each regional office under terms of reference acceptable to the Bank, financed through loan proceeds.

13. Organization and FM staffing. INEC is a central government decentralized entity with administrative, technical, and economic autonomy. Project implementation will rely on INEC's existing operational capacity under the Administrative and Financial Coordination. INEC will establish a PMU comprising a FM Specialist at the central level and a Financial Analyst in each regional office, hired under terms of reference (TORs) acceptable to the Bank, following its procedures. They will onboard no later than August 2022. The POM will reflect the roles and responsibilities of key FM positions under the project.



14. Budgeting. The preparation of the project annual program (POA) and budget will follow local regulations including the COPLAFIP³⁹, budgeting technical norms as established by MEF. The POA will be subject to the Bank's review and approval. Timely recording of the approved budget, commitments, and accruals, including the execution of regional offices will be carried out through e-Sigef.⁴⁰ Timely availability of budget allocation to projects will depend on priority approval (*dictamen de prioridad*) issued by the National Planning Secretariat. INEC has confirmed Component 1 counts with the priority approval; however, they are working to obtain priority approval for Components 2 and 3, expected to be implemented in 2023. Upon loan signature, INEC will request MEF for budget reforms to incorporate the Bank's financing under the project's budget. As in other projects in the portfolio, INEC may face possible delays in budget allocation and payments. Thus, the project should carry out continuous monitoring, flagging any potential budget delays to the corresponding authorities and to the Bank team.

15. Accounting and financial reporting. INEC must comply with the Governmental Accounting Standards and Chart of Accounts established by MEF and record project transactions in the e-Sigef with the use of the accrual basis. The project will prepare an IFR according to the form agreed with the Bank and covering calendar semester periods and submit to the Bank within 45 calendar days after each reporting period. Those IFRs will specify sources and uses of funds and cash balances, expenditures will be classified by project component/subcomponent/category, and the statement of investments will report the semester and the accumulated operations and notes to financial statements. On an annual basis, INEC will also prepare project financial statements, including cumulative figures, for the year and at the end of the year. These financial statements will be audited in accordance with the Bank's requirements.

16. Internal Control. The project will be subject to the local internal control framework regulated by the CGE and internal audit reviews. INEC has a sound financial and administrative structure, is equipped with experienced and qualified staff, and follows acceptable accounting and internal control procedures. These procedures embrace segregation of functions, ongoing ex-ante reviews of expenditures, monthly issuance of financial statements, and use e-Sigef and the STA. INEC's Human Talent Department (UATH) will hire temporary staff and permanently update the Integrated Computer System of Human Talent (SIITH) and the Payroll Remuneration System for the Public Sector (SPRYIN) to update e-Sigef for corresponding payments. INEC will also use the modality of revolving funds to implement some operating expenditures,⁴¹ for which MEF's regulations require the opening of different bank accounts in a separate public bank. For project purposes, INEC will follow local regulations, carry out payments with local counterpart funds, and then document those expenditures to the Bank using the reimbursement method. In addition to this, INEC will implement the following processes and procedures:

- FM Specialist (at the central office) and FM Analysts (in regional offices) will carry out ex-ante reviews of expenditures eligibility and supporting documentation.
- The central office will maintain permanent coordination and training to regional offices staff on expenditure eligibility, supporting documentation, and reporting for smooth project implementation.
- INEC will work on specific flowcharts to reflect payment processes for different project activities, the transfer of funds (budget spaces) to Regional Offices, and interactions with the PMU team.

³⁹ Public Finance Plan Code

⁴⁰ Ecuadorian Governmental Financial Management Information System.

⁴¹ Rental of planes, boats, and animals (*'acémila'*, by its name in Spanish), contracting of internet service, cleaning supplies, transport tickets, and costs of sending information.



- INEC will implement suitable control of all goods (fixed assets) procured under the project, and maintain an updated report with fixed asset codification, location, date of the purchase, cost, etc.

17. Audit arrangements. Annual audit reports on project financial statements, including a management letter, should be submitted to the Bank within six months of the Borrower's fiscal year or any other period agreed with the Bank. The audit should be conducted by an independent audit firm acceptable to the Bank and under terms of reference approved by the Bank. Audit costs would be financed out of loan proceeds, and the selection process must follow standard Bank procedures. In addition to the external audit, the public sector in Ecuador is subject to the oversight of the CGE. Therefore, funds executed under the project may also be subject to the audit of the CGE.

Funds Flow and Disbursement arrangements.

18. Funds flow: INEC will be responsible for the project disbursements of loan proceeds, including advances to the DA, direct payments, and reimbursements. Under the advanced method, a segregated DA in US Dollars will be opened and maintained in the BCE by MEF. Advances deposited in the External Credit Account (*Cuenta de Crédito Externo, CX*, by its name in Spanish) will be immediately transferred to the project sub-account within the STA, where loan proceeds are virtually identified by specific codification by financier and loan. For reimbursements purposes, a different account must be opened for the project.

19. Disbursement of loan proceeds could use the disbursement method of advances to the DA, reimbursement, and direct payment. Considering Components 1 and 2 include, besides other expenditures, operating expenditures -under the modality of revolving funds- for a total amount of approximately US\$600,000, INEC will preferably use the reimbursement method to report expenditures to the Bank. This means that these costs will be initially financed with local counterpart funds. INEC will wait until these expenditures are internally documented and then request the Bank to reimburse funds. Detailed procedures will be described in the POM.

20. All payments under the project using the funds available at the DA (including those carried out through by INEC's central and regional offices) will be processed through the Interbank Payment System. It is important to mention that INEC central office will not transfer funds to regional offices and instead will transfer budgetary space under the project. Regional offices will receive this specific budget, contract project activities, and request MEF for payments processing.

21. Disbursement arrangements: The DA ceiling for the loan will be variable based on quarterly forecasts. The project will document expenditures on a quarterly basis, based on IFRs. Supporting documentation of the project will remain at INEC's central and regional offices and will be available for ex-post reviews from the Bank and external auditors. The project includes retroactive of eligible expenditures incurred since January 2022.

22. Retroactive financing, under Component 1, will correspond to eligible activities procured following acceptable procedures and consistent with Procurement Regulations. Expenditures and corresponding payments must be incurred up to one year before the loan agreement date and will not exceed the maximum of 20 percent of the loan amount.



Figure 4. Flowchart – Funds Flow of the Project

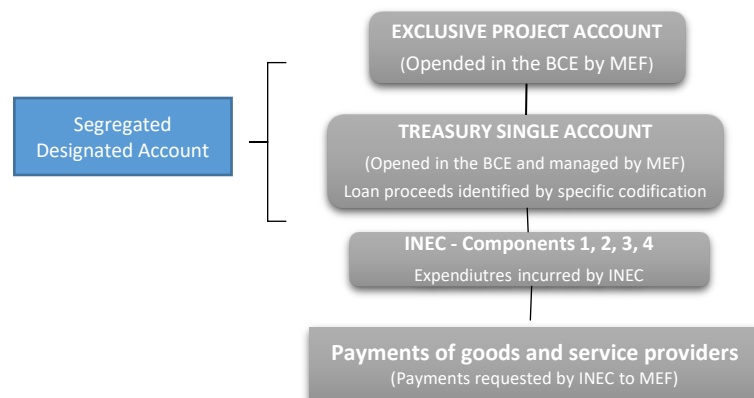


Table 3. Loan Proceeds

Category	Amount of the Loan Allocated	% of Expenditures to be financed
	(Expressed in million US\$)	(Inclusive of taxes)
(1) Goods, non-consulting and consulting services, training, and operating costs under Component 1*	56.5	100%
(2) Goods, non-consulting and consulting services, training, and operating costs under Component 2	17.7	100%
(3) Goods, non-consulting and consulting services, training, and operating costs under Component 3	4.2	100%
(4) Goods, non-consulting and consulting services, training, and operating costs under Component 4	1.6	100%
TOTAL AMOUNT	80	

Procurement provisions

23. To be able to execute the census field operation in the last quarter of 2022, some key procurement processes are underway following national procedures. These comprise:

Table 4: Procurement provisions

National Procurement Method	Total Amount USD	Description
e-Framework Agreements	736,421	Caps, backpacks, and vest
e-Auctions	2,895,657	Tablets
	1,986,670	IT infrastructure
	606,877	Printed services
	207,616	Furniture
	540,589	IT equipment
	231,002	Networked equipment
	102,700	Wiring services
Special Regime	3,000,000	Dissemination, information, and publicity (hiring the service of a communication agency)



24. The Bank team verified that the applicable national procedures, as specified in the National Procurement Law and its Regulation for e-Framework Agreements (e-FA), e-Auctions and Special Regime for communications were consistent with the Bank's Basic Procurement Principles.

25. A summary of each procurement method is provided below:

26. e-Framework Agreements: The Electronic Catalog is the registry of standardized goods and services published on the Portal www.compraspublicas.gob.ec, for direct contracting by the Contracting Entities. The procurement process is anonymized in order not to benefit any specific supplier. The catalog is the result of the application of Framework Agreements that are made from periodic public selection processes based on the regulations established by the Organic Law of the National System of Public Contracting (LOSNC). During the project preparation following a requirement by the Bank, INEC agreed that in the process to be carried out by e-FA, the supplier awarded will be required to sign the Declaration of Acceptance of the Standards for the Prevention and Fight Against Fraud and Corruption.

27. e-Auctions: The electronic reverse auction is a dynamic procedure that is used to procure standardized goods and services, where suppliers bid towards the lower price offered. This is done through the SOCE system (Official Public Procurement System in Ecuador) and where the system invites bidders who can provide these goods or services according to the technical specifications determined by the Contracting Entity. The bid (*puja*) has a minimum duration of 15 minutes and a maximum of 60 minutes. At the end of the auction, the firm with the lowest bid price is considered for award. During the project preparation following a requirement by the Bank, INEC agreed that in these processes, the Declaration of Acceptance of the Standards for the Prevention and Fight Against Fraud and Corruption will be required to be signed by all participating bidders as part of their initial bid and included in the contract with the awarded bidder.

28. Special Regime for communications: Communication and information strategies aimed at generating communications, images, and advertising are subject to the special regime of the National Procurement Law. According to the PPSD and according to what is stipulated in the applicable special regime, for this specific process the Contracting Entity proceeds to invite five preselected suppliers (who must be registered in the Single Registry of Suppliers) to submit technical and economic proposal, attaching the relevant documentation in the SOCE System. The public invitation to the pre-selection of the five firms is made through the institutional portal www.ecuadorencifras.gob.ec. The evaluation of the technical proposals includes verification of compliance with the provisions of the TOR and qualification by means of scores applying the criteria defined in the Bidding Document. The firm that complies with the request and has obtained the highest score is considered for the contract. During the project preparation following a requirement by the Bank, INEC agreed that the Declaration of acceptance of the Rules for the prevention and fight against Fraud and Corruption will be included both in the Bidding Document and in the contract, in accordance with the conditions stipulated by the Bank.



ANNEX 2: List of technical reports, and gender, climate change and risks indicators

1. This annex corresponds to the list of technical reports referred to the PDO indicator number 3, gender indicators referred to PDO indicator number 5, and climate change and risks indicators referred to PDO indicator number 6.

B. TECHNICAL REPORTS

COMPONENT 1

- Peoples and nationalities of Ecuador in the 2022 Census (analytical report)
- Poverty Analysis by Unsatisfied Basic Needs Method (analytical report)
- Population projections for Ecuador revision 2022 (analytical report)

COMPONENT 2

Base year changes of price indicators and updating of baskets

- Updated Methodology of the CPI (methodology report)
- Updated Methodology of the Producer Price Index (PPI) (methodology report)
- Methodology for constructing the Export Index (IPEX) (methodology report)
- Methodology for updating the CFB (methodology report)
- Updated Galapagos Spatial CPI Methodology (methodology report)

National Survey of Income and Expenditure - ENIGHUR:

- Methodological document - Updating poverty lines (methodology report)

Workforce Survey - ENCIET

- Methodological document on the transition from ICLS 13 to ICLS 19 (methodology report)

Agricultural Survey

- Analysis of the level of technification in the agricultural sector (analytical report)
- Construction of the methodology to guarantee the reporting and monitoring of goal 2.3 of the SDGs (methodology report)

C. NEW GENDER INDICATORS

COMPONENT 2

Labor Indicators

- Work in the occupation disaggregated by sex and age group
- Potential labor force disaggregated by sex and age group
- Informal employment by sex and age groups
- Salary gaps

Agricultural Indicators

- Proportion of producers with access to land disaggregated by men and women



- Proportion of producers with access to agricultural training, disaggregated by men and women
- Proportion of producers with access to agricultural extension services, disaggregated by men and women
- Proportion of producers who are part of an agricultural association, disaggregated by men and women
- Proportion of producers with access to agricultural credit, disaggregated by men and women

COMPONENT 3

Indicators based on Administrative Records

- Average salary of workers affiliated with social security by sector and sex
- Workers affiliated with social security by age groups, province, sector, and sex
- Proportion of women working in municipal management of urban solid waste
- Proportion of women in managerial positions in Provincial and Municipal local governments (GAD)

D. CLIMATE CHANGE AND RISKS INDICATORS

Climate Change Indicators

- Energy intensity measured in terms of primary energy and GDP
- CO₂ generation intensity in the industrial sector

Risk Indicators

- Proportion of the population living in risk areas (e.g., hillsides, ravines, areas of volcanic activity and flooding)
- Time to reestablish the provision of drinking water services in a worst-case disaster scenario
- Actions by municipalities to mitigate problems of climate change and contamination of water sources



ANNEX 3: Risk Assessment under paragraph 16 of FCV Bank Policy⁴²

1. The risk assessment's conclusion under paragraph 16 of FCV Bank Policy is low. INEC needs to carry out census activities throughout the whole country. In the so-called conflict zones, INEC needs the support of the armed forces under the Ministry of Defense (acronym in Spanish MIDENA) to execute fieldwork activities in such zones and thus manage the associated security risks. The armed forces have a presence in some of these areas and have provided census support in the past (i.e., Census 2010). Although there are risks associated with the involvement of armed forces in the project, the risks have a low probability of occurrence, and there are mitigation measures to be put in place to manage them. Indeed, INEC is drafting a Security Management and Safety Plan to include these measures and is currently approaching state security entities to further identify the risks, their evaluation, and contingency. Hence, it is actively working to reduce the levels of risk of the military's involvement in this Project. The Loan Agreement, INEC-MIDENA Inter-Institutional Agreement, and the Project's ESCP will also set out commitments to this effect. As such, the armed forces' involvement in supporting INEC's census activities in conflict zones would be justified.

⁴² Further details about this risk assessment are available upon request.