Annex B: CSO Technical and Financial Proposals

This annex provides details on the different deliverables and the costs of the project. For specific dates of the workplan and further notes on the responsibilities of the UNDP-Uruguay, please refer to Annex A: Project Document.

**I. Technical Proposal**

I.1. *Workshop: Introduction to Policy Priority Inference (PPI)*

This consists of a three-hour presentation targeted to the relevant stakeholders (government officials and UNDP analysts). In addition to explaining PPI’s underlying computational model, and how it supports the design of policy priorities, we will explain how to pre-process the SDG data. In addition, the researchers will discuss the recent creation of public expenditure data on SDGs by the Uruguayan Planning and Budgeting Office. More specifically, they will elaborate on the benefits of more granular data fiscal, more extensive time coverage, and how this information can be integrated into the PPI framework.

I.2. *Data: Development indicators of the SDGs*

The researchers will provide a comma-separated-values (CSV) file containing different development indicators of Uruguay, each one corresponding to a sustainable development goal. These data will not only be based on the UN’s official SDG indicators, but will also compile information from other sources that may cover additional policy issues relevant to the Uruguayan government; for example, public governance. The dataset will be delivered through an open repository of the GitHub platform. The relevant documentation will also be deposited in the repository in order to facilitate the replication of the analysis performed in the technical reports.

I.3. *Technical report: Analysis of policy priorities (using PPI 2.0)*

The first technical report will analyze Uruguay’s policy priorities in the context of the SDGs. This deliverable will be based on the researchers’ experience gathered from the publication of PPI 1.0 (Castañeda et al., 2018) and from its adaptation to the SDGs (PPI 2.0), the latter in collaboration with the UNDP-Mexico (the relevant methodological report has been delivered to the UNDP in June 2019). First, the study will present a retrospective analysis of the policy priorities that have been established during a specific sampling period. Some of the questions to be addressed are: Which have been the most and least prioritized SDGs? In which SDGs have public policies been more or less efficient? In which SDGs can we find exemplary successes? Which policy issues represent lost opportunities? Through the policy-coherence methodology –developed by Guerrero and Castañeda (2018)– this study will quantitatively evaluate how coherent has been the Uruguayan development strategy with respect to different development models that could potentially have been adopted. The second part of this report will contain an evidence-based prospective analysis with the purpose of offering policy advice on whether certain development models are more feasible or realistic.

I.4. *Workshop: Presentation of progress to the relevant stakeholders*

This deliverable will be a three-hour presentation to a select group of Uruguayan officials and UNDP analysists. Here, the researchers will provide an overview of the advances towards the first technical report, with an emphasis on the compiled data and the relevant research/policy questions. The objective of this activity is to obtain feedback that will facilitate the most communicative visualizations for a bespoke report that fits the Uruguayan needs.

I.5. *Technical report: Integrating public expenditure data (developing PPI 3.0)*

This product will be a second technical report integrating Uruguayan data on public expenditure towards the SDGs into the PPI framework. It will be a highly innovative/impactful product since Uruguay would be the first country ever to demonstrate how open fiscal data and AI can be combined for public good in the context of the SDGs. The report with introduce a novel methodology that will calibrate PPI in order to match the Uruguayan public expenditure pattern on SDGs. As of today, Uruguay’s government has developed a protocol to link the different SDGs to its Treasury’s 18 programmatic areas. Thus, unless more disaggregated data is provided, the analysis would be limited by the aggregate nature of these 18 expenditure classes. Since this protocol has only been developed for the 2017 fiscal exercise, modern text mining techniques will be applied in order to generate expenditure time series. In addition, different optimization and machine learning techniques will be developed to match the model’s endogenous expenditure variable with the one observed in the empirical data. Once producing real-world expenditure patterns, PPI will become an extremely insightful and precise tool that will facilitate inferring the incidence of public expenditure on SDGs. For example, if the government would want to continue with a similar expenditure strategy as in 2017, it would be possible to discover the most effective set of goals to be pursued in the near future. Likewise, one could calculate the effects that expenditure changes in specific topics have on the progress of certain development indicators.

I.6. *Software: PPI 3.0*

The source code of PPI in the Python programming language will be deposited in the GitHub repository. In contrast to the 2.0 version (developed in collaboration with the UNDP-Mexico), this implementation will allow the integration of public expenditure data. An accompanying user manual with relevant examples will be provided in the same repository.

I.7. *Workshop: Training course in Montevideo*

Through this activity, the researchers will provide the relevant training on PPI to Uruguayan government officials, functionaries from other Latin American countries, and analysts from UNDP. In addition to explaining the methodology and visualizations of the technical reports, the attendants will receive hands-on guidance on how to operate the software, as well as how to prepare SDGs and expenditure data. The workshop will run for 8 hours distributed across two days.

**II. References**

Castañeda, G., Chávez-Juárez, F., & Guerrero, O. (2018). How Do Governments Determine Policy Priorities? Studying Development Strategies through Networked Spillovers. *Journal of Economic Behavior & Organization*, *154*, 335–361.

Guerrero, O., & Castañeda, G. (2019). Quantifying the Coherence of Development Policy Priorities. *ArXiv Preprint ArXiv:1902.00430*.