Suriname: Technical Assistance Report-Medium-Term Macro-Fiscal Forecasting
SURINAME

TECHNICAL ASSISTANCE REPORT—MEDIUM-TERM MACRO-FISCAL FORECASTING

This technical assistance report on Suriname was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in November 2022.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org  Web: http://www.imf.org
Price: $18.00 per printed copy

International Monetary Fund
Washington, D.C.
SURINAME
Medium-Term Macro-Fiscal Forecasting
FEBRUARY 2023

Prepared By
Patrick Blagrave and Nicholas Vaughan

MEMBERS
Anguilla, Antigua and Barbuda, Aruba, The Bahamas, Barbados, Belize, Bermuda, British Virgin Islands,
Cayman Islands, Curaçao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia,
St. Maarten, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands

PARTNERS
Canada, United Kingdom, European Union, Netherlands, Mexico, USAID, Caribbean Development Bank, Eastern
Caribbean Central Bank
DISCLAIMER

“The contents of this document constitute technical advice provided by the staff of the International Monetary Fund to the authorities of the Ministry of Finance and Planning (the “CD recipient”) in response to their request for technical assistance. This document (in whole or in part) or summaries thereof may be disclosed by the IMF to the IMF Executive Director for Suriname to other IMF Executive Directors and members of their staff, as well as to other agencies or instrumentalities of the CD recipient, and upon their request, to World Bank staff, and other technical assistance providers and donors with legitimate interest including members of the Steering Committee of CARTAC, unless the CD recipient specifically objects to such disclosure (see Operational Guidelines for the Dissemination of Technical Assistance Information). Publication or Disclosure of this report (in whole or in part) to parties outside the IMF other than agencies or instrumentalities of the CD recipient, World Bank staff, other technical assistance providers and donors with legitimate interest including members of the Steering Committee of CARTAC shall require the explicit consent of the CD recipient and the IMF’s Western Hemisphere Department.”

MEMBERS

<table>
<thead>
<tr>
<th>Anguilla</th>
<th>Antigua and Barbuda</th>
<th>Aruba</th>
<th>The Bahamas</th>
<th>Barbados</th>
<th>Belize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bermuda</td>
<td>British Virgin Islands</td>
<td>Cayman Islands</td>
<td>Curaçao</td>
<td>Dominica</td>
<td>Grenada</td>
</tr>
<tr>
<td>Guyana</td>
<td>Haiti</td>
<td>Jamaica</td>
<td>Montserrat</td>
<td>St. Kitts and Nevis</td>
<td>St. Lucia</td>
</tr>
<tr>
<td>St. Maarten</td>
<td>St. Vincent and the Grenadines</td>
<td>Suriname</td>
<td>Trinidad and Tobago</td>
<td>Turks and Caicos Islands</td>
<td></td>
</tr>
</tbody>
</table>

PARTNERS

- Canada
- UK aid
- European Union
- Ministry of Foreign Affairs of the Netherlands
- Secretaría de Hacienda y Crédito Público
- USAID
- Caribbean Development Bank
- Eastern Caribbean Central Bank

©International Monetary Fund. Not for Redistribution
# Table of Contents

Executive Summary .............................................................................................................................................. 2

Acronyms and Abbreviations ................................................................................................................................. 3

I. Background: Genesis of the Project ..................................................................................................................... 4
Macroeconomic and Fiscal Context ........................................................................................................................ 4
TA Request .............................................................................................................................................................. 4
Integration with Program Priorities ..................................................................................................................... 4

II. Existing Capacities and Tools ............................................................................................................................ 5
Remit and Outputs of the TA Recipient .................................................................................................................. 5
Existing Human Resources and their Technical Capacity ...................................................................................... 6
The Existing Medium-term Macro-Fiscal Framework ............................................................................................ 7
Collaboration Arrangements with Other Entities and Any Additional TA Needs .................................................... 7
Overall Needs Assessment .................................................................................................................................... 8

III. Action Plan for TA Support ............................................................................................................................ 9
Workplan, Tasks, and Next Steps ........................................................................................................................... 9
Risks ........................................................................................................................................................................ 11

Appendix: Project Logical Framework (LogFrame) .................................................................................................. 14
Executive Summary

A scoping mission between CARTAC’s Macroeconomics Program and Suriname’s Ministry of Finance and Planning was held during November 7-10\textsuperscript{th}, 2022 in Paramaribo, Suriname. This TA report summarizes the context, mission findings, and way forward for CARTAC’s provision of TA support to Suriname’s Economic Affairs Department (within the Ministry of Finance and Planning).

The Economic Affairs Department recognizes the desirability of creating a new medium-term macro-fiscal forecasting framework (MTFF). Such a tool will be developed via several TA missions, and between-mission work by EAD staff members, and will focus on linking high-level revenue and expenditure projections to projections of macroeconomic determinants. In addition, a clear and transparent method of entering the effect of policy changes on these projections, and the contribution of any ‘one-off’ factors to projected revenues or expenditures, will be a key feature of the tool.

Existing technical capacity relating to forecasting among most EAD staff is at a basic level. Training, through hands-on exercises using Surinamese data, will play an important role in supporting the development and ultimate adoption of the MTFF. The number of staff in the EAD appears to be sufficient, though sustained engagement with the same core group of persons will be vital to ensuring that the project reaches its ultimate outcome, of having EAD staff implement an MTFF as part of their macro-fiscal projection process.

There are several risks to the project’s success, including regarding data quality and availability, as well as competing demands on EAD staff time. Limited data, and weak relationships between predictors (economic activity) and fiscal variables (e.g. tax revenues) would limit the forecast accuracy of the MTFF, though it would still allow for more rigorous and transparent projections than is current practice. Regarding staff time, it is understood that EAD staff have a strong interest in the development and usage of an MTFF, hopefully ensuring sufficient time by a core group of persons is devoted to receiving TA support to develop the tool.
Acronyms and Abbreviations

CARTAC. Caribbean Regional Technical Assistance Centre
CBVS......Central Bank of Suriname
CD ..........Capacity Development
CPI.........Consumer Price Inflation
DDT .......Public Debt Dynamics Tool
EAD ........Economic Affairs Department
ETR .......Effective Tax Rate
FAD .......Fiscal Affairs Department
FPWG.....Financial Programming Working Group
GDP .......Gross Domestic Product
ICD .......Institute for Capacity Development
MFP ........Ministry of Finance and Planning
MoF .......Ministry of Finance
MTFF ......Medium-term Macro-Fiscal Framework
RBM.......Results Based Management
SDMO.....Suriname Debt Management Office
SRD .......Suriname Dollar
TA .........Technical Assistance
VAT .......Value Added Tax
I. Background: Genesis of the Project

Macroeconomic and Fiscal Context

On December 22, 2021, Suriname entered into a 36-month arrangement under the IMF’s Extended Fund Facility. Under this arrangement, the Surinamese authorities’ homegrown economic recovery plan aims to address systemic fiscal and external imbalances and chart a course toward debt sustainability, declining inflation, and economic recovery while maintaining social stability.1

TA Request

On June 8, 2022, The Economic Affairs Department (EAD) within the Ministry of Finance and Planning (MFP) requested CARTAC support for the development of a medium-term macro-fiscal framework (MTFF). Subsequent discussions between CARTAC, Ms. Tine Tjalim (Head of the Economics Affairs Department), Ms. Iris Sandel (Permanent Secretary, Ministry of Finance and Planning), the InterAmerican Development Bank, and the Suriname IMF country team were held in July and August 2022, during which it was agreed that CARTAC’s Macroeconomics program would hold a scoping mission to chart the best course for support in this area (scheduled for November, 2022). Assessing existing capacity to analyze fiscal risks was added as an area of interest during these discussions.

Integration with Program Priorities

Development of macro-fiscal forecasting capacity and a new MTFF linking revenue and expenditure projections to macroeconomic and policy determinants will support Suriname’s ability to conduct sound medium-term fiscal planning. Macro-fiscal forecasts will be more accurate and transparent following TA support to develop an MTFF. If successfully integrated into the policy process, a sound MTFF would imply smaller and unbiased errors in revenue and expenditure forecasts, thereby underpinning more precise fiscal decision making.

Three TA workstreams closely related to the current engagement on MTFF development are expected to be undertaken (or have been undertaken) by other partners. First, CARTAC’s Public Financial Management workstream has provided support relating to Suriname’s Chart of Accounts, and is also likely to provide support to the Budget Office regarding budget processes. The IMF’s Fiscal Affairs Department is in discussions with Suriname to provide TA support relating to forecasting likely revenues under the to-be-implemented new value added tax (VAT). The development of an MTFF would enhance the budget process, by increasing the consistency, transparency, and technical rigor of macro-fiscal projections. However, when faced with new revenue streams (such as from the adoption of a VAT), projected revenues would be compiled most accurately using detailed techniques which may be elaborated through engagement with the IMF’s FAD.

1 First Review under the Extended Arrangement under the Extended Fund Facility, and Financing Assurances Review, International Monetary Fund, March 9, 2022.
II. Existing Capacities and Tools

Remit and Outputs of the TA Recipient

The Economic Affairs Dept (EAD) within MFP is the beneficiary of CARTAC technical assistance, having responsibility for producing the fiscal projections for the Budget document and specifically the key financing table set out below.

<table>
<thead>
<tr>
<th>Table: Budget 2022 and 2023 (SRD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>2022 Budget</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Total revenues</strong></td>
</tr>
<tr>
<td>Current revenues</td>
</tr>
<tr>
<td>Tax Revenues</td>
</tr>
<tr>
<td>Direct taxes</td>
</tr>
<tr>
<td>Indirect taxes</td>
</tr>
<tr>
<td>Non-tax revenues</td>
</tr>
<tr>
<td>Grants</td>
</tr>
<tr>
<td><strong>Total expenditures</strong></td>
</tr>
<tr>
<td>Current expenditures</td>
</tr>
<tr>
<td>Wages and salaries</td>
</tr>
<tr>
<td>Goods and services</td>
</tr>
<tr>
<td>Subsidies and transfers</td>
</tr>
<tr>
<td>Interest</td>
</tr>
<tr>
<td>Capital expenditures</td>
</tr>
<tr>
<td><strong>Primary balance</strong></td>
</tr>
<tr>
<td><strong>Total balance</strong></td>
</tr>
<tr>
<td>BBP*</td>
</tr>
<tr>
<td><strong>Primary balance (% GDP)</strong></td>
</tr>
<tr>
<td><strong>Total balance (% GDP)</strong></td>
</tr>
<tr>
<td><strong>Memorandum items</strong></td>
</tr>
<tr>
<td>Disbursements</td>
</tr>
<tr>
<td>Amortizations</td>
</tr>
</tbody>
</table>

* projections macro-framework

The remit of EAD to support the annual Suriname Budget includes finalising the in-year and year-ahead fiscal projections. This requires them to work closely with not only other MFP departments but several other independent institutions that, with the exception of the central bank, fall under MFP:

Revenue Department – Provide in-year receipts data along with not only in-year forecasts but medium-term forecasts. Currently, Revenue Department and EAD forecasts inform the final budget forecast, with iterative discussions between the two departments serving to eliminate any discrepancy between the projections.
Budget Department – While the Budget department manages departmental spending requests, EAD is responsible for finalising the fiscal spending envelope forecast in the budget.

Suriname Debt Management Office (SDMO) – Have a remit to provide debt-interest forecasts, but at present the simultaneity between any changes to the fiscal deficit through the budget ‘round’ and debt interest costs is handled separately and iteratively between EAD and SDMO.

Statistics Office – Produce the output measure of GDP, in real and nominal terms, but do not produce wider GDP statistics e.g. income and expenditure measures.

Planning Office/Bureau (SPS) – Have a remit to supply the macroeconomic forecast, including a wider set of estimates than the Statistics Office publish (e.g. growth in real consumption and net real wages). This is done using a Financial Programming spreadsheet, understood to cover all four sectors of the economy. The macroeconomic forecast—which is a key input into the macro-fiscal forecast process of the EAD—is the responsibility of the Planning Office. However, under the IMF program EAD staff have been relying upon the IMF country team’s forecast for Suriname. Alternatively, the publicly available bi-annual IMF forecast for real GDP could be used as an input by the EAD in its macro-fiscal projection process.

Central Bank (CBVS) – Is understood to have a macroeconomic model that is believed to be very similar to that used by SPS. Economic forecasts are produced, but not published. CBVS does publish a Monthly Activity Index - as of mid-November the last index value was for July.

Existing Human Resources and their Technical Capacity

Staff within EAD have competing demands on their time, but the department is well staffed (8+ staff members). The EAD is currently heavily committed to weekly reporting of fiscal data to help Suriname address monthly reporting under the IMF program. There is a modest risk that there is not enough capacity for individual members of staff to take on the additional work with the TA, and more junior staff have little experience with forecasting, implying a strong need for training as part of the TA engagement. The mission also noted that more senior staff who have stronger capacity in macro-fiscal forecasting will tend to be charged with more responsibilities under the IMF program, and thus less able to absorb TA in this area.

For the TA project to succeed, the mission team made clear that a core team of at least 3 EAD staff need to engage with the project, receiving all TA and training, to ensure sufficient development of in-house capacity. This would help mitigate against project failure due to staff turnover, and ideally help to ensure that the TA is embedded within EAD and becomes part of the institution’s capital.

All EAD staff use Excel, though one of the spreadsheets shared with the mission team indicates skills at a basic level. This assessment may reflect the work of whichever staff member most recently worked with the existing macro-fiscal spreadsheet: it should be taken as indicative of competency in the staff assigned to lead on the TA.

Most EAD staff are generally not well versed with statistics training and any basic econometrics required for simple regression analysis. That said, the regressions required to build an MTFF can be implemented in Excel, and EAD staff should be able to use the tools developed and update or innovate the MTFF over time.

2 This spreadsheet was not reviewed by the mission team, and so any related conclusions are speculative and based on discussions held on mission.
The Existing Medium-term Macro-Fiscal Framework

The current revenue and expenditure forecasting framework is very basic, with forecasts generally linked to past growth rates, and/or incremental judgmental adjustments—the basis for these adjustments was not clear to the mission team. Importantly, fiscal projections are not explicitly linked to any macroeconomic projections, such as those produced by the MFP’s Planning Bureau, despite these being regularly shared and updated twice annually. EAD receive revenue forecasts from the Revenue Department that they challenge with their own judgement, using what appear to be relatively simple (round-number) ‘add factors’ to reach a considered forecast.

Previously a Medium-Term Fiscal Framework (MTFF) was built up jointly in a Financial Programming Working Group (FPWG) between EAD, Central Bank, Planning Bureau and SDMO with contributions from each. For example, real or monetary sector data and projections were collated through a portal developed by the central bank. It is understood that the portal was more than simply a database and may even have been able to produce 4-sector analysis.

The FPWG has not been active in recent years and while there appears to be goodwill at a working level, collaboration is now more informal and there is no updating through the portal. Data sharing within the MFP is assessed as being good, but outside of the MFP data sharing practices are more limited and operate less smoothly. However, the role of the central bank in the policy process is primarily related to the monetary and external sectors, and thus less they need not be centrally involved with the fiscal sector analysis and its links to the real sector, which is the focus of the present CARTAC TA engagement.

Collaboration Arrangements with Other Entities and any Additional TA needs

It was not established whether there are formal collaboration arrangements relating to data sharing between the independent (statutory basis) institutions that support EAD in compiling the macro-fiscal projections and budget statement. This will be investigated and assessed as the project proceeds. The mission’s initial read is that collaboration seems effective. The MFP’s Revenue department is expected to join EAD colleagues in the TA engagement on revenue and expenditure forecasting, which will allow for knowledge sharing, and the mission will discuss whether forecast duplication between the Revenue and EA Departments is necessary.

Following the scoping mission, the Planning Office supplied a fuller set of results from their macroeconomic forecast model, and there appears to exist a well-structured collaboration, with the Statistics Bureau providing the data and Planning Office the forecast. The key Capacity Development (CD) gap remains in revenue and expenditure forecasting—linking with macroeconomic and policy determinants. Some refinement of in-year forecasting techniques (linking monthly outturns to annual projections) would also be desirable.

Additional areas where counterparts raised needs for TA support:

1. **VAT forecasting.** VAT will replace a sales tax in 2023, and this is an area where the IMF’s FAD is best placed to provide TA;

2. Following the delivery of the MTFF, it would be desirable to **build capacity with a debt dynamics tool**, such as the IMF-ICD public debt dynamics tool (DDT)—this may be done jointly with the SDMO;

---

3 This portal and apparatus were not the focus of the mission, and were not reviewed. However, the renewal of this FPWG and supporting apparatus could be considered as an area for future TA support.
3. Augmenting capacity to conduct risk analyses has also been requested by the MFP, and would naturally follow once both an MTFF and DDT (and related capacity) has been developed. Such tools would allow simulations quantifying responses to various stylised shocks (impact of shocks on fiscal variables). The mission notes that depending on the nature of the shocks to be considered, this could require augmentations to the macroeconomic frameworks (Planning Office; Central Bank) that provide fiscal determinants. It appears that capability for some modelling of shocks exists already within both the Central Bank and the Planning Office.

**Overall Needs Assessment**

The scoping mission identified a relatively low baseline capacity regarding macro-fiscal forecasting and analysis, and thus a high need for training in this area, including the development of a new MTFF for revenue and expenditure forecasts. Such a tool will be developed via a sustained TA engagement with CARTAC (following the action plan elaborated in section III), which will focus on providing training, and linking revenue and expenditure projections to macroeconomic and policy determinants. Once completed, consideration will be given to developing capacity (and a spreadsheet tool – the DDT) relating to public debt dynamics. Once developed, the MTFF and DDT can be used to support risk- and/or policy-scenario analyses, though the latter is an area with the Planning Office and Central Bank are likely to have a comparative advantage, having already some baseline capacity and tools in this area.
III. Action Plan for TA Support

Workplan, Tasks, and Next Steps

Through a series of four missions, CARTAC proposes to develop two tools which will support macro-fiscal projections and analysis in Suriname. Both will take the form of Excel-based spreadsheets. The first tool (medium-term macro-fiscal forecasting framework – MTFF) will link revenue and expenditure projections to economic determinants. This will be ‘static’ (macro → fiscal, without feedbacks). For revenues, the primary determinant will be changes in (proxy) tax bases (which are themselves closely linked to macroeconomic projections) as well as known changes in tax policies. For expenditures, determinants may relate to the business cycle, or other factors (policy changes). Such a tool will allow for a thorough accounting of the role of policy changes (tax rate or base changes) or other (one-off) factors, though these will rely primarily on the judgment of tool users.4 The TA engagement will go through the exercise of building up macro-fiscal projections jointly with EAD staff—including emphasizing the vital role played by judgment, and information from outside of the MTFF (including in the areas of future oil and gas sector development and fiscal revenues; changes in grants and electricity subsidies; etc)—though ultimately it is beyond the scope of this TA engagement to perform detailed ‘costings’ of changes in tax policy (e.g. a change in the level of exemption from personal income taxes).

Used properly, this MTFF will ensure that revenue and expenditure projections are transparent, and driven by plausible assumptions. The MF tool can also be used to assess the impact of ‘basic’ macroeconomic shocks (including those relating to natural disasters emanating from climate change) on the fiscal projections—essentially, risk analyses. However, the size/nature of the shocks, and the projected path of the macroeconomy under such scenarios, should be informed by analysis conducted by the MFP’s Planning Office and/or the Central Bank, both of which are understood to have the necessary tools in place to conduct such shocks/scenarios for the macroeconomy.

Once the MTFF has been completed and successfully adopted by the MFP’s EAD (expected to take 2-3 missions, with a tentative expectation that it would fully support EAD forecasts starting in ~September, 2023), a second tool known as the ‘Public Debt Dynamics Tool’ (DDT) will be further tailored to the Suriname economy. Already partly developed as a result of past CARTAC/IMF training, this tool can be used to assess medium-term implications of macroeconomic and fiscal shocks on Suriname’s debt trajectory, and inform fiscal-sustainability assessments.5 Final development and promoting usage of this tool would be expected to take 1-2 missions (beginning from September 2023 onwards).

Finally, MFP Counterparts have expressed a desire to: (i) build capacity on ‘bottom-up’ expenditure forecasting, and it is expected that any such capacity development project would be via engagements on the budget process, led by CARTAC’s Public Financial Management Advisors; and (ii) receive support on current-year revenue and expenditure forecasting, based on high-frequency data. The latter request (ii) will be addressed via the presently outlined engagement on the MTFF tool.

Tasks:

A description of the project’s main actions (deliverables), and an associated timeline, is as follows:

Pre-scoping action (1): Compilation of relevant macroeconomic and fiscal data (MFP team). By early October, 2022 [completed]

---

4 Capacity to generate projections of revenues associated with new taxes (e.g. VAT) or revenue streams (e.g. oil and gas) would be built through engagements with the IMF’s Fiscal Affairs Department (FAD). A workshop on VAT revenue analysis and forecasting is expected to be held by IMF-FAD with Suriname during 2023.

5 Based upon the IMF Institute for Capacity Development’s template, a version of this tool was tailored to Suriname during a March 2022 CARTAC/IMF-ICD course.
✓ Revenue and expenditure components (monthly and annual frequencies), covering as much of the historical period as possible → some follow ups will be needed, e.g. relating to direct revenues by mining and non-mining sectors

✓ Economic indicators (monthly and annual frequencies). These could include electricity generation and consumption; imports; oil and gas production; industrial production; construction permits; real estate transactions; etc → scoping mission identified that a Monthly Activity Indicator is compiled and published by the central bank;

✓ GDP, from both expenditure and production sides, in both real (constant-price) and nominal (current-price) terms. → some follow ups will be needed, e.g. relating to expenditure-side GDP and projections

✓ CPI inflation, with breakdown by major components (monthly and annual)

✓ Interest and exchange rates (monthly and annual)

**Pre-scoping action (2):** Identification of an MFP team (at least 3 persons) who will be dedicated to the tool-development phase of the project (which could last up to 18 months). By early October, 2022. This has been completed, and a core team of 4 persons identified.

**First mission (CARTAC scoping):** review existing macro-fiscal forecasting methodology, and comparison with best practice. November 7-11, 2022 [completed]. Mission objectives:

✓ Review existing macro-fiscal forecasting methodology and institutional framework

✓ More accurately understand the MFP’s baseline capacity, and development needs regarding macro-fiscal forecasting

✓ Meet with the MFP’s identified team (pre-mission (2), above) and understand their backgrounds and experience with macro-fiscal analysis and forecasting

✓ Review and discuss data assembled, identifying any major gaps and issues these gaps may present (pre-mission (1), above)

✓ Determine the gap between MFP’s current macro-fiscal projection and analysis methodology and best practice

✓ Provide initial training on macro-fiscal forecasting techniques (using economic indicators to inform near-term GDP projections; tax buoyancy, elasticity, and effective-tax-rate (ETR) approaches for revenue forecasting)

✓ Begin preliminary analysis of linkages between proxy tax bases and tax revenue headings, using Suriname’s data


- The spreadsheet template has been assembled (by CARTAC), and shared with the MFP team ahead of the mission → this will require follow ups pre-mission, between CARTAC and EAD Staff.

- Training on GDP and tax/expenditure forecasting is conducted, for staff of the Economic Affairs Department and the Tax Department. Hands-on exercises with Suriname’s data will anchor the training

- Data are organized into the MTFF spreadsheet (done jointly on mission)

- Macroeconomic forecasts are expected to be taken from the Planning Office, and/or IMF team

- Analysis is conducted to determine which proxy tax base(s) are most related (in the sense of providing the best prediction) to each revenue heading

- Decisions taken regarding preferred approach to forecasting revenues—tax buoyancy, elasticity, and effective-tax-rate (ETR) approaches will all be considered

©International Monetary Fund. Not for Redistribution
Decisions taken regarding the forecasting of each revenue heading—those which are unrelated to proxy tax bases will be projected using simple rules of thumb (past historical average growth, etc).

Hands-on work by MFP team to familiarize themselves with the tool, and conduct exercises to promote familiarity with the tool.

Discuss techniques for current-year forecasting of revenues and expenditures.

High-level discussions regarding VAT and oil-and-gas revenue forecasting will be held. The mission will emphasize the role played by these headings in the MTFF tool, highlighting substantial uncertainty surrounding revenues from new economic activity streams (oil and gas) or taxes (VAT). In-depth TA would be needed to help counterparts construct forecasts for both headings, with such support ideally being provided by the IMF’s FAD (one such engagement is already prospectively planned).

Third mission: (macro-fiscal forecasting): Conclude construction of the excel-based tool on macro-fiscal forecasting, and begin integrating it to support the April forecast process. Tentatively March/April 2023 (one week).

Mission objectives:

- Ensure The Economic Affairs Department (EAD) team is comfortable will all aspects of the macro-fiscal forecasting tool, and demonstrates an ability to use it for generating fiscal projections.
- Conduct exercises (EAD-led) to ensure a sufficient level of staff familiarity and comfort with the tool.
- Perform any necessary adjustments to the MTFF tool.
- Use the tool to generate the April (budget) baseline forecasts for revenues and expenditures.
- Continue discussions regarding current-year forecasting of revenue and expenditure data.
- Develop a timeline for the production/collection of key (data) inputs ahead of a forecast update. This would enhance liaising with other departments (e.g. Tax and Planning Offices) of the MFP, as well as other government entities (e.g. Central Bank and Statistics Office).
- Discuss a framework for thinking about tax revenue collections from future activity in the oil and gas sector.

Fourth mission (macro-fiscal risk analysis): Work to use the MTFF tool for simple risk analyses, and work to tailor the DDT, and widen staff understanding of the tool, including also staff from the SDMO. Tentatively July/August/September 2023.

Mission objectives:

- Provide background training, and review of the DDT (already partly tailored to Suriname by EAD staff), including liaison and support from debt office.
- Ensure EAD team is comfortable with all aspects of the DDT, and displays strong knowledge of how to use the tool for risk analysis.
- Conduct exercises (EAD and SDMO-led) to ensure a sufficient level of staff familiarity and comfort with the tool.
- Discuss how these tools will be integrated into the policy process, especially as it relates to budgeting, and medium-term fiscal planning documents (coordination with CARTAC’s Public Financial Management workstream will be vital).

Risks

There are several factors which could delay or disrupt the execution of the project, as it is envisaged in this action plan. These include:

Staffing. The smaller the number of EAD staff devoted to the project, the greater the risk that knowledge will be lost in the event of staff turnover (which is a reality in all institutions). For this reason, it is vital that at least 3 staff...
members (and ideally more) be fully involved with the project from its inception, and that EAD commits that these same persons remain involved with the project for its duration. Based on the scoping mission, the baseline capacity for forecasting of most EAD staff (those below management level) is judged to be quite limited—the tasks they are responsible for on a regular basis are primarily related to data gathering, and historically they have not had much role in forecasting. This implies a need to train staff on forecasting, which will only be feasible if these are fully engaged throughout the project. The scoping mission established that the revenue departments make both in-year forecasts and medium-term projections for tax headings. However, these projections are based solely on revenue data (e.g. past growth rates are not informed by economic determinants). It was agreed with MFP that it would be useful for revenue to be included in training on revenue forecasts, which may help mitigate against capacity loss in the event of staff turnover.

Data. Data limitations exist regarding the level of detail, quality, timeliness, and frequency of macroeconomic and fiscal data. One specific issue relates to the categorization of revenue data, with a large ‘residual’ component existing in most years. Although data issues are unlikely to hamper the development of an MTFF tool, they will almost certainly imply that the projections of the tool will be less accurate than what could be achieved given more timely, detailed, and high-quality data.

A preliminary investigation during the scoping mission suggests that empirical (predictive) relationships between economic activity and fiscal revenues are ‘sensible’ in Suriname (positive relationship between GDP and revenues, with an elasticity near unity), indicating that the MTFF will allow for a more accurate revenue forecast relative to simple level or trend-based techniques—see Figures 1, 2 and 3 below. Post-mission work identified further improvements with the inclusion of the main corporation tax rate that included the post-covid ‘solidarity’ tax and using sub-sectors within GDP e.g. mining.

However, not all revenue and expenditure heading projections will be equally accurate—this is a reality of any such tool in any country. Irrespective of the strength of predictive relationships, the MTFF will increase transparency and consistency in macro-fiscal forecasting, not least because all judgment added to projections will be documented and justified by MFP staff.

![Figure 1: Individual Income Tax Forecast Models](image)

*Units: Millions of Suriname dollars; Source: Mission team calculations and Suriname MFP tax data*
**Competing priorities.** Suriname is engaged in an IMF program, and MFP staff (particularly more senior staff) must carry a large workload, with regular monitoring of revenue and expenditure reports, and weekly/monthly reporting of same. Being able to dedicate time to building capacity and developing tools will be a major challenge, for senior staff especially. It is imperative that the management team protects staff time, allowing them to invest fully in developing and learning the MF and DDT tools which the project aims to build.

**Language.** Dutch is the working language of the MFP, with most documents produced in Dutch (though some are also released in parallel in English). Although many staff are fluent in English, the necessity to translate documents (including data labels in tables and spreadsheets) into English for the benefit of the CARTAC CD team could marginally slow the delivery of TA.

---

**Figure 3: Summary of Forecast Errors for 2014-21 - see footnote on method.**

<table>
<thead>
<tr>
<th>Forecast models for year ahead tax receipts</th>
<th>Tax growth</th>
<th>GDP growth</th>
<th>Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Income tax:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Absolute Error, cash</td>
<td>+/- 352</td>
<td>+/- 263</td>
<td>+/- 131</td>
</tr>
<tr>
<td>Mean Absolute Error, %</td>
<td>+/- 23%</td>
<td>+/- 21%</td>
<td>+/- 12%</td>
</tr>
<tr>
<td>Corporate Income tax:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Absolute Error, cash</td>
<td>+/- 798</td>
<td>+/- 611</td>
<td>+/- 379</td>
</tr>
<tr>
<td>Mean Absolute Error, %</td>
<td>+/- 58%</td>
<td>+/- 46%</td>
<td>+/- 38%</td>
</tr>
</tbody>
</table>

Note: Average (mean) error of +10 and -10 is zero but average absolute error is 10 = (10+10)/2
Appendix: Project Logical Framework (LogFrame)

This logical framework (logframe) sets out the: (i) objectives; (ii) outcome indicators; and (iii) milestones which will be used to track progress throughout the project. An objective is what the project ultimately aims to achieve, and outcome indicators and milestones are measurable guideposts which are set out to track the progress of the project towards achievement of its objective. The logframe allows for an accounting of the project's progress, including areas where additional focus may be needed as the project progresses, and is the core element of the IMF and CARTAC’s results-based management (RBM) framework. RBM plays an important role in the institution’s governance process, including accountability of usage of development partner funding.

ANNEX 1: RESULTS FRAMEWORK

**Objective:**

Stronger analytical skills and better macroeconomic forecasting and policy analysis at the Ministry / central bank / or other governmental agency(ies) feeds into the economic policymaking process - ANS

**Outcome:**

Strong institutional structures for macroeconomic policymaking

**Annual Assessment Rating:**

Outcome Rating Date: 12/7/2022

<table>
<thead>
<tr>
<th>Outcome Indicator</th>
<th>Baseline Value</th>
<th>Target Value</th>
<th>Current Assessment Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of staff have successfully completed agreed training offered via various delivery modalities</td>
<td>Staff not trained in macro-fiscal forecasting</td>
<td>At least 4 Economic Affairs Department (MoF) staff members trained in basic macro-fiscal forecasting techniques</td>
<td></td>
</tr>
<tr>
<td>A stable core group of relevant staff, tasked with spearheading capacity development in macroeconomic policy analysis &amp; forecasting at the institution, &amp; a group coordinator, is functional (including a macroeconomic or fiscal policy unit at MoF)</td>
<td>No core group exists</td>
<td>A core group of EAD staff has been put in place, and is actively involved with receiving and implementing TA support</td>
<td></td>
</tr>
<tr>
<td>Key staff of the core group demonstrates capability to independently operate the tools developed as part of capacity building in macroeconomic policy analysis and forecasting</td>
<td>No tool exists</td>
<td>Tool has been developed and staff demonstrate capacity to utilize for medium-term macro-fiscal forecasting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone Name</th>
<th>Target Completion Date</th>
<th>Milestone Actual Completion Date</th>
<th>Milestone Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core group within EAD has been identified as is actively involved in receiving TA</td>
<td>2/25/2022</td>
<td>2/25/2022</td>
<td></td>
</tr>
<tr>
<td>Training in macro-fiscal forecasting has been received, with absorption of basic techniques demonstrated through hands-on exercises</td>
<td>2/25/2022</td>
<td>2/25/2022</td>
<td></td>
</tr>
<tr>
<td>Core team demonstrates ability to utilize the MTFF which will be developed jointly with the Suriname’s EAD</td>
<td>9/30/2022</td>
<td>9/30/2022</td>
<td></td>
</tr>
</tbody>
</table>

**Outcome:**

Sound medium-term macroeconomic framework (inclusive of GDP and inflation, commodity prices, the external and monetary sectors, and fiscal aggregates)

**Annual Assessment Rating:**

Outcome Rating Date: 12/7/2022
### An MPT tool has been developed in the form of:

- A basic (Excel) framework for forecasting and policy analysis, respecting accounting relationships (Pillar 1)
- The existing MTFF has no macro-fiscal linkages
- MTFF developed, with macro-fiscal linkages (including policy changes) and transparent usage of judgment and transparent incorporation of policy changes and/or judgment

### Milestone Completion and Rating

<table>
<thead>
<tr>
<th>Milestone Name</th>
<th>Target Completion Date</th>
<th>Milestone Actual Completion Date</th>
<th>Milestone Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTFF has been developed, with linkages between fiscal and macro projections and transparent incorporation of policy changes and/or judgment</td>
<td>9/30/2022</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Outcome:

- Authorities have a baseline understanding of their existing forecasting and analytical capabilities and opportunities for improvement

**Annual Assessment Rating:** 4 Fully Achieved

**Outcome Rating Date:** 11/10/2022

### Diagnostic/scoping

- Produced an overview of existing (baseline) capacities and opportunities for improvement supported by an action plan and desired CD outcomes.
- No understanding of how baseline capacities compare to best practice
- Authorities understand what is needed to bring macro-fiscal forecasting and analytical capacity in line with best practice

### Milestone Completion and Rating

<table>
<thead>
<tr>
<th>Milestone Name</th>
<th>Target Completion Date</th>
<th>Milestone Actual Completion Date</th>
<th>Milestone Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping discussions have revealed areas for CARTAC TA support</td>
<td>11/30/2022</td>
<td>11/10/2022</td>
<td>4 Fully Achieved as of 11/10/2022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone Name</th>
<th>Target Completion Date</th>
<th>Milestone Actual Completion Date</th>
<th>Milestone Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>An action plan has been developed, focusing on CARTAC TA support to develop macro-fiscal forecasting and analytical capacity.</td>
<td>1/31/2023</td>
<td>11/10/2022</td>
<td>4 Fully Achieved as of 11/10/2022</td>
</tr>
</tbody>
</table>