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To: Members of the Executive Board

From: The Secretary

Subject: **Seychelles—Requests for an Extended Arrangement Under the Extended Fund Facility and an Arrangement Under the Resilience and Sustainability Facility and Cancellation of the Current Arrangement Under the Extended Fund Facility—World Bank Assessment Letter for the Resilience and Sustainability Facility**

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Prepared By:	The staff of the World Bank.
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Questions:	Mr. Ahokpossi, AFR (ext. 39573)

***The authorities have indicated that they consent to the Fund's publication of this paper.**

INTERNATIONAL MONETARY FUND

SEYCHELLES

May 17, 2023

REQUESTS FOR AN EXTENDED ARRANGEMENT UNDER THE EXTENDED FUND FACILITY AND AN ARRANGEMENT UNDER THE RESILIENCE AND SUSTAINABILITY FACILITY AND CANCELLATION OF THE CURRENT ARRANGEMENT UNDER THE EXTENDED FUND FACILITY—WORLD BANK ASSESSMENT LETTER FOR THE RESILIENCE AND SUSTAINABILITY FACILITY

WORLD BANK ASSESSMENT LETTER FOR THE RESILIENCE AND SUSTAINABILITY FACILITY

A. Country Vulnerability to Climate Change Including Human, Social and Economic Costs

1. Seychelles is highly vulnerable to climate change due to increased frequency and intensity of climate-induced disasters in combination with sea level rise and other oceanic impacts. As a small island state, Seychelles is exposed to a disproportionately high economic, social, and environmental impact arising from climatic shocks and natural disasters. The country's location, topography and landscape make it vulnerable to tropical cyclones, tsunamis, storm surge, extreme rainfall, flooding, landslides, rockslides, and forest fires. Risks of landslides and coastal erosion make infrastructure more vulnerable to damage while increased salinity of aquifers and soil are likely to impact food security and water supply. Likewise, the impacts of climate change are felt throughout the country's Exclusive Economic Zone (EEZ), be it through increased sea temperatures, acidification, deoxygenation, and related phenomena. These extreme weather shocks are further exacerbated by the medium to long term effects of climate change and present significant risks to the country's sustainable development and blue economy agenda. Seychelles' ranking in the University of Notre Dame Global Adaptation Initiative (or ND-GAIN)[1] regarding vulnerability and readiness scores indicate that it is on the road to responding effectively to climate change, but adaptation needs and the urgency to act are high priorities.

[1] The ND-GAIN ranks Seychelles as the 65th most vulnerable country to climate change and 74th in terms of the country most ready to improve resilience out of 182 countries.

2. The concentration of population and development in narrow coastal areas, and on a limited number of islands, has put increased pressure on the environment and ecosystem. Over 90 percent of the population, as well as economic activities are located on the narrow coastal plateau of Mahé Island. Coastal zones also hold most of the country's natural capital, further increasing the vulnerability to climate change. Slow onset sea level rise and ocean acidification would be key risks for fisheries and tourism, due to Seychelles' heavy reliance on these sectors. Seychelles is particularly marked by the massive coral bleaching events which took place in 1998 and 2016 (due to abnormally warm waters) that eradicated an estimated 90 percent of the live coral cover around the three main islands. An increase in global temperatures of 2 degrees Celsius will therefore be catastrophic to the existing corals and related coastal ecosystems, which provide coastal protection and critical habitat for most marine species. The increased frequency of extreme rainfall, coastal flooding, and other natural hazards have contributed to reduced productivity in agriculture and has led to adverse health impacts due to extreme heat events.

3. Seychelles' NDC estimates the magnitude of financing needed for coastal resilience and climate change mitigation at around US$ 670 million (covering both the immediate and long-term). This is roughly 30 percent of GDP in 2023, and almost half of Seychelles' existing estimated public and publicly guaranteed debt stock (estimated at around 65 percent of GDP in 2023). Furthermore, the COVID-19 crisis has eroded the already constrained financial capacity or fiscal space for investments needed to address coastal vulnerability or reorient immediate investment priorities. Current coastal management financing falls short of investments needed to meet priority risk reduction actions and adapt to climate change. Recent pre-feasibility studies, indicate that immediate financing needs could vary between US$15.4 million and US$33 million (or between 1 to 3 percent of GDP). Actual estimates are likely in the higher range, given the Industrial Policy currently under preparation, which puts greater impetus on diversification of the economy, with commitment towards a circular economy approach to industrial development. In recent years, Seychelles has been hit once by a major natural disaster which imposed economic damage of over 3 percent of GDP, putting the country at 26th among 33 small states worldwide in vulnerability to natural disasters (2 percent of GDP is the average annual cost of natural disasters for small states). The average annual loss from floods is estimated at US$2.5 million, (roughly 0.24 percent of Seychelles' GDP). Natural disaster impacts are further exacerbated by the long-term effects of climate change from sea level rise, and sea temperature warming, which present significant risks to the country's economy and sustainable development agenda. Past events, such as the 2013 flood at Point Laure, resulted in a total estimated loss of 0.77 percent of GDP. Infrastructure damages accounted for the largest share of losses, followed by losses to the productive and social sectors.[2] Communities and the government have noted that these events, especially coastal erosion, are becoming more frequent, intense, and impactful for critical public infrastructure, beaches, agriculture, residential properties, and tourism assets across the main islands. At the same time Seychelles faces three main barriers to climate adaptation: (i) scarce developable land, (ii) lack of capital to implement projects, and (iii) limited technical capacity.

[2] WBG (2013). Seychelles Damage, Loss and Needs Assessment (DaLa) 2013 Floods.

B. Government Policies and Commitments in Terms of Climate Change Adaptation and Priority Areas to Strengthen Resilience

4. The Government of Seychelles is strategically integrating climate change adaptation into its policy framework with the Seychelles' National Climate Policy (NCCP) as a guidance document.[3] The NCCP defines guiding climate principles including principles for climate justice and highlights relevant legal acts[4] needed to further integrate climate change objectives and actions. It also lists existing policies that contribute to climate change adaptation and/or mitigation. The overall NCCP vision is to achieve a sustainable, climate resilient, and low-carbon Seychelles.

5. In 2019, the Government of Seychelles developed the first national Coastal Management Plan (CMP)[5] to address coastal flooding, erosion, and ecosystem degradation at several sites around the country. The plan delineates strategic investments and institutional capacity building on coastal adaptation, although implementation remains limited and only a few adaptation interventions have been operationalized in the last few years. The country's ongoing investment in Marine Spatial Planning, funded in part under the Third South West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish3) Project, build in part on the CMP but more remains to be done.

6. Commitments for Climate Change Adaptation. **Given the high priority of adaptation related climate risks, Seychelles is focused on increasing its resilience, through areas identified in its updated Nationally Determined Contribution**. The updated Nationally Determined Contributions (NDCs) now also includes adaptation contributions. Specific commitments are focused on targets to safeguard the Blue Economy and Blue Carbon ecosystems, which have been identified as key to diversification of the economy. In that regard, several broad national policies, roadmaps and strategies since 1992, including the 2019-2023 National Development Strategy include reforms to: (i) regulate coastal planning and infrastructure at the national and local level to prioritize the consideration of "blue" Nature-based Solutions (NbS) for climate resilience; (ii) protect Blue Carbon ecosystems, to increase the carbon sink from seagrass and mangrove systems, by at least 50 percent by 2025, and 100 percent by 2030; (iii) implement the Marine Spatial Plan, based on participatory, as well as an integrated, and multi-sector approach to support the health and sustainable long-term use of Seychelles' ocean waters (particularly the 30 percent marine protected areas within the Seychelles' Exclusive Economic Zone). Seychelles is focused on meeting these objectives and is exploring ways to

[3] Government of Seychelles (2020). Seychelles' National Climate Change Policy, Ministry of Environment, Energy and Climate Change, Seychelles.

[4] The specific legal acts are Constitution of Seychelles 1993; Environment Protection Act 1995; National Parks and Nature Conservancy Act 1969; Disaster Management Act 2014; Energy Act 2012; Town and Country Planning Act 1972; and Fisheries Act 1987. The NCCP currently claims that climate change aspects need to be integrated but does specify how this will be done.

[5] World Bank and Ministry of Environment, Energy and Climate Change of Seychelles (2019). Seychelles Coastal Management Plan: 2019–2024. Washington, DC: World Bank; Victoria, Seychelles: Ministry of Environment, Energy and Climate Change of Seychelles.

develop a mechanism to bring its blue carbon credits to market. Seychelles commits to continue integrating climate change considerations into plans and strategies across all key sectors by 2030.

C. Government Policies and Commitments in Terms of Climate Change Mitigation and Priority Areas to Reduce GHG Emissions

7. Seychelles' greenhouse gas emissions are low with insignificant contribution to the worldwide emissions. Yet, the country is taking steps for comprehensive Climate Change Mitigation. The updated Seychelles NDC presents opportunities to align the climate and development agendas to promote sustainable growth. Seychelles' NDC aims to reduce its greenhouse gas emissions by 293.8 $ktCO_{2e}$ in 2030 (26.4%) compared to the business-as-usual scenario and targets net zero emissions by 2050. For the past few years, emissions have been steadily increasing to over 610 $ktCO_{2e}$ (2019) in total and a per capita emission of 6.2 metric tons. Seychelles has commitment to use renewable energy for water supply mobilization by 2030 and to secure a sustainable and resilient water management system. The country has also committed to ensure sewage systems and wastewater treatment facilities include nutrients and energy recovery. The key implementation targets focus on modernizing the entire electricity sector, increased electricity generation from renewable sources, improved energy efficiency across sectors, a shift from fossil fuel engineered transport to electrified transport and individual active mobility, enhanced resource rehabilitation and land mitigation measures. The mitigation contributions include the long-term commitment to achieve a decarbonized economy by 2050 and to boost electricity generation from renewable energies, including marine energy technologies, bio-energies, such as biomass and waste-to-energy, and the use of environment friendly intermittent energy storage technologies. However, it must be noted that Seychelles' efforts at oil exploration, and the possibility of oil exports, could potentially impact the country's contribution to global emissions.

D. Other Challenges

8. Due to its remote location and comparatively small economy, Seychelles faces significant challenges in developing and sustaining specific capacities needed for climate action. To support Seychelles' efforts at addressing these challenges, the World Bank Group, prepared in close consultation with the government, private sector, and other development stakeholders a Country Partnership Framework (CPF) FY18-FY23, aligned to the country's vision for inclusive and sustainable prosperity. The CPF is organized around the two mutually reinforcing focus areas of shared prosperity and inclusion and public-sector performance. This entails retooling the fisheries and tourism to focus on sustainability and inclusion, along the lines of the government's flagship Blue Economy Program, with the aim of strengthening the management and resilience of natural resources. The CPF supports a shift in focus towards building the human capital of the bottom 40 percent of the population to enable them to participate in new expanding opportunities.

9. In view of the financing needs, and the tight fiscal space, mobilizing private capital for the mitigation and adaptation agendas is a key challenge. To effectively mobilize both domestic and international private capital to address climate risks, it will be important to strengthen: (i) financial

preparedness and rapid response to climate shocks, to protect household investments and welfare, including human capital from climate shocks; (ii) financial sector resilience, to also ensure it is well capitalized, based on a data driven assessment of financial sector's exposure to climate shocks. To achieve these two key actions, it will be critical for Seychelles to first implement the *Disaster Risk Management Fund* and adopt a national *Disaster Risk Financing Strategy*, as key part of the solution to address climate change. Second, strengthening financial sector resilience and stability will require data collection, strategies, and stress tests (including climate shock related) of bank assets to strengthen financial sector resilience to climate shocks.

E. World Bank Engagement in the Area of Climate Change

10. The World Bank has been actively engaged in supporting Seychelles' efforts to improve Seychelles' coastal resilience and adapt to climate change since 2013[6]. Seychelles was the first African country to partner with the World Bank through a Development Policy Financing with a Catastrophe Deferred Drawdown Option (Cat DDO), to strengthen its climate adaptation. Under a follow-on second series Cat DDO, the World Bank provided comprehensive technical support to the Government of Seychelles to develop the Seychelles Coastal Management Plan 2019-2024 (CMP), endorsed in 2019 and informed by previous JICA-led technical studies, among others. This comprehensive plan aims to help maintain and protect the coastal zone to reduce coastal risk, support healthy ecosystems and enable sustainable coastal economic development. For implementing the CMP, the World Bank: (i) provided support for a pre-feasibility study to identify effective coastal interventions in priority areas; (ii) developed a concept and pilot approach for the "Blue Barrier"; (iii) prepared a coastal management and adaptation finance assessment; and (iv) provided assistance to build technical capacity, drawing on an assessment of institutional and capacity gaps, including a certificate course on coastal management and adaptation, delivered collaboratively with the University of Seychelles and the Government, as well as a training on risk-based land use planning. Finally, the World Bank is currently working with the Government on improving its solid waste management, reducing marine pollution, and exploring its blue carbon potential.

11. Seychelles has made significant progress in developing disaster preparedness and response, with technical support from the World Bank. World Bank support has focused on Seychelles' efforts to adopt an "all hazard" approach to disaster risk management (through the National Integrated Emergency Management Plan (NIEMP) as required by Seychelles' legal mandate, with District Emergency Plans realigned to the NIEMP). This includes mainstreaming responsibilities for assessing hazards and risks, and for emergency preparedness and response (EP&R), across all Ministries, Departments and Agencies (MDAs), with recognition of the important contribution of non-governmental organizations (NGOs) and the private sector. Bank support also includes technical assistance to Seychelles in reducing vulnerabilities to climate shocks, through enhanced disaster and business continuity plans. In particular, the COVID pandemic highlighted Seychelles' utter dependence on a single port and international airport infrastructure, which have been highly vulnerable to sea level

[6] https://www.worldbank.org/en/news/press-release/2014/09/26/seychelles-world-bank-funding-to-help-improve-emergency-and-economic-resilience.

rise, storms, and flood events that impacted tourism and disrupted food sources and other critical supplies. In recognition of this vulnerability, the World Bank is continuing its assistance, under the Southwest Indian Ocean (SWIO) Climate Risk and Early Warning System (CREWS) program. Bank support has included helping Seychelles develop continency and business continuity plans, including the roles and responsibilities of Government responders. Capacity building is also being provided to all MDAs and Critical Infrastructure operators on enhanced disaster resilience.

12. Through the multi-year *Fiscal Sustainability and Climate Resilience Development Policy Loan* (DPL) program, the Bank is providing financial resources in support of transformative regulatory reforms to enhance climate resilience. For example: the Physical Planning Bill set into law the integration of hazard and climate risks in land-use planning decisions, which established a policy and legislative framework that aims to ensure that any new development of land will not increase flood risk and accounts for impacts of sea-level rise and coastal erosion. The World Bank is also working with the Government of Seychelles to update their land-use regulations to incorporate hazard and climate risks, improve physical resilience, and ensure the integration of the principles of 'safe' locations and 'climate change resilient' design in a comprehensive manner. Under the DPL series, the World Bank is also providing technical guidance on climate smart management of the fisheries sector.

13. The Government of Seychelles has recently also requested support in mobilizing climate financing and transitioning to renewable energy. Following on the recently approved Electricity Bill and Utilities Regulatory Commission (URC) Bill, the Bank will support government in developing and operationalizing secondary regulations for mobilizing private capital to facilitate the energy transition. In the next phase of reforms, Bank technical support focuses on government efforts to prepare a project pipeline and pre-feasibility studies, focused on utility-scale renewable energy projects, as well as analysis of distributed renewal energy's (DRE) potential impact on the financials of the public utility including the tariff structure, to balance private and public participation while maintaining service reliability. Bank support will also include technical assistance in the development of carbon finance.

14. The World Bank continues to build on its decade long engagement with Seychelles to strengthen the country's resilience to climate change and is coordinating closely with the RSF program of the International Monetary Fund (IMF). To minimize areas of overlap and duplication, the World Bank and IMF teams have ensured there is close coordination in the design of their respective (DPL and RSF) programs. Within that context, the IMF and Bank teams have coordinated closely in undertaking diagnostic work (through the PIMA/climate-PIMA and the ongoing World Bank public expenditure review), to prioritize reforms needed to strengthen the climate related aspects of Seychelles' public investment management processes. These diagnostics inform the areas of reform focus for the RSF and the DPL.