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Report No: ICR00005346

IMPLEMENTATION COMPLETION AND RESULTS REPORT

IBRD-84390

ON A

LOAN

IN THE AMOUNT OF US\$7.0 MILLION

TO THE

REPUBLIC OF SEYCHELLES

FOR A

Disaster Risk Management Development Policy Loan with CAT DDO (P148861)

June 30, 2021

**Urban, Resilience And Land Global Practice
Africa East Region**

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CURRENCY EQUIVALENTS

(Exchange Rate Effective September 23, 2020)

Currency Unit = Seychelles' Rupee (SCR)

US\$ 1.00 = SCR 17.97

SDR 1.00 = US\$ 1.40

FISCAL YEAR

July 1 - June 30

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**ABBREVIATIONS AND ACRONYMS**

| | |
|-----------|--|
| AFD | Agence Française de Développement |
| Cat DDO | Catastrophe Deferred Drawdown Option |
| CMP | Coastal Management Plan (2019-2024) |
| COVID-19 | Coronavirus Disease 2019 |
| CPF | Country Partnership Framework |
| DaLA | Damage, Loss and Needs Assessment |
| DPL/O | Development Policy Loan/Operation |
| DRDM | Department for Disaster and Risk Management |
| DRM | Disaster Risk Management |
| DRR | Disaster Risk Reduction |
| EFF | Extended Fund Facility (IMF) |
| EP&R | Emergency Preparedness and Response |
| EU | European Union |
| FDI | Foreign Direct Investments |
| GCCA+ | Global Climate Change Alliance |
| GDP | Gross Domestic Product |
| GFDRR | Global Facility for Disaster Reduction and Recovery |
| GIS | Geographic Information System |
| GoS | Government of Seychelles |
| HFA | Hyogo Framework for Action (2005-2015) |
| IBRD | International Bank for Reconstruction and Development |
| ISR | Implementation Status and Results Report |
| IMF | International Monetary Fund |
| IOC | Indian Ocean Commission |
| MACCE | Ministry of Agriculture, Climate Change and Environment |
| MFEPT | Ministry of Finance, Economic Planning & Trade |
| MLH | Ministry of Lands and Housing |
| NDC | National Disaster Committee |
| SDSP | Spatial Data Sharing Policy |
| NEOC | National Emergency Operations Center |
| NIEMP | National Integrated Emergency Management Plan |
| NSDI | National Spatial Data Infrastructure |
| OpenDRI | Open Data for Resilience Initiative |
| (P)DO | (Project) Development Objective |
| SCD | Strategic Country Diagnostic |
| SeyCCAT | Seychelles Conservation and Climate Adaptation Trust |
| SWIOFish | South West Indian Ocean Fisheries Governance and Shared Growth Project |
| SWIO RAFI | South-West Indian Ocean Risk Assessment and Financing Initiative |
| TA | Technical Assistance |



The World Bank

Disaster Risk Management Development Policy Loan with CAT DDO (P148861)

| | |
|-------|---|
| UNDRR | United Nations Office for Disaster Risk Reduction |
| WB | World Bank |

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**DATA SHEET****BASIC INFORMATION****Product Information**

| | |
|------------|---|
| Project ID | Program Name |
| P148861 | Disaster Risk Management Development Policy Loan with CAT DDO |
| Country | Financing Instrument |
| Seychelles | Development Policy Lending |

DPF Options

| | | |
|-------------------------|----------------------------------|---------------------------------------|
| Programmatic | Regular Deferred Drawdown Option | Catastrophic Deferred Drawdown Option |
| No | Yes | Yes |
| Crisis or Post Conflict | Sub-National Lending | Special Development Policy Lending |
| No | No | No |

Organizations

| | |
|--|---|
| Borrower | Implementing Agency |
| Ministry of Finance, Trade and Economic Planning | Department of Risk and Disaster Management, Vice-President's Office |

Program Development Objective (PDO)

Program Development Objective (PDO)

The development objective of the proposed operation is to strengthen the Government of Seychelles Disaster Risk Management policy and reform agenda and enhance its capacity to efficiently respond to disasters.

PROGRAM FINANCING DATA (USD)

| | Approved Amount | Actual Disbursed |
|-----------------------------------|-----------------|------------------|
| World Bank Administered Financing | 7,000,000 | 7,000,000 |



IBRD-84390

| | | |
|--------------|------------------|------------------|
| Total | 7,000,000 | 7,000,000 |
|--------------|------------------|------------------|

KEY DATES

| Concept Review | Decision Review | Approval | Effectiveness | Original Closing | Actual Closing |
|----------------|-----------------|-------------|---------------|------------------|----------------|
| 28-Feb-2014 | 23-Jun-2014 | 26-Sep-2014 | 31-Dec-2014 | 30-Sep-2017 | 30-Sep-2020 |

RATINGS SUMMARY

Program Performance

| Overall Outcome | Relevance of Prior Actions | Achievement of Objectives (Efficacy) |
|-----------------|----------------------------|--------------------------------------|
| Satisfactory | Satisfactory | Satisfactory |

Bank Performance

| |
|--------------|
| Satisfactory |
|--------------|

RATINGS OF PROJECT PERFORMANCE IN ISRs

| No. | Date ISR Archived | DO Rating | IP Rating | Actual Disbursements (US\$M) |
|----------|-------------------|--------------|-------------------------|------------------------------|
| 01 | 06-Feb-2015 | Satisfactory | Satisfactory | 0 |
| 02 | 03-Jun-2015 | Satisfactory | Satisfactory | 0 |
| 03 | 26-Apr-2016 | Satisfactory | Satisfactory | 0 |
| 04 (MTR) | 03-Mar-2017 | Satisfactory | Moderately Satisfactory | 0 |
| 05 (MTR) | 20-Dec-2017 | Satisfactory | Moderately Satisfactory | 0 |
| 06 (MTR) | 15-Jun-2018 | Satisfactory | Moderately Satisfactory | 0 |
| 07 (MTR) | 14-Dec-2018 | Satisfactory | Moderately Satisfactory | 0 |
| 08 (MTR) | 28-Jun-2019 | Satisfactory | Satisfactory | 0 |
| 09 (MTR) | 30-Jun-2020 | Satisfactory | Satisfactory | 6.97 |

**SECTORS AND THEMES****Sectors**

| Major Sector/Sector | (%) | Mitigation Co-benefits (%) | Adaptation Co-benefits (%) |
|---|-----------|----------------------------|----------------------------|
| Public Administration | 41 | 0.00 | 35.72 |
| Central Government (Central Agencies) | 30 | 0 | 100 |
| Other Public Administration | 11 | 0 | 52 |
| Transportation | 11 | 0.00 | 5.72 |
| Other Transportation | 11 | 0 | 52 |
| Water, Sanitation and Waste Management | 48 | 0.00 | 24.96 |
| Other Water Supply, Sanitation and Waste Management | 48 | 0 | 52 |

Themes

| Major Theme/ Theme (Level 2)/ Theme (Level 3) | (%) |
|---|-----------|
| Finance | 25 |
| Finance for Development | 25 |
| Disaster Risk Finance | 25 |
| Human Development and Gender | 0 |
| Disease Control | 0 |
| Pandemic Response | 1 |
| Urban and Rural Development | 75 |
| Disaster Risk Management | 75 |
| Disaster Response and Recovery | 25 |
| Disaster Risk Reduction | 25 |
| Disaster Preparedness | 25 |

ACCOUNTABILITY AND DECISION MAKING

| Role | At Approval | At ICR |
|---------------------------------|-----------------|-----------------------------|
| Regional Vice President: | Makhtar Diop | Hafez M. H. Ghanem |
| Country Director: | Mark R. Lundell | Idah Z. Pswarayi-Riddihough |



| | | |
|-----------------------------|--------------------------|------------------------------------|
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I. PROGRAM CONTEXT AND DEVELOPMENT OBJECTIVES

A. Context at Appraisal

Macroeconomic Policy Framework at Appraisal

- Seychelles had come a long way since its 2008 crisis and displayed good economic growth and fiscal performance by 2014.** Economic growth increased from 2.8 percent in 2012 to 3.5 percent in 2013, mainly driven by the tourism sector (contributes 25 percent to the GDP) as well as positive developments in the tuna fishing and telecommunication industries. A small, service-based, middle-income island state, Seychelles' current account largely depended on income from tourism, exports of services and goods, import (and re-export) of oil and foreign direct investments. The country experienced high external indebtedness and a payment default due to depletion of foreign exchange reserves in the aftermath of the 2008 financial crisis. Since then, the Government energetically pursued reforms with support from IMF, economic restructuring¹ as well as debt restructuring and relief which prepared the path for fiscal and external sustainability. Thus, fiscal performance was strong with a primary fiscal surplus of 4.7 percent of GDP in 2013. This was mainly supported by public expenditure containment and in line with the target to reach a 50 percent debt-to-GDP ratio in 2018. Debt reduction efforts accelerated in 2013 and resulted in a decline of total public sector debt to 65.3 percent of GDP (compared to 131 percent in 2008).
- Seychelles enjoyed a stable political system and had made significant progress in improving public sector governance.** A stable government and public sector reforms resulted in improved governance indicators. Poverty was relatively low (i.e. less than 2 percent of the population living on less than US\$2 per day) but inequality increased between 2000 and 2007 as the Gini coefficient went from 0.42 to 0.65. Challenges inherent to Seychelles seize and remoteness (e.g. limited land, high cost of service provision, capital and human resources limiting benefits of economies of scale) including its dependency on tourism and exposure to global economic shocks remained though.
- With a broadly positive economic outlook and the Government's commitment and track record in addressing fiscal issues and challenges, Seychelles macroeconomic framework was deemed adequate at appraisal.** Economic indicators in 2013 suggested a stable growth and a favorable macroeconomic outlook based on performance in the past, continued commitment to sound macroeconomic management and progress made on implementing structural reforms. Though substantial external uncertainties remained a risk, Seychelles had established a track record of quickly recovering when confronted with economic adversity. The Government's growing external reserves, a flexible exchange rate, high government deposits, and a fiscal surplus provide some buffer against external shocks. Furthermore, reforms supported by the World Bank (WB) and by the IMF's Extended Fund Facility (EFF) helped Seychelles build up its economic and fiscal resilience.

Sector Background: The Government's DRM Program

- As a small island state, Seychelles' disproportionately high exposure to economic, social and environmental impacts of disasters presented a significant risk to its sustainable development.** The country's location, topography and landscape make it vulnerable to tropical cyclones, tsunamis, storm surge, flooding, landslides and forest fires. Between 1980 and 2013 the impact of disasters caused by

¹ E.g. liberalizing the exchange regime, tightening fiscal policy and boosting the private sector.



natural hazards totaled US\$ 41 million, affecting 21,328 people.² Major events included (i) Cyclone Ikonjo on Desroches Island in 1990, causing US\$ 1.5 million in damages, (ii) the El Niño-Southern Oscillation which triggered extreme rainfall events of August 1997, leading to US\$ 1.7 million in damages; (iii) the Great Indian Ocean Tsunami of December 26, 2004, resulting in US\$ 30 million in damages; (iv) the Indian Ocean Tsunami/Sumatra on September 12, 2007 (no damage data available); and (v) Tropical Cyclone Felleng in January 2013, causing floods, mudslides, and rock fall, resulting in US\$ 8.4 million in damages³. The medium to long term effects of climate change and a concentration of population and developments in the narrow coastal zones were expected to exacerbate such adverse effects. Therefore, climate change adaptation and a robust disaster prevention and mitigation program were major priorities for the Government of Seychelles (GoS).

5. Disaster risk management and building resilience to disasters and climate change are cross-cutting topics and were of central importance in Seychelles National Sustainable Development Strategy 2012-2020 as well as Medium-Term National Development Plan 2013-2017. Mainstreaming disaster risk reduction across key thematic areas such as land use/coastal zone planning, enhancing preparedness and awareness and building capacities to absorb the impact of disasters is vital to Seychelles development as a small island state. Well aware of the increasing natural disaster risks, the Government established a National Disaster Committee (NDC) in 1997 which was upgraded to the Division of Risk and Disaster Management (DRDM) in 2006. Since, DRDM had been the responsible central body for coordinating risk reduction efforts and emergency response in case of natural and man-made disasters. In 2005, the Government subscribed to the Hyogo Framework for Action (HFA) 2005–2015 that provided a sound and comprehensive basis for the development of the National DRM Act and Policy, which were approved in 2014. Moreover, Seychelles had been an active participant in regional and international DRM forums, including the Indian Ocean Commission (IOC) and the United Nations International Strategy for Disaster Reduction (UNISDR).

6. At appraisal, Seychelles had made significant progress in setting up a DRM framework, but further work was needed to strengthen the institutional and technical capacities for risk-informed planning and effective response. Seychelles proactively invested in producing disaster risk information and drafting a DRM legal and policy framework. They advanced to enhance preparedness by creating a National Emergency Operation Center (NEOC), a shelter system and by developing a first round of contingency plans. However, a comprehensive DRM master plan to be implemented across sectors and all levels of administration was missing. Furthermore, the legal foundations for DRDM as a Division to effectively coordinate prevention and emergency response needed improvement. Moreover, the technical capacities of agencies to produce and utilize disaster risk and spatial information for planning and public or private development projects needed strengthening. Improving technical and institutional capacities and establishing integrated strategies for DRM, coastal resilience and land use planning were particular needs identified by the Government. To increase disaster awareness and readiness, training programs for district officials and educational programs for schools had been launched but regular and continuous outreach to communities across Seychelles was missing.

7. Furthermore, Seychelles established reserve funds to absorb the impacts of natural events and protect fiscal stability. The country had established two reserve/savings funds, i.e. the Budget Contingency Fund and a National Disaster Relief Fund, for more frequent disasters with lower magnitude.

² According to Emergency Events Database EM-DAT: The Office of U.S. Foreign Disaster Assistance (OFDA)/Centre for Research on the Epidemiology of Disasters (CRED) International Disaster Database, Université catholique de Louvain, Brussels

³ Equivalent to 0.77 percent of the 2012 GDP.

Rationale for Bank Assistance and choice of instrument

8. **This Project was prepared against the backdrop of Tropical Cyclone Felleng and was requested by the Government following a Damage, Loss and Needs Assessment (DaLA) which demonstrated the need of a more comprehensive disaster risk management and risk financing strategy.** In January 2013, recovery and reconstruction needs from the impacts of Felleng were estimated to be at US\$ 30.3 million. The Ministry of Finance was interested in the Cat DDO instrument as part of a broader financing strategy for additional and immediate liquidity to address urgent post-disaster needs generated by more severe and less frequent events. The GoS was particularly interested in promoting an active risk reduction and disaster preparedness agenda, strengthening the DRM policy framework and the Bank technical support linked to the Cat DDO. Priorities and activities for this operation were identified in close consultation and aligned to national strategies.

9. **The proposed Cat DDO program was in line with the World Bank's Seychelles Country Partnership Strategy 2012–2015 (Report No. 66919-SC) and followed a number of prior analytical engagements focused on vulnerability and resilience assessments.** Prior to this operation, the World Bank had actively supported the GoS with analytical work and a DPL programmatic series focusing on competitiveness, vulnerability and resilience as well as improving governance and public sector capacities. This specific Project contributed to the CPS outcome to improve the Government's capacity to respond to natural disasters and climate change. The operation also linked to the technical assistance (i) "Seychelles: Strengthening Disaster Risk Management for Sustainable Poverty Reduction project" (P147236) and the (ii) "South West Indian Ocean Risk Assessment and Financing Initiative (SWIORAFI)" (P149096). The latter sought to improve the understanding of disaster risk and promote risk financing solutions in five Indian Ocean island states. Financed by the Global Facility for Disaster Reduction and Recovery (GFDRR), other grants allowed further technical assistance to support the work under this DPL.

10. **This DPL with a Cat DDO was the first one in Africa and the first of its kind for a small island nation.** For its preparation, this Project could draw on lessons learned of prior DPLs in other regions as well as vast Bank experience in DRM operations. Adjustments in design (e.g. financing volume, integration of subnational aspects and units into the policy matrix) and engagement approach (e.g. use of synergies with other operations to streamline and not overburden government officials during preparation and setup of a strong TA program) were undertaken to meet the needs and adapt to the realities of a small island nation.

Original Program Development Objective(s) (PDO) (as approved)

11. The development objective of the proposed Project was to strengthen the Government of Seychelles' Disaster Risk Management policy and reform agenda and enhance its capacity to efficiently respond to disasters.

Original Policy Areas/Pillars Supported by the Program (as approved)

12. In line with the PDO, two policy areas were identified as relevant to the context of Seychelles at the time of preparation:



- **Pillar 1: Strengthening the institutional/legal framework for disaster risk management.** The revision and approval of the DRM Act and the DRM Policy laid the basis for strengthening the DRM agenda in Seychelles. Reforms supported under this pillar to strengthen the preparedness and response capacity included the update of district contingency plans, as well as sectoral contingency plans, and the alignment with a national integrated emergency management plan. Further measures addressed the strengthening of DRM capacities to conduct annual emergency drills and exercises, as well as DRM awareness and educational campaigns to better inform and prepare the public.
- **Pillar 2: Integrating disaster risk reduction into development planning and decision-making.** The production of risk information and the establishment of a platform to disseminate information on historic disaster events, as well as geospatial data, provided the foundations for activities under this pillar. Measures under this policy area contributed to advancing geospatial risk data-sharing via up-to-date platforms, so that Line Ministries, agencies, and the private sector could include such risk information in their development projects. The main outcome of this pillar was to reinforce capacities and enabling infrastructures to produce and share information and thus strengthen a risk-informed development planning.

B. Significant Changes During Implementation

Changes related to the operation

13. **Since the Cat DDO was not drawn down during the first three years, on March 27, 2017, the World Bank received a request from the GoS to renew the Cat DDO and extend the loan Closing Date by three years to September 30, 2020.** For the renewal, The Bank found that the government had maintained its commitment to implement a comprehensive DRM program, however results were only partially achieved, therefore, the results framework and targets remained unchanged. The macroeconomic framework was assessed and remained satisfactory. Thus, the request was granted on August 11, 2017.

14. **Due to the emerging COVID-19 pandemic at the beginning of March 2020, the GoS requested a revision of the drawdown trigger to include major health-related emergencies which led to a restructuring of the Project.** COVID-19 was posing a significant challenge to Seychelles' public health system and had wide-ranging social and economic implications given the island's high dependency on tourism and trade. The Government took a range of early actions⁴ to contain the outbreak, protect people and the economy and developed a COVID-19 Action Plan which was approved by Cabinet on March 12, 2020. Anticipating the impacts of COVID-19, the GoS sent a letter to the Bank on March 16, 2020 requesting the amendment of the drawdown trigger to include major health-related events. The original draw down condition at project approval was agreed to be a declaration of a state of emergency as established by the Constitution of 1993⁵ and the project was originally designed to respond to disasters caused by natural

⁴ Early actions included measure to contain the outbreak (e.g. closing borders to travelers coming from Europe, quarantine for returning citizens, temporary school closures, etc.) and keep people informed and aware as well as economic and social measures (e.g. salary guarantees to private sector employees and budgetary allocations to social protection and unemployment relief schemes, tax deferrals, making further land available to farmers and reducing interest rates on agricultural/fisheries loans)

⁵ The 1993 Constitution states that the State of Emergency can be declared by the President when "a grave civil emergency has arisen or is imminent, in Seychelles or in any part of Seychelles" (Part III, Art. 1.b). Further articles state conditions for expiration and prolongment of the State of Emergency and the National Assembly's power and options in this respect (Part III, Art. 2, 4 and 7).



hazards only. The amendment request was granted by the Bank on March 24, based on strong performance and commitment by the GoS⁶, and the trigger definition was broadened by adding *the declaration of a public health emergency issued in accordance with the 2015 Public Health Act*⁷ (Act 13 of 2015). Such a public health emergency was declared by the Public Health Commissioner on March 20, 2020 and published in the Supplement to the Official Gazette No. 30. Subsequently, the GoS issued a drawdown request for full disbursement on April 1, 2020 which was approved by the Bank on the same day. The Bank and the GoS agreed to close the Cat DDO on September 30, 2020.

II. ASSESSMENT OF KEY PROGRAM DESIGN AND OUTCOMES

15. **This Project was the first DPL with a Cat DDO for a small island nation which required specific adaptations in design.** The Project made use of the waiver to the provisions of paragraph 24 of the Board Paper on "Introducing the DDO Option for Catastrophic Risk" (SEC-R2008-0018) dated February 4, 2008. The provisions limit the volume of the Deferred Drawdown Option (DDO) per country⁸ but the waiver allows for small countries to have an individual examination of their maximum credit volume to provide adequate liquidity after a disaster. The waiver request was granted through the final Board approval of the US\$ 7.0 million loan to the Government of Seychelles.

16. **Overall progress towards achieving the PDO in the two policy areas was Highly Satisfactory; of the six expected results being monitored, all had been achieved and, of those, two exceeded the targets (see Table 1).** Key achievements in the institutional framework and in risk-informed planning have been reached through, and at the same time stimulated, a resilience dialogue and inter-ministerial collaboration. The progress achieved⁹ and impact of the work under this Cat DDO Project have enhanced the capacity to prepare for and respond efficiently and effectively to disasters. This has become visible and proved to be vital for Seychelles' response to the COVID-19 crisis. Discussion of the prior actions' and results' contribution to the PDO in this chapter are conducted per policy area as the Project team considers the PDO as one overall goal with interlinked sub-objectives (i.e. strengthened DRM framework and enhanced response capacities). The operationalization of a comprehensive and well-coordinated disaster risk management system, as mandated by the improved institutional and legal framework, enhances the GoS capacity to respond to disaster in an efficient manner. Likewise, the increased availability of risk information and better risk awareness, which enhance response capacities, also support the DRM institutional framework through risk considerations in various plans and policies. The design of the Program links each prior action to both sub-objectives and there are strong linkages between the prior actions themselves (i.e. the DRM Act calls for a DRM Policy and demands a risk database) which does not allow for a clear cut differentiation.

⁶ Besides a satisfactory implementation of the program and adequate macroeconomic framework until the restructuring – already prior to the pandemic - Seychelles showed a particularly strong political commitment to detect and respond to public health events, demonstrated best practice in a number of preventative areas but is highly vulnerable to outbreaks and needs additional trained staff and further strengthening of testing and appropriate isolation capacities (as concluded in a 2018 WHO Joint External Evaluation (JEE) of IHR Core Capacities).

⁷ The Public Health Act was published as Supplement to the Official Gazette on October 19, 2015 and is publicly available on the website of the Department of Health

⁸ For IBRD countries, guidelines stated that the maximum funding under a Cat DDO should not exceed the lesser of 0.25 percent of GDP or US\$ 500 million – which in Seychelles case was 0.25 percent of the 2012 GDP, resulting in a limit of roughly US\$ 3.0 million.

⁹ For a more detailed elaboration on the results, please also see Annex 4.3. Detailed Results Matrix.



Table 1. Cat DDO Prior Actions and Expected Results

| Prior Actions | Results Indicators (original and revised) |
|---|---|
| PILLAR 1. Strengthening the Institutional/legal framework for disaster risk management | |
| <u>Prior Action 1:</u> The National Assembly has adopted the Disaster Management Act, which provides a legal framework for disaster risk management including both a national disaster risk management plan and an integrated emergency management system. | <u>Result Indicator 1:</u> Districts have updated protocols for preparedness and response. <ul style="list-style-type: none"> ▪ Baseline (2014): 0 ▪ Target (2017, extended to 2020): 5 ▪ Current status (2020): 5 Protocols updated. <p>By the end of 2019, five District Contingency Plans have been revised and approved by the Principal Secretary of DRDM. To ensure that the plans can be fully operationalized, regional platforms, District Administrators as well as district emergency brigades and shelter focal points have been reinforced and prepared.</p> <p><u>Assessment: Achieved</u></p> |
| | <u>Result Indicator 2:</u> The DRDM conducts annual drills and exercises. <ul style="list-style-type: none"> ▪ Baseline (2014): 0 ▪ Target (2017, extended to 2020): One exercise per year ▪ Current status (2020): A total of 16 drills and exercises have been delivered. <p>Since 2015, several drill exercises have taken place each year and thus have increased the capacity of both governmental and sectoral agents to efficiently respond to disaster. The exercises include for example oil spill, tsunami, fire, school safety and pandemic drills as well as NIEMP Table Top Exercises (TTX) with the National Emergency Operation Center at national and district levels which tested multi-agency coordination and communication arrangements as set out in the NIEMP. The NIEMP proved its practical value in March 2020, when DRDM and the police department successfully conducted a test exercise on Seychelles' preparedness handling the evolving COVID-19 infections situation in the country.</p> <p><u>Assessment: Exceeded</u></p> |
| <u>Prior Action 2:</u> The Cabinet of Ministers has approved an updated policy for disaster risk management submitted by the Minister for Environment and Energy, which establishes a fully functional early warning system, increases preparedness through updated sector contingency plans, and provides for the carrying out of | <u>Result Indicator 3:</u> Annual public DRM education and awareness campaigns are conducted. <ul style="list-style-type: none"> ▪ Baseline (2014): 0 ▪ Target (2017, extended to 2020): Two DRM awareness campaigns carried out at community level ▪ Current status (2020): 3 awareness and educational campaigns delivered. <p>With an ongoing media campaign (incl. awareness activities such as TV spots and online presence via DRM website and Facebook page) as well as DRM educational activities carried out by DRDM as part of the annual DRR Day (2018, 2019) and Child Protection Day 2019, this target was already achieved in 2019. During the extension phase, special focus was given to the specific</p> |



| | |
|--|--|
| <p>information dissemination activities.</p> | <p>vulnerabilities and the engagement of children and youth as well as to empowering communities in building a culture of resilience. Additionally, DRDM presented and discussed the NIEMP on national media, emphasizing the role of multi-agency coordination in emergencies. Currently, DRDM is developing an education and awareness framework to guide the DRM outreach.</p> <p><u>Assessment: Achieved</u></p> |
| | <p>Result Indicator 4: A least five contingency plans have been updated and are officially approved by the Cabinet of Ministers¹⁰.</p> <ul style="list-style-type: none"> ▪ Baseline (2014): One chemical sector (Hazmat) contingency plan in 2011 ▪ Target (2017, extended to 2020): 5 ▪ Current status (2020): 9 plans updated or newly developed and approved. <p>By 2020, six sectoral contingency plans (Health, Education, Tourism, Food Security & Nutrition, National Port and Airport) and two agencies (Red Cross and the Fire Rescue Service) response plans have been finalized. In addition, the National Integrated Emergency Response Plan (NIEMP) has been approved by Cabinet on August 26, 2020. The NIEMP outlines the general framework to Emergency Preparedness and Response in the Seychelles and integrates and coordinates sectoral, district and event specific plans and thus defines the overall Emergency Management System.</p> <p><u>Assessment: Exceeded</u></p> |

PILLAR 2 Integrating disaster risk reduction into development planning and decision-making

| | |
|--|---|
| <p>Prior Action 3: The Government has established a historic loss and damage database in collaboration with the United Nations International Strategy for Disaster Reduction and the Indian Ocean Commission, which is updated annually and fully accessible to all.</p> | <p>Result Indicator 5: A geospatial risk data sharing platform updated annually.</p> <ul style="list-style-type: none"> ▪ Baseline (2014): 0 ▪ Target (2017, extended to 2020): One annual update ▪ Status (2020): Regular updates performed. <p>The Centre for GIS (under MLH) continues to maintain its Web GIS platform that serves for sharing geospatial information across ministries, agencies and the public. The Government developed an Action Plan for strengthening the National Spatial Data Infrastructure and prepared a Spatial Data Sharing Policy (SDSP) which facilitates data sharing. The SDSP was approved by the Cabinet on May 6, 2020 and will substantially improve the integration of geo-localized risk information into planning and decision making. Technical assistance (under OpenDRI) supported the Government's efforts in data collection, capacity building, the use of technologies such as drones and satellite data as well as a citizen mapping exercise with OpenCitiesAfrica.</p> <p><u>Assessment: Achieved</u></p> |
|--|---|

¹⁰ Note: Sectoral contingency plans are within the responsibility and mandate of the respective department and do not require approval by the Cabinet. However, the National Integrated Emergency Management Plan needs to be approved by the Cabinet.



| | |
|--|--|
| | <p><u>Result Indicator 6:</u></p> <p>Line Ministries, agencies and private sector include risk information in their development projects.</p> <ul style="list-style-type: none">▪ Baseline (2014): 0▪ Target (2017, extended to 2020): 5▪ Status (2020): 5 ministries including: Environment, Lands & Housing, Health, Education, Tourism. <p>Five key ministries have included risk information and/or outlined measures for risk reduction and response in their strategic development plans. The Coastal Management Plan (2019-2024) - prepared by the Ministry of Agriculture, Climate Change and Environment and endorsed by Cabinet on May 30, 2020 - is a crucial milestone for sustainable development in the Seychelles as it lays out interventions and risk-based planning practices for ecosystem restoration and securing a resilient coastline. At project closing, the Government and the WB are working on the implementation of the CMP as well as strengthening risk-sensitive land-use and investment planning with Seychelles Planning Authority. Finally, the Spatial Data Sharing Policy facilitates the use of geospatial information and thus hazard management for private sector investments.</p> <p><u>Assessment: Achieved</u></p> |
|--|--|

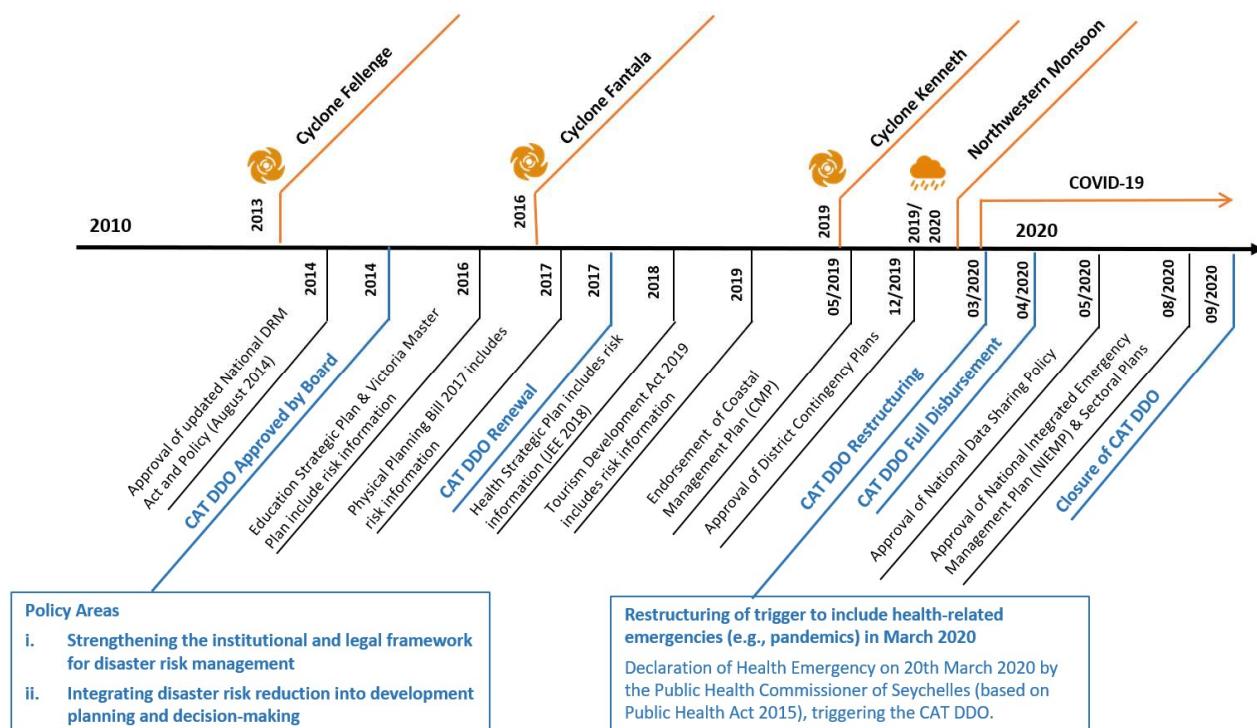
17. **Figure 1 presents an overview of the most significant events and DRM institutional developments related to the DPL with Cat DDO project.** Discussions with the GoS on DRM topics and first analytical activities were undertaken around 2012. With the start of this Project, a resilience dialogue was initiated, including various agencies and sectors, and convening stakeholders from different levels of government and the private sector. The resilience dialogue had taken up in 2017 and has facilitated increasing awareness of and collaboration on disaster risk management issues and vulnerability reduction. Continuous engagement on risk-informed development strategies and cross-sectoral partnership advanced the resilience dialogue and produced key policy instruments. Through TAs in strategies areas which accompanied and complemented the project, the team was able to go further in its support to the GoS DRM and climate resilience agenda and adapt to adjustments in government priorities¹¹. Efforts in moving towards a more comprehensive risk reduction, preparedness and risk management scheme resulted in the development of strategic documents such as the NIEMP, the Coastal Management Plan (CMP) or Spatial Data Sharing Policy (SDSP). Increasing focus on the cross-cutting nature of DRM and the need for an integrated, multi-hazard EP&R have reinforced inter-agency collaboration and enabled the revision and alignment of sectoral respectively district contingency plans. Due to their crucial role for risk reduction in Seychelles, coastal management and land planning have gained traction in recent years and the Project readily accommodated for technical and capacity support in those areas.

¹¹ Cat DDO associated TAs supported the GoS in its climate resilience agenda, specifically coastal and marine protection (coastal management TA via CMP and cross-support to the new Climate Change Policy), integrated and cross-cutting DRM and DRR (eg EP&R through NIEMP, sectoral and district plans), building a database for risk-informed decisions and planning (geospatial support, land-use planning through data platforms and trainings, the SDSP, capacity support to Planning Authority, etc.). See also Annex 4.2



18. Several weather-related events during the implementation period and finally COVID-19 highlighted the relevance of the Cat DDO program, the adequacy of its design elements and its appropriate use by the Government. When tropical cyclone Fantala brought vast damage to the Farquhar island group in April 2016, the GoS declared the islands a disaster area but refrain from a drawdown request¹². After careful consideration and assessments, the GoS concluded that national resources as well as the Islands Development Company's (IDC)¹³ own funds were sufficient for the identified response and recovery needs. However, technical support in form of a PDNA, facilitated by the Project, was still very relevant. The Project as designed (i.e. PAs, pillars, indicators, and thematic TAs) fostered a transition to a more systemic and integrated risk reduction and response management. This was vital for addressing a disaster of global scope such as COVID-19, which goes beyond the capacity of small island nation, and thus resulted in the full drawdown of Cat DDO resources. The structures reinforced or established by the Project (e.g. NEOC, NIEMP, inter-agency collaboration) supported a more systematic and coordinated emergency response. Repeatedly, weather-related events underpinned the need to mainstream risk reduction, preparedness, and climate change adaptation, as facilitated by the Project, to protect the country's social and economic gains as well as its natural environment and ecosystem services.

Figure 1. Timeline of the Cat DDO: Related events and institutional developments



Legend: The upper part of the timeline depicts natural-/health-related events (in orange) and the lower part lists Cat DDO milestones (in blue) and DRM institutional developments related to the Cat DDO project (black).

¹²Fantala made landfall on Farquhar Island's on April 17 with winds speeds up to 350 km/h causing significant damage to the environment, infrastructure and agricultural assets. The Government declared the islands a disaster area on April 20, 2016 and approached the Bank requesting support in a Post Disaster Needs Assessment.

¹³IDC was a major owner of assets on Farquhar islands. Most of the damage was caused to either IDC assets or environmental assets and resources of the Island Conservation Society (ICS).



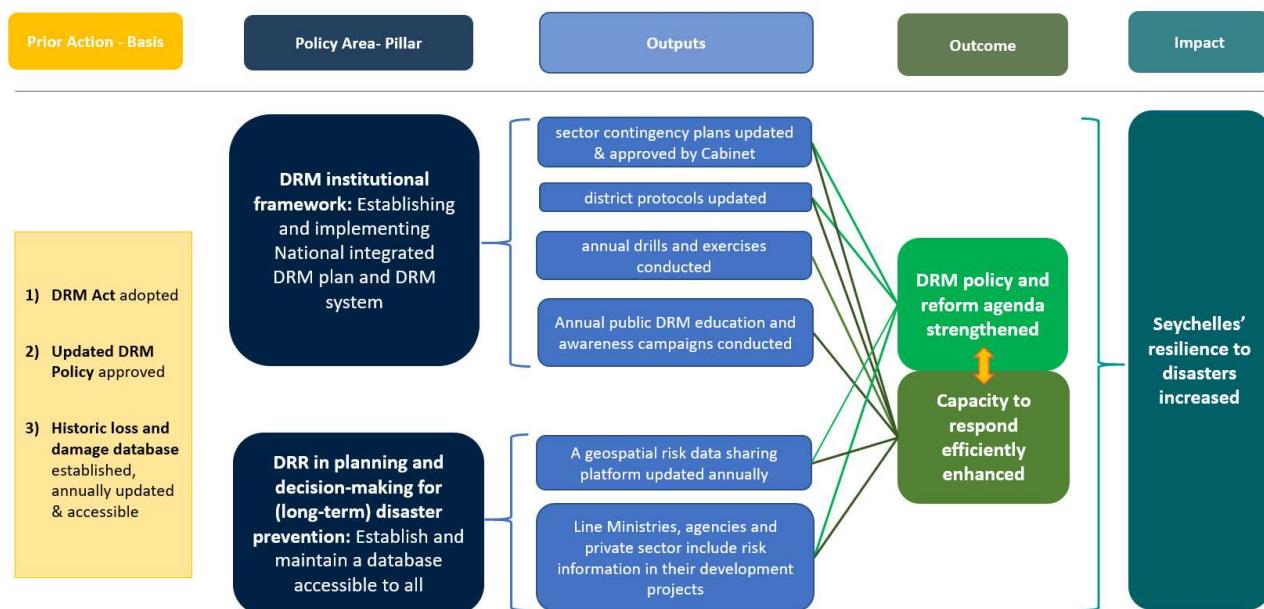
A. Relevance of prior actions

Rating: Satisfactory

19. **The relevance of the prior actions (PAs) for achieving the PDO is rated Satisfactory.** The PAs clearly link to the PDO to strengthen the DRM policy agenda and enhance capacities for preparedness and response. Prior to the preparation of this Project, the GoS had a weak regulatory framework, no DRM law and the 2011 National DRM Policy was outdated. With the adoption of the DRM Act by then National Assembly on July 29, 2014, the legal foundations for DRM policymaking and investments were laid, promoting a more proactive and comprehensive approach. The Act called for a national disaster risk management plan and integrated emergency management system. The updated DRM policy (approved on the same date) then detailed responsibilities in risk assessment, risk reduction, adaptation, preparedness, and response. Thus, the new framework introduced a stronger, more comprehensive DRM system with consistent and coordinated processes and responsibilities at various levels and sectors. The DRM Act demanded the development of a risk information database to better identify and assess hazards. Thus, PA #3 contributed to the collection and open dissemination of risk and disaster information to promote a stronger focus on DRR in development planning and decision-making.

20. **The prior actions were pertinent to the context of Seychelles, based on a variety of analytical underpinnings and reflected needs and gaps identified together with the GoS.** Specific diagnostics such as the UNDP Country Risk Profiles as well as international DRR guidelines such as the Hyogo Framework informed discussions with the Government and the selection of prior actions. The operationalization of the new DRM framework, the training of its elements (e.g. drills of operational plans and testing of tools such as the incident command system) and the dissemination of information for education, awareness and early warning purposes improves capacities to respond efficiently to a variety of disasters and emergencies. Figure 2 shows the theory of change including links between PAs, pillars, expected results and outcomes.

Figure 2. Project setup and theory of change





21. **Thus, the prior actions were appropriate and mostly sufficient to achieve the PDO.** The first two PAs are suitable and sufficient to result in a strengthened DRM agenda and increase preparedness and response capacities. The national plan and integrated system as well as the strategy reflected in the DRM Policy are central pillars of Seychelles DRM approach and have been strengthened through updates and integration of best practice. The subsequent operationalization of the framework is adequate to achieve a capacity improvement in preparedness and effective response. The third PA is appropriate to accomplish the PDO but not necessarily sufficient. A historic loss and damage database, even if public and maintained, contributes but is not sufficient to cover the information and awareness requirements to mainstream DRR in planning and decision-making. Further data, especially forward looking or probabilistic risk information, as well as supporting infrastructure and guidance are needed to promote risk-sensitive development projects. Such development plans and risk-informed decisions will then reinforce the DRM agenda and allow for a more effective and efficient disaster response. Deficiencies with respect to the third PA were compensated with more comprehensive risk information generated and made accessible, awareness and capacities built around risk reduction in planning as well as policy reforms developed through the implementation of results.

B. Achievement of Objectives (Efficacy)

Rating: Highly Satisfactory

22. **Overall, the Project's efficacy is rated Highly Satisfactory as it has successfully contributed to strengthening the Government's DRM agenda and enhancing its capacity to efficiently respond to disasters.** The objectives and targets have been achieved or exceeded and the progress realized during implementation has been satisfactory. Under *Pillar 1*, the Project provided a platform to strengthen the resilience policy dialogue and foster inter-institutional exchange and coordination at sectoral and territorial levels. Major achievements under this dialogue include the district and sectoral plans as well as the formulation and approval of the NIEMP, which is the key policy instrument implementing a comprehensive DRM framework. The operationalization of this DRM framework at all levels, for example through regular drills and exercises, and community engagement and outreach have strengthened the disaster response capacities of DRDM. Notably, these achievements proved to be instrumental for Seychelles' response to COVID-19, providing an effective framework for multi-sectoral coordination. The actual Cat DDO financing represented a 'lifeline'¹⁴ for the economy as an immediate source of liquidity. Under *Pillar 2*, the Project has boosted significant advances in mainstreaming risk information and risk reduction measures into key ministries' development plans and decision-making, for example through capacities built, enabling structures created and strategic plans delivered. These plans and policies (e.g. CMP, SDSP, Physical Planning Bill 2017, etc.) complement the DRM reform agenda and the risk data and information developed supports more efficient and effective disaster responses.

23. **The Project's areas of action and set of result indicators covered the fundamental elements of a sound DRM program and constituted a suitable base for assessing the accomplishment of the PDO.** Despite minor shortcomings with respect to definition and target of certain indicators, the result framework was relevant, indicators measurable and targets mostly appropriate. At the time of preparation in 2014, the policy matrix was designed according to prevailing guidance and incorporated learnings from earlier Cat DDOs to set realistic targets aligned with Government priorities, which could be implemented, monitored, and achieved within the three-year time frame of the Project. In hindsight, certain linkages

¹⁴ Feedback statement from PS Economic Planning in Seychelles' MFEPT during closing mission in December 2020.



between PAs and indicators could have been strengthened¹⁵ and some result indicators respectively targets could have been defined more clearly and focus on measuring outcomes rather than outputs. Nevertheless, the rationale behind those indicators was valid and the outputs generated contributed to the expected results and achievement of objectives. For example, the intention behind the choice of PA #3 and its related indicators was to improve risk understanding and mainstream/institutionalize risk considerations in planning and decision making by creating necessary data, information and evidence base. At the time of preparation of this operation, Seychelles was at a stage where systematization of information gathering, dissemination and utilization by institutions was needed. As information on historic losses was already available, the most promising next step was to establish a database and promote a platform to systematically share and integrate such information. Thus, with evolution the DRM system and Seychelles priorities, continued monitoring made sure that the Project steered results towards the intended outcomes. The result framework also provided some space to adapt to evolving priorities around DRM (e.g. data sharing policy, geospatial capacities, coastal resilience land planning) that were crucial for resilience in Seychelles. Thus, there was no need to restructure; however, technical assistance in strategic areas such as integrated EP&R or coastal resilience went beyond what result indicators originally intended to capture.

24. The Project fully achieved the targets under each indicator and respective outcomes under both pillars facilitated the achievement of the PDO. The result and outcomes under each indicator are further discussed below and Annex 4.3 provides a more detailed summary of progress and achievements reached at the date of closing under each indicator. Results achieved and outcomes generated were verified through regular reporting and extensive consultations with the GoS, project counterparts and stakeholders during supervision missions as well as dedicated ICR consultations as part of the project closing evaluation.

Pillar 1: Strengthening the institutional and legal framework for DRM

Indicator 1.1: Districts have updated protocols for preparedness and response. (2014 Baseline: 0; Target: 5)

25. By 2020, five district contingency plans have been updated, aligned with the National Integrated Emergency Management Plan (NIEMP) and are fully operationalized. DRDM has revised the contingency protocols of five priority districts (Anse Aux Pins, La Digue, Point La Rue, Beau Vallon and Baie St. Anne)¹⁶ out of the 26 districts of Seychelles and has developed a template to accordingly update and align further district plans with the DRM system outlined in the NIEMP. The contingency plans provide the framework for emergency preparedness and response at the district level and updates undertaken ensure that the plans can be fully operationalized once activated. The district plans are a crucial part of the emergency management system as they warrant a fast response that is close to the affected communities. Their alignment and coordination to higher level plans (e.g. county or national plan) is key for escalation of emergencies that are too large or complex to handle with local resources. The revision was done in coordination with the responsible District Administrators and covered key aspect of the plans including main counterparts at the district level, list of safety areas, shelters and evacuation routes, information on district emergency brigade as well as Standard Operating Procedures (SOPs) for brigade team leaders and emergency shelter focal persons. Furthermore, command structures have been tested and the districts' emergency brigades and focal points are prepared to respond. Thus, results under this indicator were fully achieved.

¹⁵ For example, attribution of the result indicators under pillar 2 to its PA#3 is quite weak, whereas the indicators itself are relevant.

¹⁶ These districts were identified by the Principal Secretary of the Local Government Department to have priority for revised contingency plans due to the vulnerability/exposure of their communities and assets as well as tourism activities and infrastructure located there.



Indicator 1.2: The DRDM conducts annual drills and exercises. (2014 Baseline: 0; Target: One exercise per year)

26. **Between 2015 and 2020, 16 drills and exercises have been delivered by DRDM and thus have increased the capacity of both governmental and sectoral agents to efficiently respond to disaster.** Both single exercises and drills in key sectors (e.g. health, tourism, transport) as well as integrated trainings and tabletop exercises with several agencies and stakeholders have been conducted for various hazard scenarios (e.g. oil spill, tsunami, pandemic, school safety, all-hazard drill, etc.). The practicing of response processes and mechanisms allows for responders to feel more confident in their ability to handle an emergency and reduces stress, mistakes and coordination challenges when real emergencies occur, thus supporting a more efficient response. In 2019, tabletop exercises have been performed to validate the emergency management system laid out in the NIEMP and help identify weak points in the plan as well as training gaps so they can be addressed as necessary. This included dry runs of multi-agency coordination and communication, tests of procedures set in national, district and sector level protocols as well as an evaluation of effectiveness and efficiency of the incident command system and interface with the National Emergency Operation Center (NEOC). The NIEMP proved its practical value in March 2020, when DRDM and the police department successfully conducted exercises on Seychelles' preparedness to handle the evolving COVID-19 infection situation. Therefore, DRDM and relevant agencies have improved their knowledge and understanding of disaster risks and have been trained to respond efficiently and in a coordinated manner to a variety of disasters scenarios. Hence, the expected results were exceeded.

Indicator 1.3: Annual public DRM education and awareness campaigns are conducted. (2014 Baseline: 0; Target: Two DRM awareness campaigns carried out at community level)

27. **Based on an initial action plan, DRDM developed and continuously delivered media campaigns reaching out to the public to build awareness and inform about disaster risk reduction and risk management.** The ongoing campaigns included public ads, TV spots, newspaper articles, interviews with the Principal Secretary of DRDM and the establishment of an online presence (i.e. website, Facebook page). DRDM ensured that the public is aware of and regularly updated on Seychelles' disaster risk management system through various media channels. Furthermore, educational activities as part of the annual Disaster Risk Reduction (DRR) Day were performed, for example on tsunami awareness and response during DRR Day 2018 or on the special vulnerability of children and youth at the 2019 DRR day. DRDM also worked with the Ministry of Education to integrate DRM into the school curriculum and engaged with other relevant sectors such as tourism, transport or fire and safety to ensure residents and guests in the Seychelles are well informed about risks and emergency procedures. Finally, community empowerment and engagement to build a culture of resilience was central to many outreach activities as community cooperation is a crucial part of an effective risk and response management. Currently, DRDM is developing an overarching strategic framework to guide and systematically institutionalize DRM outreach activities. This result was, therefore, fully achieved.

Indicator 1.4: At least 5 contingency plans have been updated and are officially approved by the Cabinet of Ministers. (2014 Baseline: 1; Target: 5)

28. **In August 2020, the Cabinet approved the National Integrated Emergency Management Plan, which is the centerpiece of the DRM policy agenda as it defines Seychelles' overall Emergency Management System.** The NIEMP outlines the general framework to emergency preparedness and



response and integrates and coordinates sector, district and event specific plans. The DRM Act 2014 requests DRDM to develop and implement a systemic risk management approach, reflecting international best practice and guiding preparedness and response from various stakeholders to ensure effective and coordinated actions for different types of hazards and emergencies. The Bank's assistance under this Project supported DRDM with technical expertise in establishing and operationalizing the Plan while at the same time strengthening DRDMs capacities to coordinate and lead an inter-agency resilience dialogue. The NIEMP proved its practical value even before its approval and was instrumental in Seychelles' fast and efficient response to the COVID-19 outbreak. The new command structures were immediately implemented with the first positive cases in early March 2020 and facilitated multi-agency coordination with key sectors such as Health or concerned districts and allowed for a fast containment of transmissions.

29. Five key ministries have revised six sector specific contingency plans and DRM relevant institutions updated their response plans. These sectors include Health, Education, Tourism, Food Security & Nutrition, Port and Airport. Therefore, in addition to the NIEMP, a total of six contingency plans have been updated and endorsed. Furthermore, Seychelles Fire Rescue Service Agency (SFRSA) and Seychelles Red Cross Society have updated their emergency response plans. DRDM was steering the dialogue and coordinated with the respective ministries and agencies to ensure all the plans are aligned with the DRM system outlined in the NIEMP. Key agencies' individual sector plans are important for incidents limited in scope, which would require the response of one agency only, and their alignment with other plans allows for a coordinated response in larger or more complex emergencies. Thus, the sector contingency plans are a crucial part the institutional DRM framework and capacitated involved actors allowing for an efficient emergency response. The expected result under this indicator was exceeded.

Pillar 2: Integrating disaster risk reduction into development planning and decision-making

Indicator 2.1: A geospatial risk data sharing platform updated annually. (2014 Baseline: 0; Target: One annual update)

30. The GoS set up its own WebGIS and geospatial data platform that serves for sharing information across ministries and agencies. The database is hosted and maintained by the Center for GIS under the Ministry of Lands and Housing and is accessible to all government institutions as well as to the public. The data provided can be used for risk analysis and land use planning. Initially and with support from UNDRR and IOC, the GoS collected historic loss and damage information and made it publicly available via the DesInventar Platform. However, the need for building up internal technical and operational capacities in data collection, processing and administration became evident. Consequently, the Bank supported the GoS in setting up a GeoNode as data sharing platform. Furthermore, a Geospatial Working Group was established to promote the geospatial sector in Seychelles and the integration of geospatial technology for public resource management and decision making. The expected result was, hence, achieved.

31. Bank engagement under this indicator was broad and went far beyond the immediate target of a data sharing platform. This Project also supported the GoS in various diagnostics and initiatives around data collection, capacity building, technologies as well as an action plan and policy development around spatial data infrastructure and data sharing. Thus, strong foundations have been laid for risk information sharing and its consideration in planning and decision making, cross-supporting objectives under indicator 2.2.



32. **On May 6, 2020, the Cabinet approved the Spatial Data Sharing Policy that provides the legal basis for and facilitates the sharing of geospatial data in Seychelles.** The need for a data sharing policy to improve access and use of spatial information for sustainable development emerged as a priority during the course of this Project. With support from the WB, the MLH prepared the policy and in 2019 also performed an overall diagnostic on the status of the National Spatial Data Infrastructure (NSDI). Subsequently, the Government delivered an Action Plan to improve and strengthen the NSDI.

33. **Furthermore, technical capacities around the use of novel technologies and innovative approaches for geospatial data collection were built.** Through various TAs and initiatives, the Project supported the GoS in acquiring technical capacities and data to enable risk-informed planning. This included for example the elaboration of Seychelles' Country Risk Profile in 2016 under the Southwest Indian Ocean Risk Assessment and Financing Initiative (SWIO RAFI) as well as the collection of geospatial base data under the Open Data for Resilience Initiative (OpenDRI). Furthermore, the Project successfully delivered various workshops and trainings on GIS or the use of drones, which encouraged the GoS to further invest in these technologies. Finally, under the Open Cities for Africa initiative, a community mapping exercise with Open Street Maps was organized to extend and verify small scale geospatial information for coastal planning. The SWIO RAFI and connected Open DRI activities prepared the ground for resilience improvement and laid the basic foundations for future risk financing strategies¹⁷.

Indicator 2.2: Line Ministries, agencies and private sector include risk information in their development projects (2014 Baseline: 0; Target: 5)

34. **By 2020, five ministries (i.e. Environment, Lands & Housing, Tourism, Education, Health) have developed respectively revised their strategic development plans to include and account for risk-related information, risk reducing measures and/or response strategies.** The most prominent achievements include the preparation of the "*Coastal Management Plan (2019-2024)*" by the Ministry of Agriculture, Climate Change and Environment (MACCE) as well as the review of the "*2015 Victoria Master Plan*" (or "*Vision 2040*") and the "*Physical Planning Bill 2017*" in the Ministry of Lands and Housing. Another key sector is the department of tourism under the Ministry of Foreign Affairs and Tourism, which advanced in mapping key tourism infrastructure and in understanding its levels of exposure to hazards. This led to recommendations for risk reduction under the new "*Tourism Development Act 2019*". An early mover in the first phase of this Project, the Ministry of Education further promoted the integration of risk and response information into school curricula and adapted their "*Education Sector Medium-Term Strategic Plan 2013-2017*" accordingly. Lastly, the Ministry of Health finalized in 2018 the *Joint External Evaluation (JEE)* in coordination with the Secretariat of the World Health Organization (WHO). This JEE recommended further measures to the Ministry's strategic plans regarding the establishment of capacities to detect, assess, notify and respond to major public health threats and incidences. Therefore, this result has been fully achieved.

35. **The "*Coastal Management Plan (CMP) 2019-2024*", which was endorsed by Cabinet on May 30, 2019, aims to reduce the risk to developments in the coastal zone and therefore is essential for Seychelles' resilience to future climate change and disaster impacts.** The President and the Cabinet confirmed the urgency and strategic importance of an intact and properly managed coastal zone to protect

¹⁷ Developing a fully fledged disaster risk financing strategy was not in the scope of this Project. However, the project and associated TAs supported the assessment of risks, exposures and estimated damage and losses for Seychelles (as part of the overall SWIO RAFI report which outlines general sovereign disaster risk financing options) and contributed to individual risk financing elements such as the costing of coastal resilience measures (CMP). Moreover, the Project coordinated with other WB engagements and local partners in climate and environmental finance (SWIO FISH, Seychelles Sovereign Blue Bond, SeyCCAT)



both citizen as well as economic and ecosystem assets which are crucial for Seychelles development and resilience. The CMP outlines priority interventions in coastal infrastructure, ecosystem restoration and land planning to tackle erosion issues and secure a resilient coastline. The total investment amount for the 5-year period is estimated at US\$ 15.8 million and the Government is currently discussing on the financing. Besides major technical assistance to develop the plan, the Project further supported the Government in its ambitions to implement the CMP: This included (i) an assessment of the technical and institutional capacity of the GoS to implement the CMP, (ii) a variety of pre-feasibility studies of coastal management solutions and technical studies on coastal erosion, flood management and nature-based protective and restorative measures for coral reefs and coastal resilience, (iii) site-specific exposure and impact information to natural hazards as well as (iv) coordination and stakeholder workshops.

36. The Government has progressed on building the necessary policy and capacity foundations for mainstreaming risk information into development programs and planning. With contribution from this Project, the GoS has advanced in policy and institutional matters as well as in building technical capacities, especially in the areas of coastal management and risk sensitive land-use planning. For example, risk-informed planning and regulation in coastal zones is crucial to reduce exposures or mitigate risk and damages in Seychelles. Here, the Project supported the Planning Authority with expertise and a training on risk-sensitive land use planning. Moreover, the *Spatial Data Sharing Policy*, which was developed with support from the Project, facilitates the use of geospatial information in planning and hazard management not only for public but also for private sector investments.

C. Overall Outcome Rating and Justification

Rating: Highly Satisfactory

37. The overall outcome of the Project is rated Highly Satisfactory as it significantly contributed to the PDO through relevant prior actions and achievement of all objectives (efficacy). The Project's objectives, design and implementation as well as the outcomes achieved were relevant to Seychelles' development agenda and aligned with the Government's priorities. The prior actions were linked to the objectives of the Cat DDO and overall provided a sound basis for their accomplishment. The expected results have been achieved or exceeded and substantial progress has been made in creating a strong institutional and legal DRM framework as well as in enhancing capacities to respond efficiently to disasters. The Project further promoted an integrated and systemic risk management approach and contributed to mainstreaming disaster risk reduction and risk-sensitive decision-making in development planning. In addition, technical assistance under the Project also contributed to capacity building or policy reforms in DRM related strategic areas (e.g. coastal management, spatial data sharing policy) beyond the originally envisaged result indicators. However, challenges remain in continuing to implement and operationalize a comprehensive DRM program at different levels of government although substantial progress has been made during the Project's lifetime.

38. The positive impact and success of the Project was instantly proven at the start and throughout the COVID-19 crisis. The DRM policy instruments created, capacities developed, exercises conducted, and stakeholder coordination and communication established during the implementation of this project enabled a fast and efficient response to the developing pandemic. Moreover, the Cat DDO instrument provided and efficient and immediate source of liquidity at the onset of the COVID-19 crisis and thus was vital for Seychelles' fast reaction to safeguard lives and livelihoods.

**Box: How the Cat DDO and associated TAs contributed to Seychelles COVID-19 response****1) Enhancing mechanisms, processes and capacities to respond to the pandemic efficiently and effectively:**

The project supported an efficient and effective manner of responding to emergencies, including a public health crisis, through updating, enhancing and transforming Seychelles DRM and resilience approaches, policies and architecture towards an integrated and coordinated system. The cornerstone of this work has been the NIEMP and its the incident command system as well as the coordination and collaboration processes initiated to advance the resilience dialogue, the alignment of procedures and actors at national and subnational level (through the process of updating the sectoral and district contingency plans) and fostering integrated actions by various stakeholders (guided by the NEOC). The project helped strengthening capacities at DRMD to prepare, prevent and respond to various kind of disasters (including health emergencies) through fostering skills, establishing data, procedures, practicing for events and communication and awareness raising support. The early integration of the health sector into DRM operation was also a crucial contribution of the project.

2) Strengthening national to subnational and inter-ministerial coordination:

Prior to this operation, DRM and DRR issues were largely confined to be handled by DRDM respectively by individual sectors in silo manner respectively separately addressed by districts. The project helped to promoted DRM and DRR as cross-cutting issues, strengthen DRDM's leadership and establish collaborative and coordinative processes and dialogues between different sectors as well as stakeholders at national and subnational levels. By integrating district administrators, shelter focal points, sector representatives and further agencies and stakeholders into the NIEMP process including the trainings and drills, the respective individuals not only knew what to do but also who to reach out to. Lowering barriers through prior contact, established and well-practiced procedures and thus reaching a certain automation is crucial to respond to a crisis.

3) Restructuring and disbursement, first source of liquidity:

The efficient and fast restructuring to include a health trigger based on existing laws and accepted protocols was crucial for an immediate disbursement of the credit. Cat DDO funds were the first source of international support to arrive in Seychelles. Seychelles early response actions included a variety of measures to contain the outbreak, protective measures, communication and awareness actions, and social and economic support

4) Foundations for COVID-19 Crisis Response Emergency DPL and wider government response:

The foundations this project has built during its lifetime (both in terms of engagement and agenda/policies) have contributed to the speedy preparation of an US\$ 15 million COVID-19 Crisis Response Emergency DPL (P174198) to mitigate the immediate social and economic impact of COVID-19 and support long-term recovery. Project activities and outcomes served as and analytical underpinning, for example through supporting health contingency plans and protocols and reducing vulnerabilities. Furthermore, the project contributed to the new Climate Change Policy 2020 (it features the CMP as an important pillar), which was one of the Prior Actions for the Crisis DPL. This DPL supports Seychelles wider COVID-19 response in the areas of protecting lives and livelihoods (e.g. testing, social protection/salary guarantees, financial support to private firms/MSMES impacted by COVID-19) and protecting the future (e.g. mainstreaming of climate change in recovery and strengthening the domestic financial sectors resilience).

39. **With this being the first Cat DDO for Seychelles, a small island and African state, the Project and its linked TA program reached to have transformative impacts on Seychelles DRM and resilience agenda.** Considering the novel nature of the instrument for Seychelles, a quite recent WB-Seychelles engagement on the resilience agenda and a variety of needs for technical and capacity support in building up and operating a state of the art DRM system that integrates various sectors and levels of government, the Project went beyond expected outputs with a relatively modest financing. Besides supporting the development of laws, plans, data, systems or providing capacity, the Project further stimulated collaboration and a dialogue between DRM stakeholders in different sectors at national and subnational levels and encouraged to integrate and responded to evolving resilience priorities, such as the climate agenda or health aspects. With a focus on operationalization and training of practices established in the plans, the Project helped to internalize procedures and communication lines and connecting actors. Thus, by fostering a readiness mindset, the Project helped enabling the DRM actors and systems to react to both known disasters and unforeseen emergencies such as COVID-19.



III. OTHER OUTCOMES AND IMPACTS

A. Poverty, Gender and Social Impacts

40. **This project indirectly supported Seychelles' more vulnerable population by contributing to a fast and efficient response and providing quick liquidity in the aftermath of a natural or health-related event.**

This Project did not support prior actions directly related to poverty, gender, and social aspects. However, through improving Seychelles' resilience to natural or health-related hazards including their economic consequences, the project likely reduces the burden of such shocks to the poorest, which are often disproportionately affected by disasters¹⁸. While Seychelles is considered a high income economy and has made impressive strides in poverty reduction over the last decade, the distribution of income still is highly unequal and the majority of low-income workers are employed in sectors strongly affected by the COVID-19 crisis and may face an elevated risk of falling into poverty¹⁹. COVID-19 further threatens poor and vulnerable communities' health and livelihoods through draining of social assistance or financial impediments to testing or treatment. The Cat DDO may help to cushion these impacts.

B. Environmental, Forests, and Natural Resource Aspects

41. **Seychelles' island economy is vulnerable to climate change and dependent on intact ecosystems and natural resources which calls for urgent attention to strengthen resilience and response to natural hazards.** Natural disasters and global climate change present a disproportionately heavy burden to Seychelles as an isolated small island archipelago. The GoS recognizes the importance of designing mitigation as well as adaptation and preparedness measures to build resilience, which is also reflected in the "National Climate Change Policy 2020"²⁰. While the prior actions foster preparedness and adaptation to the effects of natural disasters and climate change, the Project directly contributed to risk reduction and mitigative measures: For example, through the development of the Coastal Management Plan, which outlines measures to restore and protect environmental assets and resources as well as to reduce risks to people and properties in the coastal zone.

42. **The Project has actively sought to stimulate ecosystem restoration and conservation as integral part of the strategy towards strengthening climate resilience.** Due to Seychelles geography and topography, coastal zones are vital for its economy, present a limited resource for urban expansion and hold the majority of Seychelles natural capital. These zones further provide vital ecosystem services including protection of lives and assets from natural events. Yet, the coastal zone itself is heavily affected by natural hazards such as tsunamis, flooding or erosion as well as climate change impacts like sea level rise or massive coral bleaching. Both technical assistance and additional resources through trust funds under this Project have supported various prefeasibility studies and technical proposal, for example on coral reef restauration, hybrid reefs and Nature-Based Solutions (NBS) for coastal resilience. Furthermore,

¹⁸ For examples and evidence, see: "Shock Waves: Managing the Impacts of Climate Change on Poverty" by Hallegatte et al. (2016) or "Unbreakable Building the Resilience of the Poor in the Face of Natural Disasters" by Hallegatte et al. (2017).

¹⁹ Poverty is projected to rise to between 43.2 and 46.1 percent in 2020 without a response of the Government to the crisis brought about by the COVID-19 pandemic (national poverty line).

²⁰ The policy states that "Seychelles must make a greater collective effort to reduce the risk of disasters, ensure sustainable natural resource management and invest in low-carbon development. This is critical, not just for the economic development of Seychelles but to ensure on the existence of the island nation" It also references the CMP as critical policy pertinent to climate change governance.



the Project has been exploring the potential of innovative hybrid solutions known as “blue barriers.”²¹ which can simultaneously provide coastal resilience, support the recovery of corals and marine biodiversity, and contribute to tourism and regenerating fish stocks. Finally, the CMP provides the missing guidance on proper coastal management. The proposed measures will help to reduce future risks for coastal communities, support healthy coastal ecosystems, and encourage sustainable coastal economic development.

C. Institutional Change/Strengthening

43. **Institutional strengthening and capacity building were one of the most crucial accomplishments during the program implementation period.** The Project was instrumental in its support to strengthening the institutional and technical capacities around comprehensive disaster risk management and the integration of risk reduction into cross-sectoral planning. This Project was the first Cat DDO for Seychelles but continued the strong focus and efforts on institutional capacity building of previous Bank engagements in the country. Through such efforts, the Project was able to support DRDM, which has since 2015 significantly expanded its catalytic role in convening and coordinating different stakeholders and advancing the resilience policy dialogue. Besides emergency preparedness and response, the Project extended significant support and expertise to MAACE, strengthening competencies and knowledge on coastal management. Finally, the Government was able to further build its capacities around innovative technologies and geospatial data, risk-sensitive land-use planning and coastal resilience.

D. Other Unintended Outcomes and Impacts

44. **Even though not part of the original design, the Project supported health-related activities, which eventually proved to be vital for an efficient and effective COVID-19 first response.** Although health was not initially included in the design of the Cat DDO, the Project supported the integration of health-related disaster prevention and response early on²², for example as key sector for updating contingency plans and a crucial component in the NIEMP. Such protocols as well as epidemic drills and exercises allowed the Government to also prepare for and more efficiently respond to a health crisis.

IV. BANK PERFORMANCE

Rating: Satisfactory

Preparation

45. **The Bank worked closely with the Government to prepare the Project and the analytical underpinnings at the time of entry were significant and robust.** The Bank team prepared the Project and defined the policy matrix in collaboration with MFEPT and other agencies including DRDM to be consistent with government priorities and ensure its relevance. The analytical underpinnings included Seychelles specific diagnostics as well as theoretical frameworks for risk reduction and risk management: Amongst

²¹ These measures would consist of reef structures enhanced with coral restoration and designed to induce wave breaking, reduce or redirect destructive erosional currents, and also serve as a substrate, or base, for coral colonization. The blue barrier concept can offer a multi-benefit approach: It can simultaneously provide coastal resilience, support the recovery of corals and marine biodiversity, and contribute to tourism and regenerating fish stocks.

²² This was due to epidemic and disease awareness given alerts and experiences related to the 2014-2016 Ebola crisis.



others, a full hazard risk assessments for Seychelles (UNDP, 2008) as well as climate change scenario models (UNFCCC & MACCE, 2007); the Hyogo Framework for Action 2005, which provided guidelines for comprehensive disaster risk management actions; a World Bank report with an economic analysis of risk reduction measures²³; or the DaLA on the 2013 floods following Felleng, which delivered a reconstruction and recovery framework and recommendations on emergency preparedness and financial risk transfer.

46. The program risks at the time of preparation were appropriately identified and adequate mitigation measures were presented in the Program Document. The overall program risk was rated moderate at the time of entry, mainly due to a moderate institutional capacity risk and vulnerabilities around macroeconomic stability and impacts of natural hazards. Mitigation measures taken by the Government and a strong commitment and ownership to reform programs already prior to the approval of this Project addressed concerns around macroeconomic and policy risks. To mitigate risks associated with limited institutional and technical capacity, the Bank supported a substantial technical assistance and knowledge development program which effectively informed the implementation of the Project.

47. Coordination with development partners allowed for the use of synergies in moving forward the DRM agenda in Seychelles. Partners involved in the risk dialogue and contributing to the advancement of DRM in Seychelles included the Indian Ocean Commission (IOC), the European Union (EU, GCCA+), the French Development Agency (AFD), UNISDR, Italian Civil Protection, Southern Africa Development Community (SADC) and GFDRR. UNISDR for example supported the establishment of a historic loss and damage database and AFD's '*Risques Naturels*' Project contributed to community-based risk assessments. Finally, the Bank has worked closely with IMF on the macroeconomic issues. This strong coordination with development partners continued throughout implementation.

Implementation

48. The World Bank appropriately assessed the Government's commitment and implementation capacity and incessantly assisted and facilitated the Government's efforts to drive the DRM program. The GoS exhibited a strong commitment to and understanding of the importance of the Project and its objectives before and throughout its lifetime. Both the GoS and the Bank were aware about strengths and gaps in implementation capacity and mutually agreed on areas of support and technical assistance. The Bank team provided key technical assistance in areas such as (i) emergency preparedness and response, (ii) coastal resilience and nature-based solutions, (iii) geospatial data and technologies, (iv) hazard assessments and risk financing strategies and (v) risk-sensitive land-use planning. Government counterparts were engaged and considered the TA program instrumental in supporting their reform efforts by bringing in global expertise and knowledge on the DRM agenda. In accordance with other WB operation in the Seychelles, further support around institutional capacity building and human resource development was generally well-matched to the opportunities and constraints of a small island, high income economy. Annex 4.2 includes a summary and additional information on the scope of these technical assistance activities.

49. The World Bank conducted regular implementation support missions to assess progress on the expected results and provide support. Semi-annual implementation support missions incorporating a multi-disciplinary team as well as extraordinary technical missions including thematic experts were held throughout the implementation period. During these missions, the team followed up on the technical assistance activities, advance the dialogue with key sectors and proactively identify and addressed stumble

²³ "Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention" (World Bank, 2010).



stones. Good collaborations with key agencies and departments fostered an open dialogue and the World Bank team was able to track the progress of reforms, facilitate interactions between stakeholders and mobilize additional TA resources where needed. The information presented in Aide Memoires and ISRs was comprehensive and provided a frank evaluation of progress and issues. In addition, the Bank team was quick in taking up discussions and reacted immediately and flexibly in restructuring the program to account for Seychelles needs emerging from the COVID-19 pandemic.

50. Strong relationships with counterparts and foundations laid by previous engagements allowed for an open dialogue and proactive, solution-oriented way of working. This permitted the Bank team to identify and effectively address risks to the achievement of the PDO and adapt to changing circumstances. The strong relationship and open exchange evolved gradually over the course of the Project and prior experiences through analytical and project work helped the team to become familiar with context and challenges of Seychelles. An initial slow pace of implementation during the first Project phase due to different circumstances (e.g. changes in reporting lines of agencies and in technical staff, change of TTL-ship and WB team in 2017, stronger capacity support needed), evolved into a more proactive, flexible and solution-oriented way of working in the later phase of the project. After renewal, the Bank and the Government increase their support to the Project and implemented a much stronger TA program with a clearer focus on strategic priorities around EP&R, coastal management and land planning, which accelerated activities and expected results. The overall quality of support delivered was sound and the team was responsive to evolving needs and changing priorities, constantly bringing in advisory, expertise and mobilizing additional resources to develop capacities and advance the reform agenda.

51. Based on the above, the overall Bank performance is rated satisfactory.

V. RISK TO SUSTAINABILITY OF DEVELOPMENT OUTCOMES

52. The program outcomes are likely to be sustained but there are institutional capacity and resource risks. Throughout the lifetime of this Project, the institutional and technical capacities of involved government agencies with regards to integrated EP&R, coastal management or risk-sensitive planning were strengthened, which resulted in the adoption of the NIEMP and risk-informed sectoral development plans. The DRM framework is strongly anchored in Seychelles' law and risk reduction and management as cross-cutting efforts are integrated into the strategies of other sectors. While Seychelles has made progress in institutional capacity building since 2015, implementation capacity is still lagging. Although there has been stability of political representatives and technical staff in the administration lately, further efforts are required to guarantee continuity in institutional capacity and an effective implementation of the developed strategies and plans. Securing the necessary financial resources for implementation is a risk that significantly increased given the economic and financial impacts related to COVID-19²⁴. The Bank continues to support Seychelles²⁵ but a prolonged crisis may further strain budget²⁶ space for implementing the

²⁴ The crisis has accentuated some of Seychelles' structural problems such as its overreliance on tourism as well as infrastructure and capacity bottlenecks, for example in the health sector. Though Seychelles is effectively containing the spread and has taken decisive measures across the board, the socio-economic consequences will likely be severe and extensive.

²⁵ The World Bank supports Seychelles' efforts to mitigate the immediate social and economic impact of COVID-19 with a Crisis Response Emergency DPL (P174198) of US\$ 15 million. Furthermore, a series of cross-sectoral DPLs for longer term recovery is under preparation.

²⁶ As a result of the stimulus package and lower economic activity, the budget balance is expected to go to -13.6 percent of GDP in 2020 from the pre-COVID-19 estimate of 0.1 percent of GDP. These projections are subject to uncertainty over the magnitude of the economic impact of the COVID-19 crisis (on the revenue side) as well as the government's response (on the expenditure side).



measures laid out in the DRM framework and development plans. However, the crisis moved the resilience agenda to the forefront again and illustrated its importance for Seychelles as a country exposed to natural hazards and compounding shocks. The Government has shown commitment to and appreciation of risk reduction and DRM and is likely to continue advancing the respective agendas.

VI. LESSONS AND NEXT PHASE

A. Lessons Learned

53. **The Cat DDO is a multifaceted instrument that can be adapted efficiently and speedily to fulfill its promise of instant liquidity in a crisis.** Offering immediate liquidity is the very explicit purpose of a Cat DDO, but normally this would only be possible if the pre-agreed trigger conditions apply. Even though the decision to include health-related triggers was a global and urgent one, the process of restructuring and disbursement was very efficient and quick in Seychelles. Cat DDO funds were the first source of external financing accessible to Seychelles and provided a 'lifeline' to people and economy (buffering immediate impacts of the crisis). Thus, the Cat DDO is an efficient and evolving instrument that can accommodate for the necessary flexibility (e.g. trigger amendment, ex-post triggering) needed in a crisis. Good partnership and fast lines of communication to the GoS, knowledge on readily available potential health triggers, a responsive and unbureaucratic mindset and team spirit including support from the wider CMU and management were crucial to a swift restructuring. Nevertheless, and given the experiences with the COVID-19 shock, it would be recommendable to include both disasters caused by natural and health events as standard trigger in any future Cat DDOs. This was not possible yet at appraisal of this Project in 2014.

54. **The instrument was valued by the client mostly for its long-term policy, technical and capacity support, which can go beyond the immediate result indicators.** To a high-income country with notable exposure to natural perils and significant vulnerabilities to external shocks, the liquidity angle of the Cat DDO is a welcome safety net but not the only selling point. The Project helped the GoS to advance and push reforms - and most importantly build and strengthen capacities - both in core DRM areas as well as in cross-cutting topics like geospatial data, coastal management, and risk-informed land-use planning. Despite a fix results framework, this instrument offers some flexibility to adjust to evolving client priorities and grants room for support beyond immediate targets through trust funded Technical Assistance linked to the Cat DDO project. Finally, the external support and expertise provided by the Bank may also offer an opportunity to foster a more strategic and comprehensive cross-sectoral resilience dialogue and strengthen agencies in their role to lead such a dialogue. Climate and disaster resilience can also have positive economy-wide implications for tourism-dependent island state, for example through quicker recovery and safeguarding (environmental) assets, people's livelihoods and external image.

55. **A strong policy matrix and monitoring framework with indicators that measure tangible progress in reforms or capacity built supports the effectiveness of the project.** The impact of the reform program is closely related with the quality of the policy matrix, which should include consistent prior actions, SMART indicators and ambitious but realistic targets at preparation. Policy areas and indicators should be defined in such a way that the project with support from the WB can have reasonable influence on progress of reforms and ultimately demonstrate effects. While the two pillars and the majority of prior actions supported by this Project were adequately identified and consistent with the Government's program, the Bank could have improved the quality of the results framework with indicators that are more outcome-



oriented and a clear monitoring outline to better track progress towards achieving the PDO. For example, the linkages attribution of the result indicators under pillar 2 to its PA#3 (i.e. historic loss and damage database established) was rather weak, whereas the indicators themselves were mostly relevant for the pillar's contributions towards the PDO. The flexibility respectively means for course adjustments within the results framework is currently limited as per conditions of the instrument, (thus setting the right level of ambition is challenging). As policy priorities and the sector context evolve during long-term operations, allowing for adjustments of the results framework at specific times, such as a renewal, may increase the efficiency and effectiveness of the instrument.

56. Given the context of small island states and the complexity and cross-cutting nature of DRM, Cat DDOs should account for broader capacity building needs and Task Teams be flexible and open to adapt. Due to their size and characteristics, small island states have limited capacities (e.g. few individuals or entities need to cover a broader range of government activities and responsibilities, limited resources for building local expertise, etc.) and the government often needs to fulfill both local and national functions at the same time. Task Teams should acknowledge these dynamics by not overengineer activities and by being prepared to deliver extensive and strong technical assistance to reach ambitious goals. This may entail a certain readiness to innovate and extending capacity building efforts, considering including further stakeholders like the private sector. In this Project, a strong TA program and close Bank supervision have proven to be an effective strategy to strengthen institutional capacities and DRM outcomes.

57. Finally, a solid partnership and strong institutional champions are essential to advance a comprehensive, cross-sectoral policy dialogue and coordinate involved agencies. Both the MFEPT as Borrower and DRDM as implementing agency had a good understanding of the Cat DDO instrument as well as broader Bank operations and the willingness to drive the project agenda. The Cat DDO enabled the World Bank to be a key partner to the GoS, supporting technical and institutional capacity building and contribute to improved collaborations between national and subnational entities involved in DRM through establishing or reinforcing incident management procedures and communication. To increase the efficiency and sustainability of such efforts, good inter-agency cooperation and an institutional champion in the lead are essential. Here, the MFEPT with its strong and central position can provide important impetus. Furthermore, the impact of WB efforts as well as overall cooperation may be strengthened by a better local presence. Working with local consultants who have the necessary familiarity with context, institutional set-ups and dynamics as well as working relations and buy-in from the GoS can improve the efficiency and effectiveness of an operation.

B. Next Phase

58. There is a strong rationale for continuing the World Bank's DRM and resilience engagement in Seychelles, given the challenges faced due to the COVID-19 pandemic as well as increasing climate change-related hazards. Due to the COVID-19 crisis and the current macroeconomic situation, the GoS is facing US\$ 450 million gap in their financing for the coming 3 years. Initially, the GoS had requested a stand-alone Second Cat DDO but given the substantial and immediate financial needs due to COVID-19, the GoS decided to request support in the form of a series of cross-sectoral DPLs with instant disbursement instead. Discussions on the new DPL series have just started at the time this ICR was prepared. Climate change and building resilience to disasters remains a top priority for the GoS and strong pillar of WB engagement within the CMU program. Therefore, efforts to build on the results achieved through implementing and advancing the DRM and climate agenda are to continue under future operations. TA operations linked to the Cat DDO,

especially in the area of coastal resilience, climate financing and land planning, are still ongoing to make sure the necessary foundations for a green and resilient recovery are prepared.

**ANNEX 1. RESULTS FRAMEWORK****RESULTS INDICATORS**

Pillar: Strengthening the institutional/legal framework for disaster risk management.

| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|--|-----------------|---------------------|---------------------|-------------------------------|
| Districts have updated protocols for preparedness and response | Number | 0.00 01-Jan-2015 | 5.00 30-Sep-2020 | 5.00 04-Jun-2020 |

Comments (achievements against targets):

Target achieved; as of September 2020: DRDM with technical support from the World Bank worked with the five prioritized Districts Administrators (DAs) from the Local Government Department (LGD) to revise and finalize the Districts plans which provide the overarching framework for emergency preparedness and response at the District level. The five revised plans include the Districts of Anse Aux Pius, La Digue, Point La Rue, Beau Vallon and Baie St. Anne. To ensure that the Districts plans can be operationalized in support of the DAs, revised information focused on key aspects such as i) counterparts at the district level that will support them during emergencies, ii) list of safety areas, shelters and evacuation routes, iii) list of transportation and other contract services, iv) information on District emergency brigades and their team members as well as v) Standard Operating Procedures (SOPs) for District emergency brigade team leader and emergency shelter focal person. Newly updated plans were reviewed and approved by the Principal Secretary of DRDM. *Source: Aide Memoire of the Supervision Mission in December 2019 and ISR June 2020, ICR interviews conducted with counterparts during project closing mission December 2020*

| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|---|-----------------|---------------------|---------------------|-------------------------------|
| The DRDM conducts annual drills and exercises | Number | 0.00 01-Jan-2015 | 6.00 30-Sep-2020 | 16.00 04-Jun-2020 |

**Comments (achievements against targets):**

Target exceeded; as of September 2020: DRDM delivered a total of 16 drills and emergency exercises during the implementation phase from 2015-2020, which exceeds the target of at least one exercise per year. These included for example single event drills such as oil spill emergency drills, regular tsunami exercises, school safety as well as health and pandemic exercises or a post event evaluation of a fire at the Social Public Transport Corporation. Furthermore, large multi-sector and multi-stakeholder exercises were conducted: In June 2019, DRDM delivered several NIEMP Table Top Exercises (TTX) with members of the National Emergency Operations Center (NEOC). The TTXs tested multi-agency coordination and communication arrangements as set out in the NIEMP at the national and regional level structures through a simulated command post exercise based on a major national disaster event at the airport. Also, Districts Table Top Discussions for DAs were delivered and focused on essential emergency response tasks and procedures at the District level. Finally, in March 2020, DRDM and the police department conducted a TTX at the International Conference Center of Seychelles to test its level of preparedness to handle the evolving COVID-19 virus infection situation in the country. *Source: Mission Aide Memoires 2015-2020, ISR June 2020 and confirmed by Department for Disaster and Risk Management (DRDM) during Implementation Closing Mission December 2020.*

| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|--|-----------------|---------------------|---------------------|-------------------------------|
| Annual public DRM education and awareness campaigns are conducted. | Number | 0.00 31-Dec-2014 | 2.00 30-Sep-2020 | 3.00 04-Jun-2020 |

Comments (achievements against targets):

Target achieved; as of September 2020: During implementation from 2015-2020, DRDM continuously delivered media outreach activities to the public to build awareness and inform about disaster risk reduction and management. These included public ads, newspaper articles, TV spots, several interviews by the Principal Secretary on current DRM developments (including the presentation of the NIEMP on national media), as well as a DRDM online presence (webpage, Facebook). During child protection day 2019, the Principal Secretary of DRDM discussed key actions related to child protection during emergencies as part of the regular communication and educational outreach campaign. In addition, DRDM delivered two specific community level educational campaigns as part of the annual DRR day activities in 2018 (on Tsunami awareness and response) and 2019 (on the engagement and role of youth for building resilience to climate change and disasters as well as on empowering communities to develop a culture of



resilience). Currently, DRDM is developing a public DRM education and awareness framework to guide outreach activities in the future. *Sources: Mission Aid Memoires 2015-2020, ISR June 2020, DRDM website/Facebook, Seychelles news reports.*

| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|--|-----------------|---------------------|---------------------|-------------------------------|
| At least 5 contingency plans have been updated and are officially approved | Number | 1.00 31-Dec-2014 | 5.00 30-Sep-2020 | 9.00 31-Aug-2020 |

Comments (achievements against targets):

Target exceeded; as of September 2020: By 2020, six sector contingency plans and two agency emergency response plans have been updated. In addition, DRDM completed the development of the National Integrated Emergency Management Plan (NIEMP), which was approved by Cabinet on 26 August 2020. As a 'cross-sectoral', comprehensive national plan, the NIEMP outlines the general framework and Seychelles approach to Emergency Preparedness and Response (EP&R) and defines how the Integrated Emergency Management System works. The NIEMP proved its practical value even before approval as it was directly applied in the context of Seychelles' COVID-19 response from March 2020 onwards.

The NIEMP integrates and coordinates sectoral and event specific plans that were revised during the Project:

1. Education Contingency Plan (finalized)
2. Health Contingency Plan (finalized)
3. Tourism Contingency Plan (finalized)
4. Food Security and Nutrition Contingency Plan (finalized)
5. National Airport Contingency Plan (finalized)
6. National Port Contingency Plan (finalized)

In addition, other agencies have developed or revised emergency response plans:

1. Seychelles Fire Rescue Service Agency (SFRSA) Emergency Response Plan (finalized)

**2. Seychelles Red Cross Emergency Response Plan (finalized)**

Previously (i.e. before 2015) finalized plans include:

1. Hazmat Plan
2. (Tsunami Contingency Plan)

Sources: Mission Aid Memoires 2015-2020, ISR June 2020, ICR interviews conducted during project closing mission December 2020 and Seychelles State House - Office of the President of the Republic of Seychelles weekly Cabinet Business news of 26 August 2020.

Pillar: Integrating disaster risk reduction into development planning and decision-making

| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|--|-----------------|------------------|------------------|-------------------------------|
| A geospatial risk data sharing platform updated annually | Yes/No | N 31-Dec-2014 | Y 30-Sep-2020 | Y 04-Jun-2020 |

Comments (achievements against targets):

Target achieved; as of September 2020: The Centre for GIS (under MHL) developed and maintains its own Web GIS platform that serves for sharing geospatial information across ministries and agencies. Throughout implementation, the project provided risk data to be incorporated to the platform. In addition and with support from the World Bank and the National Geospatial Working group, the Government developed an Action Plan for strengthening the National Spatial Data Infrastructure and prepared a National Spatial Data Sharing Policy (SDSP) which facilitates spatial data sharing among government entities and with the public. The SDSP was approved by the Cabinet on May 6, 2020 and will substantially improve the integration of geo-localized risk information into planning and decision making. Furthermore, technical assistance (under OpenDRI) supported the government's efforts in data collection, capacity building, the use of novel technologies such as drones as well as a citizen mapping exercise with OpenCitiesAfrica where students mapped over 900 critical features in coastal zones. *Sources: Mission Aide Memoires 2015-2020, ISR June 2020, ICR interviews conducted during project closing mission December 2020 and State House - Office of the President of the Republic of Seychelles Cabinet Business of 6 May 2020.*



| Indicator Name | Unit of Measure | Baseline | Target | Actual Achieved at Completion |
|---|-----------------|---------------------|---------------------|-------------------------------|
| Line Ministries, agencies and private sector include risk information in their development projects | Number | 0.00 31-Dec-2014 | 5.00 30-Sep-2020 | 5.00 04-Jun-2020 |

Comments (achievements against targets):

Target achieved, as of September 2020: Five key ministries (i.e. Environment, Lands & Housing, Health, Education, Tourism) have included risk information and/or outlined measures for risk reduction and response in their strategic development plans: This includes the newly developed *Coastal Management Plan (2019-2024)*, prepared by the Ministry of Agriculture, Climate Change and Environment and endorsed by Cabinet on May 30, 2020. Further strategic plans and policies incorporating risk information are the *2015 Victoria Master Plan* and the *2017 Physical Planning Bill* by MLH, the *Tourism Development Act 2019* by the Ministry of Foreign Affairs and Tourism, the *Education Sector Medium-Term Strategic Plan 2013-2017* by the Ministry of Education and the *2018 Joint External Evaluation's recommendation* to the Ministry of Health's strategic plan. In 2020, the government and the World Bank have started to work on the implementation of the CMP as well as on strengthening risk-sensitive land-use and investment planning with Seychelles Planning Authority. Targeted training sessions on risk-based planning practices were organized with the Planning Authority which allows the Authority to better take risk information into account in spatial planning. Finally, the *National Data Sharing Policy* facilitates the use of geospatial information and thus hazard management for private sector investments. Sources: *Mission Aide Memoires 2015-2020*, *ISR June 2020*, *ICR interviews conducted during project closing mission December 2020* and *State House - Office of the President of the Republic of Seychelles Cabinet Business of 30 May 2019*.

**ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION PROCESSES****A. TASK TEAM MEMBERS**

| Name | Role |
|----------------------------------|--|
| Preparation | |
| Doekle Geert Wielinga | Task Team Leader |
| Andre Carletto | Disaster Risk Management Consultant |
| Rafael Muñoz Moreno | Senior Economist |
| Alexis Sienraert | Country Economist |
| Sawkut Rojid | Economist |
| Julie Dana | Lead Financial Officer |
| Patrick Kabuya | Senior Financial Management Specialist |
| tionsloannis John Balafoutis | Financial Management Specialist |
| Aissatou Diallo | Senior Finance Officer |
| Faly Diallo | Financial Officer |
| Chalida Chararnsuk | Financial Assistant |
| Lova Niaina Ravaoarimino | Senior Procurement Specialist |
| Joseph Fizzarotti | Resource Management Officer |
| Nneoma Veronica Nwogu | Senior Counsel |
| Helene Bertaud | Senior Counsel |
| Matthieu Louis Bonvoisin | Counsel |
| Marie Bernadette Darang | Program Assistant |
| Supervision/ICR | |
| Brenden Jongman | Task Team Leader(s) |
| Ana Campos Garcia | Task Team Leader(s) |
| Sylvain Auguste Rambeloson | Procurement Specialist(s) |
| Patrick Kabuya | Financial Management Specialist |
| Paul-Jean Feno | Senior Environmental Specialist |
| Maminaina Solonirina Rasamoelina | Environmental Specialist |



| | |
|--|--|
| Noro Hajalaina Rasoloarimanana Andriamihajas | Procurement Team |
| Elad Shenfeld | Senior Disaster Risk Management Specialist |
| Boris Ton Van Zanten | Nature-based Solutions and DRM Specialist/Consultant |
| Gonzalo Gutierrez | Nature-based Solutions Consultant |
| Paul Hayden | Senior Disaster Risk Management Consultant |
| Isabelle Forge | Disaster Risk Management Consultant |
| Michele Martin | Senior Disaster Risk Management Consultant |
| Darragh Coward | Disaster Risk Management Consultant |
| Bezalel Traiber | Senior Disaster Risk Management Consultant |
| Arnon Regev | Senior Disaster Risk Management Consultant |
| Adam McAllister | Emergency Preparedness Consultant |
| Andrew Coote | Senior Spatial Infrastructure Consultant |
| Yves Barthelemy | Geospatial Analytics Consultant |
| Scott Ferguson | Flood Risk Management Consultant |
| Borja Reguero | Senior Coastal Management Consultant |
| Julien Million | Senior Fisheries Specialist |
| Arthur Schindelegger | Land Use Planning and DRM Consultant |
| Nathalie Andrea Wandel | ICR Lead / Disaster Risk Management JPO |
| Sung Heng C. Kok Shun | Team Member |

STAFF TIME AND COST

| Stage of Project Cycle | Staff Time and Cost | |
|------------------------|---------------------|--|
| | No. of staff weeks | US\$ (including travel and consultant costs) |
| Preparation | | |
| FY14 | 14.787 | 118,159.30 |
| FY15 | 9.392 | 53,110.88 |
| FY16 | .733 | 3,513.01 |



| | | |
|------------------------|--------------|-------------------|
| Total | 24.91 | 174,783.19 |
| Supervision/ICR | | |
| FY15 | 0 | 4,651.82 |
| FY16 | 4.412 | 30,463.82 |
| FY17 | 7.414 | 57,714.39 |
| FY18 | 3.066 | 48,158.08 |
| FY19 | 6.895 | 174,908.57 |
| FY20 | 20.586 | 219,978.25 |
| Total | 42.37 | 535,874.93 |

**ANNEX 3. BORROWER, CO-FINANCIERS, AND OTHER DEVELOPMENT PARTNERS'/STAKEHOLDERS' COMMENTS**

A draft of the ICR for Seychelles Disaster Risk Management Development Policy Loan with a CAT-DDO (P148861) incorporating recommendations of the World Bank Internal Review Meeting (on 26 May 2021) was shared with the MFEPT (Borrower) and discussed in a review meeting on 16 June 2021. A revised final version of the ICR incorporating feedback from a review meeting with the MFEPT was subsequently shared with the Government on 28 June 2021 for final review. The MFEPT approved and confirmed it had no additional comments to the revised, final version of the World Bank ICR on 29 June 2021.

The following paragraphs summarize the Government's feedback and comments:

- The report is very informative and presents a good and comprehensive overview of the program, its results and outcomes, demonstrating well the benefits and the value of the CAT DDO Program for Seychelles.
- From a client perspective, we are satisfied with the flexibility of the program and the openness of the World Bank to swiftly restructure and timely disburse funds to support Seychelles' response to COVID-19. The funds were the first source of international finance to arrive in Seychelles.
- The Program went beyond its financing relevance, catalyzing DRM reforms and supporting the Government in advancing its resilience agenda as well as mainstreaming risk reduction in planning and decision-making. The Program's support in capacity building, bringing together partners and stakeholder, at national and subnational level, and increasing their awareness and understanding of emergency response and contingency planning has been instrumental.
- Learnings on the Government's side for future operations include the importance of further equipping sectors and stakeholders to take ownership on climate and resilience topics as well as having strong monitoring mechanism supporting implementation.
- The Government is determined and dedicated to advance the climate and resilience agenda. With Seychelles being particularly vulnerable to the impacts of climate change and no straight-forward solutions on the horizon, we need to be as resilient and as prepared as possible. Thus, mainstreaming contingency planning and integrating climate and resilience considerations across all sectors and policy areas is a crucial priority.
- We look forward to further collaborating with the World Bank, maintaining and building upon the outcomes of this operation.
- The Government agrees with all ratings, the report's narrative on results and impacts as well as all other material aspects of the report and has no additional comments.

**ANNEX 4. SUPPORTING DOCUMENTS****4.1 List of relevant Documents and Outputs**

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- GoS. (2014). Disaster Risk Management Act 2014. [https://www.ifrc.org/docs/IDRL/Act%20of%202014%20Disaster%20Risk%20Management%20Act%202014%20\(2\).pdf](https://www.ifrc.org/docs/IDRL/Act%20of%202014%20Disaster%20Risk%20Management%20Act%202014%20(2).pdf)
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4.2 Brief Summary of Technical Assistance Activities

| Technical Assistance* | Activities |
|---|---|
| Coastal Resilience and Nature Based Solutions | <p>Description and Objectives:</p> <p>The objective of this TA was to strengthen the capacity for strategic planning and implementation of coastal management projects, including nature-based solutions for coastal resilience, in the Government of Seychelles' institutions through supporting the development of the Coastal Management Plan (CMP). The TA also financed several pieces of analytical work addressing knowledge gaps, and with the aim to support the Government of Seychelles' capacity to plan, design and implement coastal resilience projects, including nature-based solutions.</p> <p>Activities and Outcomes:</p> <p>TA activities targeting coastal resilience commenced after the request of the Ministry of Agriculture, Climate Change and Environment (MACCE) for support developing a coastal management plan for Seychelles at the end of 2017. Over a 1.5-year period, the World Bank team closely collaborated with the Climate Change Division in MACCE and other government agencies to prepare the CMP, which resulted in a broadly accepted implementation agenda for coastal management projects. The CMP process included a series of stakeholder engagement activities, including a scoping workshop, consultation workshops with public sector, private sector, and civil society as well as a national validation workshop.</p> <p>Parallel to the development of the CMP, several technical studies were funded by the World Bank supporting the development of the CMP and to exploring the potential of investments in nature-based solutions for coastal resilience in Seychelles, specifically looking at coral reefs. This included a i) quick scan modeling study to assess the coastal flood reduction potential of coral reef restoration around the islands Mahe, Praslin and La Digue and ii) a national level implementation strategy for large scale coral reef restoration for coastal protection.</p> <p>Following the endorsement of the CMP by Cabinet in May 2019, TA activities have focused on supporting the GoS with the implementation of the CMP. Per request of the President and Cabinet, a rapid assessment was conducted to identify causes and consequences of the severe erosion and overtopping events during the 2019-2020 Northwest Monsoon season. A team of international and local consultants, led by the firm eCoast, was hired to conduct pre-feasibility studies of coastal solutions at five of the priority sites identified in the CMP: Anse Kerlan, Grand Anse and Cote D'Or in Praslin and Beau Vallon and Anse Aux Pins/Au Cap in Mahe. These studies will come up with a set of coastal solutions - including nature-based solutions, based on locally collected data on bathymetry and benthic cover and detailed coastal modeling.</p> |
| Emergency Preparation and Response | <p>Description and Objectives:</p> <p>The objective of this TA was to strengthen Disaster Risk Management (DRM) within Government of Seychelles' institutions by enhancing the country's Emergency Preparedness and Response (EP&R) system through the development of the National and Districts Contingency Plans and Drills.</p> <p>This TA financed activities that leveraged and scaled up DRM work led by DRDM and supported by the World Bank. The activities were aligned with and built upon the outputs of a previous ACP-EU Grant that has supported the supervision of the Seychelles' Cat-DDO policy dialogue.</p> <p>Activities and Outputs:</p> <p>Based on the findings of the initial qualitative assessment of the country's EP&R system conducted by the WB in April 2018, and as part of the ongoing policy dialogue, the TA supported the development of the NIEMP (The Seychelles National Emergency Operation Plan) and the review, updating and simplification of five prioritized District Contingency plans.</p> <p>To assist the Government of Seychelles in the development of the National and five District Contingency Plans, trainings, workshops, and working group sessions were conducted in a participatory manner. Thus, the development of the Contingency Plans was the product of a collaborative process involving stakeholders from both national and local levels. The workshops</p> |



| Technical Assistance* | Activities |
|-----------------------|---|
| | <p>provided a forum for the relevant government agencies to learn and experience new concepts and develop and strengthen constructive working relationships while identifying issues, problems, and collective solutions. Moreover, the TA financed a comprehensive review of existing EP&R legislation, policies, national, district, and sectoral plans.</p> <p>The outputs of this TA include (i) a complete and final National Integrated Emergency Management Plan, (ii) Contingency Plan for five prioritized Districts, (iii) a workshop/Table Top Exercise (TTX) with key stakeholders involved in emergency response in Seychelles conducted for the validation of National and District Contingency Plans; (iv) the dissemination of the National and District Plans, and, (v) six updated sectoral contingency plans and two agency emergency response plans.</p> |
| Geospatial | <p>Description and Objectives:</p> <p>In collaboration with GFDRR's Open Data for Resilience (Open DRI) & Open Cities initiatives, TA activities have focused on supporting the capacity of the Government of Seychelles' institutions to use geospatial information for managing disaster risk and resilience. Support focused on i) strengthening the technical capacity of institutions, ii) fostering cross-sectoral and cross-agency collaboration on geospatial data and expertise and iii) strengthening the policy framework and infrastructure.</p> <p>Activities and Outputs:</p> <p>Initial TA for strengthening the geospatial capacity focused on the development of a cross-agency geospatial working group and technical support to this group – and specifically the center for GIS – in collecting, curating and managing geospatial data for disaster risk management and resilience. With this support, geospatial disaster risk data was published on an online data platform hosted by the Government of Seychelles.</p> <p>Subsequently, continuous TA was provided to refine and improve exposure data in the coastal zone through a community mapping project to chart the exposure and vulnerability of coastal assets. Also, the government was supported in publishing several geospatial exposure datasets on OpenStreetMap. In addition, a drone mapping training was conducted with the center for GIS and GIS-experts across government agencies. The drone training was received very well and the center for GIS purchased its own drone in response.</p> <p>To strengthen the capacity for sharing geospatial data across government agencies, TA was provided to support the development and formulation of a national spatial data sharing policy and to identify next steps for strengthening Seychelles' geospatial data infrastructure. The spatial data sharing policy was approved by Cabinet in May 2020.</p> |
| Land Use Planning | <p>Description and Objectives:</p> <p>The TA on land use planning aimed (1) on capacity building within GoS as well as fostering inter-governmental cooperation and (2) providing a strategic assessment with recommendations on risk-sensitive land use planning.</p> <p>Activities and Outputs:</p> <p>For the integration of hazard and risk information in planning and permitting procedures a flood inundation map was drafted for coastal as well as fluvial and pluvial floods in 2018/19 and provided to GoS. Risk-sensitive land use planning was explicitly addressed within the CMP and priorities identified. A strategic assessment on the status quo of risk-sensitivity of Seychelles land use planning practice was started in spring 2020. Based on initial findings a virtual training on principles, possibilities, and limitations of risk sensitive land use planning for governmental authorities was held in May 2020 with participants from different authorities (MACCE, MLH, DRDM, Planning Authority). Besides the TA team provided advice on the draft setback policy of MACCE concerning implementation and implications of the policy.</p> |

*All of the above listed technical assistances were financed through GFDRR Trust Funds.



4.3 Detailed Results Matrix

| POLICY AREA 1 STRENGTHENING THE INSTITUTIONAL/LEGAL FRAMEWORK FOR DISASTER RISK MANAGEMENT | | |
|---|--|---|
| Prior Action | Result Indicator | Achievements at the time of the ICR |
| Prior Action 1: The National Assembly has adopted the Disaster Management Act, which provides a legal framework for disaster risk management including both a national disaster risk management plan and an integrated emergency management system. | 1) Districts have updated protocols for preparedness and response. | <p>Achieved</p> <p>DRDM has revised and updated District Contingency Plans of five priority districts (Anse Aux Pins, La Digue, Point La Rue, Beau Vallon and Baie St. Anne) out of the 26 districts of Seychelles.</p> <ul style="list-style-type: none">Together with the District Administrators (DAs) from the Local Government Department (LGD), DRDM has revised information focused on key aspects such as main counterparts at the district level that will support them during emergencies, list of safety areas, shelters and evacuation routes, list of transportation and other contract services, and information on District emergency brigade and team members as well as Standard Operating Procedures (SOPs) for district emergency brigade team leader and emergency shelter focal person.The contingency plans provide the framework for emergency preparedness and response at district level and updates undertaken ensure that the plans can be fully operationalized and are aligned with the overall emergency management system set out in the NIEMP. Therefore, operations and procedures in these districts are now integrated and coordinated with operations at higher levels of command as well as with relevant sector response plans. <p>Further district plans may be updated according to the templates of the five priority districts' plans and based on the overall framework of the NIEMP.</p> <p>Output: Five updated contingency plans that are aligned with the DRM system outlined in the NIEMP. Command structures are in place and tested. District emergency brigades are capacitated and prepared to respond.</p> <p>Impact: As a policy instrument that ensures disaster risks are managed and responded to at the lowest level of command, the district contingency plans are a crucial aspect of the institutional framework at the community level.</p> |
| | 2) The DRDM conducts annual drills and exercises. | <p>Exceeded</p> <p>Since 2015, 16 drills and exercises have been delivered by DRDM and thus have increased the capacity of both governmental and sectoral agents to efficiently respond to disasters. Therefore, the target of one drill per year is well exceeded. These drills and exercises include:</p> <p>2015:</p> <ul style="list-style-type: none">2 Ebola drills by the Ministry of Health1 Full scale drill for all hazards1 Oil spill drill |



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| | | <p>2016:</p> <ul style="list-style-type: none">• 1 Test exercise of the National Emergency Response Plan• 1 Tsunami drill (as part of IOWave 16 together with UNESCO) <p>2017:</p> <ul style="list-style-type: none">• 1 Exercise on school safety during emergencies• 1 Oil spill drill <p>2018:</p> <ul style="list-style-type: none">• 1 Tsunami exercise (as part of IOWave 18 together with UNESCO)• 1 pandemic drill together with the tourism sector, Red Cross Society of Seychelles and the Ministry of Health• 1 Post event evaluation exercise related to a fire at the Social Public Transport Corporation (SPTC) <p>2019:</p> <ul style="list-style-type: none">• 2 Table Top Exercise (TTX) with DRDM to test the multi-agency coordination and communication laid out in the NIEMP on national, district and incident level protocols• 1 Table Top Exercise (TTX) with command posts and the National Emergency Operations Center (NEOC) to validate the NIEMP concept (incl incident command management, communication, tactical capabilities, traffic management as well as shelter and emergency provisions) on the scenario of a major event impacting the port and SEYPPEC fuel storage facilities• 1 Full scale exercise on a fire incident scenario at Independence House including traffic diversion as well as evacuation and search rescue <p>2020:</p> <ul style="list-style-type: none">• 1 Test exercise with DRDM and the police department on Seychelles' preparedness handling the evolving COVID-19 infections situation in the country <p>Output: 16 exercises delivered. DRDM and relevant agencies have an improved knowledge and understanding of disaster risks and are trained to respond in a coordinated manner to a variety of disaster scenarios.</p> <p>Impact: These exercises are part of the operationalization of various policy instruments (i.e. national, district, sector, and event contingency plans) and increase the effectiveness and efficiency of the disaster response system and thus strengthen the DRM institutional framework.</p> |
| Prior Action 2: The Cabinet of Ministers has approved an updated policy for disaster risk management submitted by the Minister for Environment and Energy, which establishes a fully functional early warning system, increases preparedness through updated sector contingency | 3) Annual public DRM education and awareness campaigns are conducted. | <p>Achieved</p> <p>Based on an initial action plan, DRDM developed and continuously delivered media campaigns reaching out to the public to build awareness and inform about disaster risk reduction and risk management. Community engagement and empowerment as well as building a culture of resilience was at the heart of these outreach activities:</p> <ul style="list-style-type: none">• The ongoing campaigns included public ads, newspaper articles and TV spots, the establishment of an online presence (i.e. website, Facebook page) and educational activities as part of the annual DRR day.• Most of the drills and exercises that DRDM conducted were accompanied by media coverage to raise awareness and inform the public on various risks, disaster scenarios and preparation respectively response measures. |



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| plans, and provides for the carrying out of information dissemination activities. | | <ul style="list-style-type: none">DRDM worked with key stakeholders such as the Ministry of Education on integrating DRM in the school curriculum.DRDM engaged in outreach activities with the tourism and transportation sector as well as the fire brigade to ensure residents and guests in the Seychelles are well informed on evacuation procedures and can be hosted in shelters in case of an emergency.Public and educational outreach was both directed towards relevant hazards (e.g. Tsunami awareness and responses educational activities during DRR day 2018) and well as special vulnerabilities of different groups during disasters (e.g. in 2019, special attention was given to the vulnerability of children and youth and their engagement in DRR)During child protection day 2019, the Principal Secretary of DRDM discussed key actions related to child protection during emergencies as part of the communication and educational outreach campaign.DRDM ensured that the public is aware of and regularly updated on Seychelles Disaster Risk Management System through various media channels. For example, the Director General of DRDM formally introduced the NIEMP on national media, emphasizing the role of multi-agency coordination during emergencies.Currently, DRDM is developing an overarching strategy and educational/awareness framework to guide and systematically institutionalize DRM outreach. <p>Output: Online presence established, and three educational and awareness campaigns delivered. The general public is better informed and aware of disaster risks in the Seychelles as well as DRDM's mandate. The public has increased knowledge on how to behave or where to turn to for support during emergencies and disasters.</p> <p>Impact: Community awareness and engagement is a crucial part of the operationalization of the DRM system as outlined in the NIEMP and thus adds to strengthening the institutional framework.</p> |
| | 4) At least 5 contingency plans have been updated and are officially approved by the Cabinet of Ministers. | <p>Exceeded</p> <p>Besides developing and updating contingency plans in a variety of sectors, the main piece of work and central pillar of disaster preparedness and response in the Seychelles was the establishment and operationalization of the National Integrated Emergency Management Plan.</p> <ul style="list-style-type: none">The NIEMP outlines the general framework to Emergency Preparedness and Response, integrating and coordinating sectoral, district and event specific plans, and thus defines Seychelles' overall Emergency Management System. The NIEMP is the results of a continuous resilience dialogue, stakeholder coordination around DRR and DRM as well as the establishment and operationalization of a DRM system reflecting international best practice.During the implementation period, several key ministries have revised sector specific contingency plans and DRM relevant institution have developed business continuity and response plans. These sectors include Health, Education, Tourism, Food Security & Nutrition, Port and Airport. Furthermore, Seychelles Fire Rescue Service Agency (SFRSA) and Seychelles Red Cross Society have updated their business continuity plans. DRDM was steering the dialogue and coordinated with the respective agencies to ensure all the plans are aligned with the DRM system outlined in the NIEMP. |



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| | | <ul style="list-style-type: none">• The NIEMP proved its practical value even before its approval (on August 26, 2020) and was instrumental in Seychelles' fast and efficient response to the COVID-19 outbreak in the beginning of 2020. The new command structures were immediately implemented with the first positive cases in early March 2020 and facilitated coordination with key sectors such as Health or concerned districts and allowed for a fast containment of transmission. <p>Output: Six newly updated sector contingency plans are aligned and integrated with the NIEMP, which is an additional, overarching disaster risk management and response plan. Moreover, two key DRM institutions have developed business continuity plans.</p> <p>Impact: As a policy instrument covering the strategic responses of various key sectors, the sector contingency plans are a crucial part of the institutional DRM framework. The NIEMP ensures effective and efficient coordination of individual response strategies and thus forms a centerpiece in the operationalization of institutional framework.</p> |
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POLICY AREA 2
INTEGRATING DISASTER RISK REDUCTION INTO DEVELOPMENT PLANNING AND DECISION-MAKING.

| Prior Action | Result Indicator | Achievements at the time of the ICR |
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| Prior Action 3: The Government has established a historic loss and damage database in collaboration with the United Nations International Strategy for Disaster Reduction and the Indian Ocean Commission, which is updated annually and fully accessible to all | 5) A geospatial risk data sharing platform updated annually. | Achieved <p>With support from the UNDRR and IOC, the GoS collected historic loss and damage information and made it publicly available via the DesInventar Platform. In addition, the GoS set up its own Web GIS and data platform hosted and maintained by the Centre for GIS under the Ministry of Lands and Housing. In 2015, a Geospatial Working Group was established to promote all issues related to geospatial data (including data collection, storage, usage and sharing). The need for a Spatial Data Sharing policy for improved access and use of spatial information for planning, decision-making and sustainable development emerged as a priority. The WB assisted the GoS in the development of the policy as well as an action plan to strengthen the National Spatial Data Infrastructure and in building up human and technical capacities. Specific outcomes under this indicator include:</p> <ul style="list-style-type: none">• Establishment of a National Geospatial Working group in 2015, comprising 14 key institutions and stakeholders, to promote the geospatial sector in Seychelles and the integration of geospatial technology and GIS for public resource management and decision making.• Regularly updated Web GIS platform for sharing spatial information across ministries and agencies (hosted by MLH).• Spatial Data Sharing Policy (SDSP) approved by Cabinet on May 6, 2020.• Diagnostic on status of National Spatial Data Infrastructure (NSDI) performed in 2019 and Action Plan delivered to improve and strengthen NSDI. Measures include for example strengthen governance by setting up a high-level steering group, build human capacity, create simple citizen-focused web access, update core spatial datasets using novel technologies, create a national address database, etc. This will enable and promote the use of spatial information in planning and decision making, reduce cost, create jobs and foster Public Private Partnerships. |



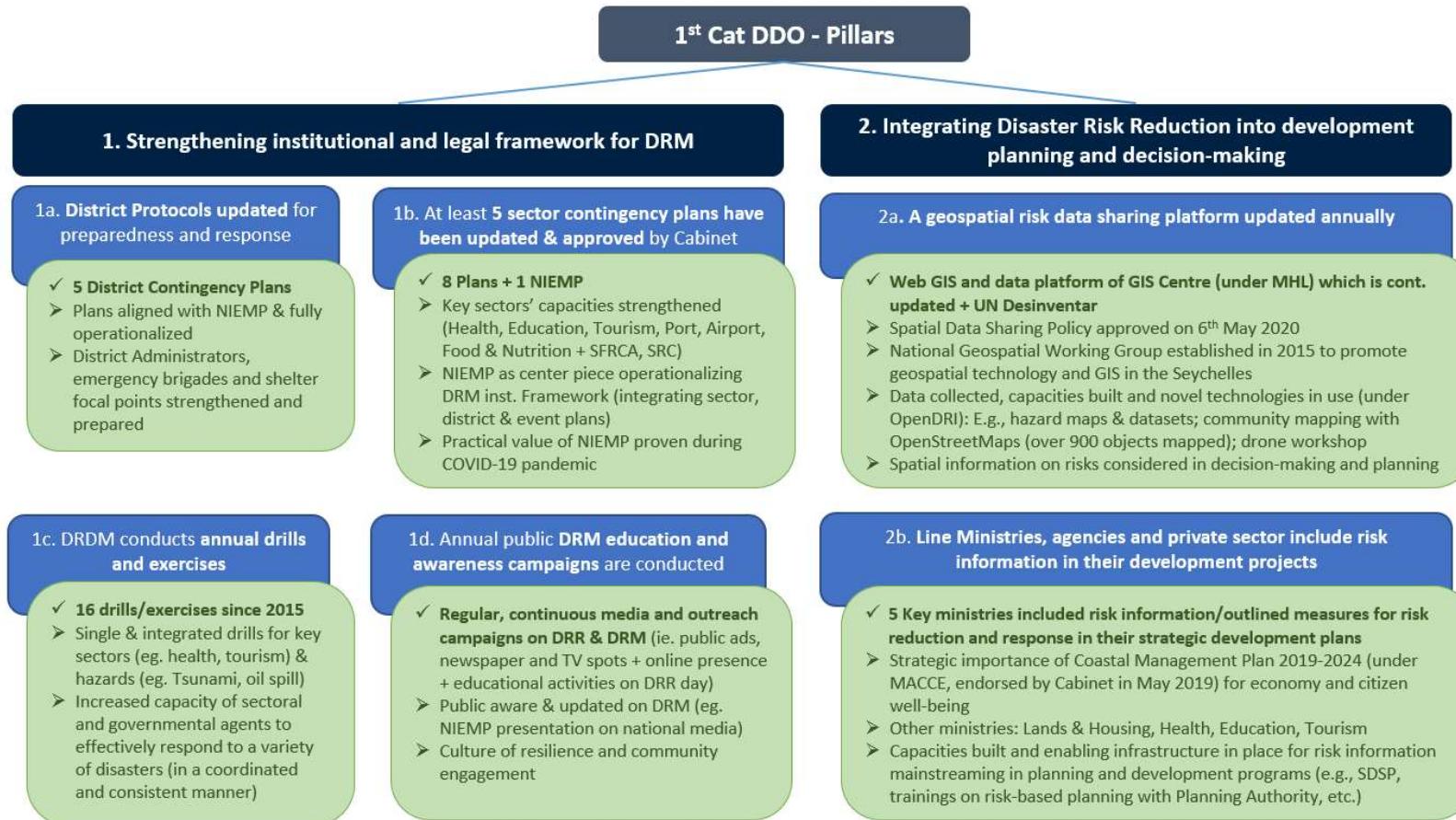
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| | | <ul style="list-style-type: none">• Promotion of and capacities built around novel technologies and approaches (i.e. drone trainings with WeRobotics, community mapping), resulting in the Center for GIS acquiring its own drone.• Open Cities Africa - Community Mapping Exercise with Open Street Maps (Mapathon): From August 27 to September 1, 2018, 23 supervisors were trained; and 11 teachers and 58 students mapped more than 900 building and landscape elements in various coastal zone districts.• Data collected (via OpenDRI): Base data collected on bathymetry, land use and cover, orthophotos and Digital Terrain Models, wetland data, etc. <p>Output: A variety of risk-related information, hazard datasets as well as other relevant geospatial data have been generated. Both technical and institutional capacities around data collection, analysis, data sharing and usage well as novel technologies were strengthened. With the SDSP, the NSDI Action Plan and the Web GIS platform, the necessary legal and practical frameworks for enabling the access and integration of risk information into planning and policies have been established.</p> <p>Impact: The above-mentioned outputs enable and promote a risk-informed decision-making and planning for sustainable development and building resilience to disasters and climate change.</p> |
| | 6) Line Ministries, agencies and private sector include risk information in their development projects. | <p>Achieved</p> <p>Five key ministries have included risk information and risk reduction measures into their strategic development plans. The Coastal Management Plan (2019-2024) presents a milestone and is of strategic importance for Seychelles' resilience to future climate change and disaster impacts. Within the work on the Coastal Management Plan, a variety of initiatives to improve technical and institutional capacities have been delivered in addition. Results include:</p> <ul style="list-style-type: none">• Ministry of Agriculture, Climate Change and Environment prepared the "Coastal Management Plan (2019-2024)" which was endorsed by Cabinet on May 30, 2019 and aims to reduce the risk to development in the coastal zone. The President and the Cabinet confirmed the high urgency and strategic importance of coastal management to protect both citizens as well as economic and ecosystem assets which are crucial for Seychelles' development and resilience. The CMP has been costed at US\$ 15.8 million and the Government is currently discussing the financing, including potential contributions from development partners such as AFD, IOC and WB.• Further specific capacity support delivered in relation to the CMP include (i) an assessment of the technical and institutional capacity of the GoS to implement the CMP, (ii) a variety of pre-feasibility and technical studies on coastal erosion, flood management and nature-based protective and restorative measures for coral reefs and coastal resilience, (iii) site-specific exposure and impact information to natural hazards as well as (iv) coordination and stakeholder workshops.• The Ministry of Lands and Housing reviewed the "2015 Victoria Master Plan" (i.e. Vision 2040) to include risk information related to flood and erosion and suggested addendums were needed. This resulted in an updated (district) physical planning bill in 2017.• Further specific support delivered to planning related matters included (i) technical assistance and training on risk-sensitive land-use planning approaches (with the Planning Authority) and (ii) (Coastal Setback) policy reviews. |



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| | | <ul style="list-style-type: none">• The Ministry of Education further advanced in integrating and implementing risk and response information into school curricula under the “Education Sector Medium-Term Strategic Plan 2013-2017”.• The Ministry of Health finalized in 2018 the Joint External Evaluation (JEE) in coordination with the Secretariat of the World Health Organization (WHO). This JEE establishes the capacities to detect, assess, notify, and respond to major public health threats and incidences.• The Ministry of Foreign Affairs and Tourism advanced on mapping key tourism infrastructure and in understanding their levels of exposure to hazards, which led to recommendations for risk reduction under the new Tourism Development Act 2019. <p>Output: A variety of strategic development plans and projects from various ministries and agencies have been developed respectively reviewed to include and account for risk-related information, risk reducing measures and/or response strategies. Accompanying technical and capacity building efforts, especially in the areas of coastal management and land use planning, as well as enabling infrastructure and policies (i.e. NDSI and SDSP) have worked towards the mainstreaming of risk information into development programs and planning.</p> <p>Impact: The above-mentioned outputs have furthered the integration of risk reduction into planning and decision making in Seychelles.</p> |
| OVERALL ASSESSMENT/VERDICT | | |
| With the above-mentioned outputs and results, the legal and institutional framework for DRM in Seychelles has been strengthened and both capacities as well as enabling structures to integrate disaster risk reduction into planning and decision making have been created respectively improved. Awareness, understanding and collaboration as well as coordination with respect to disaster risks and risk management have increased and both systems and plans have been put to practice. The progress achieved and impact of the work under this Cat DDO has become visible and proved to be vital for Seychelles response to the COVID-19 crisis. Both the contingent finances as well as the technical assistance delivered enabled Seychelles to react quickly and efficiently. Thus, impact on the strengthening of the DRM agenda and capacities to respond to disasters was satisfactorily achieved. | | |



Graphic overview of results:





The World Bank

Disaster Risk Management Development Policy Loan with CAT DDO (P148861)

4.5. Map of Seychelles

