



1. Operation Information

Operation ID P168580	Operation Name MA: Morocco Cat DDO
Country Morocco	Practice Area (Lead) Urban, Resilience and Land

Non-Programmatic DPF

L/C/TF Number(s) IBRD-90270	Closing Date (Original) 15-Jun-2023	Total Financing (USD) 271,981,770.00
Bank Approval Date 11-Dec-2019	Closing Date (Actual) 15-Jun-2023	
	IBRD/IDA (USD)	Co-financing (USD)
Original Commitment	275,000,000.00	0.00
Revised Commitment	275,000,000.00	0.00
Actual	271,981,770.00	0.00

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2. Program Objectives and Pillars/Policy Areas

a. Objectives

The objectives of the operation correspond to the program's two pillars, as stated in the Loan Agreement:

Pillar A: Strengthening the Borrower's institutional capacity to deal with the adverse financial impact of disasters and climate-related shocks.



Pillar B: Strengthening the Borrower's institutional framework for disaster and climate-related risk management.

The Program Development Objective (PDO) defined in the Program Document (PD) and Implementation Completion and Results Report (ICR) corresponded with the Pillars defined in the Loan Agreement and did not change during project implementation: "The development objective of the proposed operation is to support the Government of Morocco (GoM) in (a) strengthening the country's institutional capacity to deal with the adverse financial impacts of disasters and climate-related shocks, and (b) strengthening Morocco's institutional framework for disaster and climate-related risk management."

The Pillars will be used as two sub-objectives to evaluate the operation in this ICRR, in line with the approach used in the ICR.

b. Pillars/Policy Areas

The Program included 6 Prior Actions (PAs) out of which 4 supported Pillar A and 2 supported Pillar B.

Pillar A: Strengthening the country's institutional capacity to deal with the adverse financial impacts of disasters and climate-related shocks (4 PAs)

Pillar B: Strengthening Morocco's institutional framework for disaster and climate-related risk management (2 PAs)

c. Comments on Program Cost, Financing and Dates

The total program cost was USD275 million.

The primary source of financing for the program was IBRD, providing the entire USD 275 million. This operation did not involve any co-financing from other international financial institutions or bilateral donors.

The operation was restructured to expand the drawdown trigger of the Catastrophe Drawdown Option (Cat DDO) to cover public health-related emergencies, addressing the financial impacts of the COVID-19 pandemic on Morocco. The Cat DDO was triggered on April 3, 2020, in response to the pandemic. This included the establishment of the special COVID-19 Pandemic Fund, facilitating the disbursement of loan proceeds to support GoM's early COVID-19 response.

The project maintained its original closing date of June 15, 2023

3. Relevance of Design

a. Relevance of Objectives

Country Context



Morocco is highly susceptible to geological and climate-related hazards, including earthquakes, floods, droughts, and rising temperatures. Floods are the most frequent natural disaster, causing average annual losses of approximately USD 450 million. Earthquakes pose significant risks, particularly in regions like the North, Marrakesh, and Agadir. Climate change exacerbates these risks, with projections indicating increased temperatures, sea-level rise, and decreased precipitation.

At the time of appraisal, the GoM had made significant strides in Disaster Risk Management (DRM), transitioning from reactive, ad-hoc responses to a proactive, integrated strategic approach. This shift included various initiatives to enhance risk understanding and clarify roles among ministries in disaster risk reduction, response, and recovery. Fundamental reforms within existing agencies aimed to establish systemic processes for integrated DRM. Sector laws addressed risk prevention and reduction, including flood risk prevention and earthquake-resistant building codes. Despite these advances, significant challenges remained, such as operationalizing the catastrophic risk insurance regime and activating inter-ministerial coordination.

The objectives of the program aligned closely with ongoing government efforts to enhance DRM and financial resilience in Morocco. At appraisal, the government had adopted Law No. 110-14 with the World Bank's support, introducing a dual catastrophic risk insurance system to improve financial resilience against disasters, offering (1) a private insurance scheme for the insured, and (2) a basic compensation system for the uninsured through the Solidarity Fund against Catastrophic Events (*Fonds de Solidarité contre les Événements Catastrophiques*, FSEC). The country's first National DRM Strategy was being developed, focusing on strengthening governance, improving risk knowledge, disaster prevention, early recovery, and promoting scientific research and international cooperation.

World Bank Priorities

The PDO aligned well with the World Bank's Country Partnership Framework (CPF) for FY19-24. Specifically, the program supports CPF Objective 10, which focuses on enhancing adaptation to climate change and resilience to natural disasters, thereby promoting inclusive and resilient territorial development.

The operation leveraged a strong partnership in DRM and disaster risk finance between the World Bank and GoM, dating back to the early 2010s. Technical assistance (TA) provided inputs to an integrated risk management strategy and highlighted disaster risk concerns, leading to the design of the Integrated DRM Program-for-Results (PforR) approved in 2016 (P144539). The Cat DDO was meant to complement the IDRMP forR by further strengthening institutional frameworks and financial resilience. Various TAs supported probabilistic risk assessments, a national DRM strategy, and disaster risk insurance, enhancing Morocco's overall approach to managing disaster risks.

The PDO was clear and set at a relevant level given the scope and ambition of the supported reforms.

b. Relevance of Prior Actions

Rationale

There were 2 pillars and 6 PAs.

Objective 1 / Pillar A: Strengthening Morocco's Institutional Capacity to Deal with the Adverse Financial Impact of Disasters and Climate-related Shocks. This pillar aimed to enhance Morocco's financial and



governance mechanisms to effectively manage and respond to the financial impacts of disasters and climate-related shock.

PA1: Registration of FSEC as a Public Institution

The FSEC was established as a legal entity under Law No. 110-14, approved in 2016, which introduced a dual catastrophic risk insurance system aimed at enhancing the financial resilience of households and businesses against natural and man-made disasters. This PA aimed to complete the governance structure of FSEC by providing for the nomination of its director by the Council of Ministers and thereby completing the registration of FSEC as a public institution. According to the PAD (p. 25), the appointment of a director confirmed the high priority given by the government to the establishment of the FSEC and ensures that the FSEC has the necessary management, expertise, and decision-making authority to handle key operational decisions. According to the ICR, this action was crucial to ensure the operationalization of FSEC as a key institution for addressing the adverse financial impacts of disasters. The analytical underpinnings for the PA included analytical and advisory (ASA) work completed under the World Bank Group's Sovereign Disaster Risk Financing and Insurance Program (P163780), which included capacity-building activities and TA linked to the implementation of Law No. 110-14. **PA1 Relevance Rating: Satisfactory.**

PA2: Establishment of a Sustained Financing Mechanism for FSEC

This PA established parafiscal charge on non-life insurance policies to provide a stable financing source for FSEC. According to the ICR (p. 12), the revenue generated from this charge is expected to cover FSEC's operational expenditure, as well as compensation to beneficiaries, based on average annual losses. The financing mechanism was based on sound analytical underpinnings, including advanced catastrophe risk modeling and evaluation tools that identified the resources required in the event a disaster of different magnitudes and probabilities and helped develop a risk financing strategy for FSEC (detailed in PAD, p., 26). This analytical work was undertaken through ASA under the WBG Sovereign Disaster Risk Financing and Insurance Program Phase 1 and 2 and the European Union Global Partnership on Disaster Risk Financing Analytics (P157439). This financing mechanism ensured that FSEC has a reliable and continuous source of funds, which is critical for its ability to provide timely compensation to disaster victims. **PA2 Relevance Rating: Satisfactory.**

PA3: Definition of the Register Model and Enrollment Procedures for Victims of Catastrophic Events

This PA helped define the register model and enrollment procedures for the registry of victims of catastrophic events, as stipulated by Law No. 110-14. This law mandates that individuals affected by disasters must enroll in the Register to be eligible for compensation from FSEC. The defined registration process is decentralized to the commune level and includes an online platform to maximize accessibility for different population groups. According to the ICR, the PA also helped clarify the roles and responsibilities of public institutions, with national institutions being responsible for disbursements and data storage and subnational entities for the identification and registration of victims. This action benefitted from TA completed under the Sovereign Disaster Risk Financing and Insurance Program Phase 1 and 2 on the operational aspects of FSEC, including claims management systems and loss evaluation process, as well as work done under Morocco Identity and Social Protection Project (P155198). **PA3 Relevance Rating: Satisfactory.**

PA4: Introduction of Prudential Requirements on Insurance Companies



Law No. 110-14 established a private insurance market for catastrophic events. This PA helped establish prudential requirements to strengthen the financial capacity of insurance companies to manage catastrophic risks. As a result of this PA, insurers are required to set aside 90% of their net technical results into annual reserves to cover potential claims, reducing insolvency risk. This reform strengthens the financial resilience of both the private insurance market and the FSEC by ensuring insurers build substantial reserves, enhancing the capacity to handle severe disaster impacts and supporting the overall objective of financial stability in disaster management. The analytical underpinnings supporting this PA includes ASA completed under the Sovereign Disaster Risk Financing and Insurance Program, which helped identify the default risk of the insurance market.

PA4 Relevance Rating: Satisfactory.

Objective 2 / Pillar B: Strengthening Morocco's Institutional Framework for Disaster and Climate-related Risk Management. This pillar aimed to improve Morocco's institutional capacity to manage and mitigate disaster and climate-related risks through enhanced coordination, planning, and implementation.

PA5: Adoption of a Cooperation Framework to Strengthen Flood Management and Early Warning Systems

This PA resulted in the adoption of a cooperation framework to improve flood management and early warning systems in four pilot zones. Floods are among the most common disasters in Morocco and cause the most losses. Despite existing efforts, such as the National Flood Protection Plan and Water National Strategy, gaps remained in flood monitoring coverage and flood management coordination. The new cooperation framework, established through an inter-institutional agreement in 2018, fosters cooperation among various levels of government, including the DRM Directorate, the Ministry of Water and Equipment, river basin agencies, and emergency response teams like Civil Protection (CP). The reform also enhances the collection and analysis of risk information through the Flood Risk Management Information System, piloted in four provinces, enabling more effective flood risk management. The analytical foundation for this PA came from the (i) DRM Evaluation Study (2016) by the Cour des Comptes (Court of Audits, GoM), (ii) Building Morocco's Resilience: Inputs for an Integrated Risk Management Strategy (2014) by the World Bank, (iii) Review on Risk Management Policies Morocco (2016) by OECD, (iv) Préparer la gouvernance des risques de demain au Maroc. (2017) by the OECD. While this PA focus on key elements, crucial for strengthening Morocco's institutional framework for DRM - flood management and inter-governmental cooperation - its limited geographical scope influences its ability to have impact beyond the four provinces. **PA5 Relevance Rating: Moderately Satisfactory.**

PA6: Strengthening the Human Resources Management System of Civil Protection (CP)

This PA involved reforms to enhance the human resources management of Morocco's CP. At the time of appraisal, the CP, Morocco's primary emergency response unit, had improved its financial and human resources over the past two decades, but its response capacity remained limited compared to the needs and medium to large-scale emergencies often required the mobilization of the armed forces. The reforms included clarifying CP grades, establishing a merit-based hiring and promotion system, and improving the training curriculum at the national CP school to better prepare officers for disaster response. The reforms were focused on strengthening the CP's emergency response capacity, which is aligned with the objective to strengthen disaster and climate-related risk management. They were also expected to reduce barriers of entry for women in the CP. The analytical underpinnings include the Review on Risk Management Policies Morocco (2016) by OECD. While these reforms are relevant, they are somewhat limited in scope. **PA6 Relevance Rating: Moderately Satisfactory.**



Overall, the PAs address key constraints to achieving the objectives and are grounded in solid analytical underpinnings. Therefore, their relevance is rated as **Satisfactory**, despite some noted shortcomings.

Rating

Satisfactory

4. Relevance of Results Indicators

Rationale

Objective 1 / Pillar A: Strengthening Morocco's Institutional Capacity to Deal with the Adverse Financial Impact of Disasters and Climate-related Shocks

Progress towards achieving this objective was measured through 6 Results Indicators (RIs), linked to 4 PAs:

- RI1: Availability of an audit of the FSEC's internal control systems confirming that the FSEC's systems and procedures allow for the appropriate use of funds, Linked to PA1: Registration of FSEC as a public institution.
- RI2: Annual revenues from the new parafiscal tax created to finance the FSEC. Linked to PA2: Establishment of a sustained financing mechanism for FSEC.
- RI3: Share of local officials of the Ministry of Interior responsible for the administration of the register trained on the registration procedures, RI4: GoM has deployed an online platform for the registration of people affected by a catastrophic event and RI 5: GoM has developed a specific outreach and communication mechanism to inform the population of the registration procedures for people affected by a catastrophic event, with a focus on women. Linked to PA3: Definition of the register model and enrollment procedures for victims of catastrophic events.
- RI6: Insurance companies comply with the prudential requirements established by the circular. Linked to PA4: Introduction of Prudential Requirements on Insurance Companies.

RI1 measured the progress towards ensuring that the FSEC operates with accountability and transparency, which is essential for stakeholder trust and efficient disaster response. However, using an audit as a RI for the FSEC's internal control systems raises concerns due to its focus on compliance over performance and its potential lack of specificity and measurability. Particularly since the proposed audit was a one-off audit and since baseline information is not available. The relevance of RI1 was rated Moderately Satisfactory.

RI2 measured the financial sustainability of the FSEC by tracking the annual revenue generated from the parafiscal tax. It captured the success of PA 2 in providing a stable and continuous funding source for disaster response activities. The target corresponded to the average annual losses from natural catastrophe that FSEC would need to replenish its reserves. This RI effectively measured the progress towards the goal of financial resilience and sustainability. The relevance of RI2 was rated Satisfactory.



RI3, RI4 and RI5 were aligned with PA3. While the RIs each captured important aspects of the roll out of the new victim registration process (local officials trained, online platform and communication mechanisms deployed), they were output oriented and therefore failed to capture the impact of PA3, such as improvements in operational readiness of victim registration or efficiency gains, as well as progress towards Objective 1. As such, the relevance of the RI3-5 were rated Moderately Satisfactory.

RI6 was relevant but limited. As a binary indicator, it confirms adherence to prudential requirements but does not capture the extent or quality of compliance, nor does it track improvements over time. During the Team Task Leader (TTL) interview, it was explained that compliance was the goal and challenges associated with a more quantitative indicator, such as share of firms complying (lack of data) or size of reserves (difficulty to set target due to uncertainty on the number of firms participating). However, layering the compliance focused indicator with a quantitative indicator capturing the impact of the compliance would have provided more comprehensive understanding of the PA's impact. As such, the relevance of RI6 was rated Moderately Satisfactory.

Objective 2 / Pillar B: Strengthening Morocco's Institutional Framework for Disaster and Climate-related Risk Management

- RI7: Number of provinces covered by an integrated flood risk management information system. Linked to PA5: Adoption of a cooperation framework to strengthen flood management and early warning systems.
- RI8: Number of CP search and rescue units applying operational and staffing procedures in line with The International Search and Rescue Advisory Group (INSARAG) standards and RI9: Percentage increase in the number of female staff members in the CP. Linked to PA6: Strengthening the human resources management system of CP.

RI7 measured the implementation of an integrated flood risk management information systems across the 4 pilot provinces and is well-aligned with PA5. However, while it indicated the geographical expansion of the system, it did not by itself provide insights into the quality of coordination between agencies or the actual improvement in flood risk management capacities. The relevance of RI7 was rated Moderately Satisfactory.

RI8 and RI9 were closely aligned with the PA6 and Objective 2 / Pillar B.

RI8 monitored the number of search and rescue units complying with INSARAG standards on operational and staffing procedures, with a target of 12 certified units – one per region – by 2023 (PAD, p. 32). The target of having 12 units, one from each region, covered by these standards was relevant as it ensured nationwide implementation and uniformity in disaster response capabilities. The use of INSARAG standards to benchmark compliance with international best practices, ensured quality of training and compliance of the CP units. However, implicating an external agency, INSARAG, introduced unnecessary risks, which, while difficult to predict at the design stage complicated the achievement of this indicator. As such, the relevance of RI8 was rated Moderately Satisfactory.

RI9 monitored the increase in female staff members of the CP to capture impact of reduced constraints for women to access jobs within the agency. However, to capture this, it would have been more relevant to monitor the gender gap (the number of women compared to men within the agency, since the total number of employees may have increased alongside the number of female staff members). This approach would have allowed for the use of a baseline as well. During the TTL interview, it was explained



that the RI was the result of a compromise with the counterpart that was not willing to include an RI monitoring the gender gap. The relevance of RI9 is therefore rated Moderately Satisfactory.

he overall rating of the relevance of results indicators is **Moderately Satisfactory**, based on the average RI ratings. Shortcomings of the results framework include the lack of outcome orientation of some of the indicators, as well as the lack of alignment between the indicators and some of the core challenges that the program intended to address, such as inter-governmental coordination.

RI	Associated PA	RI Relevance	Baseline (units and dates)	Target (units and dates)	Actual value as of targeted date	Actual change in RI relative to targeted change	RI Achievement
Objective1/Pillar A: Strengthening Morocco’s Institutional Capacity to Deal with the Adverse Financial Impact of Disasters and Climate-related Shocks							
RI1: Availability of an audit of the FSEC’s internal control systems	PA1: Registration of FSEC as a public institution.	MS	Baseline (2019): No audit carried out	Target (2023): Yes, audit completed	Actual (2023): No audit was completed	0%	Negligible
RI2: Annual revenues from the new parafiscal tax	PA2: Establishment of a sustained financing mechanism for FSEC.	S	Baseline (2019): N/A	Target (2023): 200m MAD collected in 2023	Actual (2023): 255m MAD collected in 2023	128%	High
RI3: Share of MoI local officials trained on the registration procedures	PA3: Definition of the register model and enrollment procedures for victims of catastrophic events.	MS	Baseline (2019): 0% of officials trained	Target (2023): 90% of officials trained	Actual (2023): 7.4% of officials trained	8%	Negligible
RI4: Online registration platform deployed		MS	Baseline (2019): N/A	Target (2020): Yes	Actual (2023): Yes	100%	Substantial
RI 5: Outreach and communication mechanism focused on registration process deployed		MS	Baseline (2019): N/A	Target (2023): Yes	Actual (2023): Yes	100%	Substantial
RI 6: Insurance	PA4: Introducti	MS	Baseline	Target	Actual	100%	Substantial



companies compliance with prudential requirements	on of Prudential Requirements on Insurance Companies.		(2019):No	(2023): Yes	(2023): Yes		
Pillar B: Strengthening Morocco’s Institutional Framework for Disaster and Climate-related Risk Management							
RI7: Number of provinces covered by integrated flood risk management information system	PA5: Adoption of a cooperation framework to strengthen flood management and early warning systems.	MS	Baseline (2019): 0 provinces covered	Target (2023): 4 provinces covered	Actual (2023): 4 provinces covered	100%	Substantial
RI8: Number of CP search and rescue units in compliance with INSARAG standards	PA6: Strengthening the human resources management system of CP.	MS	Baseline (2019): 1 unit complies with INSARAG standards	Target (2023): 12 units comply with INSARAG standards	Actual (2023): 1 unit complies with INSARAG standards	0%	Modest
RI9: Percentage increase in the number of female staff members in the CP		MS	Baseline (2019): N/A	Target (2023): 5% increase in female staff members	Actual (2023): 11% increase in female staff members	220%	Substantial

Rating

Moderately Satisfactory

5. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Objective 1 / Pillar A: Strengthening Morocco’s Institutional Capacity to Deal with the Adverse Financial Impact of Disasters and Climate-related Shocks

Rationale

Theory of Change



The PAs linked to the achievement of Objective 1 are centered on strengthening and operationalizing Morocco's financial protection program, which is based on an innovative dual public-private system. This scheme uniquely combines market-based insurance with solidarity principles to provide comprehensive protection for both insured and uninsured households against disasters. PA1-PA3 focused on strengthening FSEC and the compensation of uninsured households affected by a disaster while PA4 focused on strengthening the resilience of the insurance market. These PAs reflect an integrated approach that logically links to the strengthening of Morocco's institutional capacity to deal with the adverse financial impact of disasters and climate-related shocks. The ICR included a Theory of Change (p. 38), which clearly and logically aligns prior actions with outputs, intermediate outcomes and development objectives.

Achievements under Pillar A include:

- The FSEC was successfully registered as a public institution. The audit was not completed, mainly due to delays linked to COVID, but is expected (budget has been approved and allocated) to be completed by the end of 2024. (ICR, p.27). Additional evidence in the ICR illustrate the successful operationalization of FSEC, including through its effective response during the 2023 Al Haouz earthquake.
- A parafiscal tax on non-life insurance policies was established, generating stable and continuous funding for FSEC. In 2023, 255m MAD was collected. The parafiscal tax contributed to financing both FSEC's operating costs and its coverage-related expenditures to compensate affected uninsured populations after the Al Haouz earthquake.
- A register model and enrollment procedures for victims of catastrophic events were defined and implemented.
- 7.4% of local officials of the MoI responsible for the administration of the disaster victim register were trained on the registration procedures, which is well below the target of 90%. The training was scheduled to take place after the launch of the online platform, but it was postponed due to the Al Haouz earthquake. Instead a small scale training took place in provinces affected by the earthquake to ensure affected populations were registered and compensated.
- An online platform was deployed in mid-2023 to facilitate the registration of disaster victims. Complementary evidence provided in the ICR (p. 17) indicated that the platform facilitated the government's response to the Al Haouz earthquake by creating a unified, accessible database for relevant public institutions.
- Outreach and communication mechanisms were deployed to support the registration process. According to the ICR (p.17-18), the outreach and communication mechanism effectively informed disaster victims about registration and compensation, particularly targeting women, by developing guides, a website, videos, and in-person caravans made up of female agents. The Al Haouz earthquake confirmed its success, with most registrations done online.
- Prudential requirements for insurance companies were introduced, ensuring they maintained adequate reserves to manage catastrophic risks. As a result of the PA, insurance companies increased their reserves by MAD 28m and reinsurance acceptance by MAD 32m, exceeding the MAD 25m in growth, estimated at appraisal (ICR, p. 18; PAD, p. 12).

The rating of achievement of Objective 1 is **Satisfactory**, despite the lack of achievement of two of the RIs. This is because of the additional evidence presented in the ICR in relation to the successful response to the Al Haouz earthquake. This experience demonstrated the successful operationalization of FSEC (complementing lack of achievement of RI1) and successful roll out of the new register model, illustrating that



the local officials were able to implement the model despite not having received the planned training (complementing the lack of achievement of RI3).

Rating

Satisfactory

OBJECTIVE 2

Objective

Pillar B: Strengthening Morocco's Institutional Framework for Disaster and Climate-related Risk Management

Rationale

Theory of Change

The PAs linked to the achievement of Objective 2 are causally associated to the targeted results, which include improved flood management and emergency response capacity. By adopting a cooperation framework for flood management and early warning systems, the program intended to establish integrated mechanisms for better coordination, predictions and preparedness to flood risks in four pilot zones. Strengthening the human resources management system of CP was designed to enhance the capacity and readiness of emergency response teams, ensuring they are well-equipped and trained to handle disaster situations. These measures were intended to enhance the country's institutional framework for managing disaster and climate-related risks. The achievement of the Objective relied on just two PAs that focused on limited areas of engagement, i.e., flood management in 4 provinces, and HR procedures of the CP.

Achievements under Pillar B include:

- A Flood Risk Management Information System was adopted and piloted in four zones, covering at least 240,000 beneficiaries (ICR, p. 19). Between July 2023 and June 2024, the system issued flood risk analysis reports for several hydro-meteorological events. A plan for nationwide coverage is underway. While the ICR explained the benefits of the system, it lacked evidence on the additionality of the intervention compared to the ex-ante situation. The TTL interview provided a clearer story. Before this engagement, data on hydrology and hydromet were collected and analyzed in silos and data on flood risk were not shared with the MoI, the agency responsible for emergency response in case of flooding. The integrated system brought actors and data together to create an early warning system that all relevant agencies benefit from and contribute to, enabling better predictions, faster response time, improved coordination. As a result of the intervention, relevant agencies meet every morning to review the data and issue alerts to the relevant local authorities if needed. This illustrates a massive improvement from the ex-ante situation.
- One search and rescue unit was trained in line with INSARAG standards, which reflects no progress since program approval and is well below target of 12. According to the ICR and TTL interview, this result was driven by the fact that the CP's INSARAG certificate expired in 2019 and due to COVID-19, INSARAG was unavailable to renew the certificate. As such, the CP was not able to deliver the training to the search and rescue units *formally* in line with INSARAG standards after 2019 (since they were not certified). However, while waiting for the formal INSARAG certification, CP developed a training curriculum and provided training to 100 staff - 80 from the national unit and 20 from the 12



regional units. Moreover, the CP improved operational procedures, and enhanced the promotion system to be more merit based and transparent. They also improved training at the National School for CP, prepared the Moroccan Volunteers Act, and increased annual recruitment, raising staff numbers from 8,589 in 2020 to 9,151 in 2023, with more diverse and educated recruits. Due to the complementary evidence provided in the ICR and the TTL interview on the achievement of the CP and the training provided, the achievement of this RI is rated Modest (see Table 1).

- The number of female employees at CP increased from 364 in 2019 to 405 in 2023, which included more women in operational roles. The ICR argues (p.20) that this was a result of improved recruitment procedures in CP. However, using the increase in total number of female employees as an indicator for improved inclusion of women in CP is somewhat misleading since the total number of employees at CP increased during the same time period. Since the RI does not adequately capture the impact of the PA, the achievement rating was downgraded from High to Substantial.

The rating of the achievement of Objective 2 was **Moderately Satisfactory**. The reason for the rating is the limited scope of the PAs, and lack of relevance of the corresponding RIs, making it difficult to confidently demonstrate the achievement of Objective 2.

Rating

Moderately Satisfactory

Overall Achievement of Objectives (Efficacy)

Rationale

The overall Efficacy rating is Moderately Satisfactory. While the program managed to strengthen Morocco's institutional capacity to manage financial impacts of disasters and climate risk (Objective 1), it was less successful in achieving progress on climate and disaster related risk management (Objective 2). This was due to the limited scope of the PAs identified for strengthening risk management, the lack of relevance of associated RIs, as well as the relative lack of evidence demonstrating the achievement of this objective.

Overall Efficacy Rating

Moderately Satisfactory

6. Outcome

Rationale

The overall outcome of the program is rated Moderately Satisfactory since the relevance of the PAs was rated Satisfactory and the Efficacy was rated Moderately Satisfactory.



a. Rating

Moderately Satisfactory

7. Risk to Development Outcome

The risk to development outcome is relatively low and was supported by the operation in several ways, e.g., by securing sustainable stream of income for FSEC and promoting capacity building of key institutions. The government has signaled continued commitment to support the interventions pursued through the program. For example, by seeking to scale up the integrated flood risk management system nationally, allocating resources to carry out the audit of FSEC, and pursuing the INSARAG certification and scale up capacity building efforts of search and rescue personnel. However, the ICR highlighted that FSEC remains a young agency and further capacity building will be required to fully operationalize its mandate. In addition, to be able to scale up the flood management system nationally will require continuous commitment of relevant government entities, additional resources, and coordination effort.

8. Assessment of Bank Performance

a. Bank Performance – Design

Rationale

The focus of this operation was highly relevant for the country, which is highly exposed to natural hazards. The program was timely, as it could build on substantive ASA work, as well as WB lending operations, that had been delivered or was ongoing. Moreover, it was well-aligned with the parallel IDRM PforR program, and, according to the TTL interview, was able to bring the efforts of the IDRM PforR to the next level, addressing key policy barriers. For example, by supporting the operationalizing and financing of the FSEC for which the IDRM PforR had helped formalize a broad legal framework.

The program effectively incorporated lessons learned from prior experiences, both within Morocco and from similar operations in other countries. Bank staff utilized insights from the implementation of Law No. 110-14 and the operationalization of disaster risk financing mechanisms in other regions to inform the design of this program. For example, the successful establishment of similar funds in countries like the Philippines and Colombia provided valuable lessons on institutional setup and sustainable financing mechanisms, which were integrated into the design of FSEC. This ensured that the program was built on a solid foundation of proven strategies and practices, enhancing its potential for success.

The analytical underpinnings of the PAs were robust and well-articulated. The design was based on sound and rigorous analysis relevant to the Moroccan context, drawing from diagnostic findings and technical assistance provided by the World Bank's Sovereign Disaster Risk Financing and Insurance Program. However, while the PAs were relevant and substantive, the results framework had some shortcomings, particularly the lack of outcome orientation to capture achievements toward the program's objectives, as



well as lack of alignment of the results framework with a key goal of the program, namely to improve inter-governmental coordination.

Overall, the TOC was underpinned by clear assumptions and a well-defined results chain, ensuring that each PA was directly linked to achieving the program's objectives. For instance, the introduction of a parafiscal tax to finance the FSEC was based on detailed financial analysis and projections, ensuring its sustainability and alignment with Morocco's fiscal policies. However, the PAs related to Objective 2 had a limited scope, as discussed in previous sections. As such, the impact of those actions was somewhat constrained, and the broader goal of strengthening Morocco's institutional framework for disaster and climate-related risk management was not fully realized.

The PD comprehensively identified the main risks and constraints to achieving the PDO and provided a detailed discussion of these risks. Key risks, such as financial sustainability, institutional capacity, and coordination challenges, were thoroughly analyzed. The mitigating measures identified were credible and coherent, including the establishment of sustainable financing mechanisms, continuous capacity-building efforts, and formal inter-agency coordination frameworks. The PD also envisaged technical support from the Bank to address institutional capacity constraints, ensuring that the government had the necessary support to implement the program effectively. For instance, the Bank's provision of TA in operational aspects of the FSEC, including claims management systems, was a critical mitigating measure.

Overall, while recognizing the robustness of the operation's analytical foundations and its alignment with Morocco's needs, the Bank's performance at design was rated as **Moderately Satisfactory** given the noted limitations in the results framework and the limited scope of PAs related to Objective 2.

Rating

Moderately Satisfactory

b. Bank Performance – Implementation

Rationale

The Bank team effectively leveraged the complementarity of other World Bank engagements to elevate their support to the client. The operation benefited from complementary TA and supervision efforts, with the ongoing IDRM PforR providing a continuous backdrop for dialogue on critical reform areas. This synergy between the Cat DDO and the IDRM PforR allowed for more sustained engagement with the client, bringing in additional resources and enabling more comprehensive support, demonstrating the value of having multiple, complementary engagements that amplify the overall impact of a Cat DDO engagement.

The Cat DDO implementation facilitated cross-sectoral collaboration both internally and externally, leading to enhanced inter-government coordination between MoI, MEF and Ministry of Water through engagements on the implementation of the new register model and flood management system (ICR, p. 23).

The Bank showed proactivity when restructuring the Cat DDO to include public health emergencies during COVID-19. However, the Bank team could have used restructuring to address some of the identified



shortcomings in the results framework, e.g., by reformulating R18 to make sure INSARAG was not implicated for the achievement of results, and addressing other shortcomings of the results framework.

Three implementation missions were carried out, with a 16 months delay between the second and third mission (the ICR provided no explanation). According to the ICR, continued support was ensured during the gap through the engagement on TA and the IDRM PforR. The Aide Memoires (AM) and Implementation Status and Results Reports (ISRs) were used to document progress, including delays and agreements on actions. However, the ICR highlighted (p. 23) that these communication tools could have been employed earlier to identify corrective measures for issues that were within the government's control, such as delays in deploying the online platform as part of the register model.

As such, Bank performance during implementation was rated as **Moderately Satisfactory**.

Rating

Moderately Satisfactory

c. Overall Bank Performance

Rationale

Overall bank performance was rated **Moderately Satisfactory**.

Overall Bank Performance Rating

Moderately Satisfactory

9. Other Impacts

a. Social and Poverty

The PD emphasized that the FSEC was designed to provide universal coverage, particularly targeting Morocco's poor and vulnerable populations. However, the ICR, while confirming the fund's operational success during the Al Haouz earthquake, does not provide evidence on how well-targeted the support was and whether the poor were effectively covered compared to non-poor populations. Such an analysis would have provided useful insights on the potential social impacts of the program.

The restructuring of the program allowed for the expansion of disbursement triggers to cover public health-related emergencies, specifically in response to the COVID-19 pandemic. This was not initially covered or anticipated in the PD. The Cat DDO enabled immediate liquidity for Morocco's response to the pandemic.

b. Environmental



The ICR highlights that the project yielded positive indirect effects on Morocco's environment and natural resources through the development of a flood risk information system, which was designed to safeguard the environment and natural resources by providing advance warnings on floods (p. 21).

c. Gender

The PD highlighted gender-specific actions, such as improving women's access to disaster compensation and promoting female employment in CP. However, the ICR, while noting some progress—like the increase in absolute number of female CP staff—does not thoroughly evaluate whether these gender-focused measures translated into meaningful impacts for women during disaster responses. Specifically, the ICR does not provide detailed evidence on whether women benefited equally from the FSEC or faced fewer barriers compared to men, leaving a critical gender impact unassessed.

d. Other

10. Quality of ICR

Rationale

The ICR provides a detailed and candid account of the program's outputs and achievements and the document is internally consistent and logically structured. The evidence base presented is substantial but could have been made more robust by strengthening the analysis of the additionality of the program. For example, the report does not clearly establish the baseline conditions before the program's interventions, making it challenging to fully assess the program's impact. This is especially evident in the discussion of the flood management system and the operationalization of the FSEC, where the ICR focuses on how well these systems worked without adequately addressing how deficient or non-existent they were prior to the program. In addition, since the PD highlighted social benefits of the program, in regards to poverty and gender, the ICR could have provided more evidence on this, e.g., actual targeting of the earthquake response in terms of poverty and gender. The report also suffers from being overly lengthy and, at times, repetitive.

Overall, while the ICR does a good job of documenting the program's performance and results, it could have provided a more in-depth analysis of its additionality and social impact, particularly regarding the targeting of vulnerable populations and the effectiveness of gender-focused interventions. The quality of the ICR was rated **Substantial**.

a. Rating



Substantial

11. Ratings

Ratings	ICR	IEG	Reason for Disagreement/Comments
Outcome	Satisfactory	Moderately Satisfactory	A limited scope of PAs, weak relevance of RIs and lacking evidence on achieving Objective 2 resulted in a MS Efficacy rating, leading to an overall Outcome rating of MS.
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Relevance of Results Indicators	---	Moderately Satisfactory	
Quality of ICR	---	Substantial	

12. Lessons

The lessons learned provided in the ICR were comprehensive and relevant. Three key lessons learned that are partially based on 4 of the lessons provided in the ICR are highlighted below:

Integrating the Cat DDO into a broader DRM program maximizes its effectiveness. Integrating the Cat DDO into a broader DRM program can significantly enhance its effectiveness by leveraging the instrument’s financial incentivization capabilities alongside a comprehensive programmatic strategy. While the Cat DDO encourages policy reform, its limited supervision opportunities highlight the need for integration within a broader program of IPFs, PforRs and continuous TA. Moreover, the integration of the Cat DDO into a broader TA program can enhance the quality of design and implementation. In the case of this Cat DDO, the operation benefited greatly from prior engagement in DRM and Disaster Risk Financing through a series of TAs provided since 2015. In particular, these TAs were crucial in developing key aspects like a risk financing strategy for FSEC, financial loss estimations, and catastrophic risk insurance law, which allowed for incremental capacity building and real-world application during critical moments, such as the response to the earthquake. This comprehensive approach ensured strong client buy-in from the onset and maximized the overall success and sustainability of the program.

Strong inter-agency coordination enhances program impact. The success in operationalizing the Flood Risk Management Information System (PA5) and the improved coordination between various government agencies demonstrate the critical role of inter-agency collaboration. Effective coordination not only improves the efficiency of program implementation but also ensures that the benefits of the program reach the intended beneficiaries, evidenced by the successful use of the new register model (PA3) during the earthquake response. Furthermore, the ICR highlights that strong sectoral collaboration between the GPs leading this Cat DDO further helped promote inter-governmental coordination in the Moroccan counterparts, contributing to the success of the program.



A well-designed results framework is essential for accurately measuring progress and capturing the complex outcomes of a Cat DDO. The Cat DDO offers a number of lessons on how to improve program monitoring. Aligning the results framework to the key challenges the program is designed to address, e.g., lack of inter-governmental coordination, is crucial to be able to demonstrate success. Restructuring the results framework during implementation can help adjust and refine indicators as the program evolves since it may be difficult for teams to predict how a PA unfolds downstream and what data will be available to monitor the outcome. Layering indicators can provide a more comprehensive understanding of the program's impact, e.g., RI6 on compliance with prudential requirements could have been layered with an indicator on the amount of reserves.

13. Project Performance Assessment Report (PPAR) Recommended?

No