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Report No: PAD5284

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 318.7 MILLION
(US\$350 MILLION EQUIVALENT)

TO THE

KINGDOM OF MOROCCO

FOR THE

MOROCCO CLIMATE OPERATION / SUPPORT TO NDC
PROGRAM-FOR-RESULTS

May 17, 2023

Environment, Natural Resources & The Blue Economy Global Practice
Middle East And North Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective {April 30, 2023})

Currency Unit: Moroccan Dirhams (MAD)

MAD 11.07 = EUR 1

US\$1 = EUR 0.91

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

ABH	River Basin Agency (Agence de Bassin hydraulique)
ACAPS	Insurance and Social Security Supervisory Authority (Autorité de Contrôle des Assurances et de la Prévoyance Sociale - MEF)
ACG	Anti-Corruption Guidelines
ADA	Agricultural Development Agency (Agence pour le Développement Agricole - MAPMDREF)
AFD	French Development Agency (Agence Française de Développement)
AMMC	Moroccan Capital Market Authority (Autorité Marocaine du Marché des Capitaux)
AMO	Mandatory Health Insurance (Assurance Maladie Obligatoire)
ANDZOA	National Agency for the Development of Oasis Areas and Argan Tree (Agence Nationale de Développement des Zones Oasiennes et l'Arganier - MAPMDREF)
ANEF	National Agency of Water and Forest (Agence Nationale des Eaux et Forêts)
ASA	Advisory Services and Analytics
BCR	Benefit-Cost Ratio
BAM	Central Bank of Morocco (Bank Al-Maghrib)
CBT	Climate Budget Tagging
CCDR	Country Climate and Development Report
CESE	Economic, Social, and Environmental Council (Conseil économique, social et environnemental)
CGEM	General Confederation of Moroccan Enterprises (Confédération Générale des Entreprises du Maroc)
CNCP	National Commission on Public Procurement - General Secretariat of the Government (Commission Nationale de la Commande Publique - Secrétariat Général du Gouvernement SGG)
CNSS	National Social Security Fund (Caisse Nationale de Sécurité Sociale - MEF)
CNCCDB	National Commission on Climate Change and Biodiversity – NCCCB (Commission Nationale des Changements Climatiques et de la Diversité Biologique - CNCCDB)
CNCP	National Commission for Public Procurement (Commission Nationale de la Commande Publique)
COA	Court of Accounts
COFOG	Classification of the Functions of Government
CPF	Country Partnership Framework
CREIE	Regional Environmental Impact Assessment Committees (Comités régionaux des Etudes d'Impact Environnemental)
DAIR	Directorate of Internal Audit and Risks (ANEF)
DB	Directorate of Budget (Direction du Budget - MEF)
DDD	Department of Sustainable Development (Département du Développement Durable - MTEDD)
DDFP	Directorate for the Development of Production chains (Direction de Développement des Filières de Production - MAPMDREF)
DEF	Directorates of Water and Forest (Directions des Eaux et Forêts – ANEF)
DGCT	General Directorate of Territorial Collectivities (Direction Générale des Collectivités Territoriales)
DGH	General Directorate of Hydraulics (Direction Générale de l'Hydraulique - MEE)
DGM	General Directorate of Meteorology (Direction Générale de la Météorologie - MEE)
DLI	Disbursement-Linked Indicator
DLR	Disbursement-Linked Result
DPA	Provincial Directorate of Agriculture (Direction Provinciale d'Agriculture – MAPMDREF)
DPF	Development Policy Financing
DRPE	Directorate of Research and Water Planning (Direction de la Recherche et de la Planification de l'Eau - DGH)

DSS	Strategy and Statistics Directorate (Direction de la Stratégie et des Statistiques - MAPMDREF)
DTFE	Treasury and External Finance Directorate (Direction du Trésor et des Finances Extérieures - MEF)
E&S	Environmental and Social
E&SMS	Environmental and Social Management System
eGP	e-Government Procurement
EIA	Environmental Impact Assessment
Ennajaa	Morocco Public Sector Performance Program-for-Results
ES	Ecosystem Services
ESIA	Environmental and Social Impact Assessment
ESG	Environmental, Social and Governance
ESMP	Environment and Social Management Plan
ESSA	Environmental and Social Systems Assessment
EU	The European Union (l'Union Européenne – UE)
FAO	Food and Agriculture Organization of the United Nations (Organisation des Nations unies pour l'alimentation et l'agriculture)
FM	Financial Management
FSA	Fiduciary Systems Assessment
GBV	Gender Based Violence
GCAM	Groupe Crédit Agricole du Maroc
GCRF	Global Crisis Response Framework
GDP	Gross Domestic Product
GHG emissions	Greenhouse Gas emissions
GID	Integrated Expenditure Management - budget execution software (Gestion Intégrée de la Dépense – Système d'exécution budgétaire)
GIE	Economic Interest Group
GIR	Integrated Revenue Management (Gestion Intégrée de la Recette)
GIZ	German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit)
GoM	Government of Morocco
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
ICMA	International Capital Markets Association
IGA	Inspectorate General of Agriculture (MAPMDREF)
IGE	Inspectorate General of the Equipment and Water (Inspection Générale du Ministère de l'Équipement et de l'Eau - MEE)
IGF	Inspectorate General of Finance (Inspection Générale des Finances - MEF)
IGM	Ministerial Inspectorate General (Inspection Générale Ministérielles)
INRA	National Institute for Agricultural Research (Institut National de Recherche Agronomique - MAPMDREF)
IPF	Investment Project Financing
IRR	Internal Rate of Return
IVA	Independent Verification Agency
JICA	Japan International Cooperation Agency (Agence Japonaise de Coopération Internationale)
M&E	Monitoring and Evaluation
MAPMDREF	Ministry of Agriculture, Maritime Fisheries, Rural Development, and Water and Forests (Ministère de l'Agriculture, de la Pêche Maritime du Développement Rural et des Eaux et Forêts)

MEE	Ministry of Equipment and Water (Ministère de l'Équipement et de l'Eau)
MEF	Ministry of Economy and Finance (Ministère de l'Économie et des Finances)
MOP	Manual of Operation
MRV	Monitoring, Reporting and Verification
MSMEs	Micro, Small, and Medium Enterprises
MTEDD	Ministry of Energy Transition and Sustainable Development (Ministère de la transition énergétique et du développement durable)
NBS	Nature-based Solutions (Solutions Basées sur la Nature)
NDC	Nationally Determined Contributions (Contributions déterminées au niveau national)
NGO	Nongovernmental Organization
NPV	Net Present Value
ONS	National Observatory of Drought (Observatoire National de la Sécheresse - MAPMDREF)
OPRC	Operations Procurement Review Committee
ORMVA	Regional Agricultural Development Office (Office Regional de Mise en Valeur Agricole – MAPMDREF)
PAP	Program Action Plan
PDO	Program Development Objective
PDP	Performance-Based Budget (Projet de Performance)
PEA	Administrative Exemplarity Pact (Pacte d'Exemplarité de l'Administration)
PEF	Program Expenditure Framework
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PforR	Program-for-Results
PIU	Program Implementation Unit
PMMP	Moroccan Public Procurement Portal (Portail Marocain des Marchés Publics)
POM	Program Operations Manual
PPD	Public Procurement Decree
PPP	Public-Private Partnership (Partenariat Public-Privé)
RA	Results Area
RBOSM	Reserve Biosphere Oasis du Sud Marocain
RNA	National Agricultural Register
SDR	Regional Development Corporation (Société de Développement Régional)
SEAH	Sexual Exploitation, Abuse and Harassment
SMEs	Small and Medium Enterprises
SOE	State-Owned Enterprise
STA	Single Treasury Account
TA	Technical Assistance
TF	Trust Fund
TGR	General Treasury of the Kingdom (Trésorerie Générale du Royaume - MEF)
TNS	Non-salaried workers (Travailleurs non-salariés)
TOC	Theory of Change
TOR	Terms of Reference
TSA	Treasury Single Account
UNFCCC	United Nations Framework Convention on Climate Change (Convention-cadre des Nations Unies sur les Changements Climatiques - CCNUCC)
WB	The World Bank
WBG	World Bank Group



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**DATASHEET****BASIC INFORMATION**

Country(ies)	Project Name	
Morocco	Morocco Climate Operation / Support to the Nationally-Determined Contribution (NDC)	
Project ID	Financing Instrument	Does this operation have an IPF component?
P178763	Program-for-Results Financing	No

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Contingent Emergency Response Component (CERC)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Small State(s)	<input type="checkbox"/> Conflict
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)	
Expected Project Approval Date	Expected Closing Date
08-Jun-2023	30-Jun-2028

Bank/IFC Collaboration

No

Proposed Program Development Objective(s)

The Objective of the Program is to strengthen the institutional capacity to implement the NDC and enhance climate resilience of targeted vulnerable groups and ecosystems in the Program area.

Organizations

Borrower : Kingdom Of Morocco



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COST & FINANCING

SUMMARY

Government program Cost	700.00
Total Operation Cost	350.00
Total Program Cost	350.00
Total Financing	350.00
Financing Gap	0.00



Financing (USD Millions)

International Bank for Reconstruction and Development (IBRD)

350.00

Expected Disbursements (USD Millions)

Fiscal Year	2023	2024	2025	2026	2027	2028
Absolute	0.00	25.00	75.00	100.00	100.00	50.00
Cumulative	0.00	25.00	100.00	200.00	300.00	350.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food, Macroeconomics, Trade and Investment, Social Protection & Jobs, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	



10. Overall

● Substantial

COMPLIANCE

Policy

Does the program depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the program require any waivers of Bank policies?

☐ Yes ☒ No

Legal Operational Policies

Triggered

Projects on International Waterways OP/BP 7.50

Yes

Projects in Disputed Areas OP/BP 7.60

No

Legal Covenants

Sections and Description

Section I.A.1 of Schedule 2: No later than thirty (30) days after the Effective Date, or such later date as agreed by the Bank, establish within its Budget Directorate, and thereafter maintain, throughout the implementation of the Program, the Program Implementation Unit ("PIU"), responsible for the coordination and monitoring of the day-to-day implementation of the Program, including the preparation of the Program's annual progress reports, preparation of pertinent financial statements, and staffed with adequate professional, fiduciary, administrative and technical personnel, with qualifications, experience and terms of employment acceptable to the Bank, all as described in the POM.

Sections and Description

Section I.A.2 of Schedule 2: No later than ninety (90) days after the Effective Date, or such later date as agreed by the bank, the Borrower shall establish, and thereafter maintain, throughout the implementation of the Program, a Program Steering Committee, composed of representatives of the Borrower's entities and institutions participating in the implementation, monitoring and evaluation of the Program, responsible for the strategic oversight and guidance under the Program, and for reporting on an annual basis to the National Commission on Climate Change and Biodiversity, all as further described in the POM



Sections and Description

Section I.B.1(a) of Schedule 2: no later than one hundred and twenty (120) days after the Effective Date, or such later date as agreed by the Bank, adopt a manual under terms and conditions acceptable to the Bank (“Program Operational Manual” or “POM”)

Conditions

Type	Financing source	Description
Disbursement	IBRD/IDA	Section III.B1(b): for any DLR under Categories (1) to (10) until and unless the Borrower has furnished evidence satisfactory to the Bank that said DLR has been achieved.



I. STRATEGIC CONTEXT

1. **The proposed Program-for-Results (PforR) operation aims to support the Government of Morocco (GoM) in accelerating the implementation of its Nationally Determined Contribution (NDC) by operationalizing key recommendations of the Country Climate and Development Report (CCDR) that was closely prepared with the government, through a participatory approach.** The operation focuses on strengthening institutional and policy capacity for mainstreaming climate change into development policies and programs, by improving the policy tools, systems, data management and fiscal and financial institutions, and by strengthening coordination among various sectoral ministries and agencies (environment, agriculture, water, social protection etc.). It also establishes institutional mechanisms to foster an integrated approach to climate and development, including at the territorial level, with a focus on enhancing the resilience of vulnerable groups and ecosystems. This operation complements and reinforces other World Bank (WB) engagements on climate change at the sectoral level (water, agriculture, energy, transport etc.). It has been prepared in close coordination with the Agence Francaise de Developpement (AFD), the GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the European Union (EU).

A. Country Context

2. **Morocco's development priority is to accelerate inclusive private sector-led growth and job creation, and human development.** Gross Domestic Product (GDP) per capita grew by 3 percent in 2000-2019, at par with lower middle-income countries (3.2 percent) but slower than upper middle-income countries (4.9 percent). Moreover, growth was mostly driven by capital accumulation and a state-led infrastructure building program. More recently, growth was negatively impacted by pandemic and climate shocks (COVID-19 and drought). The Kingdom's New Development Model (NDM), adopted in 2021, aims to double per capita income by 2035 by improving private sector-led growth and economic opportunities for women, youth, and inclusion of lagging territories. To this end, the authorities are implementing ambitious reforms for: renewing the social contract, instituting universal health insurance, and expanding coverage of cash transfers in a targeted manner, while improving learning outcomes among children. They have also initiated reforms aimed at widening fiscal space and stimulating private sector investments. These reforms include gradual implementation of the 2021 Fiscal Framework Law, and the operationalization of the agency in charge of state participation in State-Owned Enterprises (SOEs) aimed at improving the performance of strategic commercial SOEs as well as the Mohammed VI Strategic Investment Fund to enable long-term finance for small and medium enterprises (SMEs).

3. **The Kingdom also recognizes that climate change is a major threat for Morocco's development.**¹ Morocco is classified as one of the world's climate hotspots.² Average temperatures have increased by almost 1.36°C between the 1970-2019 period (0.34°C per decade), recording nine of the ten warmest years of the country in the 21st Century. Moreover, precipitation patterns have followed an overall downward trend with more erratic patterns (more frequent and intense droughts as well as severe rain events). Over the past 60 years, the overall water inflows have been reduced by about 30 percent, exacerbating the problem of water scarcity and placing Morocco in a situation of structural water stress.³ Shocks in rainfall regime have become a major source of macroeconomic volatility⁴: through backward and forward transmission channels along with the drought related adverse impacts on the agriculture sector, have created knock-on effects on the entire economy. Floods also represent a threat to the country's development. Floods are the most frequent weather-induced natural hazards in Morocco, causing direct losses estimated at an average of US\$450

¹World Bank, 2022. Morocco Climate and Development Report. Washington, DC.

² IPCC. 2022. Climate Change: Impacts, Adaptation and Vulnerability

³ With about 620 m³ of available renewable water per person per year, Morocco is considered a situation of structural water stress (below 1,000 m³), fast approaching the absolute water scarcity threshold of 500 m³ per person per year.

⁴ On average, rainfall shocks explain close to 37 percent of the variance of Morocco's output over the medium-term.



million per year, with a disproportionate impact on vulnerable households.⁵ Climate change and the trend towards reduced rainfalls and prolonged hot periods represent major threats on vulnerable ecosystems, exacerbating soil erosion, land degradation and wildfires.

4. **Lower-income, women, youth, and rural populations tend to be disproportionately exposed to not only climate-induced shocks such as droughts and floods, but also, to climate stressors (such as water scarcity and rising sea-level).** They are also faced with shock related recovery challenges and lack of adaptation resources. In rural areas, a large share of workforce⁶ depends on rain-fed agriculture (*bour*) that remains highly vulnerable to both droughts and water scarcity.⁷ Looking ahead, the CCDR shows that climate-induced changes (25 percent reduction in water availability and the drop in crop yields due to climate change) could reduce agricultural GDP by about 9.3 percent⁸ and jeopardize livelihoods of rural households. It also highlights that, while climate change and shocks are gender-neutral, their impacts are not and women suffer greater exposure and vulnerability, with a more limited level of preparedness and coping capacity compared to men in the face of disaster. These limitations are due to unequal opportunities to generating an income from their agricultural work⁹ but also limited access to information of Moroccan women on early warning systems or post-disaster recovery interventions. Poverty is also relatively higher in the Oasis ecosystem areas highlighting the importance of their preservation by promoting sustainable agricultural practices and jobs in these regions. In urban areas, disadvantaged neighborhoods are also usually more prone to floods¹⁰ and at risk of rising sea level. Low-income populations also tend to bear the highest losses from extreme weather events (floods and heatwaves) with direct or indirect adverse health impacts. Such trend could also be exacerbated with climate induced migration from rural areas where adverse conditions in rural areas could spur migration to urban areas up to 1.9 million Moroccans (about 5.4 percent of the total population) by 2050.¹¹

B. Multi-Sectoral and Institutional Context

5. **Morocco is highly ambitious on implementing climate action through its NDC that was revised in 2021.** Morocco has taken some decisive steps to combat climate change over the past 15 years. In the late 2000s, it notably launched two emblematic programs to tackle climate challenges at the sectoral level: the *Plan Maroc Vert* (PMV) designed to support climate-smart agriculture, and the Moroccan Solar Plan (then transformed into the National Energy Strategy) to deploy renewable energy. In 2019, the GoM launched the *2030 National Climate Plan* (2030-NCP). Ahead of 2021 COP-26, Morocco put forward a revised NDC with a higher level of ambition on both adaptation and mitigation fronts. The revised NDC deepens and expands the Kingdom's ambitions in terms of adaptation. It notably includes new areas: meteorology, sensitive environments (coastline, mountains, and oases), habitat/land-use planning, and health. On the mitigation front, the 2021 revised NDC sets an ambitious target in terms of decarbonization, with a

⁵ World Bank, 2013. Building Morocco's Resilience: Inputs for an Integrated Risk Management Strategy. Washington, DC.

⁶ The agricultural sector employs nearly 30 percent of the national workforce, and more than 80 percent of the rural population.

⁷ Rainfed agriculture, representing 80 percent of agricultural lands (*bour*), is highly and increasingly vulnerable to droughts. Cereals, and in particular wheat, the most important rainfed crop (both in terms of value and of relevance for food security), are particularly exposed to rainfalls shocks with large swing in production caused by rainfalls patterns.

⁸ World Bank, 2020. Water Scarcity in Morocco: Analysis of Key Water Challenges. Washington, DC.

⁹ Although 57 percent of the female population participates in agricultural work, their contributions remain largely unpaid (73 percent of female labor in the primary sector is unpaid), and they earn 50 percent less for agricultural work than men (the largest gender wage gap of any sector in Morocco), which increases their vulnerability to shocks. (Arab Reform Initiative, 2021. Beyond Morocco's agricultural boom: the invisibility and precariousness of a female agricultural workforce).

¹⁰ The hazard and vulnerability maps developed for various cities in Morocco suggest that the riskier areas tend to be concentrated in poorer neighborhoods, often in areas that are poorly connected to transportation networks and less likely to be in proximity of health centers and fire stations

¹¹ World Bank, 2021a. Groundswell Part 2: Acting on Internal Climate Migration. Washington, DC: World Bank.



target of 45.5 percent reduction of its GHG emissions by 2030 compared to a business-as-usual scenario.¹² Despite being a small emitter (0.2 percent of global GHG emissions), the CCDR report shows that the decarbonization agenda could bring Morocco multiple benefits, with positive spillovers and multiplier effects on GDP and jobs.¹³ The decarbonization agenda is also expected to be largely shouldered by the private sector.

6. **Adaptation to climate change is an urgent priority for the Kingdom.** The revised NDC recognizes the adaptation agenda as a high priority for the Kingdom, with more than half of the financing needs targeted to this agenda.¹⁴ The adaptation objectives defined in the NDC are further developed in the National Strategic Adaptation Plan (NSAP), which was adopted in January 2022. The Morocco CCDR shows that water scarcity could impact almost every aspect of Morocco's future socioeconomic development, with the most devastating impact in rural areas, jeopardizing livelihoods of millions of rural households and deteriorating vital ecosystems (such as forests and oases). As such, the CCDR highlights the urgency for Morocco to strengthen its resilience to climate change and recommends that high priority be given to enhancing rural resilience in the 2023-2030 period.¹⁵

7. **The level of complexity and urgency posed by climate change calls for a “whole of government” approach.** While the sector-specific approach to climate change has certainly yielded impacts over the past 15 years (e.g., in the agriculture and energy sectors), it will not be enough to implement a comprehensive and forceful response to climate challenges in Morocco. The recent institutional assessment on climate change¹⁶, conducted as part of the preparation of the CCDR, reveals that a large majority of the ministries at the central level are involved in climate action, and that inter-institutional coordination is limited.¹⁷ The siloed sector-based approach to climate change and the fragmented policies are the key undermining factors for a strong and ambitious climate action. The new National Commission on Climate Change and Biodiversity (CNCCB) created in 2020¹⁸ to foster consultation and coordination among governmental entities, is also well positioned to strengthen climate action coherence. The CCDR also highlights several missing or weak data and public policy tools that are critical to elevate and mainstream climate policy into economic, fiscal and financial policies.

8. **Financing for climate action remains insufficient and is, by and large, focused on mitigation measures.**¹⁹ The 2021 NDC represents a total cost of US\$78.8 billion for the 2020-2030 period, i.e. an average amount of about US\$7.2 billion per year or about 5.2 percent of 2022 GDP.²⁰ A recent evaluation led by the Caisse de Dépôt et Gestion estimated that Morocco invested an average of US\$1.5 billion per year on climate action during the 2011-18 period (i.e. about

¹² Under the revised NDC, 18.3 percent of this target is unconditional, and the remaining 27.2 percent are conditional to international assistance. According to the Climate Action Tracker, Morocco's climate targets and policies are “Almost sufficient” and the targets set under its unconditional commitment meet its fair-share contribution to the Paris Agreement: this indicates that Morocco's climate policies and commitments are almost consistent with the Paris Agreement's 1.5°Celsius temperature limit and could reach consistency with moderate improvements.

¹³ By decarbonizing its economy, Morocco can reduce its dependency to fossil fuel imports, improve the competitiveness of its industrial products in the EU market, position itself a hub for green investment and export and increase its attractiveness for foreign direct investment (FDI).

¹⁴ NSAP sets a roadmap for 2020-2030, with a concerted and inclusive framework to support adaptation planning and priority actions to strengthen the resilience of the population and the territory to climate change.

¹⁵ The CCDR estimates that about \$23 billion would be needed to kick start the transition to a resilient and low carbon path between now and 2030, with two thirds of that devoted to address urgent adaptation needs.

¹⁶ A rapid *Climate Change Institutional Assessment (CCIA)* was conducted as part of the preparation of the CCDR.

¹⁷ The Ministry of Energy Transition and Sustainable Development (MTEDD), through its Department of Climate Change is responsible for coordinating climate issues but faces some limitations in doing so.

¹⁸ Décret n° 2-19-721 du 3 ramadan 1441 (27 avril 2020).

¹⁹ Source: “Panorama of the Financing of Climate Action in Morocco 2011-2018”, carried out by the *Caisse de Dépôt et de Gestion* (CDG) and the Institute for Climate Economics (I4CE). The report assessed the financing (public/private, domestic/international) mobilized to support climate action in Morocco.

²⁰ The total costs associated to mitigation commitments amount to US\$38.8 billion (out of which US\$21.5 billion under conditional commitment) while the costs associated to adaptation actions amount to \$US40 billion.



1.1 percent of 2022 GDP), largely focussing on mitigation measures (energy and transport).²¹ While there has been an upward trend during this period, total climate financing falls short in terms of the ambitions described in the NDC: it represents less than one fifth of the estimated annual financing need. The financing for adaptation is falling behind, despite the massive needs that are re-emphasized in the revised NDC.

C. Relationship to the CPS/CPF and Rationale for Use of Instrument

9. **The proposed operation directly supports the third pillar of the World Bank Group's Country Partnership Framework (CPF) 2019-2024 for Morocco.**²² The operation is fully aligned with objective #10: *"Enhance adaptation to climate change and resilience to natural disasters (NDC implementation)"* on the third pillar *"Promote inclusive and resilient territorial development"*. By strengthening Morocco's capacity to cope with the challenges posed by climate change and seize the opportunities for transitioning to a more sustainable Morocco, this operation could also contribute to meet the overarching objective of the CPF, which is to *"contribute to social cohesion by improving the conditions for job creation and reducing social and territorial disparities"*. A Performance and Learning Review for the Morocco CPF is scheduled to be presented to the Board. The PLR will elevate the climate agenda to the level of a new strategic pillar *"Supporting the Climate Transition"*.

10. **The operation is also consistent with the WB Climate Change Action Plan (2021-2025)**²³ as well as the Roadmap for Climate Action in MENA (2021-2025)²⁴. The Program supports the GoM in implementing its NDC, in two ways: (a) first: through the Results Area-1 on the "whole of government" approach, the Program will create an enabling environment to accelerate climate action, by (i) mainstreaming climate considerations in core Public Finance Management (PFM) tools and (ii) strengthening the climate data systems to better inform policy dialogue and decision-making; and (b) second: through supporting a selection of key activities to enhance the resilience of vulnerable groups and ecosystems to climate change and shocks. The Program is also in line with the four transformational pillars prioritized under the Roadmap for Climate Action in MENA (2021-2025), namely the (i) food systems, water security and resilient natural capital, (ii) energy transition and low carbon mobility, (iii) climate-smart cities and resilient coastal economies and (iv) sustainable finance for climate action. The proposed operation is also aligned with the World Bank Group (WBG) Environment Strategy 2012-2022.²⁵

11. **The Program contributes to the MENA Regional Strategy**²⁶ **and the Global Crisis Response Framework (GCRF).** The operation directly supports the Kingdom's post COVID-19 pandemic recovery, in line with the WBG strategy to better build back through the promotion of a green²⁷, resilient, and inclusive growth. It contributes to key elements of the MENA Regional Strategy, notably by (a) accelerating green growth and making economies more resilient and inclusive, (b) supporting jobs and transformation through delivering economic opportunities in rural areas, with a focus on vulnerable groups, and (c) advancing gender equality by specifically supporting women notably in rural areas, who are disproportionately impacted by climate shocks. The operation will also contribute to addressing critical gaps in alignment with the WB MENA Regional Gender Action Plan FY18-23. It also aligns with the GCRF, by: (a) responding to food insecurity (DLI 7), (b) protecting people and preserving jobs (DLI 7, 8, 9, 10), (c) strengthening resilience (DLI 5, 8, 9, 10) and (d) strengthening policies, institutions and investment (DLI 1, 2, 3, 4, 5, 6).

²¹ It is worth noting that, given the absence of climate-sensitive public expenditures tagging, and the lack of a green taxonomy for the private sector, computing Morocco's total mitigation and adaptation investments is not an easy task; the reported numbers likely underestimate the overall effort.

²² Report No. 131039 discussed by the Executive Board of Directors on February 19, 2019.

²³ World Bank (2021) *Climate Change Action Plan (2021-2025)*.

²⁴ World Bank (2022) *Roadmap for Climate Action in MENA (2021-2025)*.

²⁵ World Bank (2012) *Toward a green, clean, and resilient world for all: a World Bank Group environment strategy 2012-2022*.

²⁶ World Bank (2021) *Middle East and North Africa: Looking Forward*.

²⁷ Green in this PAD is defined as contributing to Climate Change mitigation, thus reducing GHG emissions, as well as enhancing resilience to climate change.



12. **This new operation builds on a long-standing engagement on climate change and will operationalize some key recommendations from the CCDR that was closely prepared with the government (see Box 1).** Over the past years, the World Bank has supported key climate-related programs in Morocco, such as the *Plan Maroc Vert* in Agriculture (and now the Green Generation) as well as the Renewable Energy program, Solid Waste Management and the Urban transport agenda. Most of the lending operations have been designed to yield substantive climate benefits. The said engagement complements the World Bank's ongoing and planned activities, in parallel, furthering operationalization of key CCDR recommendations, and notably the guiding principles presented in Message #5 of the below box 1.

Box 1: Key messages of the Morocco CCDR

The Morocco CCDR was prepared by the World Bank in close coordination with the Government and the report was jointly launched on November 3, 2022. The main messages that emanated from the report are summarized below.

Message #1: Morocco is a climate hotspot and one of the world's most water-stressed countries, quickly approaching the absolute water scarcity threshold of 500 cubic meters of water per person per year. The CCDR shows that water scarcity could impact almost every aspect of Morocco's future socioeconomic development and that while investment in water infrastructure is vital, it should be complemented by policy reforms in the water sector and a shift in consumer behavior. The report also argues that there is urgency to invest in adaptation interventions.

Message #2: Flooding is the most frequent weather-related danger in Morocco and while the country already has sophisticated disaster risk management schemes, these need to become fully operational.

Message #3: Morocco can take advantage of its abundant competitive renewable energy resources to gradually decarbonize its economy. This would bring significant benefits, including reducing the average cost of electricity generation, but also contributing to reducing its dependence on imported fossil fuels. Investments needed to decarbonize the energy matrix could by large be shouldered by the private sector, but this would require deep reforms, notably the liberalization of the power sector.

Message #4: Overall, the CCDR estimates that Morocco would require investments of around \$78 billion between now and 2050, to transition to a low-carbon and resilient economy. To kick-start the transition about \$23 billion²⁸ would be needed between now and 2030, with two thirds of that devoted to addressing urgent adaptation needs. The pay-off for these investments would be immense and contribute to accelerating progress toward Morocco's development goals.

Message #5: The CCDR offers a set of principles to meet Morocco's ambitious climate commitments: (i) adopting a holistic approach by the government a, (ii) protecting the most vulnerable, (iii) establishing a robust system of climate information and analysis, (iv) unleashing innovation and (v) enabling engagement of relevant stakeholders.

13. The PforR is deemed the most appropriate instrument for this operation based on the following considerations:

- **Support the Kingdom's commitments to climate action.** The revised NDC sets a list of priority actions that the government is committed to implement to fight climate change. By combining policy reforms and specific interventions, the PforR instrument has the potential to contribute to structural changes while delivering tangible results on the ground (with demonstration effects), hence such a two-pronged approach is expected to be the most appropriate to foster a paradigm shift and accelerate climate action. By doing so, Morocco would re-affirm the strong stance that it has traditionally taken on climate change and would help position itself as a climate champion in the region.
- **Foster a coordinated approach for climate action.** The PforR instrument provides incentives that can foster inter-sectoral coordination and therefore strengthens the government's capacity to deliver on complex and multi-sectoral challenges, such as climate change. Through the "whole of government" component, the

²⁸ This number reflects the discounted value of the investments prioritized for the 2022-2030 to engage on a low-carbon and resilient path described in the CCDR (6 percent discount rate). It differs from the numbers showed in the 2021 NDC, as it only covers a subset of mitigation and adaptation measures. Source: Morocco CCDR, 2022.



operation will set up platforms and collaborative approaches to tackle coordination failures and foster the delivery of integrated solutions and set up robust platforms to support the GoM deliver on its climate agenda.

- **Strengthen the country systems.** The PforR instrument offers the opportunity to strengthen the country systems. In particular, the operation will reinforce the GoM capacity to monitor and report progress on climate action, including on the NDC implementation (including through the operationalization of the Monitoring, Reporting and Verification MRVplatform). By supporting the roll out of climate-sensitive PFM, the PforR operation will help ensure a better alignment between the climate commitments (including to the United Nations Framework Convention on Climate Change (UNFCCC)) and the budget planning system and will increase transparency in the reporting to the international community (through the UNFCCC). The operation will also strengthen the climate data systems: as highlighted in the CCDR²⁹, robust climate data has become increasingly crucial to support informed decision-making processes in multiple sectors³⁰, both for public and private stakeholders. The proposed Program will expose a set of government departments to international social and environmental standards which will contribute to upgrading their own systems. Similarly, the PforR operation will also enhance fiduciary systems by spotting potential shortcomings and providing targeted support. Overall, the GoM has a very strong track record on implementing PforRs to support complex and multi-sectoral programs (most recently on the Blue Economy Program-for-Results – P172926): associated with targeted technical assistance, these PforRs have been instrumental to build strong country systems in support to major government’s programs.

II. PROGRAM DESCRIPTION

A. Government Program

14. **The Government program consists of a prioritized subset of the measures in the 2021 NDC that are aligned with the key recommendations of the CCDR.** While the NDC provides the overall framework for this operation, a prioritization exercise was jointly carried out with the Government to carve out a subset of activities to form the Government program which this Program will support. An overarching guiding principle used to delineate the Government program was the application of a “whole of government” approach, recommended by the CCDR, to address institutional and policy failures to climate action in Morocco such as relatively weak coordination and missing or weak data, and integrated climate and development policy tools and systems (see para 5). To do so, three criteria were applied to prioritize activities under the Government program: (a) activities that require an integrated approach, with multiple stakeholders (central and local) and strong coordination mechanisms to maximize impacts; (b) activities that would support processes, tools and systems that would leverage climate action; and (c) activities that pilot coordinated interventions at the territorial level (“space-based interventions”) focusing on the relatively more urgent country priorities of protecting climate-vulnerable people and ecosystems. The Government program is under the leadership of the Ministry of Economy and Finance (MEF) which has put in place a Climate Unit to foster the mainstreaming of climate considerations in all MEF’s departments, in close coordination with the Ministry of Energy Transition and Sustainable Development (MTEDD).

15. **The Government program is articulated around three pillars aimed at strengthening the institutional, natural and social capital to address climate and development in an integrated manner:** (i) Accelerate climate action through enhanced coordination and dedicated public policy tools (“*institutional capital*”), (ii) Preserve ecosystems vulnerable

²⁹ “Strengthen the System of Climate Information and Analysis” is one of the five principles prioritized in the CCDR.

³⁰ Some sectors have been traditional users of climate data (agriculture, forestry, urban, water) and there are sectors where climate data has gained critical importance for their business model, e.g. the financial sector, social protection, insurances, housing, etc.



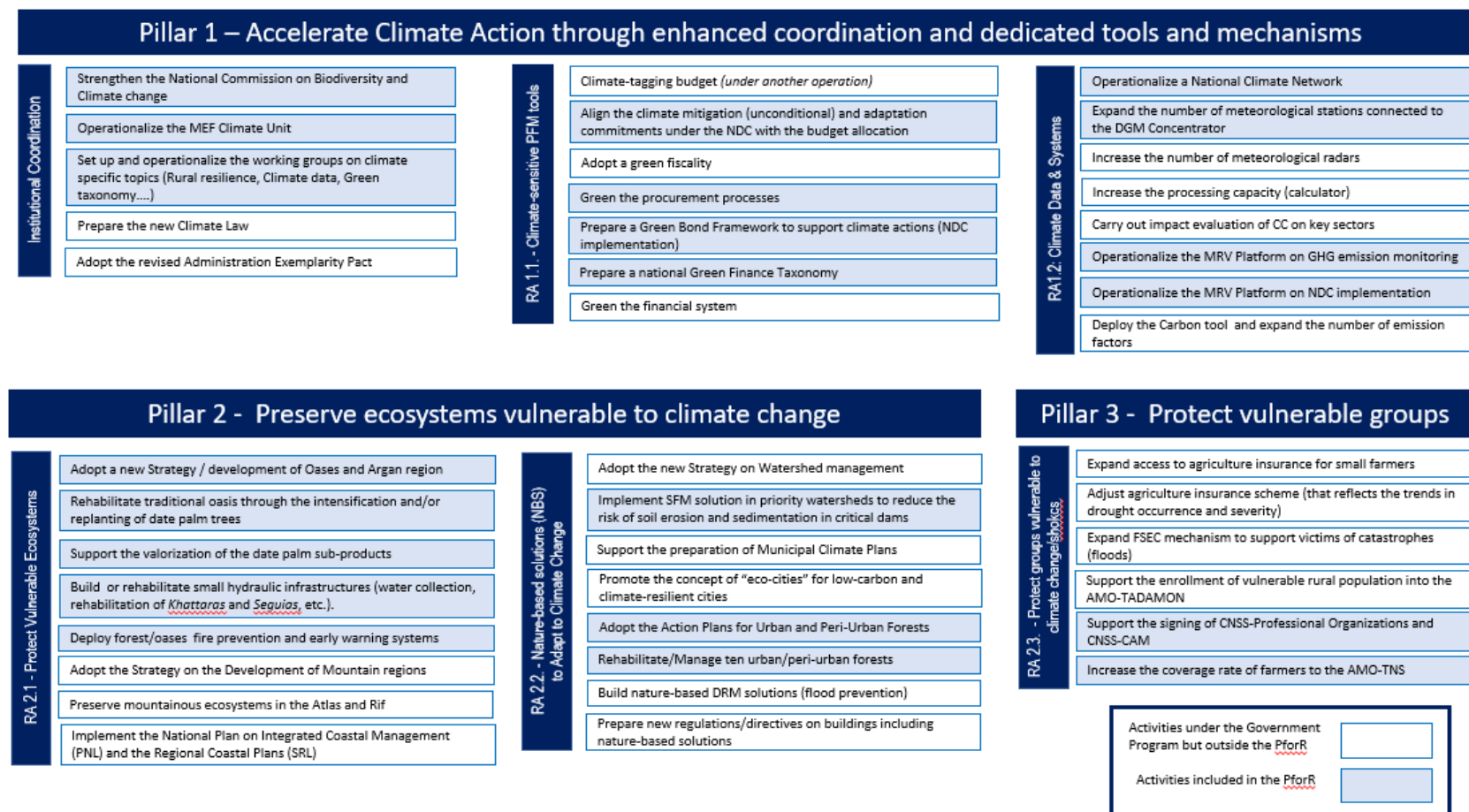
to climate change, through a space-based approaches (“*natural capital*”) and (iii) Protect groups vulnerable to climate change (“*social capital*”). See Figure 1 on the Government program.



Figure 1: The Government program and the PforR operation boundaries

Government Program

Objectives of the Government Program: (i) Accelerate climate action through enhanced coordination and dedicated tools, (ii) Preserve ecosystems vulnerable to climate change, through a space-based approach and (iii) Protect groups vulnerable to climate change

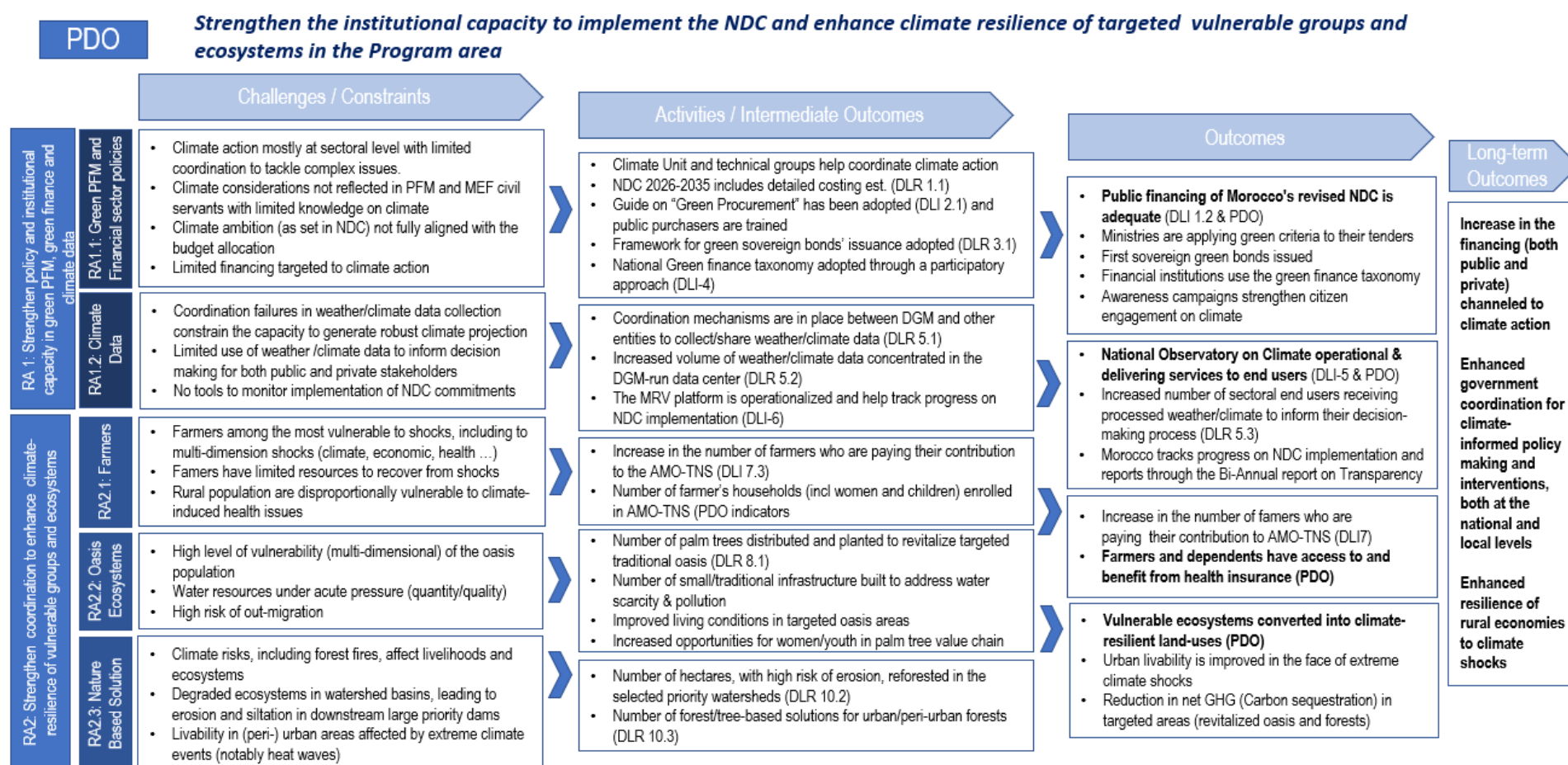


➔ **PforR Program Development Objective:** Strengthen the institutional capacity to implement the NDC and enhance climate resilience of targeted vulnerable groups and ecosystems in the Program area



B. Theory of Change

Figure 2. Theory of Change TOC

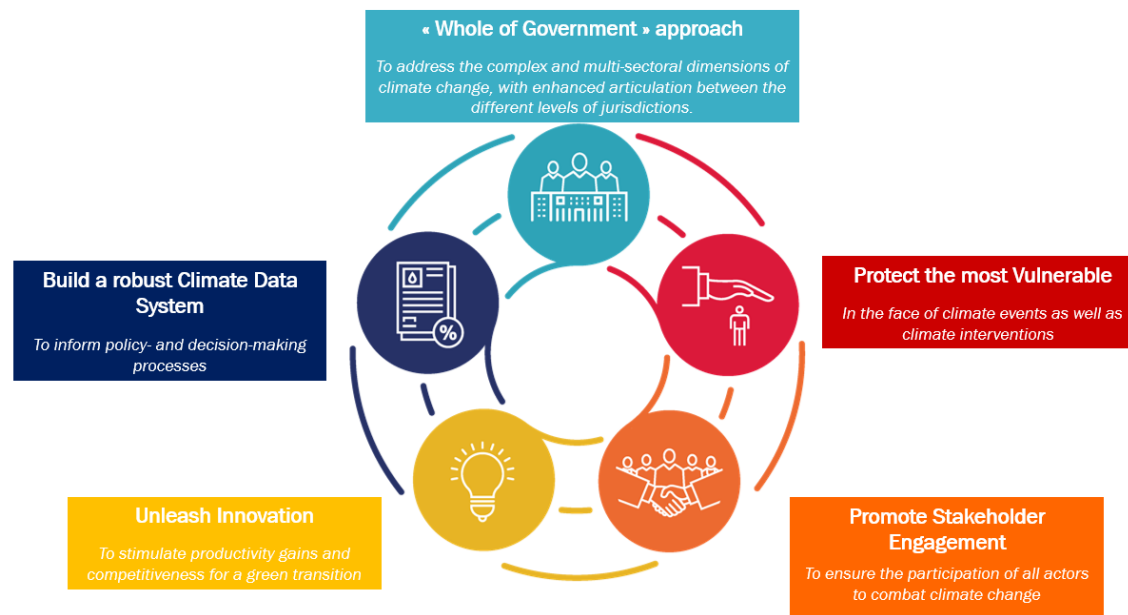




C. PforR Program Scope

16. The PforR's scope and boundaries were defined by filtering the government program according to fiscal, readiness, environmental and complementarity criteria: (a) the Program activities are prioritized in the 2021 NDC and registered in the 2023 Finance Law (and associated multi-year performance programs); (b) the Program activities have a satisfactory level of "readiness" to be implemented during the Program implementation period (mid-2023 to mid-2028); (c) the Program excludes activities which are highly complex and have a large social and environmental footprint; and (d) the activities complement the sector-focused activities/programs covered by ongoing or planned World Bank operations, notably in the water and agriculture sectors, the Disaster Risk Management (DRM)/urban sector as well as the social protection and health sectors.³¹ Figure 1 presents the Program boundaries and describes how the PforR interventions contribute to the Government program. The proposed PforR Program has been designed to operationalize the principles that have emanated from the CCDD (see Figure 3).

Figure 3. Key Principles to inform and support the Moroccan authorities in their policy-making processes to synergistically pursue climate and development objectives. (Extract from the Morocco CCDD)



17. As such, the proposed PforR is organized around two Results Areas (RA), both contributing to the operationalization of the CCDD principles, notably the "whole of government" approach aiming at strengthening coordination mechanisms to address urgent climate and development nexus. Overall, the PforR will strengthen the institutional framework on climate change, including through the reinforcement of the CNCCB as well as the operationalization of the new Climate Unit at the MEF and the establishment of cross-sectoral technical committees or working groups dedicated to specific climate topics (rural resilience, climate data, green finance taxonomy, etc.). The RA -1 will support the adoption of a "whole of government" approach to climate change by (a) greening the public finance tools and the financial sector, to increase both public and private financing for climate action³², and

³¹ Agriculture sector: (Green Generation PFR, P170419) and Strengthening Agri-food value chains (P158346); DRM sector: Integrated Disaster Risk Management and Resilience Program - (P144539), Morocco Disaster Risk Management Development Policy Loan with a Catastrophe Deferred Drawdown Option - (P168580) and Social Protection and Health sectors: Human Capital for a Resilient Morocco DPF (P176937), Second Strengthening Human Capital for a Resilient Morocco DPF - (P178382), Morocco COVID-19 Social Protection Emergency Response Project AF - (P180741), Identity and Targeting for Social Protection Project Additional Financing - (P179633), Morocco Health Reform Program - (P179014).

³² Because women-owned/led businesses have lower access to financing, compared to men-owned/led businesses (IFC, 2022), special attention will be placed to ensure that women benefit from the green financing tools developed.



(b) strengthening the climate data systems to better integrate climate considerations to inform decision-making processes for public and private stakeholders while enhancing monitoring of the progress towards the implementation of climate commitments. The RA -2 aims at enhancing “*Climate Resilience for Vulnerable Groups and Ecosystems*” and will also apply the “whole of government” approach by tackling key coordination failures to deliver tangible outcomes in terms of enhanced resilience to climate change/shocks. First, the Program will foster the collaboration between the Ministry of Agriculture, Maritime Fisheries, Rural Development, and Water and Forests (MAPMDREF), MEF and the National Social Security Fund (CNSS) to accelerate the deployment of the Social Protection system for rural populations. The climate data systems supported under RA -1 will help adjust and finetune the Social Protection system towards a more climate-adaptive one. Second, the Program will pilot a coordinated multi-sectoral approach at the territorial level, with a focus on Oasis rehabilitation and Nature-based solutions. These activities will primarily contribute to enhance the resilience of these vulnerable ecosystems to climate change but will also deliver co-benefits on mitigation (through carbon sequestration), as well as other environmental benefits (notably on sustainable water resource management).

Results Area 1: Strengthen Policy and Institutional Capacity in Green Public Finance Management, Green Finance, and Climate Data

18. **The GoM is adopting a “whole of government” approach to address the complex and urgent climate and development nexus.** The aim of the government is to accelerate implementation of its NDC by strengthening the capacity for mainstreaming climate change into development policies and programs. More specifically, the government is focused on improving climate and development policy planning, design, implementation, and monitoring & evaluation by strengthening fiscal and financial institutions, their systems and policy tools, as well as climate data. This first Results Area will focus on two core dimensions of these priorities: (a) mainstreaming climate considerations into public finance and financial sector policies and practices, and (b) strengthening the climate data systems.

RA#1.1: Mainstream climate considerations into public financial management and financial sector policies³³

19. **The objective of this RA is to elevate and mainstream climate considerations into public finance and financial sector policies and practices.** The Kingdom joined the International Platform on Sustainable Finance in 2019 and the Coalition of Finance Ministers for Climate Change in 2022 and established a Climate unit in the Ministry of Finance early in 2023 to spearhead the implementation of green PFM and promote green investments. In 2018, Central Bank (*Bank Al-Maghrib*, BAM) joined the Central Banks and Supervisors Network for Greening the Financial System which aims to accelerate the scaling up of green finance and develop recommendations on the role of central banks’ in supporting climate transition. This RA supports the GoM to implement its commitments to the “*Helsinki Principles*” of using fiscal planning, budgeting, public investment management and procurement practices as instruments to accelerate the climate transition. This RA will also contribute to the Administration Exemplarity Pact (*Pacte d’Exemplarité de l’Administration* - PEA) that sets ambitious targets to reduce the carbon footprint and increase water efficiency of the Administration through *inter-alia* green procurement.³⁴ The RA focuses on four key objectives: (a) promoting greater alignment between the NDC and fiscal and economic priorities as outlined in the annual Budget; (b) integrating climate change and other environmental considerations into the guidance, procedures, and methodologies for public procurement; (c) expanding the investor base to finance climate priorities in the Budget; and (d) channeling private sector investments toward green or sustainable economic activities and assets. MEF’s climate unit will play a critical role in integrating and coordinating these priorities for the GoM and this project.

³³ This sub-component builds on the recommendations from the WB Policy Note “Embarking on a Green Transition”, shared with the Government in October 2021 as well as the Climate Change Institutional Assessment (CCIA) carried out as part of the CCDR preparation and a series of ongoing technical assistances (notably on climate-sensitive budget and environmental fiscal policy).

³⁴ The revised PEA is expected to be approved by the Head of Government by June 2023 and then shared with all central administrations and local governments through a *circulaire*.



- **Promote greater alignment between the NDC and the Budget.** Although Morocco's PFM framework has evolved substantially following the adoption of a new Organic Finance Law in 2015 in establishing three-year programming, its institutional arrangements and practices have not yet been adapted to support climate-sensitive policies. The GoM is addressing this gap by elevating and mainstreaming climate change adaptation and mitigation objectives and commitments into fiscal policy and PFM. With the support of the World Bank under the Morocco Public Sector Performance Ennaja PforR (P169330), the GoM is preparing the deployment of the climate budget tagging tool³⁵, starting with piloting the mechanism at the central level in 2023. This will inform the MEF as well as other policymakers, the legislative and the public on how the Budget contributes to climate efforts. Morocco will prepare a revised version of its NDC to cover the period of 2026-2035, to be submitted to the UNFCCC by 2025³⁶. This provides an opportunity to improve the quality and credibility of NDC commitments costing and public financing. As such, the Program will ensure that (a) the updated NDC 2026-2035 includes (i) a costing for both adaptation and mitigation, differentiated by financing sources (public, private or others), and (ii) a detailed annual costing of public financing for the first three years (2026-2028) on adaptation and mitigation (unconditional); and (b) the planned public financing for the first three years of the revised commitments are confirmed in the three-year program attached to the respective Finance Laws (i.e. 2026-2028). As part of the revision of the NDC, the GoM is committed to mainstreaming gender dimensions to make adaptation and mitigation action more gender responsive (see Table A3-6 of Annex 3).³⁷ The GoM has also put in place a gender-sensitive budget, which will allow to mainstream the identified gender considerations of the NDC directly into the budgeting exercise. Combining both climate and gender tagging tools will also allow for identifying the interventions/activities that can contribute to both agendas.
- **Integrate climate considerations into public procurement.** In 2022, the GoM spent about MAD 245 billion (US\$24.5bn equivalent) in public procurement, which accounts for about 20 percent of the GDP. The new public procurement decree (PPD), approved by the council of government in December 2022, will come into effect in September 2023. The PPD embeds a provision on green public procurement, which will now be turned into action. Given its significance in the national economy, greening public procurement represents a strong lever for the State to turn its sizeable purchasing power into a catalyzer for climate action, notably by incentivizing energy and water efficiency which would contribute to mitigation and adaptation objectives set under the NDC. To unleash this potential, the Program will focus on three-reinforcing objectives: (i) strengthening green procurement know-how and practices among public buyers by developing a common approach and standards; (ii) promoting transparency and monitoring of green tenders through digitization; and (iii) ensuring regular and publicly available independent evaluation of the green procurement practices. More specifically the Program will support the: (a) adoption of a guide on "Green Procurement" that will be issued through a Circular by the Minister of Economy and Finance,³⁸ (b) integration of a module in the e-Procurement platform to tag tenders which include green criteria; and (c) publication of a report on tenders which include green criteria by the Moroccan Observatory of Public Procurement.
- **Expand the investor base to finance climate priorities in the Budget.** A key challenge for a middle-income country such as Morocco is to adequately finance both its development and climate goals. As it continues to

³⁵ Climate Budget Tagging is a budgeting tool that identifies, classifies, weights, and marks climate-relevant expenditures in a government's budget system, enabling the estimation, monitoring, and tracking of those expenditures.

³⁶ Under the UNFCCC, countries are expected to submit revised NDC every five years.

³⁷ The CCDR shows that women are overall more impacted by climate change than men. However, there is a lack of gender-disaggregated data in all sectors and the current NDC only briefly touches on gender-issues. With the support of the GIZ, the GoM will mainstream gender dimensions in the revised NDC. See table A3-7 in Annex 3.

³⁸ The MEF (TGR) will organize a series of trainings with purchasers on the guide, with the support of the AFD. The circular will include clear and verifiable climate-smart and resilient criteria for products and services in alignment with international standards such as ISO 14'000 standards or regional standards such as those defined by the *EU Handbook on Green Procurement* for mitigation and adaptation purposes.



improve and green public spending and domestic resource mobilization, the Kingdom would also need to expand and diversify its sources of climate finance, including by tapping financial markets. However, the green bond market in Morocco is still incipient: only six green bonds issued since 2016, for a total value of around US\$500 million³⁹ issued by banks, corporates, and SOEs. No sovereign green bond has been issued yet by the central government. The GoM is interested in taking advantage of an international market that is now welcoming sovereign green bonds,⁴⁰ to increase financing in support to its climate ambition.⁴¹ Doing so, will allow GoM to send a strong signal to the market on its commitment to green and sustainable investments.⁴² Issuance of green (or thematic) bonds involves steps that are not required for conventional bonds. For Morocco to prepare the issuance of green bonds, the Program will support the: (a) the preparation and adoption of a Sovereign Green Bond framework,⁴³ in line with the climate priorities set by the Government and reflected in the NDC that follows internationally accepted standards such as the International Capital Markets Association (ICMA) Green Bond Principles⁴⁴; and (b) the identification of a pipeline of priority climate investment projects in the Program area that are eligible under the Sovereign Green Bond Framework. These two elements are prerequisites for the government to issue sovereign green bonds on the international market. The primary focus of the government is on green bonds to support key climate mitigation and adaptation investments (notably on water and energy). This will allow the government to expand the framework more broadly and include other thematic bonds such as social bonds (or gender bonds), following internationally accepted standards such as the Social Bond Principles, and Sustainability Bond Guidelines.

- **Channel private sector investments toward green and resilient economic activities and assets.** The absence of a green finance taxonomy was identified by the CCDD as a one of the key constraints to channel private financing to accelerate the climate transition. Such taxonomies are being adopted in an increasing number of jurisdictions as an important tool to help issuers and investors identify green financial assets and projects. They also allow the financial regulator and supervisors to adopt sustainability related reporting, develop green financial products, and drive capital towards green priorities. This exercise would build on comprehensive technical assistance provided to the BAM by the World Bank on identifying and managing physical and transition risks in the financial sector. During the CCDD preparation, many stakeholders from the public and the private sectors have expressed an interest in defining a green finance taxonomy that would mobilize financial flows towards economic activities that contribute to climate change adaptation and mitigation. Such endeavor requires a strong governance structure that ensures both a consultative and participatory approach to define the strategic goal of the taxonomy, and the progress of its preparation, coordination, and effective implementation. As such, the Program will support the overall process of preparation of the green finance taxonomy. Such taxonomy is intended to help Morocco implement its NDC commitments and to cover both

³⁹ This number only encompasses bonds that are “climate-green” as defined by the Climate Bonds Initiative (CBI), and that are in compliance with the regulator’s guidelines; therefore it excludes self-labeled green bonds or other types of sustainable bonds from corporations.

⁴⁰ The World Bank conducted surveys of public debt management offices, international investors, and intermediary banks to better understand how to improve access to this market. The insights of both surveys, published in the report “*Sovereign Green, Social and Sustainability Bonds: Unlocking the Potential for Emerging Markets and Developing Economies*,” show overwhelming interest from emerging market governments and investors.

⁴¹ The GoM has indicated interest in issuing green sovereign bonds to support the NDC implementation and notably its ambitious water infrastructure plan to address water scarcity.

⁴² The launch of a sovereign green bond on international markets would allow Morocco (i) to confirm its reputation as an ecological country that respects the environment and biodiversity, (ii) to support mitigation and adaptation to climate change, (iii) to establish a benchmark for Moroccan companies wishing to finance themselves on the international green bond market and (iv) to broaden and diversify the base of international investors by attracting those who integrate environmental criteria into their investment strategy.

⁴³ A Green Bond Framework outlines the areas/sectors where the bond proceeds will be used, and it is established by each issuer. It does not include specific projects or locations.

⁴⁴ The ICMA principles provide issuers with a repository of the main elements that must be met for a bond to be validly qualified as green. These principles are based on four main areas, namely (i) the use of funds, (ii) the project selection and evaluation process, (iii) fund management, and (iv) reporting (allocation report, impact).



mitigation and adaptation. To do so, the Program will support: (a) the establishment of a technical committee/working group tasked with elaborating a governance framework for the preparation of the green finance taxonomy; (b) the adoption by the technical committee/working group of a roadmap setting the principles and priorities guiding the preparation of the green finance taxonomy; and ultimately (c) the implementation of the green finance taxonomy. The preparation of the green finance taxonomy will follow international experiences⁴⁵ derived from a wide range of countries – some of which benefited from WBG support.⁴⁶ To enable an effective public-private cooperation with a strong expertise on the financial sector, a technical committee/working group comprising the Treasury (DTFE), BAM, the Moroccan Authority for Capital Market (*Autorité Marocaine du Marché des Capitaux*, AMMC), and the Insurance and Pension Regulator (*Autorité de Contrôle des Assurances et de la Prévoyance Sociale*, ACAPS), will elaborate a governance framework for the preparation of the green finance taxonomy to ensure an inclusive process. The representation of women in the technical committee/working group will be at least of 25 percent, which should contribute to better integrate gender considerations into the green finance taxonomy.⁴⁷

20. **The preparation of Sub-RA -1.1 has been carried out in close coordination with the AFD** which is preparing a parallel financing (through budget support) to be approved around the same time as the proposed Program. The AFD operation will support the same areas covered under RA 1.1⁴⁸. The strong coordination between both institutions during the preparation was crucial and was successful in avoiding the risks of duplication of efforts and in supporting in a coordinated manner ambitious government activities to mainstream climate considerations into PFM and financial sector policies. Financial support of each institution to specific DLI/measures was defined in accordance with the principle of value for money. Building on the coordination mechanism set up during the preparation phase, a coordination mechanism will be formalized for implementation and described in the Manual of Operation (MOP). In addition to the financial support, the World Bank and the AFD together with the GIZ and the EU; are collaborating closely on a Technical Assistance Program to support the implementation of this RA 1.1, as well as other Climate PFM dimensions not covered by the RA 1.1, such as environmental taxation (see table 3 and Annex 3 for more details on the coordinated development partners' TA program). An ongoing WB Public Finance Review will also support GoM's efforts to streamline tax expenditures, including for non-green economic activities.

RA#1.2: Strengthen the national climate data systems

21. **A robust information system is a critical foundation for effective climate action.** Generating, compiling, sharing, and analyzing reliable information on climate indicators represents a public good that informs effective decision-making processes, both public and private, and therefore fosters climate action by reducing the level of uncertainty. The GoM recognizes the importance of the climate data and climate information systems: (a) in September 2015, the National System for the Inventory of Greenhouse Gases (SNI-GES)⁴⁹ was launched and gradually implemented since October 2016, (b) meteorology was included as a new priority under 2021 NDC Adaptation chapter, and (c) under the leadership

⁴⁵ E.g. EU, Colombia, Georgia, South Africa

⁴⁶ Taxonomy definitions will be developed in accordance with Morocco's existing environmental targets, laws, standards, and labeling schemes. Most importantly, the activities considered as green will follow a technically sound justification—that is, on applying a science-based approach to explain how the activities directly contributes to climate targets. This logic will be aligned with international best practices, such as the EU taxonomy.

⁴⁷ The green finance taxonomy technical committee and its decisions will have long-lasting impacts on access to green finance. Given the existing gender barriers to access to finance, it will be key to ensure that women and women's viewpoints are well represented in the technical committee. As evidence from other sectors shows, having women represented in decision-making bodies, such as the committee in this case, increases the likelihood that the interests of women, especially of women-owned/led business, are represented in the green finance taxonomy (see Table A3-7 on gender in Annex 3)

⁴⁸ In addition to the four focus areas under the WB PforR Program (Alignment NDC-Budget, Green Procurement, Sovereign Green Bonds and Green Finance Taxonomy), the AFD also includes a support to the MEF climate unit and a component on greening the business model of the SOEs.

⁴⁹ The SNI-GES was established by decree n°2.18.74, adopted and published in the Official Bulletin n°6766 of April 4, 2019. It plays a key role in the transparency of the implementation of national commitments vis-à-vis the international community and UNFCCC.



of the Mohammed VI Foundation for Environmental Protection, a tool on capturing the carbon footprint of economic activities, compiling 350 emission factors adapted to the Moroccan context, has been developed. In line with the recommendations from the CCDR, the Program will contribute to the strengthening of national climate data systems to better inform decision-making by public and private stakeholders, with a focus on (a) the set-up of the National Climate Network and (b) the operationalization of the Monitoring, Reporting and Verification (MRV) platform on NDC implementation.

- **Establish the National Climate Network.** While there is already a good coverage of observation stations across the country, they fall under the responsibility of various entities with limited inter-connection and inconsistent data quality. As a result, Morocco is limited in its capacity to collect, compile, analyze meteorological data and build robust weather and climate projections. The Program will support the nascent National Climate Network (*Réseau Climatique d'Etat*) aiming at reinforcing the national information system by tackling coordination failures between the different entities managing observation stations. First, under the leadership of the National Meteorology Directorate (*Direction Générale de la Météorologie*, DGM), the Program will support climate data collection and sharing between the DGM and other entities managing observation stations through the signing of Memorandums of Understanding (MoUs).⁵⁰ The MoUs will spell out (i) the coordination mechanisms between the DGM and the partners, including the technical support that DGM would provide in terms of equipment calibration and maintenance, and (ii) the modalities for data exchange and data sharing. Second, the Program will support the National Climate Network by increasing the number of observation stations connected to the data center managed by DGM, thus enhancing the national capacity for weather forecasts and climate projections. Third, the Program will increase the number of sectors that receive processed weather/climate data, through the signing of protocols that will define the types and formats of data products for each sectoral end-user so that they can best inform decision-making processes. A special focus will be made on availing the relevant (geo-referenced) climate data that could then be used to make the Social Protection system climate-adaptive, as well as to deploy parametric agricultural insurance, as both would eventually contribute to improving resilience of rural households (in line with RA-2 objective).
- **Strengthen the MRV Platform.** As part of the Paris Agreement and in line with the Enhanced Transparency Framework (article 13 of the Paris Agreement), countries are expected to put in place a MRV platform and report on the progress in the NDC implementation, both on mitigation and adaptation fronts through the preparation of the bi-annual transparency report (BTR). Building on the SNI-GES system (*Système National d'Inventaire des Gaz à Effet de Serre*) and in close coordination with the other partners, the Program will contribute to the gradual operationalization of the MRV platform, with a specific focus on the second module of the platform related to the MRV of the measures reflected in the NDC (unconditional mitigation measures and adaptation measures).⁵¹ The support to the “MRV platform” has been closely coordinated with the EU, that is preparing a budget support operation on “Green Energy”. For the MRV platform on NDC measures, the EU will support the partial operationalization of the platform until 2026, focusing only on mitigation. As such, the Program will complement the EU operation by specifically supporting: (a) the full operationalization of the mitigation measures in the platform in 2028⁵² and (b) the expansion of the MRV platform to the adaptation measures under the NDC. As for the AFD under RA 1.1, the coordination mechanisms will be spelled out in the MOP.

⁵⁰ A Law on climate data is under preparation and will spell out the institutional arrangements for the National Climate Network: however, given this legal process could take time, it was agreed to move ahead with the signing of the MoUs that would serve as blueprints for the preparation of the law.

⁵¹ The MRV platform also has a function related to the GHG emission MRV.

⁵² The objective under the EU operation is to include the mitigation measures for 4 out of the 7 sectors by 2026. The WB would support the integration of the measures for the 3 remaining sectors by the closing date of the Program.



Results Area 2: Enhance Resilience to Climate Change of Vulnerable People and Ecosystems

22. **Morocco is a climate hotspot, with disproportionate impacts on some groups and some ecosystems.** As indicated in the CCDD, vulnerable groups tend to be the most exposed to climate shocks (and long-term stressors) and the least equipped to recover from these shocks. This is especially true for rural population, that constitutes the bulk of the population remaining living in poverty⁵³, and notably farmers still rely on climate-sensitive activities for their subsistence. In its revised version, the NDC also highlights that some natural ecosystems are disproportionately affected by climate change and should be given a specific focus. This is the case for the traditional oases⁵⁴ that are facing multiple pressures, exacerbated by climate change, leading to their degradation and the impoverishment of their inhabitants that depend on them for their livelihood (see Annex 3, describing how the Oasis region is lagging behind the rest of the territory in terms of socio-economic development). Enhancing the resilience of the vulnerable groups as well as of the vulnerable ecosystems upon which they depend is core to the development and inclusion agenda in Morocco.

23. **Under this Result Area, the Program will support targeted interventions aimed at enhancing resilience of vulnerable groups and ecosystems.** A selection of the proposed activities under this Results Area is based on the analytical work conducted as part of the Climate and Development Diagnosis and the priorities defined under the Adaptation Chapter of the NDC. The filters presented in para 14 were then applied to prioritize the following interventions: (a) strengthen farmers' resilience to shocks through enhanced access to Social Protection, (b) protection and restoration of vulnerable ecosystems (oasis and forests) and (c) deployment of nature-based solutions to tackle climate vulnerabilities (while also sequestering carbon).

RA# 2.1. Strengthen Institutional Coordination to Reinforce the Resilience of Farmers to Health Risks, exacerbated by Climate Change

24. **Farmers and their families are disproportionately exposed to climate-induced health risks.** The CCDD highlighted the multiple dimensions of vulnerability of rural populations. While climate shocks are predominant⁵⁵, there are other shocks (economic, health and social) that can combine with climate shocks and further exacerbate the level of vulnerability of the farmers (and their dependents) already "at risk". Farmers and their families have been identified as one of the groups the most exposed to climate-induced health risks.⁵⁶ The extension of mandatory health insurance (*Assurance Maladie Obligatoire*, AMO) will make the farmers and their dependents more resilient to health risks, that will be exacerbated by climate change, by providing them financial protection against the expenditures associated with the health effects of climate change. In addition, episodes of extended droughts can impact incomes of farmers, increasing the importance of avoiding out-of-pocket payments for health services and being protected against catastrophic health expenditures.

25. **The activities supported under RA 2.1 of the Program specifically focus on strengthening the coordination mechanisms to increase the health coverage of farmers and their dependents ("whole of government" approach).** RA 2.1 aims at progressively improving the coverage of the protection of farmers against health risks by supporting the expansion of the AMO of non-salaried workers (*Travailleurs Non Salariés*, TNS). This will enable the progressive

⁵³ 79 percent of Morocco's poor live in rural areas.

⁵⁴ In its revised NDC, the Kingdom has prioritized interventions to enhance the resilience of vulnerable ecosystems and has include the "Program for Oasis Development" under its Adaptation chapter.

⁵⁵ While the *Plan Maroc Vert* and now Green Generation Strategy are contributing to significantly reduce the overall vulnerability of the agriculture sector to climate shocks (notably by expanding the drip irrigation schemes), the rainfed agriculture (covering 80 percent of agriculture lands and 72 percent of small farmers) remains highly vulnerable to climate shock.

⁵⁶ People working in agriculture are identified as particularly vulnerable to impacts of heat and sun exposure as well as respiratory health risks due to dust caused by climate-related events. Public health impacts include a 10-fold increase in heat-related mortality, a higher incidence of skin cancer, respiratory illness, and cardiovascular disease, an increase in diarrheal deaths linked to climate change, an expansion of dengue fever transmission vectors, and declines in outdoor labor productivity. Besides, according to IHME Global Burden of Disease data, 2019, about 60 percent of the overall disease burden in Morocco is set to be exacerbated by the impact of climate change.



reduction in the coverage gap of the Health Insurance system.⁵⁷ The activities have been screened against the filters presented in para 14, in particular the principles related to coordination mechanisms and tools/processes, to be jointly supported by the Ministry of Agriculture, MEF and the CNSS in order to expand the AMO coverage for farmers and their dependents (spouse and children). The activities supported under this Program have also been selected to complement and reinforce the Bank's overall engagement on social protection and health in Morocco.⁵⁸

26. The Program will support mechanisms to incentivize the expansion of health coverage and monitor expected outcomes. Under this RA 2.1, the Program will support two measures aimed at incentivizing farmers to contribute to the AMO-TNS and enroll their family members, notably: (a) the signing of the conventions between the CNSS and five professional organizations (facilitated by the Min of Agriculture), (b) the signing of the convention between CNSS, Groupe Credit Agricole du Maroc (GCAM) and the Ministry of Agriculture to introduce flexibility in the payment of contributions and financial support to farmers: this will ensure continuity of coverage against health risks and contribute to financial inclusion of farmers. These two measures (as well as others put in place by the government) are expected to contribute to increasing the effective health coverage of farmers through up-to-date contribution to AMO-TNS⁵⁹ and their family members (through enrolment in AMO-TNS)⁶⁰. In addition, through the improvement of the quality of the climate data under DLI 5, the Program will set the basis to evolve into an adaptive Social Protection system that further incorporates climate risks and shocks into the targeting and design of benefits.

27. Poor and vulnerable rural households will have their contributions covered by the Government through the non-contributive pillar of AMO (AMO-TADAMON). The government will cover the contributions of poor and vulnerable rural households to AMO through transfers from the general budget to the CNSS. The non-contributive pillar targeted to poor and vulnerable rural households, called AMO-TADAMON, is expected to cover up to 27.5 percent of the Moroccan population. AMO-TADAMON has been established through the transfer of the previous "*Regime d'assurance medicale*" (RAMED) operated by the ministry of health into the CNSS. The transition from RAMED to AMO-TADAMON includes a recertification of the eligibility of beneficiaries through the "*Registre Social Unifié*" (RSU). Poor and vulnerable rural households, including approximately 370,000 farmers, that benefited from RAMED have been automatically transferred to AMO-TADAMON and will remain covered during a transitory period.⁶¹ This operation finances AMO-TADAMON to support the continued protection of poor and vulnerable rural households, including subsistence farmers. and to ensure a smooth transition to AMO-TNS for applicable households.

RA #2.2. Promote an Integrated Approach to Enhance Climate Resilience of Oasis Ecosystems

28. Moroccan oases recognized as unique ecosystems for their biological, cultural, and architectural diversity, are structurally based on the management of scarcity and seasonal variability of water resources.⁶² Historically, they have been the bedrock of the oases bearing communities during extreme weather events while also serving as the natural

⁵⁷ Farmers represent about 40 percent of the non-salaried workers (TNS), the largest group under the AMO-TNS. As such, their contribution is key to the success of the AMO-TNS. As of end of March 2023, only 2 percent of the farmers enrolled in the AMO-TNS had paid their contributions and thus benefit from health insurance coverage.

⁵⁸ Human Capital for a Resilient Morocco DPF (P176937), Second Strengthening Human Capital for a Resilient Morocco DPF - (P178382), Morocco COVID-19 Social Protection Emergency Response Project AF - (P180741), Identity and Targeting for Social Protection Project Additional Financing - (P179633), Morocco Health Reform Program - (P179014).

⁵⁹ As shown in Table A3-2 in Annex 3, 50 percent of farmers would 0.65 SMIG (category 1) while another 36 percent would pay 0.85 SMIG (category 2) to the AMO-TNS.

⁶⁰ Without additional contribution for family members.

⁶¹ As of May 2023, the transition period is now set to end on November 30, 2023 (and may be further extended). The targeting mechanism embedded in the RSU is designed to better identify poor and vulnerable households and thus it is expected that after the transitory period, some rural households currently covered by AMO-TADAMON will transition to AMO-TNS and some poor and vulnerable rural households that had not previously been identified as eligible, will henceforth be covered by AMO-TADAMON.

⁶² In November 2000, the southern Moroccan oasis were recognized by UNESCO as "Biosphere Reserve", in recognition of their status of treasures of biodiversity but also sanctuary of a thousand-year-old civilization in arid areas.



capital base that enables the poor to earn a living. However, these ecosystems have been under multiple pressures that have led to their degradation, resulting in the impoverishment of their inhabitants who largely depend on them for their livelihoods. Clearly, climate change is already having profound adverse impact and is envisaged to increasingly affect the delicate balance that allows the oasis ecosystem to function and regenerate.⁶³ To reverse this trend, the Kingdom established in 2010 the National Agency for the Development of Oasis and Argan (ANDZOA), to be in charge of coordinating the public action (from various ministries) in the Oasis and Argan region⁶⁴. The mandate of ANDZOA is therefore to improve the living conditions of the local population by promoting an integrated and sustainable management of the oases and unlocking the potential and opportunities linked to agriculture (including promotion of high value-added organic agriculture) as well as eco-tourism. The Kingdom included Oasis under its Adaptation chapter on vulnerable ecosystems in its revised 2021 NDC.⁶⁵

29. **Under the RA 2.2, the Program will apply the “whole of government” principles in the targeted areas of the Oasis region** by fostering an integrated spatial approach and reinforcing the coordination role of the ANDZOA with the interventions from the various entities (public and private) involved in the targeted Oasis areas. The ANDZOA is mandated to coordinate various entities intervening in the targeted oasis areas: This RA2.2 aims at enhancing the resilience of these vulnerable ecosystems and improving livelihoods of their inhabitants, while ANDZOA will closely coordinate with decentralized entities of the Ministry of Agriculture, Ministry of Equipment and Water, the Agriculture Development Agency, and the Water Basin agencies, including the municipal and regional entities. The activities to be supported under RA2.2. will be identified and implemented through a participatory approach involving the beneficiaries, their organizations and different actors involved at the local and community levels. The economic situation of women in Oasis landscapes is challenging, mirroring the barriers that women in Morocco face in agricultural employment. A recent study from the Food and Agriculture Organization of the United Nations (FAO) highlights that 83.5 percent of women in Oases are facing poverty and lack of resources⁶⁶. To address these issues and provide greater economic opportunities for female and young agricultural workers in the Oases, the Program aims to establish and strengthen cooperatives in the date palm tree value chain. Women are still under-represented in cooperatives: as per a 2021 HCP study, women only represent 9.1 percent of cooperative members in Morocco. Supporting the creation of cooperatives in palm-tree value chains, will generate opportunities for women and young people, with a stable source of income. The RA 2.2 will focus on the following two dimensions that will be implemented in a coordinated manner:

- **Revitalize targeted traditional Oasis Ecosystems.** This sub-component aims at restoring and protecting the oasis ecosystem, while generating opportunities for their inhabitants, with a specific focus on women and youth. The Program will specifically support the implementation of the *“Contract-Program for the development of the date palm sector”* which represents a major initiative to restore the degraded oasis ecosystems. Under the RA 2.2, the Program will support: (a) rehabilitation and restoration of traditional oasis through the distribution and the planting of 1 million date palm tree Vitro plants to intensify and/or replace the palm trees, with a particular focus on damaged ones (over-aged or affected by fires or the *“Bayoud”* disease); (b) creation and upgradation of ten cooperatives that will provide services to date palm producers (such as planting work,

⁶³ Due to climate change, high temperatures, strong hot winds and prolonged periods of drought will become increasingly frequent, accelerating the evaporation rate, encouraging higher salinity of soil and desertification. In addition, the largest part of surface water for Oases come from the High Atlas Mountains, and as climate is changing, it is reducing snowpack and the water available to Oasis communities. Finally, extreme events, such as forest fires, will become more frequent: between 2009 and 2020, the oases have suffered from 1742 fires with an average of 145 fires per year.

⁶⁴ The Oasis and Argan region (network of oasis) expands across areas in five regions and represents an area of about 2.3 million hectares.

⁶⁵ A new Strategy for the development of Oasis and Argan region is under finalization and is organized around three axes: (i) the strengthening of areas to protect them from climate change, (ii) the improvement of the conditions of the population and (iii) the support of economic actors to invest in these areas.

⁶⁶ This 2023 study focuses the analysis on the Oases located in the region of Draâ Tafilalet, which concentrates the largest number of oases in Morocco.



cleaning of clumps, pollination, harvesting and maintenance of date palms): ensuring that at least 50 percent of the jobs created would benefit women and young people (out of which a minimum of 10 percent are for women)⁶⁷; and (c) the construction and equipping of two new units for the valorization of date palm sub-products. The last two proposed activities aim at strengthening the value chain approach for sub-products of date palm trees, through enhanced organization for the collection and valorization of sub-products, that respectively generate opportunities for youth and women in the targeted oasis areas. They will also reduce the likelihood of climate change-induced fires in traditional oasis and reduce GHG emissions by removing clumps (essentially bio-waste) through its separate collection and re-/upcycling. The trainings and investments for cooperatives will benefit women and youth members in building their skills to engage in income-generating activities.

- **Preserve water resources in the targeted Oasis areas.** The Program will support the initiative launched by the Ministry of Equipment and Water (MEE) to safeguard and restore the water resources in the oasis region, which will be further threatened by climate change. Interventions will include the construction of small hydraulic infrastructure⁶⁸ to (a) recharge the aquifers with rainwater captured through the construction of thresholds along rivers (*oueds*) and maftias, (b) reduce water pollution through the construction of small infrastructure, including (i) for wastewater and rainwater networks via pipes and ancillary works (connection boxes, manholes, blind manholes, grating manholes, etc.), and (ii) for wastewater treatment systems; and (c) improve water services (drinking water and sanitation) in rural schools in targeted oasis areas. This activity will support the deployment of the national program for the environmental upgrading of rural schools.⁶⁹ Addressing poor water services (identified as one of the constraints for young girls to attend schools) aims at tackling the challenge of the early drop out of young girls in rural areas. This activity will be well coordinated with WB engagement in the education sector.

RA #2.3. Promote Coordination to deploy Nature-Based Solutions (NBS) to tackle climate vulnerabilities

30. **Nature-based (and particularly tree-based) solutions are growing in Morocco.** NBS have gained momentum internationally and are now recognized as efficient and effective solutions to fight climate change both on the adaptation and mitigation fronts.⁷⁰ Forest ecosystems and tree-based systems present as major contributors to NBS. In 2020, the Kingdom launched the Strategy “*Forêts du Maroc*” Plan 2020-2030 which sets a new vision for the development of forest ecosystems, through the adoption of an inclusive, sustainable and wealth-creating management model, placing populations at the heart of the forest management.⁷¹ In addition, and as part of its NDC, Morocco has included some NBS interventions contributing to both the Mitigation and Adaptation agendas.⁷² In particular, the Kingdom is committed to sustainably manage 22 priority watersheds particularly vulnerable to soil erosion in order to reduce the risk of siltation in critical dams that have lost significant parts of their storage capacity.⁷³ In addition, Morocco

⁶⁷ This targeting was established based on the diagnosis carried out by the ADA, showing that these service cooperatives have a large potential to benefit young people and women.

⁶⁸ While this RA 2.2 focuses on optimizing the water mobilization (through aquifer recharge), the water demand side is tackled through other World Bank-financed ongoing/under preparation operation (Morocco Water Security and Resilience Program (P179192) and Resilient and Sustainable Water in Agriculture (P175747)).

⁶⁹ The national program for the environmental upgrading of rural schools aims at improving the environment and living conditions of pupils in rural schools, with a special focus on girls.

⁷⁰ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) estimates that 37 percent of the mitigation necessary to meet the Paris Agreement could be delivered through NBS. NBS also offer high potential to enhance resilience of ecosystems, both in rural and urban areas.

⁷¹ The “*Forêts du Maroc*” Strategy was adopted concomitantly with the Green Generation Strategy, that also put a first the “human element”.

⁷² The NDC includes tree-planting, reforestation and forest preservation under both Adaptation and Mitigation Chapters

⁷³ Reforestation is considered amongst the most efficient means for soil protection.



has also included a program on urban and peri-urban forests, as they are recognized to provide multiple services, particularly in the context of climate change where they contribute to mitigate the impacts of heatwaves and floods, protecting urban residents against these risks.

31. **Similar to RA 2.2., this RA 2.3 will foster a coordinated approach to promote NBS activities.** The deployment of NBS activities, while focusing on tree-based solutions, require a close coordination between different partners, particularly at the local level. The National Agency for Water and Forests (*Agence Nationale de l'Eau et des Forêts*, ANEF) is in charge of implementing the Strategy "*Forêts du Maroc 2030*" with a strong focus on participatory approaches, aiming to reconcile the socio-economic development of populations and the preservation of forest resources. As such, the ANEF closely coordinates with different entities, in particular, with the local governments and the deconcentrated entities of various ministries.⁷⁴

32. **The Program will support some of the NBS interventions prioritized under the NDC**, notably but not limited to: (a) the reforestation of erosion-hotspots (totaling an area of 4,200 hectares) in three priority watersheds⁷⁵ to reduce the siltation in downstream large dams. A parallel World Bank Technical Assistance on "Dam's sedimentation management"⁷⁶ will: (a) help identify the areas of erosion-hotspots in the targeted watershed; (b), define the most appropriate NBS and monitor the downstream impacts; and (b) deploy forest/tree-based solutions for 11 urban/peri-urban forests in 10 municipalities, covering about 2,000 hectares. The Program will also support awareness raising and environmental education campaigns, with a specific focus on children and young people, including through tree planting and nature observation sessions.⁷⁷ As part of the activities supported under this sub-RA 2.3, the Program will contribute to implement some of the priority actions identified under the ANEF Gender Action Plan, notably the reinforcement of capacity for women members of forest associations/cooperatives through dedicated training to develop their professional skills in valorizing timber and non-timber forest products in the targeted areas of the Program.

33. **The interventions under this RA 2.2. and RA 2.3 will be complemented by a PROGREEN-financed small scale Recipient Executed Trust Fund (RE-TF) which is under preparation.**⁷⁸ This PforR Program and the PROGREEN-financed Investment Project Financing (IPF) are intricately linked and complement each other. The PROGREEN RE-TF project will deliver technical assistance and capacity building to the entities involved in the Program and pilot innovative approaches to integrated management of oasis ecosystems, adjoining degraded forests and range lands. Specifically, the RE-TF project will finance activities that will develop and pilot innovative Oasis landscapes protection and restoration actions that will then be adopted and scaled up in the PforR Program areas and other parts of Morocco. In addition, the RE-TF project will provide robust capacity building of the ANDZOA, in close coordination with other institutions that are implementing the activities under RA2.2 and RA 2.3 of the Program. This capacity building program will contribute to strengthening institutions and systems at the national level, such as the Monitoring and Evaluation (M&E) systems, Environmental and Social (E&S) systems (including Grievance and Redress Monitoring system and tools), and Fiduciary systems. It will also provide targeted technical assistance, both at the national and local levels, to

⁷⁴ This new approach entails a coordinated approach with various Ministries, notably the Ministry for Equipment and Water, the Ministry for National Education, Preschool and Sports, the Ministry for Agriculture, Maritime Fisheries, Rural Development and Water and Forests, the Ministry of Economic Inclusion, Small Business, Employment and Skills, the Ministry of Tourism, Handicrafts and the Social and Solidarity Economy, the Minister of Higher Education, Scientific Research and Innovation, the Ministry for Energy Transition and Sustainable Development, the Ministry for Youth, Culture and Communication.

⁷⁵ The total area of the three priority watersheds is 600,000 hectares.

⁷⁶ The Technical Assistance is financed by the GFDRR Trust Fund and will use the iteration of the Reservoir Conservation Model (RESCON 2.0) for the evaluation of economic and engineering strategies for dam sedimentation management.

⁷⁷ It would collaborate with kindergartens and schools to link the green agenda into the education system. Partnership with local NGOs working on environmental topics and climate change will be explored.

⁷⁸ Morocco benefits from a 12 million grant allocation from the PROGREEN TF. This grant will be processed as an IPF in direct link with the Climate PforR Program.



accelerate the implementation of activities prioritized under the PforR operation. (See box Box A3-3 in Annex 3 for more information on the PROGREEN project).

Program Financing

34. The total program financing over a five-year period amount is about US\$700.2 million (see below Table 1), of which US\$350 million (50 percent) will be financed by the Program. The IBRD financing towards the Program will be made available based on the achievements of DLIs. The Program financing is based on the 2023 Performance of Projects (*Project de Performance - PdP*) presented by the different entities involved in the Program and approved by the MEF: the 2023 PdPs cover a 3-year period and an extrapolation was applied to have estimates for the remaining 24 months.⁷⁹

Table 1: Program Expenditure Framework (PEF)

RA#	Ministry	Entity	Budget line	Expenditure category	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount		%
										(Million DH)	(Million US\$)	
RA#1	MEE	DGM	P414 : Meteorology	Goods & services, works and consulting services	31.15	67.45	134.39	138.17	138.17	509.33	50.98	7%
	MTEDD	DD	P501 : Consolidation of environmental governance and mobilization of all stakeholders		35.20	35.20	35.20	35.20	35.20	176.00	17.62	3%
TOTAL RA#1					66.35	102.65	169.59	173.37	173.37	685.33	68.60	10%
RA#2	MAPMDREF	DDFP	P415 : Development of production fields Cleaning of clumps	Goods & services, works and consulting services	83.00	97.00	107.00	120.00	140.00	547.00	54.75	8%
		ADA	P415 : Development of production fields Funding of projects to promote date palm by-products as part of the Solidarity Agriculture program		1.00	4.00	5.00	15.00	15.00	40.00	4.00	1%
			P415 : Development of production fields Funding of other oasis ecosystem development projects as part of the Solidarity Agriculture program		100.00	100.00	100.00	100.00	100.00	500.00	50.05	7%
			ANDZOA		P419 : Development of oasis areas and argan trees	54.00	54.00	54.00	54.00	54.00	270.00	27.03
		Convention ANDZOA-MAPMDREF-CR-DGPC-CRI Reinforcing protection of oases against fires			42.00	42.00	42.00	-	-	126.00	12.61	2%
		ANEF	P422 : Forest management and Development		19.68	73.18	67.48	61.78	56.18	278.28	27.86	4%
	MEE	DGH-DRPE	P601 : Water Oases - Small hydraulic infrastructure		100.00	115.00	105.00	110.00	105.00	535.00	53.55	8%

⁷⁹ Estimates are presented in the table in grey and include different expenditure types including works, consulting, and non-consulting services, and goods.



RA#	Ministry	Entity	Budget line	Expenditure category	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount		%
										(Million DH)	(Million US\$)	
	MEF	CNSS (CAS FAPSCS)	P197 : Appui aux Politiques Sociales, aux Stratégies Sectorielles et aux Projets Structurants	AMO coverage	802.73	802.73	802.73	802.73	802.73	4,013.63	401.76	57%
TOTAL RA#2					1,202.40	1,287.90	1,283.20	1,263.50	1,272.90	6,309.90	631.62	90%
TOTAL					1,268.75	1,390.55	1,452.79	1,436.87	1,446.27	6,995.23	700.22	100%

35. **The Program will contribute to improve coordination and efficiency among the various partner interventions in support to the NDC implementation.** The proposed Program will provide an overarching framework in support to NDC's implementation (notably through its RA#1) and contribute to leverage additional financing resources from partners and possibly private sector players. During the preparation, an effort was made to engage with the partner community and discuss opportunities to coordinate with their respective projects and programs. In particular, the preparation process for the RA#1.1., was jointly carried out with AFD, which was preparing an operation with a similar timeline. This engagement will be oriented towards budget support and will build on some of the DLI/DLRs proposed under RA#1.1. A similar coordinated approach was adopted with the EU for the DLI on the MRV platform on the NDC implementation under the RA#1.2. This coordination allowed to have the DLI/DLRs defined in a way to complement other partners efforts with no overlap. The level of financing allocated to the different interventions under the PforR Program takes into consideration the complementary financing brought by other partners. A similar coordinated approach was taken for the delivery of Technical Assistance, particularly on the interventions covered under RA -1. This coordinated approach responds to a request from the MEF, which has expressed the need for targeted TA to support them in greening their PFM tools and benefit from best practices at the international level (see the below table 3, in Capacity Building section and Annex 3 on the coordinated TA Program).

D. Program Development Objective(s) (PDO) and PDO Level Results Indicators

36. The PDO is to strengthen the institutional capacity to implement the NDC and enhance climate resilience of targeted vulnerable groups and ecosystems in the Program area. The Program area refers to the geographical scope of the Program that will be defined in the Program Operations Manual (POM).

37. The PDO indicators are the following:

- **Indicator 1:** Public financing for measures (adaptation and unconditional mitigation) in the revised NDC is approved by the Government in the three-year budget program
- **Indicator 2:** The National Climate Network is operational and delivers services to users (DLI 5)
- **Indicator 3:** Farmers and family members effectively covered with Health Insurance AMO-TNS (number)
- **Indicator 4:** Areas of vulnerable ecosystems under climate-resilient land uses (hectares)⁸⁰

E. Disbursement Linked Indicators and Verification Protocols

38. **The Disbursement-Linked Indicators (DLIs) have been chosen to track progress on the key dimensions of the Program.** The DLIs and associated Disbursement-Linked Results (DLRs) were chosen considering the following elements: (a) the selected DLIs incentivize the progress towards the achievement of the objectives set for the Program; (b) the

⁸⁰ A detailed definition of "Vulnerable ecosystems" will be spelled out in the Results Framework Matrix in Annex 1.



DLIs are considered achievable during the Program period; (c) the DLIs are quantifiable, measurable, and verifiable; and (d) the DLIs are within the control of the Government. They combine both process-oriented results and concrete impacts on the ground. The below Table 2 summarizes the rationale behind the choice for proposed DLRs. The amount allocated for each DLI/DLR has been estimated taking into consideration (a) their tangible contribution to the objectives of the Program and (b) the complementary support provided by other partners: in the case of the four DLIs under the sub-RA 1.1 that cover areas that are also supported by the AFD, the amount allocated was determined by applying the “value for money” principle (see Annex 3); in the case of the sub- RA 1.2.2 on MRV platform, the EU and the Bank have agreed to disburse against complementary but separate indicators. Further details on each DLI can be found in Annex 2.

Table 2. Disbursement-Linked Indicators and Results

Sub RA	No.	Description	Rationale	Allocation (US\$ million)
Results Area 1: Strengthen Policy and Institutional Capacity in Green PFM, Green Finance and Climate Data				
RA#1.1.: Mainstream climate considerations into public financial management and financial sector policies				
1.1	DLI 1	Revised NDC commitments are costed and adequately budgeted <ul style="list-style-type: none"> DLR#1.1: The published Revised NDC includes the list of measures with budget and schedule details as defined in the POM. DLR#1.2: Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the 3-year budget program as defined in the POM, for (a) FY 26, (b) FY27, (c) FY28. 	The Ministries of Finance have an essential role in implementing the policy changes that are needed to transition to a more sustainable, low-carbon, and climate-resilient model. This DLI will strengthen the credibility of Morocco’s updated NDC commitment for 2026-2035, thanks to better cost estimates and improved credibility of public financing for the three first years, to align with the triennial budget planning. This DLI will also strengthen the coordination between MEF, MTEDD and the line ministries on budgeting the NDC. This DLI directly contributes to Pillar 4 of the GCRF.	35
1.1	DLI 2	Climate considerations are embedded into public procurement <ul style="list-style-type: none"> DLR#2.1: The green procurement guide has been adopted by <i>Circulaire</i> of the Minister of MEF. DLR#2.2: A module has been integrated into the public procurement portal to tag contracts that include green provisions, as defined in the green procurement guide. DLR#2.3: The Moroccan Observatory of Public Procurement has published a statistical report on green tenders. 	As a significant contributor to the country’s GDP, public procurement can drive demand for green products and services and create a market for low-GHG products and promote climate-resilient solutions. By introducing green criteria in tender documents, public buyers can promote sustainable business practices, spur innovation, and contribute to reducing carbon emissions and increasing efficient use of water resources for adaptation purposes. Therefore, adopting green procurement practices is an essential step in achieving Morocco’s NDC and contributing to the global effort to combat climate change. Embedding climate considerations in procurement contributes to Pillar 4 of the GCRF.	20
1.1	DLI 3	Tools are in place to issue Sovereign Green Bonds on international markets <ul style="list-style-type: none"> DLR#3.1: Framework for the issuance of sovereign green bonds adopted 	As highlighted in the CCDR, climate action (both on mitigation and adaptation fronts) will necessitate a significant amount of financing. To kick-start the climate transition, the CCDR estimated that about \$23 billion ⁸¹ would be needed between now and 2030, with two thirds of that devoted to address	25

⁸¹ Amounts mentioned for adaptation and mitigation needs are discounted (6 percent). Source: Morocco CCDR, 2022.



Sub RA	No.	Description	Rationale	Allocation (US\$ million)
		and published. <ul style="list-style-type: none"> DLR#3.2: A list of priority climate projects in the Program Area eligible under the Sovereign Green Bond Framework, has been identified. 	urgent adaptation needs, that would be largely covered by public finance. On the mitigation side, the CCDD estimates that up to 85 percent of US\$52.8 billion investments until 2050 could be shouldered by private sector. This DLI aims at supporting the GoM to have access to additional pool of investors (environmental, social and governance ESG investors) by issuing sovereign green bonds. Accessing this type of issuances will increase public financing for climate action. This DLI contributes to Pillar 4 of the GCRF.	
1.1	DLI 4	A Green Finance Taxonomy is adopted <ul style="list-style-type: none"> DLR#4.1: A technical committee/working group to develop and adopt a governance framework for the preparation of the green finance taxonomy is established. DLR#4.2: The roadmap setting the principles and priorities guiding the preparation of the green finance taxonomy is approved by the technical committee/working group. DLR#4.3: The green finance taxonomy is adopted. 	As highlighted by the CCDD, green finance is one of the main tools for greening the Moroccan economy. Currently, Morocco does not have a reference guide to help financial institutions define what is "green". The objective of a green finance taxonomy is to encourage financial institutions to finance GHG reducing and climate-resilient assets and projects (and away from assets and projects presenting physical or transition risks). International experiences show the strong involvement of financial supervisors in this exercise. The DTFE with BAM, AMMC and ACAPS, will set up a governance framework for the development of the taxonomy, which will identify the stakeholders (among others, Ministry of Finance, Budget, sectoral ministries, private sector and financial sector...), the process of coordination, elaboration, consultation and approval. This contributes to Pillar 4 of the GCRF.	25.1
RA#1.2.: Strengthen the national climate data system				
1.2	DLI 5	The National Climate Network is operational and delivers services to users <ul style="list-style-type: none"> DLR#5.1: Twenty-four (24) MoUs signed between the DGM and other relevant entities managing the observation stations (scalable, baseline: 0 and end target: 24) DLR#5.2: Eight hundred fifty (850) observation stations connected to the data center managed by the DGM (scalable, baseline: 171 and end target: 850) DLR#5.3: Eight (8) end-users sectors receiving processed weather and climate data (scalable, baseline: 0 and end target: 8) 	Robust weather and climate information systems and services are the foundation for effective climate action. The revised NDC includes meteorology as a new priority area under the Adaptation chapter. This DLI will strengthen the institutional framework related to climate data through the creation and operationalization of a National Climate Network. It will strengthen coordination among weather and climate data collecting entities, improve the quality of climate data, and promote data accessibility for sectoral end-users (e.g. forestry, flood, drought, social protection, insurance, etc.). This DLI contributes to Pillar 3 and Pillar 4 of the GCRF.	33
1.2	DLI 6	The MRV platform on NDC implementation is operationalized <ul style="list-style-type: none"> DLR#6.1: Eight (8) sectors with adaptation measures in the Revised NDC included in the MRV platform on NDC implementation (scalable, baseline: 0 and end target: 8) 	As part of the Paris Agreement, countries are expected to put in place a MRV platform and report on the progress in NDC implementation. This MRV Platform on NDC implementation is part of the Transparency Framework and will provide a regular update on the progress made in the implementation of the NDC measures. NDC measures are organized in around seven sectors for mitigation and 8 sectors for adaptation. Progress will be presented in the bi-annual transparency report (BTR).	20



Sub RA	No.	Description	Rationale	Allocation (US\$ million)
		<ul style="list-style-type: none"> DLR#6.2: Three (3) sectors with unconditional mitigation measures in the Revised NDC included in the MRV platform on NDC implementation. (scalable, baseline: 4 in 2026⁸² and end target: 7) 	The next BRT report is due in 2024. This is the support Pillar 4 of the GCRF.	
Results Area 2: Enhance Climate Resilience of Vulnerable Groups and Vulnerable Ecosystems				
RA#2.1.: Strengthen Institutional Coordination to Reinforce the Resilience of Farmers to Health Risks, exacerbated by Climate Change				
2.1	DLI 7	<p>Farmers are effectively covered against health risks, notably climate-induced risks</p> <ul style="list-style-type: none"> DLR#7.1: Five (5) conventions signed between the CNSS and the professional organizations (scalable, baseline: 0 and end target: 5) DLR#7.2: Convention between CNSS, Groupe Credit Agricole and Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests signed to include flexibility in the payment of farmers' contributions to the AMO-TNS. DLR#7.3: 80 percent of farmers in the Program Area effectively covered under the AMO-TNS (scalable, baseline: 2 percent and end target: 80 percent) 	Farmers and their families are disproportionately exposed to climate-induced health risks. The CCDD highlighted the multi-dimensions of vulnerability of rural populations. While climate shocks are predominant ⁸³ , there are other shocks (economic, health and social) that can combine with climate shocks and further exacerbate the level of vulnerability of the farmers (and their family members) already "at risk". Farmers and their family members have been identified as one of the groups most exposed to climate-induced health risks. The extension of mandatory health insurance (AMO) will make the farmers and their family members more resilient to climate-induced health risks by providing them financial protection against the expenditures associated with the health effects of climate change. In addition, episodes of extended droughts can impact incomes of farmers, increasing the importance of avoiding out-of-pocket payments for health services and being protected against catastrophic health expenditures. The DLR 7.3 will monitor the number of farmers with up-to-date contributions to the AMO-TNS. In addition, the Program will monitor the number of farmers and their family members who will be enrolled in the AMO-TNS (with no additional contribution needed), through the PDO indicator. This contributes to Pillars 1 and 2 of the GCRF.	45
RA#2.2.: Promote an Integrated Approach to Enhance Climate Resilience of Vulnerable Ecosystems				
2.2	DLI 8	<p>Traditional oasis ecosystems are more resilient to climate change and generate economic opportunities for local population</p> <ul style="list-style-type: none"> DLR#8.1: one million palm trees distributed and planted for the revitalization of traditional oasis in the Targeted Oasis Area (scalable, baseline: 0 and end target: 1 million) DLR#8.2: Ten (10) agricultural and/or para-agricultural service cooperatives 	Moroccan oases are structurally based on the management of scarcity and seasonal variability of water resources. However, these ecosystems have been under multiple pressures, which are exacerbated by the forces of climate change, leading to their degradation and impoverishment of their inhabitants. To reverse this trend, the Kingdom is working on the implementation of a program to develop a resilient oasis ecosystem which is part of the NDC under its Adaptation chapter). A large part of the activities under this DLI will be implemented through a Contract-Program between the Government and the Date sector professional organization. This DLI supports Pillar 2 and 3 of the GCRF.	60

⁸³ While the *Plan Maroc Vert* and now Green Generation Strategy are contributing to significantly reduce the overall vulnerability of the agriculture sector to climate shocks (notably by expanding the drip irrigation schemes), rainfed agriculture (covering 80 percent of agriculture lands and 72 percent of small farmers) remains highly vulnerable to climate shock.



Sub RA	No.	Description	Rationale	Allocation (US\$ million)
		<p>created or upgraded in the targeted Oasis Area working in the date palm value chain. (scalable, baseline: 0 and end target: 10).</p> <ul style="list-style-type: none"> DLR#8.3: Two (2) new date palm valorization units built and equipped in Targeted Oasis Area (scalable, baseline: 0 and end target: 2). 		
2.2	DLI 9	<ul style="list-style-type: none"> Water resources in targeted oases are protected and the living conditions of the populations are improved DLR#9.1: Twenty-two (22) water recharge thresholds built with piezometers. (scalable, baseline:0 and end target: 22) DLR#9.2: Ten (10) water treatment projects implemented in the Targeted Oasis Area. (scalable, baseline:0 and end target: 10) DLR#9.3: Fifty (50) oasis schools in the targeted Oasis Area benefiting from environmental upgrades. (scalable, baseline:0 and end target: 50) 	The oasis zones of Morocco represent a sensitive and fragile environment, they are distributed along the non-perennial rivers (Oueds) and on the shallow water tables. In recent years, the oasis ecosystem has clearly deteriorated due to multiple natural and anthropogenic stresses, exacerbated by climate change. The scarcity of water resources (in quantity and quality) remains at the heart of the constraints and problems facing the oases today. To address climate change induced water scarcity, the General Directorate of Water Resources proposes the establishment of a program to safeguard and restore this environment by strengthening the collection and recovery of rainwater, recharging groundwater, safeguarding of khettaras, purification of wastewater, reusing of treated wastewater and environmental upgrading of rural schools. This DLI supports Pillar 2 and 3 of the GCRF.	60
RA#2.3.: Promote Coordination to deploy Nature-Based Solutions (NBS) to tackle climate vulnerabilities				
2.3	DLI 10	<p>Nature-based solutions are deployed to tackle climate vulnerabilities</p> <ul style="list-style-type: none"> DLR#10.1: Four thousand and two hundred (4,200) hectares reforested in selected priority watersheds. (scalable, end target: 4,200) DLR#10.2: Eleven (11) urban/ peri-urban forests ("green belt") managed. (scalable, end target 10) 	As part of its revised NDC (under both the Adaptation and the Mitigation chapters), Morocco is committed to preserve and develop forest ecosystems, as a NBS to tackle climate change. Notably it commits to (a) preserving watersheds particularly vulnerable to soil erosion, of which the risk is exacerbated by climate change, covering 22 watersheds, and (b) creating forests in urban/peri-urban areas to minimize impacts of climate change (notably heat waves but also floods) This DLI will support the deployment of tree-based solutions to tackle climate vulnerabilities. Preserving forest ecosystems is connected to Pillar 2 and Pillar 3 of the GCRF.	26

39. **The verification of the DLIs will be assigned to three entities, with solid experience and a proven record under previous PforR operations.** The responsibility of the verification of the DLIs will be assigned to different entities in accordance with their field of competence: (a) the Inspectorate General of Finance (IGF) which is an audit and control body under the MEF, will be responsible for the verification of the DLIs under the RA 1.1 (DLI-1, DLI-2, DLI-3, DLI-4 and DLI-6) and the DLI-7 under RA 2.1. The IGF team responsible for the verification will be independent from the team which will be responsible for the PforR Audit implementation; (b) the Inspectorate General of Agriculture (IGA), which is an audit and control body under the Ministry of Agriculture, will be responsible for the verification of the DLI-8 under the RA 2.2, (c) the Inspectorate General of Equipment and Water (IGE), which is an audit and control body under the MEE, will be responsible for the verification of the DLI-5 under the RA 1.2 and the DLI-9 under the RA 2.2 and (d) the Directorate of Internal Audit and Risks (DAIR), which is the audit and control body under the ANEF, will be responsible for the verification of the DLI-10 under the RA 2.3. More information on the verification protocols is provided in Section iii.C as well as Annex 2.



III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

40. **The MEF will be responsible for managing the overall Program implementation and will coordinate with the different implementing agencies.** A Program Implementation Unit (PIU) will be established under the Directorate of Budget (*Direction du Budget*, DB) no later than 30 days after the effectiveness date of the Loan Agreement. The PIU will act as the operational arm of the Program and will coordinate the implementation and monitoring of activities to be implemented by the different implementing entities. The PIU's role will include the oversight of technical, fiduciary, and E&S aspects. In addition, through its Climate Unit recently created and composed of representatives of all the different divisions of the MEF, the MEF will be specifically in charge of implementing the activities under RA 1.1. The MEF has long-standing and successful experience working with the World Bank, with a proven convening power to mobilize government stakeholders towards multi-sectoral programs. The MEF, given its mandate, can play an active role in coordinating the implementation of complex and multi-sectoral programs. It thus has the capacity and the convening power needed to implement this Climate PforR Program. The MEF is also familiar with the World Bank PforR instrument and is experienced in managing TA projects. To support Program implementation, a POM will be prepared by the PIU at MEF, in coordination with the different implementing agencies, no later than 120 days after the effective date of the Loan Agreement.

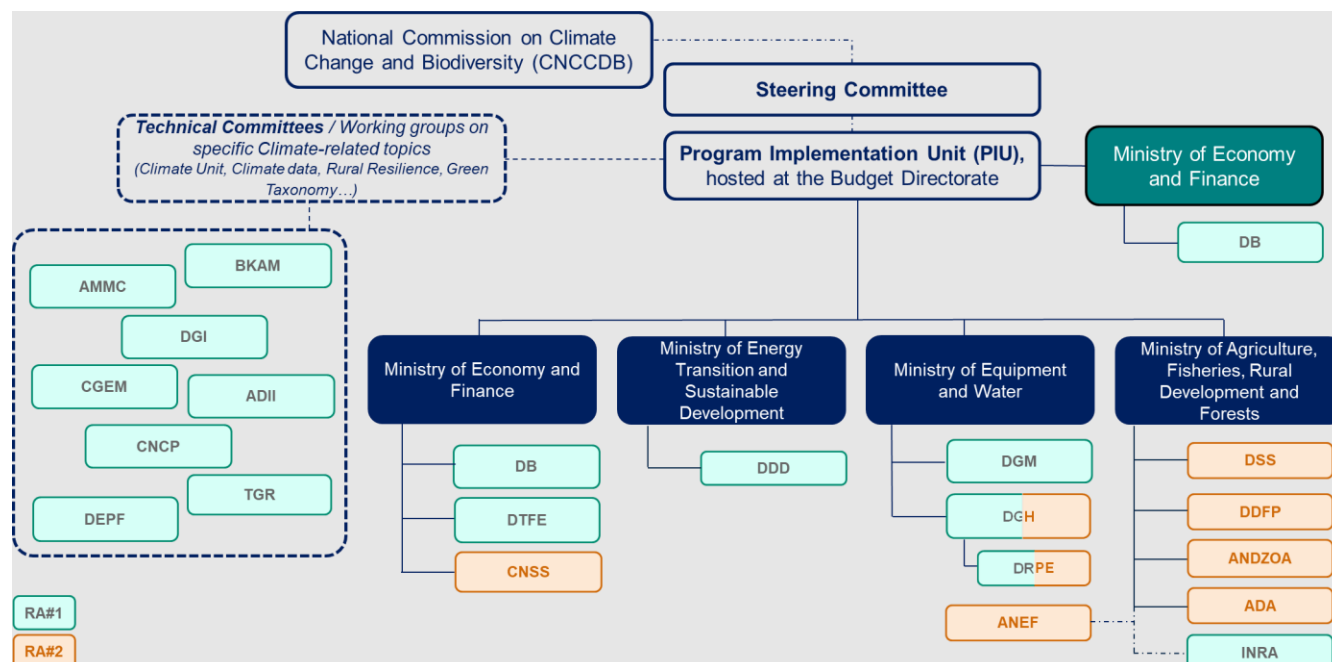
41. **A Steering Committee will be set for the Program and will report to the National Commission on Climate Change and Biodiversity (CNCCDB).** A Steering Committee will be set no later than 90 days after effective date of the Loan Agreement. This committee will advise on strategic issues related to the implementation of the Program and will be responsible for providing overall policy guidance on the program and facilitating coordination across sectors. The Steering committee will report on an annual basis to the CNCCDB. The CNCCDB was established in April 2020, with the objective of fostering consultation and coordination among various governmental entities on their respective contributions to the international convention on climate action and biodiversity, and ensuring overall coherence.⁸⁴ The CNCCDB is well suited to provide overall guidance to the Steering Committee (SC) for this Program and it will also benefit from the lessons learnt under the Program, particularly on the coordination mechanism to accelerate the climate action.

42. **The Program will rely on close collaboration among several government agencies.** By nature, the Program will be implemented by various entities. Under the first RA, the MEF, through its Climate Unit, will be responsible for the implementation of the RA 1.1. on green PFM, while DGM will lead the set up of the National Climate Network and the MTEDD the operationalization of the MRV platform respectively under RA 1.2. on Climate data systems. Under the second RA, (a) the MEF, in close coordination with the CNSS and the Ministry of Agriculture, will lead the implementation of the RA 2.1 on the health insurance coverage for farmers and family members ; (b) the ANDZOA will oversee the activities under RA 2.2 to be implemented by the Ministry of Agriculture (distribution of palm trees), by Agricultural Development Agency (ADA) (support to cooperatives and units of valorization) and by the Directorate of Research and Water Planification (DRPE) (water management) in targeted oasis areas and (c) the ANEF will implement the RA 2.3 on NBS. The executing agencies will be responsible for financial management, procurement quality control and management, compliance with environmental and social requirements, and reporting as per the POM. (See Figure 4 presenting the Program institutional arrangements).

⁸⁴ The Decree n° 2-19-721 dated April 27, 2020, defines the membership of the Commission, its mandate, its competencies, and the modalities of coordination and working sessions.



Figure 4: Implementation Arrangements for the Climate PforR operation



43. **The Program will pilot the “Collaborative Leadership” approach, through the establishment of Technical Committees (or working groups) that will discuss the specific thematic areas covered by the Climate operation.** These committees composed of focal points from the different participating entities concerning thematic areas, will meet on a regular basis, offer technical oversight for the implementation of the related program activity, and provide a platform to exchange information/knowledge and share lessons on the thematic areas. These committees aim to create a “community of practice” for each one of the thematic areas, fostering a collaborative approach to tackle complex challenges. For instance, while a committee, under the leadership of the DGM will focus on Climate data; the one under the leadership of the Ministry of Agriculture, will discuss rural resilience. The constitution of the technical committee/working group for the preparation of the Green Finance Taxonomy will be linked to a disbursement (DLR 4.1), given its importance for the success of the preparation. Other committees will be set up as needed. The PIU of the Program will facilitate the coordination of these technical committees and will serve as the secretariat to these committees.

44. **The PforR implementation arrangements will serve as the foundation for the NDC implementation mechanism.** While the Climate PforR only covers a subset of the NDC commitments, the implementation arrangements set up for this operation could also serve to facilitate the overall coordination for the NDC implementation. In particular, they will foster a stronger coordination between the different entities and will formalize information sharing and reporting mechanisms, which can become foundations to help monitor the implementation of the overall NDC and report on progress (including to the UNFCCC).

B. Results Monitoring and Evaluation

45. **The PforR will use the existing M&E system of each implementing entity.** The reporting from each entity to the MEF will be conducted upon completion of activities as well as on a biannual basis through existing reporting mechanisms. The PIU will consolidate reports on the Program activities to monitor overall performance and implementation progress. The M&E plan incorporates good practices and lessons learned from previous PforR



operations in Morocco. The reports prepared by the different independent verification agencies will represent key inputs for the M&E of the Program.

46. **The PIU will oversee the monitoring of each RA and consolidate reports from implementing entities.** The verification protocols of result indicators as well as DLIs are presented in annex 2. In addition, the PIU will be responsible for preparing and submitting to the World Bank the following: (a) biannual progress reports, (b) a midterm review report during project implementation, and (c) a final report to inform the World Bank Implementation Completion and Results Report by Program closing.

C. Disbursement Arrangements

47. **The disbursement under the Program will be conducted throughout the implementation period based on the verification of achieved DLIs.** Applications for withdrawal per the amounts allocated to individual DLIs (as per associated DLRs) will be sent to the World Bank once it has notified the Government in writing that it has accepted the evidence of the achievement of the DLRs and the amount of the eligible payment. The withdrawal amount against the DLIs achieved will not exceed the amount of the financing allocated by the World Bank for the specific indicator.

48. Verification protocols are summarized as follows:

- (a) **Data source/agencies.** Each implementing entity will collect the data and report on the achievement of DLIs. Each entity is responsible for transmitting the results along with evidence and supporting documents to the PIU for compilation. Annex 2 describes in more details the responsibility of each entity.
- (b) **Oversight.** The PIU and implementing entities will be responsible for monitoring the overall progress toward the expected Program results as well as for ensuring timely collection and provision of monitoring data and verification documents to the World Bank.
- (c) **Verification agencies.** IGF/IGA/IGE/DAIR will be tasked with verifying each DLR/DLI based on evidence provided.
- (d) **Verification procedures.** IGF/IGA/IGE/DAIR will be responsible for reviewing and approving the reports prepared by the implementing entities and submitting the results of verification to the MEF for subsequent transmission to the World Bank, along with the relevant documentation.

D. Capacity Building

49. **The Program will include capacity-building activities on institutional development, M&E, E&S management, and fiduciary aspects.** The Program will also include training sessions on E&S risks delivered by the World Bank. Focal points of participating entities will be equipped and trained on the identification of E&S risks and impacts regarding national regulations and international practices; definition, implementation, and monitoring of mitigation measures; and the reporting and evaluation of the Environmental and Social Management System (E&SMS). Fiduciary capacity building will include (a) monitoring fiduciary implementation progress; (b) supporting the Government to resolve implementation issues and carry out institutional capacity building; and (c) complying with audit reports including the implementation of the Program Action Plan (PAP). The Program will also strengthen the M&E capacity, as needed.

50. **The World Bank, in coordination with other partners, has put together a comprehensive TA program in support of the implementation of the innovative features supported by the PforR.** Given the innovative nature of the activities supported by the Program, the Government has made it clear that it should be accompanied with a program of technical assistance that will support the progress towards achieving the expected outcomes. The World Bank has mobilized resources from various trust funds to provide targeted technical assistance to support the implementation of the Program and achievement of the expected results. In addition, it has also closely worked with the other partners to leverage additional resources and coordinate with their program of technical assistance. See below Table 3 and Annex 3.



Table 3: Summary of the TA in support to the implementation of the Program

	TA from the World Bank	TA (and type of support) from other partners
RA 1.1. – Green PFM and Finance	EFI TF on Green Procurement, Public Investment Management, Green Financing, and Environmental Fiscal Policy (the latter is not covered through DLR in the Program) WB/TRE TA to support the preparation to the emission of Sovereign Green Bond JCAP TF on Green Finance Taxonomy Climate Support Facility (CSF) on Green Procurement and Climate Budget Tagging	AFD on Green Budgetary Transition (budget, procurement, SOEs, Green Taxonomy and Green Bonds) GIZ on climate-sensitive PFM (including NDC costing)
RA 1.2 – Climate Data	Korean Green Growth TF on Drought Observatory	GIZ and EU on MRV Platform
RA 2.1 – Health Insurance to farmers	Large engagement from WB in support to the overall reform of the Social Protection system	-
RA 2.2 – Vulnerable Ecosystems	ProGreen TF on Oasis rehabilitation	FAO
RA 2.3 – NBS solutions	GFDRR TA on Dam's sedimentation management	AFD, GIZ, EU

IV. ASSESSMENT SUMMARY

A. Technical (including program economic evaluation)

51. **Strategic relevance.** The Program has been designed to support the government program described in para 14. The definition of the Program boundaries as well as the selection of the Results Areas were done in close coordination with the Government authorities, to ensure complementarities with other ongoing/planned operations while delivering on the core NDC commitments. The RA-1 aims at strengthening institutional and data capacity in order to accelerate climate action: it will do so by (a) mainstreaming climate considerations into public finance and financial sector policies and practices, with a multiplier impact across sectors through enhanced financing targeted towards climate action and (b) strengthening of climate data system to better inform decision- and policy-making with an adequate integration of climate trends by multiple stakeholders and MRV reporting. Under its RA-2, the program advances the adaptation/resilience agenda⁸⁵, with a focus on the most vulnerable groups and ecosystems (notably in rural areas).

52. **Technical soundness.** The first phase of the technical assessment helped define, jointly with the counterparts, the selection criteria to delineate the government program (as a subset of the NDC). It then guided the selection of the key activities to be part of the PforR Program. The Program design and the choice of institutions were geared to (a) respond to the priorities identified during the preparation of the CCDR and in line with the commitments made by the Kingdom under the 2021 NDC, and (b) accelerate climate action by tackling coordination failures and fostering the upscaling of innovative climate approaches. The selected activities are considered realistic, and well balanced to achieve the Program's expected results. The RA 1.1. has a multiplier effect, with positive spillover on multiple sectors. The RA 1.2. climate data contributes to creating an enabling environment to accelerate climate-informed interventions and investments. Under RA 2, the Program will foster enhanced coordination amongst different entities, both at national level (RA 2.1 on expansion of the health insurance for farmers and dependents) and at local level (RA 2.2. on enhanced resilience of oasis ecosystems and RA 2.3. on Nature-based solutions).

53. **Program readiness.** Overall, the readiness of the Program is considered satisfactory. The creation of the Climate Unit within the MEF will support prompt implementation of the activities under RA 1.1 on Green PFM and financial sector policies. Enhancing the quality of climate data and robustness of climate forecasts has come up as a high priority for the MEF, as well as line ministries (notably in charge of agriculture and water): under the leadership of the DGM,

⁸⁵ Given its status of climate hotspot, this agenda has been identified as a core priority for Morocco in the coming decade (source: Morocco CCDR).



the RA 1. has a robust degree of readiness. The RA-2 covers interventions that will support national strategies. It will include (a) RA 2.1 contributing to the reform of the Social Protection, a high priority for the Government, and (b) RA 2.2. and RA 2.3 falling under the 2020-30 Green Generation Strategy contributing to the new Strategy on Oasis development (to be adopted promptly) and the 2020-30 Forest Strategy. Over the preparation, specific needs in terms of technical assistance have been identified and a partner program of TA has been set up to accompany those of the activities that are considered more innovative (see section III-D on Capacity Building).

54. **Program innovation.** The Program brings innovation at different levels. Building on the experience learnt from the Blue Economy PforR, this program will promote a “collaborative leadership” approach and set the foundation for a “whole-of-government” approach for climate action (that can then be applied to various complex and multi-sectoral challenges). The MEF will play a coordinator role in the implementation of the overall Program, boosting the horizontal and vertical coordination, through the annual budget planning process. Under the leadership of the MEF, the Program will boost the horizontal and vertical coordination, including through the annual budget planning process but also through the creation of the technical committees. Under RA-1, the Program aims at supporting Morocco to advance the operationalization of the Helsinki Principles, that emphasize the critical role of the Ministries in charge of Finance for climate action: the Program will accompany the institutional setup within the MEF to mainstream climate considerations into PFM tools and financial sector. RA 2.2 and RA 2.3 will pilot integrated approaches at the territorial level, fostering coordination between various entities delivering on the same geographical areas to optimize development impacts.

55. **Sustainability.** The activities selected under the Program are expected to be sustainable. The “whole of government” approach supported under RA-1 will leverage the PFM tools to accelerate climate action. This represents a major change of paradigm that is expected to have multiplier effects across all the sectors, and notably those contributing to the NDC implementation. The strengthening of the climate data systems is also expected to have significant positive multiplier effects as it will help mainstream climate considerations in policy- and decision-making in multiple sectors. The Program will also tackle coordination failures that have been identified as bottlenecks to climate action, doing so, it will build strong institutional foundations and coordination mechanisms to sustain and accelerate climate action in the future both at national and local levels.

56. **Institutional arrangements.** The institutional arrangements of the Program are considered adequate though nascent in some areas of the Program. The Program will be coordinated by the MEF through its DB, based on its experience working with World Bank-financed programs. The MEF has the capacity to manage the proposed Program and the required convening power to ensure success of the operation and facilitate intersectoral dialogue and coordination on the Climate agenda. The dedicated PIU, adequately staffed and strengthened on key expertise (incl. gender, climate, M&E, and others to be defined), including through the technical assistance provided by other partners (AFD and GIZ), will ensure a smooth implementation of the activities. The technical committees will create a platform to exchange information, monitor progress and discuss measures to tackle bottlenecks. The Climate Unit is already in place and will ensure a smooth implementation of RA 1.1.

Corporate Commitments

57. **By nature, this operation will deliver large climate co-benefits.** The Program has been designed to address the challenge of climate change in Morocco and will make significant contributions on both adaptation and mitigation agenda, by setting tools and processes to accelerate climate action in general (RA 1.1). Multiple activities supported under the Program, while designed to enhance resilience to climate change/shocks, have mitigation co-benefits through carbon sequestration in biomass and soil (RA 2 in targeted oasis and forests).

58. **Inclusion and gender.** While climate change and shocks are gender-neutral, their impacts are not. Due to existing gender disparities in Morocco, women tend to suffer greater exposure and vulnerability and have a more limited level of preparedness and coping capacity compared to men in case of natural disasters. The Program, and notably RA 2 on



Rural resilience, will have a specific focus on women and youth. The Program will in particular address gender gaps regarding the: (a) participation in decision-making related to climate and (b) opportunities in employment and entrepreneurship for women (and youth). The Program has targeted activities to address these gaps including (a) representation of women in technical committees, (b) dedicated activities to generate opportunities for women and youth under the Oasis rehabilitation program and the reforestation activities in the watershed areas. Under RA1, the support in mainstreaming climate considerations into PFM will benefit from a similar work on gender launched by the MEF (gender-sensitive budget) and both exercises can help identify interventions/investments with double dividends on climate and women empowerment. The progress will be monitored through specific DLIs (DLR 4.1, DLR 7.4, DLR 8.2) and intermediate indicators in the Results Framework.

59. **Citizen engagement.** The Program builds on existing governmental programs that do embrace a participatory approach and strong engagement with the beneficiaries, notably in the RA-2 on Rural Resilience. In partnership with the Economic, Social and Environmental Council (Conseil Economique, Social et Environnemental or CESE), which has set up a citizen engagement platform (<https://ouchariko.ma/>), the Program will launch a series of campaigns on climate-related topics (one per year), with an objective to reach up to 1 million persons: the themes will be selected in line with the Program interventions, with national and territorial focuses. Other activities on stakeholder engagement and the involvement of local communities under RA 2 as part of the PAP will further strengthen this agenda.

60. **Private Capital Mobilization.** Once the green taxonomy has been adopted by the relevant authority, it will enable private capital by guiding capital flows to the assets that are considered green. Once adopted, it may be complemented by supervisory guidance in so far as financial supervisors may request reporting of portfolios based on the taxonomy. Thus, it is considered Private Capital Enabling (PCE). The green/sustainable bond framework will provide a base of reference for Government issuances under such framework and will enable access for ESG investment community to Moroccan sovereign risk. Thus, the first issuance under such a framework will enable the flow of ESG investors into the country. Therefore, it is considered Private Capital Mobilization (PCM). The amount and timing of such issuance will be decided by the country according to their debt management strategy and market conditions.

Economic evaluation

61. **Rationale for public intervention.** There is a strong rationale for public financing given the significant global and domestic public goods expected to be generated through the Program's interventions. The RA-1 of the Program focuses on strengthening the institutional arrangements (including tackling coordination failures) as well as setting up national systems (PFM and climate data) that have the multiplier effects to accelerate climate action. The activities under Sub-RA 1.1 are expected to contribute to climate transition that, as highlighted in the CCDR, could bring substantial economic benefits. However, it is difficult to quantitatively determine such benefits so improvements supported under RA 1.1 could not be quantitatively included in the ambit of economic analysis. Under RA2, the Program tackles what the CCDR identified as a core priority for the development of the Kingdom, i.e., the growing vulnerability of rural economy, ecosystems and people to climate shocks/change. As such, the Program will support the coping mechanisms of the poor and households living in climate vulnerable areas, who lack the capital to adapt. The RA-2 will also enhance the provision of ecosystem services with focus on integrated and sustainable management of the traditional oasis systems and to unlock the opportunities linked to agricultural value addition, as well as the deployment of Nature-Based Solutions (NBS) to tackle climate vulnerabilities with focus on reforestation of watersheds that are particularly vulnerable to soil erosion and urban and peri-urban forests.

62. **The economic analysis shows an internal rate of return of 15 percent for local economic benefits and 24 percent for local benefits and global benefits of greenhouse gas removals from restoration of oases and watersheds.** The economic analysis of the program focuses on RA-2.2 (oasis restoration) and RA 2.3 (nature-based solutions for watershed restoration) supporting the activities of restoration and sustainable management of traditional oasis systems and the activities of reforestation of watersheds and management of urban and peri-urban forests. The economic



analysis considers local benefits from products and services of traditional oasis and forests in the watersheds and urban and peri-urban forests and global benefits of greenhouse gas removals by sinks under oases and forests. The economic analysis of benefits to local economy through products and services (wood, fodder, recreation, watershed protection) with 6 percent social discount rate and over 20-year period shows a positive Net Present Value (NPV) of US\$136.6 million, an Internal rate of return (IRR) of 15 percent and pPresent value Benefit-Cost ratio of 1.9. When global benefits of GHG removals/carbon sequestration benefits from restoration traditional oasis, watershed restoration with afforestation and reforestation and urban forests (FUP) valued at shadow price of carbon are added to the local economic benefits, the total benefits (local and global) in terms of the Net Present Value (NPV) increase of to US\$311.9 million, internal rate of return (IRR) to 24 percent and pPresent value benefit-cost ratio to 3.1. The sensitivity analysis of discount rate (+/-2 percent), benefits (+/-10 percent) and costs (+/-10 percent) shows that the program remains viable under the optimistic and pessimistic scenarios, and that NPV is more sensitive to changes in benefits than to changes in costs reflecting the improved management and value addition activities can potentially improve the program performance. The details of economic analysis and GHG accounting of the Program are presented in Annex 3.

63. **World Bank value addition.** Through analytical work (notably CCDR) and technical assistance, the World Bank has been supporting the government to define a more ambitious approach to climate change, notably through the adoption of a “whole of government” approach that aims at tackling the structural coordination failures that limit the impact of climate action. The World Bank has global expertise in designing and implementing innovative and integrated programs and projects on climate change. A comprehensive program of technical assistance will be delivered in parallel to the implementation of the Program and will allow to share international experiences and best practices.

B. Fiduciary

64. **A Fiduciary Systems Assessment (FSA) was carried out in accordance with the World Bank Policy on PforR Financing** to examine whether Program systems provide reasonable assurance that financing will be used for intended purposes, with attention to principles of economy, efficiency, effectiveness, transparency, and accountability. The FSA covered the following entities involved in the Program Expenditure Framework: (i) (PEF): MAPMDREF through ADA, (ii)DDFP and ANDZOA (Program contract for revitalization of traditional Oases), and ANEF (climate resilient reforestation) coordinating with selected DPAs, ORMVAs, and DRANEFs at local level; (iii) MEF through CNSS (Obligatory Health Insurance AMO-Tadamon); (iv) MTEDD (Sustainable Development); (v) MEE through DGM (meteorology); and (vi) DRPE (small hydraulic infrastructures), while coordinating with selected ABHs at local level. The assessment concluded that with the implementation of the proposed mitigating measures and actions included in the PAP, the Program’s financial management systems are broadly adequate and provide reasonable assurance on the appropriate use of the Program funds and safeguarding of its assets. The GoM has recently adopted a new national public procurement decree (PPD) No2-22-431, the scope of which is now enlarged to include public entities besides ministries and local governments. The new decree includes several enhancements including the introduction of rated criteria, the most advantageous bid, the competitive dialogue, and the establishment of an observatory for public procurement. The implementation of the new decree is expected to achieve better value for money with adequate levels of transparency, competitiveness, efficiency, and fairness by all entities involved in the program. The Program’s fiduciary systems are considered therefore, adequate to meet the requirements of Bank Policy and Bank Directive for Program-for-Results.

65. **The overall fiduciary risk rating is considered Substantial**, and fiduciary mitigation measures will be embedded in the PAP to ensure adequate and timely budget, procurement planning and execution, effective accountability and transparency mechanisms, better procurement performance and achievement of expected results.

66. **Some of implementing entities were recently evaluated** in Blue Economy (P172926), Strengthening Agri-Food Value Chains (P158346), Morocco Green Generation (P170419) PforRs, the Resilient and sustainable water in



agriculture Project (RESWAG) (P175747), and the North-East Economic Development Project (P167894) IPFs with Performance Based Conditions, such as respectively MAPMDREF (ADA, ANEF and DDFP), MTEDD, and MEE (DRPE). All these programs have Substantial fiduciary risk, while on fiduciary performance, the programs are Satisfactory, except for North-East Economic Development Project (P167894) which was recently downgraded to Moderately Satisfactory given the delays in the preparation of (i) the 2023 Annual Budgeted Work Plan (ABWP), some procurement shortcomings and (iii) internal audit plans and their implementation by executing agencies. Besides, ANEF, which is a recently created public entity, has ongoing fiduciary capacity strengthening actions under the Blue Economy PforR regarding establishing procurement regulations and reinforcing timely budgeting and execution in line with financed Program activities and their timeline. The DB of MEF, as the Program coordinator, has already satisfactory experience in implementing Bank-financed programs; but covers large responsibilities stemming from managing several bank-financed programs. To deal with the large number of PforRs being coordinated by DB, it may be beneficial for DB to consider allocating additional resources (including staff for daily program management).

67. **Key fiduciary risks that underpin the Substantial risk rating are as follows:** (a) some entities that are not familiar with the PforR instrument such as ANDZOA, CNSS, and DGM would need fiduciary capacity strengthening at central and decentralized levels; (b) challenges in operationalizing the new national public procurement decree, (c) an inadequate procurement complaints handling system, (d) a lack of procurement performance reporting mechanisms, (e) a lack of suspension and debarment check mechanism which may result in awarding a contract to firms and/or individuals debarred or suspended by the Bank, (f) possible delays in preparing annual financial statements and financial reporting of the Program because of lack of coordination between the different executing agencies at central and regional levels; and (g) delays in the program's implementation due to lack of efficient arrangements for fiduciary coordination and consolidation of financial statements and procurement execution by the MEF for multiple implementing entities.

68. **The proposed systems and capacity-strengthening and/or mitigation measures to address the above risks include the following:** (a) support by World Bank teams through training programs for entities with capacity challenges on fiduciary requirements under PforR operations, including strengthening fiduciary coordination arrangements at the national and decentralized levels under the leadership of the PIU through the design of appropriate reporting templates that will be used by the program, (b) develop and implement a program to enhance capacity-building on the new procurement decree, including : (i) delivering a training to Procurement Officials and other stakeholders on the new decree; and (ii) updating the bidding documents in line with the new decree, (c) maintaining a register of all procurement-related complaints and ensuring that they are treated promptly, (d) establishing a semi-annual reporting mechanism to track the program's procurement performance supported by key performance indicators; (e) including an eligibility check clause in the bidding documents requiring implementing agencies to ensure that any person or entity debarred or suspended by the Bank is not awarded a contract, or otherwise allowed to participate in or benefit from, the Program during the period of such debarment or suspension by the Bank; (f) delivering fiduciary capacity building programs to ADA, ANDZOA and ANEF, as well as other implementation entities at central and local levels, including through the IPF-PROGREEN (see Box A3-3 in the Annex 3), sided by the implementation of robust monitoring and evaluation systems with modules on FM and procurement for enhanced fiduciary implementation; and (g) reviewing of the semesterly Interim Financial Reports (IFRs) and accounting conventions used to prepare the IFRs by the Bank's FM team, to ensure timely expenditures and annual financial statements.

69. **The Program ex ante and ex post arrangements were found adequate to address the risk of fraud and corruption.** These comprise several effective institutions playing complementary roles, such as: Ombudsman Office, Court of Accounts (COA), and IGF. The PIU will collect and report to the World Bank allegations occurring under the Program through the annual progress reports during Program implementation. The reporting format will include the following: (a) location and date of the complaint, (b) allegation description, (c) progress in investigation, and (d) investigation outcome. In addition, a protocol/arrangement on ACG compliance in PForR operations will be included in the POM.



70. **A Program Expenditure Framework (PEF) has been prepared and screened.** The PEF already contains a clear and detailed breakdown of the different types and categories of contracts (works, goods and services) that will constitute the procurement profile of the program (see for details in the fiduciary annex). Pre-requisite actions (resettlement, feasibility studies, social plan) have been reviewed as part of the Program design as to mitigate the risk of low budget execution of the budget appropriation associated with the construction and works. In addition, checks in DLI#8, DLI#9 and DLI#10 on the quality of palm trees plants operations, forests plantation and survival, have been included in the DLI matrix.

71. **The PforR-financed RAs are embedded in the State budget and expenditure management processes of the country's PFM system.** Program funds will be reflected within the participating entities' budget. All payments of the Program will be made through the centralized Treasury Bank accounts held at the BAM. The GoM, through its budget, will transfer the funds to the MEF based on the expenditure framework and activities to be executed by the directorates and agencies involved in the Program and thus prefinance the expenditure. The public accountant of each participating agency/ministry oversees payments. For advances, prior results, and achieved results, funds will be disbursed to the GoM Treasury Single Account (TSA) at the BAM. Disbursements are conditioned by achievement of DLIs. An updated assessment of these institutions is ongoing in the next Public Expenditure and Financial Accountability (PEFA) exercise in 2023.

72. **Summary of procurement arrangements.** With the enactment of the new procurement decree No.2-22-431, effective September 1st, 2023, the existing public procurement decree No.2-12-349 dated March 20, 2013, will be replaced, and its scope will be extended to public entities and establishments in addition to ministries and deconcentrated regional entities. Consequently, the Program's procurement, will be fully governed by this new decree. Additionally, in accordance with the Minister of Economy and Finance circular No. 1982-21 dated December 21, 2021, on the digitalization of public procurement procedures and financial guarantees, the implementing agencies are required to comply with full digitalization of electronic submissions and bid securities. This circular has progressively introduced the requirement of submitting and opening to electronic bids, and electronic bid securities were made effective since November 1st, 2022. On the institutional level, the Moroccan public procurement system has been strengthened with the adoption of Decree No. 2-14-867 dated September 21, 2015, which established the National Public Procurement Commission (CNCP). The CNCP's main mission involves professionalizing public procurement, ensuring compliance with the principles of transparency, efficiency, economy, and fairness in handling procurement-related complaints from bidders, and treating requests for opinions from public buyers. More details on procurement arrangements for the program are detailed in Annex 4. The Program procurable expenditures can be grouped under three main procurement categories as follows: (a) works (80 percent), (b) equipment, goods and services (19 percent), and (c) consulting services (1 percent) which in total represents 39 percent of the PEF. The procurement of services will cover reinforcement of climate considerations in PFM/budget under RA#1. The procurement of goods and works will be covered as follows (i) RA#1 will cover small-scale land acquisition for the construction of meteorological sub-stations, and (ii) RA#2 will cover agro-sylvo pastoral development works and anti-erosion infrastructure, forests and palms plantations, and rehabilitation of small hydraulic infrastructures. Consulting Services will mainly include the elaboration of some studies. Non procurable items under RA#2 will cover progressive improvement in the coverage of the protection of farmers against health risks by supporting the expansion of the mandatory health insurance (AMO) of non-salaried workers (*Travailleurs Non Salariés*, TNS).



73. **Procurement exclusions.** It was confirmed with the MEF and other implementing agencies that the Program doesn't include any activities that involve high-value contract exceeding Operations Procurement Review Committee (OPRC) threshold value that would qualify for procurement exclusions.⁸⁶

C. Environmental and Social

74. **An Environmental and Social Systems Assessment (ESSA) was conducted to inform the preparation of the Program** and assess the environmental and social system at the Program level. The ESSA has assessed the Program's anticipated risks and national and sub-national environmental and social management systems applicable to the proposed PforR against the requirements of the World Bank's Policy and Directive. The ESSA evaluates i) the direct, indirect, induced and cumulative impacts; and ii) the capacity of the Borrower to manage such impacts in line with the core principles of the World Bank's PforR Policy and Directive, considering taking into account the environmental and social context, and the Borrower's capacity. This will include the legal framework, regulatory agencies, organizational capabilities, the institutional complexity and performance of the actions - to enhance E&S management systems and ensure that the E&S risks of the Program are well managed. The draft ESSA for consultation was disclosed by the Bank on April 19, 2023 and consulted on April 25, 2023.

75. **The Program will bring numerous and significant environmental and social benefits.** The Program has been designed to support climate action and as such will deliver substantial environmental and social benefits (both short- and long-term). The implementation of public financial management tools, as reflected in RA 1, can have several positive environmental impacts. First, by including the costs of adaptation and mitigation in budget planning, Morocco can implement projects that reduce greenhouse gas emissions, such as renewable energy production and improving energy efficiency and water savings, as well as projects that strengthen resilience to climate change impacts, such as water resource management and adapting infrastructure to changing weather conditions. Second, by reflecting climate commitments in budget laws the GoM can create a favorable political environment for implementing environmentally friendly policies and practices and encourage businesses to reduce their carbon footprint.

76. **Hence, some of the benefits include, but are not limited to, the adoption of reliable weather/climate information and other weather monitoring systems to enhance climate adaptation and awareness among government agencies and local communities; biodiversity conservation and regeneration measures through traditional oasis restoration; and mitigation of climate shocks (heatwaves and floods) through the management of eleven urban/peri-urban forests in ten municipalities.** In addition, supporting NBS interventions through the reforestation in three priority watersheds will reduce erosion and thus reduce the siltation in critical downwards dams. RA 2.1 will increase the resilience of vulnerable groups by motivating farmers (both landowners and laborers) to join the National Agricultural Register (RNA) and access social protection coverage. Additional social benefits of the Program come from the potential generation of green jobs stemming from climate resilient activities, promotion of access to services, sustainable agriculture and livelihoods in lagging regions such as the oases – ex. the generation of economic opportunities for women and youth and community in the palm waste byproduct valorization, rehabilitation of traditional irrigation small infrastructure and access to water and sanitation for oasian schools and treatment of wastewater in selected oasian *douars* through the construction of reedbeds.

77. **The overall environmental and social risk is assessed as 'Substantial', although they will be manageable and/or reversible, while mitigation actions will be embedded in the PAP.** Potential environmental and social risks are related to structural activities under RA 1 (PFM tools and meteo stations implementation and maintenance) and rehabilitation/restoration activities under RA 2, associated with tree planting, specific infrastructure investments and

⁸⁶ The program procurement risk being assessed as Substantial, OPRC thresholds are as follows: (a) works, estimated to cost US\$75,000,000 equivalent or more per contract; (b) goods, estimated to cost US\$50,000,000 equivalent or more per contract; (c) non-consulting services, estimated to cost US\$50,000,000 equivalent or more per contract; or (d) consultant services, estimated to cost US\$20,000,000 equivalent or more per contract.



small civil works (small water infrastructure such as recharge thresholds, rain harvesting and traditional irrigation system rehabilitation, tree planting, land management in watershed basins, , anti-erosion and dam siltation prevention). Procedures for managing waste (including e-waste), chemicals, polluting emissions, and guidelines for protecting workers and local communities will be developed as part of the E&S technical manual, containing a screening sheet for excluding activities that will adversely affect biodiversity and cultural heritage. Under RA 2 specific environmental and social impacts associated with reforestation, water management, tree planting and land restoration activities managed by ANDZOA, DRPE and ANEF can induce substantial environmental and social risks such as temporary biodiversity disturbances in specific ecosystems, potential impact on the water balance; temporary restriction on land use and access to ecosystem services; potential exclusion of vulnerable groups; community health and safety; and gender risks. These risks are deemed as Substantial. Pollution prevention related water activities in oasis supported by the DRPE, mainly through wastewater treatment in number of *douars* are subject to national EIA including alternative analysis and environmental monitoring and tracking plan (PSSE). This process was found aligned with National E&S regulation. These activities will not require land acquisition as reedbeds, and wastewater networks will be built on public land. The reedbeds area will be fenced, and frequent inspection will ensure community health and safety for the reused water.

78. Structural activities under RA 2.2. and RA 2.3. will carry substantial social risks. During the reforestation phase carried out by ANEF under RA 2.2, and the consequent risks of exclusion to accessing natural resources – ranging from 2 years to 13 years depending on the tree species - will be mitigated by the application of the compensation mechanism currently in place for forest users, established by order No. 1855-01 of March 21, 2002 (amended by order No. 714-22 of March 2, 2022). This mechanism was assessed during the preparation of the Program and deemed comparable to a Livelihood Restoration Plan benefitting the affected communities. It includes annual financial compensations, granted to affected forest users during the entire period set for forest protection. In addition, ANEF supports income-generating activities to the benefit of forest users, through the distribution of fruit plants, beehives and other tools for income-generating activities. Under the Program's compensation schemes, forest users will receive compensation in compliance with national legislation. Such measures will be strengthened with additional efforts on stakeholder engagement and grievance mechanism. ANEF has gained prior experience in this field through its participation in the Blue Economy PforR. Based on the gender analysis carried out with the support of the AFD and the UN-Women, the ANEF has elaborated a Gender Action Plan that is in its finalization phase. The Program will support the implementation of the recommendations emanating from the plan, related to the need for women empowerment in forestry cooperatives/associations through targeted training and support. A Gender Assessment will be also prepared by the ANDZOA to ensure gender-responsive planning, implementation, and monitoring of activities. The ANDZOA and ANEF will also receive technical support for M&E strengthening through a parallel investment supported by ProGreen and will closely coordinate with other entities involved in RA 2.2 and RA 2.3.

79. E&S criteria for selecting activities and potential environmental and social risks identification will be part of the E&S technical manual along with associated mitigation measures to reduce negative impacts. These environmental risks will be managed through on-site monitoring tools (Water quality and piezometric water level tracking, E&S monitoring sheets, anomalies sheets), close application of the E&S Technical Manual (*guidelines on environmental and social impact studies and E&S obligation in bidding documents and contractors' E&S management measures and OHS*) and will be applied for eligible (substantial or lower risks).

80. The Program will also carry Substantial risks associated with RA1, most specifically the green finance taxonomy, green procurement, and green bonds. Such risks pertain the potential exclusion of vulnerable and informal enterprises/sectors from the social dialogue around the green transition, i.e., companies currently employed in "brown" or "grey" sectors for which the transition to the green economy could be too expensive or difficult to make – both in terms of investments and reskilling/upskilling of their workforce. It is very important that all productive sectors are included in the social dialogue around PFM to avoid determining winners and losers in the green transition. Hence, the



main risks result from the lack of consultations with the informal sector; the long-term timeline to set up the appropriate governance structure; and the potential lack of inclusiveness along the process. The participative process (i.e. the participative justice and process legitimacy aspects around climate change) around the discussions on the green finance taxonomy, the green budget, and green procurement and climate action in general are also key to prevent carbon lock-in for the informal sector and other brown sectors. These risks can be managed by setting inclusive governance and consultation processes, for which the GoM will receive TA from the World Bank. Such an inclusive process will bring incentives for small and informal businesses/brown sectors to transition to low carbon, to decent employment, and firm formalization. Residual risks for this activity are considered as Moderate and will be managed in parallel with the development of the planned TAs.

81. **The anticipated environmental and social impacts for the remaining activities are under the Result Area 1**, such as sub-station rehabilitation, implemented by the DGM, as well as the ones under RA2, such as construction of water and sanitation facilities in oasian schools, will also be Moderate, and can be managed with the application of good civil works practices, contained in the technical manual, and in compliance with the Moroccan law.

82. **Beyond the risks and impacts generated by specific structural activities**, the innovative scope of the Program presents potential risks that will be progressively mitigated with the support of multiple Technical Assistances. Implementing entities such as MAPMDREF, ADA, ANEF, DDFP and MTEDD were evaluated, respectively, under the Blue Economy PforR (P172926), Morocco Green Generation PforR (P170419) and the Resilient and Sustainable Water in Agriculture (RESWAG) operation (P175747). In the frame of the Blue Economy PforR, MEF and ANEF have demonstrated effective coordination and shared commitment through ongoing E&S capacity strengthening, which provides a solid foundation for the success of the Program. Although ANDZOA and DGM are new to World Bank operations, they have shown their willingness and commitment to managing E&S risks, there is still potential for enhancing their capacity to effectively manage and mitigate risks and impacts and strengthen national E&S systems. Effective communication with key sectors and a streamlined stakeholder base is crucial for the Climate Unit to achieve its goals in the program.

83. **The country's legal framework is conducive to both environmental protection and natural resource conservation. however, it presents shortcomings.** These shortcomings relate to managing the impacts of land acquisition and restrictions on access to natural resources, inclusion of vulnerable groups, in ensuring a meaningful citizen and stakeholder engagement, and in management of grievances, especially at the local level. Despite the notable progress, they have yet to provide a homogeneous and effective system for managing social risks. As a result, especially the social management system in Morocco is only partially in line with the provisions of the World Bank's Policy and Directive on Program for Results.

84. **The Program will strengthen country systems to manage climate resilience actions' risks.** To address the gaps identified, the Program will support specific measures to strengthen the performance of Morocco's environmental and social management system. These measures will be implemented through an Environmental and Social Management Action Plan for the Program's activities complimented by, and a set of recommendations. Capacity strengthening is deemed necessary for some of the national implementing agencies responsible for managing E&S aspects of program activities, especially those who are new to the E&S risk management requirements of the World Bank (ANDZOA and DGM). The Borrower will hire an E&S specialist (full-time) for the implementation and monitoring of such measures. Each Implementing Agency (IA) will have a designated E&S focal point, who will closely work with the dedicated PIU E&S specialist to ensure effective implementation and monitoring of such measures.

85. **OP 7.50 on International Waterways is applicable to the Program and exception to the riparian notification requirement was granted, given the Program is not expected to adversely change the quantity or quality of water flows to other riparian countries.** The OP 7.50 on International Waterways is applicable given the nature and location of the activities under the RA 2 'Enhance Climate Resilience in Vulnerable Areas', as these will involve the use of water resources in the Draa valley rivers and transboundary aquifers. However, the Program falls under the exception



Memorandum to the riparian notification requirement under paragraph 7(a) since the interventions comprise an ongoing restoration scheme that (a) will not adversely change the quality or quantity of underground aquifers and water flows to other riparians; and (b) will not be adversely affected by the other riparians' possible water use. The Program will positively impact the (i) transboundary aquifers by helping the replenishment of the groundwater reservoir, greatly improving existing schemes for higher water efficiency, slowing down the rate of runoff and allowing rainwater to be absorbed by the soil. The enhancement of the microclimate provided by the landscape will reduce soil moisture loss through evaporation, and (ii) rivers/superficial waterways giving the restoration of traditional schemes will lead to a greater availability of water and the wastewater treatment will prevent and limit superficial water pollution. Moreover, the aquifer recharge thresholds and rain harvesting infrastructure will improve the quality and the quantity flow of final reaches. Overall, the PforR will contribute to water saving and the impacts of the planned activities on quantity and quality of water in the international waterway will be minimal, as investment in large hydraulic infrastructure and new irrigated perimeters are not financed under this Program. The Bank assessed the existing monitoring, verification and reporting protocol on water resources operated by the Hydraulic Basin Agencies to determine its adequacy for verification purposes. This assessment included a review of the existing piezometric and quality sampling networks as well as the Terms of Reference of the verification entity and the monitoring parameters, frequencies, and reporting systems. This protocol was found accurate and reliable enough for the verification purposes to ensure the sustainable use and management of water resources in the targeted Program areas. The monitoring protocol allows for instant and real-time data acquisition and recording in number of stations, performs monthly, quarterly, and annually and gives flexibility to the Bank in selecting the sampling points and requesting comparative graphs. The data monitoring will be coordinated between the DRPE and the Hydraulic Basin Agencies of Guir-Ziz-Rheris, Draa-Oued Noun and Moulouya. Bi-annual monitoring reports will be shared with the Bank.

86. **Grievance Redress.** Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance mechanism or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted at any time after concerns have been brought directly to the Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the Bank's Accountability Mechanism, please visit <https://accountability.worldbank.org>.

V. RISK

87. **The overall risk to the Program objectives is Substantial.** Risk rating is informed by the abovementioned assessments. Substantial risks are associated with macroeconomic situation, institutional capacity for implementation and sustainability; fiduciary; stakeholders and E&S (see SORT table).

88. **The macroeconomic risk is rated Substantial.** Global market conditions and frequent droughts due to climate change may continue to put pressure on commodity prices and adversely affect the post-COVID-19 recovery. Further downturn in the global economic outlook could reduce exports, tourism receipts, and foreign direct investment. Inflationary pressures remain strong, eroding household's purchasing power and thus consumption, while the



monetary policy tightening has increased the sovereign's domestic borrowing costs. This could reduce the Government's ability to reverse the upward trajectory of the debt-to-GDP ratio over the medium term. In addition, the resulting accumulation of debt globally could trigger an episode of international financial instability, affecting Morocco's ability to access external finance and/or increasing the cost of covering its financial needs. The New Development Model and the reform agenda engaged by the government's would improve the attractiveness of Morocco for private investment, especially in promising sectors with high value-added and mitigate the impact of these potential risks. The Climate Program would specifically help mitigate risks associated to climate change (both physical and transitional risks). The IMF has recently approved a US\$5 billion precautionary Flexible Credit Line, which will boost Morocco's external buffers contributing to mitigate residual macroeconomic risks.

89. **The Institutional capacity for implementation and sustainability risk is rated Substantial.** By nature, climate change is a multi-sectoral challenge which calls for an integrated or "whole of government" approach, departing from the traditional "siloed" sectoral approach. As such, the Program will involve many institutions across various sectors with potential coordination failures. Mitigation of this risk is founded on the following: (a) most entities have already had some exposure to WB PforR programs, and the capacity assessments carried out during preparation allowed to identify remaining needs in terms of capacity strengthening that were included in the PAP; (b) along with the Program, a comprehensive program of TA delivered by the World Bank and other partners (AFD and GIZ) will also support tackling capacity gaps and provide the necessary support for the adoption of the innovative features brought in by the Program (see table 3 and Annex 3); and (c) appropriate coordination mechanisms (at both technical and policy levels) have been identified during preparation and will be put in place during implementation to tackle coordination failures. MEF has a strong track record in terms of multi-sectoral coordination (notably on operations such as Blue Economy PforR (P172926), Morocco Public Sector Performance Ennaja PforR (P169330)) and is eager to apply innovative collaborative leadership approach to foster positive collaborative dynamic focused on results. PIU, at the MEF, complemented by the establishment of coordination mechanisms at the technical level (through the Climate Unit and the other technical Committees) will secure the day-to-day management of the Program., The steering committee of the program will oversee the coordination mechanism at the policy level.

90. **Fiduciary risk is rated Substantial.** As mentioned above, the Program will involve numerous participating entities at central and local levels, not all of them are familiar with World Bank operations and PforR, in particular. Mitigation measures will be embedded in the PAP, based on the capacity assessment. Key fiduciary risks that underpin the Substantial risk rating are as follows: (a) some entities that are not familiar with the PforR instrument such as ANDZOA, CNSS, and DGM would need fiduciary capacity strengthening at central and decentralized levels; (b) challenges in operationalizing the new procurement decree, (c) an inadequate procurement complaints handling system, (d) a lack of procurement performance reporting mechanisms, (e) dearth of suspension and debarment check mechanism which may result in awarding a contract to firms and/or individuals debarred or suspended by the Bank, (f) delays in Program annual financial statements and financial reporting of the Program because of some entities, likely ADA, ANDZOA, and ANEF failing to ensure proper implementation of large programs on Oasis and Forests Ecosystems, involving a multitude of entities at central and regional levels; and (g) delays in the program's implementation due to lack of efficient arrangements for fiduciary coordination and consolidation of financial statements and procurement execution by the MEF for multiple implementing entities.

91. The proposed systems and capacity-strengthening and/or mitigation measures to address the above risks include the following: (a) support by World Bank teams through training programs for entities with capacity challenges on fiduciary requirements under PforR operations, including strengthening fiduciary coordination arrangements at the national and decentralized levels under the leadership of the PIU through the design of appropriate reporting templates to be used by the program, (b) developing and implementing a program to enhance capacity-building on the new procurement decree, including : (i) delivering a training to Procurement Officials and other stakeholders on the new



decree (ii) developing circulars/ Guidance Notes on the new features such as rated criteria and competitive dialogue with more targeted training on these new features; and (iii) update the Bidding Documents in line with the new decree, (c) maintaining a register of all procurement-related complaints and ensure that they are treated promptly, (d) establishing a semi-annual reporting mechanism to track the program's procurement performance, including key performance indicators; (e) including in the bidding documents an eligibility check clause requiring implementing agencies to ensure that any person or entity debarred or suspended by the Bank is not awarded a contract, or otherwise allowed to participate in or benefit from, the Program during the period of such debarment or suspension by the Bank, (f) delivering fiduciary capacity building programs to ADA, ANDZOA and ANEF, as well as other implementation entities at central and local levels, through the IPF-PROGREEN (see Box A3-3 in Annex 3), sided by the implementation of robust monitoring and evaluation systems with modules on FM and procurement for enhanced fiduciary implementation; and (g) reviewing the semesterly interim financial reports (IFRs) and accounting conventions used to prepare those by the Bank's FM team, to ensure timely expenditures and annual financial statements.

92. **The E&S risks for the Program are rated as Substantial.** Considering the innovative approach, institutional complexity and the need for enhanced coordination among government agencies, the significant geographic dispersion of the activities, the medium to large scale of the proposed investments, and the potential cumulative environmental and social impacts associated with the Program, the overall environmental and social risk of the Program is classified as Substantial. A set of recommendations and the Environmental and Social Management Action Plan included in the ESSA and the PAP detail the procedures and deliverables to bridge gaps of the Moroccan Environmental and Social Management Systems. On the Borrower's obligation to consult and engage with stakeholders, the Action Plan will also indicate provisions about the frequency of such engagement. Morocco has a great number of institutions with a mandate to collect and manage grievances and claims related to activities supported by the Climate PforR. The existence of grievance and appeal mechanisms and their recent promotion to the constitutional level provide them with the necessary independence and financial autonomy, as well as expanded powers for self-referral. The Program will make sure that such systems are accessible and inclusive, including at local level, and accept anonymous grievances. The PAP identifies different streams of mitigation activities (see Annex 5), notably on the inclusion of vulnerable groups, the development of a gender assessment and action plan by the ANDZOA and the ANEF respectively, and the inclusive management of ecosystem services through a strengthened national mechanism for compensation and livelihood restoration of communities affected by restricted access to forest lands (see Annex 5).

93. **Risk associated with stakeholders is assessed as Substantial.** The actions supported by the PforR require institutional and political support for inter-ministerial and interagency coordination to achieve the expected results. Lack of adhesion to the integrated approach supported by the Program could affect implementation. The PforR has been designed to foster collaboration, including through the "collaborative leadership" approach and the constitution of technical committees/working groups. It will also include communication activities to ensure stakeholder mobilization, complemented by accompanying TA on change management. Risks will also be mitigated by the MEF's convening power as part of its role in the budget programming process and track record of implementing similar operations such as Ennaja Program (P169330) and the Blue Economy Program (P172926).



ANNEX 1. RESULTS FRAMEWORK MATRIX

Results Framework

COUNTRY: Morocco

Morocco Climate Operation / Support to the Nationally-Determined Contribution (NDC)

Program Development Objective(s)

The Objective of the Program is to strengthen the institutional capacity to implement the NDC and enhance climate resilience of targeted vulnerable groups and ecosystems in the Program area.

Program Development Objective Indicators by Objectives/Outcomes

Indicator Name	DLI	Baseline	End Target
Strengthen the institutional capacity to implement the NDC			
Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the Three-year Budget Program (Yes/No)		No	Yes
The National Climate Network is operational and delivers services to users (Yes/No)		No	Yes
Enhance climate resilience of targeted vulnerable groups and ecosystems in the Program area			
Farmers and their family members with effective coverage with (AMO-TNS) (Number)		15,000.00	1,000,000.00
Areas of vulnerable ecosystems benefiting from climate-resilient land use interventions (Hectare(Ha))		0.00	26,600.00



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Intermediate Results Indicator by Results Areas

Indicator Name	DLI	Baseline	End Target
Integrate climate considerations into public finance management and financial sector policies			
The revised NDC 2026-2035 includes information on the gender aspect of the NDC commitments (Yes/No)		No	Yes
Public purchasers who have received training on the "green procurement" guide (Number)		0.00	2,000.00
Ministries/Public entities that have applied green procurement criteria (Number)		0.00	5.00
Women represented on the technical committee/working group for the development of the green finance taxonomy governance framework (Percentage)		0.00	25.00
Green sovereign bond issued (Yes/No)		No	Yes
Strengthen climate data systems			
Municipalities covered by an observation station (Percentage)		15.00	50.00
Conventions signed between the DGM and end users for access to processed climate data (Number)		0.00	12.00
Regular publication of bi-annual transparency reports (Text)		No	Yes (every two years starting in 2024, using the information contained in the MRV platform)
Engage with citizen on climate change issues			
Campaigns on climate change issues organized jointly with the Economic, Social and Environmental Council (CESE) (Number)		0.00	5.00
People who participate in campaigns on climate change issues organized jointly with the CESE (Number)		0.00	1,000,000.00
Reinforce farmers' resilience to health risks, exacerbated by climate change			



Indicator Name	DLI	Baseline	End Target
Agreements signed between the CNSS and the Agricultural Interprofessional Associations (Number)		0.00	5.00
Agreement between CNSS and Crédit Agricole signed (Yes/No)		No	Yes
Enhance climate resilience of vulnerable ecosystems			
The new strategy of "Development of oasis areas and the argan tree 2022-2030" adopted by the government (Yes/No)		No	Yes
Jobs created by the service cooperatives created or upgraded in the date palm value chain supported under the Solidarity Agriculture program (Number)		0.00	100.00
Percentage of women and youth in service cooperatives created or upgraded. (Text)		0%	50% (out of which a minimum of 10% for women)
Small traditional hydraulic infrastructures constructed to improve water resources management in targeted oasis areas (Number)		0.00	80.00
Beneficiaries of small hydraulic infrastructures in the targeted oasis areas (Number)		0.00	20,000.00
People benefiting from liquid sanitation projects in the oasis areas (Number)		0.00	20,000.00
Percentage of women beneficiaries of liquid sanitation projects in targeted oasis areas (Percentage)		0.00	50.00
Students benefiting from environmental upgrading projects in oasis schools (Number)		0.00	2,000.00
Percentage of girls benefiting from environmental upgrading projects in oasis schools (Percentage)		0.00	50.00
Awareness campaigns on hygiene and water saving (Number)		0.00	10.00
Urban/peri-urban forest managed (Number)		0.00	2,000.00
Deploy Nature-Based Solutions to enhance climate resilience			



Indicator Name	DLI	Baseline	End Target
Women in forest cooperatives, benefitting from capacity building on timber/non timber valorization (Percentage)		5.00	25.00
Areas of urban/peri-urban forests under NBS management (Hectare(Ha))		0.00	2,000.00
.			



Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the Three-year Budget Program	This PDO indicator aims at monitoring the alignment between the Climate ambitions stated in the NDC and the budget allocation, to ensure proper financing (on public side) is channeled towards (unconditional) mitigation/adaptation commitments. The revised NDC refers to the NDC 2026-2035 to be prepared by the Government. Three-year Budget Program refers to the multi-year budget approved and updated annually in the Finance Law (i.e for calendar years 2026, 2027, 2028).	Annually - for the years subsequent to the approval of the NDC 2026-2035	Report with supporting legal and budgetary evidence.	This indicator is aligned with the DLR 1.2. (see methodology for DLR 1.2)	MEF
The National Climate Network is operational and delivers services to users	This PDO indicators aims a monitoring the improvement in terms of climate data production and quality (through the connection of the observation stations to the	Annually	Report with supporting data and written evidence of the operation and provision	A consolidated annual report of activities undertaken to make the network operational. The end-user application will be used to report the	DGM



	DGM-run data center) and the delivery of tailored data to end-users that more and more rely on climate data to inform their decisions.		of the end user's network and application services for user numbers.	monthly number of users. The statistics will be summarized in the annual report.	
Farmers and their family members with effective coverage with (AMO-TNS)	This PDO indicator monitors the access of farmers and family members (spouse and children) that are effectively covered by the AMO-TNS regime, so that they are better protected against health risks that are expected to be exacerbated by climate change.	Semi-annual	CNSS will transmit a report summarizing enrollment and contribution of farmers to the AMO-TNS regime, as well as the family members registered.		MEF/CNSS
Areas of vulnerable ecosystems benefiting from climate-resilient land use interventions	This PDO indicators monitors the vulnerable areas converted into climate-resilient uses in Program areas (oasis, watershed and urban/periurban areas).	Annually	A report summarizing the data collected by ANDZOA and ANEF	ANDZOA and ANEF will collect annual data to report on the hectares of ecosystems that have been converted to climate-resilient land uses. The indicator will sum up: (a) area of revitalized oasis through tree planting / densification, (b) area of hotspots of erosion	MAPMDREF/ ANDZOA & ANEF



				<p>reforested in priority watersheds and (c) areas of urban/peri-urban forests under management</p> <p>Nota: For the area of targeted areas revitalized through the planting/ densification of palm trees, a ratio of 50 plants per hectare. This indicator only accounts for the areas that would benefit from direct interventions (intensification in traditional oasis, reforestation in watersheds and urban/periurban forests). It is however worth noting that this targeted interventions will have positive impacts on a much broader area. (cf. Oasis areas of 1,500,000 ha, priority watershed of 600,000ha, urban areas...). The respective implementing agencies</p>	
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				will define how such indirect impacts can be monitored.	
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Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
The revised NDC 2026-2035 includes information on the gender aspect of the NDC commitments	This indicator assesses whether the NDC includes gender-related data and information to ensure that the NDC is gender-sensitive.	Annual	NDC	A report summarizing the gender data and information collection process and the process of integration into the NDC.	MEF
Public purchasers who have received training on the "green procurement" guide	Once the green procurement guide is approved, the TGR will launch a series of training workshops with the public purchasers.	Annual	TGR - activity	TGR will collect the data on the participants to the training workshops on "Green procurement". It will communicate the information in a gender-differentiated way.	TGR
Ministries/Public entities that have applied green procurement criteria	Number of Ministries/Public entities that have applied green procurement criteria for at least 30 percent of the prioritized products, as indicated in the Administration Exemplarity Pact (and will be further defined in the POM). This indicator will measure the application of the green procurement principles by	Semi-annual	TGR and Public Procurement Observatory	The tenders of the "prioritized products" will be tracked through the e-procurement platform (once the "green" module has been integrated and is operational)	TGR



	Ministries and public entities, with a specific focus on the Program Implementing agencies. As per the Exemplarity Pact for the Administration (PEA), it will focus on a few prioritized products, considered "good candidates" for green public procurement (such as IT equipment, office furniture, cars...). The list of "prioritized products" will be defined in the POM. The proposed level of 30 percent is consistent with the target set by the PEA (though still in draft at the negotiation stage of the Program)				
Women represented on the technical committee/working group for the development of the green finance taxonomy governance framework	The representation of women in the technical committee that will develop the governance framework for the preparation of the green finance taxonomy.		Data provided by the DTFE	Act of constitution of the technical committee	PMU
Green sovereign bond issued	This indicator measures the progress made in issuing green bonds in accordance	Annual	Data provided by the DTFE	Report on sovereign bond issues	PMU



	with international standards. This indicator also records the identification of priority climate projects.				
Municipalities covered by an observation station	Percentage of municipalities in the Program Area with at least one automatic observation station that measures at least one meteorological parameter (connected to the DGM data center)	Annual	Data provided by DGM	DGM Annual Activity Report	DGM
Conventions signed between the DGM and end users for access to processed climate data	Number of agreements signed between the DGM and end users for access to processed climate data	Annual	Data provided by DGM	The target of 12 has been identified as follows: It is expected that the DGM will provide processed weather/climate information to 8 different sectors (cf. DLR 5,3). And it was considered that there would be an average of 1.5 users for each sector.	DGM
Regular publication of bi-annual transparency reports	The indicator will monitor the publication of the Bi-Annual Transparency Report (BRT), in line with the UNFCCC guidance	Every two years	MTEDD	Publication on the official government website (as well as on the UNFCCC website)	MTEDD



Campaigns on climate change issues organized jointly with the Economic, Social and Environmental Council (CESE)	Through the CESE, the Program will launch a series of awareness campaigns on climate change issues (~one campaign by year on average), building on their platform for citizen engagement (ouchariko). The themes will be jointly defined by MEF-Min Environment and CESE at the beginning of the Program implementation. Campaigns can be at national level or more focused on a territory (i.e. a campaign focused on challenges in oasis areas)				
People who participate in campaigns on climate change issues organized jointly with the CESE	The program will raise awareness of climate issues through awareness campaigns conducted by the CESE, building on their platform for citizen engagement (ouchariko).	Annual	Data provided by the CESE	The CESE will monitor the number of participants (in presence through organized events but most importantly through social media) to the awareness campaigns on climate change. As much as possible It will differentiate the participants by (a)	CESE Annual Activity Report



				gender), (b) age, and (c) localisation	
Agreements signed between the CNSS and the Agricultural Interprofessional Associations	These agreements will contribute to the massification of AMO-TNS coverage among farmers	Annual	Provision of signed agreements	Information provided by CNSS	PMU /CNSS
Agreement between CNSS and Crédit Agricole signed	This agreement allows for flexibility in the payment of contributions to AMO-TNS and reduces the risk of interruption in payments		Provision of the signed agreement	Information provided by CNSS	PMU /CNSS
The new strategy of "Development of oasis areas and the argan tree 2022-2030" adopted by the government	The Oasis and Argan strategy defines the strategic objectives of the region to combat persistent socio-economic problems.		Publication of the Strategy on the ANDZOA website and/or any other official government website	Review of draft and finalized strategy documents. ANDZOA will provide minutes of strategy adoption meetings, including a list of participants and official documents showing that the strategy has been adopted.	ANDZOA
Jobs created by the service cooperatives created or upgraded in the date palm value chain supported under the Solidarity Agriculture program	This indicator measures the number of permanent jobs created thanks to the support of cooperatives in the date palm value chain within the framework of Solidarity Agriculture	Annual	Documents for the creation of service cooperatives Reports provided by the ADA	Review of reports provided by ADA and membership lists of new and improved cooperatives	ADA



Percentage of women and youth in service cooperatives created or upgraded.	This indicator measures the representation of women and youth in the service cooperatives supported and equipped within the framework of the solidarity agriculture/Generation Green projects. The objective for women and youth is 50 percent (out of which 10 percent for women).	Annual	Documents for the creation of service cooperatives Reports provided by the ADA	Review of reports provided by ADA and membership lists of new and improved cooperatives	ADA
Small traditional hydraulic infrastructures constructed to improve water resources management in targeted oasis areas	This indicator measures the number of small water infrastructures that have been built, new or rehabilitated, (water collection, groundwater recharge, etc.) increasing the water available in the oasis. These small infrastructures (maftia, khattara...) are associated to the thresholds supported under DLR9.1	Annual	Annual report of relevant HBAs, with supporting data and written evidence of implementation.	A consolidated annual report of the activities undertaken by the HBAs in the concerned oasis areas. The report also includes the quality of implementation.	MEE/DRPE
Beneficiaries of small hydraulic infrastructures in the targeted oasis areas	The number of beneficiaries of the constructed infrastructure will be counted here as the number of beneficiaries living within a 30-minute	Annual	Annual report of relevant HBAs, with supporting data and written	The above mentioned report will indicate the total area covered will be calculated, as well as the number of beneficiaries in the area	MEE/DRPE



	walk of the infrastructure.		evidence of implementation	and the density of coverage. The area is defined as the covered area within 30 minutes walking distance from the water infrastructure.	
People benefiting from liquid sanitation projects in the oasis areas	This indicator measures the number of women who benefit from liquid sanitation projects.	Annual	Annual report of relevant HBAs, with supporting data and written evidence of implementation.	A consolidated annual report on the implementation of liquid sanitation projects in the oasis area. The report also includes the quality of implementation.	MEE/DRPE
Percentage of women beneficiaries of liquid sanitation projects in targeted oasis areas	number of women who benefit from liquid sanitation projects.	Annual	Annual report of relevant HBAs, with supporting data and written evidence of implementation.	The report indicates the number of women who benefit from liquid sanitation projects in the targeted oasis areas	MEE/DRPE
Students benefiting from environmental upgrading projects in oasis schools	This indicator measures the number of students benefiting from environmental upgrading projects in oasis schools.	Annual	Program monitoring report with supporting data and written evidence of	A consolidated annual report on activities undertaken to rehabilitate or construct infrastructure to prevent water pollution. The report also includes the	MEE/DRPE



			implementati on.	quality of implementation.	
Percentage of girls benefiting from environmental upgrading projects in oasis schools	This indicator measures the percentage of girls benefiting from environmental upgrading projects in oasis schools (Percentage)	Annual	Annual report of relevant HBAs, with supporting data and written evidence of implementation.	A consolidated annual report on activities undertaken to rehabilitate or construct infrastructure to prevent water pollution. The report also includes the quality of implementation.	MEE/DRPE
Awareness campaigns on hygiene and water saving	number of awareness campaigns on hygiene and water saving	Annual	Annual report of relevant HBAs, with supporting data and written evidence of implementation.	A consolidated annual report on activities undertaken to rehabilitate or construct infrastructure to prevent water pollution. The report also includes the quality of implementation.	MEE/DRPE
Urban/peri-urban forest managed	This indicator evaluates the urban and peri-urban space to be covered by forests. The hecatombing will be carried out in 10 pilot areas.	Annual	Annual program monitoring report with supporting data and written evidence of implementation, including annual	A consolidated annual report of activities undertaken for forestry development in urban/suburban areas. The total area covered will be calculated as well as the density of coverage.	FSNA



			program contracts signed with ANEF regional branches.		
Women in forest cooperatives, benefitting from capacity building on timber/non timber valorization	This indicator follows one of the objectives defined in ANEF's Gender Strategy, namely tackling the challenge of the more active participation of women in forestry associations	Annual	Information collected by ANEF from forestry associations	ANEF, through regional branches will collect the data from forestry associations	ANEF
Areas of urban/peri-urban forests under NBS management	This indicator monitors the urban and peri-urban forests to be sustainably managed under this Program.	Annual	Annual report	See verification protocol for the DLR 10.2	Annual program monitoring report with supporting data and written evidence of implementation, including annual program contracts signed with ANEF regional branches



ANNEX 2. DISBURSEMENT LINKED INDICATORS, DISBURSEMENT ARRANGEMENTS AND VERIFICATION PROTOCOLS

Disbursement Linked Indicators Matrix				
DLI 1	Revised NDC commitments are adequately costed and budgeted			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	No	Text	35,000,000.00	10.00
Period	Value		Allocated Amount (USD)	Formula
Baseline	NDC public financing commitments and budget allocation are not aligned			
Year 1	--		0.00	--
Year 2	DLR 1.1: The published Revised NDC include the list of measures with budget and schedule details as defined in the POM		10,000,000.00	Yes/No
Year 3	DLR 1.2(a) : Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the Three-year Budget Program as defined in the POM, for FY 2026		15,000,000.00	Yes/No
Year 4	DLR 1.2(b) : Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the Three-year Budget Program as defined in the		5,000,000.00	Yes/No



	POM, for FY2027			
Year 5	DLR 1.2(c) : Public financing for measures (adaptation and unconditional mitigation) in the Revised NDC is approved by the Government in the Three-year Budget Program as defined in the POM, for FY2028			5,000,000.00 Yes/No
DLI 2	Climate considerations are embedded into public procurement			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	20,000,000.00	5.70
Period	Value		Allocated Amount (USD)	Formula
Baseline	Public procurement does not take climate considerations sufficiently into account			
Year 1	--		0.00	--
Year 2	--		0.00	--
Year 3	DLR#2.1: The green procurement guide has been adopted by Circulaire of the Minister of MEF		10,000,000.00	Yes/NO
Year 4	DLR#2.2: A module has been integrated into the public procurement portal to tag contracts that include green provisions, as defined in the green procurement guide		5,000,000.00	Yes/No
Year 5	DLR#2.3: The Moroccan Observatory of Public Procurement has published a statistical report on		5,000,000.00	Yes/No



	green tenders			
DLI 3	Tools are in place to issue sovereign Green Bonds on international markets			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	No	Text	25,000,000.00	7.10
Period	Value		Allocated Amount (USD)	Formula
Baseline	No Sovereign Green Bonds have been issued by the Moroccan government.			
Year 1	--		0.00	--
Year 2	DLR#3.1: Framework for the issuance of sovereign Green Bonds has been adopted and published.		15,000,000.00	--
Year 3	DLR#3.2: A list of priority climate projects in the Program Area eligible under the Sovereign Green Bond Framework, has been identified.		10,000,000.00	--
Year 4	--		0.00	--
Year 5	--		0.00	--
DLI 4	A Green Finance Taxonomy is adopted			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	No	Text	25,125,000.00	7.10
Period	Value		Allocated Amount (USD)	Formula



Baseline	Morocco does not have a green finance taxonomy			
Year 1	DLR#4.1: A technical committee/working group to develop and adopt a governance framework for the preparation of the green finance taxonomy is established	1,125,000.00	Yes/No	
Year 2	--	0.00	--	
Year 3	DLR#4.2: The roadmap setting the principles and priorities guiding the preparation of the green finance taxonomy is approved by the technical committee/working group.	4,000,000.00	Yes/No	
Year 4	--	0.00	--	
Year 5	DLR#4.3: The green finance taxonomy is adopted.	20,000,000.00	Yes/No	
DLI 5	The National Climate Network is operational and delivers services to users			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	33,000,000.00	9.40
Period	Value		Allocated Amount (USD)	Formula
Baseline	The observation stations in Morocco are not connected.			
Year 1	DLR#5.1: Twenty-four (24) MoUs signed between the DGM and other relevant entities managing the observation stations (scalable, baseline: 0		5,000,000.00	208,333 of dollars for each MOU signed between DGM and partner



	and end target: 24)			entities
Year 2	DLR#5.2: Eight hundred fifty (850) observation stations connected to the data center managed by the DGM (scalable, baseline: 171 and end target: 850)		20,000,000.00	29,455 dollars for each new station connected to the DGM managed data hub
Year 3	--		0.00	--
Year 4	--		0.00	--
Year 5	DLR#5.3: Eight (8) end-users sectors receiving processed weather and climate data (scalable, baseline: 0 and end target: 8)		8,000,000.00	1,000,000 dollars for each sectoral end-user receiving customized weather and climate data
DLI 6	The MRV platform on NDC implementation is operationalized			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	No	Text	20,000,000.00	5.70
Period	Value		Allocated Amount (USD)	Formula
Baseline	The MRV platform on NDC implementation is not operational			
Year 1	--		0.00	--
Year 2	DLR#6.1: Eight (8) sectors with adaptation measures in the Revised NDC included in the MRV platform on NDC implementation (scalable, baseline: 0 and end target: 8)		15,000,000.00	1,875,000 dollars per sector with NDC adaptation measure actually included in the NDC implementation monitoring MRV platform



Year 3	--		0.00	--
Year 4	--		0.00	--
Year 5	DLR#6.2: Three (3) sectors with unconditional mitigation measures in the Revised NDC included in the MRV platform on NDC implementation. (scalable, baseline: 4 in 2026 and end target: 7)		5,000,000.00	1,667,666 dollars per (unconditional) NDC mitigation measure actually included in the NDC implementation monitoring MRV platform
DLI 7	Farmers are effectively covered against health risks, including climate-induced risks, through the AMO-TNS			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	45,000,000.00	12.85
Period	Value		Allocated Amount (USD)	Formula
Baseline	AMO-TNS coverage remains very low among farmers (at 2 percent in March 2023)			
Year 1	DLR#7.1: Five (5) conventions signed between the CNSS and the professional organizations. (scalable, baseline: 0 and end target: 5)		10,000,000.00	2,000,000 dollars for each agreement signed between CNSS and the agricultural interprofessions
Year 2	DLR#7.2: Convention between CNSS, Groupe Credit Agricole and Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests signed to include flexibility in the payment of farmers' contributions to the AMO-TNS.		5,000,000.00	5,000,000 dollars for the signed convention



Year 3	--		0.00	--
Year 4	--		0.00	--
Year 5	DLR#7.3: 80 percent of farmers in the Program Area effectively covered under the AMO-TNS (scalable, baseline: 2 percent and end target: 80 percent)		30,000,000.00	Formula described in the LA
DLI 8	Traditional oasis ecosystems are more resilient to climate change and generate economic opportunities for local population			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	60,000,000.00	17.10
Period	Value		Allocated Amount (USD)	Formula
Baseline	Traditional oasis ecosystems are highly vulnerable to climate change and generate economic opportunities for their populations			
Year 1	--		0.00	--
Year 2	DLR#8.2: Ten (10) agricultural and/or para-agricultural service cooperatives created or upgraded in the targeted Oases Area working in the date palm value chain. (scalable, baseline: 0 and end target: 10).		20,000,000.00	2,000,000 dollars for each service cooperative created or upgraded
Year 3	DLR#8.3: Two (2) new date palm valorization units built and equipped in targeted Oases Area (scalable, baseline: 0 and end target: 2).		10,000,000.00	5,000,000 dollars for each new date palm by-product processing unit built and equipped



Year 4	--		0.00	--
Year 5	DLR#8.1: one million palm trees distributed and planted for the revitalization of traditional oases in the Targeted Oases Area (scalable, baseline: 0 and end target: 1 million)		30,000,000.00	30,000 dollars for every 1000 palm trees distributed to beneficiaries in a vulnerable traditional oasis (see details below).
DLI 9	Water resources are preserved in the targeted Oasis areas			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	60,000,000.00	17.10
Period	Value		Allocated Amount (USD)	Formula
Baseline	Climate change is a major threat to water resources in oases			
Year 1	DLR#9.1: Twenty-two (22) water recharge thresholds built with piezometers. (scalable, baseline:0 and end target: 22)		30,000,000.00	1,636,636 dollars per threshold completed
Year 2	DLR#9.2: Ten (10) water treatment projects implemented in the Targeted Oasis Area. (scalable, baseline:0 and end target: 10)		10,000,000.00	1,000,000 dollars per completed project
Year 3	DLR#9.3: Fifty (50) oasis schools in the targeted Oasis Area benefitting from environmental upgrades. (scalable, baseline:0 and end target: 50)		20,000,000.00	400,000 dollars per recipient school
Year 4	--		0.00	--



Year 5	--		0.00	--
DLI 10	Nature-based solutions are deployed to tackle climate vulnerabilities			
Type of DLI	Scalability	Unit of Measure	Total Allocated Amount (USD)	As % of Total Financing Amount
Outcome	Yes	Text	26,000,000.00	7.40
Period	Value		Allocated Amount (USD)	Formula
Baseline	Nature-based solutions are not systematically used to address climate challenges			
Year 1	--		0.00	--
Year 2	DLR#10.2: Eleven (11) urban/suburban forests managed, in compliance with the respective action plan (scalable, final target: 11)		11,000,000.00	1,000,000 dollars per urban/peri-urban forest managed
Year 3	--		0.00	--
Year 4	--		0.00	--
Year 5	DLR#10.1: Four thousand and two hundred (4,200) hectares reforested in selected priority watersheds. (scalable, end target: 4,200)		15,000,000.00	3,571 dollars per hectare of forest effectively covered by a fire prevention monitoring system



Verification Protocol Table: Disbursement Linked Indicators

DLI 1	Revised NDC commitments are adequately costed and budgeted
Description	Ministries of Finance have an essential role to play in implementing the policy changes that are needed to transition to a more sustainable, low-carbon, and climate-resilient model. This DLI will strengthen the credibility of Morocco's updated NDC commitment for 2026-2035, thanks to better cost estimates and improved credibility of public financing for the three first years, to align with three-year budget planning. This DLI will also strengthen the coordination between the MEF, the MTEDD and the line ministries on budgeting the NDC. This DLI directly contributes to Pillar 4 "Strengthening Policies, Institutions and Investments for Rebuilding Better" of the GCRF.
Data source/ Agency	MEF/DB with METDD
Verification Entity	IGF
Procedure	<p>DLR#1.1: The IGF will verify that revised NDC 2026-2035 includes the following information:</p> <ul style="list-style-type: none"> For the NDC period (2026-2035), the total indicative funding amounts, distinguishing between funding sources (public funding, private funding, or other funding sources). Note: For mitigation measures, the exercise will also distinguish between conditional and unconditional measures annualized public funding amounts for the first 3 years (2026-28) <p>DLR#1.2: MTEDD and MEF will produce a report based on the revised NDC and the three year budget attached to targeted LoFs. The IGF will verify the report based on the published revised NDC and the LoFs. In particular, the IGF will verify that the measures (for adaptation and unconditional mitigation) from the revised NDC are reported in the three-year budget plan and that said measures are "appropriately funded. "Appropriately funded measure" means that the public funding for a measure (adaptation and unconditional mitigation) in the revised NDC 2026-2036 for a given year is at least 80% in the corresponding 3-year budget. If a measure is not financed as planned or at all, the justification is provided as part the the 3-year budget published.</p>
DLI 2	Climate considerations are embedded into public procurement
Description	As a significant contributor to the country's GDP, public procurement can drive demand for green products and services and create a market for eco-friendly solutions. By introducing green criteria in tender documents, public buyers can promote sustainable business practices, spur innovation, and contribute to reducing carbon emissions and efficiency use of water



	resources. Therefore, adopting green procurement practices is an essential step towards achieving Morocco's sustainable development goals and contributing to the global effort to combat climate change. Embedding climate considerations in procurement contributes to Pillar 4 of the GCRF.
Data source/ Agency	MEF
Verification Entity	IGF
Procedure	<ul style="list-style-type: none"> • DLR#2.1: The IGF verifies the official document (circulaire) by which the new guide on green public procurement is adopted and ensure that the guide covers the thematic areas as described in the POM. • DLR#2.3: The IGF verifies with TGR that the green contracting module is operational through a demonstration on the platform • DLR#2.3: The IGF attests the publication of the statistical report on green procurement on the website of the Observatoire de la commande publique.
DLI 3	Tools are in place to issue sovereign Green Bonds on international markets
Description	As highlighted in the CCDR, climate action (both on mitigation and adaptation fronts) will necessitate significant amount of financing. To kick-start the climate transition, the CCDR estimated that about \$23 billion would be needed between now and 2030, with two thirds of that devoted to address urgent adaptation needs, that would be be large covered by public finance (while up to 80 percent of mitigation investments could be shouldered by private sector). This DLI aims at supporting the Government of Morocco to have access to additional pool of investors (ESG investors) by issuing e sovereign green bonds. Accessing this type of issuances will to increase public financing for climate action. This DLI contributes to Pillar 4 of the GCRF.
Data source/ Agency	MEF
Verification Entity	IGF
Procedure	<ul style="list-style-type: none"> • DLR#3.1: The MEF will send a letter confirming the adoption and publication of the "Framework" for the issuance of sovereign green bonds. The published Framework will reflect the views expressed by an independent third party. • DLR#3.2: The IGF verifies the letter sent by the MEF (through the PIU) providing a copy of the report listing projects identified in the Program area as eligible under the Green Bond Framework. The report shall describe how the projects align with the norms, procedures and technical standards defined by the Green Bond Framework. The



	report shall also describe the process for identifying projects and how project implementation will be monitored and reported.
DLI 4	A Green Finance Taxonomy is adopted
Description	As highlighted by the CCDD, green finance is one of the main tools for greening the Moroccan economy. Currently, Morocco does not have a reference guide to help financial institutions define what is "green". The objective of a green finance taxonomy is to encourage financial institutions to finance green assets and projects (and away from assets and projects presenting physical or transition risks). International experiences show the strong involvement of financial supervisors in this exercise. The DTFE with BAM, AMMC and ACAPS, will set up a governance framework for the development of the taxonomy, which will identify the stakeholders (among others, Ministry of Finance, Budget, sectoral ministries, private sector, and financial sector ...), the process of coordination, elaboration, consultation and approval. This contributes to Pillar 4 of the GCRF.
Data source/ Agency	MEF
Verification Entity	IGF
Procedure	<ul style="list-style-type: none"> • DLR#4.1: The IGF verifies the official document establishing the technical committee/working group as well as the governance framework developed for the preparation of the green finance taxonomy. The IGF verifies that the governance framework includes all relevant public and private sector stakeholders, including at least the Ministry of Finance/Budget, the Ministry of Environment, representatives of the private sector and financial sector. The governance framework should include (a) stakeholders; (b) coordination responsibilities; (c) preparation process, (d) consultation process, and (e) approval process. • DLR#4.2: The IGF verifies that the roadmap adopted by the technical committee/working group follows the governance framework, and that the preparation has been inclusive. The roadmap should set out the objectives and initial contours of the taxonomy. It should cover the goal, the scope, and the expected outcomes. Official supporting documents, minutes of the various committee meetings, including attendance, should be provided. • DLR#4.3: The IGF verifies that the taxonomy has been adopted by a competent authority through an adequate instrument (e.g., a decision, a circular or guidance note). The IGF verifies the approval document and ensures that the process lead by the technical committee/working group for the elaboration of the green finance taxonomy was inclusive.



DLI 5	The National Climate Network is operational and delivers services to users
Description	Robust weather and climate information systems and services are the foundation for effective climate action. The revised NDC includes meteorology as a new priority area under the Adaptation chapter. This DLI will strengthen the institutional framework related to climate data through the creation and operationalization of a National Climate Network. It will strengthen coordination among weather and climate data collecting entities, improve the quality of climate data, and promote data accessibility for sectoral end-users (e.g. forestry, flood, drought, social protection, insurance, etc.). This DLI contributes to Pillar 3 “Strengthening Resilience” and Pillar 4 of the GCRF.
Data source/ Agency	DGM
Verification Entity	IGE
Procedure	<ul style="list-style-type: none"> • DLR#5.1: The IGE will verify the number of signed MOUs signed between DGM and other entities and assess whether they include the following elements : (i) include provisions for coordination mechanisms, (ii) cover technical support for data collaboration and equipment maintenance, and (iii) provide information regarding data sharing arrangements. A procedures manual will be included as an annex to the Agreement signed between DGM and the other entities, to ensure that the connection to the hub is consistent with international standards. • DLR#5.2: The IGE will verify how many automatic climate and weather observation stations are connected to the DGM-managed data center by analyzing information provided by the DGM. For each observation station connected to the DGM-managed data center, the IGF will verify monthly statistics of data exchanged, report information on data and/or implementation problems, and describe actions taken to address any coordination, transmission, or data delivery failures. • DLR#5.3: IGF verifies the number of agreements signed between the DGM and users that defines the type of processed weather and climate data that will be delivered by the DGM to the end-users. The objective ifs to cover 8 sectors, namely: agriculture, water, sanitation, energy, forest, banking/insurance, transport and academia (other sectors could be further considered). Agreements can be signed with several users in the same sector (but only one sector will be accounted for).
DLI 6	The MRV platform on NDC implementation is operationalized
Description	As part of the Paris Agreement, countries are expected to put in place a Monitoring, Reporting and Verification (MRV) platform and report on the progress in NDC implementation. This MRV Platform on NDC implementation is part of the



	Transparency Framework and will provide a regular update on the progress made on the implementation of the NDC measures. NDC measures are organized in around seven sectors for mitigation and eight sectors for adaptation. . Progress will be presented in the bi-annual transparency report (BTR). The next BRT report is due for 2024. This support Pillar 4 of the GCRF.
Data source/ Agency	MTEDD-DD
Verification Entity	IGF
Procedure	<ul style="list-style-type: none"> • DLR 6.1: IGF verifies a technical report, prepared by DDD and submitted by PIU, attesting to the inclusion of adaptation in the MRV platform on NDC implementation. • DLR 6.2: IGF verifies a technical report, prepared by DDD and submitted by PIU, attesting to the inclusion of (unconditional) mitigation in the MRV platform on NDC implementation. Nota: For the MRV platform on NDC measures, the EU will support the partial operationalization of the platform until 2026 (for 4 out of the 7 sectors with mitigation measures). The WB would the support the integration of the measures for the 3 remaining sectors by the closing date of the Program
DLI 7	Farmers are effectively covered against health risks, including climate-induced risks, through the AMO-TNS
Description	Farmers and their family members are disproportionally exposed to climate-induced health risks. The CCDR highlighted the multi-dimensions of vulnerability of rural populations. While climate shocks are predominant , there are other shocks (economic, health and social) that can combine with climate shocks and further exacerbate the level of vulnerability of the farmers (and their family members) already “at risk”. Farmers and their families have been identified as one of the groups the most exposed to climate-induced health risks. The extension of mandatory health insurance (AMO) will make the farmers and their dependents more resilient to health risks, that will be exacerbated with climate change, by providing them financial protection against the expenditures associated with the health effects of climate change. In addition, episodes of extended droughts can impact incomes of farmers, increasing the importance of avoiding out-of-pocket payments for health services and being protected against catastrophic health expenditures. This contributes to Pillars 1 and 2 of the GCRF.
Data source/ Agency	CNSS and MEF
Verification Entity	IGF



Procedure	<ul style="list-style-type: none"> • DLR#7.1: The IGF verifies the agreements signed between the CNSS and the agricultural professional organizations listed, in application of decree n° 2.21.929, published on the Official bulletin on April 10, 2023. The professional organizations pre-identified for this indicator are: (i) Maroc lait, (ii) Fimasuc, (iii) Anoc, (iv) Fisa, (v) Interolive and (vi) Inter-Citrus. • DLR#7.2: The IGF verifies the agreement signed between the CNSS, the GCAM and the Ministry of Agriculture which provides for the modalities to enhance the flexibility for the payment of the farmers' contribution to the AMO-TNS • DLR#7.3: The IGF verifies the CNSS reports, transmitted by the PIU , indicating the rate of farmers up to date in their contribution to the AMO-TNS. <p>Disbursement by tranche (in Euros) whenever the following thresholds are met: (a) 8% : 4 780 000, (b) 16% : 4 325 000, (c) 24% : 3 870 000, (d) 32% : 3 415 000, (e) 40% : 2 959 000, (e) 48% : 2 504 000, (f) 56% : 2 049 000, (g) 64% : 1 594 000, (h) 72% : 1 138 000 and (i) 80% : 683 000</p>
DLI 8	Traditional oasis ecosystems are more resilient to climate change and generate economic opportunities for local population
Description	Moroccan oases are structurally based on the management of scarcity and seasonal variability of water resources. However, these ecosystems have been under multiple pressures, which the forces of climate change have and will exacerbate, that have led to their degradation and the impoverishment of their inhabitants. To reverse this trend, the Kingdom Work on the implementation of a program to develop a resilient oasis ecosystem, that is part of the NDC under its Adaptation chapter. A large part of the activities under this DLI will be implemented through a Contract-Program between the Government and the Date sector Interprofession. This DLI supports Pillar 2 and 3 of the GCRF.
Data source/ Agency	DLR#8.1: MAPMDREF (DDFP)/ANDZOA DLR#8.2. & 8.3: ADA/ANDZOA
Verification Entity	IGA
Procedure	<ul style="list-style-type: none"> • DLR#8.1: The IGA conducts a systematic desk audit, reviewing reports/notes provided by MAPMDREF on the number of date palm seedlings distributed in traditional oases and planted by beneficiaries. In addition, the IGA will conduct field verifications based on a representative random sampling to observe the planting of the distributed seedlings by the beneficiaries. The POM will specify: (i) the sampling modalities, and (ii) the threshold deemed acceptable between the number of plants distributed and the number of plants planted. • DLR#8.2: The IGA will carry out a systematic documentary audit, reviewing the reports/notes provided by



	<p>MAPMDREF (ADA). Annual summary note prepared by the ADA on the basis of data provided by the DRAs/ONCAs concerned, as of December 31 of each year, specifying the number of service cooperatives created or upgraded as part of solidarity farming projects in the oasis areas. The IGA will examine the reports/notes provided on the number of cooperatives created or upgraded in the oases working in the value chain of date palm and may make field visits to see the support actions and / or equipment provided to a sample of these cooperatives, in accordance with the provisions in the MOP.</p> <ul style="list-style-type: none"> • DLR#8.3: Verification of the indicator will be based on the reports/notes provided by MAPMDREF (ADA). Annual summary note prepared by ADA on the basis of data provided by the DRAs concerned, as of December 31 of each year, specifying the number of recovery units built and equipped within the framework of solidarity agriculture projects in the oasis areas. The IGA will examine the reports / notes provided on the number of recovery units built and equipped to level in the oases working in the value chain of date palm and may make field visits (on site) to see the implementation of recovery units, in accordance with the provisions in the MOP.
DLI 9	Water resources are preserved in the targeted Oasis areas
Description	<p>The oasis zones of Morocco represent a sensitive and fragile environment, they are distributed along the non-perennial rivers (Oueds) and on the shallow water tables. In recent years, the oasis ecosystem has clearly deteriorated due to multiple natural and anthropogenic stresses, exacerbated by climate change. The scarcity of water resources (in quantity and quality) remains at the heart of the constraints and problems facing the oases today. To deal with this situation, the General Directorate of Water Resources proposes the establishment of a program to safeguard and restore this environment by strengthening the collection and recovery of rainwater, recharging groundwater, the safeguarding of khettaras, the purification of wastewater, the reuse of treated waste water and the environmental upgrading of rural schools. This DLI supports Pillar 2 and 3 of the GCRF.</p>
Data source/ Agency	MEE-DGH-DRPE
Verification Entity	IGE
Procedure	<p>For the verification of the three DLRs. the IGE will combine (i) a documentary review of the documents attesting of the completion of the small infrastructure (CPS, Decomptes, Procès Verbaux de réception, reports of the end of work) shared by DPRE and (ii) control field visits for quality control (sampling modalities for field visit control will be defined in the POM)</p>



DLI 10	Nature-based solutions are deployed to tackle climate vulnerabilities
Description	As part of its revised NDC (under both the Adaptation and the Mitigation chapters), Morocco is committed to preserve and develop forest ecosystems, as a NBS to tackle climate change. Notably it commits to (a) preserving watersheds particularly vulnerable to soil erosion, with an objective of 1,500,000 hectares in 22 watersheds by 2030, and (b) creating forests in urban/peri-urban areas to minimize impacts of climate change (notably heat waves but also floods) This DLI will support the deployment of tree-based solutions to tackle climate vulnerabilities. Preserving forest ecosystems is connected to Pillar 2 and Pillar 3 of the GCRF.
Data source/ Agency	FSNA
Verification Entity	Directorate of Internal Audit and Risks (DAIR) of the ANEF
Procedure	<p>DLR#10.1 & DLR#10.2: The DAIR shall conduct a desk audit, based on technical reports provided by ANEF, and also provided by the PIU. ANEF will provide a copy of: (a) the annual reports attesting to the annual Program Contracts signed by ANEF's Regional Directorates, (b) the action plans related to the targeted priority watershed (DLR#10.1) and the targeted urban/peri-urban forest (DLR#10.2): these plans indicate the achievements for each year and (b) the consolidated annual report showing the progress of the restoration of the targeted watersheds undertaken by ANEF, and their conformity with the validated action plan. It should be noted that the effective number of managed forests will be determined based on the compliance with the action plan for the said forests.</p> <p>DAIR will conduct quality control of the activities through random field surveys covering at least 15 percent of the total intervention area for each of the different intervention regions. The verification procedures will confirm that the erosion hotspots in the priority watersheds have been reforested as per the action plans (DLR#10.1). Specifically, (a) area verification involves a documentary review of the registered area, followed by random field inspections. As part of the quality of implementation of reforestation activities in the targeted watersheds, DAIR will review seedling survival considering both survival and quality/height. Survival rates are measured one growing season after planting, when at least 85% of the seedlings should have survived one year after planting.</p>



ANNEX 3. (SUMMARY) TECHNICAL ASSESSMENT

A. TECHNICAL AND INSTITUTIONAL ASSESSMENTS

1. **Overall, the technical assessment confirms that the Program has high strategic relevance and is technically solid.** The technical assessment confirms that the Program has been designed to have a strategic contribution to the acceleration of the climate action and the implementation of the 2021 NDC in the Kingdom. The Program design was informed and underpinned by a very solid analytical work base, notably (but not only) the CCDR. Through the selection exercise, the Program scope was defined to tackle the key constraints identified in the CCDR to put Morocco on a Resilience and Low Carbon path. The Program Boundaries were also defined to complement other ongoing and planned activities, following a robust filtering exercise. The two RAs are complementary and will reinforce each other. The RA 1 has been designed to create the enabling conditions for accelerating the climate action, including through mainstreaming climate considerations in core public finance and financial sector policies and practices but also through the production and dissemination of robust climate data. RA 2 will strengthen institutional coordination to optimize the impact of public action on rural resilience, both on vulnerable groups (farmers and families) and vulnerable ecosystems.
2. **The Program will support a more integrated approach to climate change, under the leadership of the MEF and the Min Environment.** Climate action has been so far spearheaded at the sectoral level and would benefit from stronger coordination amongst the different stakeholders. However, as highlighted in the CCDR, the inherent complexity to climate challenge calls for a multi-sectoral and integrated approach. The program will aim at tackling some of the coordination failures identified as part of the rapid Climate Change Institutional Assessment (CCIA) conducted as part of the CCDR preparation, by enhancing the role of the MEF on climate action, notably with the creation of a Climate Unit at the MEF level. This unit will coordinate with all the departments within MEF to mainstream climate considerations into PFM along with the Helsinki principles.⁸⁷ The MEF Climate Unit will aim at breaking silos, will also coordinate, and hold accountable the relevant MEF departments in mainstreaming climate considerations in PFM tools (from budgeting and procurement to fiscal policy and green bonds). The Program will also report to the CNCCDB, established in April 2020, with the objective of fostering consultation and coordination among various governmental entities on their respective contributions to the international convention on climate action and biodiversity, and ensuring overall coherence.⁸⁸ In addition, the Program will promote a “Collaborative leadership” approach, including through the creation of technical committees/working groups, aiming at strengthening coordination mechanisms on climate-related issues.
3. **The selected activities are deemed adequate, realistic, and well balanced to achieve the Program’s expected results within the overall technical design of the Program.** They were carefully assessed and selected based on their potential to (a) strengthen the institutional coordination on climate action, (b) develop tools that can have multiplier effects on climate action in various sectors, (c) build a robust climate data base to facilitate innovation, research, and

⁸⁷ Helsinki Coalition of MoF principles : (i) Align our policies and practices with the Paris Agreement commitments; (ii) Share our experience and expertise with each other in order to provide mutual encouragement and promote collective understanding of policies and practices for climate action; (iii) Work towards measures that result in effective carbon pricing; (iv) Take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices; (v) Mobilize private sources of climate finance by facilitating investments and the development of a financial sector which supports climate mitigation and adaptation; (vi) Engage actively in the domestic preparation and implementation of Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.

⁸⁸ The Decree n° 2-19-721 dated April 27, 2020, defines the membership of the Commission, its mandate, its competencies and the modalities of coordination and working sessions.



development, and (d) enhance the resilience of vulnerable groups and ecosystems. The choice of institutions has been driven by the need for coordination both at national and local levels.

4. The technical assessment informed the design, choice of activities, and implementation arrangements for the two RAs and their related sub-RAs as detailed in the following paragraphs.

Results Area 1: Strengthen Policy and Institutional Capacity in Green PFM, Green Finance, and Climate Data

Results Area 1.1: Mainstream climate considerations into public financial management and financial sector policies

5. **The activities under the RA-1 were selected to support foundational building blocks for climate action, namely on public finance tools (in line with the Helsinki principles) and on climate data.** These two angles are fully aligned with the recommendations emanating from the Morocco CCDR (principle #1 on “whole of government” approach to climate change and principle #3 on “strengthen the climate data and analysis systems”). They were also prioritized by the GoM at the onset of the preparation of the Program.

Sub-RA 1.1.1: Promote greater alignment between the NDC and the Budget

6. **Morocco is moving on mainstreaming climate consideration into budget planning.** Climate Budget Tagging (CBT) is a budgeting tool that identifies, classifies, weights, and marks climate-relevant expenditures in a government’s budget system, enabling the estimation, monitoring, and tracking of those expenditures. Morocco has launched the process for moving ahead with a climate-sensitive budget, which would help decision makers identify gaps in terms of the funding needed to achieve climate goals and opportunities, and potentially mobilize additional resources (for instance through the issuance of sovereign green bonds). It already has some of the key technical prerequisites needed to introduce it, including a Treasury single account; budget classification by functions of government; and an integrated financial management information system. Moreover, Morocco already has some experience in cross-cutting budget analysis on gender issues. It could also benefit from the experience and lessons learned from the 19 national and subnational governments that have adopted budget tagging methodologies across the world. The CBT tool is the first step to mainstream climate considerations in budget processes, and track expenditures that contribute to Climate Change policies (i.e. NDC). Ultimately, it will inform both decision-makers and parliament on the climate commitment financing efforts and help identify gaps. The on-going Morocco Ennaja PforR (P169330) is supporting the MEF in piloting the climate budget tagging mechanism at central level in 2023 for the 2024 and 2025 Finance Law.

7. **Under this Program, the MEF intends to take the agenda one step further and use the CBT tool to align the commitments under the NDC and the budget planning.** In the absence of tools in place to monitor climate-related programs and expenditures, it is difficult to assess to what extent the unconditional commitments made to UNFCCC are reflected in the national budget.⁸⁹ As a result, the current NDC (issued in 2021) has a limited alignment with the budgets, hence facing the risks of not being prioritized in public investments. As part of its commitment to the UNFCCC, Morocco will revise its NDC and submit the revision version (covering the period 2026-2035) in 2025. The revision exercise offers the opportunity to strengthen the alignment with the budget planning. The Program is particularly well-suited to support such an approach, as it squarely falls under the “whole of government” approach to climate change, aiming at tackling coordination failures. Specifically, the Program will support

- **The costing of the NDC 2026-2035:** this exercise will help identify the different sources of financing for the measures/actions included in the NDC, both on adaptation and mitigation: this will allow to identify the potential financing from public and private sources as well as other sources, such as GCF or others

⁸⁹ This is even more true for regional and municipal budgets.



climate finance mechanism. In addition, a dedicated exercise will be conducted jointly between the MEF, (DB), the Department of Sustainable Development (Département du Développement Durable – DDD) and the line ministries to prepare a detailed annual costing of public financing for the first three years (2026-28) on adaptation and mitigation (unconditional).

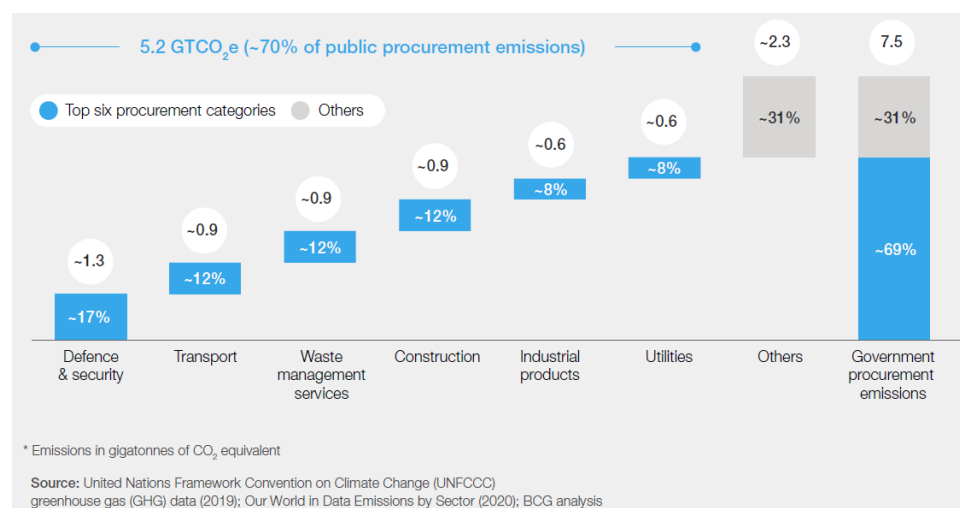
- **The alignment between the NDC commitments (public finance) and trienal budget planning:** the exercise described above will be foundational to align with the NDC in terms of public finance for adaptation and mitigation (unconditional) with the trienal budget planning. This will guarantee that the commitments will be adequately financed during the first three years. This exercise will then be rolled out for the following years to maintain the alignment between climate ambitions and budget allocation.

8. **This approach represents a true game-changer for climate action in Morocco.** The newly created Climate Unit in MEF will drive this process, in close coordination with other entities (Min Environment and line Ministries). This approach will profoundly shape the way the GoM addressed climate challenge and will help operationalize the Helsinki principles under the Coalition of the Minister of Finance for Climate Action. Lessons learnt from this experience could also benefit many countries.

Sub-RA 1.1.2: Integrate climate considerations into public procurement

9. **Greening public procurement represents a lever to spur climate action.** The adoption of sustainable policies for resource management, production, and consumption has become an essential global challenge, driven by environmental, social, and economic issues, including climate change, poverty reduction, and the transition to a green economy. In this context, public procurement can be a crucial tool for sustainable development, as it considers the life cycle approach and the benefits that the organization, society, and the economy can derive, while minimizing the environmental impacts. Green procurement, therefore, can play a vital role in reducing greenhouse gas emissions and contribute to efforts to combat climate change. According to a recent report by Boston Consulting Group (BCG), public procurement is responsible for the emission of 7.5 billion tons of CO₂e into the atmosphere every year, which represents about 15 percent of total global GHG emissions. The below Figure A3-1 shows the different procurement categories and their contribution to GHG emissions. Therefore, "green" government procurement practices could help reduce global greenhouse gas (GHG) emissions by more than 0.7 gigatons of CO₂ equivalent per year by 2030, equivalent to the annual emissions of Germany. Procurement practices can have the greatest impact in the following areas: construction, transportation, and food and catering services. Additionally, the United Nations Environment Program's global review of Sustainable Public Procurement has highlighted the role of green procurement in promoting innovation, reducing environmental impact, and optimizing the use of public resources for sustainable development. Several countries, including Austria, Denmark, Finland, Germany, the Netherlands, Sweden, and the UK, have implemented sustainable public procurement programs that have reduced the carbon footprint of public procurement by an average of 25 percent. Sustainable public procurement has also been recognized as a driver of green growth in many countries, including the EU, which has developed supporting measures, including the EU's Eco-labelling and Green Public Procurement criteria, applicable to priority product groups such as construction, food and catering, IT equipment, and transport.

Figure A3-1: Contribution to government procurement emissions (GTCO₂*)



10. **Public procurement in Morocco can be turned as a tool for climate action.** In 2022, the GoM spent about MAD 245 billion (eq. to ~US\$ 25 billion) in public procurement, which accounts for about 20 percent of the GDP. Considering the significant portion of the national economy it occupies, public procurement has been recently underscored by the NDM as a core activity of sustainable development policy implementations. While the Moroccan public procurement decree includes green criteria⁹⁰, these principles have not yet been turned into concrete actions. Morocco's commitment to green development is evidenced by its active participation in the United Nations Framework Convention on Climate Change (UNFCCC), where it submitted its NDC. The NDC highlights the need to reduce greenhouse gas emissions, increase the share of renewable energy in the energy mix, and promote energy efficiency. It also mentions water use efficiency as a lever to address the growing structural water scarcity. The adoption of green procurement practices aligns with these goals, as it reduces carbon emissions by lowering the energy and water footprint of public purchasing. The Administration Exemplarity Pact (*Pacte d'Exemplarité de l'Administration – PEA*) also highlights the contribution of green procurement in meeting the ambitious targets to reduce the carbon footprint and increase water efficiency of the Administration set in the NDC. While Morocco's 2011 Constitution establishes sustainable development as a national priority, there is still room for improvement in the implementation of green procurement practices in Morocco and the legal framework needs to be strengthened, and monitoring and evaluation mechanisms need to be put in place to ensure the effective implementation of green procurement policies.

11. **The Program will support the greening of the public procurement in Morocco.** As a significant contributor to the country's GDP, public procurement can drive demand for green products and services and create a market for eco-friendly solutions. By introducing green criteria in tender documents, public buyers can promote sustainable business practices, spur innovation, and contribute to reducing carbon emissions and efficiency in use of water resources. Therefore, adopting green procurement practices is an essential step towards achieving Morocco's sustainable development goals and contributing to the global effort to combat climate change. To do so, the Program will support the adoption of tools and processes aiming at mainstreaming of green and climate criteria into public procurement in Morocco. Notably it will support:

- **The adoption of a guide on “Green Procurement”:** the General Treasury of the Kingdom (TGR), in concertation with other stakeholders, will develop a guide that will set the foundations for green procurement.

⁹⁰ As set forth in Art. 1 of the Moroccan Public Procurement Decree No. 2-12-349 "La passation des marchés publics prend en considération le respect de l'environnement et les objectifs du développement durable."



- **The integration of a module in the Public Procurement Portal** to tag tenders which include green criteria. The new module will allow to monitor the trend in green procurement, which will *inter alia* contribute to assessing the progress towards the implementation of the PEA.
- **The publication of a report on tenders which include green criteria by the Moroccan Observatory of public procurement.** By disclosing the status of green tenders through an annual report, it is expected that more visibility will be given to this tool, which in turn would further incentivize public purchasers to favor the inclusion of green criteria in their tenders.

Sub-RA 1.1.3: Expand the investor base to finance climate priorities in the Budget

12. **The absence of a national green taxonomy has been identified as a key constraint by the CCDR.** Having such taxonomy would help government, regulators, investors and issuers identify and classify economic activities assessed as environmentally sustainable and aligned with Morocco's climate ambitions while avoiding greenwashing based on self-reporting.⁹¹ The taxonomy enhances transparencies in markets, cuts down transaction costs for stakeholders, provides a leverage for policymakers and regulators to map the contribution of firms and financial actors to sustainable development and consequently intervene via fiscal, legal, regulatory or prudential instruments to help mobilizing capital to green activities. Hence, firms can use this referential to disclose information on their green activities, communicating efficiently to investors and lenders once issuing equities or debt. For investors, the classification provides clear indications on green activities to comply with their investment/exposition strategy and disclosure policies. The design of the taxonomy would be timely and consistent with the elaboration of climate budget tagging. While not an absolute requirement, a green taxonomy would also constitute a positive signal as the GoM has indicated interest in issuing green bonds. As of 2022, 30 green taxonomies have been adopted across the globe, 27 inspired from the EU taxonomy.

13. **The World Bank Group has been a leader in research⁹² and technical assistance on green taxonomies across the globe,** helping to identify key challenges and guiding principles for each country to elaborate the most adapted classification to reach its sustainable development goal. This process has yielded several lessons as it is important to: (i) establish a robust governance process, (ii) define the strategic purpose of the taxonomy, the targeted audiences and approach to transition activities, (iii) identify an initial scope and sequencing, and (iv) prepare the release and the timeline for enforcement. The taxonomy should serve the attainment of sustainable development results and rely on scientific data and sound expertise to ensure its credibility. Thus, it requires a long consultative and participative process with expert actors. It can be adapted overtime for periodic revision or gradual implementation depending on technological evolutions and environmental priorities.

14. **The main risk results from the expected long timeline to set up the governance structure and run the technical process, consultations, and final adoption.** Yet Morocco can benefit from the achievements of other developed and developing countries that paved the way for both technical and process work. Indeed, the EU Taxonomy relies on highly detailed technical data per activity while practitioners from Colombia, Georgia or South Africa have been engaged in sharing knowledge and experiences on how they adjusted the EU taxonomy to match their strategic purpose. Also, the design of the taxonomy in Morocco benefits from a very conducive context given that the CCDR was just completed, the NDM was recently unveiled, and new public investment tools were adopted to mobilize private capital to invest in

⁹¹ Such taxonomies are being adopted in an increasing number of jurisdictions as an important tool to help issuers and investors identify green financial assets and projects.

⁹² WBG 2022 "developing a National Green Taxonomy" World Bank Group Washington DC
<https://documents1.worldbank.org/curated/en/953011593410423487/pdf/Developing-a-National-Green-Taxonomy-A-World-Bank-Guide.pdf>.



green projects. Also, Morocco has strong technical institutional capacities as some local players such as the Ministry of Finance, the BAM and the Capital Market Authorities have been engaged in international platform, such as the Coalition of Finance Ministries for Climate Action, Sustainable Banking and Financial Network on green finance addressing taxonomies. Based on international benchmarks, the design of the taxonomy takes about two years which is consistent with the timeline of this PforR and associated DLIs.

Sub-RA 1.1.4: Channel investments toward green or sustainable economic activities and assets

15. **Green/thematic bonds are fixed-income securities issued in capital markets to raise financing for projects and activities related to a specific theme**, such as climate change, education, housing, ocean and marine conservation, and the Sustainable Development Goals. Such sustainable finance instruments include green, social, sustainability, and sustainability-linked labeled bonds. Blue bonds are considered a subcategory of green bonds and gender bonds a subcategory of social bonds. Thematic bonds are also known as GSS; GSS+; ESG; or sustainable bonds. Green bond proceeds are designated to finance projects and activities that are expected to have a positive environmental impact (World Bank 2015). Blue bonds finance projects aimed at ocean and marine conservation (UN Global Compact 2020). Social bonds raise funds for projects with expected positive social outcomes, helping issuers address societal inequalities. Social project categories include affordable basic infrastructure (clean drinking water, energy, sanitation); access to health, education, and financial services; affordable housing; employment generation; and food security (ICMA 2021). Gender bonds focus exclusively on gender equality (ICMA, IFC, and UN Women 2021). Sustainability bond proceeds support a combination of green and social projects or activities. Green, social, and sustainability bonds are usually referred to as use-of-proceeds bonds, given that resources raised through these securities are earmarked for specific projects designed to generate the intended impacts. Sustainability-linked bonds do not earmark proceeds for specific projects or expenditures. Instead, the issuer commits to meeting predefined key performance indicators within a timeline for defined sustainability policies and actions (ICMA 2020). Such indicators can be related to environmental or social objectives and must be verifiable and ambitious. As with any other debt instrument, the transaction should be aligned with the borrower's overall debt management strategy. The current stage of market development and market readiness for these types of bonds are also relevant factors to evaluate when considering such issuances.

16. **Currently, the market is welcoming sovereign green bonds.** The World Bank conducted surveys of public debt management offices, international investors, and intermediary banks to better understand how to improve access to this market. The insights of both surveys, published in the report "Sovereign Green, Social and Sustainability Bonds: Unlocking the Potential for Emerging Markets and Developing Economies," reveal overwhelming interest from emerging market governments and investors. To date forty-one countries have issued sovereign green bonds including nineteen from emerging markets, four from Africa (Egypt, Nigeria, Seychelles and Benin). Several other countries are in the preparation stage.

17. **In Morocco, the green bond market is still incipient, and no sovereign green bonds have been issued yet.** Between 2016 and 2018, AMMC produced guidelines describing the principles and actions needed to issue a green bond, including the use of proceeds, and the evaluation and selection of eligible projects. However, , the green bond market in Morocco is still incipient: only six green bonds have been issued since 2016 by banks, corporates and SOEs, for a total value of around US\$500 million⁹³ by banks, corporates, and SOEs. No sovereign green bond has been issued yet by the central government. It is worth noting that, with the exception of ONCF, all of these issuances took place between 2016 and 2018, right after the green bond market was created. This weak activity may indicate the presence of obstacles in the way of mobilizing capital for these products (demand side) and/or constraints against making projects bankable (supply side).

⁹³ This number only encompasses bonds that are "climate-green" as defined by the Climate Bonds Initiative (CBI), and that are in compliance with the regulator's guidelines; therefore it excludes self-labeled green bonds or other types of sustainable bonds from corporations.



18. **Issuing green bonds can yield multiple benefits for the MEF.** A key challenge for a middle-income country such as Morocco is to adequately finance both its development and climate goals. By issuing green bonds, the MEF can expand its investor base by tapping financial markets, to finance its climate ambitions set in the NDC. Beyond the finance mobilization, moving to green bond issuance would also bring additional benefits such as (a) raising awareness globally of sustainable investment opportunities in Morocco and projects aligned with its Nationally Determined Contribution (NDC) targets, (b) highlighting the Government's efforts to meet its Paris Agreement commitments and climate change action (Social Development Goal (SDG) 13), (c) aligning with international transparency and disclosure standards related to the use of proceeds and environmental impact of projects, and (d) setting a benchmark for private operators interested in accessing financing from green bonds on international markets.

19. **The GoM is interested in taking advantage of an international market that is now welcoming sovereign green bonds, to increase financing in support to its climate ambition.**⁹⁴ With the support of the World Bank, the Program will support the preparation of two pre-requisites for the government to lay the ground for the issuance of sovereign green bonds in the market⁹⁵, notably:

- **the adoption of a Sovereign Green Bond framework**⁹⁶ that follows internationally accepted standards such as the International Capital Markets Association Green Bond Principles, in line with the climate priorities set by the GoM and reflected in the NDC. As a matter, to be able to issue green bonds and access the ESG investor community, the issuer must adopt a framework that sets the basis for identification, selection, verification, and reporting of the expenditures or projects eligible to be financed by the bond and management of such proceeds. The framework should follow internationally accepted standards such as the International Capital Markets Association Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines. It is important to note that the development of a green bond framework is a consensus building strategic process that might sometimes take more time than expected since different areas of the Government need to be consulted.⁹⁷ The Program will help the MEF diligently follow the necessary steps for the preparation of the framework to ensure that the bond can be identified as a labeled green bond. Although the time required from start to finish varies, a first-time issuer can expect to take at least 6 months for the entire process. It is recommended that debt management offices establish a dedicated task force or steering committee with members from different departments in ministries of finance and relevant line ministries to develop a thorough understanding of the requirements, discuss the value proposition, conduct a detailed analysis of eligible expenditures, and design a work plan.
- **the identification of a pipeline of priority climate investment projects:** the Program will support the screening exercise to identify priority climate projects in the Program area that are eligible under the Sovereign Green Bond Framework.

20. **While the primary focus of the government is on green bonds, to support key climate investments, the Green Bonds Framework could then be adjusted to more broadly to include other thematic bonds.** The GoM has indicated its interest in getting ready for a green bond issuance within the next 18-24 months, to support the implementation

⁹⁴ The GoM has indicated interest in issuing green sovereign bonds to support the NDC implementation and notably its ambitious water infrastructure plan to address water scarcity.

⁹⁵ The GoM was clear that it did not want to have the issuance itself as part of the Program.

⁹⁶ A Green Bond Framework outlines the areas/ sectors where the bond proceeds will be used, and it is established by each issuer. It does not include specific projects or locations.

⁹⁷ For example, in preparing for the issuance of its inaugural sovereign green bond, the government of Egypt formed a green finance working group consisting of the ministries of Finance; Planning and Economic Development; Environment; Transportation; Housing, Utilities, and Urban Communities; and Electricity and Renewable Energy New and Renewable Energy Authority; Egyptian Electricity Transmission Company; and Construction Authority for Potable Water and Wastewater. The Vice Minister of Finance was the chair of the working group.



on its climate priority (notably on water sector, with the ambitious water plan that has been deployed to address water scarcity). However, it is also open to expand the scope of the framework to cover other thematic, following internationally accepted standards such as the Social Bond Principles, and Sustainability Bond Guidelines.: as a matter of fact, options have been floated to cover also (a) blue bonds, building on the Blue Economy program that the Government has recently launched on June 2022 (with the support of the World Bank) or (b) gender bonds, given the priority given to gender agenda in Morocco and the focus on improving the female labor force participation.

Technical Assistance in support to RA 1.1.

21. For all the themes mentioned above, the World Bank has mobilized resources from various trust funds (“whole of economy” trust fund, Joint Capital Market Program (J-CAP) trust fund) to provide targeted technical assistance to support the achievement of the results expected under this RA, or to areas contributing to the ToC of the Program, as described in the below Box A3-1.

Box A3-1 – Program of TA in support to the Implementation of the RA1.1

- *Public Investment Management:* the MEF is re-engaging the Public Investment Management (PIM) reform aiming at improving investment projects selection and appraisal processes.⁹⁸ The texts drafted in 2019 – suspended because of the pandemic – set up standard processes and centralizing information to improve the strategic piloting of public investment selection, establishing socio-economic criteria to prioritize public investment projects financing and ensure execution monitoring and ex post evaluation. Climate is not part of selection criteria yet. MEF aims at reviewing and finalizing the texts in 2023 with support from OECD and World Bank TA. Second, the framework on Environmental Impact Studies (EIS) provides an opportunity to include climate criteria. While it does not explicitly mention climate change, EIS applies to both public and private investments and aims at assessing projects’ impact on the environment. The 2020 Law 49-17 on environmental assessments significantly improves the EIS framework and provides an opportunity for integration of climate dimension in public investment programming. Both of those reforms will be supported by the Bank through the BETF on Whole Economy and contribute to the Theory of Change of this PforR. Similarly support to better and accessible weather data will enable climate considerations into public investment appraisal.
- *Green Procurement:* while green public procurement (GPP) has been identified as a lever for the green transition, several gaps have been identified in Morocco’s approach to GPP (such as the absence of a consolidated GPP strategy, the lack of a baseline and a monitoring mechanism, the need for capacity building as well as the market engagement). It is unclear to which extent GPP is applied, and a study in 2021 found that out of 594 public tenders in the ICT sector, just 3.3% included at least one key word that could be considered “green”. The proposed TA will address these gaps through: (a) a Green Public Procurement Diagnostic to identify the strengths and weaknesses of any existing GPP practices as well as set a baseline that can be used to track progress. The diagnostic may draw upon a systematic review of legal and regulatory documents and will be complemented by consultations with stakeholders. (b) the support to the development of Operational Tools & Approaches, to translate the results from the diagnostic into policy recommendations and operational interventions. Such tools and approaches would simplify and facilitate climate-smart public procurement, e.g. green criteria need to be developed and continuously updated for priority goods and service in collaboration with the market. Life-cycle costing can help procurement officers to objectively compare tenders and communicate the benefits that GPP brings. Each country will develop its own roadmap for implementation and (c) capacity building & raising awareness: Given the importance of technical capacity both to implement a green lens throughout the public procurement process as well as prepare a responsive bid to a tender using green evaluation criteria, this TA will enhance knowledge and capacity of public procurement officers and the private sector.
- *Green Finance Taxonomy:* The TA will support the development of a green taxonomy, identification and development of a green portfolio as well as identification of blended financing sources for climate change adaptation and mitigation. Development of such taxonomy

⁹⁸ Morocco’s 2016 Public Expenditure and Financial Accountability Assessment (PEFA) and 2017 Public Investment Management Assessment (PIMA) found an absence of a legal or regulatory framework to evaluate public investment projects, standard criteria for the project selection process, a unified investment evaluation process, standard instructions for management of projects in implementation, or a centralized database of investment projects. Public investment projects in Morocco are selected and managed by the sector ministries, without the use of common, objective selection criteria or consolidated execution monitoring. A Directorate of Budget division responsible for public investment was created.

⁹⁹ T. El Haddadi, “Automatic analysis of the sustainability of public procurement based on Text Mining: The case of the Moroccan ICT markets,” *Cleaner and Responsible Consumption*: 3 (2021).



to build on a robust participatory process, involving all stakeholders (from public and private sector). It would build on international experiences for the preparation of such green finance taxonomy.

- *Sovereign Green Bond:* The World Bank will provide technical assistance to the Moroccan Authorities to establish an appropriate governance structure to oversee the government's green bond program, *inter alia* draft the green bond framework, identify a solid pipeline of projects eligible for green bonds in the Program area, develop a communications strategy targeting investors and the broader market, and build necessary capacity to prepare the post issuance allocation and impact report.
- *Environmental Taxation:* The World Bank has mobilized technical assistance resources to support the Moroccan authorities in designing environmental tax reform with the objective to reduce GHG emission. As per government's request, the TA will revolve around the following tasks: (a) Inventory of the various environmental tax instruments existing in Morocco: analysis of their effectiveness and efficiency; (b) International benchmarking for the design of a carbon tax which will involve analysis based on international experience regarding different tax base options, targeted activities, implementation methods (including through a progressive approach). Another important dimension to take into account in this exercise will be the potential alignment of the carbon tax with the European CBAM in order to avoid carbon leakage and royalties to the EU but rather to maintain them at the national level. (c) Macro and microeconomic modeling work, which involve completing the work in progress and assessing the economic and distributional impacts that could be associated with the various elements of the reform of Moroccan environmental taxation could include (decompensation of butane gas; reduction/elimination of fiscal taxes "bonifications" on the introduction of a carbon tax); and (iv) Accompanying measures: based on the results of the micro and macro simulations, design compensation mechanisms to mitigate the potential negative effects of the reform on households, businesses and the economy as a whole.

22. The World Bank has also closely coordinated with other partners to put together a comprehensive TA program in support to RA 1.1. During the preparation process, the World Bank has closely coordinated with other partners engaged to support the climate transition program of the Government and in particular, the operationalization of the Helsinki principles under the MEF leadership. As a result, a comprehensive program of TA from the AFD, the EU and the GIZ, has been put together to ensure complementary, synergy and avoid duplication. This joint TA program will be discussed on a regular basis with the Climate Unit at the MEF to (a) identify/prioritize needs; (b) report on the progress; and (c) discuss potential adjustments.

Coordination with AFD operation in support of RA 1.1

23. The preparation of Sub-RA -1.1 has been carried out in close coordination with the AFD which is preparing a parallel operation (budget support) to be approved around the same time as the proposed Program. The AFD operation will support the four areas covered under RA 1.1¹⁰⁰ and in some cases, the DLI/DLRs defined in the WB operation will also be used by the AFD for their disbursement. As such, the amount allocated for the DLI/DLRs associated to this Sub-RA -1.1 was defined by applying the "value for money" principle, making sure that the cumulative allocation from IBRD and AFD is aligned with the level of ambition and the impact supported by the respective indicators.

24. The World Bank has also closely coordinated with other partners to put together a comprehensive TA program in support of RA 1.1. During the preparation process, the World Bank has closely coordinated with other partners engaged to support the climate transition program of the Government and in particular, the operationalization of the Helsinki principles under the MEF leadership. As a result, a comprehensive program of TA from the AFD, the EU and the GIZ, has been put together to ensure complementary, synergy and avoid duplication. This joint TA program will be discussed on a regular basis with the Climate Unit at the MEF to (a) report on the results but also (b) identify needs and discuss potential adjustments.

Sub-RA 1.2.: Strengthen Climate Data Systems

¹⁰⁰ In addition to the four focus areas under the WB PforR Program (Alignment NDC-Budget, Green Procurement, Sovereign Green Bonds and Green Finance Taxonomy), the AFD also includes a support to the MEF climate unit and a component on greening the business model of the SOEs.



25. **As highlighted in the CCDR, a robust information system is the foundation for effective climate action.** Generating, compiling, sharing, and analyzing reliable information on climate indicators represents a public good that informs effective decision-making processes, for both public and private, and therefore fosters climate action by reducing the level of uncertainty. The GoM recognizes the importance of climate data and climate information systems: (a) in September 2015, the National System for the Inventory of Greenhouse Gases (SNI-GES)¹⁰¹ was launched and gradually implemented, (b) meteorology was included as a new priority in the 2021 NDC Adaptation chapter, and (c) under the leadership of the Mohammed VI Foundation for Environmental Protection, a tool on carbon footprint of economic activities, compiling 350 emission factors adapted to the Moroccan context, has been developed. In line with the recommendations from the CCDR, the Program aims at strengthening national climate data systems to better inform decision-making by public and private stakeholders.

Sub RA 1.2.1. National Climate Network

26. **As highlighted in the CCDR, a robust information system is the foundation for effective climate action.** Generating, compiling, sharing, and analyzing reliable information on climate indicators represents a public good that informs effective decision-making processes, both public and private, and therefore fosters climate action by reducing the level of uncertainty. Morocco has already put in place a credible climate data system, but it faces challenges related to limited coordination between different institutions that are generating this data. While there is already good coverage of observation stations across the country, they fall under the responsibility of various entities with limited inter-connection and inconsistent data quality. As a result, Morocco is limited in its capacity to collect, compile, analyze meteorological data and build robust weather and climate projections.

27. **The Program will support the nascent National Climate Network (*Réseau Climatique d'Etat - RCE*)** by tackling coordination failures between the different entities managing observation stations. Under the leadership of the DGM, the Program will support tools and mechanisms that will enable the creation of a robust ecosystem for climate data generation and analysis, it will also help avail this data to end-users that can integrate them in their decision-making processes:

- **Coordination mechanisms:** By supporting the signing of Memorandums of Understanding (MoUs) between the DGM and other entities managing observation stations, the Program will set up the foundations for the National Climate Network. The MoUs will define the: (a) coordination mechanisms between the DGM and the partners, including the technical support that DGM would provide in terms of data calibration and equipment maintenance, and (b) modalities for data exchange and data sharing.
- **Connection of observation stations to a unique data center:** Morocco is relatively well endowed with observation stations across the national territories. However, these stations are managed by multiple entities (DGM, MEE, Ministry of Agriculture) and a first assessment revealed that they may not generate up-to-standard data. The Program will thus support the connection of the observation stations to the DGM-run data center: for this to happen, adjustments/upgrading may have to be applied to some stations to meet the minimum standards in terms of data quality. By increasing the number of stations connected to the data center, the Program will contribute to enhancing the national capacity for weather forecasts and climate projections, in line with the commitments under the NDC.
- **Data information availed to end users.** Climate data has become a crucial element to inform decision-making for many sectors. This Program will support the access to processed climate data to end-users in 8 sectors, namely agriculture, water, sanitation, energy, forest, banking/insurance, transport and academia (other

¹⁰¹ The SNI-GES was established by decree n°2.18.74, adopted and published in the Official Bulletin n°6766 of April 4, 2019. It plays a key role in the transparency of the implementation of national commitments vis-à-vis the international community and UNFCCC.



sectors could be further considered). Specific conventions will be signed between DGM and end-users and will spell out the specific products that are to be delivered.

28. Enhancing the quality of climate data will directly benefit activities supported by other components, in particular activities under RA-2 on Resilience. This will also help deploy other mechanisms that will also contribute to enhance resilience: in particular, reliable climate data can unlock the potential for parametric agricultural insurance, that would help increase the penetration rate of agriculture insurance, particularly amongst small farmers, and more adequately mitigate the effects of climatic shocks.¹⁰²

Sub RA 1.2.2. Monitoring, Reporting and Verification (MRV) Platform

29. **As part of the Paris Agreement and in line with the Transparency Framework, countries are expected to put in place a MRV platform.** The MRV platform has two main modules: (a) first module on GHG monitoring: this module will build on the SNI-GES system (*Système National d'Inventaire des Gaz à Effet de Serre*) that is already in place and operationalize it; and (b) a second module aiming at monitoring the level of implementation of the measures included in the NDC (mitigation and adaptation). The MRV platform will allow countries to report on the progress in the NDC implementation through the preparation of the bi-annual transparency report (BTR).

30. **The Program will support the set up and gradual operationalization of the NDC implementation module of the MRV platform.** The activities supported under this Program have been closely coordinated with the EU, that is preparing a budget to support operation on "Green Energy". For the MRV platform on NDC implementation, the EU will support partial operationalization of the platform until 2026, focusing only on mitigation. As such, the Program will complement the EU operation by specifically supporting the: (a) the full operationalization of the mitigation measures in the platform in 2028¹⁰³ and (b) expansion of the MRV platform to the eight adaptation measures under the NDC. The MOP will present the coordination mechanism with the EU (notably on the modalities related to verification).

¹⁰² While Morocco has made progress in expanding agriculture insurance coverage, the insurance penetration ratio is still low with only 17 percent of agricultural areas insured against climate risks (drought, hail, frost, rising temperatures, etc.) and a limited access for small farmers (below 3 percent). This agricultural insurance system is largely subsidized by the state to allow farmers to purchase crop insurance and cover themselves against climate risks.

¹⁰³ The objective under the EU operation is to include the mitigation measures for 4 out of the 7 sectors by 2026. The WB would support the integration of the measures for the 3 remaining sectors in by the closing date of the Program.



Results Area 2: Strengthen Coordination to Enhance Climate Resilience in Vulnerable Areas

31. The RA 2 has been designed to support an integrated and coordinated approach to enhance the resilience of vulnerable groups and ecosystems, both at central and territorial level. As indicated in the CCDR, climate change represents a multi-pronged challenge that can only be tackled through a coordinated and multi-sectoral approach. Focus on rural resilience was based on the analytical work conducted as part of the CCDR, the priorities defined under the Adaptation Chapter of the NDC as well as informed by the dialogue with key counterparts. RA2 was specifically designed to stimulate this coordination of approaches and interventions, to enhance rural resilience. The filtering exercise carried out during the preparation (as described in para 14 in the main section of the PAD) helped identify the specific activities to be supported under the RA2, namely to : (a) reinforce farmers' resilience to shocks, through enhanced access to Social Protection; (b) protect and restore of vulnerable ecosystems (oasis and forests); and (c) deploy of nature-based solutions to tackle climate vulnerabilities (while also sequestering carbon).

Sub RA 2.1 - Strengthen Institutional Coordination to Reinforce the Resilience of Farmers to Health Risks, exacerbated by Climate Change

32. **Climate change is projected to exacerbate health risks, particularly for farmers and their family members.** People working in agriculture are identified as particularly vulnerable to impacts of heat and sun exposure as well as respiratory health risks due to dust caused by climate-related events. Public health impacts include a 10-fold increase in heat-related mortality, a higher incidence of skin cancer, respiratory illness, and cardiovascular disease, an increase in diarrheal deaths, an expansion of dengue fever transmission vectors, and declines in outdoor labor productivity. Increased floods due to climate change will also cause extensive direct and indirect health effects, including impacts on food production, water provision, ecosystem disruption, infectious disease outbreak and vector distribution including longer term effects such as post-traumatic stress and population displacement. Children, especially in rural areas and in poorer households, are particularly vulnerable to climate-induced events (notably droughts but also floods) that would exacerbate the risks of malnutrition and stunting, which in turn, would eventually limit their cognitive ability and their productivity during adulthood, further compromising human capital accumulation. Morocco's 2021 NDC included the health sector as a new priority sector under its Adaptation Chapter (see Box A2-2 below).

Box A3-2 – Health sector in the Morocco's 2021 NDC

The revised NDC includes the health sector under its Adaptation Chapter and identifies three sets of objectives to be achieved by 2030:

- *Addressing the three major types of diseases that threaten to undermine health outcomes:* i) vector-borne diseases with the risk of introducing new vectors; ii) cardiovascular disease, which will particularly affect elderly people and a large segment of the workforce, and; iii) diarrheal and respiratory diseases that will disproportionately affect children due to cold waves and floods.
- *Strengthening the health system's capacity by putting in place emergency warning mechanisms and tools to:* i) improve information and warnings to populations during periods of high air pollution; ii) expand the information and capacity of health professionals so that they can effectively contribute to information and awareness campaigns and communicate appropriate protective measures; iii) respond to extreme weather events and health emergency response plans; iv) strengthen actions to monitor air quality and its consequences on health; and v) reduce the risk of disease in wild and farm marine livestock due to emerging pathogens.
- *Build system capacity to increase the resilience of health infrastructure and health and services* through 1) developing health infrastructure design codes and standards; 2) strengthening research and studies related to health and climate change; and 3) developing of community-based training programs for health workers on climate change risks.

33. **Through the generalization of the AMO, the Government aims at better protecting Moroccans, particularly climate-vulnerable populations, against health risks with a focus on those that will be exacerbated by climate**



change. The Kingdom has launched an ambitious overhaul of its Social Protection system, starting with the generalization of the AMO. The reform entails the expansion of the AMO coverage to approximately 3.3 million TNS (and their family members), out of which about 40 percent are in the agriculture sector. It also supports improving the targeting of AMO-TADAMON and integrating it as a non-contributory component of AMO, including harmonizing its benefits with those of the contributory components. Under the *Strengthening Human Capital for a Resilient Morocco* Development Policy Financing (DPF) (P176937), the World Bank has supported deployment of the reform, notably through enrollment of the approximately 1.4 million farmers, which is also an integral component of the Ministry of Agriculture’s Green Generation strategy and is driven by Morocco’s climate adaptation efforts.

34. International evidence shows that health insurance is an effective financial protection tool. A recent review of the evidence on health insurance in low-and middle-income countries (Das and Do 2023) finds that health insurance has achieved its primary stated goal of providing financial protection against health risks. Out-of-pocket health care expenditures decline with health insurance in LMICs, as does the variability of such expenditures. This robust result holds across studies that use different measures of financial protection and across countries where insurance products differ in terms of coverage and benefits. According to the review, access to health insurance also seems to increase utilization for a variety of health services. However, increased utilization of health services does not always lead to improvements in health outcomes. While some of the evidence reviewed shows a causal link between health insurance and health-outcomes, there are studies that failed to establish this link. The result that health insurance increases utilization but not outcomes may be because the statistical power to detect impacts for rare outcomes like mortality requires large sample sizes that are often unavailable, and because studies to date may have not measured the health outcomes that improved, such as mental health. Besides methodological challenges, the authors propose that supply-side responses to the introduction of health insurance such as inadequate quality of care or mis-calibration of the incentives to providers may help explain this result. The review also finds compelling evidence for the low demand from households for health insurance priced at market value and documents how governments have addressed this by subsidizing insurance to make it free or offer it at a nominal price.

35. The progressive generalization of health insurance in Morocco is technically sound. The reform extends access to health insurance either for free to poor or vulnerable rural households (AMO-TADAMON). It also extends coverage through payment of a contribution to non-salaried farmers (AMO-TNS) not certified as poor and vulnerable by the targeting mechanism embedded in the RSU. In addition to subsidizing health insurance for the poor and vulnerable, AMO addresses the low demand from households by making contributions by TNS farmers mandatory by law. The measures supported by this operation provide incentives as and enabling services for TNS farmers to comply with the health insurance mandate. In response to the evidence that health insurance does not automatically lead to improved health outcomes, GoM is in parallel, implementing an ambitious reform in the supply of health services. Reform of the supply of health services, as described below, is supported through a pipeline US\$450 million PforR scheduled for Board consideration on June 15, 2023. The parallel health sector engagement will allow to monitor utilization of health services and citizen satisfaction with the health system. Subsequent population and health surveys will be used to monitor improvement in health outcomes as well as out-of-pocket payments.

36. There is a large gap between the number of farmers enrolled into AMO-TNS and those effectively covered. As of end of February 2023, about 760,000 farmers have been enrolled into the AMO-TNS. About 370,000 farmers are temporarily covered by AMO-TADAMON during the process of recertification of eligibility through the targeting mechanism of the Unified Social Registry (*Régistre Social Unifié* or RSU). Table A3-1 presents the level of enrollment of farmers into the AMO-TNS. It shows that so far, only a very limited number of farmers enrolled in AMO-TNS, have paid their contribution and thus benefit from effective health insurance coverage (only 15,000 farmers).

Table A3-1: Situation of the enrollment of farmers in AMO-TNS as of end of February 2023

Number of farmers



with information transmitted to CNSS	1,546,115
with information validated	1,315,733
under AMO-TADAMON (temporarily)	368,164
with another health insurance	144,177
enrolled in AMO-TNS	758,726
who have paid their contribution to AMO-TNS	15 045

Source: CNSS

37. **The AMO-TNS contribution rates for farmers have been set through a combination of data from the National Agriculture Registry including, revenue, plot size, type of exploitation and agricultural zone.** As a result, farmers are assessed by CNSS as falling into one of nine contribution categories referenced to the Guaranteed Minimum Interprofessional Salary (SMIG). Table A3-2 shows the distribution of farmers across the nine categories based on farmers enrolled in AMO-TNS as of February 2023. It shows that the weighted average monthly contribution is MAD 164, approximately 5 percent of the SMIG, equivalent to two days of the Daily Guaranteed Agricultural Minimum Wage (SMAG) and to 2.5 percent of average total household expenditure for AMO-TNS households (non AMO-TADAMON, non-salaried with a farmer head of household) estimated at approximately MAD 6,412 (based on the 2014 household survey). It also shows that half of the farmers will pay the lowest rate of MAD 122.98 and another 36 percent will fall under the second lowest rate of MAD 160.82.

Table A3-2 Distribution of Farmers enrolled in AMO-TNS by Level of Contribution

Contribution Level	Multiple of SMIG	Monthly Revenue (MAD)	Monthly Contribution (MAD)	Percentage of Farmers
1	0.65	1 930,59	122,98	50%
2	0.85	2 524,62	160,82	36%
3	1.25	3 712,68	236,50	7%
4	1.5	4 455,22	283,80	5%
5	2.5	7 425,37	473,00	0%
6	3	8 910,44	567,59	2%
7	3.5	10 395,51	662,19	0%
8	5	14 850,73	945,99	0%
9	6	17 820,87	1 135,19	0%
TOTAL				100%

Source: Ministry of Agriculture (based on the categorization defined by the decree n° 2.18.622

38. **Under RA 2.1, the Program aims at supporting the effective coverage of the farmers and their family members.** The Ministry of Agriculture has developed a national agriculture registry (*Registre National Agricole – RNA*) that identifies farmers and other land and production characteristics in addition to individual information. RNA information was shared with CNSS, which allows enrollment of the 1.4 million registered farmers. The Program will support the expansion of the effective coverage of this population. To do so, the Program will support measures that will facilitate/incentivize the farmers to contribute to the AMO-TNS

- **Signing of the Convention between the CNSS and six agriculture associations:** In line with the new Green Generation Strategy (GGS), the “Contrat Program” signed between the Government and the agriculture associations (*groupements inter-professionnels*) put the “human element” at the center of their partnership. Under this Contrat-Program, agriculture associations commit to encouraging their members to adhere to the social protection system and subscribe to the social security coverage set up by the State. To do so, the decree n° 2.21.929, published on the Official bulletin on April 10, 2023, set the framework of a Convention between the CNSS and the professional associations. The Program will support, with the facilitation of the Ministry of Agriculture, the signing of the Conventions with six agriculture associations that sustain commercial transactions with their members, namely



(i) Maroc lait, (ii) Fimasuc, (iii) Anoc, (iv) Fisa, (v) Interprolive, and (vi) Inter-Citrus. Altogether, these associations regroup a total of 215,000 members. These conventions will set modalities to allow the associations to pay their members' contribution to AMO-TNS directly to the CNSS.

- **Signing of a Convention between the CNSS, the GCAM and the Ministry of Agriculture:** the Convention defines the modalities to strengthen the partnership between the three entities in order to expand the effective coverage of farmers and dependents. This includes: (a) dedicated financial products (incl guarantees) to ensure the regular payment of the contributions to the AMO-TNS; (b) exchange of data to improve the quality of information on farmers and dependents, while securing confidentiality of personal information (as per Law 09-08); and (c) awareness campaign on AMO through the GCAM network in rural areas. This Convention will also contribute to increasing the financial inclusion of farmers: the level of farmers holding a bank account remains low, at about 41 percent, compared to the national average measured by BAM (53 percent in 2021) and by the Findex survey (44 percent in 2021) with strong social and regional disparities.¹⁰⁴

39. These measures are expected to incentivize the farmers to contribute to the AMO-TNS and enroll their dependents in the system. As such, the Program will monitor the expected results

- **Number of farmers effectively covered by AMO-TNS:** as of now, only ~15,000 farmers are effectively covered by the AMO-TNS. The measures described above, as well as other measures put in place by the Government (including the conditionality of up-to-date contributions to AMO-TNS by farmers to be eligible for agriculture support programs, notably FDA support). The Program will support progressive coverage with an objective of reaching 80 percent of the farmers enrolled in AMO-TNS by the closing of the Program (DLR#7.3).
- **Number of farmers' family members enrolled in AMO-TNS.** As mentioned above, family members (particularly children) are also vulnerable to climate-induced risks. The Program will also support the enrollment of the dependents in the AMO-TNS. Farmers up to date with their contribution to AMO-TNS, can register their family members at the AMO-TNS, which will automatically grant them effective health coverage (with no additional contribution). The Program aims to support the expansion of the effective health insurance coverage for up to 1 million farmers and family members (PDO indicator).

40. **The Program will also contribute to improve the information system on farmers and make the social protection system (including the AMO) more climate-adaptive.** The RNA developed by the Ministry of Agriculture includes geolocation information: combining this information with the climate information generated by the National Climate Network (cf. RA 1.2) would allow the tailoring of parameters of coverage to ensure they encompass climate vulnerability and would enable adaptation to emerging climate risks for these specifically targeted vulnerable groups. This would allow to transition to a more climate-adaptive social protection system. This will also unlock the potential for parametric agricultural insurance, that would also become a major source of resilience of rural households.

41. **While the Program focuses on the demand side (cf. expansion of AMO coverage), other operations support the overhaul of the supply of healthcare, particularly in rural areas.** The combination of health sector demand and supply reforms will create a climate-smart health system where climate-vulnerable populations can adapt to and be treated for the potential increase in climate-induced diseases and receive appropriate health advice. The revamping in the supply of health services and the increased availability of health workers are measures driven by the goal of adapting the health sector to climate change and the NDC 21 health targets. The supply-side reforms aim to

¹⁰⁴ Source: Diagnostic of financial inclusion in agriculture in Morocco. World Bank, 2022



deconcentrate health service delivery and increase accountability of local authorities.¹⁰⁵ The reforms will also include capital investments in climate friendly health infrastructure to adaptively respond to climate-induced health needs in regional areas, increase access and reduce regional inequities. The health workforce will be strengthened through the establishment of a new public service for health professionals separate from the general civil service and by allowing foreign doctors to practice in Morocco. The reforms will also include performance-based incentives for health workers to improve the quality of care.

Sub RA 2.2 - Promote an Integrated Approach to Enhance Climate Resilience in Oasis Ecosystems

42. **Oasis ecosystems face a challenging socio-economic situation, with impacts on access to basic service.** The oasis network expands across an area of about 1.5 million hectares in the South and South-West of Morocco, with about 1.7 million inhabitants. In 2021, poverty rates were higher than the national average with 16 percent of the population living in multidimensional poverty in comparison to 9 percent nationally. Fragmentation of the population plays a role as multidimensional poverty is concentrated in rural areas where 62 percent of the inhabitants live. Most critically, the oasis region is particularly exposed to water scarcity with a per capita availability of renewable water resources of 530 m³/year/inhabitant (compared to the national 620 m³/year/inhabitant). The economy is struggling to provide prospects and income opportunities for people. The oasis economy makes up less than 4 percent of Morocco's GDP and a large share is focused on agriculture (25 percent, when nationally agriculture contributes about 13 percent of GDP). There is a clear need to diversify the regional economy and move to higher value-added products to increase income and resilience of the economy.

43. **Morocco's oasis landscapes are highly vulnerable to climate change.** Distributed along the non-perennial rivers (oueds) and on the shallow aquifers, the Moroccan oases are characterized by a strong irregularity of rainfall in time and space with annual rainfall not exceeding 60 mm. Climate change, through the reduction in annual precipitation and the rise in temperature, has increasingly harmed the delicate balance that allows the oasis ecosystem to function and regenerate. While at the core of the oasis ecosystems, the availability of water resources has depreciated not only in terms of quantity, but, also in quality (with an increased challenge of water pollution). In addition, climate change has exacerbated the risks of disease ("*Bayoud*") and wildfires in oasis areas.¹⁰⁶ These compounded effects have resulted in an alarming level of deterioration of the oasis ecosystems, jeopardizing the rural economy in this region and fueling rural exodus.¹⁰⁷

44. To reverse this trend, the Kingdom established in 2010 the ANDZOA, to coordinate the public action in the Oasis and Argan region: The mandate of ANDZOA is therefore, to improve the living conditions of the local population by promoting an integrated and sustainable management of the oasis, with a particular focus on water resource management and unlocking the potential and opportunities linked to agriculture (incl. promotion of high value-added organic agriculture) as well as eco-tourism. The Kingdom included Oases under its Adaptation chapter on vulnerable ecosystems in its revised 2021 NDC. A new Strategy for the development of Oasis and Argan region is under finalization and is organized around three areas by: (a) strengthening of areas to protect them from climate change, (b) improvement of the conditions of the population and (c) support of economic actors to invest in these locations.

45. **Under the RA 2.2, the Program will apply the "whole of government" principles in the targeted areas of the Oasis region** by fostering an integrated spatial approach and reinforcing the coordination role of the ANDZOA with the

¹⁰⁵ Regional Health Networks will be created to reorganize the service delivery chain and introduce gatekeeping through increased focus on community and family medicine.

¹⁰⁶ Over the past ten years, 574 ha of oases have been ravaged by climate change induced fires causing the loss of 86,687 date palms. In July 2019 alone and following the waves of high heat, the oasis of Aoufouss was the victim of a devastating fire that caused the loss of more than 2,500 date palms and 1500 olive trees.

¹⁰⁷ Source: Morocco CCDR, building on the Groundswell 2.0 report.



various entities (public and private) involved in the targeted Oasis areas. The identification and implementation of the activities supported under the RA2.2. is done through a participatory approach involving the beneficiaries, their organizations, and other different actors involved at the regional and community levels. A particular focus will be given to enhancing the empowerment of women (and youth), by addressing the constraints linked in access to information and capacity and by supporting women/youth-cooperatives and cultural/artisanal activities in the intervention areas. RA 2.2 will focus on the following two dimensions: (a) revitalization of the traditional oasis ecosystems; and (b) preservation of water resources. Through a coordinated approach at the territorial level, this RA will contribute to improving the living conditions of local populations and strengthening their resilience to climatic shocks.

Sub RA 2.2.1. Revitalization of the traditional oasis ecosystems

46. The Program will support the implementation of the “Contract-Program for the date sector” signed between the GoM and the Date Interprofession “Maroc Dates”. The Contract lays the foundation to revitalize the degraded oasis ecosystems through a value chain approach that restore the productive potential of the oases and encourage the opportunities related to valorization of date and date sub-products. In particular, the Program will support the following activities:

- **Intensification and/or replacement of damaged date palm trees:** With this activity, the Program aims to restore and revitalize traditional oases through the intensification and/or replacing date palm trees in oases, especially those damaged (affected by diseases (“*Bayoud*”) or fires, aged). The planting/restoration activity will be carried out by farmers and their organizations, with financial support from the State (through the FDA fund), with hands on technical support from the regional services of the Ministry of Agriculture and ANDZOA, to ensure proper implementation and, sustainable and efficient management of investments. This activity will also boost date production, which is a critical value chain for the Oasis region, notably the Draa Tafilalet region. The date production has been on a downward trend over the past years, resulting in net imports. The revitalization of the traditional oases will contribute to increasing the date production and improving the quality of the products (to become more competitive both on the domestic and international markets). In addition, efforts will also be made to increase the quality and yield. The date value chain also presents an opportunity to create jobs for local population, particularly women and youth.
- **Creation of cooperatives to manage services in the targeted oasis area:** These cooperatives for agricultural and para-agricultural services (created or upgraded) will receive technical support (organizational, management ...) and financial support for the acquisition of small materials, within the framework of the Solidarity Agriculture program. These cooperatives will provide services to date palm producers, for planting, cleaning of clumps, pollinating, harvesting, maintaining date palms. The specific objective is to contribute to the revitalization of the traditional oases by enhancing the management of the palm groves to generate economic opportunities, notably, for young people. To do so, technical and financial assistance will be provided to these cooperatives, through: (i) supporting organization, installation, capacity building and supervision; (ii) provision of equipment necessary to deliver services to the palm tree farmers, in particular, the material for maintaining the palm trees and cleaning the clumps (this operation of cleaning allows to limit the causes of fires). Based on the territorial diagnosis carried out by the Agriculture Development Agency (ADA) under the Solidarity Agriculture program, it is estimated that 10 service cooperatives could be created/upgraded, with an average job creation of 10 persons by cooperative. The Program will ensure that least 50 percent of the jobs created would benefit women and young people (out of which a minimum of 10 percent are for women).¹⁰⁸

¹⁰⁸ This targeting was established based on the diagnosis carried out by the ADA, showing that these service cooperatives have a large potential to benefit young people and women.



- **Creation of two new valorization units of the sub-products of the date palm:** This activity consists of financing construction and equipment for two valorization units related to sub-products of the date palms. These activities will be carried out by the regional services of the Ministry of Agriculture in partnership with the organizations of farmers (cooperatives of farmers, and economic groups or *Groupeements d'Intérêt Economique* GIE) with a technical support of ADA and ANDZOA. Valorization-related activities are expected to also create jobs for rural women/youth that will be environmentally friendly and adhere to resource-efficient processes, such as waste recycling (products from the cleaning of clumps).

47. **The proposed activities under RA 2.2.1 will support a value chain approach for the sub-products of palm trees.** As mentioned above, they are expected to generate economic opportunities (jobs and reinforcement of capacities), specifically for women and young people in the rural areas. In addition, these activities will contribute to the revitalization of the oases by reducing their vulnerabilities to fires¹⁰⁹ through the removal of sub-products and by enhancing the productivity of palm trees (through enhanced yield and quality), while safeguarding available water resources.

Sub RA 2.2.2. Preservation of water resources to enhance livelihoods

48. **Water resources are the heart of the oasis restoration and sustainable management.** Distributed along the non-perennial rivers (*oueds*) and on the shallow aquifers, the Moroccan oases record a strong irregularity of rainfall in time and space with annual rainfall not exceeding 60 mm. While oasis ecosystems entirely depend on water resources, they have been confronted with increasingly acute and long droughts over the past ten years, which have exacerbated the problem of water resource availability, not only in term of quantity, but also, of quality (with an increased challenge of water pollution). To tackle this situation, the MEE has put in place a program to safeguard and restore the water resources in the oasis region. This program aims to strengthen the resilience of targeted oasis areas to cope with climate change, improve the living conditions of the population and contribute to the achievement of the SDGs.

49. **The Program will support the implementation of the program put in place by the MEE to safeguard and restore the water resources in the oasis region,** tackling the compounded challenge of water scarcity and water pollution. This activity aims at preserving the water resources by constructing and/or rehabilitating small and traditional hydraulic infrastructures, building on the traditional knowledge and good practices that oasis communities have accumulated through management of natural resources. Notably, the following activities will be supported under RA 2.2.

- **Recharging of aquifers.** The reduction in annual precipitation and the rise in temperature have threatened the level of water availability in the targeted oasis areas and with climate change, this trend is likely to continue and even accelerate. In order to reverse this trend, MEE will support construction of works for the collection and recovery of rainwater through building: (i) Recharging thresholds to capture rainwater and promote groundwater recharge, and therefore reduce floodwater losses in the desert and (ii) Matfias (underground tanks for the collection and storage of rainwater), to safeguard ancestral practice and know-how. While RA 2.2 focuses on optimizing the water mobilization (through aquifer recharge), water demand side management is supported through other World Bank-financed ongoing operations (Morocco Water Security and Resilience Program (P179192) and Resilient and Sustainable Water in Agriculture (P175747)).
- **Sanitation in the targeted oasis areas.** The protection and safeguarding of surface and underground water resources, particularly in vulnerable regions such as oases, requires urgent sanitation and wastewater treatment (and reuse) to avoid any pollution of the water bodies (rivers and aquifers). Volumes of treated

¹⁰⁹ Over the past ten years, 574 ha of oases have been ravaged by climate change induced fires causing the loss of 86,687 date palms. In July 2019 alone and following the waves of high heat, the oasis of Aoufouss was the victim of a devastating fire that caused the loss of more than 2500 date palms and 1500 olive trees. The degradation of oasis ecosystems is a threat to Morocco's natural resources base and the rural economy.



water could also allow reuse to alleviate the deficit experienced by these regions, especially in recent years due to the impacts of climate change. The Program will support the construction of small infrastructure, such as: (i) wastewater and rainwater networks via pipes and ancillary works (connection boxes, manholes, blind manholes, grating manholes, etc.); and (ii) wastewater treatment systems.

- **Water services (potable water and sanitation) in rural schools.** This component consists of equipping about rural schools with well-designed toilet blocks, promoting the use of appropriate technologies and their maintenance, as well as the supply of potable water. This component is part of the support for the national program, since 2008, for the environmental upgrading of rural schools. It aims at improving the environment and living conditions of pupils in rural schools, with a special focus on girls. Addressing poor water services (identified as one of the constraints for young girls to attend schools) aims at tackling the challenge of their early school drop out in rural areas.

Sub RA 2.3 – Promote Nature-Based Solutions (NBS) to tackle climate vulnerabilities.

50. **Nature-based (and particularly tree-based) solutions have gained momentum to fight climate change.** The potential role of NBS is increasingly referenced in global climate dialogue and policies (recommendation of the Global Commission on Adaptation, Paris Accord, Sustainable Development Goals). NBS also offers high potential to improve soil fertility, recover land productivity and contribute to the achievement of neutrality in land degradation. All these services contribute enhancing resilience to climate change. In addition to their contribution to adaptation, NBS also play a critical role in sequestering carbon (both in soil and biomass). The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) estimates that 37 percent of mitigation is necessary to meet the Paris Agreement delivered through NBS. In the Mediterranean basin, forest ecosystems, that represent major nature-based solutions that deliver critical ecosystem services, are under increasing pressure notably where risks of fires and diseases have increased over the past decades due to the impact of climate change. Thus, it is critically important to safeguard forest ecosystems so they can continue delivering their numerous environmental services (carbon sequestration, soil preservation, water regulation ...). In addition, nature-based solutions should be further expanded, both in rural and urban areas, as they constitute an efficient way to tackle climate change (both on adaptation and mitigation) while also bringing multiple benefits.

51. **The implementation of NBS to tackle climate change is picking up in Morocco.** The Kingdom has launched an ambitious reforestation plan the “*Forêts du Maroc*” Plan 2020-2030 and as part of its NDC, Morocco has included a few NBS interventions contributing to both the mitigation and adaptation agendas.¹¹⁰ In particular, the Kingdom is committed to reforest watersheds, particularly vulnerable to soil erosion (with an objective of 1,500,000 hectares in 22 watersheds by 2030), to reduce the risk of siltation in critical dams that have lost significant part of their mobilization capacity due to erosion. In addition, Morocco has included a program on urban and peri-urban forest management to mitigate the impacts of heatwaves and floods and protect urban residents against these risks.

52. **Like RA 2.2., this RA 2.3 will foster an integrated spatial approach on priority forest areas (watersheds and urban/peri urban forest) under the leadership of the National Agency of Water and Forest (ANEF).** The ANEF oversees deploying the new Strategy “*Forêts du Maroc 2030*” with a strong focus on participatory approach, aiming to reconcile the socio-economic development of populations and the preservation of forest resources through an integrated and

¹¹⁰ The NDC includes tree-planting, reforestation and forest preservation under both Adaptation and Mitigation Chapters.



sustainable management method.¹¹¹ This approach is based on a new model of participatory approach which implies effective participation of local populations in the forest decision-making process and ownership of forest development actions to develop the productive potential of the forest and an adapted ecotourism offer. Under this Program, RA 2.3, the Program will support some of the NBS interventions prioritized under the NDC, namely the: (a) adoption of nature-based solutions in priority watersheds; and (b) establishment of “green belts” in targeted urban and peri-urban areas.

Sub RA 2.3.1. NBS solutions in priority Watersheds to reduce sedimentation in dams.

53. **Dam sedimentation has become a major challenge in the context of water scarcity.** As indicated in the CCDR, the water storage capacity of dams in the country has been affected by the sedimentation phenomenon caused by the erosion from the upstream watershed estimated at about 100 million tons per year (with about 60 percent deposited in reservoirs)¹¹². Other important facts related to siltation of dams include: (a) nearly 20 reservoirs or large dams will be completely silted up by 2040; (b) almost half of the dam reservoirs would lose near 50 percent of their capacity in 2050 and (c) almost all the small dams built would probably be silted up by 2040. Given the pressing challenge of water scarcity faced by the Kingdom, government is accelerating its efforts to reduce the risk of erosion in 22 priority watersheds and preserve the water storage capacity of existing dams. The Program will support the NBS interventions in three following priority watersheds in Beht, El Hachef and Tfer, respectively associated to El Kensera, 9 Avril and Tfer dams, covering a total area of more than 600,000 hectares. These three watersheds have been prioritized based on the severity of erosion related and criticality of the downstream dam to address water scarcity. Interventions in these prioritized watersheds will comprise of reforestation activities (and mechanical correction) in areas presenting a high risk of erosion and land degradation, in addition to, sustainable forest management activities in the watershed. A parallel Technical Assistance on “*Dam’s sedimentation management*”¹¹³ will help identify the hotspots of erosion in the targeted watersheds and define the most appropriate NBS to tackle it.

Sub RA 2.3.2. Green belts in urban and peri-urban areas

54. **Nature-based solutions can also help foster sustainable urban development, while meeting climate adaptation and mitigation goals.** They help biodiversity to thrive and human habitats to become more resilient. Incorporating nature in cities improves their livability, particularly for vulnerable population, by reducing temperatures, filtering water and enhancing air quality. Morocco has included a program of “green belts” in urban and peri-urban areas as part of its NDC strategy. The Program will support the deployment of forest/tree-based solutions (“green belt”) in 10 municipalities, covering about 2,000 hectares. The Program will also support awareness raising and environmental education campaigns, with a specific focus on children and young people, including tree planting and nature observation sessions.¹¹⁴ The Program will also help identify PPP modalities that could unlock the participation of the private sector in recreational activities that could be included in the urban/peri-urban forest perimeters.

¹¹¹ This new approach entails a coordinated approach with various Ministries, notably the Ministry for Equipment and Water, the Ministry for National Education, Preschool and Sports, the Ministry for Agriculture, Maritime Fisheries, Rural Development and Water and Forests, the Ministry of Economic Inclusion, Small Business, Employment and Skills, the Ministry of Tourism, Handicrafts and the Social and Solidarity Economy, the Minister of Higher Education, Scientific Research and Innovation, the Ministry for Energy Transition and Sustainable Development, the Ministry for Youth, Culture and Communication.

¹¹² Japan International Cooperation Agency (JICA) study on Dam Sedimentation in Morocco.

¹¹³ The Technical Assistance is financed by the GFDRR (Global Facility for Disaster Reduction and Recovery) Trust Fund and will use the iteration of the Reservoir Conservation Model (RESCON 2.0) for the evaluation of economic and engineering strategies for dam sedimentation management.

¹¹⁴ It would collaborate with kindergartens and schools to link the green agenda into the education system. Partnership with local NGOs working on environmental topics and climate change will be explored.



55. **The interventions under this RA 2.2. and RA 2.3 will be complemented by a PROGREEN-financed IPF operation (under preparation).**¹¹⁵ The proposed PforR Program (P178763) and the PROGREEN-financed IPF are intricately linked and complement each other. The PROGREEN operation will deliver technical assistance and capacity building to the ANDZOA, in close collaboration with other entities involved in the implementation of RA#2 and RA#3. Specifically, the IPF will finance activities that will develop and pilot innovative Oasis landscapes protection and restoration activities in selected oasis, that will then be adopted and scaled up in other parts of Morocco. In addition, the IPF operation will contribute to strengthening the systems at national and regional levels, such as the Monitoring and Evaluation (M&E) Systems, Social and Environmental (E&S) systems (including Grievance Mechanism system), as well as fiduciary systems. It will also provide targeted technical assistance, both at the national and local levels, to accelerate the implementation of activities prioritized under the PforR operation.

Box A3-3: PROGREEN Support to the Oases and Forests Ecosystems and linkages with the PforR Program (US\$12,350,000)

PROGREEN-financed IPF operation (under preparation and expected to be approved by end of 2023) - RETF (US\$12,000,000)

The overall project's objective is to improve adaptation to climate change and human-induced adverse ecological impacts in the Moroccan oases by developing innovative and resilient activities (both preventive and restorative) that are integrated and multi-sectorial – i.e. including the environmental, social and economic dimensions. These actions aim to enhance and foster ecosystem restoration, protection and production, and improved access to ecosystem services in Moroccan oases.

The operation has two specific objectives: (i) implementation of a resilience development model for the oases' ecosystem preservation to the compounded risks of outmigration, natural resources depletion, and climate change; and (ii) revitalization of local knowledge and traditional practices. To this end, the proposed approach is based on the active participation and engagement of communities and on financing a series of investments, which include sustainable water and land management; rehabilitation of traditional oases for eco-tourism and productive purposes; valorization of local produces and food systems, and capacity building. Such activities are aligned with strategic Moroccan policies, notably, the new strategies for agricultural development, the "Green Generation 2020-2030" and "Morocco Forest", which give priority to the human element, foster poverty reduction and attainment of middle-class status for rural farmers and prioritize environmental protection for the socio-economic development in rural areas.

The project's foundation stems from a participatory assessment carried out by the ANDZOA in coordination with local stakeholders, as well as various community organizations working in the project areas, such as development associations, cooperatives, and other professional organizations. Such a participatory approach is critical to the success of project activities. To strengthen stakeholders' involvement in the whole process, project will provide advocacy, communication, and awareness raising facilitation among project stakeholders, not only on planned activities and sustainable resource management practices, but also on process legitimacy, inclusion, and social accountability. This will ensure continuity and sustainability of the investments beyond project completion. The project will be structured around two main components, namely:

Implementation of the resilient models through the following activities:

- ✓ Restoration of landscape and development of oases area,
- ✓ Protection of oasis landscapes and adjoining degraded range land
- ✓ Rehabilitation of perimeters and irrigation water networks,
- ✓ Prevention and awareness of fire risks,
- ✓ Support the promotion of community services, including green jobs in the oasis's region,
- ✓ Promoting value chain of sustainable tourism,
- ✓ Piloting of Payment for Ecosystems Services (PES) to create and sustain green jobs
- ✓ Implementation of Rural Resilient Index informed integrated oasis landscape plan targeting vulnerable communities and places
- ✓ Support processors projects for rural youth and women

Capacity building of local communities, cultural heritage valorization support, stakeholder engagement and social accountability:

- ✓ Institutional strengthening for inter-agency coordination on oases and forest landscapes management, including innovative and participatory management, M&E, and social accountability.

¹¹⁵ Morocco benefits from a 12 million grant allocation from the PROGREEN TF. This grant will be processed as an IPF, as requested by the Client, as a direct link with the proposed PforR Program.



- ✓ Establishment of an Ecolabel "Oases of Morocco" and the development of a feasibility study for an eco-tourism Master Plan which includes the valorization of tangible and intangible cultural heritage on oasis landscape; traditional productive systems (both pastoralism and oasian agriculture); traditional water management and oasian lifestyle preservation (language, cultural systems, natural resources management)
- ✓ Intergenerational knowledge transfer on traditional natural resources management, landscape preservation, and traditional livelihoods (productive systems, food systems, eco-tourism)
- ✓ Consultation and stakeholder engagement to sensitize, climate resilience and bottom-up development approaches such as through participatory monitoring and, budgeting, and gender responsiveness among local communities.

BETF (US\$350,000):

Development of Payment for Ecosystems Services Scheme: Technical assistance involves (i) conducting a feasibility study and design of a Payment for Ecosystem Services (PES) scheme/program for Oasis Landscape Protection and Restoration and for those geographically contiguous range lands in Morocco; (ii) assessing nature-based solution options with a view to fostering sustainable livelihood and green jobs opportunities in the oasis landscapes and adjoining buffer zones; (iii) developing and implementing a gender-responsive training program and M&E; and (iv) supporting disaster risk monitoring and early warning systems and GIS strengthening. The PES scheme will then be piloted by the RETF and scaled-up/replicated to other parts of Morocco by the World Bank-financed PforR Morocco Climate Operation / Support to NDC (P178763).

Development of Rural Resiliency Index (RRI): The natural resource wealth of a place is central to its ability to prevent, experience and restore its functionality when exposed to natural disasters including extreme weather events such flooding. Specifically, forest stock including the mosaic of land use - landcover dynamics are cornerstone of community resilience. Yet less attention has been paid to integrating forest stock and other nature-based solutions to the computation of RRI. The BETF will also support the development and field testing of the Rural Resilience Index (RRI) – which is a measure of the ability to survive and thrive in the face of uncertainty, including being able to recuperate from shocks and negative impacts. In this context, impacts related to climate change, (such as severe storms and droughts), destruction of natural ecosystems such as Oasis by fire and diseases and natural resources depletion. The RRI is a measure of resilience capacity and effectiveness of resilience-oriented policies interventions in targeted rural areas. It is a practical albeit effective decision making and planning tool that could be used by communities to generate locally relevant data on their current resilience and be able to monitor and enhance their resilience over time. The measurement of rural resilience and its determinants will provide a new handle to deepening our understanding and for the use of nature-based solutions at the community level. This task will entail the development of RRI that will incorporate community resilience into forest and landscape management planning and interventions to gain greater insight into the resilience of oasis communities.



Economic Analysis

56. The RA-1 of the Program focuses on strengthening the institutional arrangements (including tackling coordination failures) as well as setting up national systems (PFM and climate data) that have the multiplier effects to accelerate climate action. The activities supporting green procurement, green finance and environmental taxation promote climate friendly public investment and a robust climate data and information system will strengthen coordination among national entities managing and sharing climate data among various agencies. Considering the difficulties of including such improvements under the ambit of economic analysis, the activities under RA-1 are not included in the economic analysis.

57. The economic analysis considers costs and benefits of program investment under RA-2 from the perspective of national economy. Specific activities considered for the economic analysis are those implemented under: RA2.2 – *Enhance Climate Resilience of Vulnerable Ecosystems* with focus on restoration and value addition of traditional oasis systems; and RA2.3 - *Promote Nature-Based Solutions (NBS) to tackle Climate Vulnerabilities* with focus on restoration of watersheds and management of urban and peri-urban forests.

58. The program investment covers intangibles (national watershed management plans, urban and peri urban master plans, capacity building, etc.) and tangible investments targeting restoration of traditional oasis, rehabilitation of watersheds through reforestation, afforestation, protection, and management of urban and peri-urban forests to enhance resilience and sustainable management of these natural resources while increasing incomes and employment of populations dependent on them. The program investment generates local benefits (timber, fodder, erosion control, hydrological and recreation) and global benefits (carbon sequestration) that directly contributes to achievement of Morocco's NDC priorities.

59. The project is expected to produce tangible and intangible benefits although only the former is estimated and valued in the economic analysis. The intangible investments strengthen the enabling environment (master plans, capacity building, etc.) which are necessary to generate local benefits in terms of: (i) improving resilience and revitalization of traditional oases (palm plantations) and value addition of their products; (ii) reforesting and restoring watersheds; (iii) reducing soil erosion of watersheds and downstream siltation; (iv) rehabilitating and managing urban and peri-urban forests; (v) generating green jobs from ecosystem restoration and conservation. In addition, the program investment has major contribution to global public goods of climate change mitigation and adaption. Economic analysis accounts for climate mitigation benefits from program investment, in terms of GHG removals from restoration of oasis systems and watersheds, and management of urban and peri-urban forests.

60. Table A3-3 presents the indicators of the program activities under RA2.2 and RA2.3. As such, economic analysis includes improvements in resilience and revitalization of the targeted traditional oasis areas, watershed restoration through reforestation, afforestation and engineering structures, and management of urban and peri-urban forests.

Table A3-3: Intangible and tangible investments included in the economic analysis

Indicator	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Intangible							
Urban and Peri Urban Action Plans	#		4	8	11	7	
Tangible							
Erosion reduction infrastructure	m ³	20,000	20,000	20,000	20,000	25,000	105,000
Forest restoration (afforest./reforest.)	Ha	800	800	850	850	900	4,200
Urban and Peri Urban Forest	Nb		4	8	11	11	11
Oasis Forest	Ha	1,400	1,600	2,000	2,400	2,600	10,000

61. Activities covered in the economic analysis are: (i) RA2.2 - traditional oasis restoration; and (ii) RA 2.3 - watershed restoration; and urban and peri-urban forests.



62. *Restoration of traditional oasis systems:* The restoration includes planting of palm trees that are not only tolerant to salinity but also constitute a strong barricade against erosion and desertification. In addition to producing dates, the restored oasis with palm trees allows for production of fodder and other perennial fruits. The average date production of 2000-3000 kg per ha after 6 years and price of dates at DM20 per kg (farm gate price) with an annual 2 percent increase in date price is applied in the analysis. The data used for economic analysis is sourced from ANDZOA.

63. *Watershed restoration:* The reforestation, erosion control measures and improvements of watershed restoration activities are part of the analysis. Data for the analyses was collected from Agence Nationale des Eaux et Forêts (ANEF) and a published study « *Estimation de la valeur économique et sociale des services rendus par les écosystèmes forestiers méditerranéens: Forêt de la Maâmora – Maroc* »¹¹⁶. The products and services from watershed restoration are valued per ha with forest products and services assumed to start from 6 years onwards with timber production at periodic intervals and fodder, other non-timber products and services at annual intervals. The goods and services are assumed to grow at 2 percent per annum.

64. *Urban and peri-urban forest management:* The urban and peri-urban forest management activities are expected to enhance recreational benefits. 30 percent of the willingness to pay for recreational purposes (incremental utility) derived from the Mâamora forest is used to determine the flow of benefits accruing due to improved management of urban and peri-urban forests.

65. The tangible economic benefits of the program investment include:

- increased date production due to restoration of degraded traditional oasis systems and their improved management;
- value addition from conversion of waste from oasis systems into compost, paper, particle board;
- increased production of products and services from watershed restoration. The products include timber, fodder and other non-timber products
- access to subsidies and financial services from national agencies and financial institutions;
- focus on sustainable land management practices;
- strengthening and expanding of existing informal productive alliances;
- generation of additional employment from program supported interventions;
- increased incomes of direct and indirect beneficiaries; and
- increased fiscal revenues and strengthened micro, small and medium scale enterprises (MSME) associated with value addition.

66. The intangible benefits of the program investment include:

- enhancement of food and nutrition security of targeted households;
- reduced damage caused by wind and water erosion and siltation;
- conservation of ecosystems, habitats and biodiversity;
- enhanced GHG removals by sinks;
- strengthened capacities of smallholders and cooperatives;
- enhanced resilience and sustainability of landscape systems.

¹¹⁶ El-Mokaddem, A. 2016. Estimation de la valeur économique et sociale des biens et services rendus par les écosystèmes forestiers méditerranéens : analyse critique et comparative des études en Algérie, au Liban, en Tunisie et en Turquie. Plan Bleu, Valbonne.



67. Key assumptions of the economic analysis include:

- benefits and costs are assessed over 20 years;
- social discount rate of 6 percent per annum;
- price of land and any structures upon not considered in the analysis;
- planted forests in watersheds are expected start yielding products and services after 6 years;
- A 2 percent growth in prices is applied for prices of products and services;
- Low range of shadow price of carbon applied.

Results of the economic analysis

68. Table A3-4 summarizes the results of the economic analysis. The economic analysis considers local benefits from products and services of traditional oasis and forests in the watersheds and urban and peri-urban forests and global benefits of greenhouse gas removals by sinks under oases and forests. The base case scenario with 6 percent social discount rate based on valuation of local economic benefits from products and services (wood, fodder, recreation, watershed protection) of traditional oasis and forests in watersheds and urban and peri-urban areas has a positive Net Present Value (NPV) of US\$136.6 million, an internal rate of return (IRR) of 15 percent and positive Present Value benefit-cost of 1.9. When global benefits of GHG removals/carbon sequestration benefits from restoration traditional oasis, watershed restoration with afforestation and reforestation and urban forests (FUP) valued at shadow price of carbon are added to the local benefits, the total benefits (local and global) in terms of the Net Present Value (NPV) increase to US\$311.9 million, internal rate of return (IRR) to 24 percent, and Present Value benefit-cost to 3.1.

69. A sensitivity analysis considers +/- 2 percent discount rate, +/- 10 percent cost increase and +/- 10 percent benefits, representing the pessimistic scenario (a 10 percent increase in costs and a 10 percent decrease in benefits over the base case and an 8 percent discount rate) and an optimistic scenario (a 10 increase in benefits and a 10 percent decrease over the base case and a 4 percent discount rate).

70. The project, with local and global benefits, is viable under all three scenarios – base case, pessimistic and optimistic scenarios. The project is more sensitive to a decrease in benefits than to an increase in costs reflecting the potential for increasing project benefits with improved project performance.

Table A3-4: Benefit-cost and sensitivity analysis summary

Key Economic Indicators	Project		
	20 Years Discounted at		
	4% Optimistic	6% Base Case	8% Pessimistic
Cost/Benefit Analysis – Local Benefits			
NPV (US\$, millions)	203.6	136.6	88.2
IRR (%)	15%	15%	15%
PV benefit/cost ratio	2.2	1.9	1.7
Viability	Yes	Yes	Yes
Cost/Benefit Analysis - Local and Global Benefits			
NPV (US\$, millions)	426.0	311.9	227.8
IRR (%)	24%	24%	24%
PV benefit/cost ratio	3.5	3.1	2.7
Viability	Yes	Yes	Yes
Sensitivity Analysis			
	Benefit + 10% Cost -10%	Cost + 10% Benefit -10%	Cost + 10% Benefit -10%
NPV (US\$, millions)	502.0	250.9	178.3
ERR (%)	28%	21%	21%
PV benefit/cost ratio	4.3	2.5	2.2



GHG Assessment

71. To estimate the GHG emission and removals balance, FAO Ex-Ante Carbon-balance Tool (EX-ACT) version 9.2 has been used to assess net balance of GHG emitted or sequestered with-project scenario vs. without project scenario. GHG estimation is carried out for a 20-year period (implementation of 5 years and the capitalization phase of 15 years), which is also the period adopted for financial and economic analysis.

72. The program activities covered under the RA2.2 – *Enhance Climate Resilience of Vulnerable Ecosystems* with focus on restoration and value addition of traditional oasis systems; and RA2.3 - promote Nature-Based Solutions (NBS) to tackle climate vulnerabilities with focus on restoration of watersheds and management of urban and peri-urban forests are covered under the GHG accounting.

73. For RA2.2 - the baseline scenario of traditional oasis is the degraded or abandoned traditional oasis, while the program scenario is the replanting of traditional oasis (100 date palm trees per ha) and implementation of improved production practices. For RA2.3 – the baseline scenario is the degraded watershed and low institutional and management capacity of urban and peri-urban forests, while program scenario includes vegetative measures of afforestation, reforestation as well as physical measures for erosion control to restore watersheds; and improved management of urban and peri-urban forests

74. For RA2.2 - the above ground biomass and below ground biomass data of EXACT are updated to reflect the changes in the biomass density of oases. Soils are sandy with low soil organic carbon. For RA2.3 - The above ground biomass and below ground biomass data of EXACT are updated to reflect the changes in the biomass of afforestation and reforestation. Soils are sandy with low soil organic carbon.

75. The carbon balance in terms of GHG removals by sinks (total GHG removals and annual average GHG removals) under traditional oasis, watershed restoration and urban and peri-urban forest management is presented in the table below.

Table A3-5: GHG removals from the restoration of traditional oasis

Activity	Area (ha)	Total GHG removals (tCO _{2e})	Annual average GHG removals (tCO _{2e} /year)
Restoration of traditional oasis	10,000	-3,990,067	-199,503
Restoration of watersheds	4,200	-2,729,950	-136,498
Management of urban and per-urban forests	2,000	-193,101	-9,655
Total		-6,913,118	-345,656

76. The total GHG emission reductions from the project over the 20-year project period is 6,905,673 tCO_{2e} at an average annual net GHG remo emission reduction of 345,284 tCO_{2e}. The GHG estimation reflects the *ex-ante* impact of restoration activities and management practices that have positive impact through an increase in GHG removals from oasis, watershed and urban-peri-urban management practices.

Gender assessment

77. **Gender equality is central to Morocco's NDM.** Among the major reforms undertaken are the promulgation of the Family Code and the adoption of the Constitution of 2011, which enshrines equality between men and women in terms of rights and obligations and, consequently, establishes the principle of parity as an objective that the State must



seek to achieve. In 2021, a new amended law on public limited companies was adopted to promote balanced representation of women and men in corporate governance, setting mandatory quotas for women on the boards of publicly traded companies, with a target of (at least) 30% female representation by 2024, and 40% by 2027.

78. Nonetheless, significant gaps remain mostly in disfavor of women in Morocco. Morocco is one of the few countries in the MENA region where the share of working women is declining and in 2020, Moroccan women still only accounted for only 25.9% of the working population in comparison to 74.8% of men according to a study by the Moroccan national statistical agency (*World Bank, 2023*). The low rate of participation burdens the country's economic growth and prevents sustainable and equal development. It also ranked Morocco 136 out of 146 countries in the World Economic Forum's Gender Gap Index, trailing behind especially in the category for economic participation and opportunity and holding back economic and human development. To support the advancement of gender equality objectives, the following gender gaps, prior actions and results indicators have been identified in connection with the proposed Program.

Table A3-6: Gender dimensions in the interventions supported by the Program

Connected DLI/DLR	Gender Gap Analysis	Action(s)	Gender Gap(s) Results Indicator(s)	Gender Strategy Pillar(s)
RA#1.1 (DLI 1): Revised NDC commitment are adequately costed and financed	<p>Existing disparities between women and men in Morocco increases women's exposure and vulnerability, limiting their level of preparedness and coping capacity to Climate Change compared to men (<i>Morocco CCDR, 2022</i>). Women are more vulnerable to the effects of climate change, including a green transition, than men, primarily since cultural norms prevent them to be employed (25.9% of working age women are in the workforce – against 74.4% for men) and thus lack the financial resources to cope with shocks and are also more likely to be dependent for their livelihoods on natural resources that are threatened by climate change.</p> <p>Morocco has taken concrete steps to ensure women's voice and views are represented in decision-making. Gender-responsive budgeting (GRB) was adopted in 2002 and in 2013 the Centre of Excellence for Gender-Responsive Budgeting in Morocco (CE-GRB) was established to support line ministries and local authorities in effectively implementing and monitoring the GRB process. Moreover, a 'Committee for Gender Cooperation' was established to monitor the yearly gender report (<i>MEDSEA, 2022</i>). In 2011, government also implemented a variety of democratic reforms, including laws that institutionalized and expanded gender quotas at all levels of government.</p> <p>Despite the impact of climate change on women and the progress made there are current constraints that prevent their concerns to be integrated: Firstly, there is a lack of sex-disaggregated data in all sectors to determine the impact of climate change on women and make policy decisions accordingly. Moreover, the</p>	<p>The objective is to first collect gender-disaggregated data and information on climate change. This will help to identify and address specific needs of women and men in relation to climate change and ensure gender issues are considered. This will be used for the revised version of the NDC. This integrated and inclusive approach will help in the prioritization of climate commitments and support both green and resilient development and gender equality in Morocco.</p>	<p>Intermediate indicator: The updated NDC 2026-2035 includes information on gender aspect of the NDC commitment, including sex-disaggregated targets for both adaptation and mitigation commitments</p>	<p>Pillar 4: Enhancing women's voice and agency and engaging men and boys.</p>



Connected DLI/DLR	Gender Gap Analysis	Action(s)	Gender Gap(s) Results Indicator(s)	Gender Strategy Pillar(s)
	current NDC (revised in 2021) is not gender-responsive, meaning it does not include considerations about women and as such, does not prioritize the adaptation and mitigation interventions accordingly.			
RA#1.1. (DLI 4): Green Finance Taxonomy	<p>Women led firms and women-owned firms are scarce in Morocco and face disproportionate challenges, including in accessing finance. According to the latest World Bank Enterprise Survey data in 2019, only 5.4% of firms had female top managers, and only 16.1% of firms had female participation in ownership. Women face socio-cultural discriminatory practices, lack of access to information, networks, market and inputs, and support programs to own or lead a business. An IFC study also determined that the key challenge for women entrepreneurship is financial inclusion, and the use of bank credit remains small. The study estimates that Moroccan women face a credit gap of approximately \$5.6 billion, where about \$3.3 billion of that is faced by micro, small, and medium enterprises (MSMEs). In combination, these constraints will likely constrain green investments for women-owned/led businesses compared to men-owned/led businesses. At the same time, enterprises that are women-owned are more likely to export their products and access foreign investments than male-owned enterprises (MEDSEA, 2022).</p> <p>Thus, there are already existing disparities between women and men in Morocco for accessing finance and a green taxonomy will be instrumental for women and men to access green finance from abroad. Green taxonomy is a system that aims to determine whether an investment is green or not. It is a go-to knowledge bank for investors who want to ensure their money is causing a positive change and will thus shape investment in Morocco. The Commission is leading in shaping the taxonomy and consists of key financial regulators, ministries, financial sector industry associations and those who define the taxonomy.</p> <p>Thus this indicator aims at mandating women's participation in decision making bodies - such as, in the green taxonomy commission, to increase their voice is also in alignment with global and national evidence, which suggests that sociocultural norms and attitudes may prevent women's representation and active participation in decision-making and as a result, their needs and concerns are not addressed and their capacities as agents of change are overlooked in policies and programs (MEDSEA, 2022). Some research has shown that when women are in leadership</p>	To address the outlined gender gaps the aim is to ensure representation of women in the commission through quotas/targets. The green taxonomy commission and their decisions and will have long-lasting impacts on the access of green finance. Thus, ensuring representation of women is likely to contribute to making effective decisions in supporting access to finance, sustainable development and gender equality in Morocco.	<p>Intermediate indicator: Green finance taxonomy commission has at least 25% of women (This target is set slightly above the current representation of women in parliament and is in alignment with international quotas).</p>	<p>Pillar 4: Enhancing women's voice and agency and engaging men and boys.</p> <p>Pillar III: Removing barriers to women's ownership of and control over assets</p>



Connected DLI/DLR	Gender Gap Analysis	Action(s)	Gender Gap(s) Results Indicator(s)	Gender Strategy Pillar(s)
	<p>positions in local governance systems, they invest more in key policy priorities raised by women such as access to drinking water (Chattopadhyay and Duflo 2004). Thus, Morocco has taken concrete steps to ensure women's voice and views are represented in decision-making. In 2011 the government implemented a variety of progressive reforms, including laws that institutionalized and expanded gender quotas at all levels of government with 60 seats reserved for women in the lower house of parliament. Since the adoption of the 2011 law, women's representation in Parliament rose from 17% in 2011 to 23% in 2021.</p> <p>Given the existing barriers to access to finance, it will be key to ensure that women and women's viewpoints are well represented in a commission which would determine what is green and what is not for the coming years. Having women represented in the green taxonomy committee increases the likelihood that the interests of women, especially of women-owned/led businesses, are represented in the green taxonomy.</p>			
RA#2.2. (DLI 8): Oasis ecosystems	<p>Gender-based differences in treatment by society, markets and formal institutions (including the legal and regulatory framework) constrain women's economic opportunities. In Oases the economic situation for women is even more difficult. 83.5% perceive poverty and absence of resources as a key constraint. For instance, only 29% considered their access to agricultural land sufficient, whereas 23% considered it as non-existent. 46% of women are also illiterate (FAO, 2023).</p> <p>Additionally, existing disparities between women and men in Morocco increases women's exposure and vulnerability, limiting their level of preparedness to prepare for climate change impacts (Morocco CCDR, 2022). A priority sector that is both severely impacted by climate change and with a high participation of women is the agricultural value-chain. According to <i>Morocco's SCD</i>, 57 percent of the female population participates in agricultural work. Yet, their contribution often remains unpaid or underpaid, and they have limited access to land, finance and technical advice. For instance, about 73 percent of female labor in the primary sector is unpaid; women earn 50 percent less for agricultural work than men (the largest gender wage gap in any sector in Morocco). Additional data retrieved from <i>ARI's paper (2021)</i> shows that only a minority of female agriculture</p>	<p>The program aims to set-up cooperatives for the date service sector. It is traditionally male-oriented and provides services for the benefit of date palm producers (such as planting, cleaning of clumps, pollination, harvesting, maintaining date palms,...). The creation of cooperatives will generate stable jobs and income to its members to be captured under the indicator "number of jobs created by the service cooperative". The sub-indicator "Percentage of women and youth in the service cooperatives created or upgraded." ensures that a share of women can benefit from the program. The cooperatives will receive both capacity building</p>	<p>Intermediate indicator: 50% of women and young people benefiting from state support under the solidarity agriculture program in the oasis ecosystem (sub-indicator of jobs created). A minimum of 10% of women should be represented.</p>	<p>Pillar II: Removing constraints for more and better jobs</p>



Connected DLI/DLR	Gender Gap Analysis	Action(s)	Gender Gap(s) Results Indicator(s)	Gender Strategy Pillar(s)
	<p>workers have employment contracts and benefit from social security; they have few opportunities for professional advancement compared to male workers; their work is neither recognized nor appreciated in society because of gender roles and responsibilities in rural areas.</p> <p>Cooperatives can play a key role to improving access to economic opportunities in the agricultural sector. . However, women tend to be under-represented in cooperatives in Morocco with 9.1% (<i>HCP, 2021</i>). The Green Morocco Plan on agriculture includes several measures to facilitate women's access to income generating activities through the promotion of cooperatives for agricultural products and services. Cooperatives in Morocco are structured as inclusive institutions which provide employment and the income is shared by all members. In Oases, 64% of women agree that cooperatives have a positive impact on their autonomy. (FAO, 2023). Because women living in the oasis have lower opportunities to generate an income than men, and climate change will severely impact the agriculture sector in Oasis, being involved in a service cooperative will open new employment opportunities for women, while increasing their income, providing job security and autonomy.</p>	and investment from which women will also benefit.		
RA#2.3. NBS solutions (DLI 10)	<p>The usage of forests differs between men and women. While men collect forest products with high commercial value, women collect products for subsistence use. Further with climate change, forest access to collect food, fodder, wood, crops, seeds and medicinal plants diminishes (MEDSEA, 2022).</p> <p>At the same time, women's decision-making power is constrained. In the context of forests, forest association are formed by users to ensure access. Existing studies suggest that only 14% in the Moroccan forestry administration in forest association are women. In leadership positions, this share declines to 5.5% (Stroeber-Beloud, 2015). This comes on top of socio-cultural norms and attitudes that further constrains women's ability to influence programs and decisions that ultimately impact their lives. Also, As mentioned above, women tend to be largely under-represented in cooperatives and associations. And this is no exception to forest cooperatives. Based on the new Gender Action Plan prepared by ANEF, with the support of AFD and UN-Women, one main constraint identified is the limited capacity of women to take advantage of income-generating activities that could be derived from forest ecosystems (timber and non-</p>	As part of RA 2.3 on NBS solutions, the ANEF will deliver capacity building to female members of forest cooperatives/associations to increase their capacities and skills for the valorization of timber and non-timber products.	Intermediate indicator: 25% of women are part of forest cooperatives/associations targeted trainings on valorization fo timber/non-timber products. Trainings will tackle gaps in terms of skills and knowledge, identified as part of the preparation of the Gender Action Plan	Pillar II: Removing constraints for more and better jobs



Connected DLI/DLR	Gender Gap Analysis	Action(s)	Gender Gap(s) Results Indicator(s)	Gender Strategy Pillar(s)
	timber products). As such, the ANEF Gender Action Plan includes the empowerment of women through targeted trainings to enhance their capacity to take advantage of economic opportunities.			



ANNEX 4. (SUMMARY) FIDUCIARY SYSTEMS ASSESSMENT

Scope

1. **A PIU will be established at the DB no later than 30 days after the effective date of the Loan.** MAPMDREF (ADA, DDFP, ANDZOA, ANEF) as part of the Program preparation, FSA of the Program was carried out, consistent with Bank Policy and Bank Directive: “Program-for-Results Financing” and in accordance with the World Bank Guidance Notes for “Program-for-Results Financing”. The objective of the assessment was to examine whether Program systems provide reasonable assurance that the financing proceeds will be used for their intended purposes, with due attention to the principles of value for money, economy, efficiency, effectiveness, transparency, and accountability.
2. **Data collection and methodology.** Assessment was conducted based on (a) data collected from a sample of implementing agencies on their fiduciary performance through fiduciary questionnaire; (b) knowledge of financial management and procurement systems in Morocco; (c) fiduciary data available on the web sites of line ministries and public entities; (c) meetings held with most implementing entities; (d) fiduciary data from previous PforR assessments (MTEDD, ADA, ANEF, DB of MEF, MEE-DRPE); (f) various reports issued by the oversight bodies, namely, the CNCP review decisions published on the CNCP website, the Court of accounts (latest 2021 annual report published in March 2023); and (g) IGF audit reports of annual financial statements of operations implemented in these sectors.
3. **Based on the Program boundaries and expenditure framework, FSA covered the following entities involved in the Program Expenditure Framework (PEF):** MAPMDREF through ADA, DDFP and ANDZOA (Program contract for development of dates palm sector) and selected DPAs and ORMVAs and ANEF (climate resilient reforestation) and selected DEFs; MEF through CNSS (Obligatory Health Insurance AMO-Tadamon); MTEDD (Sustainable development); and MEE through DGM (meteorology) and DRPE (small hydraulic infrastructure) and selected HBAs. The overall implementation and supervision of this Program will be under the responsibility of the MEF, through), MEE (DRPE), MTEDD, and ANEF, involved in several Bank-financed operations given the remaining participating entities have no specific past experiences in implementing Bank-funded operations (PforR). Overall fiduciary performance of PforR operations managed by the MEF are deemed acceptable.
4. **The assessment concluded that with the implementation of the proposed mitigating measures and actions included in the PAP,** the Program’s financial management systems are broadly adequate and provide reasonable assurance on the appropriate use of the Program funds and safeguarding of its assets. The GoM has recently adopted a new national public procurement decree (PPD) No2-22-431, the scope of which is now expanded to include public entities besides ministries and local governments. The new decree includes several enhancements e.g., introduction of rated criteria, most advantageous bid, competitive dialogue, and establishment of an observatory for public procurement. The implementation of new decree is expected to achieve better value for money with adequate levels of transparency, competitiveness, efficiency and fairness by all entities involved in the program. Program’s fiduciary systems are therefore considered adequate to meet the requirements of the Bank Policy and Bank Directive for Program-for-Results.
5. **Program will be financed over five years (from mid-2023 to mid-2028) for a total of US\$ 700.22 million, including an IBRD loan of US\$ 350 million (50 percent) and by the Government.** IBRD financing toward the Program will be made available based on the achievements of DLIs. Program financing is based on the 2023 Performance Projects (*Project de Performance - PdP*) presented by the different entities involved in the Program



and validated by the MEF: the 2023 PdPs cover a 3-year period and an extrapolation was applied to project for the additional 24 months.¹¹⁷

6. **The Program procurable expenditures under these three results areas can be grouped under three main procurement categories as follows:** (a) works (80 percent), (b) equipment, goods and services (19 percent); and (c) consulting services (1 percent) which in total represents 39 percent of the PEF. Additionally, AMO coverage through CNSS (non-procurable items) represents 57 percent. Procurement of services will cover reinforcement of climate considerations in PFM/budget under RA#1. Procurement of goods and works will be covered under RA#1' small-scale land acquisition for the construction of meteorological sub-stations, and under RA#2, agro-sylvo pastoral development works and anti-erosion infrastructure, forests and palms plantations, and rehabilitation of small hydraulic infrastructures. Consulting Services will mainly include the elaboration of some studies. Non procurable items under RA#2 will cover progressive improvement in the coverage of protection of farmers against health risks by supporting the expansion of the mandatory health insurance (*Assurance Maladie Obligatoire*, AMO) of non-salaried workers (*Travailleurs Non Saliés*, TNS)). Pre-requisite actions (resettlement, feasibility studies, social plan) have been reviewed as part of the Program design as to mitigate the risk of low budget execution of the budget appropriation associated with the construction and works. In addition, checks in DLI#8 and DLI#9 and DLI#10 on the quality of implementation of palm trees plants, forests plantation and survival, and quality have been included in the DLI matrix. See Table A4.1 below. A detailed Program Expenditure Framework (PEF) is presented in the core PAD (see table 1).

Table A4.1. PEF by procurement category (Million MAD, US\$ million)

RA	IA	Works US\$ million	Goods and services US\$ million	Consulting Services US\$ million	Annual (Million MAD)	Annual (US\$ million)	Total (US\$ million)
RA 1: Strengthen Policy and Institutional Capacity in Green PFM, Green Finance, and Climate Data	DGM	1.796 (10%)	15.98(89%)	0.1796(1%)	36.648	3.592	17.96
	DDD	0(0%)	16.06(93%)	1.21(7%)	35.24	3.454	17.27
RA 2: Enhance Resilience to Climate of Vulnerable People and Ecosystems	ANDZOA	89.64 (97%)	2.77(3%)	0(0%)	188.6	18.482	92.41
	ANEF	27.675(90%)	0.615(2%)	2.46(8%)	62.384	6.114	30.75
	DRPE	38.71(85%)	3.871(10%)	1.64(5%)	79	7.742	38.71
Total		157.821 (80%)	39.296 (19%)	5.489 (1%)	401.872	39.384	197.1

Legal and Institutional PFM Framework in Morocco

7. **The legal and institutional PFM framework is acceptable for the Program.** The Moroccan public finance system is governed by a legal and regulatory framework that is in line with international standards. Public finances are subject to regular oversight from the Supreme Audit Institution (SAI) and other MEF control bodies (TGR, IGF, and DEPP). Latest SAI's 2021 annual report, which was recently published, highlighted improvements in the State budget deficits and the need for better control of public spending and results-based performance approach for improving performance indicators of Moroccan PFM, streamlined with the NDM.

8. **Specifically, the Organic Law No. 130-13 relating to the Finance Laws (OLFL) (*Loi organique relative aux lois de finances*) promulgated on June 2, 2015,** introduced the three-year budget programming (*Programmation Budgétaire Triennale*) in its Article 5¹¹⁸ and the program budgeting, which is articulated around programs that implement a coherent set of projects or actions and that are backed by objectives defined according to general

¹¹⁷ This estimate includes different expenditure types including works, consulting, and non-consulting services, and goods.

¹¹⁸ Article 5 describes that the "the annual budget law is drawn up by reference to a three-year program updated each year in order to adapt it to the country's changing financial, economic and social situation. This programming aims to define, according to realistic and justified economic and financial assumptions, the evolution over three years of all the resources and expenses of the State."



interest purposes with quantified indicators to measure the results achieved. Overall, planning and budgeting of all central entities involved in the program follow a structured, timely, and disciplined process, which is consistent with the country's Public Finance Management (PFM) cycle and ensures that allocations fit within the available budget envelope.

9. **The Program procurement will be executed in accordance with the GOM's procurement procedures and regulatory framework.** Procurement and award of contracts for under the program will be governed by the new Public Procurement Decree (PPD) No. 2-22-431¹¹⁹, approved by the Council of Government on December 29, 2022, and published in the Official Bulletin No7176, dated March 9th, 2023. The new Decree will replace the existing one (Decree No. 2-12-349 dated March 20, 2013) as of September 1st, 2023. Through the recent procurement reforms, the GoM has taken significant steps to improve governance, transparency, efficiency, and sustainability of its procurement system, including, generalization of digital procurement and establishment of an Observatory for public procurement, of a comprehensive electronic portal to publish tenders, and the establishment of a national committee to hear complaints and coordinate procurement policy. The new procurement decree is largely in line with international best practices of economy, efficiency, fairness, and integrity.¹²⁰

Planning and budgeting

Sustainability, Structure, Adequacy, Effectiveness and Credibility of Budgets

10. **Alignment of the budget with government priorities, classification, sustainability, and predictability are assessed as adequate.**

11. **Fiscal sustainability and implications of the fiscal context on the PforR.** Despite a tightening fiscal space, Morocco's overall medium-term fiscal outlook is adequate to ensure the sustainability of the Program. Given the Government's high priority to conduct public sector reform and digitalization, supported by the Bank financed PforR Program Ennajaa, it is expected to have a positive long-term impact on the fiscal outlook by contributing to broadening the fiscal basis, increasing fiscal revenues, and enhancing efficiency of spending.

12. **The Program will strengthen country systems to manage climate resilient actions through strengthening Policy and Institutional Capacity in Green PFM, Green Finance, and Climate Data.** As such, Government puts climate in its high priority to conduct public sector reform to include climate commitments into State budget going forward, supported by the Bank-financed Program. The Kingdom joined the Coalition of Finance Ministers for Climate Change in 2022 and established a Climate Unit in the Ministry of Finance early in 2023 to spearhead the implementation of green PFM and promote green investments. The same MEF's Climate Unit will play a critical role in integrating and coordinating these priorities for GoM and for this operation. So far and overall, GoM has provided adequate support to all World Bank-funded PforR operations, and no specific fiscal sustainability issue has emerged.

13. **Program financial sustainability.** Program's activities contained in the expenditure framework meet the directions set by the GoM and the entity authorities. Program budget structure is clear in terms of sources of funding, budgetary vehicles, and categories of expenditures. In addition, Program financial sustainability is

¹¹⁹ On December 29, a new procurement decree, decree# 2.22.431, was adopted by the Moroccan government in response to the recommendations of the special commission for the New Development Model.

¹²⁰ The new decree aims to consolidate the public procurement system to provide more clarity to economic actors and improve the business climate. It also seeks to open opportunities for innovation, for new procurement features and approaches such as competitive dialogue and for small businesses and self-employed individuals (self-entrepreneurs) and establish a national preference for domestic products. Furthermore, the new procurement decree includes provisions to strengthen transparency, fight corruption, promote data analytics through the establishment of a procurement observatory and to promote sustainable development. Notably, the new decree includes a scoring system (rated criteria) that considers factors beyond price, such as an enterprise's ability to deliver a project on time and environmental criteria.



ensured through measures taken under the Program aimed at supporting and financing improvements to implementing agencies' capacity for monitoring and evaluation (M&E), as well as enhancements to the existing public financial management system.

14. **The success of the Program will also depend on the enforcement of consolidated policy and institutional frameworks between entities and the implementation of critical activities by each entity.** It depends on the diligence of the entities to achieve these results in the climate space to a high standard while also minimizing cost and time. This risk is exacerbated by the fact that some entities, such as ANEF just transitioned to a different institutional framework as an agency (SOE) delegating construction/management to third parties, and ANDZOA relying on MAPMDREF regional entities, and multisectoral partnerships to implement activities at local level. This risk will be mitigated by the PforR instrument which requires DLIs to be met before disbursement. Mitigation measures will also include a fiduciary capacity building program through the IPF-PROGREEN operation to implement entities involved in RA 2.2 and RA 2.3 of the Program, namely ANDZOA and ANEF. This capacity building program will contribute to strengthening fiduciary and M&E systems, in particular for ANDZOA. This will enable the consolidation of financial execution and reporting under the Program contract on Oases. Program will also depend on monitoring DLI achievement and Program implementation with the establishment of a reinforced PIU/climate unit within DB/MEF.

15. **The sustainability of participating entities' expenditure framework is ensured by the existence of several tools.** First, the three-year budget programming (PBT) is developed in the context of the Public Finance Act. The current PBT covers the period from 2023-2025 and is annually updated through the Budget Laws. Second, a new multi-year program approach, deployed since 2019 with support of the MEF, complements the PBT. Third, the annual performance plan endorsed by Parliament which describes key programs, associated budget and performance indicators. Fourth, the annual performance report summarizes the results achieved and the budget executed for a given year. Program is well included and articulated with the above-mentioned tools. Program budget lines are strongly anchored in the State Budget and prioritized by the GOM. The sustainability of the PEF is ensured as its budget is prepared through a multi-year program approach 2023-2025, which increases managerial accountability and offers better predictability and transparency in public management. The Program has no issues in terms of sustainability.

17. **Funding predictability.** The expenditures of the Program are already planned as part of the Government program as mentioned above and are therefore included in the three-year programming of the Budget law. Expenditures planned for 2023 are programmed in detail in the Budget Law. The Bank fiduciary and task teams will ensure close monitoring of budget programming of this climate strategy year by year with the MEF and ministries covered by the program to avoid any incoherence between the Program expenses and disbursement rate. No specific issue related to funding predictability was identified in the on-going PforR operations in Morocco.

18. **Budget structure.** The Program budget structure is clear in terms of sources of funding, and categories of expenditures. Program will utilize the MEE through DGM (P414), DRPE (P601), MTEDD (P501); MAPMDREF, through ADA, DDFP, ANEF and ANDZOA (P415, P418, and P419), and CNSS (P197: CAS FAPSCS – *Social Protection and Social Cohesion Fund*). *General Budget* of the State is the source of funding for this Budget Program. Its budget structure is aligned with the General Budget of the State, which is conformed with the international budget classification (Classification of the Functions of Government – COFOG) and will be incurred based on a three-year budget program (*Programme Budgétaire Triennal*) between 2024-2027. Expenditure will be subject to procurement following the country's new public procurement decree. This procurement new decree and directives are deemed adequate and are in line with international standards. No specific activity or expenditure has been identified as a high-risk activity.



19. **Effectiveness and transparency.** The Program's activities included under the expenditure framework are subject to the Bank's technical and financial assessments to ensure timely execution at envisaged costs. In addition, Program executing entities will be supported by technical assistance under IPF-PROGREEN and the training plan during Program preparation. Performance budgeting programs of all implementing entities are published on the MEF website on a yearly basis. However, budget execution reports annexed to each Budget law are not enough granular to provide a detailed overview of commitments and payments of each entity. Lastly, transparency will be streamlined in the Program's design through (a) most of the implementing agencies of the electronic government Procurement (eGP) using portal (www.marchespublics.gov.ma) to carry out procurement; and (b) establishment, of a public procurement observatory in 2024, to be in charge of collecting, analyzing and publishing procurement data and performance indicators, as foreseen by the new public procurement decree. Program's own fiduciary risk control mechanisms (which are assessed within the Fiduciary System Assessment) provide further driver on efficacy of expenditures and transparency under the Program. All Program activities are subject to a comprehensive set of measures aiming to ensure effectiveness and transparency.

20. **Procurement planning.** Implementing entities are required to publish an Annual Procurement Plan in a nationally distributed newspaper and on the electronic government procurement (eGP) portal before the end of the first quarter of the fiscal year. APP can be searched [here](#) through the search engine of the eGP portal. However, a recent assessment of the Moroccan eGP has revealed that APP is not interoperable with the e-bidding process. APP is created separately. Different public entities create the plan in different formats, and Invitation to Bid doesn't link or refer to the procurement item in the procurement plan, so the plan and procurement process are not interoperable. APP is also required to be displayed in the implementing entities' premises for at least 30 days no later than the end of the first quarter of the fiscal year. While this requirement is generally being complied with, procurement plans of the different implementation agencies are also advertised on their web sites.

21. **Procurement profile of the Program.** Based on the PEF, 39 percent of expenditures under the Program are procurable. Procurement categories are as follows: (a) works (80 percent), (b) equipment, goods and services (19 percent), and (c) consulting services (1 percent).). Additionally, AMO coverage (non-procurable items) represents (57 percent). Procurement of services will cover reinforcement of climate considerations in PFM/budget under RA#1. Procurement of goods and works will be covered under RA#1's small-scale land acquisition for the construction of meteorological sub-stations, and under RA#2's agro-sylvo pastoral development works and anti-erosion infrastructure, forests and palms plantations, and rehabilitation of small hydraulic infrastructures. Consulting Services will mainly include elaboration of some studies. Detailed review of the Program Expenditure Framework did not reveal potential contracts with a cost estimate above the OPRC review thresholds¹²¹. Implementing agencies are expected to take advantage of the new decree and use some of the new features that the new decree will introduce [e.g., rated criteria, competitive dialogue, use International Competitive Bidding beyond some thresholds (vs open competitive bidding approach under the existing decree), innovative procurement, etc.], as necessary.

¹²¹ Given that the procurement risk is assessed to be substantial, the OPRC thresholds are set as follows: (1) works, estimated to cost US\$75,000,000 equivalent or more per contract; (2) goods, estimated to cost US\$50,000,000 equivalent or more per contract; (3) non-consulting services, estimated to cost US\$50,000,000 equivalent or more per contract; or (4) consultant services, estimated to cost US\$20,000,000 equivalent or more per contract.



Budget execution

Budget Execution Modalities

22. Overall, the Ministries and Entities involved in the Program have had acceptable performance in terms of budget commitments and execution in 2020-2022. Furthermore, the below Table describes the good performance of budget commitments and execution of the ministries and public entities involved in the Program.

Table A4.2 Commitment and payments rates (%)

Entity	Program	Description	2020		2021		2022	
			Commitment	Payment	Commitment	Payment	Commitment	Payment
MAPMDREF								
ANDZOA	P419	Development of rural territories and mountainous zones (Oasis)	100	68.8	100	66.0	100	77.0
ANEF	P422	Forest management and development	91.5	79.2	92.2	80.95	91.5	79.2
ADA	P415-Project#30	Solidarity Agriculture Development program	99%	59%	99%	60%	86%	52%
MEE								
DGM	P414	Meteorology	98.7	79.4	98.1	81.1	97.9	85.3
DRPE	P601	Water (Oases- small hydraulic infrastructure)	95.5	65.0	97.8	73.5	98.5	67.6
MEF								
CNSS	P197	Support to Social Policies - AMO TADAMON	--	--	--	--	100	100
MTEDD	P501	Consolidation of environmental governance and mobilization of all stakeholders	100	89.9	100	91.9	100	93.5

23. All proposed programs included in the PEF by participating entities were screened for the FSA. The identified key challenges are related to slow down in payment rates registered, mainly by ANDZOA and in the case of the Solidarity Agriculture Development Program which is implemented by selected DPAs and ORMVA. Main challenges encountered are due to the nature of the activities carried out (planting), which affect the performance of budget execution.

- a. **MEE, MEF, MAPMDREF and MTEDD have their budget execution monitored by the “Integrated Expenditure Management System (*Gestion Intégrée de la Dépense- GID*) as well as selected regional directorates**, generating budget execution reports and reportings variances. To monitor budget execution, each implementing entity will extract data from GID and use Excel sheet for financial reporting on related program activities, to be consolidated by the DB of MEF. Besides, **MAPMDREF** has developed an Integrated Financial Management system MISAGRI to monitor budget execution at central and local levels. It was deployed since January 2020, through a Bank-financed PforR “Strengthening Agri-Food Value Chains” (P158346) (DLI#8). Reporting is done from this system and is reflected in the MAPMDREF’s execution report. Financial report comprises of a budget execution report which is produced on a semester basis and would allow for improvement of the integrated financial reporting capacity.



- b. **ANEF and selected regional directorates have put in place a procedure to monitor budget execution**, requiring sub-authorizing officers to complete commitments by the end of the second quarter of the calendar year and reach a budget execution rate of 75 percent by beginning of the fourth quarter of the calendar year. However, this procedure still needs to be efficiently implemented by ANEF particularly at deconcentrated levels. Overall, mitigation measures would include reducing the payment delay rate and strengthening budget planning and programming of participating entities. MEF has put in place an observatory for tracking SOE payment delays on a monthly basis, and it will be used by the Program.
- c. **ANDZOA, ADA and CNSS perform monthly or regular budget execution statements which are transmitted to the line ministries.** However, ANDZOA was listed as not responding to only one supplier complaint according to the latest report in *Ajal* Platform¹²², dedicated to streamline exchanges and communication between suppliers and SOEs and improve payment delays for SOE suppliers. Indeed, ANDZOA positions itself with a budget execution that has progressively improved from 2022 onwards. CNSS has robust budget execution monitoring and has just started the implementation of the AMO-Tadamon program at end of CY2022. Close monitoring is ensured by the MEF on the implementation of the social protection program which is a government priority.

24. **Main risks are overall related to the quality of the consolidated financial reports**, which may be compromised by the large number of implementing entities and the lack of a standard reporting format adopted by all these entities. This risk will be mitigated using a financial reporting template, which will facilitate timely production and consolidation of the Program's financial statements. This template will be incorporated into the Program MOP.

Funds Flow Arrangements for Program Implementation

25. **Treasury management and funds flow including disbursement of DLI to the Treasury Bank Account.** Funds flow arrangements for Program implementation are adequate. Program's funds will be reflected in the Government budget under the MEE (DGM), and MAPMDREF (ADA, DDFP, ANEF, ANDZOA), MTEDD (DDD), and MEF (CNSS). In fact, the expenditures of the Program are identified in the State budget through the Budget law and detailed in the annual budgets of the participating entities. All the implementing agencies will use the government's TSA to make payments under the program. Specifically, for the payments of invoices related to activities to be implemented by the participating ministries and entities, funds will flow directly from TSA to service providers, consultants, and constructors. GoM's institutions of controls will reserve the right to verify the expenditures ex post, and actions that might be requested for any noncompliance with the rules. Programming is sufficiently clear and detailed to allow adequate reporting on the implementation of the expenditures planned under the Program subject to effective implementation of the capacity development program (PAP).

26. **For advances, prior results and achieved results, the funds will be disbursed to the Government's TSA.** Specifically, GoM would claim disbursements from the World Bank as the DLIs are achieved. All DLIs will be independently verified by the inspectorates general of lines ministries involved in the Program. As such, IGA, IGE, DAIR, and IGF will be the Independent Verification Agencies (IVA): these entities were assessed and deemed as acceptable by the Bank. IVAs will prepare the Results Verification Report, which will be shared with MEF and the World Bank. A key use of the Results Verification Report will be to confirm and certify the technical achievement of the results/indicators. If the World Bank finds that the disbursement request meets the terms of the Financing Agreement, the World Bank will disburse the corresponding funds to the Treasury Bank Account

¹²² Ajal platform <https://ajal.finances.gov.ma>



opened at BAM. External audit reports will confirm the total expenditures incurred to achieve these DLIs versus the eligible expenditure incurred to achieve these DLI/DLR.

27. **Financial reporting.** MEF, through a PIU established, will oversee the preparation of the Program consolidated annual financial statements and periodic budget execution reports and monitor the eligible expenditures against the DLI achieved. Consolidated financial statements of the Program include the financial statements prepared by participating entities to the Program. The format will be defined in the MOP. The DB will centralize financial information and oversee the work of the PIU including financial reporting. The Technical Committee will oversee Program activities and management including fiduciary work. Program's budget execution reports and consolidated interim financial statements will be prepared on a semester basis by this PIU. Annual financial statements will include the financial execution of each Result Area and the data will be collected from participating entities.

28. **Specifically, similar to most of the Bank-financed operations in Morocco, a spreadsheet "Excel" and data** extracted from the national budget execution software GID and Integrated Revenue Management System (*Gestion Intégrée de la Recette-GIR*), will be used to prepare Program's periodic consolidated budget execution reports and consolidated annual financial statements which in turn, may impact the quality and timeliness in the preparation of those reports and submission of audited financial statements. During implementation, a Program Progress Monitoring Report will also be submitted annually to the Bank. The outline of such Report will include financial statements, physical realizations, progress on results indicators, achievement of DLIs, reporting on grievances and allegations of fraud and corruption.

29. **The accounting system used by MEE, MEF, MTEDD, and MAPMDREF is the GID hosted by TGR.** This system allows the authorizing departments to extract the data, run reports anytime to present accounting situations (expenditures, commitments, payments, etc.) and budgetary situations linked to various movements of appropriations (delegations of appropriations, transfers, etc.). Through this tool, suppliers can track end-to-end traceability of acts related to public procurement including the electronic payment of public expenditure, an electronic invoice filing system and automatic settlement and calculation of default. In Morocco, all financial and accounting operations of the Government are carried out, controlled, and accounted for according to the public sector accounting standards presented in the Public Accounting Decree No. 330-66 (21/04/1967) (*Décret sur la Comptabilité Publique*), which is on a cash basis.

30. **Meanwhile, public entities, such as ANEF, ADA, and ANDZOA, are using two accounting systems:** general and budgetary in accordance with the public accounting reform promulgated by the Organic Law Related to Finance Law. The accounting system used by entities allows the authorizing departments to extract the data and run reports to present accounting and budgetary situations linked to the various movements of appropriations. For newly created ANEF, a new budgetary and accounting system has been adopted, which is being deployed to ensure: (i) continuity of expenditure management; (ii) management of expenditure from previous contracts at central and regional levels; and (iii) consolidated reporting from the various executing entities at central and provincial levels. ANEF has an ongoing technical assistance to support operationalization of a three-dimensional accounting system (budgetary, general, and analytical accounting).

31. **At the local level, MEE and MAPMDREF will rely on selected HBAs, DPA and ORMVAs.** Accounting for selected HBAs (Draa Oued Noon and Guir-Ziz-Rheris) is externalized to meet the requirements for regular financial reporting to MEE. Upgrade of all HBAs accounting systems is underway and will be integrated. Meanwhile, DRPE will ensure oversight on selected HBAs to provide regular financial execution reports on Program activities. Similarly, MAPMDREF through ADA, DDFP, ANDZOA will coordinate with selected DPAs (Assa, Guelmim, Figuig and Tata) and ORMVAs (Souss-Massa, Tafilalet, and Ouarzazate) in charge of execution of



procurement and financial management of related activities in-site. While DPAs use GID, selected ORMVAs use the accounting principle applicable to government institutions and public agencies, and a software called “SAP” for integrating budgetary and general accounting modules.

32. **Specific systems and capacity-strengthening and/or mitigation measures and time-bound actions are included in the PAP** to address the above risks and aim at ensuring adequate budget and procurement execution of the public expenditure framework, effective accountability and transparency mechanisms, and achievement of expected results. This includes : (i) appointment of dedicated fiduciary staff within the PIU at MEF to support preparation of consolidated financial reports and statements of the Program; (ii) implementation of a capacity building program, including on the new procurement decree; (iii) external auditors’ TOR that will include requirement to review Program expenditure for ineligible contracts; (iv) eligibility verification to ensure any person or entity debarred or suspended by the Bank, or by another multilateral institution with which the Bank has signed a cross debarment agreement, is not awarded a contract under the Program during the period of such debarment or suspension; (v) preparation and implementation of a clause in the bidding documents on the handling of complaints, which includes a detailed description of the procedure through a timely and fair redressal of complaints; and (vi) strengthening budget planning of all implementing entities through the preparation of an Annual Work Plan and Budgeted (AWPB); (vii) reinforcing the PforR fiduciary coordination, expenditure reconciliation, and financial reporting that the PAPs will support: (a) development of a standard template for fiduciary reporting to relevant implementing entities to strengthen the PforR fiduciary coordination, expenditure reconciliation, and financial reporting; (b) deployment of performance management with the support of the Bank’s fiduciary team through monitoring key fiduciary performance indicators; and (c) enhanced coordination between the implementing entities.

33. **The Program ex ante and ex post arrangements were found adequate to address the risk of fraud and corruption.** These arrangements comprise of several effective institutions playing complementary roles (Ombudsman office, the Court of accounts, and IGF). PIU will collect, with support from the abovementioned institutions, and report to the Bank allegations occurring under the Program via the annual progress reports during Program implementation. Reporting format will include the following (i) location, and date of the complaint; (ii) description of the allegations; (iii) description of progress in investigation; and (iv) investigation outcome. These main risks and corresponding mitigation measures will be reviewed and detailed in the PAP.

34. **Procurement processes and procedures.** Procurement processes and procedures at the level of different Implementing Agencies were assessed based on meetings with implementing agencies and data from a sample of implementing agencies collected through a Fiduciary questionnaire. As of September 1st, 2023, different implementing agencies’ procurements systems will be governed by the new procurement decree# 2-22-431. The new procurement decree was approved by the Council of Government on December 29, 2022 and published in the Official Bulletin#7176 dated March 9, 2023. The new decree aims to strengthen the public procurement system to provide more clarity to economic actors and improve the business climate. The new procurement decree has incorporated very interesting value for money and is fit for purpose features, which include: (a) ICB is now explicitly set forth in the decree beyond certain thresholds (MAD10 million for works and MAD1 million for goods and services) ; (b) Introduction of rated criteria and the most advantageous bid are new features of the decree ; (c) Innovative procurement and unsolicited offers are also introduced; and (d) Competitive dialogue is now available. Furthermore, the new procurement decree includes provisions to strengthen transparency, fight corruption, and promote data analytics through the establishment of a procurement observatory. Additionally, the new decree provides reasonable assurance on the achievement of the core following principles: (a) free access to public procurement; (b) equal and equitable treatment of bidders; (c) fairness and protection of bidders’ rights, and (d) transparency. Additionally, the implementing agencies’ procurement systems adhere



to the rules of good governance and provide for sustainable procurement. Bidding documents are overall based on the guidance note¹²³ and the standard bidding documents¹²⁴ that were issued by TGR in 2015. Procedures for bid submission, receipt and opening are clearly described in the document called “*Consultation Regulations-Règlement de consultation*” which is part of the bidding documents. Qualification, evaluation, and award criteria are clearly defined in the bidding documents and are complied with during evaluation. Based on the published Annual Procurement Plans of the implementing agencies, open tendering is the default method of procurement.

35. Record Keeping and Document Management Systems. The contracting authorities are required to keep records of all procurement transactions for at least five (5) years, and these records must include all documents related to the procurement process, such as the procurement plan, specifications, invitations to bid, bid evaluation reports, contracts, invoices, payment records, and any other relevant documents. The contracting authorities are also required to ensure that these records are organized and kept in a way that ensures their accessibility, reliability, and integrity. Additionally, with the generalization of electronic submission, contracting authorities must establish an electronic procurement record management system that complies with the technical and legal requirements established by the Ministry in charge of finance. While the implementing agencies didn't provide details about the way record keeping is being implemented, this requirement is generally complied with given the robust audit institutions and legal framework in Morocco.

36. Controls, oversight of procurement and audits. In Morocco, public procurement oversight during the procurement and contract award process is mainly performed by the TGR for the State and Territorial Collectivities; and by DEPP for EEPs. While each agency conducts its own procurements, the TGR and DEPP oversee a network of “public comptrollers,” who sit on tender committees. Furthermore, the TGR has implemented the Moroccan Public Procurement Portal (e-procurement) and integrated systems to track and implement budget spending and to process payments (GID). In addition to TGR, the Court of Accounts (CoA) conducts post audits on procurements and issues reports identifying weaknesses or irregularities that are shared with the public. CoA’s jurisdiction covers all government acquisitions including those implemented by local governments and state-owned entities. CoA audits are conducted on a systematic basis and are not done randomly. While CoA does not have a specialized task force for procurement, it has many technical experts who have specialized knowledge of each of the sectors covered by CoA. Additionally, as per article 159 of the new procurement decree (# 2-22-431), all contracts whose value is MAD 3 million and higher for contracts awarded through open competitive Bidding process and MAD 1 million and higher for direct contracts are subject to a systematic procurement audit. While these reports are searchable on the Moroccan Procurement Portal (here: <https://www.marchespublics.gov.ma/index.php?page=entreprise.ListeSRA>), the documents published are not necessarily related to procurement audit. They sometimes include procurement plan and other types of documents. Therefore, to strengthen the program’s procurement oversight and audit, the implementing agencies will be required to timely and accurately publish all procurement audit reports under the program on the public procurement portal.

37. e-Procurement. Public Procurement plays an important role in the national economy of Morocco. In 2022, the Moroccan Government spent 245 billion DHS, which is almost 20percent of the total GDP. This important activity inspired the government to prioritize modernizing public procurement. In 2007, the TGR launched a basic form of e-Government Procurement (e-GP) and developed its features over the years, culminating in 2022 when it became mandatory for all public entities to use. As of 2021, and based on information provided by TGR, 35K invitations to bid have been published through the e-GP portal and generated 84K+ electronic submissions for a total estimated contracts’ cost of MAD 126 billion, representing more than 50 percent of that year’s total

¹²³ Available here : https://www.marchespublics.gov.ma/pmmp/IMG/pdf/note_relative_aux_documents_type_des_marches_publics.pdf

¹²⁴ Available here : <https://www.marchespublics.gov.ma/pmmp/spip.php?article122&lang=fr>



procurement. Currently, 4400 public entities, 600+ public companies, and 28K providers and suppliers are registered on the system, with 1826 being foreign (6.5 percent). All Implementing agencies are using e-GP. Recent assessment of the GoM's eGP systems concluded that the system is generally compliant with Multilateral Development Banks' e-GP Guidelines, and the Bank will gradually start accepting the e-GP system in the Bank financed contracts under IPF Operations.

38. Public procurement decree has a complaints' handling mechanism. After the provisional contract award, there are 15 days of a standstill period. During this time, complaints can be filed, and decisions received. If not satisfied with the decision made, the bidder may file a complaint again. The 1st and 2nd appeals should be resolved within 15 days. After 15 days, if the dispute is not resolved, the bidder can appeal to the minister. The minister must respond within 30 days. A bidder can go for an administrative appeal to the National Commission of Public Procurement (CNCP) and court at any time. Normally, the procurement process does not stop because of judicial review. The complainant may get compensation if the decision is made in favor of the complainant. However, based on the information collected from a sample of implementing agencies, no procurement complaint has been reported in the last three years. This is mainly because of the lack of an appropriate procurement complaints' handling mechanism by public entities in Morocco where procurement-related complaints are often dealt with as part of any type of "Request for information". Additionally, based on the information published in the CNCP's decisions, in 2022, 32 complaints were received. On average, CNCP makes its decision in about 103 working days which is much higher than the 30 working days period set forth in the decree established by the CNCP¹²⁵. Therefore, there is a need to strengthen the program's procurement-related complaints handling mechanism.

39. As to the possibility of filing a complaint electronically, the institutional portal of TGR has a space with a dedicated page and complaint form where bidders could submit complaints¹²⁶. Complaints about public procurement could be selected among from a drop-down menu of Category of common complaints.

40. Additionally, there is a list of debarred firms on the e-GP portal (PMMP). If the scope of abuse is limited to a single department, the minister will sign the decision placing the company on the blacklist. The second case is that of a broader exclusion where, the bidder is excluded from all public procurement processes, and this needs the approval from the head of the government. The blacklist is publicly available and can be searched through the search engine of the portal¹²⁷. Some blacklists are temporary, while some are definitive. The list shows the reason for blacklisting, beginning and end date of blacklisting, type of blacklisting: whether partial (Only within a department) or total blacklisting. The decision document is uploaded and accessible to the public.

41. Procurement performance. Data is collected from a sample of implementing agencies (DRPE, ANDZOA, ANEF) to assess the quality of the program's procurement in terms of timeliness, openness, competitiveness and compliance with applicable rules. The table below summarizes key performance indicators measured.

¹²⁵ As per Article 32 of Decree No. 2-14-867 of September 21, 2015 establishing the National Public Procurement Commission, the handling of complaints shall be carried out by the competent bodies of the commission in accordance with a maximum period of fifteen (15) working days from the date of receipt of the complaint letter. This period may be extended for a period of fifteen (15) working days by a reasoned decision of the president of the commission, which shall be notified to the interested parties.

¹²⁶ Available here

https://www.tgr.gov.ma/wps/portal/!ut/p/b1/04_Sj7SwMDEzMDM3t9SP0I_KSyzLTE8syczPS8wB8aPM4i28fc0snAwdDSx8LAWMHAP9nAOC3QKN3QOMgQoigQoMcABHA3z6DUwNofoRCIz8QApcAiwcU0NDIKMibMfjwUE9IfR6EpwXQBWAE-LxLypJ9Hfm6qfm5UjpubpWeWiaOilgDg-M1L/dl4/d5/L2dJQSEvUUt3QS80SmtFL1o2XzhLTTY4QjFBMDhMODAwQVFOQ1BTREzMKYw/

¹²⁷ Available here: [https://www.marchespublics.gov.ma/index.php?page=entreprise.EntrepriseRechercherSocietesExclues&search=1`](https://www.marchespublics.gov.ma/index.php?page=entreprise.EntrepriseRechercherSocietesExclues&search=1)



Table A4.3. Procurement Performance Indicators

Year	Average length of procurement Processes (days)	Time for preparation of bids (days)	Time for bids evaluation (days)	Distribution of awards by procurement method		Average number of bidders submitting a bid in each bid process.	Tenders		Unsuccessful bids
				Open	Direct contracting		#	Total amount (MAD million)	
DRPE									
2021	54	44	23	124	1	05	150		8
2020	41	41	17		1	05	144		
2019	56	44	18		1	05	122		
ANDZOA									
2022	148	29	15	17	0	10		42,294,263	2 (10.5%)
2021	169	25	17	20	0	06		68,463,218	9 (37.5%)
2020	161	24	16	20	0	08		96,809,739	4 (15%)
ANEF									
2022	96		65		0	0		915	8
2021	91		59		0	0		1422	7
2020	82		42		0	0		1158	12
2019	91		53		0	0		1589	8
2018	74		45		0	0		1656	8

42. **The key takeaways from the above table are the following:** (i) open competitive bidding is the default procurement approach used in Morocco; (ii) while the procurement decree limits the average length of procurement process to about 2.5 months, some implementing agencies (ANDZOA and ANEF) go far beyond this deadline; and (iii) despite recording an unsuccessful tender rate of around 37.5 percent in 2021, which could be attributed to the difficulties faced by companies during the COVID period, ANDZOA's commitment rate was 100 percent for the same year. This demonstrates ANDZOA's ability to effectively manage the execution of its annual procurement program.

43. **Fraud, corruption, and debarment of Contractors.** Morocco's Constitution, enacted on July 1, 2011, explicitly mentions the need to fight corruption and ensure good governance and transparency as fundamental tools of public sector management. It also recognizes the right to citizen participation in government decision making and public engagement, as well as the right to access public information. The 2011 Constitution sets the groundwork for more transparency and efficient use of public resources, through Title II on conflict of interest, misconduct in public procurement, misuse of public funds, greater transparency, accountability, and fight fraud and corruption and through Title XII for good governance. INPPLC (Instance centrale de la probité, de la prévention, et de la lutte contre la corruption) oversees the prevention of corruption. It conducts awareness raising and information campaigns and has set up a database and a whistleblowing system to allow citizens to alert on corruption cases. Furthermore, the client has been sensitized during the preparation phase that it must ensure that any person or entity debarred or suspended by the Bank is not awarded contract under or otherwise allowed to participate in the Program during the period of such debarment or suspension. Additionally, based on the information collected from a sample of implementing agencies, no allegations of fraud and corruption over the last 3 years have been reported by any of the assessed agencies. This might be due to the absence of systematic reporting arrangements. Therefore, an appropriate protocol/arrangement to fight fraud and corruption under the program needs to be developed in the MOP and used by the implementing agencies.



Internal Controls

Administrative Controls

44. **System internal controls system.** The internal controls systems applied for MEF, MAPMDREF, MEE, and MTEDD are well defined and adequate. Entities are endowed with adequate internal control platform (manual of procedures, information management system, segregation of duties between the budget holder and the accountant, culture of results, risk map). Assessment of the effectiveness of the current practices by the Bank team did not reveal any significant issue. No major internal control systems issues were reported in the line ministries as per the latest internal audit reports.

45. **For instance, MAPMDREF has an adequate internal control platform including a Manual of Procedures,** information management system, segregation of duties between the budget holder and the accountant, culture of results, and risk map. The assessment of the effectiveness of the current practices and the audit reports of the MAPMDREF by the Bank did not reveal any significant issue. At the level of ANDZOA, ANEF, ADA, and CNSS the internal control system of these entities is based on a strict separation of duties between the budget holder and the accounting officer and on ex ante and ex post control of commitments and payments. They also have manuals of accounting, financial procedures, risk mapping and systems for managing financial and accounting information.

46. **An in-depth annual review of the entities' internal control framework will be carried out by IGF combined with its financial audit of the Program's financial statements.** The World Bank's role in this regard will be to (a) review and clear the TOR; (b) review the reports on the in-depth review and identify key issues if any; (c) ensure establishment of and continued existence of a framework by the entities to address risks and issues; and (d) periodically review follow-up corrective action by the entities in response to the findings from the report.

Internal Audit

47. **The MEF, MAPMDREF, MTEDD, and MEE have Inspectorate General (*Inspection Générale ministérielle – IGM*) performing inspection duties and internal auditing functions at central and local levels.** The ANEF's Internal Audit Department (DAIR) is an audit and control body reporting to ANEF and carries out internal audit missions for the agency. As confirmed by the recent PEFA assessment, "*MEF, Ministry of Equipment and Water, and Ministry of Agriculture have an effectively operational IGM.*" The decree of 2/12/2005, endorses that all ministries must have a Ministerial General Inspectorate (IGM), as well as an audit and management control unit.

(a) **MAPMDREF, DDFP.** IGA carries out internal audits for MAPMDREF and its departments, including DDFP. This entity is endowed with adequate auditors and administrative staff. IGA's reports are submitted to the Ministry. The World Bank reviewed the performance of this entity which plays the role of an independent verification agent for the existing PforRs managed by the MAPMDREF. Its performance was assessed satisfactory.

(b) **ANDZOA, ADA, ANEF, CNSS.** These public entities have an audit committee, an internal audit department, an audit manual and an internal audit charter. These entities and documents enable them to adopt annual audit plans, monitor their execution and ensure the implementation of recommendations. These internal audit assignments are generally programmed according to a risk-based approach and the reports are transmitted to the CEOs of these entities. Operationalization of internal audit in the DAIR in ANEF would need to be strengthened in terms of adequate and sufficient staff to perform regular internal audit missions at the central and regional levels. DAIR has staff with mostly technical and administrative profiles. For ANDZOA and ADA, the internal audit unit is operational and



performs regular missions.

(c) **MEE.** The inspectorate general of the MEE (IGE) ensures the internal audit function for all directorates of the MEE at central and regional levels. To ensure the conduction of the IGM's annual audit plan, ministry created an internal audit division in 2017 with adequate staff (3 dedicated staff). The IGM has adequate tools including (i) manual of audit, and (ii) internal audit Charter. The missions of the IGM are conducted based on the annual work programs. An annual activity report is prepared at the end of the year and submitted to the Minister of the MEE.

(d) **MEF.** The General Inspectorate of Finance (IGF) is a robust audit and control body under the authority of the Minister of Finance and is also called upon to perform internal audits inside and outside the perimeter of the MEF. An in-depth annual review of the entities' internal control framework will be carried out by IGF combined with its financial audit of the Program's financial statements.

48. **Measures will be adopted to ensure effectiveness of the operationalization of new internal audit units where needed in the Program in collaboration with IGF, IGA, DAIR, and IGE.** It would ensure that appropriate internal control and audit procedures are put in place for the Program.

Program Governance and Anticorruption arrangements

49. **Risk of fraud and corruption.** The Program's *ex-ante* and *ex-post* financial controls were found adequate to address the risk of fraud and corruption. The proposed arrangements comprise several effective institutions playing complementary roles: Ombudsman Office, Court of Auditors, the IGAT, the CNCP, and IGF. For the purpose of this operation, additional efforts will be made and compliance with actions related to fraud and corruption as detailed in below paragraph will be monitored over the implementation period. More efforts are also still needed to ensure that audit reports are broadly made available to the public and there is effective follow-up of administrative and/or judicial actions and that these are dutifully applied.

50. **Actions related to fraud and corruption.** The Borrower commits to implement the Program in accordance with Bank's Anti-Corruption Guidelines "GUIDELINES ON PREVENTING AND COMBATING FRAUD AND CORRUPTION IN PROGRAM-FOR-RESULTS FINANCING DATED FEBRUARY 1, 2012, AND REVISED JULY 10, 2015". The Borrower will: (a) take all appropriate measures to ensure that the Program is carried out in accordance with the Bank's Anti-Corruption Guidelines; (b) take all appropriate measures to prevent fraud and corruption in connection with the Program, including (but not limited to) adopting and implementing appropriate fiduciary and administrative practices and institutional arrangements to ensure that the proceeds of the Loan are used only for the purposes for which the Loan was granted; (c) promptly inform the Bank of all credible and material allegations or other indications of fraud and corruption in connection with the Program that come to its attention, together with the investigative and other actions that the Borrower proposes to take with respect thereto; (d) unless otherwise agreed with the Bank with respect to a particular case, take timely and appropriate action to investigate such allegations and indications, report to the Bank on the actions taken in any such investigation, at such intervals as may be agreed between the Borrower and the Bank; and, promptly upon the completion of any such investigation, report to the Bank the findings thereof; (e) if the Borrower or the Bank determines that any person or entity has engaged in fraud and corruption in connection with the Program, take timely and appropriate action, satisfactory to the Bank, to remedy or otherwise address the situation and prevent its recurrence; and (f) ensure that any person or entity debarred or temporarily suspended by the Bank is not awarded contract under or otherwise allowed to participate in the Program during the period of such debarment or suspension. The Bank's debarment list, which is easily accessible, will be checked by all procuring



entities before awarding contracts. As regards the list of temporarily suspended firms, each implementing agency will access the same through Client Connection for which one representative from each of the implementing agency shall be nominated for granting access to the Client Connection by the World Bank. The borrower will develop and operationalize the mechanism for enforcing these requirements through the issue of instructions/circular to all the procuring entities requiring the procuring officers to check the eligibility of firms and individuals from the Bank's list of debarred and temporarily suspended firms and record the same in procurement award decision files. The borrower will report compliance with these requirements in the annual Program Audit Report.

51. **Reporting.** The World Bank's prerogative of administrative inquiry for allegations of fraud and corruption has been clarified to the borrower during the Program preparation. Borrower's collaboration with the Bank on the administrative inquiries into allegations which the Bank intends to pursue was confirmed during preparation. IGF will collect — with support from the above-mentioned institutions — and report to the World Bank allegations occurring under the Program through the annual progress reports during Program implementation. The reporting format will include the following: (a) location and date of the complaint; (b) description of the allegation; (c) description of progress in investigation; and (d) investigation outcome. Also, the IGF, which has extensive experience in auditing programs financed by the World Bank, will pay particular attention to allegations of fraud and compliance with the bank's guidelines in this area. The terms of reference setting out the modalities of intervention of these institutions will include specific provisions relating to the verification of compliance with the Bank's guidelines on the prevention of fraud and corruption.

Auditing

52. **Program audit.** The arrangements for external audit of the Program consolidated annual financial statements will follow the same arrangements put in place for most Bank-financed operations in Morocco. These arrangements which rely on IGF are deemed adequate with audit reports of good quality. However, frequent delays have been noted over the past three years due to the increase in the IGF workload but also due to the delayed submission of annual financial statements by the PIU in addition to the delays due to the COVID-19 pandemic. IGF has been auditing all the World Bank portfolios for the last two decades, except those managed by SOEs which have private audit firms. IGF will audit the consolidated financial statements prepared by the PIU established within the MEF. This institution of control reporting to the MEF is involved in the audits of some of the GoM programs including the standard and statutory mandate. IGF will carry out the audits of the Program's annual consolidated financial statements based on agreed terms of reference. The audit reports together with detailed management letters, will be submitted to the Bank no later than nine (9) months from the closure of accounts. The Program would comply with the World Bank disclosure policy of audit reports and place the information provided on the official website of the MEF within two months of the report being accepted as final by the team and the World Bank.

Fiduciary Management Capacity Assessment of Implementing Agencies

53. **Overall, the assessment of the capacity of the fiduciary staff of the entities involved in the Program concluded the need to implement a capacity program.** The assessment of staff capacity, at the IAs level, identified capacity challenges of the staff as the main impediment that could affect implementation of the Program. To ensure smooth implementation of the Program, PIU will include a fiduciary officer in charge of ensuring cooperation and consolidation of the Program's financial and procurement information prepared by each IA. The Program will include at each level: (a) appointment of fiduciary staff based on terms of reference acceptable, and (b) a capacity-building program aimed at building the skills of all fiduciary staff in the PIU and PMUs.



54. **Financial Management:** The Public Accountant of the entities involved in the Program will execute the budget following the public expenditure chain through the budget execution software GID and GIR. Strengths, weaknesses, and challenges facing different public accountants of the ministries and related to the participating agencies are similar to the overall ministries of Morocco as described in the FSA of closed or active PforR. Specifically, as shown in the budget execution section of the FSA as well as the review of additional existing documents gathered and meetings held with the staff of these entities, the overall FM capacity of the entities requires additional strengthening.

Program Systems and Capacity Improvements

55. The list of PAP's fiduciary actions is reported in the Annex .6 – Program Action Plan (PAP)

Implementation Support

Fiduciary implementation support would include:

- Monitoring fiduciary implementation progress.
- Support the borrower to resolve implementation issues and carry out institutional capacity building.
- Compliance with audit reports, including the implementation of the PAP; and
- Monitoring, as relevant, of compliance with the fiduciary provisions of legal covenants.



ANNEX 5. SUMMARY ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT

1. The Program's objective is to support the Kingdom's commitments to climate action by fostering a coordinated climate action in climate adaptation and mitigation. Program selects a set of priority actions derived from the Government of Morocco's revised NDCs. As such, the PforR instrument will help deliver on a selected number of actions under the NDC that were prioritized under the CCDR. The operation also strengthens the Government's capacity to monitor and report on progress on these actions, which will contribute to the overall effort of regularly reporting back to the international community (as part of its commitment under the NDC).
2. The operation will also provide specific incentives for inter-sectoral coordination and strengthening of country systems. Under RA 1, through the "whole of Government" approach, it will develop tools - mainly Public Finance Management PFM tools - to mainstream climate considerations in public policy. Overall, the operation will provide a robust platform to support the Government of Morocco's in its climate action through stakeholder engagement and a coordinated action. As such, the PforR instrument also presents the opportunity for strengthening the existing country systems through enhanced inter-agency coordination and institutional capacity to deliver on its NDCs and development goals.
3. Under the RA 2.2, the Program will support: the implementation areas of the "Contract-Program for the date sector", which includes: (i) supporting the adoption of the new National Strategy on Development of the Oases and Argan region 2023-2030; (ii) revitalization of traditional oases through planting (and 2-year maintenance) palm trees, more specifically through the intensification and/or replanting of date palm trees, with specific focus on those affected by diseases (Bayoud) or fires; and (iii) promotion of green jobs and sustainable date production in oases areas by supporting valorization of the date palms' by products and waste, led by local youth; and (v) preservation of natural resources by constructing and/or rehabilitating small hydraulic infrastructures (water collection, rehabilitation of *Khettaras* and *Seguias*, recharging of groundwater, etc.) and construction of small reed beds in a number of douars for water reusage and conservation.
4. ANDZOA, the implementing agency for such a plan, has confirmed that the rehabilitation activities under RA 2 will not be operated in grasslands areas. While planting trees and rehabilitating traditional oasis will undoubtedly contribute to the preservation of the ecosystem, these activities may also have some adverse impacts, such as disturbances of local biodiversity and affecting the water balance in the area. The activities related to small hydraulic infrastructures (water collection, rehabilitation of *Khettaras* and *Seguias*, recharging of groundwater systems, etc.) will help mitigate this risk and enhance water irrigation efficiency by reducing losses and increasing yield from dates production. These improvements will in turn, contribute to the overall sustainability and resilience of the groundwater aquifer.
5. Through the National Agency for Water and Forests (ANEF), the Program will support the Kingdom of Morocco in reforesting watersheds particularly vulnerable to soil erosion and prevention of dam stiling in 22 watersheds to reduce the risk of siltation of critical dams that have lost a significant part of their mobilization capacity due to soil erosion. In addition, the activity includes a program on urban and peri-urban forests to mitigate the impacts of heat waves and enhance its recreational uses.
6. In addition to their contribution to adaptation, NBSs through RA 2.3, also plays a critical role in carbon sequestration (both in soil and biomass). The Program will support some of the NBS interventions prioritized under the NDC, notably the: (i) reforestation in four priority watersheds to reduce the siltation in priority large dams (covering a total area of 4,200 hectares); and (ii) deployment of forest/tree-based solutions for 11 urban/peri-urban forests in 10 municipalities, for an equivalent of about 6,000 hectares.



7. RA 2 will also increase social protection coverage (health insurance) by motivating farmers (both owners and renters) to join the National Agricultural Register (RNA). Such coverage will be extended to all family members. Farmers are one of the most climate-vulnerable populations in Morocco. Improving their access to social protection will help strengthen their resilience to shocks. Farmers represent about 40 percent of non-salaried workers and, as such, the transmission of RNA data on farmers to the CNSS is a key factor for success of the health insurance reform. By expanding the coverage of health insurance to the farmers, identified as disproportionately vulnerable to climate-induced health risks, the Program will contribute to enhancing the overall resilience of farmers to shocks. This activity builds on and reinforces the other World Bank-led operations on social protection engagement.

Environmental and Social Risks

8. The environmental risks that will be generated by the Program will be Substantial. The activities that present a potential for environmental risks are related to the 'Structural activities' that will be supervised by the Ministry of Agriculture, Maritime Fisheries, Rural Development and Water and Forests (MAPMDREF) and implemented by ANEF, ANDZOA and DGM. These can be summarized as follows: RA 1, supports establishment of the national climate network through climate sub-stations. RA 2 assists protection of vulnerable ecosystems through the revitalization of traditional oases by replacing affected and/or dead palm trees by planting native species known for their drought-resistant properties, rehabilitating small traditional hydraulique infrastructures (khattaras and seguias) and the developing anti-erosion management of priority watersheds to reduce downstream dams' siltation and including small works to increase the resilience of rural communities. The risks of these activities could also manifest during their implementation phases while undertaking maintenance activities (climate sub-stations). The program will not create an additional environmental footprint as it includes no activities that could generate significant emissions or produce and discharge large volumes of waste.

9. The environmental risks associated with the Program will be Substantial. They relate to civil engineering works and rehabilitation of the traditional oasis by replacing old/dead palm trees and planting native trees to reach a density of ~100 palm tree/Ha. A management framework plan for the reserve was prepared aiming at reducing biodiversity loss, improving the livelihoods of local communities, and promoting essential social, economic, and cultural conditions for sustainable development. ANDZOA, as the implementing agency for such a plan, confirmed that the rehabilitation activities under RA 2 will not be operated in grasslands areas. While planting trees and rehabilitating traditional oasis will undoubtedly contribute to the preservation of the ecosystem, these activities may also have some unintended consequences, such as temporarily disrupting local biodiversity and affecting the water balance in the area. The activities related to small hydraulic infrastructures (water collection, rehabilitation of Khattaras and Seguias, recharging of groundwater systems, etc.) will help mitigate this risk and will enhance water irrigation efficiency by reducing losses and increasing yield from dates production. These improvements will, in turn, contribute to the overall sustainability and resilience of the groundwater aquifer.

10. Social risks that by the Program will be Substantial, in terms of potential exclusion of vulnerable groups, risks associated with SEA/H, use of labor force, and risks of conflict related to land use. These risks will be mitigated through effective mitigation measures included in the PAP, frequent and sustained stakeholder consultations and engagement throughout the Program implementation. In addition to the implementation of good practices in terms of natural resources management when conflict of use may arise; giving preference to acquisition of domanian land over involuntary acquisition for construction/rehabilitation of meteorological stations and hydraulic infrastructures should be considered.

11. Social risks associated with RA 1.1, most specifically the green bonds, green taxonomy and green procurement are considered as Substantial. Such risks pertain to the potential exclusion of vulnerable and informal enterprises/sectors from social dialogue around the low carbon transition, i.e. companies currently employed in



"brown" or "grey" sectors for which transition to the green economy could be too expensive or difficult to make. It is very important that all productive sectors are included in the social dialogue around PFM to avoid determining winners and losers in the low carbon transition. Participative process (as part of the participative justice and process legitimacy around climate change) around the discussions on green taxonomy, green budget, green procurement and climate action in general are also key in preventing carbon lock-in for informal and other brown sectors. These risks can be managed by setting inclusive governance and consultation processes, for which GoM will receive TA from the World Bank. Such an inclusive process, on the contrary, may bring incentives for small and informal businesses/brown sectors to transition to low carbon, to decent employment, and firm formalization.

12. Activities under RA 2.2. and RA 2.3. will carry substantial social risks. During the reforestation phase carried out by ANEF under RA 2.2., risks of exclusion to natural resources access due to restriction order – ranging from 2 years to 13 years depending on the forest species - will be mitigated by application of the compensation mechanism in place for forest users. The mechanism, established by order No. 1855-01 of March 21, 2002 (amended by order No. 714-22 of March 2, 2022), was assessed during the preparation of the Program and deemed as comparable to a Livelihood Restoration Plan benefitting the affected communities. It includes annual financial compensation, granted to affected forest users during the entire period set for forest protection. In addition, ANEF supports income-generating activities to the benefit of forest users, such as the distribution of fruit plants, beehives, and others. Under the Program, compensation schemes will be applied in compliance with national legislation and will be strengthened with additional efforts on stakeholder engagement and grievance management.

13. ANEF has gained prior experience in this field through its participation in the Blue Economy PforR. A Gender Assessment and a Gender Action plan will be prepared by the ANDZOA and the ANEF to ensure gender-responsive planning, implementation, and monitoring of activities. ANDZOA and ANEF will also receive technical support to strengthen M&E through a parallel investment supported by ProGreen. ANEF will continue to implement stakeholder engagement and provide affected populations with alternative income generation activities through distribution of seeds, nursery plants, beehives, tools for handicrafts and compensation for temporary loss of livelihoods during plantation and restriction (mise en defense) periods. ANEF has accumulated good experience in this field through its participation in the Blue Economy PforR, also supported by the World Bank.

14. ANEF will reforest private land located in watersheds and continue with the same approach they have been using based on the voluntary participation of smallholders in the watershed basin. These measures will also be contained in the Technical Manual and the PAP, and they will be earmarked in the budget to ensure their implementation. ANEF and the ANDZOA will also receive technical assistance to strengthen their capacity for planning, M&E, and E&S risks management through dedicated grants (ProGreen) that will be processed in a parallel IPF operation. ANDZOA and ANEF have been working for several years to raise awareness among stakeholders and will continue to operate in this direction within the Program.

15. Anticipated environmental and social impacts for the remaining activities implemented by the DGM are expected to be moderate. These are expected to be reversible and of small scale. They could include small-scale domainial land acquisition for the construction of meteorological sub-stations, loss of trees, temporary disturbances of existing ecosystems and traffic congestion. It is anticipated that most of the adverse effects are reversible and can be mitigated with standard operational procedures and good construction management practices.

16. Program has been screened against the four criteria of the PforR Policy: E&S risks and impacts, contextual risks, Borrower's institutional capacity, and political and reputational risks. Screening process also excludes: (a) significant conversion or degradation of critical natural habitats or critical cultural heritage sites; (b) air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems; (c) workplace conditions that expose workers to significant risks to health and personal safety; (d) land



acquisition and/or resettlement of a scale or nature that cause significant adverse impacts on affected people or use of forced evictions; (e) large-scale changes in land use or access to land and/or natural resources; (f) adverse environmental and social impacts covering large geographical areas, including transboundary impacts, or global impacts such as GHG emissions; (g) significant cumulative, induced, or indirect impacts; (h) activities that involve the use of forced or child labor; (i) marginalization of, or conflict within or among, social groups; (j) high risks of GBV and SEAH; and (k) activities which would have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation or cause relocation of traditional marginalized communities from land and natural resources that are subject to traditional ownership or under customary use or occupation or have significant impacts on traditional marginalized communities. Cultural heritage is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected communities.

17. The overall E&S risks and potential impacts for the Program are rated as Substantial. Considering the innovative approach required by the “whole-of-the-government approach” and the need for enhanced coordination among government agencies involved in the Program (MEF, ANEF, ANDZOA, DRPE, MTEDD and DGM), significant geographic dispersion of the activities, the medium to large scale of the proposed investments, and the potential direct and indirect environmental and social impacts associated with the Program, the overall environmental and social risk of the Program is classified as Substantial.

18. OP 7.50 on International Waterways is applicable to the Program given the nature and location of the activities under the RA 2 ‘Enhance Climate Resilience in Vulnerable Areas’, as these will involve the use of water resources in the Draa valley rivers and transboundary aquifers. A technical assessment carried out by the Bank has deemed that the activities supported by the Program fall within the exception to the notification requirement specified in paragraph 7 (a) of the Policy. Program falls under the exception Memorandum to the riparian notification requirement under paragraph 7 (a) since the interventions comprise an ongoing restoration scheme that (a) will not adversely change the quality or quantity of underground aquifers and water flows to other riparians; and (b) will not be adversely affected by the other riparians’ possible water use. The Program will positively impact the (i) transboundary aquifers by helping the replenishment of the groundwater reservoir, greatly improving existing schemes for higher water efficiency, slowing down the rate of runoff and allowing rainwater to be absorbed by the soil. Enhancement of the microclimate provided by the landscape will reduce soil moisture loss through evaporation, and (ii) rivers/superficial waterways restoring traditional schemes will be leading to a greater availability of water and thus will improve the quality flow of final reaches. Overall, the PforR will contribute to water saving and the impacts of the planned activities on quantity and quality of water in the international waterway will be minimal, as investment in large hydraulic infrastructure and new irrigated perimeters are not financed under this Program.

19. The Bank has assessed the existing monitoring, verification and reporting protocol on water resources operated by the Hydraulic Basin Agencies to determine its adequacy for verification purposes. This assessment included a review of the existing piezometric and quality sampling networks as well as the Terms of Reference of the verification entity and the monitoring parameters, frequencies, and reporting systems. This protocol was found accurate and reliable enough for the verification purposes to ensure the sustainable use and management of water resources in the targeted Program areas. The monitoring protocol allows for instant and real-time acquisition and recording in number of stations, performs monthly, quarterly, and annual reporting and gives flexibility to the Bank in selecting the sampling points and requesting comparative graphs. The data monitoring will be coordinated between the Directorate of Research and Water Planification (DRPE) and the Hydraulic Basin Agencies of Guir-Ziz-Rheris, Draa-Oued Noun and Moulouya. Overall, this verification protocol will be an essential tool to ensure that the recharge infrastructures are effective in promoting groundwater recharge but also allowing for prompt actions to be taken.



20. The verification protocol will rely on the existing piezometric national network established in the area (strategically located, to ensure proper coverage of the groundwater resources in the targeted area), DRPE will coordinate with ABH to collect the data through the existing monitoring system.

Environmental management systems:

21. **Morocco has an extensive legal framework for environmental management.** Specifically environmental impact management through the Law 49-17 (Environmental Impact Assessment) amending the law 12-03 allows the management of the environmental impacts of new projects subject to the Environmental Impact Assessment (EIA) and focuses on projects that generate substantial to significant negative impacts by proposing management and monitoring tools (particularly the EIA) or environmental impact notices for project with low to moderate E&S risks. Yet, even though coercive measures against natural and legal persons committing pollution or environmental degradation offenses exist, the effective application is still weak. Additionally, E&S management and ESIA/ESMP implementation need dedicated E&S staff at the institutional level. The application of the screening tool embedded in the E&S Manual of Program activities will help the E&S focal points to confirm whether an activity must prepare environmental impact notices or go towards full impact studies. Generally, the mandate of Implementing Agencies predisposes for managing environmental risks and impacts, where such current structures exist, but is limited to specific activities related to solid waste management and sanitation. Daily responsibilities related to environmental and social management at the project-level (areas such as environmental assessment, pollution, prevention, labor laws, and national systems for grievance redress) are generally assigned to project coordinators who, due to lack of resources, skills, and time, limit their actions to meeting specific authorization requirements, instead of optimizing environmental and social performance.

Social management systems

22. **Morocco has a comprehensive legal and regulatory framework for social management.** The 2011 Constitution and the organic laws on the management of municipalities adopted in the framework of advanced regionalization include provisions enshrining equity, gender equality, non-discrimination, right to property, citizen participation and accountability. Both at program and project level, GoM has demonstrated good capacity to meet the Bank's policies and other international lenders. Current laws, regulations, procedures, institutions, and practices relating to environmental and social risk management in Morocco stem from a profound reform that has been underway for more than two decades. However, these practices have not been systematized. The Moroccan legislative and regulatory framework includes guidelines for the development of E&S management tools for risk assessment and adverse impact management. Morocco has a relatively advanced legal and regulatory framework in environmental and social management. The Moroccan legislative and regulatory framework includes guidelines for the development of E&S management tools for risk assessment and adverse impact management. The Constitution of 2011 promotes a vision of development with a systemic scope articulated around the notion of sustainability and integrating economic, environmental, social, and cultural dimensions. It also guarantees equality between men and women, and the right to property, participation, and an independent appeal process, with the right to fair treatment for vulnerable social categories.

23. The preamble to the Constitution enshrines the primacy of ratified international conventions over the country's domestic law; in this regard, it should be recalled that Morocco has ratified numerous international treaties relating to civil, political, social, economic, and cultural rights as well as human rights (children, women, persons with disabilities, etc.). The Constitution enshrines the principles of equity and non-discrimination, gender equality (art. 19) and the inclusion of people with special needs (art. 34). The Constitution pays great attention to: (i) consultation and participation of the population in the elaboration and monitoring of programmes (Articles 136, 139); (ii) presentation of petitions (art 15); (iii) access to information (art. 27); and (iv) management of grievances (Article 156). It also



recognizes Amazigh as an official language on the same footing as Arabic (Article 5). Constitution of 2011 promotes a vision of development with a systemic scope articulated around the notion of sustainability, and integrating economic, environmental, social, and cultural dimensions. It also guarantees equality between men and women, the right to property, participation, and independent appeal process, complimented by the right to fair treatment for vulnerable social categories.

24. Despite the notable progress, E&S Management Systems has yet to provide a homogeneous and effective system for managing social risks. Most of the implementing agencies participating in the PforR lack dedicated E&S staff and/or budget to recruit dedicated E&S staff. Thus, to fill this gap, operational E&S focal points should be designated and trained ahead to ensure successful E&S management and monitoring of the Program activities. According to the law 49-17 – amending the law 12-03 – there is still a limited consideration of social risks and impacts in the Environmental and Social Assessments (ESIA), with a limited focus on vulnerable groups. Although social dimensions are anchored in the law, in practice, environmental assessments consider only limited social aspects such as community health and safety and cultural heritage. Moreover, not all programs assess relevant direct and indirect environmental (and social) risks.

25. Consultation disclosure of ESIA is often limited to public hearing before the commencement of works, while, according to Bank's requirements should cover the entire life cycle of the project. Consultation methods and stakeholder engagement as per Bank policy should include different intake channels and be adaptive to the different categories of stakeholders, especially vulnerable groups (illiterate people, women, the poorest, etc.). On land acquisition, the current Moroccan legislation includes only formally titled owners as eligible project affected parties. Compensation at replacement cost is often inadequate as well as the consultations and disclosure of information to project affected parties. Law No. 113-13 of 19 May 2016 sets out the fundamental principles and general rules governing the planning and management of pastoral and sylvo-pastoral areas, the use and development of pastoral resources and the mobility of herds (transhumance), including in forest areas. Good progress has been achieved by the recent decrees n° 1855-01 (March 2002) and amended by decree n°714-22 (March 2, 2022), with the increase in financial compensation from 250MAD/ha up to 1100MAD/ha for the suspension of collective rights of use for forestland and on the participation of people in the forest economy through alternative livelihoods during the plantation phase.

26. The suspended rights of use during this phase relate mainly to grazing of herds in the forest, collection of timber (dead wood), and gathering timber for domestic use, in addition to aromatic and medicinal plants, within the limits of the productive possibility of the forest. Despite ANEF has gained prior experience in this field through its participation in the Blue Economy PforR and the numerous efforts in involving local communities in alternative livelihoods and in engaging stakeholders, however, the census of users, the follow-up of livelihood restoration beyond the phase of works and M&E instruments for beneficiary assessment are still lacking. ANEF will strengthen existing mechanisms and will continue to implement stakeholder engagement and provide affected populations with alternative income generation activities through distribution of seeds, nursery plants, beehives, tools for handicrafts and compensation for temporary loss of livelihoods during plantation and restriction (mise en defense) periods.

27. Based on the gender analysis carried out with the support of the AFD and the UN-Women, the ANEF has elaborated a Gender Action Plan that is in its finalization phase. The Program will support the implementation of the recommendations emanating from the plan, related to the need for women empowerment in forestry cooperatives/associations through targeted training and support. A Gender Assessment will be also prepared by the ANDZOA to ensure gender-responsive planning, implementation, and monitoring of activities.

Conclusions



28. Although country's legal framework is conducive to both environmental protection and natural resource conservation, it presents shortcomings in managing the impacts of land acquisition and restrictions on access to natural resources, inclusion of vulnerable groups, and in ensuring a meaningful citizen and stakeholder engagement with a well managed grievances' redress mechanism. Among the main gaps identified in the Program are (a) limited integration of social aspects in impact assessment studies and consequent weaknesses in implementing the Environment and Social Management Plans (ESMPs); (b) limited channels for information dissemination ,public consultations and grievances management; and; (c) weak mitigation instruments for risk associated with labor conditions, occupational health and safety (OHS) of workers and labor influx; (d) gender and gender-based violence risks, and (e) social risks associated with the exclusion of vulnerable groups from projects benefits and ecosystem services.

29. To address such gaps, this Program will support specific measures to strengthen the performance of Morocco's environmental and social management system. These measures will be implemented through an Environmental and Social Management Action Plan for the Program's activities, incorporating a set of concrete and specific actions, and a set of recommendations. Capacity strengthening is deemed necessary for some of the national institutions responsible for managing E&S aspects of program activities, especially for those who are new to the E&S risk management requirements of the World Bank. Borrower will establish focal points and earmark a budget for the implementation and monitoring of such measures. Every Implementing Agencies will develop a Stakeholder Engagement Plan commiserating with the anticipated risks and impacts, as per guidance from the Technical Manual.

30. All the measures are recorded in the ESSA Action Plan (Section 5.2 of the ESSA). The list of Program Action Plan's E&S actions is reported in Annex 6 – Program Action Plan (PAP).

Recommendation

31. While climate change and shocks are neutral, different groups (women, men and youth) are affected in different ways, have different ecological and carbon footprints and have different resilient strategies. Appraising such differences and by leveraging on the strength and participation of the different actors, GoM will be better prepared to manage E&S risk associated with the Program and to strengthen its E&S systems to address the threat of climate change. The Program will help the GoM strengthen its capacity in identifying and mitigating climate risks affecting women, men, and youth differently, and define differentiated approaches. The Program will also support the “space-based interventions” (under RA#2) to foster a stronger inter-agency collaboration on E&S risk management and climate change action at local level by creating platforms.



ANNEX 6. PROGRAM ACTION PLAN

Action Description	Source	DLI#	Responsibility	Timing		Completion Measurement
A PIU is set up at MEF/DB with adequate staffing, including one full-time Environmental and Social specialist and Fiduciary Focal Points	Other		MEF - PMU	Other	90 days after the Effective Date	PIU is staffed (with adequate E&S and Fiduciary personnel) and remains well staffed throughout the Program implementation
The Steering Committee has been established	Other		MEF	Other	no later than 90 days after effectiveness	The Steering Committee is composed of representatives of the entities and institutions participating in the implementation, monitoring and evaluation of the Program, responsible for strategic oversight and guidance under the Program
The Program Operations Manual (POM) is adopted	Other		PIU / MEF	Other	no later than 120 days after effectiveness date	The POM sets the rule that governs the implementation of the Program, as defined in the Loan Agreement
A dedicated budget is earmarked for the implementation and monitoring of the ESSA Program Action Plan.	Environmental and Social Systems		All Implementing agencies	Recurrent	Yearly	Implementing agencies will make sure appropriate budget is allocated to E&S actions included in the PAP throughout the implementation of the Program
Environmental and Social Focal Points are nominated by each Implementing Agencies.	Environmental and Social Systems		Implementing Agencies	Other	1 month after the Effective Date	E&S Focal Points are nominated by each Implementing Agency and ensure coordination with the E&S specialist in the PMU.
Preparation of the Environmental and Social Technical Manual for the Program	Environmental and Social Systems		E&S Focal points	Other	No later than 6 months after effectiveness and valid throughout	E&S Technical manual is developed and is acceptable to the Bank: it includes guidance on accidents/incidents notification, management of contractors, Stakeholder Engagement Plans for the



					Program implementation	respective Implementing Agencies, and grievance mechanisms.
Capacity building on environmental and social risk management of relevant stakeholders, including contractors.	Environmental and Social Systems		MEF/E&S Focal Point	Recurrent	Continuous	The training module is prepared 6 months after effectiveness and is implemented continuously throughout the Program, as needed.
OP 7.50 Verification Protocol	Environmental and Social Systems		DRPE, ANDZOA and MEF	Other	No later than 6 months after effectiveness and semi-annually	Semi-annual reports provided on water resources quality and piezometric level monitoring and analysis. Reports prepared by DRPE and the concerned Hydraulic Basin Agency.
The Mechanism for compensation and livelihood restoration of forest communities - as per decree order No. 1855-01 of March 21, 2002, and amended by Order No. 714-22 of March 2, 2022 - is strengthened by the ANEF.	Environmental and Social Systems		ANEF	Other	6 months after Effectiveness before commencement of public works implemented by ANEF	The "Mechanism" is consulted with local communities at least biannually, it is gender-sensitive and site-specific. It includes M&E tools. It remains valid throughout the implementation period of the Program.
Maintain adequate budget planning by all IAs.	Fiduciary Systems		WB/PIU	Recurrent	Yearly	Development of an annual Work Plan and Budgeted (AWPB) by IAs to be transmitted to the PIU and the Bank for approval.
ANEF finalizes the preparation of its Gender Action Plan	Environmental and Social Systems		ANEF	Other	Prior to commencement of works	The Gender Action Action Plan is finalized and is acceptable to the Bank. It remains valid throughout the implementation period of the Program.
The ANDZOA prepares a Gender Assessment	Environmental and Social Systems		ANDZOA	Other	Prior to commencement of civil works	The Gender Action Assessment is prepared and is acceptable to the Bank. It remains valid throughout the implementation period of the Program.
Electronic waste management is prepared as part of the Technical	Environmental and Social Systems		MEF, DGM and DGM's partners	Other	No later than 6 months after	The e-waste management modalities are included in the E&S technical manual



Manual					effectiveness	
Adequate fiduciary coordination mechanisms due to the inclusion of several entities from various ministries, central and regional entities in the program.	Fiduciary Systems		PIU/IAS	Other	At Program launch	(a) Establishment of a PIU at DB, supported by a dedicated fiduciary focal point and/or an FM officer, with enhanced fiduciary coordination with implementing entities (b) ADA, ANDZOA, DDFP, DPRE, ANEF established fiduciary focal points for fiduciary.
Support by World Bank teams through training programs for entities with capacity challenges on fiduciary requirements under PforR, including strengthening fiduciary coordination arrangements at the national and decentralized levels under the Program.	Fiduciary Systems		MEF/PIU	Other	At Program launch	A capacity building training of implementing entities fiduciary staff and regular trainings refreshers throughout the Program's implementation period are delivered.
Delivery of fiduciary capacity building programs to ADA, ANDZOA and ANEF, and other IAs, at central and local levels and implementation of robust M&E MIS (modules in FM and Procurement)	Fiduciary Systems		WB/PIU/IAs	Recurrent	Continuous	Fiduciary capacity and coordination are strengthened for ADA, ANEF and ANZOA and all IEs, enabling production of acceptable bi-annual consolidated fiduciary reporting.
Review by the FM Bank team of semester interim financial reports (IFRs) and accounting conventions used to prepare those, to ensure timely expenditures and annual financial statements.	Fiduciary Systems		PIU/WB	Recurrent	Continuous	Acceptable semester IFRs and annual audited financial statements prepared and submitted on time.
Maintain a register of all procurement-	Fiduciary		PIU/IAs	Other	Continuous	A register is designed by PIU- with Bank's support - and



related complaints and ensure that they are treated promptly.	Systems					disseminated to all central and regional entities involved in the program's implementation for mandatory use by them to track all procurement-related complaints.
Develop and implement a program to enhance capacity-building on the new procurement decree.	Fiduciary Systems		PIU/TGR	Due Date	31-Jan-2024	A capacity building program on the new procurement decree for procurement officers and other stakeholders is delivered.
Include in the bidding documents an eligibility check clause.	Fiduciary Systems		PIU/IAs	Other	Continuous	An eligibility check clause is included in bidding documents. Implementing agencies will ensure that any person or entity debarred or suspended by the Bank is not awarded a contract, or otherwise allowed to participate in or benefit from the Program.



ANNEX 7. IMPLEMENTATION SUPPORT PLAN

1. **The Implementation Arrangements and Support Plan (IASP) will be conducted in line with the World Bank's implementation support guidelines for PforR operations and will be adapted to the design and risk profile of the Program.** While the borrower is responsible for the Program's overall implementation, including its technical aspects, the basic mandate of the World Bank for its implementation support includes the following: (a) review implementation progress, including the PAP and the achievement of program results and DLIs; (b) provide support for resolving emerging Program implementation issues and bottlenecks; (c) provide technical and institutional capacity-building support to the Government for the implementation of the PAP, the achievement of DLIs, and other Program results; (d) monitor adequacy of systems' performance (for example, through monitoring reports, audit reports, and field visits) as well as compliance with legal agreements and, as needed, the PAP; and (e) support the Government in monitoring and managing changes in the various types of risks.
2. **The IASP focuses on actions that the World Bank will perform and associated needs in terms of skills and resources.** Along with fiduciary, E&S and M&E specialists, successful support and monitoring of Program implementation will require a multidisciplinary set of technical specialists. As a matter of fact, the Program covers a wide range of activities, requiring expertise from multiple GPs; Governance, FCI, AGF, ENB, Water, as well as from the TRE department of the Bank. In line with the approach taken during preparation phase and given the innovative nature of the some of the activities supported under the Program, IASP will ensure that World Bank's global expertise is mobilized during implementation to help with operationalizing design improvements while relying on a core group of technical specialists to provide regular guidance and implementation support to the agencies involved in Program implementation. The IASP will also build on the technical assistance program (as described in the section III-D on Capacity Building as well as Box A3-1 and Box A3-3 on TA program in support to respective RA 1.1 and RA2.2/RA2.3.
3. **Implementation support missions will be carried out on a regular basis.** During the first year, a four-month approach to implementation support, where a specific one-week implementation support mission would be carried out. This approach will shift to a six-month approach during the remaining four years of the Program. In addition, a number of technical specialists based in the region and country office, will allow for timely follow-up on specific issues and/or areas of concern, if needed.
4. **Program will require well-coordinated technical support from the World Bank, particularly during the early stages of implementation.** Program implementation will be coordinated by the MEF and will involve intervention of nine implementing entities.

Table A7.1. Implementation Support Plan

Time	Focus	Skills Needed	Resource Estimate
First 12 months	Support the establishment of the Program implementation arrangements	Operation specialists	3 implementation support missions
	E&S monitoring and reporting	Social and environmental specialists	Training sessions and support to the implementation of ESSA PAP actions
	Fiduciary capacity building	Fiduciary specialists	Training sessions
	Technical support	Technical specialists from (i) Governance on NDC-Budget alignment and Green Procurement, (ii)	Workshops on specific technical topics and support to coordination mechanisms (cf.



Time	Focus	Skills Needed	Resource Estimate
		TRE on Green Bonds, (iii) FCI on Green Taxonomy, (iv) DRM on National Climate network, (v) ENB and AGF on Oasis Program	technical committees/working groups to be set up)
	Support to M&E	M&E specialists	2 implementation support mission per year including midterm review
13–60 months	Support to M&E	M&E specialists	2 implementation support mission per year including midterm review
	E&S capacity building	Social and environmental specialists	
	Fiduciary capacity building	Fiduciary specialists	
	Support to coordination mechanisms and behavioral economics	Behavioral economists, Change management specialists	

Table A7.2. Task Team Skills Mix Requirements for Implementation Support

Skills Needed	Number of Staff Weeks	Number of Trips
Task team management	50	11
M&E	11	5
Procurement, FM, and governance	11	5
E&S management	10	5
Legal	1	0
Governance Specialist	8	5
Procurement Specialist (Green Procurement)	8	5
TRE Specialist (Green Bond)	8	5
FCI Specialists (Green taxonomy)	8	5
AGF Specialist (Oasis)	8	5
ENB Specialist (Oasis and Forestry)	12	6
Water Specialist (Oasis)	8	5
Hydrologist	2	1

Table 4A7-3 Coordination with other partners

	TA (and type of support) from other partners
RA 1.1. – Green PFM and Finance	AFD on Green Budgetary Transition (budget, procurement, SOEs, Green Taxonomy and Green Bonds) GIZ on climate-sensitive PFM (including NDC costing)
RA 1.2 – Climate Data	GIZ and EU on MRV Platform
RA 2.1 – Health Insurance to farmers	-
RA 2.2 – Vulnerable Ecosystems	FAO
RA 2.3 – NBS solutions	AFD, GIZ, EU

