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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM DOCUMENT FOR A PROPOSED

LOAN

IN THE AMOUNT OF US\$300 MILLION

TO THE

KINGDOM OF MOROCCO

FOR THE

SECOND INCLUSIVE GREEN GROWTH DEVELOPMENT POLICY LOAN

November 20, 2015

Environment and Natural Resources Global Practice  
Maghreb Department  
Middle East and North Africa Region

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# KINGDOM OF MOROCCO - GOVERNMENT FISCAL YEAR

January 1 – December 31

## CURRENCY EQUIVALENTS

(Exchange rate effective as of September 25, 2015)

1 US\$ = MAD 9.7

## ABBREVIATIONS AND ACRONYMS

|        |  |
|--------|--|
| ACCMA  | Adaptation to Climate Change in Morocco ( <i>Adaptation aux Changements Climatiques au Maroc</i> )                                       |
| ADA    | Agricultural Development Agency ( <i>Agence pour le Développement Agricole</i> )   |
| ADEREE | Renewable and Energy Efficiency Agency ( <i>Agence pour le Développement des Energies Renouvelables et de l'Efficacité Energétique</i> ) |
| AFD    | French Development Agency ( <i>Agence Française de Développement</i> )   |
| AfDB   | African Development Bank   |
| AGIRE  | GIZ Program on Integrated Water Resources Management in Morocco ( <i>Appui à la Gestion Intégrée des Ressources en Eau</i> )             |
| ANDA   | National Agency for the Development of Aquaculture ( <i>Agence Nationale pour le Développement de l'Aquaculture</i> )                    |
| ANRE   | National Agency for Electricity Regulation ( <i>Autorité Nationale de Régulation d'Electricité</i> )                                     |
| BAM    | Central Bank of Morocco ( <i>Bank Al-Maghrib</i> )   |
| BOD    | Biochemical Oxygen Demand  |
| BRICS  | Brazil, Russia, India, China, and South Africa   |
| CESE   | Economic, Social and Environmental Council ( <i>Conseil Economique, Social et Environnemental</i> )                                      |
| CGE    | Computable General Equilibrium   |
| CNDH   | National Council of Human Rights   |
| COED   | Cost of Environmental Degradation  |
| CPAR   | Country Procurement Assessment Review  |
| CPS    | Country Partnership Strategy   |
| CSP    | Concentrated Solar Power   |
| DMN    | Directorate for National Meteorology ( <i>Direction de la Météorologie Nationale</i> )   |
| DPL    | Development Policy Loan  |
| EIA    | Environmental Impact Assessment  |
| EE     | Energy Efficiency  |
| EMP    | Environmental Management Plan  |
| EPR    | Environmental Performance Review   |
| EU     | European Union   |
| FAO    | Food and Agriculture Organization of the United Nations  |
| FDA    | Agricultural Development Fund ( <i>Fonds de Développement Agricole</i> )   |
| FDI    | Foreign Direct Investment  |
| FSAP   | Financial Sector Assessment Program  |
| GCC    | Gulf Cooperation Council   |
| GDP    | Gross Domestic Product   |
| GEF    | Global Environment Facility  |
| GHG    | Greenhouse Gas   |
| GG     | Green Growth   |
| GIZ    | German Development Agency  |
| GoM    | Government of Morocco  |
| HCP    | Haut Commissariat au Plan  |
| HFO    | Heavy Fuel Oil   |
| HH     | Household  |
| IBRD   | International Bank for Reconstruction and Development  |
| ICZM   | Integrated Coastal Zone Management   |
| IEA    | International Energy Agency  |
| IFAD   | International Fund for Agricultural Development  |
| IGG    | Inclusive Green Growth   |
| IMF    | International Monetary Fund  |

|          |  |
|----------|--|
| INDC     | Intended Nationally Determined Contributions   |
| INRA     | National Institute for Agronomic Research ( <i>Institut National de la Recherche Agronomique</i> )   |
| IUU      | Illicit, Unreported and Unregulated Fishing  |
| KfW      | German Development Bank  |
| LV       | Low Voltage  |
| M&E      | Monitoring and Evaluation  |
| MAD      | Moroccan Dirham  |
| MAGG     | Ministry of General Affairs and Governance ( <i>Ministère des Affaires Générales et de la Gouvernance</i> )  |
| MAPM     | Ministry of Agriculture and Maritime Fisheries ( <i>Ministère de l'Agriculture et de la Pêche Maritime</i> )   |
| MCC      | Millennium Challenge Corporation   |
| MDTF     | Multi-Donor Trust Fund   |
| MEMEE    | Ministry of Energy, Mines, Water and Environment ( <i>Ministère de l'Energie, des Mines, de l'Eau et de l'Environnement</i> )                              |
| MENA     | Middle East and North Africa   |
| MEF      | Ministry of Economy and Finance ( <i>Ministère de l'Economie et des Finances</i> )   |
| MET      | Ministry of Infrastructure and Transportation ( <i>Ministère de l'Équipement et du Transport</i> )   |
| MI       | Ministry of Interior ( <i>Ministère de l'Intérieur</i> )   |
| MICNT    | Ministry of Industry, Commerce, and New Technologies ( <i>Ministère de l'Industrie, du Commerce et des Nouvelles Technologies</i> )                        |
| MOT      | Ministry of Tourism  |
| MTEF     | Medium Term Expenditure Framework  |
| MV       | Medium Voltage   |
| MVDIH    | Voluntary Mechanism for Industrial Depollution ( <i>Mécanisme Volontaire de Dépollution Industrielle Hydrique</i> )  |
| MW       | Megawatt   |
| NPL      | Non-performing loan  |
| NSDS     | National Sustainable Development Strategy  |
| OCP      | Sharifian Phosphate Agency ( <i>Office Chérifien des Phosphates</i> )  |
| OECD     | Organization for economic Co-operation and Development   |
| ONCA     | National Agency for Agricultural Advisory Services ( <i>Office National du Conseil Agricole</i> )  |
| ONEE     | National Agency for Electricity and Potable Water ( <i>Office National de l'Electricite et de l'Eau Potable</i> )  |
| OREDD    | Regional Observatories for the Environment and Sustainable Development ( <i>Observatoires Régionaux pour l'Environnement et le Développement Durable</i> ) |
| PARL     | Public Administration Reform Loan  |
| PD       | Program Document   |
| PDO      | Program Development Objectives   |
| PEFA     | Public Expenditure and Financial Accountability  |
| PFM      | Public Financial Management  |
| PforR    | Program for Results  |
| PLL      | Precautionary and Liquidity Line   |
| PMV      | Green Morocco Plan ( <i>Plan Maroc Vert</i> )  |
| PNE      | National Water Plan ( <i>Plan National de l'Eau</i> )  |
| PNEEI    | National Program of Irrigation Water Conservation ( <i>Programme National d'Economie d'Eau en Irrigation</i> )   |
| PPPs     | Public Private Partnerships  |
| PSIA     | Proverty and Social Impact Analysis  |
| RE       | Renewable Energy   |
| RFP      | Request for Proposal   |
| ROC      | Regional Operations Committee  |
| SCCF     | Special Climate Change Fund  |
| SDG      | Sustainable Development Goals  |
| SEA      | Strategic Environmental Assessment   |
| SEP      | Social and Economic Program  |
| SIBE     | Site d'Intérêt Biologique et Ecologique  |
| SMAP III | Short and Medium-term Priority Environmental Action Programme  |
| SNSE     | National Strategy for the Water Sector ( <i>Stratégie Nationale du Secteur de l'Eau</i> )  |
| SOE      | State-Owned Enterprise   |
| SP       | Social Protection  |
| TA       | Technical Assistance   |
| TFP      | Total Factor Productivity  |
| TSO      | Transmission System Operator   |
| VAT      | Value Added Tax  |
| VMIDH    | Voluntary Mechanism for Hydric Industrial Depollution ( <i>Mécanisme Volontaire de Dépollution Industrielle Hydrique</i> )                                 |
| VMS      | Vessel Monitoring System   |
| WAVES    | Wealth Accounting and Valuation of Ecosystem Services  |

|                           |                                  |
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**KINGDOM OF MOROCCO**  
**SECOND INCLUSIVE GREEN GROWTH DEVELOPMENT POLICY LOAN**

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**SUMMARY OF PROPOSED LOAN AND PROGRAM  
KINGDOM OF MOROCCO  
SECOND INCLUSIVE GREEN GROWTH DEVELOPMENT POLICY LOAN**

|   |  |
|---|--|
| Borrower  | Kingdom of Morocco   |
| Implementation Agencies                                     | Ministry of General Affairs and Governance, Ministry of Economy and Finance, Ministry of Energy, Mines, Water and Environment  |
| Financing Data  | Terms: IBRD variable-spread loan denominated in US dollars with 25 years maturity, including a five-year grace period with Level Repayment. The Front-End Fee will be financed out of the loan proceeds (capitalized). Amount: US\$300 million   |
| Operation Type  | The operation is the second in a programmatic series of two single tranche DPLs.   |
| Pillars of the Operation and Program Development Objectives | <p>PDO 1. Improving the management of natural capital;<br/>         PDO 2. Greening physical capital;<br/>         PDO 3. Strengthening and diversifying the rural economy by leveraging human capital.</p>  |
| Result Indicators   | <p><b><i>PDO 1. Improving the management of natural capital</i></b><br/>         Number of regional coastal zone management plans (<i>Schémas Régionaux d'Aménagement du Littoral</i>) approved<br/>         12/2013 Baseline: 0<br/>         09/2017 Target: 2</p> <p>Number of regional maritime fisheries control plans approved<br/>         12/2013 Baseline: 0<br/>         09/2017 Target: 18</p> <p>Number of aquifers (<i>nappes</i>) in which groundwater abstraction is regulated by a groundwater agreement among water consumers<br/>         12/2013 Baseline: 1<br/>         09/2017 Target: 3</p> <p><b><i>PDO 2. Greening physical capital</i></b><br/>         Area (in m<sup>2</sup>) of new buildings integrating energy efficiency requirements and respecting thermal regulations for new buildings<br/>         12/2013 Baseline: 0<br/>         09/2017 Target: 400,000</p> <p>Total capacity of distributed medium and low tension grid connected renewable energy systems (in MW)<br/>         12/2013 Baseline: 0<br/>         09/2017 Target: 10</p> <p>Total subsidy envelope to diesel, gasoline and industrial fuel (in % of GDP)<br/>         12/2012 Baseline: 3%</p> |

|                     |  |
|---------------------|--|
|                     | <p>09/2017 Target: 0%</p> <p>Social Cohesion Funds allocation as share of the total budget (excluding debt service)<br/>12/2013 Baseline: 0.63%<br/>09/2017 Target: 1.34%</p> <p>Number of industries having submitted a funding request to the Voluntary Mechanism for Industrial Depollution<br/>12/2013 Baseline: 0<br/>09/2017 Target: 3</p> <p>Reduced industrial pollution (as measured by tons of BOD5 abated yearly)<br/>12/2013 Baseline: 20<br/>09/2017 Target: 200</p> <p>Number of polluting products subject to green taxes or to conventions promoting recycling value chains<br/>12/2013 Baseline: 2<br/>09/2017 Target: 4</p> <p><b><i>PDO 3. Strengthening and diversifying the rural economy by leveraging human capital</i></b></p> <p>Share of the envelope allocated to direct seeders in the total Agricultural Development Fund's (FDA) envelope allocated to seeders (traditional and direct)<br/>12/2013 Baseline: 0<br/>09/2017 Target 6%</p> <p>Share of DMN revenues from agro-meteorological services<br/>12/2013: Baseline:1.5%<br/>09/2017: Target: 9%</p> <p>Number of aquaculture sector jobs created (gender disaggregated)<br/>12/2013 Baseline: 115<br/>09/2017 Target: 500 (of which 100 women)</p> <p>Number of eco-tourism sector jobs created (gender disaggregated)<br/>12/2013 Baseline: 0<br/>09/2017 Target: 250 (of which 80 women)</p> |
| Overall risk rating | Substantial  |
| Operation ID        | P149747  |



## 1. INTRODUCTION AND COUNTRY CONTEXT

1. **This Program Document (PD) presents the Second Inclusive Green Growth Development Policy Loan (IGG DPL2) to the Kingdom of Morocco in the amount of US\$300 million.** As per Government request, the proposed operation is the second in a programmatic series of two single tranche DPLs. DPL1 was approved by the Board in December 2013 for an amount of US\$300 million and closed in December 2014. The series builds on solid sector dialogue over several years and strong Government ownership of the program, as demonstrated by steady progress with the implementation of the reforms supported by DPL1.

2. **Morocco recently achieved a consolidation of its macroeconomic framework.** Public finances continued to improve in 2014 thanks to reduced recurrent expenditures and a substantial cut to the fuel subsidy envelope. The external position benefited from an improved current account deficit and consolidation of foreign reserves. Morocco's medium-term prospects will continue to depend on a) the continuation of sound macroeconomic management, including the robust fiscal consolidation, and b) growth dynamics, which remain dependent on climatic variability due to the continued relevance of the agricultural sector's share of GDP (11.6 percent on average for the period 2007 - 2014).

3. **Further progress in reducing poverty (6.2% in 2011 compared to 15.3% in 2001) and vulnerability (13.3% in 2011 compared to 22.8% in 2001) requires higher rates of growth, as well as increased attention to the equity dimension of Morocco's development model.** The social and political implications of disparities in wealth and social outcomes continue to be of concern to the Government. The bulk of those living under two dollars per day live in rural areas, where the incidence of poverty is three times as high as in urban areas (10 percent versus 3.5 percent), and 32.5 percent of rural people live just above the poverty line. The Government aims to increase revenue-generating opportunities in rural areas in order to limit economic effects of natural resource depletion and degradation which the rural poor and vulnerable are notably more exposed to.

4. **The DPL series supports a package of reforms pursuing three Program Development Objectives (PDOs).** These include: (i) improving the management of natural capital; (ii) greening physical capital; and (iii) strengthening and diversifying the rural economy by leveraging human capital. The program of reforms continues to be strongly in line with Government priorities and the World Bank Group's Country Partnership Strategy for Morocco (2014-2017). The Program remains at the interface of the Government's environmental sustainability, growth and shared prosperity objectives.

5. **Since DPL1 approval, the Government program has gained additional momentum.** The Government of Morocco (GoM) sustained the implementation of its low carbon growth policy through steady progress of its wind and solar programs, as well as an ambitious phasing out of fossil fuel subsidies. On the natural resource management side, a new *National Water Plan* has been finalized with the aim to articulate the vision for sustainable water management currently enshrined in the legislative tools supported by the DPL series. Progress can also be noted within the coastal zone management and fisheries sectors, where ambitious legislation has moved through parliamentary approval.

6. **The Bank will continue to support the implementation of IGG DPL reforms through a package of investment projects and technical assistance.** This DPL series is accompanied by

parallel financing, as well as knowledge products in sectors such as integrated coastal zone management (ICZM), water resource management, agriculture, tourism, social protection, and energy. The Program opened up Bank-GoM dialogue in sectors such as tourism, groundwater management and energy efficiency in which Bank-financed operations are currently under preparation and implementation. These synergies will be leveraged to continue supporting GoM's sustainability reforms beyond the closure of the DPL series.

## **2. MACROECONOMIC POLICY FRAMEWORK**

### **2.1 RECENT ECONOMIC DEVELOPMENTS**

7. **Morocco has made a major economic and social leap forward during the last 15 years.** While many countries in the region have witnessed stagnating economic growth, and indeed are currently under enormous economic turmoil, Morocco has been able to achieve respectable per capita income growth and preserve political stability, which in turn allowed for significant improvement in many social indicators. Morocco's real per capita income almost doubled since the 1990s; the poverty rate was halved during that period; average literacy rate among adults more than doubled; and Moroccans' life expectancy at birth soared to exceed 74 years. This performance was mainly due to the implementation of sound macroeconomic policies and structural reforms.

8. **Notwithstanding this performance, the Moroccan economy has remained structurally oriented toward non-tradable activities and reliance on a volatile agricultural productivity.** The agriculture sector is still contributing around 13 percent to GDP but represents a drag on the growth potential of the economy given the volatile nature of its output – the present DPL series supports the implementation of adaptation measures on water resource, soil conservation, and agrometeorological information aimed at mitigating such volatility. The sector's sizeable share of total employment is, however, destined to decline, raising the need for economic diversification in rural areas through the emergence of new economic activities, an objective also supported by the DPL series. Meanwhile, non-tradable sectors such as construction and main services gained an increased share of GDP at the expense of manufacturing, which has been suffering from weak competitiveness. On the demand side, domestic demand has been the main driver of growth, fueled by high and increasing public sector investments and consumption. Given this orientation, Morocco has made little productivity gains over the past two decades despite high levels of investment.<sup>1</sup> Investment efforts—dominated by publicly funded large infrastructure projects—have not triggered a growth take-off through higher total factor productivity (TFP) (Figure 1). As a result, Morocco has yet to ensure the productivity gains needed to support the emergence of a larger middle class. The challenge of increasing and further sharing prosperity remains paramount.

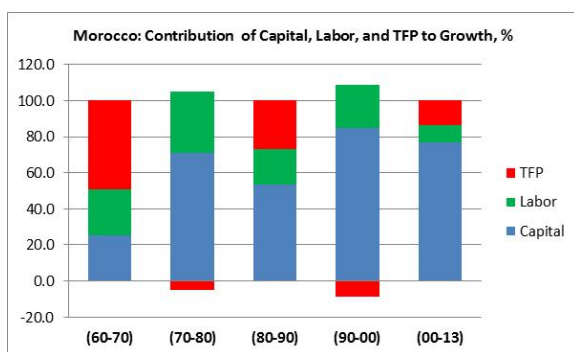
9. **One important explanatory factor behind Morocco's weak productivity gains can be traced** to its difficulty in benefitting from the current wave of globalization. Morocco's share of global exports has hovered around 0.15 percent since the mid-1970s. The price of the national export basket has generally been higher than that of key competitors. High and rising export prices are symptomatic of persistent weaknesses in the competitiveness of Moroccan enterprises on the global market. While existing firms have increased their market share for existing products in existing destinations, the renewal of the exporter base with entry and exit of firms is limited, and with existing firms exhibiting little product or market innovation.

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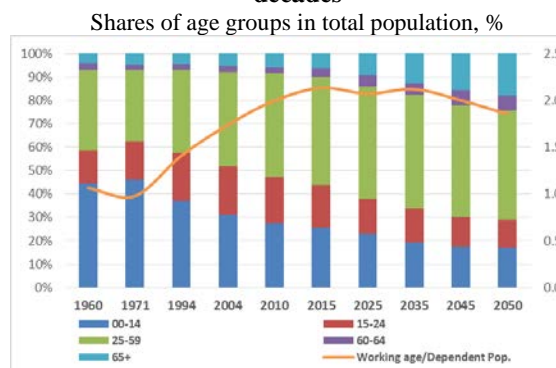
<sup>1</sup> Morocco has consistently invested 5 to 10 percentage points of GDP more than peer countries and its total investment as a share of GDP has increased from 25 percent of GDP in the 1990s to an average 34 percent currently.

10. **Morocco has also yet to benefit from its demographic transition.** While the ratio of working age to dependent population more than doubled since early 1970s (to reach a factor of two in 2014), the economy has not yet translated this demographic transition into higher standards of living. This was mainly due to low labor force participation, especially among women, and an education system that could not significantly improve the quality of education and thus the productivity of workers. However, the demographic window of opportunity is not closed and Morocco should still be able to benefit, provided far-reaching reforms of the labor market, education system, and overall public governance are implemented swiftly (Figure 2).

**Figure 1: Growth has mainly been driven by capital accumulation**  
Contribution in %



**Figure 2: The window to benefit from the demographic dividend will start closing in 2 decades**



Source: HCP and World Bank staff calculation

11. **Morocco's economy and macroeconomic framework suffered a series of adverse external shocks.** While the 2008 financial crisis has had limited direct effects on Morocco's economy, the subsequent Eurozone crisis and slowdown of economic growth in Europe have had more serious repercussions. As a result, economic growth beyond the agricultural sector has decelerated to an average of 3.9 percent since 2007, compared to 4.5 percent during 2000-2006 and macroeconomic indicators began to deteriorate. On the upside, the emergence of new growth drivers in higher value-added industries (such as car manufacturing and aeronautics) and the expansion of Moroccan companies in Africa are potentially creating the conditions for Morocco to become a regional hub for investments between Europe and Sub-Saharan Africa.

12. **On the budget front, the Government took a series of measures to consolidate its public finances, including the reform of the fuel subsidy system in 2013.** The fiscal deficit decreased from a record high of 7.4 percent of GDP in 2012 to a deficit of 4.9 percent GDP in 2014 and a target of 3 percent of GDP in 2017. The activation of a price indexation mechanism for fuel, gasoline and diesel (DPL1 prior action) helped cut subsidies by an impressive 24 percent in 2013 (or almost 2 percentage points of GDP). Its full implementation over 2014 helped cut further subsidies by 21.5 percent (or 1.2 percentage point of GDP). The elimination of subsidies for all liquid petroleum products and the fall of world prices, allowed subsidy outlays to be reduced by more than 56.4 percent over the first seven months of 2015. Risks of the reform reversal are low due to the strong political will to deepen the reforms even further to improve efficiency of budget expenditure, and the insignificant direct impact of the reform on the poor and vulnerable population. The ongoing consolidation of social programs (DPL2 prior action) and more effective benefit targeting, should help offset any rise in domestic prices resulting from external shocks.

**Table 1: Key Macroeconomic Indicators**

|                                     | Actual   |       |       |       | Est.<br>2015 | Proj. |        |        |
|-------------------------------------|--|-------|-------|-------|--------------|-------|--------|--------|
|                                     | 2011   | 2012  | 2013  | 2014  |              | 2016  | 2017   | 2018   |
| <b>Real economy</b>                 | Annual percentage change, unless otherwise indicated |       |       |       |              |       |        |        |
| Real GDP                            | 5,2  | 3,0   | 4,7   | 2,4   | 4,6          | 2,5   | 4,4    | 5,0    |
| Agriculture                         | 5,7  | -9,1  | 17,9  | -2,5  | 14,0         | -5,0  | 2,0    | 2,0    |
| Non-agriculture                     | 5,2  | 4,7   | 3,0   | 3,3   | 3,1          | 3,9   | 4,7    | 5,4    |
| Per Capita GDP                      | 3,8  | 1,6   | 3,3   | 1,3   | 3,5          | 1,5   | 3,3    | 3,9    |
| GDP (nominal--local currency)       | 4,5  | 3,4   | 6,3   | 2,6   | 5,4          | 3,8   | 5,6    | 6,4    |
| <b>Contributions:</b>               |  |       |       |       |              |       |        |        |
| Consumption                         | 3,8  | 4,1   | 3,0   | 2,3   | 3,4          | 1,3   | 2,2    | 2,7    |
| Investment                          | 3,5  | -0,3  | 1,8   | -1,1  | 0,6          | 0,9   | 1,5    | 1,5    |
| Net exports                         | -3,5   | -0,6  | 0,0   | 1,3   | 0,6          | 0,4   | 0,7    | 0,8    |
| Imports                             | 5,0  | 1,7   | -1,5  | 1,8   | 4,8          | 5,5   | 5,5    | 5,5    |
| Exports                             | 2,1  | 2,6   | 2,4   | 6,3   | 8,0          | 8,0   | 8,5    | 8,5    |
| Unemployment rate (ILO definition)  | 8,9  | 9,0   | 9,2   | 9,9   | ...          | ...   | ...    | ...    |
| GDP deflator                        | 0,1  | 0,4   | 1,0   | 0,2   | 0,8          | 1,2   | 1,2    | 1,3    |
| CPI (pa)                            | 0,9  | 1,3   | 1,9   | 0,4   | 0,7          | 1,0   | 1,0    | 1,1    |
| <b>Fiscal Accounts</b>              | Percent of GDP, unless otherwise indicated           |       |       |       |              |       |        |        |
| Expenditures                        | 33,1   | 35,0  | 32,1  | 31,9  | 30,4         | 29,8  | 29,3   | 28,9   |
| Revenues, including all grants      | 26,4   | 27,6  | 26,7  | 27,0  | 26,0         | 26,2  | 26,3   | 26,1   |
| Budget Balance                      | -6,7   | -7,4  | -5,4  | -4,9  | -4,4         | -3,7  | -3,0   | -2,9   |
| Central Government Debt             | 53,7   | 59,7  | 63,5  | 65,2  | 66,6         | 67,9  | 67,3   | 66,1   |
| <b>Selected Monetary Accounts</b>   | Annual percentage change, unless otherwise indicated |       |       |       |              |       |        |        |
| Base Money                          | 6,4  | 4,5   | 3,1   | 6,2   | ...          | ...   | ...    | ...    |
| Credit to non-government            | 10,4   | 5,1   | 3,5   | 3,6   | ...          | ...   | ...    | ...    |
| Interest (key policy interest rate) | 3,25   | 3,25  | 3,00  | 2,50  | ...          | ...   | ...    | ...    |
| <b>Balance of payments</b>          | Percent of GDP, unless otherwise indicated           |       |       |       |              |       |        |        |
| Current Account Balance             | -7,9   | -9,5  | -7,9  | -5,7  | -3,0         | -2,6  | -2,3   | -2,1   |
| Imports                             | 45,2   | 47,5  | 45,6  | 44,9  | 45,1         | 45,9  | 46,3   | 46,6   |
| Exports                             | 31,5   | 32,5  | 31,1  | 32,5  | 37,0         | 38,3  | 39,3   | 39,6   |
| Foreign Direct Investment, net      | 2,5  | 2,8   | 3,1   | 3,2   | 2,7          | 2,8   | 2,7    | 2,7    |
| Net reserves in US\$, bln (eop)     | 20,3   | 17,2  | 18,4  | 20,0  | 25,9         | 29,5  | 31,4   | 33,7   |
| In months of next year's imports    | 5,2  | 4,2   | 4,3   | 5,5   | 5,6          | 6,0   | 6,0    | 6,0    |
| As % of short-term external debt    | 2,4  | 2,0   | 2,1   | 2,3   | 3,0          | 3,4   | 3,6    | 3,9    |
| External Debt (Long Term)           | 25,4   | 30,0  | 31,8  | 35,0  | 35,4         | 35,7  | 33,7   | 32,5   |
| Terms of Trade, change in %         | 4,1  | -13,1 | -15,8 | 4,0   | -0,9         | -0,2  | -0,4   | -0,4   |
| Exchange rate (average)             | 8,09   | 8,628 | 8,40  | 8,41  | ...          | ...   | ...    | ...    |
| <b>Other memo items</b>             |  |       |       |       |              |       |        |        |
| GDP, nominal MAD, bln               | 802,6  | 827,5 | 872,8 | 895,8 | 943,9        | 979,4 | 1033,9 | 1099,8 |
| GDP, nominal US\$, bln              | 99,2   | 95,9  | 103,9 | 106,6 | 115,3        | 120,0 | 127,0  | 135,2  |

Source: Morocco Government and World Bank staff estimates and projections

13. **Budget Finance Reforms.** The adoption of a new Organic Budget Law has introduced multi-year, performance-based budgeting and fiscal measures. These measures strengthen mechanisms for **transparency** and **accountability** in the management of public resources, through:

- A more open and transparent budget process, specifying the programmatic allocation of resources and the corresponding performance objectives and indicators;
- A more consistent implementation of public procurement rules across the public sector;
- Real time information on budget execution in municipalities through the roll out of an integrated expenditure management information system (GID); and
- Enhanced access to budget information through adoption of a law on access to information.

In addition, the Ministry of Finance has been publishing both adopted and executed budgets and other accompanying documents for many years now.

**Table 2: Fiscal Indicators of the Central Government (in % of GDP)**

|  | Actual      |             |             | Est.<br>2014 | Proj.       |             |             |             |
|--|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|
|  | 2011        | 2012        | 2013        |              | 2015        | 2016        | 2017        | 2018        |
| <b>Overall Balance, including all grants</b> | <b>-6,7</b> | <b>-7,4</b> | <b>-5,4</b> | <b>-4,9</b>  | <b>-4,4</b> | <b>-3,7</b> | <b>-3,0</b> | <b>-2,9</b> |
| Primary balance                              | -4,3        | -4,9        | -2,2        | -0,7         | -0,2        | 0,3         | 0,9         | 0,1         |
| <b>Total revenues</b>                        | <b>26,4</b> | <b>27,6</b> | <b>26,7</b> | <b>27,0</b>  | <b>26,0</b> | <b>26,2</b> | <b>26,3</b> | <b>26,1</b> |
| Tax revenues                                 | 23,7        | 25,3        | 23,4        | 23,3         | 23,0        | 23,4        | 23,7        | 24,3        |
| Taxes on goods and services                  | 11,6        | 11,8        | 11,2        | 11,0         | 11,1        | 11,2        | 11,5        | 11,8        |
| Direct taxes                                 | 8,8         | 9,5         | 8,9         | 8,7          | 8,7         | 8,8         | 9,0         | 9,3         |
| Taxes on international trade                 | 1,3         | 1,1         | 0,9         | 0,9          | 0,9         | 0,9         | 0,9         | 0,9         |
| Other taxes                                  | 1,7         | 1,9         | 1,9         | 2,1          | 1,8         | 2,0         | 2,0         | 2,0         |
| Special accounts, balance                    | 0,3         | 1,0         | 0,5         | 0,6          | 0,6         | 0,5         | 0,3         | 0,3         |
| Non-tax revenues                             | 2,4         | 2,1         | 2,6         | 2,1          | 1,5         | 1,6         | 1,5         | 1,5         |
| Grants, all                                  | 0,3         | 0,2         | 0,7         | 1,6          | 1,5         | 1,2         | 1,1         | 0,3         |
| <b>Expenditures</b>                          | <b>33,1</b> | <b>35,0</b> | <b>32,1</b> | <b>31,9</b>  | <b>30,4</b> | <b>29,8</b> | <b>29,3</b> | <b>28,9</b> |
| <b>Current expenditures</b>                  | <b>26,9</b> | <b>28,8</b> | <b>26,6</b> | <b>26,0</b>  | <b>25,1</b> | <b>24,4</b> | <b>23,9</b> | <b>23,5</b> |
| Wages and compensation                       | 11,1        | 11,7        | 11,3        | 11,3         | 11,2        | 11,0        | 10,9        | 10,6        |
| Goods and services                           | 4,8         | 5,3         | 5,3         | 5,7          | 6,2         | 6,3         | 6,3         | 6,3         |
| Interest payments                            | 2,3         | 2,4         | 2,6         | 2,8          | 2,8         | 2,9         | 2,9         | 2,8         |
| Subsidies                                    | 6,1         | 6,6         | 4,8         | 3,6          | 2,3         | 1,6         | 1,2         | 1,1         |
| Current transfers to Local Gov.              | 2,7         | 2,7         | 2,6         | 2,5          | 2,6         | 2,6         | 2,6         | 2,7         |
| <b>Capital expenditures</b>                  | <b>6,2</b>  | <b>6,2</b>  | <b>5,5</b>  | <b>5,9</b>   | <b>5,3</b>  | <b>5,4</b>  | <b>5,4</b>  | <b>5,4</b>  |
| <b>Central Government financing</b>          | <b>6,7</b>  | <b>7,4</b>  | <b>5,4</b>  | <b>4,9</b>   | <b>4,4</b>  | <b>3,7</b>  | <b>3,0</b>  | <b>2,9</b>  |
| External (net)                               | 0,7         | 1,8         | 1,7         | 1,0          | 1,9         | 1,7         | 1,5         | 1,8         |
| Domestic (net)                               | 6,0         | 5,6         | 3,7         | 3,9          | 2,5         | 2,0         | 1,5         | 1,1         |
| of which privatization                       | 0,7         | 0,4         | 0,0         | 0,2          | 0,0         | 0,0         | 0,0         | 0,0         |

Source: Morocco's Government and staff estimates and projections

**Table 3: Balance of Payments Financing Requirements and Sources (in US\$ million)**

|   | Actual        |               |               | Est.<br>2014 | Proj.        |              |              |              |
|---|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
|   | 2011          | 2012          | 2013          |              | 2015         | 2016         | 2017         | 2018         |
| <b>Financing Requirements</b>               | <b>11,300</b> | <b>13,140</b> | <b>11,525</b> | <b>9,874</b> | <b>6,746</b> | <b>6,481</b> | <b>7,237</b> | <b>6,474</b> |
| Current accounts deficit                    | 7,986         | 9,347         | 7,794         | 6,143        | 3,409        | 3,098        | 2,971        | 2,873        |
| Long term debt amortization (exl. IMF)      | 2,436         | 2,769         | 3,998         | 2,887        | 2,826        | 2,918        | 3,820        | 3,169        |
| Other short term capital outflows           | 879           | 1,024         | -267          | 844          | 511          | 465          | 446          | 431          |
| <b>Financing Sources</b>                    | <b>11,300</b> | <b>13,140</b> | <b>11,525</b> | <b>9,874</b> | <b>6,746</b> | <b>6,481</b> | <b>7,237</b> | <b>6,474</b> |
| FDI and portfolio investments (net)         | 2,156         | 2,720         | 3,520         | 3,100        | 3,300        | 3,508        | 3,673        | 3,847        |
| Capital grants                              | 10            | 174           | 60            | 619          | 1,588        | 1,286        | 1,289        | 270          |
| Long term debt disbursements (exl. IMF)     | 4,506         | 6,122         | 7,504         | 7,176        | 6,269        | 4,972        | 3,828        | 4,322        |
| Other short term capital inflows            | 1,609         | 1,018         | 1,716         | 538          | 411          | 365          | 346          | 331          |
| Change in reserves (=-increase in reserves) | 3,019         | 3,106         | -1,274        | -1,559       | -4,823       | -3,649       | -1,899       | -2,296       |
| IMF credit (net)                            | 0             | 0             | 0             | 0            | 0            | 0            | 0            | 0            |

Source: Morocco's Government and staff estimates and projections

**Table 4. The fiscal space generated by the fuel subsidy reform allowed improving the budget shares of important social sectors (Budget Laws, Expenditure Shares in %)**

|  | 2013        | 2014        | 2015        |
|--|-------------|-------------|-------------|
| Ministry of National Education and Vocational Training         | 16.41       | 18.48       | 18.61       |
| Ministry of Health   | 4.79        | 5.19        | 5.26        |
| Ministry of Housing and Urban Policy                           | 0.69        | 0.33        | 0.33        |
| Ministry of Employment and Social Affairs                      | 0.35        | 0.14        | 0.21        |
| Ministry of Solidarity of Women, Family and Social Development | 0.27        | 0.25        | 0.26        |
| <b>Total</b>   | <b>22.5</b> | <b>24.4</b> | <b>24.7</b> |

Source: Government of Morocco and World Bank staff calculation

14. In parallel, the Government also began to rein in other recurrent expenditures, while consolidating tax revenues. The fiscal consolidation measures in 2014 also included limiting the

rise of the wage bill by 2.6 percent through freezing of higher wages and limiting new hiring of civil servants. Thanks to these measures, the wage bill edged up by 0.8 percent only over the first seven months of 2015. The consolidation also entailed improving tax collection through the extension of the tax base, harmonization of tax rates and fighting tax evasion. As a result, the budget deficit last year was kept at 4.9 percent of GDP as envisaged by the Budget Law. In this context, and also thanks to increasing capital grants from the Gulf Cooperation Council (GCC) – which reached US\$1.6 billion by end 2014– the Government’s financing requirements have significantly decreased compared to the 2012-2013 period. The pressure on domestic liquidity was further eased by the successful issuance of 1 billion Eurobonds in international financial markets under relatively favorable terms (3.5 percent for ten-year maturity). As a result, the Central Government debt stock increased at a slower pace in 2014 than in earlier years, to reach 65.2 percent of GDP by end 2014 (compared to 63.5 percent in 2013).

15. **Consistent with budget tightening, the balance of payments indicators have also improved in recent years.** After widening steadily since 2007 to reach its highest level at 9.7 percent of GDP in 2012, the current account deficit shrunk to 7.5 percent of GDP in 2013 and further to 5.8 percent of GDP in 2014. The dynamism of the new high-tech sectors (mainly automotive and aeronautics) continued in 2015, leading to an improved current account deficit of 4.6 percent of GDP only over the first half of 2015. The capital account has also improved in 2014, with the above mentioned Eurobonds issuance and the issuance of US\$1.85 billion raised by State owned phosphate company OCP. Net foreign direct investment (FDI) inflows increased by 3.7 percent in 2014 and jumped further by 20.4 percent over the first eight months of 2015 (as compared to the same period last year). Consequently, net foreign reserves increased by more than US\$1.5 billion, reaching US\$20 billion at end 2014, or the equivalent of 4.5 months of 2015 imports.

16. **Given Morocco’s exchange rate regime and track record of low inflation, the monetary policy aims at accommodating the economy’s liquidity needs subject to a foreign exchange reserve target.** To contain the adverse effects of looser monetary and fiscal conditions on foreign exchange reserves, Bank Al-Maghrib (BAM) tightened monetary conditions in 2013 and limited the growth of money supply to 2.8 percent (compared to 4.5 percent in 2012). As foreign exchange constraints have begun easing again since the beginning of 2014, BAM further reduced the banks’ reserve requirement to two percent in March 2014 and cut its policy rate twice in 2014, from three to 2.75 percent in September and 2.50 percent in December—the lowest rate on record. However, despite easing monetary conditions, banks’ credit to the economy increased only moderately last year (2.2 percent year-over-year) and slightly higher by end April 2015 (up 2.5 percent). This could reflect the continued accumulation of non-performing loans (NPL), which reached the equivalent of 6.9 percent of bank credit to the private sector at end 2014 and 7.2 percent at end April 2015.<sup>2</sup> In April 2015, BAM announced a revision of the weights of the Euro and US dollar in the basket against which the Moroccan dirham is pegged (to 60 percent Euro and 40 percent US dollar, from 80 percent and 20 percent, respectively) to align them with the current structure of external flow and insulate Morocco’s Real Effective Exchange Rate (REER) from the Euro-US dollar exchange rate fluctuations.

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<sup>2</sup> The increase in the NPLs is explained by two main factors: first, the pre-crisis banking sector exposure to real estate, mainly tourism projects but also high-standing residential projects. These sectors were hard hit by the 2008-2010 crisis, which resulted in increasing NPLs. Second, the central bank has conducted a comprehensive assessment of assets quality of the banking sector and related NPLs. Furthermore, following the increase in 2013 of the minimum capital adequacy ratio to 12 percent and the introduction of a minimum Tier 1 ratio of 9 percent, the central bank has ensured compliance with the new banking prudential requirements.

## **2.2 MACROECONOMIC OUTLOOK AND DEBT SUSTAINABILITY**

17. **In the short term, domestic demand (both consumption and investment) will remain the main drivers of growth but with a growing contribution from net exports.** Helped by relatively high output gap, underlined by low capacity utilization and an unemployment rate currently close to 10 percent, the supply side of the economy would be able to scale up its output to meet the extra demand without much pressure on production factors.

18. **Over the medium to longer term, Morocco’s macroeconomic prospects are essentially linked to the country’s capacity to generate productivity gains.** With an investment rate hovering around 35 percent of GDP since 2008, Morocco has little room for further accumulation-led growth. Future economic growth would therefore need to come from increased total factor productivity. Along with the sector strategies already under implementation, these efforts involve in the first instance improving the quality of domestic investments and continuing to attract large flows of FDIs, and over the longer run building the soft infrastructure associated with less tangible—but not less important—assets related to the accumulation of human, institutional and social capital. In this context, Morocco could also reap the demographic dividend before the demographic transition reverses itself.

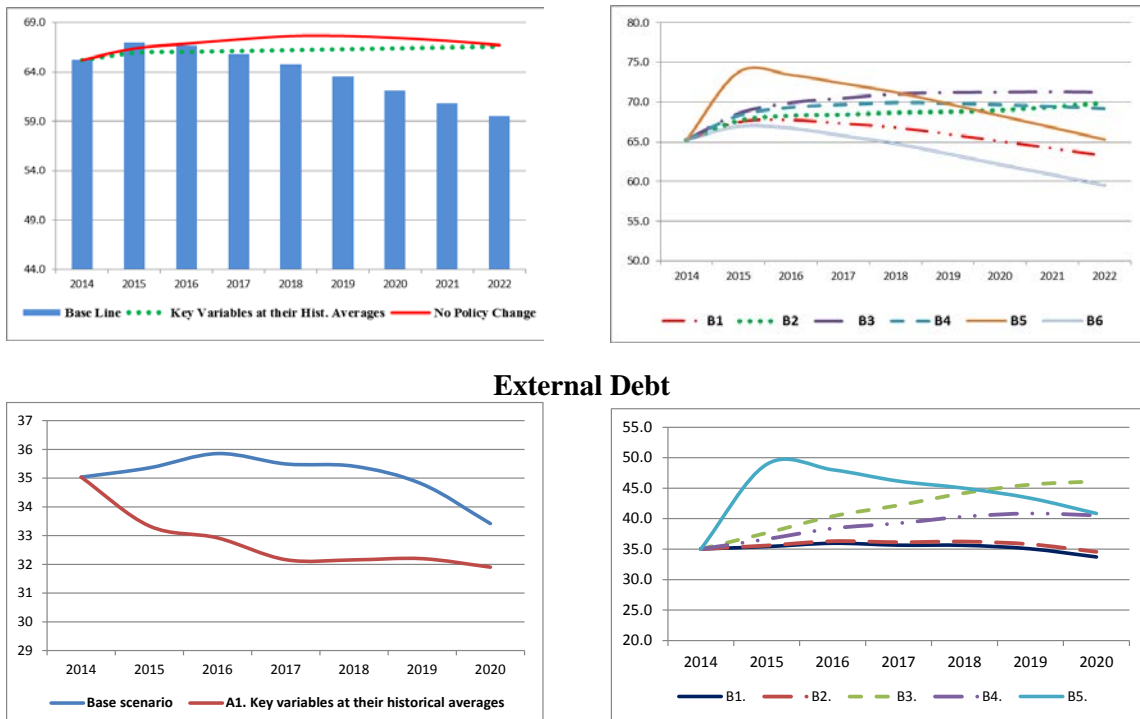
19. **Both short- and medium-term prospects will continue to depend on the pursuit of sound macroeconomic policies, including a robust fiscal consolidation, a prudent monetary policy and greater flexibility in exchange rate management.** In line with the Constitution of 2011, the Government is committed to fiscal stability and to progressively reduce the budget deficit to the medium-term target of 3 percent of GDP by 2017 through the implementation of a set of reforms. Key measures include: (i) continuing the reform of the universal subsidy system; (ii) accelerating the fiscal and pension reform agenda; (iii) introducing a ceiling on wage expenditures and tighter controls of carry overs; and (iv) enhancing the performance of the public sector and the efficiency of public expenditures and investments. The launch of the “Advanced Regionalization” in 2015, whereby more responsibilities are gradually delegated to - or shared with - the new regions, is another reform area that could lead to improved fiscal stance, inter alia, through containing the evolution of the Central Government wage bill, capital spending, and other recurrent expenditures.

20. **The 2014 and 2015 Budget Laws confirmed the Government’s strategy to continue consolidating the budget.** In January 2014, the Government stopped supporting prices of gasoline and industrial fuel oil and implemented a plan phasing out subsidies on diesel by the end of 2015. These steps constituted major milestones toward a comprehensive subsidy reform. Parliament also adopted the Organic Budget Law, introducing performance budgeting to improve public service delivery and efficiency. To improve further the investment climate, the Government is proceeding with justice reform, improving access to financing, especially for the SMEs, addressing access to land constraints, developing logistics services, and reinforcing technical training. Assuming these reforms continue, growth in the non-agriculture economy could pick up to around 5.5 percent over the medium term, with inflation kept below two percent and the budget deficit at three percent of GDP (Annex 4).

21. **Improving the efficiency of public expenditures, especially in the social sectors, constitutes a major governance challenge.** High spending with respect to GDP in sectors such as education has not translated into significant improvement in related indicators, placing Morocco behind comparator countries. The explanation of the weak efficiency of public spending lies partly in the public expenditure programming and management system (PEM). Ongoing reforms have,

however, the potential to improve the allocative and operational efficiency of public expenditures. The new Organic Budget Law will contribute to the enhancement of the PEM by implementing multi-year programming approach and performance budgeting. The fuel subsidy reform will not only contribute to improving expenditure efficiency, but also to open fiscal space to expand more effective and better targeted social programs, an objective supported and tracked by this DPL series, and whose progress was noted by the recent IMF review of Morocco’s Precautionary and Liquidity Line (PLL)<sup>3</sup> (Annex 4).

**Figure 3: Central Government and External Debt Sustainability (in % of GDP)  
Alternatives Scenarios and Bound Tests<sup>4</sup>  
Central Government Debt**



Source: Morocco Government and World Bank staff calculation

22. **The external position is expected to remain sustainable over the medium term provided that key critical reforms under implementation continue to take hold.** The current account deficit is projected to gradually decline to around 2.3 percent of GDP in 2017 benefiting from improved export potentials and a recovery of tourism activities and workers' remittances. The latter would benefit from the anticipated progressive recovery in Europe, the main source of remittances flow to Morocco. These reforms, along with sector strategies already under implementation, would translate into higher productive private investments, including FDIs, and progressive gains in competitiveness of its exports, including tourism. Exports should also benefit

<sup>3</sup> “Fiscal developments have been consistent with the authorities’ objective to reduce the deficit to 4.3 percent of GDP in 2015. Progress continued on the subsidy reform, while support to the most vulnerable has expanded”. IMF Staff Report on Morocco PLL2 Press Release: <https://www.imf.org/external/np/sec/pr/2015/pr15263.htm>; IMF Staff Report on Morocco PLL2 Main Report <http://www.imf.org/external/pubs/ft/scr/2015/cr15209.pdf>

<sup>4</sup>B1: Real interest rate is at baseline plus one standard deviations; B2: Real GDP growth is at baseline minus one-half standard deviation; B3: Primary balance is at baseline minus one-half standard deviation; B4: Combination of B1-B3 using one-quarter standard deviation shocks; B5: One time 30 percent real depreciation in 2015; and B6: 10 percent of GDP increase in other debt-creating flows in 2014.



from some diversification toward the BRICS (Brazil, Russia, India, China and South Africa) and other major developing countries, including in Sub-Saharan Africa.

23. **The long-term external debt is expected to peak at around 35.7 percent of GDP in 2016<sup>5</sup>.** Foreign reserves remain around six months of imports, assuming foreign investors retain confidence and GCC financial support continues. External financing requirements constitute a moderate concern in the medium term, given the still low external debt, financial support from the GCC, access to international markets, and still adequate foreign reserves. Current account deficit is projected to narrow steadily in the medium term, and its financing should not be a constraint. Any remaining financing gap could be filled by tapping international markets.

24. **The Central Government debt sustainability analysis (DSA)<sup>6</sup> indicates that the framework remains sustainable although it would weaken under a scenario of medium-term downside risks (Figure 3).** Indeed, when the debt sustainability analysis is based on the assumption of "no-policy-change", the debt stock increased steadily over the period 2015-2019 before levelling off. All the six bound tests proved sustainable over the medium term, although two of them show debt-to-GDP ratios in the range of 69-71 percent by 2022.

25. **In July 2014, the IMF approved a second 24-month arrangement for Morocco under the PLL (PLL2) in an amount equivalent to SDR 3.2 billion (about US\$5 billion).<sup>7</sup>** When concluding the 2014 Article IV Consultations, the IMF underlined the strong policy actions of the Government that allowed reducing economic vulnerabilities, especially thanks to the fuel subsidy reform. The IMF called for continued fiscal consolidation to generate fiscal space for social programs and enhance investment expenditures, while reducing public debt. The second review of the current PLL completed on July 24, 2015, confirmed that economic performance has been strong and steady reform effort has helped reduce fiscal and external vulnerabilities. As noted above, the IMF PLL2 Review underlined the significant progress made in reforming the subsidy system, while expanding social programs for vulnerable population. It called for a timely implementation of the pension reform to ensure the viability of the system. While external position has been improving, the Review called for further progress on structural reforms to improve the business environment that will help strengthen competitiveness, growth and employment. The reforms include strengthening governance, transparency and the job market. The second PLL will continue to provide a potential line of credit until July 28, 2016.

26. **In summary, progress towards fiscal consolidation and improvement in external indicators underscore that the Government's macroeconomic policy framework remains adequate.** Nevertheless, difficult conditions in the global and regional environment and the slow pace of some key reforms entail significant downside risks. Slower recovery of the global economy, especially in Europe, would limit Morocco's export potential, including tourism and remittances, which would require additional macroeconomic adjustments. Given Morocco's high energy dependency (94 percent in 2014), a surge in oil prices triggered by geopolitics tensions would constitute a vulnerability risk to the economy for its impact on the external position and terms of trade. Energy related measures supported by the DPL series contribute to mitigate this risk by

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<sup>5</sup> The external short-term debt amounted to 5.1 % of GDP end 2013 (WDI). Official data show it increased to 7.4 % of GDP in end June 2015. Most of this debt is private linked to trade credits. It is difficult to make projections of this type of debt over the medium term.

<sup>6</sup> The publicly guaranteed external debt amounted to 14.9 percent of GDP in end 2014. The DSA for public debt cannot be carried out given the lack of balance sheets and data on domestic debt of the state-owned enterprises, public banks, and local governments.

<sup>7</sup> This follows a first PLL approved in August 2012 (SDR 4.12 billion, approximately US\$6.2 billion).

encouraging domestic Photovoltaics (PV) production and reducing import dependency. Greater volatility of the world financial markets is also a source of risk. In addition, the three debt sustainability analysis tests that put the medium-term Central Government debt-to-GDP ratio in the 70-73 percent range highlight the risks posed by a limited reform scenario. Yet, Morocco has also demonstrated its willingness and capability to adjust policies and introduce corrective measures to overcome the adverse effects of shocks. Morocco managed to keep its investment grade rating and its access to international financial markets with relatively favorable conditions. The successful implementation of the Government's revamped development strategy would ensure that the negative effects of most of the anticipated risks discussed above are weathered successfully.

## 2.3 IMF RELATIONS

27. **The World Bank and the IMF maintain a close collaboration with Morocco.** Fund and Bank teams have regular exchanges on macro-financial issues with a common understanding on the division of labor and a shared assessment of the critical macroeconomic challenges facing the country. Discussions focus on the respective work programs and recent macro-financial developments and prospects. Bank-Fund collaboration reflects the importance of transversal DPLs in the Bank's portfolio. Fund staff participate in Bank's operational reviews, while Bank staff are consulted in the preparation of IMF missions and contribute to the Fund's Article IV Consultation missions to Morocco. The ongoing analytical work being carried out by the Fund team focuses on (i) the medium-term outlook for public finances; (ii) an analysis of the real exchange rate; and (iii) the macroeconomic implications for Morocco of the global financial crisis and its aftermath in Europe.

## 3. THE GOVERNMENT'S PROGRAM

28. **High level ownership of the Inclusive Green Growth agenda reflects the continued awareness of the sustainability challenges facing Morocco among policymakers.** Over the last decade, Morocco made remarkable progress in achieving poverty-reducing growth whilst taking steps to consolidate the sustainability of its growth model. Since at least the late 1990s, the environmental sustainability agenda has moved from a fringe issue to a national priority. In his 2009 and 2010 Throne Speeches King Mohammed VI called for comprehensive legislation on environment management, and explicitly set "Green Growth" as a priority in government policy. In addition to reinforcing the principles of good governance, the 2011 Constitution, through its Article 31, compels the state and its agencies to work towards ensuring equal access to a healthy environment and sustainable development. The 2011 Environment and Sustainable Development Charter<sup>8</sup> sets the rights and obligations of the State for the protection and preservation of the environment and the sustainable use of domestic natural resources. By signing the OECD's *Declaration on Green Growth* in May 2012, Morocco positioned itself as the MENA country with the firmest commitments to the sustainable development agenda.

29. **The Government is strengthening key aspects of its environmental sustainability framework.** In addition to the parliamentary approval of the Framework Law 99-12 on Environment and Sustainable Development (*Loi cadre no 99-12 portant Charte Nationale de l'Environnement et du Développement Durable*) in March 2014<sup>9</sup> — which strengthens shared ownership and institutional coordination of Government responsibilities — the Government has

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<sup>8</sup> [http://www.environnement.gov.ma/PDFs/CNE\\_charte\\_VF.pdf](http://www.environnement.gov.ma/PDFs/CNE_charte_VF.pdf)

<sup>9</sup> Bulletin officiel 6240, March 20, 2014

recently finalized its *National Sustainable Development Strategy* (NSDS, Box 1).<sup>10</sup> The NSDS articulates the country's Green Growth goals with a view to aligning sectoral strategies along common long-term sustainability objectives. Legislation is underway to regulate investments in sensitive areas such as coastal zones, and to improve existing legislation on critical sectors such as water. Work on natural capital accounting is ongoing in sectors such as water and fisheries. In parallel, the Government asked the Bank to update its assessment of the Cost of Environmental Degradation (COED). An initial COED study was completed for Morocco in 2003 and sheds light on the social and economic costs of air pollution, water degradation, coastal zone management, land and forest degradation, and waste management. The Bank is currently updating this study, which will be available in the spring of 2016.

**Box 1. Key Elements of the draft National Sustainable Development Strategy**

**The draft NSDS offers different sectors a platform to promote sustainability oriented reforms.** The draft NSDS is organized around seven high-level objectives, namely: (i) consolidate the governance of sustainable development; (ii) achieve the transition towards a green economy; (iii) strengthen the conservation of natural resources and biodiversity; (iv) speed up the implementation of national policies against climate change; (v) carefully monitor fragile territories; (vi) promote human development and decrease social and territorial inequalities; and (vii) promote a culture of sustainable development. Each of these high-level objectives is then operationalized into strategic axes — a total of 31 — that are themselves further broken down into 132 objectives — each one of them associated with at least one result indicator. A steering committee — chaired by the Head of Government — will be set up to closely monitor its implementation.

The draft NSDS is thus a key element in Morocco's commitment to sustainable development and will help the country enter the post-2015 era of Sustainable Development Goals (SDGs). The IGG DPL series supports key reform areas of the draft NSDS. IGG DPL prior actions are consistent with the sectoral strategies and the draft NSDS objectives (see Annex 5 for a description of IGG DPL-NSDS linkages).

30. **Morocco's Inclusive Green Growth agenda is articulated around three key objectives:** (a) ensuring the sustainability of the economy's natural resource base; (b) encouraging a shift towards low carbon growth and low impact investments; (c) spurring innovation and job creation through investments in green sectors. These objectives lie at the core of the strategies being implemented in sectors including agriculture, water, energy, tourism, and being supported by the current DPL series.<sup>11</sup>

31. **Recent progress in sectoral reforms.** A recent International Energy Agency (IEA) review praised the Government for the implementation of its energy strategy. This strategy is in line with the reform program supported by the DPL series (Box 2). Impressive progress was achieved in the implementation of the energy subsidy reform agenda, with the full elimination of gasoline, diesel and Heavy Fuel Oil (HFO) subsidies. In addition, the Government is making important strides towards the emergence and expansion of sectors such as aquaculture and ecotourism in order to support growth and job creation in rural areas.

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<sup>10</sup> The drafting and approval of the *National Sustainable Development Strategy* is required under Article 14 of Law 99-12. This directs the Government to develop the strategy through a process of consultation and coordination and approve it within two years of the promulgation of Law 99-12. Article 15 of Law 99-12 defines the overall elements of the NSDS content and objectives: a) establishing the orientation of the overall sustainable development policy of the country; b) the principles and responsibilities for its implementation; c) the framework for evaluating its results. Article 16 requires the Government, within two years of the NSDS approval, to 'align sectoral and cross-sectoral policies and strategies' to the 'objectives and orientations set by the NSDS'.

<sup>11</sup> A summary description of relevant sector strategies is contained in the IGG DPL1 Program Document.

## Box 2. Synopsis of IEA Review of Morocco's Energy Policy

The IEA published its first in-depth review of Morocco's energy policy in October 2014. It deemed Morocco's energy strategy to be on target, with notable progress in wind and solar and on fuel subsidy reform. The IEA noted that while the country's power sector restructuring is underway, there is scope for further progress in energy efficiency. The report encouraged GoM to accelerate the pace of reforms, in particular to:

- Sustain recent progress in reducing the level of fuel subsidies.
- Reinforce the current energy efficiency strategy through clear regulation and incentives, while taking care to measure progress to date and learn from others' experience, e.g. in the European Union.
- Optimize the deployment of solar power, maximizing the use of Concentrated Solar Power (CSP) at peak hours and facilitating the use of Photovoltaics (PV), by accelerating investments in the medium- and low-voltage generation capacity.
- Accelerate the establishment of an energy regulator to supervise an even more open power market.
- Maintain the confidence of foreign investment and domestic industry, while also encouraging more research and development in new energies and the transfer of technology.

## 4. THE PROPOSED OPERATION

### 4.1 LINK TO GOVERNMENT PROGRAM AND OPERATION DESCRIPTION

32. **The proposed operation in the amount of US\$300 million is the second in a programmatic series of two single-tranche DPLs.** The choice of a programmatic option responds to the medium- to long-term nature of the reform efforts and the time needed for green growth benefits to materialize, and the Government's interest in programmatic series based on two operations.

33. **The IGG DPL2 maintains its focus on three PDOs:** (i) improving the management of natural capital; (ii) greening physical capital; and (iii) strengthening and diversifying the rural economy by leveraging human capital. In addition to its alignment with the Government's goals and the World Bank Group's (WBG) Country Partnership Strategy for Morocco (2014-2017), the operation responds to the WBG strategic goals of eliminating extreme poverty and boosting shared prosperity in a sustainable fashion. The sustainability of natural assets and environmental stewardship has clear equity dimensions, including from an inter-generational perspective. IGG DPL2 measures, particularly under PDOs 1 and 3, will contribute to improved incomes and livelihoods in rural areas, where a substantial part of Morocco's poor (67.5 percent) and vulnerable live.

34. **Prior actions supported by this second DPL continue to be anchored in existing sector strategies and Government's priorities.** The Government's request for an inter-sectoral design of the operation aims at leveraging the DPL series towards enhanced policy coordination and the alignment of sector strategies around common sustainability objectives.

**Table 5: Lessons learned from past programmatic DPLs**

| Main lesson learned  | Translation into operational design   |
|--|---|
| Solid Bank-Government partnership and anchor in Government's program   | The operation supports home-grown sector reforms built on strong analytical foundations and Bank-GoM dialogue. The operation's PDOs reflect the Government's policy priorities based on a vast body of analytical work carried out by the Bank, development partners, and Government agencies (for further detail see Annex 6). It is also closely linked to the objectives of the draft <i>National Sustainable Development Strategy</i> .   |
| A clear accountability and results framework   | The policy matrix has been streamlined to reward priority elements in the reform program. The Government fully owns the monitoring framework and results indicators are designed to be measurable by the end of the series.   |
| Leveraging DPL support with investment project financing and PforR financing.  | The implementation of past DPLs shows that such instruments are effective at building a sound institutional and regulatory capacity at the central government's level but are limited in building capacity and supporting implementation at technical level, particularly locally. In addition to the synergies with ongoing operations, the preparation of the IGG DPL series has identified implementation needs which can be accompanied by investment project financing and/or PforR operations, in sectors such as sustainable tourism sector and coastal zone management. |
| Shared ownership of the reforms by all ministries from the onset and strong orientation for launching reforms are key in multisectoral operations. | Reform ownership by the various government agencies is crucial to ensure an organic progress of a multisectoral program such as this. The series includes reforms that involve various stakeholders in different ministries and government agencies at national and local levels. Preparation focused on building buy-in and cooperation among the various stakeholders which remains essential for the smooth implementation and the success of the reform program.  |
| Need to tailor the DPL series' design to fit the Government's priorities.  | The design responds to GoM's request for the IGG DPL series of two operations allowing sector counterparts to take advantage of the analysis, planning framework, implementation support and improved coherence offered by the operation.   |

## 4.2 PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINNINGS

### Pillar 1: Improving the Management of Natural Capital

35. **Pillar 1 supports GoM's efforts to improve the management of natural resources.** In addition to making up a significant portion of Morocco's total wealth, natural assets underpin growth in key sectors. Strengthened management of natural capital can yield more than positive environmental benefits: it will also ensure that sectors that intensively use natural resources — agriculture, fisheries, but also economic activities in coastal zones such as tourism — will be able to sustain and increase their growth potential. Pillar 1 is composed of two policy areas: management of coastal and marine assets; and water sector governance.

#### *Policy Area 1.1 - Management of Coastal and Marine Assets*

**DPL2 Prior Action 1.1.1** The Council of Government (*Conseil du Gouvernement*) has adopted Decree No. 2.15.769 regulating, inter alia, the formulation of the National Coastal Zone Management Plan (*Plan National d'Aménagement du Littoral*) on November 5, 2015.

36. **With economic activity being largely concentrated along Morocco's extensive coastline, coastal zones are crucial to Morocco's growth.** Three major cities - Casablanca, Rabat, and Tangier - are located along the coast, and face substantial environmental and climate risks (in particular from sea level rise).<sup>12</sup> Sectors like tourism, agriculture, fisheries, and aquaculture (which together make up roughly 32 percent of GDP) depend crucially on coastal ecosystems. Demographic and economic pressures, however, are leading to the gradual degradation of these ecosystems. Construction, sand-mining, insufficient sewerage and solid waste collection and disposal have consequences in terms of loss of biodiversity, and degradation of ecologically-

<sup>12</sup> World Bank (2011) *Vulnerability to climate change and natural disasters of coastal cities of North Africa* Washington DC

sensitive areas. Climate change and demography are expected to add to such pressures, which call for adaptation measures.

37. **Morocco is setting up a framework for integrated coastal zone management**, allowing sector agencies to coordinate policies and investments and avoid conflicting use of coastal resources. The Government has long been aware of the need to adopt such an approach, as evidenced by Morocco's membership in a series of international agreements in support of coastal zone management and biodiversity conservation<sup>13</sup>. The Government has been preparing the ICZM Law (*Loi du Littoral*) since 1996. The approval of the ICZM Law (a DPL1 prior action) in 2013 marked a notable progress in Morocco's efforts to endow itself with a framework for integrated coastal zone management. Such a framework is direly needed today as pressures on coastal ecosystems increase, as do conflicts and tradeoffs between public and private actors in the utilization of coastal resources. Hence, this new framework will bring about a more diversified set of benefits — increased resilience, safety, environment protection, and poverty alleviation — that are sustained in the long term. The ICZM Law (Law 81-12) has now been approved by both Chambers of Parliament and Gazetted (BO 6384 of August 6, 2015).

38. **In order to implement Law 81-12 on ICZM, GoM is seeking the adoption of the Decree regulating the formulation of the National Coastal Zones Management Plan (*Plan National d'Aménagement du Littoral*)**. The Law foresees a national level planning framework, followed by the drafting of specific management plans for each region (*schémas régionaux d'aménagement du littoral*) — an expected outcome of the IGG DPL. This two-tier approach thus addresses the fundamental goal of coastal zone management. On one hand, overarching principles are adopted nationally recognizing that a range of key sectors operating in the coastal zone have vital interests in need of protection (e.g. ports, navy/security, fisheries, aquaculture and tourism). On the other hand, the Decree recognizes region-specific priorities and addresses trade-offs between economic considerations and the need to manage coastal resources sustainably. The Decree, also defines the national level governance for coastal zone planning from which regional planning would flow, including the characteristics of the National Coastal Zone Management Plan.

**DPL2 Prior Action 1.1.2** : The Minister of Agriculture and Marine Fisheries has issued Decision No. 001/Cab/PM containing the National Monitoring Plan for Marine Fisheries (*Plan National de Contrôle des Activités de la Pêche Maritime*) on April 1, 2015.

39. **Fisheries account for 2.3 percent of Morocco's GDP and supports over half a million people**. Sector growth is threatened by illegal fishing practices, which can lead to stock collapse and directly threaten population renewals, bringing considerable hardship to fishermen who respects existing regulations (coastal, deep sea, and artisanal fishing). Illegal fishing also undermines efforts towards conservation and management of fish stocks, thus thwarting the objectives set by national and regional fisheries authorities for a more responsible and sustainable fisheries policy. The prohibition of illegal, unreported and unregulated fishing ("IUU Fishing") is a key aspect of Morocco's fisheries management, and fully in line with FAO's *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing*. Morocco has always recognized that a stronger emphasis must be placed on the effectiveness of enforcement and monitoring measures.

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<sup>13</sup> Such as: the *Regional Seas Barcelona Convention for the Protection of the Marine Environment* and the *Coastal Region of the Mediterranean*, the *Ramsar Convention for Wetland Conservation*, and the *Convention on Biological Diversity*.

40. **The Government is setting up a new legal and institutional framework to allow for effective monitoring and enforcement at sea and in its ports, and throughout the value chain.** Law 15-12 on IUU fishing incorporates the provisions of FAO's *International Plan of Action on IUU Fishing* and the most recent international agreement on "Port State Measures Agreement". Implementation of the Law will require additional capacities and coordination efforts within the sector. The Department of Maritime Fisheries has already taken key enforcement measures by investing in a very effective satellite-based Vessel Monitoring System (VMS). Under this system, all vessels above a certain size are fitted with tracking beacons and followed in real time with clear traceability measures. It has also invested in an automated monitoring system to trace fishing by-products that are exported. In order to support the implementation of fishing regulations, including Law 15-12 on illicit fishing, the Ministry of Agriculture and Marine Fisheries has adopted a National Monitoring Plan for Marine Fisheries (*Plan National du Contrôle des activités de la Pêches Maritimes*) (IGG DPL2 prior action). The Plan provides the operational guidelines to strengthen the implementation of regulations. The Plan also enhances the coordination among different controlling authorities. Following the approval of the National Plan, Regional control plans will be developed to adapt the guidance set forth in the National Plan to the specificity of various regions, where both fishing activities and IUU issues may vary greatly. These reforms will greatly contribute to maintaining fish stocks in the long term, thus ensuring that the livelihoods of the people that depend on them are not jeopardized.

#### **DPL1 Prior Actions**

1.1.1: The Council of Government (*Conseil du Gouvernement*) has approved the draft Law on Integrated Coastal Zone Management on May 16, 2013.

1.1.2: The Council of Government has approved the draft Law on Illegal Fishing on March 28, 2013.

#### **DPL2 Prior Actions**

1.1.1: The Council of Government (*Conseil du Gouvernement*) has adopted Decree No. 2.15.769 regulating, inter alia, the formulation of the National Coastal Zone Management Plan (*Plan National d'Aménagement du Littoral*) on November 5, 2015.

1.1.2: The Minister of Agriculture and Marine Fisheries has issued Decision No. 001/Cab/PM containing the National Monitoring Plan for Marine Fisheries (*Plan National de Contrôle des Activités de la Pêche Maritime*) on April 1, 2015.

#### **Outcomes**

By September 2017, two regional coastal zone management plans defining local authorities' accountability for ensuring sustainable use of coastal assets will be approved.

The regional maritime fisheries control plans will be approved in 18 regions by September 2017.

#### **Implementation Progress**

1.1.1: Parliament approval of the ICZM Law marks a watershed moment as the first time Morocco's coastal zone benefits from legal protection. The achievement of the Program results will depend on the current government capacity to rapidly develop the ICZM planning framework allowing for the Regional ICZM plans to be developed and come into force. The recent creation of new regions is both an opportunity and risk to the achievement of the Program outcomes. The Ministry of Energy, Mining, Water and Environment (MEMEE) has committed to start working with 2 to 4 regional ICZM plans as soon as the Decree is approved. Budget for the technical studies has already been included in the draft 2016 budget law.

1.1.2: The Ministry of Agriculture and Marine Fisheries (MAPM) leveraged Parliament approval of the IUU Law to move swiftly towards the National Plan on Control of Illicit Fishing allowing for the enhancement of control activities. MAPM is already working on the implementation of the *National Monitoring Plan* and the preparation of the *Regional Control Plans*. Regional committees will work closely with the national committee established to implement that National monitoring Plan. In addition, the Government is in the process of ratifying the FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing, thus reinforcing the overall national effort on illicit fishing.

### ***Policy Area 1.2 Water sector governance***

**DPL2 Prior Action 1.2** The Council of Government has approved the draft Law No. 36-15 on water, setting provisions for, inter alia, participatory groundwater management on November 19, 2015.

41. **Proper management of groundwater resources is strategic to ensure sustainable and stable agricultural revenues, including for small scale farmers.** The potential of renewable water resources in Morocco is estimated at 655 m<sup>3</sup>/capita/year, well below the water stress threshold of 1,000 m<sup>3</sup>/capita/year. With the exception of the Sebou and Loukkos, all the river basins are currently experiencing deficit in renewable water resources. A recent World Bank study on climate change in Morocco<sup>14</sup> shows that the expected decrease in precipitation for the period 2035- 2065 compared to the period 1971-2000 ranges from 10 percent to 35 percent depending on the region, based on the A1B climate change scenario<sup>15</sup>. Groundwater resources contribute to sustaining irrigated agriculture's value added, which averages 45 percent of total agricultural sector value added and can reach 70 percent in dry years. Abstraction over the past decades has heavily impacted stocks. Improving the planning for a more sustainable use of groundwater stocks for irrigation is therefore a priority for the Government to ensure the productivity of irrigated agriculture during water deficit years.

42. **The Government aims to strengthen the legislative bases of water sector governance, including groundwater management.** In addition to directing local level actors to improve the management of groundwater resources through participatory process (DPL1 prior action), the Government has adopted the new Water Law (Law 36-15) addressing the gaps of the existing Water Law (Law 10-95), promulgated in 1995. In addition to enshrining the principle of groundwater sustainability into legislation (DPL2 prior action), the new Water Law will strengthen many provisions of the previous legal framework, including those related to: (i) the decentralization of water management through the strengthening of existing Hydraulic Basin Agencies (*Agences de Bassins Hydrauliques*); (ii) a more effective consultative and participatory processes in water resources management and conservation, specifically through the creation of river basin committees (*Conseils de Bassin*); (iii) a more integrated planning through the adoption and implementation of *National Water Plan and Master Plans and Integrated Development of Water Resources at Basin Level*, and the conservation of resources<sup>16</sup>; (iv) the treatment and (re)use of non-conventional resources of water (desalination, treated wastewater reuse), and (v) the clarification of the concept of public hydraulic domain. The new Water Law will put in place key elements to strengthen a more sustainable groundwater management, thus putting in place the necessary tools for the people who rely the most on groundwater — in particular farmers — to use and enforce in order to continue to benefit from this limited source of water in the future. In particular, women in rural areas are expected to benefit from this strengthened framework for groundwater management.

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<sup>14</sup> Impacts of Climate Change on Water Resource Management and Adaptation Measures in the Oum er Rbia River Basin, Morocco (World Bank 2013).

<sup>15</sup> The A1 scenario describes a future world of very rapid economic growth, global population that peaks in mid-century and declines thereafter, and the rapid introduction of new and more efficient technologies. A1B refers to a scenario where energy sources are balanced (between fossil and non-fossil). The IPCC Special Report on Emissions Scenarios [www.ipcc.ch](http://www.ipcc.ch)

<sup>16</sup> Through licensing and/or instituting water abstraction/discharge fees on the basis of “user pays” and “polluter pays” principles.



**DPL1 Prior Action**

1.2 The Ministers of Interior, Agriculture and Water have issued the Interministerial Circular (*Circulaire*) requiring the conclusion of groundwater management agreements (*contrats de nappes*) on November 15, 2013.

**DPL2 Prior Action**

1.2 The Council of Government has approved the draft Law No. 36-15 on water, setting provisions for, inter alia, participatory groundwater management on November 12, 2015.

**Outcome**

By September 2017, groundwater abstraction in three aquifers will be regulated by groundwater agreements that ensures the participation of water consumers.

**Implementation Progress**

To date, low efficiency for managing groundwater resources is leading to further overexploitation, effectively undermining long-term resilience. The IGG DPL series focuses in mitigating this gap by improving the water sector governance. Introducing groundwater management contracts, using the participatory approach, ensures that key stakeholders are involved upstream in the design of the groundwater management contract. The contracts are expected to include description of the roles and responsibilities in implementing and monitoring the agreement reached among the stakeholders in the use of the groundwater. The process under the IGG DPL series has been that the Government, recognizing the groundwater depletion issue, took a pioneering decision to direct local level actors to use participatory-based contractual tools to manage groundwater resources (DPL1 prior action). The Government also decided to use the revision of the water law to enshrine into the law the principle of more sustainable groundwater management (DPL2 prior action). Progress in design and implementation of groundwater management agreements varies based on context-specific factors. River basin agencies in water scarce basins or basins that are already over-using their strategic groundwater are the ones that have the highest incentives to progress fast with such contracts. The Bank is providing technical assistance to the Oum Er Rbia river basin agency, through grant funding, to support inclusive design of two aquifers' management contract, in parallel to GIZ's support on Haouz, enhancing prospects for achieving the Program's outcomes.

**Pillar 2: Greening physical capital**

43. **Pillar 2 supports the Government's objectives of i) reducing adverse environmental impacts of infrastructure investments, and ii) promoting low carbon growth.** The long life cycle of physical capital requires close attention to current investment choices, as these will shape the type of growth trajectories for decades to come. However, investing now in an infrastructure base that puts Morocco on sustainable growth also involves trade-offs in terms of extra costs to economic agents, particularly in the short term. Energy is a major challenge in this respect: Morocco is currently too heavily dependent on fossil fuels and the projected increase in demand across different sectors (particularly transport, housing, industry, and tourism) requires significant additional investment in power generation capacity. Electricity demand has been growing at an average rate of 6 percent per year since the 1990s, more than doubling between 1995 and 2014 (from 11 to 33 TWh). The sector is highly dependent on coal (40 percent of electricity production). Providing the right price signals is a prerequisite to eliminate existing distortions in consumers' and producers' behavior, but needs to be accompanied with interventions to smoothen the transition for economic actors. The reforms carried out in Pillar 2 can yield global environmental benefits — renewable energy deployment contributing to climate change mitigation — but also more local, shorter-term benefits linked to improved health outcomes — stemming from reduced coal burning and decreased industrial pollution, as well as energy security. Pillar 2 is composed of two policy areas: low carbon growth and pollution management.

***Policy Area 2.1 Low carbon growth***

**DPL2 Prior Action 2.1.1** The Council of Government has approved draft Law No. 48-15 creating the National Agency for Electricity Regulation (*Autorité Nationale de Régulation de l'Electricité*) on September 17, 2015.

44. **Renewable energy investments need to be coupled with sector reforms in order to achieve an efficient, reliable, secure, and sustainable power supply.** Morocco's power sector has experienced transformational changes over the last 20 years, evolving from a vertically integrated public monopoly to a current hybrid single buyer model characterized by the strong involvement of the private sector as independent power producers. Both solar and wind programs (4,000 Megawatt (MW) each) are being implemented by large private sector entities -as Independent Power Producers- selling electricity production to the single buyer National Agency for Electricity and Potable Water (*Office National de l'Electricité et de l'Eau Potable* or ONEE). Preliminary steps toward a more open and liberalized power market were initiated through the adoption of Law 13-09 in 2010 allowing for a partially opened market for renewables to function in parallel with the existing single buyer framework, in view of a gradual reshaping of the power sector's design, organization and regulatory framework.

45. **In order to support the renewable energy transition, the Moroccan government is creating an independent regulatory body** (DPL2 Prior Action). The main task of the National Agency for Electricity Regulation (*Autorité Nationale de Régulation de l'Electricité* or ANRE) will be to establish and oversee the conditions and rules governing grid integration of renewable energy investments, which will be enabled by the new Renewable Energy legislation being launched (see below DPL2 prior actions 2.1.2 and 2.1.3). ANRE's overall missions will include: (i) elaborating grid access tariffs, (ii) ensuring the establishment of an independent Transmission System Operator (TSO) by separating the TSO activity from ONEE, and (iii) managing dispute resolution between the TSO and network users.

46. **The draft Law has been developed in a consultative manner with the national energy stakeholders.** The first section of the draft Law deals with the establishment of the ANRE (status, general missions, organization, functioning, control and staffing). The second section presents the power sector regulation principles (ANRE's specific role in the power sector, TSO missions, TSO independence or separation of roles, grid access, and dispute resolution). The third section deals mainly with implementation and effectiveness date of the Law.

**DPL2 Prior Action 2.1.2** The Council of Government has adopted Decree No. 2-15-772 regarding access to the national medium voltage electricity network on October 12, 2015.

47. **Opening the medium voltage to the integration of renewables through a transparent and non-discriminatory legal framework protecting potential investors is a priority for the Government.** Predefined amounts of green capacity to be added each year will be established at a regional level for each electricity distribution zone. These maximal targets will be established taking into account the specificities of each distributor operating in the country, including regional network size, socioeconomic constraints, and demographic evolution. These envelopes will help distributors maintain their financial equilibrium. Each connection request will be preceded by a preliminary scoping study. A more detailed study will be required for projects exceeding 2MW. A capacity booking mechanism will guarantee capacity to the investor. Priority access rules will be taken into consideration for connection requests, as well as in operational power injection rules.

**DPL2 Prior Action 2.1.3** The Council of Government has approved draft Law No. 58-15 amending and completing Law No. 13-09, to provide renewable energy solutions for low voltage customers, on August 27, 2015.

48. **The Government intends to complement ongoing large scale renewable investments with the encouragement of small on-grid renewables.** Distributed generation offers the potential to offset traditional utility investments in distribution, transmission and generation facilities, and improve service to customers. The current economics of solar and wind energy makes it possible to produce energy at lower costs than grid tariffs and hence matching specific customer needs and hedging against increasing power tariffs. In addition to the development of the Integrated Wind Program and the Noor Solar Plan already underway, GoM aims to allow private sector operators to sell PV-generated power directly to the customers connected to the medium voltage (MV) network. This step will be taken further to allow households, small businesses or low voltage (LV) supplied consumers to install on-grid renewable distributed generation equipment (such as rooftop solar kits).

49. **Encouraging distributed generation will need to address economic, regulatory, and institutional issues.** To address this, legislation will allow for the integration of distributed renewable generation both in LV (through the amendment of Law 13-09, a DPL2 prior action) and MV (through the approval of a specific application Decree, a DPL2 prior action). By supporting the successful implementation of renewable power generation at a distributed level in Morocco, these actions will contribute to: (i) increased reliability and security of the system by relieving distribution and transmission congestion and increasing generation diversity; (ii) reduced costs associated with power losses, cutting fuel costs and deferring investments for generation, transmission and distribution upgrades; (iii) reduced emissions; (iv) improved power quality; and (v) improved conditions for women—especially in rural areas—who will have more time to engage formally in the local economy.

**DPL2 Prior Action 2.1.4** The 2015 Budget Law (Law No. 100-14), which increased the funding to social programs following energy subsidy cuts, has been published in the National Gazette No. 6320 bis, dated December 25, 2014.

50. **Reducing petroleum product subsidies is key to ensuring energy independence, fiscal consolidation, environmental sustainability, and social inclusion.** In 2012, subsidies to petroleum products (gasoline, diesel, industrial fuel, butane, and electricity generation fuel) accounted for a total of MAD 47.5 billion, equivalent to roughly US\$5.5 billion and 5.7 percent of GDP (against less than 1.5 percent of GDP in 2000). Subsidy outlays encourage the inefficient consumption of fossil fuels and compound energy dependence and environmental externalities by reducing incentives to investments in energy efficiency and renewable energy. They also have fiscal and social implications, diverting resources away from productive and social investments, including from sectors such as health and education (in 2012, for the first time more funding was spent on subsidies than on investments). In Morocco as elsewhere, petroleum product subsidies are also largely regressive. The wealthiest 20 percent consume up to 35.2 percent of the total subsidy envelope for petroleum products (gasoline, diesel, and butane), whereas the share of the bottom quintile is 11.6 percent. When considering only the transport fuels (gasoline and diesel), the subsidy share benefiting the poorest quintile shrinks to less than one percent of the related subsidy envelope.

51. **Following successive attempts to reform the subsidy system since the early 1990s, the Government announced in March 2012 its intention to proceed with a gradual and comprehensive reform.** In June 2012, GoM introduced a one-off increase in the price for unleaded gasoline and diesel fuel by 20 and 16 percent, respectively, the sharpest single increase in fuel prices in over the previous decade. In August 2013, the Head of Government approved an Order introducing automatic price adjustments based on international price fluctuations for diesel,

gasoline and industrial fuel and reduce their subsidization (DPL1 prior action), together with a hedging mechanism covering for international price variations. In early 2014, the Government decided to totally remove all subsidies to unleaded gasoline and Heavy Fuel Oil and gradually phase out subsidies to diesel, representing 64 percent of the total amount (MAD 35.9 billion, equal to US\$ 4.3 billion)<sup>17</sup> that GoM paid in subsidies to petroleum products in 2013. The subsidy to the fuel used for electricity generation (HFO) totaling US\$624 million was also eliminated in the framework of the new *Contrat-Programme* between GoM and the ONEE. In the 2015 budget law, the Government announced the termination of all diesel subsidies and the liberalization of liquid fuel market by end 2015.

52. **The Government used the fiscal space created by the reduction of the energy subsidy envelope to strengthen social expenditures.** GoM's decision to phase out all subsidies to petroleum products (bar butane) helped increase expenditures for social programs, including safety nets (DPL2 prior action). The 2014 and 2015 budgets witnessed an increase of about 10 percent in resources allocated to key sectors such as health and education (Table 6). Allocations to the Social Cohesion Fund - the Government's vehicle to fund large social safety net programs - doubled from 0.77 percent of overall budget expenditures in 2013 to 1.53 percent in 2015. Social Cohesion Fund programs include RAMED, Tayssir, the future Poor and Disabled Population Cash Transfer Program and the Cash Transfer Program for Poor Widows. RAMED and Tayssir also saw a notable expansion in beneficiaries.

**Table 6. Share of social sectors expenditures within the overall budget**

| Sectors  | 2012        | 2013        | 2014        | 2015        |
|--|-------------|-------------|-------------|-------------|
| National Education and Vocational Training       | 17.2        | 16.4        | 18.5        | 18.6        |
| Health   | 4.7         | 4.8         | 5.2         | 5.3         |
| Housing and Urban Policy                         | 0.4         | 0.7         | 0.3         | 0.3         |
| Employment and Social Affairs                    | 0.2         | 0.3         | 0.1         | 0.2         |
| Solidarity, Women, Family and Social Development | 0.3         | 0.3         | 0.3         | 0.3         |
| Social Cohesion Fund                             | 0.8         | 0.8         | 1.6         | 1.6         |
| INDH   | 0.9         | 1.1         | 1.2         | 1.2         |
| <b>Total (% of overall budget)</b>               | <b>24.4</b> | <b>23.7</b> | <b>26.5</b> | <b>26.8</b> |

#### DPL1 Prior Actions

2.1.1: The Council of Government has adopted on November 14, 2013 the Decree on energy efficiency in the building sector.

2.1.2: Order (Arrêté) No 3.69.13 dated August 19, 2013 introducing automatic price adjustments for diesel, gasoline and fuel has been published in the National Gazette No. 6182 dated August 29, 2013.

#### DPL2 Prior Actions

2.1.1 The Council of Government has approved draft Law No. 48-15 creating the National Agency for Electricity Regulation (*Autorité Nationale de Régulation de l'Electricité*) on September 17, 2015.

2.1.2 The Council of Government has adopted Decree No. 2-15-772 regarding access to the national medium voltage electricity network on October 12, 2015.

2.1.3 The Council of Government has approved draft Law No. 58-15 amending and completing Law No. 13-09, to provide renewable energy solutions for low voltage customers on August 27, 2015.

2.1.4 The 2015 Budget Law (Law No. 100-14), which increased the funding to social programs following energy subsidy cuts, has been published in the National Gazette No. 6320 bis, dated December 25, 2014.

#### Outcomes

By September 2017, 400,000 m<sup>2</sup> of new buildings will integrate energy efficiency (EE) requirements and respect thermal regulations for new buildings.

By September 2017, the total capacity of distributed medium- and low voltage tension grid connected renewable energy systems will reach 10 Megawatts.

Total subsidy expenditures to diesel, gasoline, and industrial fuel will account for 0% of GDP by September 2017.

By September 2017, social cohesion funds allocation will account for 1.34% of the total budget (excl. debt service).

<sup>17</sup> Source: Morocco Compensation Fund - Companion Document to 2015 Budget Law.

### **Implementation Progress**

2.1.1: Decree 2-13-874 of October 15, 2015 on energy efficiency (setting the rules for energy efficiency in the construction industry) will become effective on November 6, 2015. It is therefore expected that the public sector will be leading the way towards energy efficiency through its public schools, hospitals and administrative buildings. Law compliance by the private sector is expected to be led by private stakeholders most concerned by energy savings (including hotels and offices), and GoM is carrying out important market readiness efforts through its EE agency (ADEREE). The original result indicator (50 percent of new buildings integrating EE requirements) was revised recognizing that the integration of EE requirements hinges on a substantial behavior change process that will involve a range of actors to internalize such requirements (promoters, builders, construction materials industry, urban agencies, architects, consumers). The revised indicator, proposed by GoM, is based on the estimated pipeline of new buildings between now and 2017. The long-term result of this DPL series is thus the national adoption of the energy efficiency thermal building regulation through implementation of energy-conservation technologies in the public sector, hence saving money for taxpayers and promoting an important message to the public that energy efficiency works.

2.1.2/2.1.3: Liberalizing the renewable energy sector through the operationalization of Law 13-09 is key for Morocco's low carbon growth agenda. The Ministry of Energy has led a comprehensive consensus-oriented consultation with all relevant stakeholders to this important reform, including Ministry of Interior, Ministry of Finance, local power distribution utilities, and the national public utility ONEE, taking into account the private sector expectations. The achievement of the target indicator of 2MW of PV installed capacity has been revised upwards to 10MW, given that the scope has been widened to all renewable energies. It is also to be taken into account that distributed renewable energy facilities are by essence limited in scale. The long-term result of this DPL series is thus to support the adoption of a progressive and inclusive renewable energy liberalization approach free of government intervention, with sole reliance on market forces.

2.1.4: Following the energy subsidy reduction measures supported by DPL1, the Government sustained the reform effort with a phasing out of all subsidies to gasoline, Heavy Fuel Oil and diesel, a decision confirmed in the 2015 budget law. Social expenditures have increased by leveraging the fiscal space. A new indicator has been introduced to capture the increased share of the Social Cohesion Funds expenditure within the Government budget (Table 6).

## ***Policy Area 2.2 Pollution management***

**DPL2 Prior Action 2.2** The 2015 Budget Law, which introduced additional resources to depollution investments, has been published in the National Gazette No. 6320 bis, dated December 25, 2014; and Order (*Arrêté*) No. 2850.15 dated August 10, 2015, supporting the recycling framework for used batteries based on extended producer responsibility, has been published in the National Gazette No. 6406, dated October 22, 2015.

53. **Industrial pollution heavily contributes to degrading the quality and productivity of natural assets, particularly water.** The World Bank estimated the annual cost of water quality degradation (including from untreated industrial wastewater discharge) at MAD 4.3 billion in 2000, or 1.2 percent of GDP<sup>18</sup>. Industrial pollution affects low-income population groups comparatively more, as these often tend to concentrate near industrial zones. As a decisive step to improve the enforcement of industrial depollution, the Government approved in October 2013 three Orders: one setting the norms and standards for industrial wastewater treatment; and two subsequent Orders determining the characteristic pollution levels from selected industrial activities and its respective pollution abatement levels. These new regulations is an application of the “polluter pay” principle but needs to be accompanied by awareness raising efforts to convince industrialists that investing in depollution can be advantageous and financial incentives. With EU support, the Government piloted a scheme allowing industries to benefit from financial support towards depollution investments, through the establishment of the MVDIH (*Voluntary Mechanism for Industrial Depollution or Mécanisme Volontaire de Dépollution Industrielle Hydrique*) for a three-year period (2011-2013). Partly due to unwieldy application procedures, the MVDIH has long remained under-committed<sup>19</sup>. In 2014, the Government proceeded to simplify the modalities to access funding for small scale actors (such as olive oil producers), and reinstated its financial commitment to the MVDIH by

<sup>18</sup> Cost of Environmental Degradation (World Bank 2000). The revision of the Cost of Environmental Degradation is currently underway, which will refine this estimate and break it down per sources of pollution.

<sup>19</sup> This mechanism fills the void left by the KfW-supported Industrial Depollution Fund “FODEP” which was later discontinued.

allocating additional resources in both the 2014 and 2015 Budget Laws. At the request of GoM, the Bank is providing technical assistance to further streamline MVDIH governance, support the process of establishing characteristic pollution levels from selected industrial activities and preparing terms of reference (TORs) of what could become a national Industrial Depollution program.

54. **Morocco is gradually extending the application of the “polluter pays” principle through fiscal incentives.** Before the adoption of the Framework Law on Environment and Sustainable Development (*Loi-cadre 99-12 portant Charte Nationale de l’Environnement et du Développement Durable*), the Government had already introduced green taxes (*éco-taxes*) in two sectors: (i) plastic and (ii) sand extraction. The introduction of the tax on plastic (which became effective January 1, 2014) faced initial resistance from industrialists. Today, revenues from this tax are estimated at MAD 200 million (US\$22 million) and earmarked to develop the value chain for plastic. This revenue – collected through the National Environmental Fund – helps support recycling projects and the integration of waste pickers<sup>20</sup>.

55. **The Government intends now to extend the green fiscal framework to other polluting products and to move towards the implementation of an *Extended Producer Responsibility* approach,** by which environmental costs of polluting products are integrated into their market price to finance take-back, recycling, as well as disposal and/or valorization. The initial focus is on products with a high environmental damage potential such as car batteries. The Government is developing Memoranda of Understanding with sector categories (producers and importers) and aims to finalize supporting regulations, starting with the Order allowing for the recycling framework for car batteries based on extended producer responsibility principles. To support this Government approach, DPL2 has focused on used batteries as a model to be followed by other value chains such as used tires, used oil, and electronic waste.

**DPL1 Prior Actions:**

2.2.1 The three Orders (*Arrêtés*) No. 2942.13, No. 2943.13, and No. 2944.13 dated October 7, 2013 on monitoring and controlling industrial wastewater discharges in the hydraulic domain stating a) general limit values; b) characteristic values and specific coefficients; and c) minimum treatment efficiency of industrial wastewater treatment plants, have been published in the National Gazette No 6199 dated October 28, 2013.

2.2.2: The Council of Ministers has approved on March 7, 2013, the draft Framework Law on environment and sustainable development setting forth, in particular, the establishment of a comprehensive green fiscal framework.

**DPL2 Prior Action**

2.2. The 2015 Budget Law, which introduced additional resources to depollution investments, has been published in the National Gazette No. 6320 bis, dated December 25, 2014; and Order (*Arrêté*) No. 2850.15 dated August 10, 2015, supporting the recycling framework for used batteries based on extended producer responsibility, has been published in the National Gazette No. 6406, dated October 22, 2015.

**Outcome**

By September 2017, the deployment of pollution management systems will be demonstrated by (i) at least three industries having submitted a funding request to the Voluntary Mechanism for Industrial Depollution, (ii) reduction in industrial pollution (as measured by tons of BOD5 abated yearly, from 20 to 200 by September 2017); and (iii) two additional polluting products which will be subject to green taxes or to conventions promoting recycling value chains.

**Implementation progress**

After being approved by the Council of Ministers in March 2013 (DPL1 prior action), the *Framework Law on Environment and Sustainable Development* has been approved by Parliament in March 2014. The Bank provided technical assistance (TA) to collect estimates of the industrial pollution per river basin and to study concrete ways to streamline MVDIH governance—pointed out as a the main obstacle to its persistent low commitment. The Bank co-organized a workshop on industrial depollution which gathered industrial sector and public representatives to share experiences in investing in industrial wastewater treatment, including in terms of financial costs and benefits, and discuss main issues and obstacles related to implementing industrial depollution projects and

<sup>20</sup> Circular No. 209 dated November 11, 2014 sets forth the modalities for the allocation of eco-tax revenues and indicates that at least **20 percent** of eco-tax revenues shall be allocated to support recycling activities targeting waste-pickers.

accessing state aid (FOPEP, MVDIH). As a follow-up to this workshop, the Bank is providing further TA on streamlining MVDIH governance, supporting the process of establishing characteristic pollution levels from selected industrial activities, and preparing TORs of what could become a national Industrial Depollution program.

### **Pillar 3: Strengthening and diversifying the rural economy by leveraging human capital.**

56. **Pillar 3 supports the Government objective to: (i) strengthen the adoption of new technologies to increase agriculture’s productivity and resilience and (ii) support the establishment and growth of new sectors in rural areas.** This inequality between urban and rural living standards in Morocco is largely driven by weak diversification of economic activities in rural areas and under use of human capital endowments. Although Morocco’s rural population strives to participate in economic activity (in 2012 labor force participation rate in rural areas was 57 percent against 42.8 percent in urban areas<sup>21</sup>) full economic participation faces serious constraints. Around 75 percent of rural labor force works in the primary sector (agriculture, fishing and forestry), a share increasing to 90 percent for working rural women. The concentration in low productivity agricultural activities entails significant risks of fluctuations in rural revenues due to weather variability. This contributes to creating vast pockets of vulnerability: 40.2 percent of the officially employed in rural areas are unpaid family helpers, only 23.1 percent are salaried, and even less than 15 percent have a contract (2012 figures). In 2011, 95.5 percent of those employed in rural areas did not have health insurance. In comparative terms, the rural skilled face both high-rates of under-employment (16 percent for rural graduates versus 9.8 percent for the overall rural population) and unemployment (24.7 percent for rural graduates versus less than 5 percent overall).

57. **As described under Pillar 1, environmental constraints place additional limits on the growth of sectors such as agriculture, fisheries and tourism (together contributing to over 30 percent of GDP).** Environmental constraints combined with the labor dynamics described above call for (i) technological innovations to increase the resilience and productivity of the agricultural sector (by ensuring producers’ access to adequate agricultural services and by supporting institutions, including those related to direct seeding and agro-meteorological services) and (ii) the diversification of rural revenues through the establishment of sectors able to turn constraints into job creation opportunities, such as aquaculture and eco-tourism. In this context, Pillar 3 includes two Policy Areas: green technologies in the agricultural sector and the diversification of rural revenues.

#### ***Policy Area 3.1 - Green technologies in the agricultural sector***

**DPL2 Prior Action 3.1** The Ministry of Agriculture and Marine Fisheries and the Department of National Meteorology at the Ministry of Energy, Mines, Water and Environment, have signed the framework partnership agreement No. 03/2014/DMN-MAPM for the provision of agro-meteorological information to the agricultural sector on March 21, 2014.

58. **With 70 percent of the poor living in rural areas, and half of the labor force employed in agriculture, enhancing agriculture’s employment capacity is essential to Morocco’s path towards shared prosperity.** Because of the limits imposed by dwindling natural capital (land and water), it is essential to ensure a sustainable agricultural system. Consultations held before and during DPL preparation identified “green” technologies being mature enough for adoption and able to strike a balance between increasing productivity and preserving natural resources. Since 2013,

<sup>21</sup> Source: Haut Commissariat au Plan

the Government has started subsidizing direct seeding (DPL1 prior action) - a technique using special seeding machinery which avoids plowing and contributes to stabilize yields under drought conditions, control erosion, reduce energy requirements and decrease greenhouse gas (GHG) emissions.<sup>22</sup>

59. **The quality of weather information and its timely translation into relevant messages understandable to farmers is a necessary condition to increase the resilience of the most vulnerable rural population.** Hotter and drier conditions and increased climate variability are weakening the capacity of farmers' traditional knowledge to cope. The provision of relevant agro-meteorological information depends on the existence of a well-designed and functioning physical network of weather stations, as well as institutional coordination to facilitate the mobilization of knowledge and skills necessary to translate raw data into information that can be readily used by farmers. In Morocco, the two main institutions involved are the National Meteorological Directorate (DMN) and the Ministry of Agriculture and Maritime Fisheries (*Ministère de l'Agriculture et de la Pêche Maritime* or MAPM). The MAPM has rolled out several networks of meteorological stations within its different departments over the years. In addition to having the right infrastructure in place, the institutional organization of agro-meteorological information requires a consolidation and enhancement of pre-existing networks within the MAPM. The DMN is ready to respond to this increased demand, also with a view to grasp development and revenue generating opportunities beyond its main revenue sources (airports). A recent World Bank-financed TA<sup>23</sup> took stock of the state of the country's different networks of weather stations and proposed ways of organizing the flow of weather information to the sector, thus spurring a dialogue between MAPM and DMN. The outcome of this dialogue took the form of a Framework Partnership Agreement between DMN and MAPM for the provision of agro-meteorological information to the agricultural sector (DPL2 prior action).

**DPL1 Prior Action**

3.1 Order (Arrêté) No. 3186-13 dated November 13, 2013 modifying and completing Order (Arrêté) No. 368-10 dated January 26, 2010, on subsidies for agricultural equipment, introducing a subsidy for the purchase of direct seeding equipment, has been transmitted by the Minister of Economy and Finance to the General Secretariat of the Government for publication in the National Gazette, on November 19, 2013.

**DPL2 Prior Action**

3.1 The Ministry of Agriculture and Marine Fisheries and the Department of National Meteorology at the Ministry of Energy, Mines, Water and Environment, have signed the framework partnership agreement No. 03/2014/DMN-MAPM for the provision of agro-meteorological information to the agricultural sector on March 21, 2014.

**Outcome**

By September 2017, farmers' resilience to climate change will benefit from (i) improved seeding practices, as measured by the share of the envelope allocated to direct seeders in the total FDA envelope allocated to seeders (traditional and direct) which will have increased from 0 to 6%<sup>24</sup> and (ii) enhanced agro-meteorological services, as measured by an increase from 1.5% to 9% of DMN revenues from agro-meteorological services.

**Implementation Progress**

Since DPL1, there has been an increasing demand from farmers for the adoption of the direct seeding technique. The subsidy targeting direct seeding machines has been effective since 2015. While there are clear signs of increasing interest of farmers in the technique, with positive impacts recorded on the ground, the initial value of the indicator (16.9%) was too ambitious considering: a) the time required for a new technology to be picked up by farmers—especially small ones—and b) the fact that some seeding machines were funded by a GEF Grant to the benefit of the farmers associations in the Chaouia Ouardigha and

<sup>22</sup> Direct seeding has been widely tested worldwide. In Morocco it has yielded favorable results among some farmers in major grain-producing regions (Chaouia, Sais, Zaer, Abda, and Gharb). Experiments in Morocco proved that direct seeding can increase production by 30 to 40%, increase soil organic matter with carbon sequestration of 1 to 4 ton/ha of CO<sub>2</sub>, and reduce annual energy consumption by up to 40 l/ha of diesel fuel (INRA, 2009).

<sup>23</sup> *Analyse Institutionnelle et Financière de la DMN* prepared by A. Roumagnac for the World Bank in April 2015 (unpublished).

<sup>24</sup> This target has been revised from 16.9% to 6%.



Rabat Salé Zemmour Zaer regions.

The Framework Partnership Agreement between MAPM and DMN (DPL2 prior action) is built as the first institutional step that will eventually result in a better information for the end user, i.e. the farmer. A technical assistance has been carried out on this very topic during DPL2 preparation. The indicator is mainly aimed at capturing the strengthened collaboration at the institutional level. The change in its target value (from 15 to 9%) stems from the foreseen increase in total DMN revenues following a new agreement between DMN and the Ministry of Water for flood prevention.

### ***Policy Area 3.2 Diversification of rural revenues***

**DPL2 Prior Action 3.2.1** The National Committee on Environmental Impact Studies has validated the Directive on environmental impact assessments in the aquaculture sector on March 26, 2015; and the National Aquaculture Development Agency (*Agence Nationale pour le Développement de l'Aquaculture*) has published on its website its strategic environmental assessment for the aquaculture sector on October 1, 2015.

60. **In addition to sustained agricultural growth, rural economies require the emergence of labor intensive sectors delivering opportunities for more and better jobs.** Unemployed and underemployed skills can be mobilized by catering to job seekers looking for higher paid and higher quality work in the formal sector, including women. Aquaculture and eco-tourism activities can deliver on these objectives, whilst contributing to alleviating the environmental pressures caused by traditional sectors such as fisheries and tourism. The development of aquaculture is one of the five pillars of the Government's *Halieutis Strategy*. Given known limits to meeting current and future demands for captured production, the increase in farmed output becomes both a need and an opportunity. *Halieutis* makes aquaculture a major driver of jobs and investments, with ambitious objectives for a sizeable scale up of the current 500 ton production. The establishment of the National Aquaculture Development Agency (ANDA) in 2011 was followed by the introduction of incentive measures to attract private investments. As a key step in laying out the framework for the development of the sector, and achieving *Halieutis*'s goals of creating hundreds of new jobs over the next five years, the technical and economic criteria setting the concession fees for aquaculture farms have been established (DPL1 prior action). In addition, ANDA is planning to locate concessions close to fishing communities in order to facilitate women's participation, attract fishermen's workforce, and catalyze job creation in those areas.

61. **The Government is aware of the need to control the environmental risks originating from the development of the aquaculture sector.** The sector's projected growth rates indicate that a substantial expansion of aquaculture activities is foreseen in the upcoming years. While national legislation is adequate to handle environmental impact assessment for individual fish farms, the concern is the potential for cumulative impacts, particularly if large numbers of such farms begin operating, especially in close proximity to one another and to other human and natural users of the coastal zone. Potential environmental impacts of aquaculture projects, including cumulative impacts on a larger scale, depend in great part on (i) the species that are being cultivated, (ii) the way in which they are being farmed (including how waste is being managed). Whilst pisciculture can have serious deleterious effects if feed and antibiotics are mismanaged, shellfish and algae farming normally have beneficial impacts on the environment. This is particularly the case for ostreiculture (oyster farming), upon which most of Morocco's aquaculture industry has been built so far. In the case of traditionally more polluting activities, the prevention, identification and treatment of diseases can avoid excessive use of antibiotics - the major health and environmental risks of fish aquaculture. In addition, many of the worst environmental impacts can easily be mitigated by avoiding high-input, high-output intensive systems (e.g. salmonids in raceways and cages).

62. **In recognition of these risks, the Government is strengthening the performance of the environmental impact control framework for aquaculture investments.** ANDA has engaged the Ministry of Environment in establishing the process to address cumulative impact risks, following a two-pronged approach: (i) ANDA has carried out a strategic environmental assessment (**SEA**) of the aquaculture sector, and (ii) MEMEE has issued a specific *Directive* complementing the existing Environmental Impact Assessment (EIA) Law by detailing specific procedures for environmental controls of aquaculture investments (DPL2 Prior Action). In addition to the *Directive*, which is regulatory in nature, ANDA is finalizing an **Environmental Guide** on aquaculture specifically targeted to the operators and investors launching new farms in response to ANDA's Request for Proposals (RFPs). The environmental framework will also be strengthened through the adoption of *Regional Environmental and Social Management Plans*. To date, seven Aquaculture Development Management Plans are underway, of which two have been adopted and five are under preparation or finalization. Three *Regional Environmental and Social Management Plans* will be adopted by end 2016. These actions complement additional revisions (such as the one making SEA compulsory) to Moroccan EIA legislation.

**DPL2 Prior Action 3.2.2** The interministerial agreement launching the national rural and eco-tourism program (*Qariati*) has been signed by the Minister of Interior, the Minister of Urbanism and Territorial Planning, the Minister of Agriculture and Marine Fisheries, the Minister of Tourism, the Minister of Handicrafts and Social and Inclusive Economy, the Minister of Youth and Sports, and the Minister in charge of Environment, under the Minister of Energy, Mines, Water and Environment on September 29, 2014.

63. **Similarly to aquaculture, eco-tourism investments combine the preservation of natural assets with the generation of local economic revenues.** Overall, tourism is fundamental to Morocco's economy. The country's coastal and climatic resources attract a critical mass of approximately 10 million visitors annually. The sector generates significant employment with 428,000 new jobs reported in the period of 2000-2009. In 2011, tourism reportedly generated as much foreign exchange as agriculture and fishing combined. The challenge for the tourism sector is now to diversify away from seaside tourism to take advantage of the full range of Morocco's natural assets: Morocco is endowed with 168 sites of biological and ecological interest, two national parks, and 146 natural reserves. These constitute a natural resource base from which ecotourism activities can be developed. As one of the fastest growing sectors in the global tourism industry, with annual growth rates of 10–12 percent, eco-tourism can be a significant source of employment in the long term, economic growth and foreign exchange for Morocco, and support the provision to rural populations of an additional diversified source of income outside agriculture. From the gender perspective, the tourism sector can provide various entry points for women's employment by opening up self-employment opportunities in small- and medium-sized income generating activities.<sup>25</sup>

64. **Unlocking the economic benefits of eco-tourism requires complementary investments in physical and human capital.** As part of its ambitious strategy aimed at developing the tourism sector ("*Vision 2020*"), the Ministry of Tourism (MoT)'s "*Qariati*" Program aims to develop ecotourism in rural areas. "*Qariati*" aims at expanding accommodation facilities (35,000 additional beds, from a current base of 20,000) and support infrastructure (signage, welcome/interpretation centers, tourist attractions, and thematic circuits, i.e. culinary and agribusiness trails) while fostering tourism income generating activities. In order to implement *Qariati*, an Interministerial Agreement

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<sup>25</sup> UNED, *Gender & Tourism: Women's Employment and Participation in Tourism*

setting out the program’s detailed implementation – including the financial commitments from each ministry involved – has been drafted. This text was signed by seven Ministers on September 29, 2014. GoM is aware that implementation capacities at local level will be crucial to the Program’s success, and is developing a governance framework hinged on the creation of Local Development Companies (*Sociétés de Développement Local*) in charge of implementing the program through public and private equity investments.

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| <p><b>DPL1 Prior Action</b><br/>3.2.1 Order (<i>Arrêté</i>) No. 3151-13 dated November 11, 2013 establishing the technical and economic criteria setting the lease fee to be paid by aquaculture farms, has been transmitted by the Minister of Economy and Finance to the General Secretariat of the Government for publication in the National Gazette on November 15, 2013.</p>  |
| <p><b>DPL2 Prior Actions</b><br/>3.2.1 The National Committee on Environmental Impact Studies has validated the Directive on environmental impact assessments in the aquaculture sector on March 26, 2015; and the National Aquaculture Development Agency (<i>Agence Nationale pour le Développement de l’Aquaculture</i>) has published on its website its strategic environmental assessment for the aquaculture sector on October 1, 2015.<br/>3.2.2 The interministerial agreement launching the national rural and eco-tourism program (<i>Qariati</i>) has been signed by the Minister of Interior, the Minister of Urbanism and Territorial Planning, the Minister of Agriculture and Marine Fisheries, the Minister of Tourism, the Minister of Handicrafts and Social and Inclusive Economy, the Minister of Youth and Sports, and the Minister in charge of Environment, under the Minister of Energy, Mines, Water and Environment on September 29, 2014.</p>   |
| <p><b>Outcome</b><br/>500 new jobs in aquaculture (of which 100 women) and 250 new jobs in ecotourism (of which 80 women) will be created by September 2017.</p>  |
| <p><b>Implementation Progress</b><br/>3.2.1: Following consultations on the <i>SEA</i> and the <i>Directive</i>, ANDA has prepared an Environmental Guide, targeted at the operators who will need to prepare EIAs when they respond to Request for Proposals. In addition, ANDA has prepared seven regional Aquaculture Development Management Plans; two of which have been adopted already. When all seven plans are adopted, the totality of the coastline (both Atlantic and Mediterranean) will be covered. In addition, a specific framework Environmental and Social Management Plan will be developed and adopted for each plan (seven in total). Following progress to date, achievement of the initially set target of 460 jobs created by end of the series has been revised upward to 500.<br/>3.2.2 Since DPL1, in-depth dialogue between the GoM and the World Bank led to a support eco-tourism sector. Target indicators has been revised downward from 1,100 to 250. This revision is due to the fact that the implementation of the <i>Qariati</i> program has just started. The bulk of job creation will be created once the enabling environment for the private sector participation is in place. This will happen in the medium to long term (3-5 years) and hence beyond the closing date of the DPL series.</p> |

**Table 7: Comparison between IGG DPL2 Prior Actions and Indicative Triggers**

|       | <b>IGG DPL2 Indicative Triggers at DPL1 approval</b>  | <b>IGG DPL2 Prior Actions</b>   | <b>Rationale for change</b>   |
|-------|---|---|---|
| 1.1.1 | The Council of Government adopts the National Coastal Zone Management Plan ( <i>Plan National d’Aménagement du Littoral</i> ) | The Council of Government ( <i>Conseil du Gouvernement</i> ) has adopted Decree No. 2.15.769 regulating, inter alia, the formulation of the National Coastal Zone Management Plan ( <i>Plan National d’Aménagement du Littoral</i> ) on November 5, 2015. | The Decree is the underpinning regulatory text that will allow for the formulation of the <i>National Coastal Zone Management Plan</i> . The reformulation reflects the Government’s wish to define the <u>institutional arrangements</u> for the formulation of the Plan given its highly inter-sectoral nature, ahead of the actual formulation of the plan itself. |
| 1.1.2 | The Minister of Agriculture and Fisheries adopts the National Monitoring Plan for Marine Fisheries.                           | The Minister of Agriculture and Marine Fisheries has issued Decision No. 001/Cab/PM containing the National Monitoring Plan for Marine Fisheries ( <i>Plan National de Contrôle des Activités de la Pêche Maritime</i> ) on April 1, 2015.                | No material change  |
| 1.2   | The Council of Government approves the draft of the revised Water Law   | The Council of Government has approved the draft Law No. 36-15 on water, setting provisions for, inter alia, participatory groundwater management on November 19, 2015.   | The reformulation clarifies the specific objectives of the reform supported by the DPL series in line with DPL1 prior action and expected results.  |
| 2.1.1 | The Council of Government   | The Council of Government has approved draft  |   |

|       |   |   |   |
|-------|---|---|---|
|       | approves the draft Law creating the National Agency for Energy Regulation.  | Law No. 48-15 creating the National Agency for Electricity Regulation ( <i>Autorité Nationale de Régulation de l'Electricité</i> ) on September 17, 2015.   | The objective of this prior action is to improve the regulatory framework to increase competition and private sector participation in the production of <u>electricity</u> from renewable energy. Hence the agency's name has been revised from <i>National Agency for Energy Regulation</i> to <i>National Agency for Electricity Regulation</i> by the Government of Morocco. |
| 2.1.2 | The Council of Government adopts the decree allowing for renewable energy generation connected to the medium voltage grid   | The Council of Government has adopted Decree No. 2-15-772 regarding access to the national medium voltage electricity network on October 12, 2015.  | No material change  |
| 2.1.3 | The Council of Government approves the amendment to Law 13-09 to provide renewable energy solutions for low voltage customers   | The Council of Government has approved draft Law No. 58-15 amending and completing Law No. 13-09, to provide renewable energy solutions for low voltage customers on August 27, 2015.   | No material change (clarification provided)   |
| 2.1.4 | The Government strengthens safety nets to temper the impact of possible energy subsidy cuts.  | The 2015 Budget Law (Law No. 100-14), which increased the funding to social programs following energy subsidy cuts, has been published in the National Gazette No. 6320 bis, dated December 25, 2014.   | The Government aims to recycle part of the savings derived from subsidy cuts envelope to increase funding of social programs. The reformulation clarified the previous wording in line with the objective of the reform supported as per DPL1 Prior Action and expected results.  |
| 2.2   | The Council of Government approves the draft 2015 finance law introducing green taxes and financial incentives to depollution investments   | The 2015 Budget Law, which introduced additional resources to depollution investments, has been published in the National Gazette No. 6320 bis, dated December 25, 2014; and Order ( <i>Arrêté</i> ) No. 2850.15 dated August 10, 2015, supporting the recycling framework for used batteries based on extended producer responsibility, has been published in the National Gazette No. 6406, dated October 22, 2015.   | The reformulation reflects the Government's intention to maintain the key existing mechanism supporting depollution investments, to increase its resource envelope, and to change the approach to environmental taxes towards the development and application of Extended Producer Responsibility.  |
| 3.1   | The Minister of Agriculture and the Minister of Energy, Mining, Water and Environment sign the Performance Agreement between the DMN and MAPM for the provision of agro-meteorological information to the agricultural sector | The Ministry of Agriculture and Marine Fisheries and the Department of National Meteorology at the Ministry of Energy, Mines, Water and Environment, have signed the framework partnership agreement No. 03/2014/DMN-MAPM for the provision of agro-meteorological information to the agricultural sector on March 21, 2014.  | No material change (list of ministries accurately captured).  |
| 3.2.1 | The National Committee on Impact Studies validates the Directive specific to the aquaculture sector and ANDA publishes the Strategic Environmental Assessment for the Aquaculture sector.                                     | The National Committee on Environmental Impact Studies has validated the Directive on environmental impact assessments in the aquaculture sector on March 26, 2015; and the National Aquaculture Development Agency ( <i>Agence Nationale pour le Développement de l'Aquaculture</i> ) has published on its website its strategic environmental assessment for the aquaculture sector on October 1, 2015.   | ANDA website: <a href="https://www.anda.gov.ma/fr/node/321">https://www.anda.gov.ma/fr/node/321</a><br>No material change (clarification and precision provided)  |
| 3.2.2 | At least two Local Development Entities tasked with the implementation of the national rural and eco-tourism program ( <i>Qariati</i> ) are established.  | The interministerial agreement launching the national rural and eco-tourism program ( <i>Qariati</i> ) has been signed by the Minister of Interior, the Minister of Urbanism and Territorial Planning, the Minister of Agriculture and Marine Fisheries, the Minister of Tourism, the Minister of Handicrafts and Social and Inclusive Economy, the Minister of Youth and Sports, and the Minister in charge of Environment, under the Minister of Energy, Mines, Water and Environment, on September 29, 2014. | The reformulation proposed to retain the signature of the interministerial agreement that sets out GoM's eco-tourism development program. This text has been signed by seven Ministers and lays out the details of the program's implementation – including the financial commitments from each ministry involved.  |

65. **The operation builds on a solid and diverse body of analytical and technical work** conducted by the Bank, Government and other financial and technical partners over the past years. Annex 6 lists the key analytical underpinnings by PDO and prior action.

#### 4.3 LINK TO CPS AND OTHER BANK OPERATIONS

66. **The proposed operation is fully in line with the 2014-2017 Country Partnership Strategy (CPS) for Morocco<sup>26</sup>, and new MENA Strategy. It also complements and leverages several ongoing policy and investment engagement.** The IGG DPL series is a key vehicle towards the achievement of the CPS Results Area 2 (Building a Green and Resilient Future) and Results Area 1 (Promoting Competitive and Inclusive Growth). Additionally, in supporting policy measures aimed at cleaner, more efficient, resilient and socially inclusive growth, the DPL series operationalizes the World Bank's conceptual framework for Inclusive Green Growth.<sup>27</sup> The proposed operation is aligned with MENA strategy on *Economic and Social Inclusion for Peace and Stability* in particular its pillar on renewing the social contract. In Morocco, natural resources are at the heart of the relation between the citizens and the State—as public goods to be preserved as part of an intergenerational social contract. From the onset the proposed operation has promoted a more inclusive and effective protection of the poor and vulnerable. In particular pillars 1 and 3 contribute to improved incomes and livelihoods in rural areas, where a substantial part of Morocco's poor and vulnerable live. A more substantial poverty and social impact analysis is provided in Section 5.1 and in Annex 5.

67. **Support to the Government's sustainability objectives remains a common thread throughout recently completed and ongoing operations.** The IGG DPL complements the focus of the Municipal Solid Waste Sector DPL series on improving the environment. The IGG DPL prior actions on direct seeding and agro-meteorological services are synergetic to the focus of the Plan Maroc Vert DPL series on irrigation efficiency and improving agricultural services. The *Noor Concentrated Solar Power Project* support the implementation of the Solar Plan energy objectives also supported by the IGG DPL series. The *Modernization of Irrigated Agriculture in the Oum Er Rbia Basin* project shares the objective of promoting the sustainable use of irrigation water to overcome current and future water deficits in line with IGG DPL-supported reform areas on ag-met services and groundwater management. Under the MENA-MDTF, a US\$750,000 grant is being provided to the Oum Er Rbia basin agency to support its effort to (i) design inclusive groundwater management contracts for two aquifers in the Tadla area, and (ii) address climate risk management. The *Integrated Coastal Zone Management* GEF grant pilots the application of coastal zone management approaches in the country, and informed the development of legislative and regulatory actions on coastal zone management supported by the IGG DPL. The *Integrating climate change adaptation in the implementation of the Plan Maroc Vert* SCCF/GEF grant pilots the adoption of climate change adaptation measures (including direct seeding) in projects directed to small farmers, and the mainstreaming of the lessons learned into the national agricultural strategy.

#### 4.4 CONSULTATIONS, COLLABORATION WITH DEVELOPMENT PARTNERS

68. **The Government has consulted widely on the key policy areas supported by the operation.** The first pillar of the Government consultation approach is constituted by the participatory nature of the activities of official think tanks such as the Royal Institute of Strategic

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<sup>26</sup> The Morocco 2014-2017 CPS (Report No. 86518-MA) was discussed by the Board of Executive Directors on April 1, 2014

<sup>27</sup> *Inclusive Green Growth. The Pathway to Sustainable Development* (World Bank 2012)

Studies<sup>28</sup> and the Economic, Social and Environmental Council, which have both produced seminal policy outputs on the green economy in 2011 and 2012<sup>29</sup> based on extensive consultations within and outside the Government aimed at sounding out attitudes and perceptions on this policy agenda. Similarly, the development of the various sector strategies supported by the operation (Water, Energy, Fisheries, and Agriculture<sup>30</sup>) was framed around substantial consultative efforts with key sector stakeholders as well as with citizens, carried out since 2009. More recently, the establishment of the National Environment Charter in 2011 was based on a broad-based participatory process including online feedback and actual consultative events throughout the country. In October 2013, the Government organized a broad based consultation on its new *Green Investment Plan*, containing a range of sustainability investments in sectors underpinned by the IGG DPL-supported reforms. In May 2015, the Government organized three national level events on coastal zone governance, solar pumping and pollution control, which confirmed widespread support among governmental and non-governmental actors for IGG supported reforms on groundwater, ICZM and industrial depollution. Public interest and debate around the Government's Green Growth agenda is evidenced by the media's considerable attention to the subject. Ahead of Government approval, all legislative texts (Laws and Decrees) constituting prior actions for IGG DPL2 were published and subject to online consultations.

69. **The design and preparation of the IGG DPL benefited from the support of a range of donors engaged with Morocco's sustainability agenda.** A donor coordination group on environmental, climate change, and sustainability aspects is active in Morocco under the leadership of the Ministry of Environment and Germany's Development Cooperation. The IGG DPL has ensured alignment with GoM priorities and harmonization with external partners. The policy actions on industrial pollution, renewable energy, and energy regulation supported by the IGG DPLs build on and complement EU budget support operations. Groundwater policy reforms also benefit from technical assistance provided by the German technical cooperation (GIZ) through the AGIRE<sup>31</sup> program and AFD. The AfDB's Agriculture DPL series supports climate mitigation actions in the agriculture sector, which links with the IGG DPL's support to direct seeding practices. The IGG DPL has leveraged the technical support of the Wealth Accounting and Valuation of Ecosystem Services initiative (WAVES)<sup>32</sup> – a Bank-steered multi-partner platform including several donors – to support the GoM's objective of establishing natural capital accounts, which is now being used in the context of Morocco's Wealth Accounting Initiative. In terms of complementarities, the exclusion of actions on forestry from the IGG DPL policy matrix derives from the recent finalization of a forestry sector budget support operation financed by the EU. Finally, the EU has agreed to a US\$230,000 allocation to fund technical assistance activities supporting the IGG DPL series through the MENA Climate Change MDTF.

## 5. OTHER DESIGN AND APPRAISAL ISSUES

### 5.1 POVERTY AND SOCIAL IMPACTS

70. **The reforms supported by the proposed operation are expected to generate positive**

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<sup>28</sup> <http://www.ires.ma/en/meetings-and-debates/discussion-key-findings-study-titled-sustainability-moroccan-development-model-green-economy>

<sup>29</sup> <http://www.ces.ma/Documents/PDF/Rapport%20du%20Conseil%20Economique%20et%20Social-Economie%20Verte-VF.pdf>.

<sup>30</sup> All consultation activities carried out towards the preparation of the DPL series are listed in the DPL1 program document.

<sup>31</sup> <http://www.agire-maroc.org/programme-agire.html>

<sup>32</sup> <http://www.wavespartnership.org/waves/>. WAVES donor partners include: Australia, Canada, Japan, Norway, France, the United Kingdom, as well as UNEP, UNDP, and the UN Statistical Commission

**social impacts, including for poor and vulnerable groups.** In relative terms, the bottom 40 percent are known to be more impacted by common pool problems and environmental externalities. Measures supported by the DPL aimed at improving the sustainability of natural assets and environmental stewardship are key to ensuring equity and shared prosperity, including from an inter-generational perspective.<sup>33</sup> Additionally, several reform areas target directly rural areas, where most of Morocco's poverty and underemployment lie.

71. **To ascertain potentially adverse impacts on specific groups of the IGG DPL series, the Bank carried out a framework poverty and social impact analysis of the reform areas supported by the operation,** including: (i) energy subsidy reform; (ii) the introduction of environmental taxes on specific polluting goods; (iii) control of illicit fishing practices; (iv) groundwater management; (v) industrial wastewater control; (vi) ICZM. This was complemented by dedicated Bank-financed TA targeted specifically at addressing the potential negative impacts of energy subsidies. The main results of this body of analytical work, which shows widespread positive impacts on poor and vulnerable groups are listed in the Social and Environmental Impacts Annex (Annex 5).

72. **Supported measures have a clear gender dimension.** Women and men have a different ecological footprint and make different use of land, water, and marine resources. Since women constitute the majority of the world's poor and are comparatively more dependent on scarce natural resources, they suffer more acutely from the adverse impacts on the environment and climate change.<sup>34</sup> The IGG DPL2 includes specific and gender-sensitive policies and interventions necessary to ensure that women and men can equally benefit from green growth. The PSIA work for the IGG DPL2 included a gender assessment of supported reforms highlighting opportunities for women's empowerment and identifying potential risks. The operation supports policies and programs that *directly* leverage women's participation in the agricultural sector and natural resources management – e.g. groundwater management – and promotes measures directly supporting job creation for women. The IGG DPL2 prior actions supporting public good and/or general services – e.g. in areas such as photovoltaic energy, integrated coastal management, and the extension of meteorological services to agriculture – are largely gender neutral. Their potential to also catalyze women's empowerment requires addressing macro-drivers of gender differentials, such as those in education, access to legal services, inputs (land, finance, and technology).

## 5.2 ENVIRONMENTAL ASPECTS

73. **Morocco is endowed with a well-articulated legal and institutional framework for environmental protection.** Over the last decade, the Government has made progress in establishing a full-fledged environmental legislation and articulating the different layers of the administration supporting it. Law No. 12-03 approved in 2003 and its related application decrees defined the requirements for EIAs and created review and oversight structures for implementation, such as national and regional EIA committees, as well as the procedures for public consultation and disclosure. The monitoring and control framework was recently strengthened through the creation of national and regional observatories for environmental protection (OREDD), and the establishment of an Environmental Police corps. Donors and international development agencies, notably EU, GIZ, and AFD provide solid support to Morocco's environmental sustainability

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<sup>33</sup> *Social Dimensions of Climate Change – Equity and Vulnerability in a Warming World*, World Bank, 2010

<sup>34</sup> *Women and the environment* – United Nations Environment Program, 2004; *Gender, climate change and health*. World Health Organization, 2011

agenda. The Government intends to broaden the scope of application of the EIA Law to other projects in order to further strengthen its scope, in particular in relation to the treatment of cumulative impacts of investments, in addition to the requirement for Strategic Environmental Assessments of sector programs, policies and strategies. More information about the social and environmental aspects of this DPL is provided in Annex 5.

74. **As per OP 8.60, the World Bank assessed whether specific country policies supported by the DPL series are likely to cause significant effects on the country's environment, forests, and other natural resources.** Actions supported by the proposed operation enhance environmental stewardship and are likely to lead to net positive environmental outcomes:

- The implementation of the coastal zone law lays the regulatory framework protecting areas that harbor fragile ecosystems and are critical to the country's economy for their tourism and fisheries potential. The development of the National Coastal Zone Management Plan and the regional *Schemas d'Amenagement* will provide further tools to strengthen the impact management framework for sector investments along the coast.
- Water sector-related measures, including for groundwater, aim to address critical aspects of resource management needs for a country that expects its water stress condition to deteriorate even further in the coming years. Existing analytical work demonstrates the positive environmental effects of leveraging participatory process to plan groundwater abstraction to levels agreed with consumers, with no negative environmental impacts.
- Energy related measures support a decrease in energy intensity of the economy and related pollution and emission impacts. The types of renewable investments enabled by the legislation in these sectors entail negligible environmental risks, as they essentially concern residential and small scale photovoltaic development, which in the case of the former are impact neutral, and in the case of the latter will be subject to the provisions of the EIA Law.
- Reforms related to the provision of agro-meteorological services will contribute to enhancing the resilience of the agricultural sector to climate change impacts.
- The development of the eco-tourism sector based on robust environmental norms and standards for investments will ensure that the sought-after development of economic activities in rural and remote areas will not come at the detriment of natural assets.

75. **The only significant risk of incurring negative impacts on the environment through this DPL series comes from the development of the aquaculture sector because of the potential for rapid replication on both coasts.** It is thus crucial for the Government to retain a clear picture of the overall size, geographic distribution, nutrient consumption, and pollution output of the aquaculture sector across the country as this expansion unfolds. Appropriate legislative authority, clear institutional responsibility and capacity to enforce the future environmental control regime are also critical to the government role in this expansion of the aquaculture industry.<sup>35</sup> The DPL has directly supported a set of mitigation measures that the Government has adopted to manage this risk.

76. The Government has been strengthening the performance of the environmental impact control framework for aquaculture investments through two initiatives that were highlighted in the DPL, thus addressing the cumulative impact risks of aquaculture development. A SEA was carried out by ANDA, which includes a set of framework environmental impacts assessments for the areas

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<sup>35</sup> Environmental Impact Assessment and Monitoring in Aquaculture, FAO 2009; Understanding and Applying Risk Analysis in Aquaculture, FAO, 2009



that have been identified for aquaculture development. In addition, based on the results of the above, the Department of Environment has issued a specific Directive targeting EIAs for aquaculture projects that complements the framework of the existing EIA Law by detailing specific procedures for environmental controls of aquaculture investments. Through these two initiatives, the control and monitoring framework for aquaculture has been strengthened and the assessments carried out by ANDA will be leveraged.

77. **The IGG DPL series is strongly aligned with Morocco's climate agenda.** Morocco's vulnerability to climate impacts is proven by both climate models as well as the recent trends in variability, adding recurrent episodes of distractive and deadly flash floods to the scourge of recurrent droughts. The country is keenly aware of the need to move towards a more resilient development model, and key sector strategies include a strong sustainability dimension. In the space of few years though, Morocco moved from a country known for its vulnerability to climate to a beacon of mitigation action thanks to its success in moving forward towards achieving its ambitious renewable energy targets. Morocco's recently submitted its Indented Nationally Determined Contributions (INDCs) to UNFCCC, which was largely well received by climate action trackers. Morocco will host the 22nd Conference of Parties (COP) to the UN Framework Convention on Climate Change in 2016. Approving Morocco's bid to host for the second time the Conference of Parties is an indication of the sustained achievements the country has made in addressing climate change since COP7 in 2001.

78. **The IGG DPL-supported measures have a strong adaptation and mitigation component.** As mentioned above, the prior actions related to groundwater management and agro-meteorological services will help strengthen present and future adaptation of agriculture to climate change. Further, actions contained in the physical capital pillar (deployment of renewable energy, energy efficiency regulations, and the phasing out of fossil fuel subsidies) will be instrumental in contributing to mitigation efforts (see Annex 5 for the assessment of GHG emission reductions carried out as background to preparation of the DPL series).

### 5.3 PFM, DISBURSEMENT AND AUDITING ASPECTS

79. **Public Financial Management (PFM).** The last overall Public Expenditure and Financial Accountability assessment (PEFA), carried out by the World Bank and the EU in 2009 confirmed that Morocco has an overall credible, comprehensive, and transparent budget, and highlighted the **substantial PFM reforms** underway, most of which are supported by the Bank through the Transparency and Accountability (Hakama) DPL series. The main challenges of the Morocco PFM relate to: (a) fiscal consolidation and discipline; (b) allocative efficiency, constrained by an old budget classification; (c) budget execution and monitoring; (d) timeliness of annual statements, which are submitted for external audit 15 months after the end of the fiscal year; (d) the limited extent of legislative scrutiny of external audit reports, and (e) the insufficient frequency, scope and follow-up of audits. The Government is committed to addressing these challenges. It has introduced measures to: (a) strengthen fiscal discipline through tighter controls of the wage bill and carry forward in the new organic budget law; (b) adopt a programmatic budget classification and performance informed budgeting; (c) develop a medium-term expenditure framework to assist in fiscal sustainability; (d) modernize its financial management information system (GID) and its accounting framework; and (e) modernize financial controls and introduce a risk based approach; (f) empower the Parliament's oversight function (constitutional provision, dedicated commission and review of ministerial performance plans). In conclusion, the strength of Morocco's PFM system and

the Government's commitment to reform taken together are, in the Bank's view, adequate to support the proposed operation. A PEFA update is foreseen in 2015 with the EU and the AfDB. It will also aim to test the upgraded framework and establish a more comprehensive baseline to assess the impact of the comprehensive PFM reform agenda.

80. **Foreign exchange issues.** The IMF's safeguards assessment of the BAM dated February 2013 and the second review of its PLL completed in June 2015 found a robust framework with strong internal and external controls, supported by several good governance practices. The assessment highlighted that existing safeguards and governance practices should be complemented by stronger legal and financial reporting frameworks which are needed to enhance the legal autonomy of the BAM and strengthen the timely publication of audited financial statements. The World Bank has reviewed the latest annual report dated June 26, 2014, which includes an unqualified audit by Deloitte of its 2013 accounts. Since then, the BAM has implemented the recommendations from the assessment, including publication of audited financial statements. Existing governance practices and safeguards will be enshrined in the new central bank law currently awaiting adoption by the Council of Government. As with recently approved DPLs, a dedicated account will be used for this operation.

81. **Disbursement and Auditing.** With reference to the flow of funds, the proposed loan will follow the World Bank's Disbursement procedures for development policy lending. Once the loan becomes effective, the proceeds of the loan will be disbursed in a single installment. Specifically, disbursements will be made, provided that the World Bank is satisfied with the program being carried out by the Borrower, and with the appropriateness of the Borrower's macroeconomic policy framework. The account into which the loan proceeds will be deposited forms part of the country's official foreign exchange reserves. Flow of funds (including foreign currency exchange) is subject to standard public financial management processes. The government budget is comprehensive, unified and subject to centralized treasury account.

82. **The loan proceeds will be deposited by the International Bank of Reconstruction and Development (IBRD)** in a dedicated account opened at the BAM for this DPL by the Borrower and acceptable to the World Bank, upon submission of a signed withdrawal application. The Borrower should ensure that upon the deposit of loan proceeds into said account, an equivalent amount, in the local currency, is credited to the treasury current account at the central Treasury Department. The Borrower will report to the Bank within thirty (30) days of disbursement on the amounts deposited in the dedicated account and credited to the budget management system providing the exchange rate applied and the date of the transfer. If the proceeds of the loan are used for ineligible purposes as defined in the Loan Agreement, IBRD will require the Borrower to promptly upon notice refund an amount equal to the amount of said payment to IBRD. Amounts refunded to the Bank upon such request shall be cancelled. The loan proceeds will be administered by the Ministry of Economy and Finance (MEF). The closing date of the Loan is set to December 31, 2016.

83. **IBRD reserves the right to ask for a transaction audit of the dedicated account.** This audit, when asked for, will cover the accuracy of the transactions (credits and debits) of the dedicated account, including accuracy of exchange rate conversions, confirming that the dedicated account was used only for the purposes of the operation where no other amounts have been deposited into the account. Also the auditor would have to obtain confirmation from corresponding bank(s) involved in the funds flow regarding the transaction. The time period for submission of the audit report to the World Bank would be four months from the date a request for such audit is

issued, as per draft loan agreement.

84. **Procurement.** A public procurement decree (PPD) was adopted in December 2012 and came into effect on January 1, 2014. It seeks to address some of the main weaknesses and gaps that have continued to characterize Morocco's procurement system, in particular in terms of transparency, accountability, efficiency, risks of corruption, and mechanisms of complaint and redress. Key features of the PPD include the unification of the regulatory framework for procurement to include the entire public sector (applying to local governments as well as all administrative state-owned enterprises). It also brings the selection and award methods for architect contracts in line with the principles of competition and equal treatment of bidders. A decree to establish a National Commission of Public Procurement ("Commission Nationale de la Commande Publique, or CNCP) to replace the Procurement Commission (CDM) was approved by the Government in September 2015. The reform is intended to strengthen the CNCP's powers and responsibilities, to make it a permanent, more representative, and professional body, and to increase its autonomy and independence. The Commission will remain under the purview of the Government's General Secretariat SGG.

#### 5.4 MONITORING, EVALUATION AND ACCOUNTABILITY

85. **The Government is committed to the monitoring and evaluation framework of the program.** The institutional setting to monitor the results of the DPL series reflects the one used for implementation, based on the tripartite steering committee and the Ministers and Departments involved. Results indicators together with the availability and quality of data have been fully discussed with each concerned counterpart. Due to the relatively short timeframe of the proposed program and the expected medium- to long-term impacts of the reforms supported, part of the selected monitoring indicators and associated target values focus on measuring intermediate outcomes, rather than development gains on the ground. Support to the monitoring framework will also be an integral part of the implementation support process during preparation and implementation support of the IGG DPL2. The final evaluation will remain largely based on the policy reform actions and triggers, results indicators, and associated target values included in the Policy and Results Matrix (Annex 1).

86. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by specific country policies supported as prior actions or tranche release conditions under a World Bank Development Policy Operation may submit complaints to the responsible country authorities, appropriate local/national grievance redress mechanisms, or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/grs>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org)

87. Morocco is equipped with numerous institutions with a mandate to hear and decide on grievances

and claims related to activities covered by the reforms supported by the DPL series. The existence of grievance and appeal mechanisms and their recent elevation of constitutional bodies provide them with the necessary independence and financial autonomy, and expanded their powers for self-referral. The World Bank’s GRS system does not minimize the value of the Moroccan system of grievance management.

## 6. SUMMARY OF RISKS AND MITIGATION

88. **The overall risk to PDOs achievement is rated as substantial** based on the following risk categories.

- **Political and governance risks are substantial.** Although commitment to the *Green Growth* agenda is high, the implementation of specific policy reforms is subject to political economy factors that may delay or derail progress. The substantial risk rating is called for by the multi-sectoral nature of the program. Mitigation options revolve around facilitating close ministerial-level and technical collaboration during implementation support, and continued coordination with other Bank operations and development partners’ activities to support implementation of the IGG DPL reforms over the medium term.
- **The risks originating from institutional capacity for implementation and sustainability are substantial.** The prospects for implementation progress of the reform areas supported by the DPL are strong, given the deep degree of ownership by GoM, as witnessed by the satisfactory progress made since DPL1 approval. However, the multi-sectoral and multi-stakeholder nature of the reform program entails the risk of variable and uneven implementation progress. Risk mitigation revolves around (i) the sustained activity and close monitoring of progress by the multi-departmental steering committee supporting the operation, which is chaired by the Ministry of General Affairs and Governance , the Ministry of Economy and Finance, and the Ministry of Environment, with clear sector focal point and constant engagement at senior management level. The potential gap between de facto and de jure policy implementation will be monitored during the implementation support of the DPL series, but is already being mitigated through the development of parallel financing, as well as knowledge products – a set of ancillary Bank-financed operations in sectors such as ICZM, groundwater management, renewables, tourism and social reforms will continue to support the implementation of reforms.

| <b>Risk Categories</b>  | <b>Rating</b>      |
|---|--------------------|
| 1. Political and Governance                                     | Substantial        |
| 2. Macroeconomic  | Moderate           |
| 3. Sector Strategies and Policies                               | Moderate           |
| 4. Technical Design of Program                                  | Moderate           |
| 5. Institutional capacity for implementation and sustainability | Substantial        |
| 6. Fiduciary  | Low                |
| 7. Environment and Social                                       | Moderate           |
| 8. Stakeholders   | Moderate           |
| <b>Overall</b>  | <b>Substantial</b> |

## ANNEX 1: POLICY AND RESULTS MATRIX

| MOROCCO SECOND INCLUSIVE GREEN GROWTH DPL                         |  |   |  |   |
|---|--|---|--|---|
| Policy Area   | Prior Actions (DPL1)   | Prior Actions (DPL2)  | Results Indicators   | Baseline & Target                             |
| <b>PDO 1. Improving the management of natural capital</b>         |  |   |  |   |
| 1.1 Management of coastal and marine assets                       | 1.1.1 The Council of Government ( <i>Conseil du Gouvernement</i> ) has approved the draft Law on the Integrated Coastal Zone Management on May 16, 2013.   | 1.1.1 The Council of Government ( <i>Conseil du Gouvernement</i> ) has adopted Decree No. 2.15.769 regulating, inter alia, the formulation of the National Coastal Zone Management Plan ( <i>Plan National d'Aménagement du Littoral</i> ) on November 5, 2015. | # of regional coastal zone management plans ( <i>Schémas Régionaux d'Aménagement du Littoral</i> ) approved                    | 12/2013 Baseline: 0<br>09/2017 Target: 2      |
|   | 1.1.2 The Council of Government has approved the draft Law on Illegal Fishing on March 28, 2013.   | 1.1.2 The Minister of Agriculture and Marine Fisheries has issued Decision No. 001/Cab/PM containing the National Monitoring Plan for Marine Fisheries ( <i>Plan National de Contrôle des Activités de la Pêche Maritime</i> ) on April 1, 2015.                | # of regional maritime fisheries control plans approved  | 12/2013 Baseline: 0<br>09/2017 Target: 18     |
| 1.2 Water sector governance                                       | 1.2.1 The Ministers of Interior, Agriculture and Water have issued the Interministerial Circular ( <i>Circulaire</i> ) requiring the conclusion of groundwater management agreements ( <i>contrats de nappes</i> ) on November 15, 2013. | 1.2 The Council of Government has approved the draft Law No. 36-15 on water, setting provisions for, inter alia, participatory groundwater management on November 19, 2015  | # of aquifers ( <i>nappes</i> ) in which groundwater abstraction is regulated by a groundwater agreement among water consumers | 12/2013 Baseline:1<br>09/2017 Target: 3       |
| <b>Program Development Objective 2. Greening physical capital</b> |  |   |  |   |
| 2.1 Low carbon growth   | 2.1.1 The Council of Government has adopted on November 14, 2013 the Decree on energy efficiency in the building sector.   | 2.1.1 The Council of Government has approved draft Law No. 48-15 creating the National Agency for Electricity Regulation ( <i>Autorité Nationale de Régulation de l'Electricité</i> ) on September 17, 2015.  | Area (in m <sup>2</sup> ) of new buildings integrating EE requirements and respecting thermal regulations for new buildings    | 12/2013 Baseline: 0<br>09/2017 Target:400,000 |
|   | 2.1.2 Order ( <i>Arrêté</i> ) No 3.69.13 dated August 19, 2013 introducing automatic price adjustments for diesel, gasoline and fuel has been published in the National Gazette No. 6182 dated August 29, 2013.                          | 2.1.2 The Council of Government has adopted Decree No. 2-15-772 regarding access to the national medium voltage electricity network on October 12, 2015.<br><br>2.1.3 The Council of Government has approved draft Law No. 58-15                                | Total capacity of distributed medium and low tension grid connected renewable energy systems (in MW)                           | 12/2013 Baseline: 0<br>09/2017 Target: 10     |

**MOROCCO SECOND INCLUSIVE GREEN GROWTH DPL**

| <b>Policy Area</b>       | <b>Prior Actions (DPL1)</b>   | <b>Prior Actions (DPL2)</b>   | <b>Results Indicators</b>  | <b>Baseline &amp; Target</b>   |
|--------------------------|---|---|--|--|
|                          |   | amending and completing Law No. 13-09, to provide renewable energy solutions for low voltage customers on August 27, 2015.  |  |  |
|                          |   | 2.1.4 The 2015 Budget Law (Law No. 100-14), which increased the funding to social programs following energy subsidy cuts, has been published in the National Gazette No. 6320 bis, dated December 25, 2014.   | Total subsidy envelope to diesel, gasoline and industrial fuel (in % of GDP)<br><br>Social Cohesion Funds allocation as share of the total budget (excluding debt service).  | 12/2012 Baseline: 3%<br>09/2017 Target: 0%<br><br>12/2013 Baseline: 0.63%<br>09/2017 Target: 1.34%   |
| 2.2 Pollution management | 2.2.1 The three Orders ( <i>Arrêtés</i> ) No. 2942.13, No. 2943.13, and No. 2944.13 dated October 7, 2013 on monitoring and controlling industrial wastewater discharges in the hydraulic domain stating a) general limit values; b) characteristic values and specific coefficients; and c) minimum treatment efficiency of industrial wastewater treatment plants, have been published in the National Gazette No 6199 dated October 28, 2013.<br><br>2.2.2 The Council of Ministers has approved on March 7, 2013, the draft Framework Law on environment and sustainable development setting forth, in particular, the establishment of a comprehensive green fiscal framework. | 2.2 The 2015 Budget Law, which introduced additional resources to depollution investments, has been published in the National Gazette No. 6320 bis, dated December 25, 2014; and Order ( <i>Arrêté</i> ) No. 2850.15 dated August 10, 2015, supporting the recycling framework for used batteries based on extended producer responsibility, has been published in the National Gazette No. 6406, dated October 22, 2015. | # of industries having submitted a funding request to the Voluntary Mechanism for Industrial Depollution<br><br>Reduction in industrial pollution (as measured by tons of BOD5 abated yearly)<br><br># of polluting products subject to green taxes or to conventions promoting recycling value chains | 12/2013 Baseline : 0<br>09/2017 Target: 3<br><br>12/2013 Baseline: 20<br>09/2017 Target: 200<br><br>12/2013 Baseline : 2<br>09/2017 Target : 4 |



Royaume du Maroc  
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Chef du Gouvernement  
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Ministère Délégué auprès du Chef du Gouvernement  
Chargé des Affaires Générales et de la Gouvernance

المملكة المغربية  
رئيس الحكومة



الوزارة المنتدبة لدى رئيس الحكومة  
المكلفة بالشؤون العامة والحكامة

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19 NOV 2015

**Monsieur Jim YONG KIM**  
**Président de la Banque Mondiale**  
**1818 H Street N.W – Washington DC**

**OBJET /** Lettre de Politique de Développement relative au Deuxième Prêt de Politique de Développement sur la Croissance Verte Solidaire

Monsieur le Président,

J'ai l'honneur de vous réitérer par la présente les termes de ma Lettre en date du 9 novembre 2013 par laquelle je vous ai fait part du programme de réforme du Gouvernement visant à établir une économie respectueuse de l'environnement et créatrice d'emplois.

En effet, le Maroc, à l'instar de tous les pays en développement, affronte des contraintes majeures et pressantes en matière de développement durable et reconnaît la nécessité de préserver l'environnement et de répondre aux impératifs écologiques.

Face à ces exigences et conformément à ses engagements, le Maroc s'est engagé, au cours de la dernière décennie, sur la voie du développement durable et a initié plusieurs réformes dans lesquelles la croissance verte et la nouvelle économie occupent une place centrale, et ce en conciliant les objectifs de préservation des ressources naturelles et des exigences de développement des secteurs comme l'agriculture, le tourisme et l'énergie.

A cet égard, plusieurs stratégies et plans nationaux ont été mis en chantier dans le cadre de la préservation de l'environnement, la sauvegarde des écosystèmes, l'atténuation et l'adaptation aux changements climatiques.



Il s'agit notamment de la stratégie énergétique mise en place en 2009, visant à édifier un système énergétique sobre en carbone, à préserver l'environnement et à réduire notre dépendance énergétique vis-à-vis de l'extérieur, permettant un développement accéléré des énergies renouvelables, une promotion volontariste de l'utilisation rationnelle de l'énergie en répondant durablement aux besoins en énergie des générations présentes et futures.

D'autres programmes s'inscrivent également dans la politique de transition vers une économie verte pour un développement durable, tels que le plan Maroc vert, lancé depuis 2008, qui s'est fixé pour objectif d'ériger le secteur agricole en véritable levier du développement socio-économique, le Plan Halieutis lancé en 2009 pour préserver les ressources halieutiques et l'écosystème marin, et la stratégie du tourisme vision 2020 basée sur une démarche intégrée de développement durable.

Par ailleurs, le Gouvernement a préparé une Stratégie Nationale de Développement Durable, suite à une large concertation avec l'ensemble des parties prenantes, le secteur public, les opérateurs privés et la société civile conformément aux dispositions de la Loi Cadre sur l'Environnement et le Développement Durable.

Ce positionnement de la politique économique et sociale sur la voie de la croissance verte et de la création d'emploi, constitue pour le Maroc une opportunité pour un développement socio-économique plus harmonieux et pérenne.

Le programme de croissance verte solidaire qui a bénéficié d'un premier prêt de Politique de Développement de la Banque Mondiale en 2013, a permis d'appuyer les réformes engagées pour asseoir les bases d'une croissance verte solidaire.

Le Gouvernement est engagé à poursuivre la mise en œuvre de ces réformes, et d'asseoir les conditions d'une croissance économique soutenue, respectueuse de l'environnement et plus inclusive, et sollicite l'appui de la Banque par un deuxième Prêt de Politique de Développement.

Le programme de croissance verte solidaire vise essentiellement l'amélioration de la gestion du capital naturel, le verdissement du capital physique et la diversification des revenus ruraux à travers l'optimisation du capital humain.

Pour concrétiser ces objectifs, le Gouvernement a mis en place les actions suivantes :

#### **I- L'AMELIORATION DE LA GESTION DU CAPITAL NATUREL**

Cet axe est focalisé sur trois objectifs stratégiques, à savoir le renforcement et l'harmonisation du cadre institutionnel de la gestion du littoral, le renforcement de la gouvernance du secteur de l'eau et le renforcement de la surveillance et du contrôle de l'exploitation des ressources halieutiques.

Pour ce qui est du renforcement et l'harmonisation du cadre institutionnel de la gestion du littoral, la Loi 81-12 a été adoptée par le Parlement et publiée le 6 août 2015 au Bulletin officiel n°6384.

Cette Loi vise, notamment, à préserver les équilibres biologiques et écologiques du littoral, protéger le patrimoine naturel et culturel du Royaume et instaurer une prévention globale auprès des citoyens.

Les dispositions de cette Loi ont permis de se doter d'un cadre de gestion intégrée des zones côtières, à limiter les pressions sur les écosystèmes côtiers et à optimiser l'utilisation des ressources côtières par les acteurs publics et privés.

Pour assurer la mise en application de cette Loi, un projet de décret n°769-15-2 articulant les dispositions de la Loi du Littoral dans un schéma national d'aménagement du Littoral a été approuvé par le Conseil du Gouvernement le 5 novembre 2015.

Ce Décret définit la gouvernance au niveau national pour une meilleure planification des zones côtières. Il permet également de définir le cadre d'une planification régionale et du Plan national de gestion du littoral.

Pour assurer le renforcement de la surveillance et du contrôle de l'exploitation des ressources halieutiques, la Loi 15-12 relative à la prévention et la lutte contre la pêche illicite, non déclarée et non réglementée et modifiant et complétant le dahir n° 1-73-255 du 23 novembre 1973 formant règlement sur la pêche maritime a été adoptée par le Parlement et publiée au Bulletin officiel n° 6262 le 5 Juin 2014.

La lutte contre la pêche illicite, non déclarée et non réglementée constitue pour le Maroc un élément clé dans la gestion de la pêche, conforme au Plan d'action international visant à prévenir, à contrecarrer et à éliminer la pêche illicite, non déclarée et non réglementée de la FAO.

A l'effet de soutenir la mise en œuvre de la réglementation des pêches y compris la Loi relative à la prévention et la lutte contre la pêche illicite, non déclarée et non réglementé, un Plan national de contrôle des activités de la pêche maritime a été instauré par le Ministère de l'Agriculture et de la Pêche Maritime en avril 2015.

Concernant le renforcement de la gouvernance du secteur de l'Eau, une nouvelle Loi 36-15 sur l'eau a été élaborée et est approuvée par le Conseil du Gouvernement le 19 novembre 2015. Ce projet de Loi a pour objectif de corriger certaines incohérences relevées au niveau de la Loi 10-95 sur l'eau, combler certaines lacunes et élargir le champ d'application de la Loi sur l'eau à certains aspects tels que l'assainissement liquide, la préservation des milieux aquatiques et l'utilisation des eaux non conventionnelles. Ce projet vise aussi le renforcement du cadre institutionnel et de la concertation à l'échelle des bassins hydrauliques.

## **II- LE VERDISSEMENT DU CAPITAL PHYSIQUE**

Dans le cadre des efforts consentis en matière de verdissement du capital physique, le Gouvernement a fixé comme objectifs d'établir un cadre du marché électrique pour soutenir la croissance à basse teneur en carbone, et de réduire la pollution de l'environnement.

A l'effet de soutenir la croissance à basse teneur en carbone, plusieurs actions ont été mises en place. Il s'agit de :

- l'adoption par le Conseil du Gouvernement le 17 septembre 2015 du projet de Loi 48-15 relative à la régulation du secteur de l'électricité portant création de l'Autorité Nationale de Régulation de l'Electricité (ANRE). Les missions de l'Agence portent, particulièrement, sur l'élaboration de la grille des tarifs d'accès au réseau et la mise en place d'un gestionnaire indépendant du réseau de transport (GRT).
- l'adoption par le Conseil du Gouvernement le 12 octobre 2015 du décret n°2-15-772 relatif à l'accès au réseau électrique national de moyenne tension.

Ce décret s'inscrit dans le cadre de la mise en œuvre de la Loi 13-09 relative aux énergies renouvelables, et vise l'ouverture progressive du réseau électrique de moyenne tension produit à partir de sources d'énergies renouvelables.

Le décret prévoit la mise en place d'un cadre juridique transparent, stable et non-discriminatoire au profit des investisseurs en leur octroyant de nouvelles garanties en ce qui a trait aux projets d'énergies renouvelables en relation avec le réseau électrique de moyenne tension.

- l'adoption par le Conseil du Gouvernement le 27 août 2015 du projet de Loi 58-15 modifiant et complétant la Loi 13-09 relative aux énergies renouvelables, pour permettre l'ouverture de la basse tension pour le développement des énergies renouvelables, notamment l'utilisation à grande échelle du Photovoltaïque dans le résidentiel et le tertiaire raccordés en basse tension, et son adoption par la première chambre parlementaire le 27 octobre 2015.

Ce projet de Loi, qui s'inscrit dans le cadre de la mise en œuvre de la feuille de route relative au développement de l'énergie renouvelable, vise à augmenter de 12 à 30 mégawatts la capacité minimale des projets de production d'énergie électrique à partir de sources d'énergie hydraulique. En plus, le projet de Loi ouvre la possibilité de vente de l'excédent d'énergie électrique issue de sources d'énergie renouvelable à l'Office National de l'Electricité et de l'Eau potable (ONEE) pour des installations reliées au réseau électrique national de haute tension ou très haute tension et aux gestionnaires de réseau de distribution pour des installations connectées au réseau moyenne et basse tension. Toutefois, l'exploitant ne peut vendre plus que 20% en tant qu'excédant de la production annuelle de l'énergie électrique de sources renouvelables. Enfin, ce projet de Loi consacre le principe d'ouverture du marché d'énergie électrique de basse tension produite à partir d'énergies renouvelables selon des modalités qui seront fixées par un texte réglementaire.

- la Loi de finances 2015 publiée dans le Bulletin Officiel n°6320 bis du 25 décembre 2014 a augmenté la part consacrée au financement des programmes sociaux suite aux réductions des subventions énergétiques et a réduit la TVA appliquée aux chauffe eaux solaires de 14 à 10 %.

Sur le plan de la gestion de la pollution de l'eau dans le secteur industriel, les mesures suivantes ont été également prises :

- la publication en octobre 2013, de trois arrêtés portant fixation des valeurs limites générales de rejet, des rendements des dispositifs d'épuration, des grandeurs caractéristiques et des coefficients spécifiques de pollution, nécessaires au suivi, au contrôle et à l'application du principe pollueur

payeur aux déversements des eaux usées industrielles dans le domaine public hydraulique.

- L'adoption par le conseil du Gouvernement du projet de Loi des Finances 2015 introduisant des ressources additionnelles au profit des investissements de dépollution et sa publication au Bulletin Officiel n°6320 bis du 24 décembre 2014, et la publication dans le Bulletin Officiel n°6406 du 22 octobre 2015 de l'arrêté n°2850.15 du 10 août 2015 fixant le cadre de la collecte et de la valorisation des batteries usagées basé sur la responsabilité élargie du producteur.

### **III- LE RENFORCEMENT ET LA DIVERSIFICATION DES REVENUS RURAUX A TRAVERS L'OPTIMISATION DU CAPITAL HUMAIN**

Le dernier axe retenu dans le cadre de ce programme d'appui à la mise en place d'une politique en faveur de la croissance verte solidaire porte sur l'optimisation du capital humain dans les secteurs verts. Dans ce cadre, trois objectifs stratégiques ont été retenus par le Gouvernement, portant sur la fourniture de services agriculture/météo, les fermes aquacoles et les investissements dans l'éco-tourisme.

Afin d'encourager l'innovation pour une agriculture résiliente et productive, il a été procédé :

- pour la subvention au semis direct, à la publication de l'arrêté modifiant et complétant l'arrêté n°368-10 en date du 26 janvier 2010, sur les subventions pour le matériel agricole, l'introduction d'une subvention pour l'achat d'équipement du semis direct.
- à la signature en septembre 2014 par le Ministre de l'Agriculture et de la Pêche Maritimes, et le Ministre de l'Energie, des Mines, de l'Eau et de l'Environnement de la Convention Cadre de Partenariat relative aux services agro-météorologique entre le Département de la Météorologie National (DMN) et le Ministère de l'Agriculture pour la fourniture d'informations agro-météorologiques.

A l'effet de favoriser les investissements pour diversifier les revenus ruraux et créer de meilleurs emplois, il a été procédé :

- à la publication au Bulletin officiel n°6218 du 2 janvier 2014 de l'arrêté conjoint du Ministre de l'Economie et des Finances et du Ministre de l'Agriculture et de la Pêche Maritime n°3151-13 du 11 novembre 2013 fixant les montants et les modalités de paiement

de la redevance annuelle due au titre des conventions de concession de fermes aquacoles.

- au renforcement de l'efficacité du cadre du contrôle et de suivi des impacts des investissements aquacoles par l'élaboration et la publication d'une Evaluation Environnementale Stratégique (EES) du secteur de l'aquaculture au Maroc et d'une Directive pour la réalisation d'une étude d'impact sur l'environnement des projets aquacoles ;
- à la signature en Septembre 2014 de la convention interministérielle sur le lancement du Programme de développement intégré de tourisme rurale et de nature (Qariati).

Compte tenu de l'importance de ce programme de réforme qui s'inscrit dans la continuité des efforts déjà entrepris, le Gouvernement réitère son intérêt de poursuivre la deuxième opération du Prêt de Politique de Développement de votre Institution au programme Croissance verte solidaire.

En vous remerciant de l'intérêt que porte la Banque au verdissement de la croissance, je vous prie de croire, Monsieur le Président, à l'expression de ma considération distinguée.

Le Ministre Délégué auprès du Chef du Gouvernement  
Chargé des Affaires Générales et de la Gouvernance  
  
Mohammed LOUFA

## ANNEX 2: LETTER OF DEVELOPMENT POLICY (UNOFFICIAL TRANSLATION)

Royaume du Maroc

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Chef du Gouvernement

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Ministère Délégué auprès du Chef du Gouvernement  
Chargé des Affaires Générales et de la Gouvernance

المملكة المغربية

رئيس الحكومة



الوزارة المنتدبة لدى رئيس الحكومة

المكلفة بالشؤون العامة والحكامة

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**Mr. Jim YONG KIM**  
**President of the World Bank**  
**1818 H Street N.W - Washington. DC**

RE / Letter of Development Policy on the Second Inclusive Green Growth Development Policy Loan

Mr. President,

I hereby have the honor to reiterate the terms of my letter dated November 9, 2013 in which I informed you of the Government's reform program to establish an economy that is respectful of the environment and creates jobs.

Morocco, as all developing countries, faces major and pressing sustainable development challenges and acknowledges the need to protect the environment and respond to ecological challenges.

Faced with these requirements and in accordance with its commitments, Morocco has engaged on the path of sustainable development over the last decade and has initiated several reforms in which green growth and the new economy are central—by balancing the objectives of natural resources conservation and development requirements in sectors such as agriculture, tourism and energy.

In this regard, several national strategies and plans have been launched as part of environmental preservation, the safeguard of ecosystems, and mitigation and adaptation to climate change.

These include in particular the energy strategy introduced in 2009, aimed at building a low-carbon energy system, preserving the environment and reducing our energy dependence vis-à-vis the outside, with a view to sustainably meeting the energy needs of present and future generations.

Other programs are also part of the policy of transitioning to a green economy to reach sustainable development, such as: the Morocco Green Plan (Plan Maroc Vert), launched in 2008, which has set a goal to raise the agricultural sector as a real lever of socio-economic development; the Plan Halieutis launched in 2009 to preserve fish stocks and the marine ecosystem; and the tourism strategy “Vision 2020”, based on an integrated approach to sustainable development.

Furthermore, the Government has prepared a National Strategy for Sustainable Development, following a broad consultation with all stakeholders, the public sector, private operators and civil society in accordance with the Framework Law on Environment and Sustainable development.

This positioning of economic and social policy towards green growth and job creation is an opportunity for Morocco to reach a socio-economic development that is more harmonious and sustainable.

The Inclusive Green Growth program which benefitted from a first Development Policy Loan from the World Bank in 2013, has supported the ongoing reforms that will lay the foundations of an inclusive green growth.

The Government is committed to continuing the implementation of these reforms, and enable the conditions for sustained economic growth, that is environmentally friendly and more inclusive, and is seeking the support from the Bank through a second Development Policy Loan.

The Inclusive Green Growth Program focuses mainly on improving the management of natural capital, greening physical capital and diversifying rural income through the optimization of human capital.

To achieve these objectives, the Government has implemented the following actions:

## **I-IMPROVING THE MANAGEMENT OF NATURAL CAPITAL**



This axis is focused on three strategic objectives, namely: strengthening and harmonizing the institutional framework for coastal zone management, strengthening the governance of the water sector and strengthening the monitoring and control of fishery resources.

In terms of strengthening and harmonizing the institutional framework for coastal zone management, Law 81-12 was approved by Parliament and published in the National Gazette No. 6384 dated August 6, 2015.

This Law aims in particular to preserve the biological and ecological equilibria of the coastline, protect the natural and cultural heritage of the kingdom and establish a comprehensive prevention among citizens.

The provisions contained in this Law have helped set up an integrated management framework of coastal areas, to limit pressures on coastal ecosystems and optimize the use of coastal resources by public and private actors.

To ensure the implementation of this law, the draft Decree No. 769-15-2 articulating the provisions of the Coastal Law in a National Coastal Zone Management Plan was approved by the Council of Government on November 5, 2015.

This Decree defines governance at the national level for a better planning of coastal areas. It also defines the framework of a regional planning and the National Coastal Zone Management Plan.

To ensure the strengthening of the monitoring and control of the exploitation of fishery resources, the Law 15-12 on the prevention and fight against illegal, unreported and unregulated fishing, amending and supplementing Dahir No. 1- 73-255 dated November 23, 1973 setting up maritime fisheries regulation was adopted by Parliament and published in the National Gazette No. 6262 dated June 5, 2014.

The fight against illegal, unreported and unregulated fishing is for Morocco a key element in the management of fisheries, consistent with the International Plan of Action by FAO to prevent, deter and eliminate Illegal, Unreported and Unregulated fisheries.

For the purpose of supporting the implementation of the regulation of fisheries including the Law on the prevention and fight against Illegal, Unreported and Unregulated maritime fisheries was established by the Ministry of Agriculture and Maritime Fisheries in April 2015.

On strengthening the governance of the water sector, a new Law 36-15 on water was developed and approved by the Council of Government on November 19, 2015. This law

seeks to amend the inconsistencies identified in the 10-95 water Law, fill some gaps and extend the scope of application of the water Law in aspects such as sanitation, conservation of aquatic environments and the use of unconventional waters. The project also aims to strengthen the institutional framework and consultation at the watershed scale.

## **II-GREENING PHYSICAL CAPITAL**

As part of the efforts for greening physical capital, the Government has set targets to establish a framework for the electricity market to support low-carbon growth and reduce environmental pollution.

For the purpose of supporting low-carbon growth, several actions were taken. It concerns:

- The adoption by the Council of Government of Law 48-15 dated September 17, 2015 on the regulation of the electricity sector for the establishment of the National Authority for Electricity Regulation (ANRE). The Agency's tasks deal, in particular, with the development of tariffs for the access to the power grid and the establishment of an independent operator for the transmission system (Gestionnaire Indépendant du Réseau de transport—GRT).

- The adoption by the Council of Government on October 12, 2015 of Decree No. 2-15-772 on access to the national medium voltage power grid.

This decree comes within the implementation framework of Law 13-09 on renewable energy and aims at gradually opening the medium voltage power grid produced from renewable energy sources.

The decree provides for the establishment of a transparent, stable and non-discriminatory legal framework to investors by providing them with new guarantees with respect to renewable energy projects connected to the medium voltage grid.

- The adoption by the Council of Government on August 27, 2015 of the draft Law 58-15 amending and supplementing Law 13-09 on renewable energy, to allow renewable energy solutions for low-voltage customers, and its adoption by the first Chamber of Parliament on October 27, 2015.

This draft Law, which comes within the implementation framework of the roadmap for the development of energy, aims to increase from 12 to 30 megawatts the minimum capacity of projects aimed at generating electric energy from hydropower sources. In addition, the draft law opens the possibility of selling the surplus electric energy from renewable energy sources at facilities connected to the national high – or very high – voltage electricity network of the National Office of Electricity and Water Supply (ONEE). Finally, this draft

law establishes the principle of the opening of the market for low voltage electricity produced from renewable energy sources on terms to be determined by an organic text.

- The 2015 Budget Law published in the National Gazette No. 6320 bis dated December 25, 2014 increased the share devoted to the financing of social programs following the reductions in energy subsidies.

In terms of the management of water pollution in the industrial sector, the following measures have also been taken:

- The publication in October 2013 of three decrees laying down general discharges limits, yields of purification devices, characteristic values and specific pollution coefficients, needed to monitor, control and apply the polluter pays principle to discharges of industrial wastewater into the hydraulic public domain.

- The adoption by the Council of Government of the draft 2015 Budget Law introducing additional resources for pollution control investments and its publication in the national Gazette No. 6320 bis dated 24 December 2014, and the publication in the National Gazette No. 6406 dated October 22, 2015 of Order No. 2850.15 of 10 August 2015 laying down the framework for the collection and valorization of used batteries based on extended producer responsibility.

### **III STRENGTHENING AND DIVERSIFYING THE RURAL ECONOMY BY LEVERAGING HUMAN CAPITAL**

The last axis selected under this program supporting the introduction of a policy for green growth focuses on the optimization of human capital in green sectors. In this regard, three strategic objectives were adopted by the Government, namely: the provision of agro-meteorological information, aquaculture farms, and investments in eco-tourism.

To encourage innovation geared towards a resilient and productive agriculture, the following measure have been introduced:

- With regard to the subsidy for direct seeding, the publication of the Order amending and supplementing Order No. 368-10 dated January 26, 2010 pertaining to subsidies for farm equipment, the introduction of a subsidy to purchase equipment for direct seeding.

-The signature, in September 2014, by the Minister of Agriculture and the Minister of Energy, Mining, and Environment of the Memorandum of Understanding between the National Department of Meteorology (DMN) and the Ministry of Agriculture for the provision of agro-meteorological information.

In order to promote investments to diversify rural incomes and generate better jobs the following measure have been introduced:

- The publication in the National Gazette n°6218 dated January 2<sup>nd</sup>, 2014 of the joint Order of the Minister of Economy and Finance and the Minister of Agriculture and Maritime Fisheries n°3151-13 dated November 11, 2013 setting the technical and economic criteria for determining the fees payable by aquaculture farms.
- The strengthening of the performance of the environmental impact control framework for aquaculture investments by carrying out a Strategic Environmental Assessment (SEA) of the aquaculture sector in Morocco and issuing a Directive detailing specific procedures for environmental controls of aquaculture investments.
- The signature in September 2014 of the inter-ministerial agreement launching the national rural and eco-tourism program (Qariati)

In view of the scope of this reform program that fits in the continuity of the efforts already undertaken, the Government reiterates its interest to continue the second operation of the Development Policy Loan from your institution to this “Inclusive Green Growth” program.

Thank you for the interest of the Bank in greening growth.

Best regards,

Mohamed Louafa

Minister Delegated by the Head of Government

For Governance and General Affairs

## ANNEX 3. FUND RELATIONS ANNEX



INTERNATIONAL MONETARY FUND



### **IMF Staff Completes 2015 Article IV Consultation and Third Review of the Precautionary and Liquidity Line Mission to Morocco**

Press Release No. 15/495

November 4, 2015

An International Monetary Fund (IMF) team, led by Nicolas Blancher, visited Morocco from October 21 to November 4, 2015 to conduct discussions with the Moroccan authorities on the 2015 Article IV consultation, as well as on the third review of economic performance under the Precautionary and Liquidity Line (PLL) arrangement approved in July 2014. The discussions focused on increasing the resilience and the potential of the Moroccan economy.

At the conclusion of the visit, Mr. Blancher issued the following statement:

“Prudent economic policies and sustained structural reforms have served Morocco well over the last few years. Growth is recovering and should reach 4.7 percent in 2015, due in part to a good agricultural season. However, the recovery in non-agricultural activity remains sluggish, because the European recovery is slower than expected. Inflation is low and credit has remained subdued. The current account deficit narrowed further in 2015 to a projected -1.5 percent of GDP, and international reserves improved further to 6.5 month of imports. This performance reflects in part the reduced fuel and food import bill, and sustained growth in automobile exports and remittances. The fiscal deficit has continued to improve in recent years due to measures taken by the government, in particular subsidy reforms. Poverty rates, unemployment, and inequality have declined over the past decade, but much remains to be done to promote a more inclusive growth. In particular, continued efforts are needed to reduce social and regional disparities, increase female labor force participation, and improve the quality of education and medical coverage.

“Growth is expected to slow to 3 percent in 2016, as agricultural activity returns to normal, and should strengthen gradually in the medium term to close to 5 percent. However, risks from lower growth in advanced and emerging countries, an increase in world energy prices resulting from geopolitical tensions in the region, and a surge in global financial market volatility remain substantial.

“Fiscal developments through end September have been positive and in line with the 2015 deficit target of 4.3 percent of GDP in 2015. The efforts to further strengthen public finances, as reflected in the 2016 draft budget that targets a deficit of 3.5 percent of GDP, are welcome. In the medium term, fiscal reforms should continue to increase the economy’s resilience to shocks and to provide more room for investment in infrastructure, health, education, and social protection, which are crucial to raise the economy’s potential and inclusiveness. In that respect, the progress achieved in reforming the subsidy system and in strengthening the fiscal framework is commendable. Looking ahead, a priority is to make the tax system more efficient and equitable. Reforming the pension system is also urgent to secure its viability. These reforms would help place public debt on a downward path. Indeed, public debt remains sustainable and resilient to various shocks, but it should be reduced in order to create further fiscal space.

“On the external front, the improved current account position and robust capital flows have helped strengthen international reserves. Looking forward, efforts to improve the business environment, transparency and governance will be essential to enhance external competitiveness. We support the authorities’ efforts to improve financial inclusion and access to credit, especially for very small, small, and medium enterprises. In addition, we welcome the authorities’ intention to move to a more flexible exchange rate regime, which would facilitate the further diversification of the economy, and enhance its international integration and its capacity to absorb external shocks.

“The recent Financial Sector Assessment Program confirmed that, overall, the financial sector remains sound. Banks are well capitalized and profitable, and benefit from stable funding resources. Risks to financial stability are limited, although rising non-performing loans and concentrated exposures need to be monitored carefully. Banking supervision is effective and should continue improve. The authorities’ efforts to strengthen the financial policy framework by implementing the 2014 banking law and Basel III standards and enhancing systemic risk surveillance are welcome. The adoption of the new central bank law would further reinforce Bank-Al-Maghrib’s independence and its role in banking supervision and financial stability. “The mission would like to thank the Moroccan authorities and all those with whom it had the opportunity to meet, including representatives of the private sector and civil society, for their cooperation and productive discussions.”

Background information:

The IMF Executive Board approved a 24-month arrangement under the [Precautionary and Liquidity Line](#) in an amount equivalent to about US\$5 billion (550 percent of Morocco’s quota) in July 2014 ([See Press Release No. 14/368](#)).

## ANNEX 4: MACROECONOMIC AND DEBT SUSTAINABILITY TABLES

### Central Government Debt Sustainability Framework, 2014-2022

(In percent of GDP, unless otherwise indicated)

|  | Actual |       | Est.<br>2014 | Projection                                    |       |       |       |       |       |       |       |
|--|--------|-------|--------------|---|-------|-------|-------|-------|-------|-------|-------|
|  | 2012   | 2013  |              | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  |
| <b>I. Baseline Projections</b>   |        |       |              |   |       |       |       |       |       |       |       |
| <b>Central Government debt 1/</b>  | 59.7   | 63.5  | 65.2         | 67.0  | 66.7  | 65.8  | 64.8  | 63.5  | 62.2  | 60.9  | 59.5  |
| o/w foreign-currency denominated   | 14.1   | 14.9  | 15.7         | 17.0  | 17.7  | 18.1  | 18.8  | 19.4  | 19.0  | 19.2  | 18.5  |
| Change in public sector debt   | 6.0    | 3.8   | 1.7          | 1.8   | -0.2  | -1.0  | -1.0  | -1.3  | -1.3  | -1.3  | -1.3  |
| Identified debt-creating flows   | 5.1    | 1.8   | 3.2          | 1.1   | -0.3  | -1.0  | -1.0  | -1.4  | -1.4  | -1.2  | -1.2  |
| Primary deficit  | 4.9    | 2.8   | 2.2          | 1.7   | 0.9   | 0.2   | 0.2   | 0.2   | 0.3   | 0.4   | 0.5   |
| Revenue and grants   | 27.6   | 26.7  | 26.9         | 25.9  | 26.1  | 26.2  | 25.9  | 25.9  | 25.8  | 25.7  | 25.7  |
| Primary (noninterest) expenditure  | 32.6   | 29.6  | 29.1         | 27.6  | 26.9  | 26.4  | 26.1  | 26.1  | 26.1  | 26.2  | 26.2  |
| Automatic debt dynamics  | 0.6    | -1.0  | 1.2          | -0.6  | -1.2  | -1.2  | -1.2  | -1.6  | -1.7  | -1.8  | -1.9  |
| Contribution from interest rate/growth differential                                | 0.8    | -0.5  | 1.1          | -0.6  | -1.2  | -1.2  | -1.2  | -1.5  | -1.7  | -1.8  | -1.9  |
| Of which contribution from real interest rate                                      | 2.2    | 2.0   | 2.6          | 2.2   | 1.9   | 1.9   | 1.9   | 1.7   | 1.5   | 1.4   | 1.3   |
| Of which contribution from real GDP growth   | -1.4   | -2.5  | -1.5         | -2.8  | -3.0  | -3.1  | -3.1  | -3.2  | -3.3  | -3.2  | -3.2  |
| Contribution from exchange rate depreciation                                       | -0.2   | -0.5  | 0.0          | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Other identified debt-creating flows   | -0.4   | 0.0   | -0.2         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.3   |
| Privatization receipts (negative)  | -0.4   | 0.0   | -0.2         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Recognition of implicit or contingent liabilities                                  | 0.0    | 0.0   | 0.0          | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.1   |
| Other (specify, e.g. bank recapitalization)  | 0.0    | 0.0   | 0.0          | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.1   |
| Residual, including asset changes  | 0.8    | 2.0   | -1.5         | 0.6   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1   | -0.1  | -0.2  |
| Public sector debt-to-revenue ratio  | 215.9  | 237.6 | 242.9        | 258.3   | 256.0 | 250.6 | 250.1 | 245.3 | 241.3 | 236.5 | 231.4 |
| <b>Gross financing need</b>  | 19.7   | 21.8  | 19.1         | 19.1  | 18.4  | 17.6  | 16.0  | 15.5  | 15.7  | 14.6  | 14.8  |
| in billions of U.S. dollars  | 18.9   | 22.6  | 21.0         | 22.1  | 22.5  | 22.9  | 22.2  | 23.1  | 25.0  | 24.9  | 27.1  |
| <b>Key Macroeconomic and Fiscal Assumptions</b>                                    |        |       |              |   |       |       |       |       |       |       |       |
| Real GDP growth (in percent)   | 2.7    | 4.4   | 2.4          | 4.6   | 4.8   | 5.0   | 5.0   | 5.3   | 5.5   | 5.5   | 5.6   |
| Average nominal interest rate on public debt (in percent)                          | 4.7    | 4.6   | 4.5          | 4.5   | 4.5   | 4.5   | 4.5   | 4.3   | 4.1   | 4.0   | 3.8   |
| Average real interest rate (nominal rate minus change in GDP deflator, in percent) | 4.2    | 3.5   | 4.3          | 3.6   | 3.1   | 3.1   | 3.1   | 2.8   | 2.7   | 2.5   | 2.4   |
| Nominal appreciation (increase in US dollar value of local currency, in percent)   | 1.7    | 3.5   | -0.3         | -0.3  | 0.0   | 0.1   | 0.1   | 0.1   | 0.1   | 0.1   | 0.2   |
| Inflation rate (GDP deflator, in percent)  | 0.4    | 1.0   | 0.2          | 1.0   | 1.5   | 1.3   | 1.3   | 1.5   | 1.4   | 1.4   | 1.4   |
| Growth of real primary spending (deflated by GDP deflator, in percent)             | 8.4    | -5.3  | 0.9          | -0.7  | 2.1   | 3.0   | 3.7   | 5.2   | 5.4   | 5.9   | 5.6   |
| Primary deficit  | 4.9    | 2.8   | 2.2          | 1.7   | 0.9   | 0.2   | 0.2   | 0.2   | 0.3   | 0.4   | 0.5   |
| <b>A. Alternative Scenarios</b>  |        |       |              | <b>II. Stress Tests for Public Debt Ratio</b> |       |       |       |       |       |       |       |
| A1. Key variables are at their historical averages in 2014-2022                    |        |       | 65.2         | 66.0  | 66.0  | 66.1  | 66.2  | 66.3  | 66.4  | 66.5  | 66.6  |
| A2. No policy change (constant primary balance) in 2014-2022                       |        |       | 65.2         | 66.4  | 66.9  | 67.3  | 67.7  | 67.7  | 67.5  | 67.2  | 66.7  |
| <b>B. Bound Tests</b>  |        |       |              |   |       |       |       |       |       |       |       |
| B1. Real interest rate is at baseline plus one standard deviations                 |        |       | 65.2         | 67.5  | 67.7  | 67.3  | 66.8  | 66.0  | 65.1  | 64.2  | 63.2  |
| B2. Real GDP growth is at baseline minus one-half standard deviation               |        |       | 65.2         | 67.7  | 68.3  | 68.4  | 68.7  | 68.8  | 69.0  | 69.4  | 69.9  |
| B3. Primary balance is at baseline minus one-half standard deviation               |        |       | 65.2         | 68.6  | 69.9  | 70.5  | 71.0  | 71.2  | 71.2  | 71.3  | 71.2  |
| B4. Combination of B1-B3 using one-quarter standard deviation shocks               |        |       | 65.2         | 68.3  | 69.3  | 69.6  | 69.9  | 69.8  | 69.6  | 69.4  | 69.1  |
| B5. One time 30 percent real depreciation in 2015                                  |        |       | 65.2         | 73.8  | 73.4  | 72.4  | 71.2  | 69.8  | 68.3  | 66.8  | 65.3  |
| B6. 10 percent of GDP increase in other debt-creating flows in 2015                |        |       | 65.2         | 67.0  | 66.7  | 65.8  | 64.8  | 63.5  | 62.2  | 60.9  | 59.5  |

*Source: Government of Morocco and World Bank staff estimates and projections*





## ANNEX 5: ENVIRONMENTAL AND SOCIAL ASPECTS<sup>36</sup>

### A. Objectives

1. In order to address the potential impacts of reforms supported by DPLs, **OP 8.60** requires the Bank to determine whether specific country policies supported by the operation are likely to a) have significant poverty and social consequences especially on poor and vulnerable groups; b) cause significant effects on the country's environment, forests, and other natural resources. In case supported country policies incur likely significant effects, OP 8.60 requires the Bank to summarize relevant analytic knowledge of these effects and of the borrower's systems for reducing adverse effects and enhancing positive effects associated with the specific policies being supported. If there are significant gaps in the analysis or shortcomings in the borrower's systems, the Bank is to describe in the PD how such gaps or shortcomings would be addressed before or during program implementation, as appropriate. This annex complements the information provided in the PD (sections 5.1 and 5.2) by looking at the correspondence between other Bank Policies OP 4.01 (Environmental Assessment) and OP 4.12 (Involuntary Resettlement), even though these two policies do not apply to DPLs. The annex first provides a general description of the national systems for environmental and social management. It then reviews the different axes of the DPL to assess positive and negative effects. It then concludes with an overall assessment of expected DPL impacts. This annex does not attempt to make an assessment of the compliance of Morocco's environment and social safeguard country system with Bank policies.

2. The Bank has good knowledge of Morocco's Environmental and Social Management Systems. In 2010 the Bank conducted a **Safeguard Diagnostic Review**<sup>37</sup> of Morocco's environmental and social management systems in the context of a water sector project and specifically in relation to the application of OP 4.01 and OP 4.12. The review was supported by a comparative assessment of Morocco and other EA systems in the MENA Region and by EA Reports and Land Acquisition Frameworks prepared for infrastructure projects which were reviewed and endorsed by the World Bank and other development partners and donors. GIZ, UNDP and AFD, as well as assessments done in the context of DPLs approved by the Board over the last few years. In 2015, with support from the first DPL in this series, ANDA worked with the MEMEE to draft a Directive on EIA to govern the preparation of future **EIAs in the aquaculture** sector, which was recently approved. In addition, a **Strategic Environmental Assessment (SEA)** of the aquaculture sector was finalized, and ANDA is now drafting a Guide on EIAs for aquaculture projects, aimed specifically at the private sector operators who are expected to respond to ANDA's RFPs.

### B. Institutional and legal framework for environmental and social management

3. In general, Morocco is considered to have a relatively sound environmental assessment regulatory framework, including a deeply rooted and tested legal and regulatory framework for land acquisition for public purpose and interest, and adequate institutional capacity. Over the last 10 years, the country has achieved substantial progress in developing a strategic, legislative and institutional framework for environmental management. In Morocco, Environmental Affairs are under the responsibility of the MEMEE. In October 2013, a junior ministerial portfolio was created for Environmental Affairs. From an operational point of view, particularly in terms of environmental control and stewardship, local level capacity is being strengthened through the creation of sixteen Regional Observatories and the creation of a corps of Environmental Inspectors in charge of **monitoring and control**, which effectively amounts to the institution of an environmental police. The launch of the Regional Observatories aims at decentralizing the

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<sup>36</sup> This Annex has been prepared based on the PSIA and Environment Aspects assessment work carried out during the preparation of DPL1 (see Annex 4 of IGG DPL1 Program Document) and DPL2. A **full version** of this Annex is available in the Project Files.

<sup>37</sup> **Banque mondiale (2010) *Revue Diagnostic des Sauvegardes (RDS) En vue de l'utilisation du Système National de Protection Environnementale et de la Procédure Nationale d'Acquisition de Terrain***

Environment Ministry’s structure at regional and provincial level, and ensuring the participation of the NGO sector and local governments in monitoring and control activities.

4. The 2010 Environment Charter defined the main lines of the country’s environmental policy. Table 1.summarizes the major relevant environmental laws and regulations. The Government’s adoption of the *Environment and Sustainable Development Charter*<sup>38</sup> defined the rights and obligations of citizens for the protection and preservation of the environment and sustainable development, becoming the first MENA country to do so. To operationalize this Charter, a draft law “Projet de loi-cadre n° 99-12”<sup>39</sup> has been recently adopted by the Cabinet of Government (*Conseil du Gouvernement*) and the Council of Ministers chaired by the King (a prior action supported by the DPL). This Law will act as a reference framework to unify all actions and fill in the existing gaps. It will particularly enforce the principles introduced by the Charter including the citizens’ right to access environmental information; establish the “*Police de l’Environnement*” to reinforce authorities in charge of environmental control and inspection; introduce the producer’s extended environmental responsibility and a system of green taxation (“*fiscalité verte*”). In addition, the Government has recently finalized its *National Sustainable Development Strategy* which articulates the country’s Green Growth goals. The policy reforms supported by IGG DPL2 are fully aligned with the NSDS objectives as indicated in the table below.

**Table 5.1 Consistency between policy reforms supported by IGG DPL2 and the draft National Sustainable Development Strategy**

| DPL2 Prior actions  | Draft National Sustainable Development Strategy   |
|---|---|
| <b><i>Pillar 1: Improving the management of natural capital</i></b>                                   |   |
| 1.1.1   | Objective 94: “Strengthening the legal framework to improve coastal zone management” (Measure 94.1).<br>Objective 95: “Developing tools for planning and developing the coastal zone” (Measures 95.1 and 95.2).<br>Objective 62: “Incorporating issues of coastal conservation in tourism planning” (Measure 62.1). |
| 1.1.2   | Objective 30: “Strengthening the governance and the protection of fish resources” (Measures 30.8 and 30.9).<br>Objective 31: “Rationalizing the use of fish resources” (Measures 31.3, 31.4, and 31.5).   |
| 1.2   | Objective 76: “Strengthening monitoring systems to save water resources while accounting for climate change” (Measures 76.1, 76.2, 76.3).   |
| <b><i>Pillar 2 : Greening physical capital</i></b>  |   |
| 2.1.1   | Objective 44: “Accelerating the adoption rate of renewable energy to reach 42 percent of installed power generation by 2020” (Measure 44.3).  |
| 2.1.2   | Objective 44: “Accelerating the adoption rate of renewable energy to reach 42 percent of installed power generation by 2020” (Measure 44.2).  |
| 2.1.3   | Objective 44: “Accelerating the adoption rate of renewable energy to reach 42 percent of installed power generation by 2020” (Measure 44.2).  |
| 2.1.4   | Objective 44: “Accelerating the adoption rate of renewable energy to reach 42 percent of installed power generation by 2020” (Measure 44.1).  |
| 2.2   | Objective 20: “Modifying the behavior of economic agents and nudge consumption and production towards sustainable markets” (Measures 20.1, 20.2, 20.4, and 20.9). Objective 43: “Reducing negative externalities to 1.04 percent of GDP (water pollution)” (Measures 43.1 and 43.2)                                 |
| <b><i>Pillar 3 – Strengthening and diversifying the rural economy by leveraging human capital</i></b> |   |
| 3.1   | Objective 87: “Ensuring the prevention of climate risks” (Measure 87.3).<br>Objective 88: “Strengthening the integration of climate change in sectoral policies” (Measures 88.1 and 88.2).  |
| 3.2.1   | Objective 32: “Improving the sectoral competitiveness and the development of fish resources” (Measure 32.2).  |
| 3.2.2   | Objective 60. “Integrating the sustainable management of soils and biodiversity in the planning of tourism projects” (Measures 60.3 and 60.4).  |

5. As assessed in the framework of previous Bank DPLs<sup>40</sup>, Morocco’s **EIA system** is consistent with international good practices and is fully operational, at the national and regional levels, and contributes to the mainstreaming of social and environmental dimensions in development activities. Pursuant to these

<sup>38</sup> [http://www.environnement.gov.ma/PDFs/CNE\\_charte\\_VF.pdf](http://www.environnement.gov.ma/PDFs/CNE_charte_VF.pdf)

<sup>39</sup> [http://www.sgg.gov.ma/projets\\_com/5/Projet\\_loi\\_99-12\\_Fr.pdf](http://www.sgg.gov.ma/projets_com/5/Projet_loi_99-12_Fr.pdf)

<sup>40</sup> See particularly the Solid Waste Management DPL series (2008-2014), the Plan Maroc Vert DPL Series (2010 and 2012), the Urban Transport DPL (2011)

assessments, it was concluded that the totality of Moroccan laws, regulations, administrative orders and guidelines applicable to EA and Involuntary Resettlement (IR) are close to the Objectives and Operational Principles of OP 4.01 and OP 4.12 and that any remaining gaps can be addressed through project-based measures without recourse to changes in Morocco legislation and regulations. For Environmental Assessments (EA), key areas for improvement in particular at the implementation stage include: a) the need to consider cumulative impacts beyond the project level in the case of programmatic initiatives; b) the need for more detail in prescribed content for Environmental Management Plans (EMPs), in particular, with respect to monitoring, institutional capacity development and training measures; c) clearer requirements for consideration and assessment of alternatives including the “no project” alternative; and d) clarity as to the disclosure requirements at various stages of public consultations. The authorities have expressed their intention to further strengthen the framework by building on lessons learned from implementation, which may require an amendment of the EIA Law.

| <b>Table 5.2 Morocco Environmental Laws and Regulations</b>   |
|---|
| Law 99-12 : Framework Law for the National Charter of the Environment and Sustainable Development (in French <i>Loi-Cadre Portant Charte Nationale de l'Environnement et du Développement Durable</i> in French)  |
| Law 11-03 Environmental Protection and Management (in French : « la protection et à la mise en valeur de l'environnement »)   |
| Law 12-03 on <b>Environmental Impact Assessment</b> (in French : « études d'impact sur l'environnement »).<br>Decree n°2-04-563 of November 4, 2008 on the mandates and organization of the National Committee and the Regional Committees on Environmental Impact Assessment. (in French « attributions et au fonctionnement du comité national et des comités régionaux des études d'impact sur l'environnement »).<br>Decree n°2-04-564 of November 4, 2008 on the modalities of organization and conduct of public inquiry related to projects subjected to environmental impact assessment (in French : « modalités d'organisation et de déroulement de l'enquête publique relative aux projets soumis aux études d'impact sur l'environnement »).<br>Arrêté n° 636-10 du 7 Rabii I 1431 (February 22, 2010) on fees for administrative services connected with the public inquiry related to projects subjected to environmental impact assessment (in French : « tarifs de rémunération des services rendus par l'administration afférents à l'enquête publique relative aux projets soumis aux études d'impact sur l'environnement »).  |
| Law n°13-03 on <b>Air Pollution Control</b> (in French : « relative à la lutte contre la pollution atmosphérique »)<br>Decree n°2-09-286 du 20 Hija 1430 (8 décembre 2009) fixant les normes de qualité de l'air et les modalités de surveillance de l'air. Decree n° 2-09-631 du 23 Rajab 1431 (6 juillet 2010) fixant les valeurs limites de dégagement, d'émission ou de rejet de polluants dans l'air émanant de sources de pollution fixes et les modalités de leur contrôle.  |
| Law n° 28-00 relative à la gestion des <b>déchets</b> et à leur élimination Decree n° 2-07-253 du 18 juillet 2008 portant classification des déchets et fixant la liste des déchets dangereux.<br>Decree n° 2-02-284 du 20 Hija 1430 (8 décembre 2009) fixant les procédures administratives et les prescriptions techniques relatives aux décharges contrôlées.  |
| Dahir 25 août 1914 portant réglementation des établissements insalubres, incommodes ou <b>dangereux</b> , tel qu'il est modifié et ses textes d'application   |
| Law n° 10-95 sur <b>l'eau</b><br>Decree n°2-97-787 du 4 février 1998 relatif aux normes de qualité des eaux et à l'inventaire du degré de pollution des eaux.<br>Arrêt conjoint n° 1276-01 du 17 octobre 2002 portant fixation des normes de qualité des eaux destinées à l'irrigation.<br>Arrêté n°1607-06 du 29 Joumada II 1427 (25 juillet 2006) portant fixation des valeurs limites spécifiques de rejets domestiques.<br>Decree relatif aux déversements, écoulements, rejets, dépôts directs ou indirects dans les eaux superficielles ou souterraines.<br>Arrêté n° 1608-06 du 29 Joumada II 1427 (25 juillet 2006) portant fixation des valeurs limites spécifiques de rejet des industries du sucre.<br>Arrêté n°1606-06 du 29 Joumada II 1427 (25 juillet 2006) portant fixation des valeurs limites spécifiques de rejet des industries de la pâte à papier, du papier et du carton.<br>Arrêté n° 1606-06 du 29 Joumada II 1427 (25 juillet 2006) portant fixation des valeurs limites spécifiques de rejet de la branche galvanisation à chaud relevant de l'activité du traitement de surface.<br>Arrêté n° 1447-08 du 30 Moharrem 1430 fixant les valeurs limites spécifiques de rejet des industries de ciment. |
| Dahir n° 1-69-170 du 25 juillet 1969 sur la défense et la restauration des <b>sols</b> .  |
| Law n° 08-01 relative à l'exploitation des carrières  |
| Law 13-09 of February 11, 2010 on <b>Renewable Energies</b> (in French: « énergies renouvelables »).  |
| Law 12-90 of 1990 on <b>Urban Planning</b>  |
| Law 81-12 of 2015 on <b>Coastal Zone Management</b> (in French: “Relative au littoral”)   |
| Law 15-12 of 2014 on Illegal, Unreported and Unregulated <b>Fishing</b> (IUU Law). French title: Projet de Loi N°15-12 relative à la prévention et la lutte contre la pêche illicite, non déclarée et non réglementée et modifiant et complétant le Dahir No. 1-73-255 du 27 chaoual 1393 (23 novembre 1973) formant règlement sur la pêche maritime.   |

6. Regarding **social impacts**, Morocco has a comprehensive legal framework related to social development and social management based upon constitutional provisions, laws and regulations on citizens' social, economic and cultural rights. Morocco is equipped with numerous institutions with a mandate to hear and decide on grievances and claims related to activities covered by the reforms supported by the DPL series. These include: (i) the National Council of Human Rights (CNDH) -a constitutional, autonomous body mandated to hear any claim for violation of human rights. The CNDH is empowered to initiate legal processes in case of violations and recommends sanctions; (ii) the Institution of the Ombudsman (*Le Médiateur*) - a constitutional body equipped with legal and financial autonomy and independence vis-à-vis the legislature, executive and the judiciary, providing citizens with an accessible appeal and grievance redress mechanism<sup>41</sup>; (iii) the Anti-corruption and Integrity National Forum (the "Forum"), has also been elevated to constitutional body since 2011. It replaced the Central Instance for the Prevention of Corruption which was established in 2007 as a central administrative body. The Forum is an autonomous body with financial and administrative independence. Its mandates relate to coordinating, supervising and monitoring the implementation of policies to prevent and fight corruption through collecting, disseminating information in this area, and contributing to the moralization of public life and the strengthening of principles of good governance. The existence of grievance and appeal mechanisms and their recent elevation of constitutional bodies provide them with the necessary independence and financial autonomy, and expanded their powers for self-referral.

7. Regarding **Involuntary Resettlement (IR) and Land Acquisition**, it is a policy of the Government and its various executing agencies not to seek to expropriate land that is inhabited by households. This is considered upfront during initial investment design, by favoring sites that are included in the public domain (land owned by the Government). In case of lack of such land, the legislation requires implementing agencies to seek to acquire land through the market, thus reserving expropriation of land for public interest as a last resort. The primary statutory instruments governing the land acquisition process in Morocco are the Constitution (Article 15) and the Land Acquisition Act for Public Interest (Loi 7-81) and its implementing decrees. The objectives stated in the Constitution and the Loi 7-81 are equivalent to some but not all of the Objectives of OP 4.12 with respect to IR.

8. In 2013, a MENA **Resettlement Review (RR)** composed of Bank safeguard specialists assessed Morocco's systems in relation to resettlement and land acquisition in relation to ongoing Bank projects. The RR found (i) no instances of resettlement; (ii) deliberate efforts from implementing agencies to avoid land acquisition impacts; (iii) consultation with the landowners; (iv) no instances of loss of jobs; (v) minor impacts of involuntary land acquisition; (vi) adequate land compensation prices; (vii) landowners or land users able to resort to replacement land following compensation; (vi) capacity of landowners to resort to legal recourses in case of non-acceptance of compensation prices. The RR concluded that the main gap between Morocco's land acquisition process and OP 4.12 concerned the delays in providing compensation. Delays do not appear to be intentional, as executing agencies have an interest in prompt payment of compensation, as it allows them to obtain ownership of the land and proceed with civil works. Rather, they appear to be driven by administrative and legal bottlenecks in compensation payments such as missing documents, the recourse to the courts by the landowners themselves, a cumbersome bureaucracy, institutional constraints, and technical hurdles due to inheritance law.

9. Measures supported by the DPL aimed at improving the sustainability of natural assets and environmental stewardship are critical to ensuring equity and shared prosperity, including from an inter-

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<sup>41</sup> Grievances complaints and claims can be introduced to the Ombudsman through regular or registered mail, fax or internet. The Ombudsman can hear and investigate complaints and grievances of citizens, domestic or foreign individuals or legal entities against all governments and organizations which benefit from financial support of the Government. The government is obliged by law to respond in a mandatory delay to any Ombudsman process and request. The Ombudsman can use conciliation processes. To facilitate easy access for citizens and the rights of social service users, three regional offices were created and are operational and others offices are being established with regional ombudsmen. It is planned that local delegates will also be installed in the near future.

generational perspective.<sup>42</sup> Additionally, reforms areas target the agriculture sector, where most of Morocco's poverty and underemployment lie. Supported measures also have a clear **gender dimension**. Natural resource use is socially differentiated, as is environmental vulnerability. Women play a key role in the management of natural resources, including soil, water, forests and energy, and often their traditional responsibilities as food growers, water and fuel gatherers make them more likely to be impacted by environmental degradation<sup>43</sup> and weather shocks, such as floods and droughts<sup>44</sup>. Experience also shows that the resilience of households and communities also depends greatly on women's know how. The operation supports policies and programs that leverage women's role, through (i) actions aimed at shielding the agricultural sector from weather shocks (e.g. groundwater management, agro-meteorological services, seeding practices) in which women have a clear role to play and (ii) measures aimed at supporting the development of eco-tourism and aquaculture investments which will provide additional job creation opportunities which rural women can benefit from.

### **C. Assessment of reform measures supported by the Inclusive Green Growth DPL2**

10. As required by **OP 8.60**, the team has conducted an assessment of the specific country policies supported by this operation to determine if any of them are likely to cause significant effects on the country's environment, forests, and other natural resources. The section's structure follows the policy matrix.

#### **Pillar 1. Improving the Management of Natural Capital Management of Coastal and Marine Assets**

##### **Prior Action 1.1.1 The Council of Government (*Conseil du Gouvernement*) has adopted Decree No. 2.15.769 regulating, inter alia, the formulation of the National Coastal Zone Management Plan (*Plan National d'Aménagement du Littoral*) on November 5, 2015.**

11. Coastal environmental damage and loss of natural and cultural heritage is caused by municipal/industrial effluent discharges, oil pollution, air pollution, and urban encroachment. Ninety percent, or 930 million m<sup>3</sup>, of wastewater is discharged at sea, some of which is untreated. Erosion is threatening Morocco's beaches. The economic potential of the coastal areas is also undervalued. Morocco's highly urbanized population (56 percent of the population lives in cities) is largely concentrated along its long coastline, which extends from the Atlantic to the Mediterranean through the Strait of Gibraltar. The coastal zone and its related ecosystems are crucial to the country's future growth and job creation, be it from shipping, tourism, aquaculture, fisheries or other natural resources-based activities. As a result, increases in population density and economic activity often entail serious impacts on coastal natural resources and engender conflicts between users. For instance, sand mining for construction material for use in urban infrastructure, and sewage and solid waste disposal from human settlements have become major environmental issues in the coast. In addition, conflicting uses of natural resources along the coast have resulted in salinization of aquifers, water supply issues, loss of biodiversity, and destruction of ecologically sensitive areas.

12. **Sea levels** are rising as a result of anthropogenic climate warming as a result of thermal expansion of the oceans and by the addition of water to the oceans as a result of the melting and discharge of ice from mountain glaciers and ice caps and from the much larger Greenland and Antarctic ice sheets. The exact science of sea-level rise is hard to ascertain, but the most recent IPCC report released in 2007 projected a global sea level rise between 0.2 and 0.5 meters by 2100.

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<sup>42</sup> *Social Dimensions of Climate Change – Equity and Vulnerability in a Warming World*, World Bank, 2010

<sup>43</sup> *Women and the environment* – United Nations Environment Program, 2004

<sup>44</sup> *Gender, climate change and health*. World Health Organization, 2011

13. ICZM is now widely recognized as providing a major opportunity to address the many issues and challenges identified above. Since it offers advantages over purely sectoral approaches, ICZM is widely recognized and promoted as the most appropriate process to deal with climate change, sea-level rise and other current and long-term coastal challenges. Several important aspects of ICZM can be noted with regards to **climate change adaptation**:

- Enhancing adaptive capacity is an important part of ICZM.
- The extent to which climate change and sea-level rise are considered in coastal management plans is one useful measure of commitment to integration and sustainability.
- Responses to sea-level rise and climate change need to be implemented in the broader context and the wider objectives of coastal planning and management.
- ICZM focuses on integrating and balancing multiple objectives in the planning process.
- Generation of equitably distributed social and environmental benefits is a key factor in ICZM process sustainability, but is difficult to achieve.
- Attention is also paid to legal and institutional frameworks that support integrative planning on local and national scales. And,
- Different social groups have contrasting, and often conflicting views on the relative priorities to be given to development, the environment and social considerations, as well as short and long-term perspectives.

14. Until very recently, Morocco still lacked an organized framework for integrated coastal zone management. As a result, the coastal space was managed by several sectoral agencies that implemented their own policies and fostered investments independently, and with little regard for one another. With growing economic development, however, the need for such a framework became every day direr. Current Moroccan law governing the coastal zones is sectoral in nature and the individual ministries operating in isolation cannot produce an integrated approach to managing this critical zone among many overlapping and competing interests. This lack of integration has already produced undesirable outcomes in a number of places where tourist development has been undertaken without proper accounting for local context and without due attention to competing uses of the coastal zone. For example, the tourist station at Saidia in the Oriental region on the Mediterranean was constructed on less than optimal land and in difficult hydrological conditions next to a sensitive ecological site, is plagued with infrastructure problems and continues to operate substantially below capacity rather than acting as a generator of strong growth and employment as planned.

15. The adoption of the latest version of the Law on Zoning, Protection, Development and Conservation of Coastal Zones (**ICZM Law**) by the First and Second Chambers of Parliament in 2015 is a crucial step to ensure the sustainable development of the coastal zone. According to the new law, two very important new steps will have to be taken in succession: *first*, the Government must issue a Decree governing the formulation of the **National** Management Scheme for the Coastal Zone (“*Schema National d’Aménagement du Littoral*”), which will further define the rights and obligations of each authority, and *second* the adoption of more adapted **Regional** management schemes, which will recognize some of the great differences between regions in the coastal zone. This two-tier approach addresses the fundamental goal of coastal zone management.

16. The new law and its decrees will create a foundation for an integrated and ecosystem-based perspective on the management of resources and activities in the coastal zone that relies on a prescribed methodology for the creation of **coastal zone management plans** for each of the coastal regions. These plans will be informed by local knowledge from local communities and civic associations with interests in the coastal zone, among others. The effect of the integration of planning for the coastal zone across economic sectors will be to allow a single policy instrument to balance the competing interests of one sector against another. Fishing and tourism interests may conflict in some areas and some cases. The process created by the new law allows these conflicts to be resolved in a reasoned and transparent way at the local level. Local people, who know the coast better than outsiders and whose livelihoods depend on it, will be able to have input into how much tourist development to allow and how much area to set aside for agriculture

or fishing. The outcome of the integration of coastal zone planning at a delegated, more localized level will be to improve ownership by the populations most dependent on the coast for their livelihoods, and improve the incorporation of local concerns for sustainability into official planning. The expected outcome of this will be substantial improvements to sustainability of future coastal zone development.

17. **Conclusion:** While the environmental and social benefits of the ICZM approach adopted by Morocco through the Coastal Zone Law are easy to identify, potential negative impacts are more challenging to isolate. Should these arise, they would be likely due to distorted reform implementation downstream, rather than the reform objectives per se. While it is of course possible that poor planning decisions may be made under the new delegated and decentralized structure of management, Morocco's decentralization process is likely to minimize these risks. In a scenario whereby one region adopts a coastal zone management scheme that sets stringent controls while a neighboring region does not, the latter region might suffer increased environmental pressure as people seek to exploit the more lax controls on the coastal zone situated within it. However, even if this were to occur, the danger of race to the bottom scenarios is now minimal. Any such moves would likely be temporary as local communities have a strong incentive to have their territories protected by a management scheme, and regional authorities (in charge of the schemes) are now elected.

**DPL2 Prior Action 1.1.2: The Minister of Agriculture and Marine Fisheries has issued Decision No. 001/Cab/PM containing the National Monitoring Plan for Marine Fisheries (Plan National de Contrôle des Activités de la Pêche Maritime) on April 1, 2015.**

18. The **IUU Law** approved under DPL 1 marks a very important step in the development of fisheries management in Morocco. The **environmental impacts** of the new law are expected to be overwhelmingly positive, particularly for the large majority of fishermen who heretofore had complied with the conservation and management measures. As a result of the entry into force of the law, and ultimately of the creation of the Enforcement Directorate within the Department of Fisheries, law-abiding fishermen can now expect that scofflaws who had gained an unfair advantage will now be interdicted under the stepped-up enforcement, which will greatly even out the playing field. Furthermore, and as result of the expected decrease in illegal fishing, its deleterious effect on fish stocks is likely to be considerably curtailed, and even reversed, which will in turn result in a much healthier resource, from which fishermen can expect to extract sustainable revenues.

19. The law will also have considerable positive **social** impacts, since that which is good for the fish is also very good for the fishermen. The latter will have greater certainty that the stocks will be fished sustainably, without the undermining actions of illegal fishermen, or in this case free-riders, which in turn will provide less of an incentive to increase their level of effort, in vain efforts to catch the resources before they are "stolen," or caught illegally.

20. Before these benefits, both ecological/environmental and social, are felt, however, it is undeniable that the law will have **negative social impacts** on fishermen who had so far engaged in IUU fishing. In following with the model of the FAO IPOA, the law puts strong emphasis on activities on the high seas, both fishing and transshipment, but in actual fact, all fishermen, from the artisanal, coastal and industrial fisheries, are ultimately likely to be impacted. Inasmuch as they were deriving some revenues from their illegal activities, former scofflaws will be impacted by the new enforcement measures, at least in the short-term. The social impact of the Law may be more important in the **industrial fisheries**, where the infractions that were carried out far at sea will now be easier to detect thanks to the brand new vessel monitoring system (VMS) recently funded and deployed by the Government. In a way, IUU fishing is going to be that much harder to pull off by the large industrialized fleets in the Moroccan Exclusive Economic Zone, but because enforcement can be expected to be rather uniform, small-scale artisanal fishermen, who are sometimes desperately poor and living hand-to-mouth may see a significant decrease in revenue in some limited instances.

21. It should be noted, however, that the wide majority of fishermen who do not engage in IUU fishing have nothing to fear, should not be impacted economically by the implementation of the law, but rather will benefit greatly from the reduction in IUU fishing.

22. Nevertheless, the Fisheries Department is well aware of some of the costs that will be incurred as the law is implemented and is taking all possible measures to try and soften the blow of these impacts, including through comprehensive negotiations that ensure the full participation of the sector in the establishment of new conservation and management measures for all managed fisheries in which artisanal fishermen are participating (particularly octopus, red tuna, algae, swordfish). In addition, the Fisheries Department has adopted a series of measures to support all fishermen, but also in particular, small-scale artisanal fishermen. Amongst these measures are the creation of three marine protected areas for fisheries management, a very strong training and functional literacy program, a program designed to assist fishermen with gear and boat upgrades (IBHAR program, which aims at upgrading 10,600 registered boats out of 16,500 through better engines, GPS, insulated boxes, life jackets, and VHF radio), and even the construction of fishers villages and improved landing sites where, water, electricity and ice are brought to the fishermen, along with a well maintained, open market where fishermen can sell their catches at fair prices (more than 40 sites have already been developed).

23. Furthermore, a breakthrough was achieved when the Government was able to formally recognize artisanal fishermen who had previously operated informally, by initiating a process, well under way, under which all fishermen (industrial, coastal and artisanal) are about to be incorporated within the national social security system (Caisse Nationale de Sécurité Sociale, CNSS), thus meeting a demand that the fishermen had pressed for over decades. As a result, artisanal fishermen will be entitled to social security benefits, including pensions and health coverage, with benefits extended to their dependents (so-called “allocations familiales” under which a monthly cash payment is made for each of the first three children). To date, all fishermen in the coastal and industrial fisheries have been enrolled, and some 80% of the artisanal fishermen have also reached that stage (30,000 fishermen, working on approximately 7,000 boats). The directorate on professional education at the DPM is sustaining this effort aiming to reach 100% of registrations by 2017, at which point all fishermen and their families, will benefit fully from social protection measures.

24. In order to support the implementation of the IUU Law, the Department of Maritime Fisheries has adopted a National Monitoring Plan for Marine Fisheries (*Plan National du Contrôle des Pêches Maritimes*). The Plan provides operational details under which the newly passed Law will be implemented. Following the approval of the National Plan, Regional control plans will be developed to adapt the guidance set forth in the national plan to the specificity and differences of various regions, where both fishing activities and IUU issues can vary greatly. In addition, the FAO Agreement on Port State Control was ratified in August 2015, thus reinforcing further Morocco’s effort to fight IUU fishing.

25. Although the implementation of the Illicit Fishing control framework is largely **gender** neutral in terms of direct effects, the medium to long term benefits of increased resource sustainability will have positive indirect effects on fishermen and their families, as well as female workers from down the value chain. On the other hand, the implementation of related social inclusion measures, particularly the CNSS enrollment, promises to yield important gender positive impacts. Going forward, a higher level of women participation in the fisheries’ sectors consultative bodies would allow for enhancing benefits of sector reforms.

26. **Conclusion:** Measures to address illegal fishing supported by the operation will mainly impact large scale actors engaged in illegal fishing practices. Control measures will benefit small scale fishermen engaged in artisanal fishery, who will profit from increased sustainability of the marine resources upon which they critically depend. The fisheries actions aim squarely at reinforcing control over fishing activities and to



prevent illegal fishing, which significantly compounds depletion of marine living resources. The marine fisheries measures contained supported by the DPL entail no environmental risks.

## Water Sector Governance

### **Prior Action 1.2. The Council of Government has approved the draft Law No. 36-15 on water, setting provisions for, inter alia, participatory groundwater management on November 19, 2015**

27. **Increased water scarcity** is caused in part by demographic growth, unregulated water demands (including uncontrolled groundwater pumping), and a 30 percent downward trend in annual rainfall since the 1970s, resulting in serial droughts. The current natural renewable water resources deficit is estimated at 2 billion m<sup>3</sup>, which is partially compensated by **groundwater overexploitation**, estimated at 0.86 billion m<sup>3</sup> beyond the renewable volume of 3.4 billion m<sup>3</sup>. Water abstraction for irrigation and, to a lesser extent industry, are the main drivers for aquifer overexploitation. Irrigated agriculture makes up on average 45 percent of agricultural value added (75 percent in dry years). Much of this value added comes from groundwater irrigation, owing to its ease of access and flexible use to replace or complement the current deficit of surface water for irrigation. The Souss-Massa Region resorts primarily to groundwater irrigation for its agricultural production (80 percent and 40 percent of Morocco's total tomatoes and citrus exports are grown there). In 2012, the abstraction volume was 650 million m<sup>3</sup>, against renewable volume of only 370 million m<sup>3</sup> - an exploitation rate of 175 percent. If no conservation plan is implemented, the region's deficit will reach 400 million m<sup>3</sup> in 2020, causing the abandonment of 31,000 ha of irrigated land, of which 9,000 ha because of dry-out, and 21,000 ha by loss of profitability due to the rising cost of pumping. Small, low income farmers who cannot afford to deepen their wells and strengthen their pumping equipment will be the first to suffer. The Souss-Massa Region is not alone: twenty aquifers are overexploited, with Haouz Mejjate reaching 160 percent and Saïss 150 percent. The combined effects of climate change and increasing water demand from the population and productive sectors will further worsen existing trends.

28. The Department of Water, River Basin Agencies, the Ministry of Agriculture and the Ministry of Interior proposed the preparation of groundwater agreements (contrats de nappes). Lessons of the first framework convention including water users at the level of the **Souss-Massa basin**, which started in 2005 with support from GIZ, emphasized the need to use a very comprehensive participatory process aiming at raising awareness and convincing at least major aquifer water users to mutually agree and enforce a reduction of withdrawal from threatened aquifers beyond the targets set in the river Basin management plans. Previous efforts from the GOM to have groundwater users declare their wells to the River Basin Agencies generated poor results, with an estimation of 30 percent of wells being now declared. Any regulation on groundwater abstraction, let alone the lack of withdrawal fees to the River Basin Agency, is likely to penalize the well owners who responded to this civic responsibility and to push the greater majority to hide even more their abstraction levels. These are some of the reasons why the process and methodology of engaging with the water users was critical to ensure the environmental and social benefits of this DPL-supported measure. Amongst them, the pragmatic approach to focus on the few stakeholders representing the largest share of the groundwater abstraction while preserving small farmers, who are already the most impacted from decreasing levels to have to comply with requirements they are not likely to be able to respect without jeopardizing their livelihood.

29. Following the consultation outlined above and conducted under DPL1, GoM committed to prepare a new Water Law addressing existing gaps, (such as including provisions to encourage the efficient use of groundwater resources, promoting aquifer management contracts and introducing provisions for the use and management of non-conventional water resources). This action will only serve to codify and strengthen the protections outlined above and are expected overall to yield positive environmental benefits.

30. The measure is also likely to have a direct positive impact on **women** in rural areas, especially those directly involved in agriculture. The Ministry of water benefited from targeted advisory services on gender

mainstreaming through the AGIRE program (Programme d'Appui à la Gestion Intégrée des Ressources en Eaux) with the support of the GIZ. The program helps to build capacity in gender mainstreaming throughout the entire project cycle. That includes: (i) the institution of a gender focal point at Ministerial level; (ii) the use of gender budgeting methodology; (iii) and the implementation of a gender-informed communication strategy geared to all beneficiaries.

31. **Conclusion:** The proposed measure is expected to generate positive environmental impact. The only potential negative impact would occur if its implementation were delayed, as the current situation is quite critical. With respect to social aspects, this DPL-supported measure is expected to generate positive social benefits, especially on the poor and vulnerable, who would be the hardest hit by further overexploitation of aquifers because they have neither the means nor the potential for economies of scale to adapt.

## **Pillar 2. Greening Physical Capital**

### **2.1 Low Carbon Growth**

32. The energy sector is critical to Morocco's Green Growth strategy. Despite increase in renewable energy use, Morocco is still highly dependent on the import of commercial energy (in 2014 Morocco imported 94 percent of its commercial energy). The current energy profile also has important environmental consequences as oil and coal together constitute 81 percent of total commercial energy. Energy consumption has been growing at about 4.8 percent annually since 2000; this is mostly the result of an increase in electricity use among households and the rural electrification program which increased electricity connection in rural areas from 18 percent in 1995 to 98 percent in 2014. Demand for energy is expected to continue to grow over the next two decades. To address this challenge, Morocco has put in place a national energy strategy based on the following pillars:

- To guarantee adequate energy supply while reducing dependence on foreign energy supplies;
- To limit the environmental impacts of the Moroccan growth model;
- To guarantee energy access to the population, especially the poor;
- To increase energy efficiency in all sectors (in particular residential);
- To develop renewable energy (especially wind and solar);

33. Some of the specific objectives of the strategy include a) to increase the installed capacity of renewable energy to 42 percent (14 percent solar, 14 percent wind and 14 percent hydro) by 2020; and b) to decrease the consumption of energy in the building, industrial and transport sectors by 12 percent by 2020 and 15 percent by 2030. Among the multiple positive results that the Strategy entails is the reducing of GHG emissions by 2,874 kT of CO<sub>2</sub> per year by 2030 through improved efficiency and 20,825 kT CO<sub>2</sub> per year via increased use of renewable energy.

### **Prior Action 2.1.1 The Council of Government has approved draft Law No. 48-15 creating the National Agency for Electricity Regulation (*Autorité Nationale de Régulation de l'Electricité*) on September 17, 2015.**

34. In order to support a renewable energy transition, the Government is introducing the necessary regulatory, institutional and financial reforms. A transition towards a more renewable energy economy cannot be without a major involvement of the private sector. Therefore the liberalization of the power supply sector and the increased involvement of the private sector will require the establishment of *National Agency for Electricity Regulation*. The overall mission of this new agency will include (i) elaborating grid access tariffs, (ii) ensuring the establishment of an independent Transmission System Operator (TSO) by separating the TSO activity from ONEE and (iii) managing dispute resolution between the TSO and network users. The overall role of the agency is to establish and oversee the conditions and rules governing grid integration of renewable energy projects and to ensure the overall good governance of the sector.

35. **Conclusion:** There is unlikely to be negative environmental impacts from this measure. On the other hand, a good regulatory system will encourage the proper development of the renewable energy sector which will contribute to reduce the environmental impacts of alternative sources of energy and to **reduce GHG emissions** contributing therefore to a lower carbon growth in Morocco.

**Prior Action 2.1.2 The Council of Government has adopted Decree No. 2-15-772 regarding access to the national medium voltage electricity network on October 12, 2015.**

**Prior Action 2.1.3 The Council of Government has approved draft Law No. 58-15 amending and completing Law No. 13-09, to provide renewable energy solutions for low voltage customers on August 27, 2015.**

36. In order to further encourage the opening up of the renewable energy market, Morocco aims at broadening the scope of Law 13-09 to allow for the integration of distributed renewable generation (medium voltage – MV - and low voltage -LV). Hence, in addition to the development of large size projects – such as the Integrated Wind Plan and the Noor Solar Plan already under way – the Government of Morocco has now authorized private sector operators to sell their renewable energy generated power directly to customers connected to the medium voltage network. Taking this a step further, the Government also plans to allow households, small businesses or low voltage supplied consumers to install on-grid rooftop solar kits or any other renewable distributed generation equipment.

37. A successful implementation of renewables power generation at a distributed level in Morocco will have many benefits including to: (i) increase reliability and security of the system by relieving distribution and transmission congestion and increasing generation diversity; (ii) add economic benefits by reducing costs associated with power losses, cutting fuel costs and deferring investments for generation, transmission and distribution upgrades; (iii) reduce GHG emissions; and (iv) help improve power quality.

38. With regard to **social** impacts, the World Bank Group undertook in March 2014 the first ***Social and Gender Study*** to assess the potential impact of solar photovoltaic plants in remote rural areas on local populations, particularly women (Box1). This study is of great relevance to the current green energy policy aiming to develop decentralized renewable energies at the local level. The main conclusions relevant to the Development Policy Operation were the following:

- Social impacts due to land sale: potential beneficiary communities, including women, have clearly expressed their consent to sell the land for the project given their high poverty rates, and expected compensation for the land sale could assist the community in:
  - Improving their living conditions through improved housing, access to basic infrastructure (roads, public lighting, drinking water, sanitation), the creation of high schools and kindergartens;
  - Improving their standards of living, through the strengthening or creation of income generating activities for women and youth and agricultural cooperatives;
  - Strengthening local associations (women’s associations, local development associations and sustainable development, cultural and sports associations through technical and financial support.
- Social impacts due to improved electricity supply - highly relevant for the most remote rural areas
  - Improving access to health by: avoiding postponement of surgical interventions, relocations of patients to far-away hospitals, better delivery conditions during night in the rural health facilities.
  - Improving household’s quality of life: women will benefit mostly because they are the main electricity consumers in rural areas and suffer from inadequate refrigeration and regular appliance’s breakdowns.
  - Improving income-generating activities: better refrigeration of dates and access to electric water pumps for irrigation.

### **Box: Gender Aspects of Low Carbon Growth**

Measures to enhance the share of renewables in Morocco's energy mix (supported by prior actions 2.1.1, 2.1.2, and 2.1.3) are likely to have *indirect* positive impacts on women. In addition to supporting Morocco's rural electrification objectives, the opening up of RE investments, particularly in PV, can have positive socio-economic benefits. A more reliable access to energy can reduce women's burden of domestic responsibilities and free time for more productive activities and formal engagement in the local economy.<sup>1</sup> Currently, off-grid households largely depend on conventional fuel burning (mainly kerosene and butane) and firewood that are inefficient, polluting and damaging to both health and the environment. Moreover, low voltage energy generation at household level can be an interesting opportunity for women's economic empowerment with a more *direct* impact. The prospect for household level renewable power generation can lead to beneficial effects on family welfare, health outcomes, and education attainment and completion. Solar off-grid lighting and heating alternatives offer a better cost-performance option with health, safety and environmental benefits.

However, access to energy and renewable energy is gender differentiated. Female-headed households may represent a majority of poor households with inadequate resources or sources of collateral to pay for initial connection costs and the purchase of appliances (fridges, sewing machines, etc.); women traditionally have less access to information about new forms of energy; finally, jobs, and information. A few key aspects need to be considered: (i) gender-differentiated energy use; (ii) barriers in access because of connection fees; (iii) upfront investments needed, payment methods, and maintenance issues (iv) gender-differentials in literacy and business management skills; (v) women's voice and agency.

Women's agency in household decision-making can affect how energy programs are implemented. Differences exist, for example, and can be substantial, in bargaining power over allocations within the households. Giving dual titling or titling to women rather than only to men may generate more income in the hands for women and can (i) increase women's relative bargaining power within the household and (ii) allocate expenditure to different items. Favoring dual titling of the off-grid energy contract can promote feminine income, and facilitate female financial inclusion, which currently ranks very low in the entire region. Low-emissions development pathways can be more effective and more equitable where they are designed using a gender-informed approach. Billions of women around the world make decisions every day that influence the amount of carbon that is released into the atmosphere, for example as home-makers, as farmers and land-managers, or as consumers. Such choices can be expanded in ways that reduce carbon footprints while also promoting co-benefits for gender equality. (World Bank, 2103, *Integrating Gender Considerations into Energy Operations*, ESMAP; World Bank, 2011, *Gender and Climate Change: 3 Things You Should Know*, Washington, DC).

39. **Conclusion:** The above two policies are unlikely to have any negative environmental impacts. Opening up the renewable energy market will increase the share of energy produced from renewable and decreasing the overall GHG and other air pollutants that are emitted through coal and fuel fired power plants or other energy facilities.

**Prior Action 2.1.4 The 2015 Budget Law (Law No. 100-14), which increased the funding to social programs following energy subsidy cuts, has been published in the National Gazette No. 6320 bis, dated December 25, 2014.**

40. Energy products were until recently highly subsidized in Morocco, and the subsidy system not only distorted product prices but also placed a heavy burden on public treasury. In fact petroleum product subsidies in 2012 amounted to MAD 54.9 billion (about US\$ 5.6 billion), which represented 6.6 percent of GDP and more than public investment budget. In many cases, the subsidy amounted to a high fraction of the product price, e.g., 68 percent for butane, around 45 percent for fuel oil, and 35 percent for diesel. The butane subsidy benefits all income categories with 13 percent going to the poorest quintile and 30 percent to the richest. On the other hand, only 7 percent of subsidies to other petroleum products went to the poorest quintile and 42 percent to the richest.

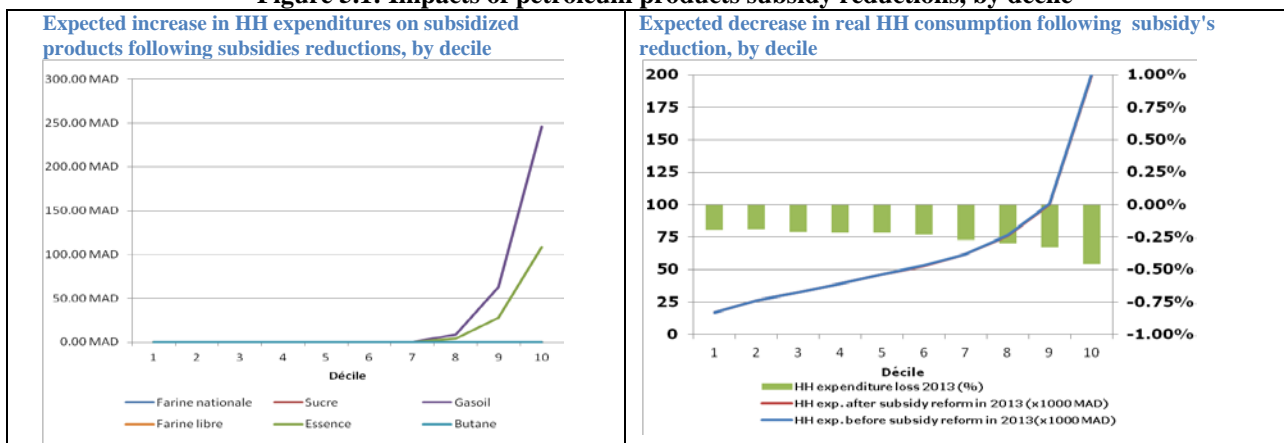
41. Petroleum products subsidy reductions supported by the IGG DPL series are expected to have a modest impact on the poor and vulnerable. Subsidy reductions increased diesel prices by 4.8 percent gasoline prices by 8.5 percent and industrial fuel prices by 14.2 percent. These products account for a negligible part of poorest households' expenditures. An incidence analysis based on distributional impact models developed by the Bank in partnership with GoM<sup>45</sup> shows that (i) expenditures on subsidized products

<sup>45</sup> The development of the models was carried out in the framework of a ESW/TA program supporting the Government's overall subsidy reform agenda which. Three models were developed by the Bank to assess the impact of the reform of subsidies on households and public finances in partnership with the GoM. Two models of impact analysis as technical assistance to MAGG and a computable general equilibrium model with MEMEE to evaluate Morocco's energy strategy. The outputs of these models have helped to know the (direct and / or indirect) potential effects of the reform of subsidies on households, particularly poor households. Products affected by the recent reform of subsidies are weakly used by poor households. In addition, the indirect effects of this

increase only for the wealthiest households (Figure 5.1) and (ii) overall households real consumption decreases by less than 0.5 percent and by less than 0.25 percent for the first five deciles of households over the next three years. Poverty levels remain unchanged.

42. Recent reductions of fuel subsidies supported by the operation were achieved without any major social opposition. This was due to three key factors: A) in terms of *direct* effects, and as the subsidy reductions have actually very modest repercussions on the poorest categories (see above). B) the Government is developing compensatory measures for the professional categories that are expected to be directly hit, such as passenger and merchandise transport, industrial sector, and other activities, such bakeries). For intra-urban taxis, the Government set up a cash-for-clunker scheme whereby taxi drivers are incentivized to buy new and more fuel efficient vehicles based on a discount at sale agreed with key vendors, which the Government achieved thanks to bulk-purchasing, and a micro-credit scheme allowing for access to loan opportunities that they would not normally have. A similar mechanism is being discussed for other transport categories such as inter-urban busses and trucks. Additionally, regarding the subsidy reductions on industrial fuel, the Government has agreed with relevant industrial sector representatives the option of swapping HFO subsidies with support to investments in more efficient production processes. C) The Government has mastered the communication and the participatory aspect of the reform by engaging in successful consultations with all economic categories that could potentially derail the reform at its outset, or reverse its course.

**Figure 5.1: Impacts of petroleum products subsidy reductions, by decile**



43. By agreeing to these mitigation measures with transport sector categories ahead of the subsidy reform, the Government has so far succeeded in preventing de-subsidization to spill over to transport costs and along the value chain, thus precluding inflationary spirals from arising. The Government is also minimizing inflationary pressures through the implementation of further compensatory measures such as a cash scheme based on direct compensation of the extra-charges incurred by taxis, to be disbursed on a quarterly basis.

44. On the other hand, the Government has not yet laid out a precise plan towards butane subsidy reductions (a reform not covered by the IGG DPL series), which could have more serious poverty and social implications, as butane constitutes a substantial part of the poorest HH's budget.

45. In addition to assessing the specific impacts of the subsidy reform measures supported by the operation, during preparation the Bank and the Government developed **a tool to assess the environmental and economic implications of Morocco's overall energy goals coupled with future policy action on subsidy reform**. Morocco aims to create a better balance between imported and domestic energy and to

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reform on prices are modest and subsidized products fundamentally important for the poor (butane, flour and sugar) are not affected by the recent reform implementation.

progressively align domestic consumer prices to world prices. Energy subsidies would be gradually reduced over time, but with targeted subsidies for butane and diesel. The GoM also aims to move to an energy portfolio with more renewable energy coming from hydroelectricity, solar, and wind energy. The GoM also aims for natural gas to play a somewhat more important role in the future energy economy. GoM asked the World Bank to work with an interministerial group consisting of Directorate for Planning of the Department of Energy, within MEMEE and the High Planning Commission.<sup>46</sup>

46. The analysis included a baseline case and two green scenarios. The first green scenario (variant 1) retains the energy subsidies whilst the second eliminates the subsidies and reduces taxes to compensate for the subsidy elimination. For all three scenarios, the assumed oil price is \$100/barrel, population in 2030 is 38 million, and economic growth is 5 percent. There is no growth in efficiency in the reference case and 1 percent annual efficiency growth in variants 1 and 2. Productivity growth is weak in the reference case, medium in variant 1, and high in variant 2. It is envisioned that in the future other scenarios or variants will be considered. For each modeling scenario, the following results are presented:

- Structure of energy supply and demand
- Energy sector production, role in the national economy, composition of imports and exports, commercial balance, and public finance
- Social impacts reflected in the evolution of the living standard of the poor
- Environmental impacts measured by changes in GHG emissions

47. The analysis shows (Figure 5.2) that the policy scenario induces substantial CO<sub>2</sub> emissions savings of roughly 14 million tons annually between the reference case and the policy case.

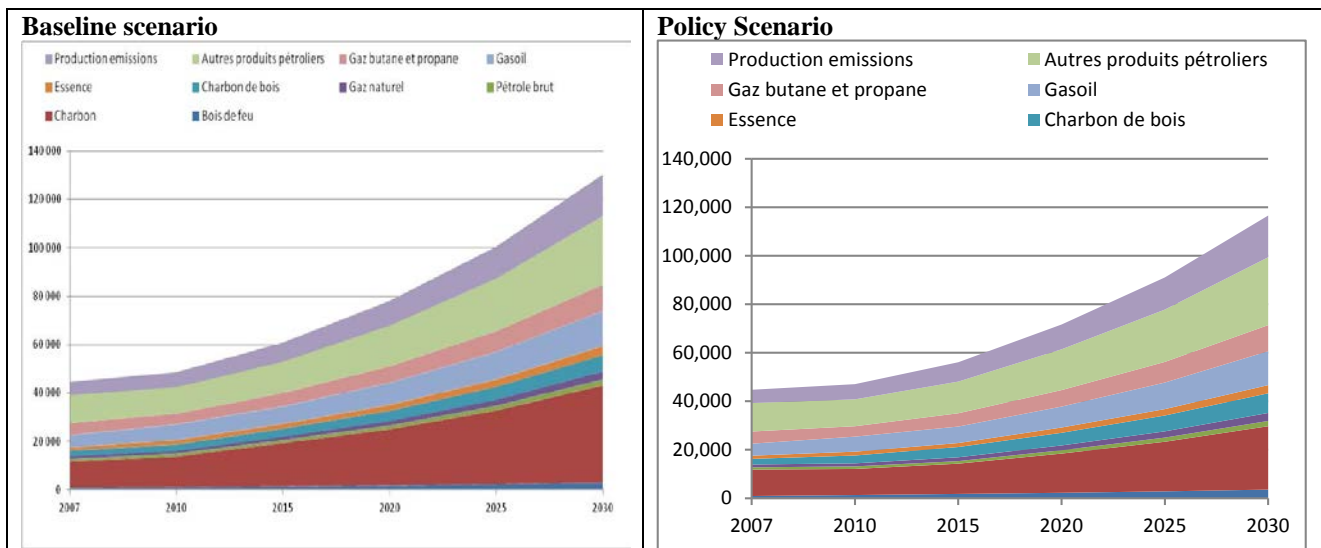
48. The analysis also models the **social impacts** of policies leading to the future achievement of Morocco's renewable energy targets together with complete energy subsidy removal. The analysis shows that Business as Usual will have detrimental impacts on the poor and vulnerable, as the expected huge increases in energy consumption, increasing dependence on imported energy, and large increases in GHG emissions, will lead to a substantial increase in the government budget burden and overall economic burden of the energy subsidies, which will constrain social expenditures. The large investments in renewable energy without addressing energy subsidies involve a reduction in economic growth due to the high cost of the renewable investments coupled with the continued energy subsidies. However, the analysis shows that the

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<sup>46</sup> The Inter-ministerial group chose to adapt a computable general equilibrium (CGE) model named MANAGE (Mitigation, Adaptation, and New Technologies Applied General Equilibrium Model). MANAGE is a hybrid model in that it is a prototypical CGE model but with a greater richness in technologies employed in the energy sector. Thus, the energy component has "bottom-up" features that are well integrated with the top-down CGE structure. The model is a recursive dynamic model conceived for energy and climate change research. The model has many standard characteristics of a dynamic CGE model of neoclassical economic growth with labor growth being exogenous and capital growth derived from savings and investment decisions. It uses constant elasticity of substitution (CES) functions among different inputs. Energy is assumed to be a complement of capital in the short term but a substitute in the long term. There are two vintages of capital equipment with the new capital being of higher energy efficiency than old capital. There is specific capital for solar and wind energy that cannot be used in other sectors. The model incorporates a consumer preference shift towards the newer renewable technologies. The model has the capacity for multi-input and multi-output. For example, electricity can be produced by different technologies (solar, wind, hydro, and thermal). Also, more than one product can be produced from an input, e.g., oilseeds going to vegetable oil and lamp oil and oilseed meal. The model also tracks GHG emissions throughout the economy basically with emission being a function of different kinds of fossil fuel use. Another important feature of the model is that the household is disaggregated into five households representing each quintile from poor to rich. This disaggregated household permits analysis of the impacts of the different policies on the poor as well as the entire economy. The data for this disaggregation comes from household surveys conducted in 2007. The model uses constant difference of elasticity (CDE) structure for household demand. It is calibrated from different price and income elasticities. The CDE structure works somewhat better than the linear expenditure system often used. The model includes the current policy intervention such as the energy subsidies described above. That permits it to be used to evaluate the impact of removal of those subsidies. The model uses the Armington structure of imperfect substitution between imported and domestic goods. It assumes Morocco is a small country, and its imports and exports do not affect the world prices of goods. However, the capacity exists to introduce import and export demand functions. The model makes use of the social accounting matrix (SAM) for 2007 developed by Morocco's High Planning Commission, and complemented with data for renewable energies (solar and wind). The energy disaggregation is derived from the energy balance taken from the Ministry of Energy and integrated into the SAM.

loss of energy subsidies causes different impacts by level of household income. Subsidy removal impacts are quite different in the short and long term. In the short term, economic growth is reduced, but it accelerates substantially in the long term due to the stimulus of reduced taxes and increased energy efficiency. The poorest households have moderate income changes of -2.24, -1.98, -0.02 and +0.09 percent in 2013, 2020, 2025, and 2030 respectively. The impact is largely to the loss of the butane subsidy, a policy which has not been implemented by the Government and that the operation does not support.

**Figure 5.2: Comparison in the evolution of CO2 emission (thousands of tons) between baseline and policy scenario**



49. While the Government has a clear vision to move towards price liberalization accompanied with a system of compensation to poor households, a full political consensus on the timing of additional subsidy reforms for Butane and other subsidized food items has not yet materialized. The Bank is currently supporting the establishment of a registry of beneficiaries to be used by the future SSN program; the use of innovative technologies that could facilitate CCT and UCT to HHs; capacity building to better estimate impact on HH of the subsidy reform. It is expected that this will feed the design and implementation arrangements for a mechanism based on a registry of poor households and the public infrastructure to register, verify eligibility, and issue payments.

50. Petroleum products subsidies reduction may have an *indirect gender* differentiated impact, though mitigation measures put in place yield overall positive results. Negative impact on female labor participation may have been high were subsidy cuts to drastically increase the cost of private or public transportation. Transport prices however have so far not increased, as the government has tempered impacts on public transport options (taxis and buses) through compensatory measures. Part of the fiscal space created by the reform has allowed for more resources to finance public transport infrastructure, as well as increased allocations to **social programs**, including safety nets, with a net increase of about 10% in resources allocated to key sectors such as health and education. Social Cohesion Fund-financed programs (including RAMEL (Health), Tayssir (Education) and the Poor and Disabled Population Cash Transfer Program, and the Cash Transfer Program for Poor Widows also saw a notable expansion in beneficiaries.

51. **Conclusion:** Subsidy reduction combined with renewable energy and efficiency investments can increase economic growth and reduce GHG emissions. Environmental benefits are positive. Social impacts also appear as positive, particularly given the Government’s use of the fiscal space derived from subsidy reform to strengthen social expenditures and safety nets.

## 2.2: Pollution Management

**Prior Action 2.2 The 2015 Budget Law, which introduced additional resources to depollution investments, has been published in the National Gazette No. 6320 bis, dated December 25, 2014; and Order (Arrêté) No. 2850.15 dated August 10, 2015, supporting the recycling framework for used batteries based on extended producer responsibility, has been published in the National Gazette No. 6406, dated October 22, 2015.**

52. Industrial pollution heavily contributes to degrading the quality and productivity of natural assets, particularly water. Industrial pollution and urban waste caused by tanneries, textiles, paint factories, agro-industries, chemical manufacturing, mineral processing (copper, manganese, lead, coal, and iron), coal-based power plants, petroleum refineries, cement factories and inefficient waste management have negative impacts on human health. Given the severity of the impact of industrial pollution on human health and the environment, the Government – with support from DPL1 – has improved the regulatory environment by adopting three Orders. One Order setting the norms and standards for industrial wastewater treatment; and two subsequent Orders determining the characteristic pollution levels from selected industrial activities and its respective pollution abatement levels.

53. DPL1 supported measures aimed at regulating industrial depollution. This was a first step forward with respect to improving the environment. The second step (supported by DPL2) is to ensure that the incentive mechanism to private operators to voluntarily invest in pollution reduction - through VMHID<sup>47</sup> or *Mécanisme Volontaire de Dépollution Industrielle Hydrique* - is provided state resources as part of the Budget Law. This will ensure that the Government can sustain this effort beyond the donor funding provided through the FODEDP. The VMHID provides subsidies to industries investing in wastewater treatment. Structured as an output-based aid approach, this mechanism ensures enforcement that infrastructure is up to the necessary standards, that it is operational and that it treats to the requested level to be able to meet the regulation. Partly due to unwieldy application procedures, the VMHID has long remained under-committed. In 2014, the Government proceeded to **simplify the modalities** to access funding for small scale actors (such as olive oil producers) and reinstated its financial commitment to the VMHID by allocating additional resources in the 2014 and 2015 Budget Laws. The indicator for this measure has been set at actual BOD5 pollution reduction.

54. In collaboration with other partners involved in this sector (EU, UNIDO, GIZ), accompanying measures are being put in place to demonstrate the opportunities which can be generated when industrial depollution is considered a potential for optimizing industrial process. Demonstration has been made, including in the Moroccan context that the construction of wastewater treatment could lead to win-win solutions. Treated wastewater can be reused in the industrial process, e.g. for cooling purposes. Organic pollution, typically from agroindustry, can be treated using a process generating biogas, which can be used for heating or electricity generation, thereby reducing energy consumption and carbon footprint of the industry, in addition to improving the environment. Opportunities to combine the mandatory energy audits in industry requested by the 2011 Energy Efficiency Law (Law 47-09) and the depollution agenda are being explored. The implementation of these audits, as well as the implementation of the depollution and optimization improvements, would also generate a mutually beneficial economic activity.

55. The *Framework Law on the Environment and Sustainable Development* (Law 99-12) enacted in 2014 (with support from DPL1) represents a significant step forward for Moroccan law and the Moroccan economy onto a more sustainable pathway. This law creates a number of institutional, economic and financial mechanisms to favor sustainability as a main pillar of governance. Primary among these are the enabling authorities to construct a green fiscal framework: including notably green taxation, applying the

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<sup>47</sup> This mechanism fills the void left by the the KfW-supported Industrial Depollution Fund “FODEP” which was discontinued.



extended producer responsibility, incentives to favor sustainable products or activities consistent with sustainability, eco-labeling, etc. The Government has already introduced green taxes (éco-taxes) in two sectors (i) plastic and (ii) sand extraction. The introduction of the tax on plastic (which became effective January 1, 2014) faced initial resistance from industrialists, today revenues from this tax are estimated at MAD 200 million (US\$ 22 million) and earmarked to develop the value chain for plastic. This revenue – collected through the National Environmental Fund – helps support recycling projects and the integration of waste pickers<sup>48</sup>. The introduction of the eco-tax on plastic had both environmental and social benefits.

56. The Government intends now to extend the green fiscal framework to other polluting products and to move towards the implementation of an *Extended Producer Responsibility* approach, by which environmental costs of polluting products are integrated into their market price to finance take back, recycling as well as disposal and/or valorization. The initial focus is on products with a high environmental damage potential such as car batteries, motor oil and tires. To support this new approach by the Government, DPL2 has focused on used batteries as a model to be followed by other value chain such as: used tires, used oil, electronic waste etc.

57. With regard to the development of a value chain for used batteries, the first step was the signature of a Memorandum of Understanding (*Convention de Partenariat pour la mise en place d'une filière de valorisation écologique des batteries usagées*) between the Ministry of Environment, the Ministry of Industry and the consortium for batteries in March 2014. The vehicle fleet in Morocco is estimated at 3 million cars. The quantity of used batteries was estimated at 674,000 (or about 10,050) in 2011. Given the Solid Waste Law (Law 28-00) and the impact that car batteries can have on the environment (due to their high content in lead), the creation of a value chain for used car batteries was seen as a priority. Order No. XX by the Ministry of Environment sets out the requirements for the collection, recovery, reuse and recycling of used batteries. The objective of the Order is to ensure that every producer, importer or distributor of batteries ensures that used batteries are taken back from the market and properly stocked, treated, reused or disposed of. A mandatory deposit system<sup>49</sup> is also introduced to ensure that the system makes financial sense.

58. **Conclusion:** Both measures supported under the pollution management pillar are aimed at reducing environmental pollution by reducing the discharged of polluted water into the environment on one hand and ensuring the proper treatments, reuse or disposal of batteries.

### **Pillar 3. Strengthening and diversifying the rural economy by leveraging human capital Green technologies in the agricultural sector**

#### **Prior Action 3.1 The Ministry of Agriculture and Marine Fisheries and the Department of National Meteorology at the Ministry of Energy, Mines, Water and Environment, have signed the framework partnership agreement No. 03/2014/DMN-MAPM for the provision of agro-meteorological information to the agricultural sector on March 21, 2014.**

59. Resilience to climate change will be a defining challenge for many sectors in the Moroccan economy, but first and foremost for agriculture. Particularly in rainfed areas, Moroccan farmers have been dealing with scarce water availability for centuries and developed adequate adaptation strategies. But hotter and drier conditions and increased variability are weakening the capacity of farmers' traditional knowledge to cope. The collection of weather information and its timely translation into relevant messages understandable to farmers is a necessary condition to increase the resilience of the most vulnerable rural populations.

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<sup>48</sup> Circular No. 209 dated November 11, 2014 sets forth the modalities for the allocation of eco-tax revenues and indicates that at least **20 percent** of eco-tax revenues shall be allocated to support recycling activities targeting waste-pickers.

<sup>49</sup> Deposit for a battery with a weight below 25 kg is 150 MAD (US\$15); deposit for a battery with a weight between 25 kg and 50 Kg is 250 MAD (\$26) and deposits of industrial batteries is 7 MAD/kg (US\$1/kg).

60. Agro-meteorology is defined as a group of scientific and technical tools that enable the processing of agronomic and meteorological data in order to provide farmers with the elements needed to better manage cropping systems (Ramdani, 1993).<sup>50</sup> Agro-meteorological information can bring two sets of benefits to agriculture.

- First, the provision of meteorological services has proven its efficiency in enhancing risk management at the farm level: better and timelier information enables farmers to ward off economic hardship stemming from crop failure that result from climate impacts — hail, heavy and unexpected rainfalls, heat, crop diseases and parasites that are favored by the combination of particular climatic factors.
- Second, another very important aspect of improved agrometeorological information is its ability to increase the efficiency of agricultural production — by permitting a fine-tuning of agricultural practices and techniques —thereby leading to potential savings in the use of inputs like water, seeds, and pesticides.

61. This prior action is likely to have a positive impact on both male men and women involved in agricultural activities. New technologies that help men and women to capture, assess, and communicate weather information more quickly are beneficial. This prior action will enable them to: (i) be better informed of risks; (ii) better evaluate evolving risks; (iii) better manage risks in pursuit of opportunity; (iv) respond to risk more quickly; (v) evaluate the effectiveness of risk management and adjust their strategies accordingly. To enhance the impact of the measure, the Ministry of Agriculture should consider better leveraging the important role that women play in Moroccan agriculture through gender tailored ag extension programs.

62. **Conclusion:** The two sets of benefits generated by agrometeorological information — enhanced risk management and increased efficiency in the use of inputs — are already very useful under Morocco’s current climate. Looking forward, mainstreaming the provision of agro-meteorological information will prove increasingly important as an adaptation tool to a rapidly changing climate. Hence, as far as the environmental impacts of the measure are concerned, they appear as positive, since farmers will be in a better position to manage natural resources efficiently, first and foremost water.

### **Diversification of rural revenues**

**Prior Action 3.2.1 The National Committee on Environmental Impact Studies has validated the Directive on environmental impact assessments in the aquaculture sector on March 26, 2015; and the National Aquaculture Development Agency (*Agence Nationale pour le Développement de l’Aquaculture*) has published on its website its strategic environmental assessment for the aquaculture sector on October 1, 2015.**

63. Following the creation of the National Agency for the Development of Aquaculture (ANDA in French), and the emphasis placed on aquaculture in the latest comprehensive fisheries strategy (Stratégie Halieutis), the Government has clearly identified aquaculture as one of its priorities and is continuing its support for this ambitious and growing program. The projected growth rates of this sector still anticipate a substantial expansion of aquaculture activity by 2020, with strong potential to continue beyond that date.

64. From a social perspective, the only significant risk of this approach would be if new projects were to be developed in areas that have traditionally been used as landing sites by small-scale artisanal fishermen or in sites of particular ecological importance for fish stocks. This can easily be avoided and alleviated through very careful consideration of the sites in which the new projects are being launched.

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<sup>50</sup> Ramdani A. (1993) *Le réseau agrométéorologique au Maroc : Opportunité et intérêt*. ANAFIDE

65. The development of the aquaculture sector is expected to have a direct positive gender impacts. Women have so far played an important role in certain activities such as algae harvesting and farming and that this role can and should be replicated in larger aquaculture projects. ANDA has already initiated training programs aimed specifically at women and is committed to continuing this approach. ANDA instituted a one-stop-shop aiming at simplifying administrative processes for small scale investors, along dedicated advisory services – an initiative, which is expected to unlock the still untapped potential in Moroccan aquaculture. In turn, aquaculture farms will open up opportunities for both men and women particularly those living on rural coastal areas, with concessions being planned in proximity of fishing communities in order to facilitate fisheries workforce participation.

66. The development of this sector, however, still represents the only significant risk of incurring negative impacts on the environment through this DPL. This risk varies greatly with the species farmed and methods used. Potential environmental impacts of aquaculture projects, including cumulative impacts on a larger scale, depend in great part on (i) the species that are being cultivated, and (ii) the way in which they are being farmed. For instance, whilst fish farming can have serious deleterious effects if feed and antibiotics are mismanaged, shellfish and algae farming normally have beneficial impacts on the environment. This is particularly the case for oyster farming, upon which most of the aquaculture industry has been built so far. In addition, aquaculture has the potential to help limit the pressure on overexploited stocks by bringing a whole new flow of seafood on the market.

67. In the case of traditionally more polluting activities, the prevention, identification and treatment of diseases can avoid excessive use of antibiotics - the major health and environmental risks of fish aquaculture. In addition, many of the worst environmental impacts can easily be mitigated by avoiding high-input high-output intensive systems (e.g. salmonids in raceways and cages), so one of the key decisions will be to determine what species can be farmed, and how.

68. Another important distinction needs to be drawn between intensive and extensive aquaculture, with the former presenting much greater environmental risks than the latter. ANDA has clearly indicated that one of its objectives is to create a significant number of jobs, **thus prioritizing extensive, rather than intensive aquaculture**, with more emphasis on human resources than capital. It should also be noted that women have so far played an important role in algae harvesting and farming and that this role can, and should be replicated in larger aquaculture projects.

69. Nevertheless, the risks of aquaculture are very real and new projects could lead to damage on the coastal and marine environments. This is particularly true if the new projects are not appropriately sited, in areas that make the most of current conditions to maximize flushing of surrounding waters. Another significant environmental risk lies in the siting of projects that will be allowed to go forward. For instance, not only will the new sites depend on the natural benefits that can be drawn from the local conditions (with a very strong emphasis of currents), it is also of the utmost importance to avoid developing these projects in critical ecosystems that provide irreplaceable services for the fish stocks that are targeted by existing fishermen (e.g. breeding grounds, feeding grounds, nurseries, etc.) Finally, a significant risk could arise if too many of the new projects are developed in close proximity, where the environmental impacts would be cumulative and the impacted ecosystems would not be allowed to recover. This is the origin of the concern in this DPL over the need to monitor and control cumulative impacts from the aquaculture industry.

70. While national legislation is adequate to handle environmental impact assessment for individual fish farms, the main concern was the potential for cumulative impacts as the number of farms increases, especially if in close proximity to one another and to other human and natural users of the coastal zone. With support from the DPL, ANDA has fully committed to tackling head-on these risks through a double pronged approach: first, through close cooperation with the Environment Department in the drafting of a Directive on EIA in the aquaculture sector, which has now been validated by the National Committee on Impact Studies; and, second, by commissioning a SEA for the Aquaculture.

71. Through this very close cooperation, both ANDA and the MEMEE have codified a two-tier procedure, where a global EIA is carried out for all future aquaculture projects, and where the risks are clearly set-up and the mitigation measures well understood. Furthermore, the global EIA has also identified clearly where future projects should be sited, what species should be farmed, and how. This thus provides a blueprint for future projects and their impact studies will be supplemental and build on the global EIA. This approach sets the parameters under which new projects can be launched and foresees the cumulative impacts of the projects coming down the line. For instance, the global EIA clearly addresses areas that should be off-limits to new projects (critical and fragile ecosystems) and also starts spreading out the areas in which the projects are to be developed, in order to avoid the risk incurred when they are too closely concentrated. It is also envisaged that small-scale, artisanal projects and research projects may be subject to different requirements, with a limit in volume and scale to be agreed down the line.

72. **Conclusion:** DPL supported measures in relation to aquaculture can yield significant social benefits in terms of job creation and revenue diversification for rural areas. Morocco's monitoring and control framework guarantees an adequate treatment of environmental impacts from aquaculture investments. The Government is aware of gaps in the legislation related to treatment of potential cumulative impacts. The Aquaculture Development Agency and the MEMEE put in place measures to mitigate against this risk.

**DPL2 Prior Action 3.2.2 The interministerial agreement launching the national rural and eco-tourism program (Qariati) has been signed by the Minister of Interior, the Minister of Urbanism and Territorial Planning, the Minister of Agriculture and Marine Fisheries, the Minister of Tourism, the Minister of Handicrafts and Social and Inclusive Economy, the Minister of Youth and Sports, and the Minister in charge of Environment, under the Minister of Energy, Mines, Water and Environment on September 29, 2014.**

73. Tourism is fundamental to Morocco's economy. The country surpassed the 10 million international tourist milestone in 2013 (compared to 4.4 million in 2001). While tourism was mostly concentrated in urban and coastal cities, the challenge was to diversify away from seaside tourism to take advantage of the full range of Morocco's natural assets. In order to diversify sustainable tourism; the Government launched its *Vision 2020* and its *Qariati* program. *Qariati* -meaning "my village"- promotes nature based tourism in rural areas in Morocco. Eco-tourism can be a significant source of employment, economic growth and foreign exchange for Morocco and helps diversify the sources of revenues of rural population.

74. Unlike coastal tourisms, which often involves building massive infrastructure (such as seaside resorts), rural tourism tends to be smaller scale and locally implemented. The *Qariati* program aims at expanding accommodation facilities (such as guest house, camping, riads, etc) and support small scale infrastructure (signage; welcome/interpretation centers; thematic circuits such as culinary and agribusiness circuits; hiking, biking, and riding trails; activities such as paragliding and kiting; etc). By definition the program will seek the harness the natural beauty while supporting environmental protection.

75. Policy dialogue to diversify rural revenues was initiated under this programmatic DPL; it was followed by the preparation of a PforR operation in Morocco entitled: *Sustainable Tourism Diversification Program* (P154715). The PforR supports the development of two programs in Morocco: *Qariati* (subject of this prior action) and *Medinati* "my town". A thorough Environmental and Social System Assessment (ESSA)<sup>51</sup> is under preparation for this PforR. Preliminary findings of the ESSA are summarized below.

- **Overall the program is expected to have mostly positive environmental and social impacts.** Morocco has an adequate legal and institutional framework capable of handling environmental and social aspects of the proposed program. Expected positive impacts include: reduce poverty incidence in rural

<sup>51</sup> Royaume du Maroc "Projet d'Appui au Développement du Secteur touristique (P154715) ; Prêt-Programme axé sur les Résultats ; Evaluation des Systèmes Environnementaux et Sociaux. Version préliminaire. 5 Septembre 2015. Document Banque Mondiale

areas by diversifying sources of revenues and job creation; contribute to the growth of the tourism sector in Morocco which will have positive repercussion on other affiliated economic sectors; promote handicraft and agriculture local production; raise awareness among rural population on the economic importance of preserving natural and cultural assets; the Qariati program in particular will encourage the preservation of natural capital, fauna, flora and biodiversity. It will contribute to putting in place proper measures to improve the management of landscape, forest and rangeland ecosystems.

- **From a gender perspective, the development of the ecotourism sector provides various entry points for women's employment** by opening up self-employment opportunities in small and medium sized income generating activities. According to ILO data, 46 % of the global workforce in tourism is made up of women, and their average share of employment in the sector is generally higher than the total workforce across countries.<sup>52</sup> Gender mainstreaming actions within the Government program could leverage women's potential by: (i) enhance women's access to credit to facilitate female entrepreneurship, and provide appropriate training and resources to support women's enterprises; (ii) supporting women's tourism leadership at all levels (public, private, community) by facilitating women's participation in Program decision-making processes and steering committees.
- **Potential negative environmental and social impacts are limited.** Limited environmental and social impacts are expected to be easy to identify and mitigated. Negative environmental impacts can be expected during the construction phases of small scale activities (such as soil destabilization, pollution of groundwater, dust, noise pollution etc). These impacts will need to be mitigated by a proper inclusion of environmental consideration in bidding documents and proper supervision of activities. In terms of cumulative impacts, the Qariati program is expected to intervene in rural locations on a scattered geographical area and is therefore unlikely to accumulate impacts. In addition and by definition PforR operations excludes Category A type of activities and will be limited to small scale activities. The Program also excludes all activities that can have serious negative environmental or social impacts such as (construction of rehabilitation in protected areas or in areas that can harm cultural heritage; activities that can impact the forest cover as spelled out in the *National Forestry Policy*; activities that can displace a large number of people; etc.).

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<sup>52</sup> UNED, 2002, *Gender & Tourism: Women's employment and participation in tourism, Summary of UNED-UK's project report*, London. For more info: [http://www.ilo.org/global/about-the-ilo/newsroom/comment-analysis/WCMS\\_221967/lang--en/index.htm](http://www.ilo.org/global/about-the-ilo/newsroom/comment-analysis/WCMS_221967/lang--en/index.htm)

## Annex 6: Analytical Underpinnings

| Prior actions   | Analytical Underpinnings   |
|---|--|
| <b><i>Pillar 1: Improving the Management of Natural Capital</i></b> |  |
| 1.1.1   | The coastal zone management reforms supported by the operation build on the report of the MedWetCoast project, the Short and Medium-term Priority Environmental Action Programme (SMAP III) of the European Union, the <i>Adaptation aux Changements Climatiques au Maroc</i> (ACCMA) project financed by IDRC, as well as the preparatory work for the GEF funded ICZM project currently under implementation. MedWetCoast produced research specific to the management of wetlands in the Mediterranean basin, which in Morocco includes some Ramsar Convention sites and other sites of particular interest in the northeast of the country. ACCMA, centered on the Berkane and Nador provinces of the Oriental region, was an exercise in capacity building to reinforce decision making for communities in the coastal zone under conditions of climate change. SMAP III was part of a program of technical assistance and capacity building to strengthen environmental strategy and governance to favor integrated coastal zone management approaches. The reforms directly build on the Government's 2005 report <i>A strategy for reforming coastal management in Morocco</i> . The reform benefited from Bank's TA on laying out of the governance framework for ICZM planning.  |
| 1.1.2   | Measures under the fisheries component directly stem from the implementation of FAO's <i>International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing</i> <sup>53</sup> and its related analytical bases. FAO's plan was adopted in 2001 as a voluntary instrument and is universally recognized as containing all the measures that states can take to address the growing threat of pirate fishing, including the actions supported by the proposed DPL series aimed at adopting and implementing a broad IUU legislation. The need for a strong emphasis on enforcement was also confirmed in two studies completed in 2011: " <i>Adaptation challenges in the Fisheries sector</i> " prepared by the World Bank, in collaboration with the Department of Maritime Fisheries ( <i>Département de la Pêche Maritime</i> ), and the 2012 MED Report <i>Toward Green Growth in Mediterranean Countries</i> (WB/CMI). <sup>54</sup> The diagnostics behind Morocco's national fisheries strategy – <i>Halieutis</i> – placed the sustainability of the sector as a key policy pillar, and within this, the fight to illegal fishing as an immediate objective. <sup>55</sup>   |
| 1.2.1   | The water sector governance axis builds on the seminal Water Sector Policy note (World Bank, 2004), and the water DPL (World Bank 2007). The Government's proposals to revise the provisions of the Water Law on the governance of the sector are consistent with the recommendations of the Water Sector Policy Note on institutional aspects, including: improving interministerial coordination for water sector governance and priorities; creation of river basins councils, improving the governance of the hydraulic basin agencies (Agences de Bassins Hydrauliques). Additionally, the assessment study of Water Law 10-95 implementation (MEMEE, 2011), which encompasses four reports: (i) Diagnosis of the Water Law implementation; (ii) Analysis of the institutional context; (iii) Evaluation of the achievement of the Water Law objectives; and (iv) Evaluation of the impacts of the implementation of the Water Law; defined the main boundaries and areas for revision. Supported reforms build on work carried out through a) the GW-MATE technical assistance for sustainable groundwater management strategies (World Bank): Between 2006 and 2008, the Bank, through the GW-MATE, supported the Water Department in developing, with the water users, Action Plans for a sustainable groundwater management in three basins, which were used to design the aquifers contracts for the management of groundwater (contrats de nappes); b) advisory services for the establishment of the framework convention to preserve water resources in the Souss-Massa river basin (GIZ, 2012). This study analyses strengths and weaknesses of the only groundwater contract that has been piloted in Morocco and suggested areas for improvement; c) the elaboration of a standard groundwater management contract (MEMEE, 2012). This study contains an international benchmarking of contracting arrangements for the management of groundwater resources, provides lessons in light of the Moroccan experience and proposes a standard groundwater management contract. The Bank is providing TA support to the groundwater management agenda through a recently approved MENA MDTF Grant, as well as WET and WSS resources |
| <b><i>Pillar 2 : Greening physical capital</i></b>                  |  |
| 2.1.1   | The introduction of an energy regulation scheme builds on two studies led by Eurogroup Consulting.<br><br><i>Definition of the National Power Sector Regulation Scheme (Eurogroup Consulting for MEMEE, 2011)</i> . The first report (MEMEE/Eurogroup Consulting, 2011) developed the necessity to open the power market to renewables, to allow an organizational breakdown for generation, transmission and distribution costs in order to ensure an objective, transparent and nondiscriminatory grid access, and finally to create an independent authority for energy regulation.<br><br><i>Implementation of the National Authority for Electricity Regulation (Eurogroup Consulting for MEMEE, 2015)</i> . The second report (MEMEE/Eurogroup Consulting, 2015) focuses on the legal and regulatory framework adaptation, the design and operation of the energy regulation authority, with clear performance indicators and implementation monitoring scheme, as well as the business model for the upcoming TSO (Transmission System Operator), including an international benchmark (Portugal, Spain, France, Italy, Turkey and Algeria), as well an economic modelling of the   |

<sup>53</sup> <http://www.fao.org/fishery/ipoa-iuu/en>

<sup>54</sup> [http://www.cmimarseille.org/sites/default/files/newsite/library/files/en/2012MedReport\\_Overview\\_EN.pdf](http://www.cmimarseille.org/sites/default/files/newsite/library/files/en/2012MedReport_Overview_EN.pdf)

<sup>55</sup> <http://www.maroc.ma/en/content/halieutis>

|       |   |
|-------|---|
|       | <p>TSO with related financial equilibrium mechanisms.</p> <p><i>International Energy Agency's Morocco in-depth Review (IEA, 2014): Morocco 2014 Energy Policy Review.</i><sup>56</sup> The IEA undertook a deep dive of the Moroccan power sector in 2014, and recommends accelerating the establishment of an energy regulator to supervise an even more open power market.</p>  |
| 2.1.2 | <p><i>Opening of the Middle Voltage Segment for Renewable Energies in Morocco (Tractebel Engineering – GDF Suez Group for MEMEE, 2014).</i> The renewable energy opening for middle voltage was assessed by the Ministry of Energy through a comprehensive study financed by the European Bank for Reconstruction and Development (EBRD) and undertaken by Tractebel Engineering (GDF Suez Group). This study (i) undertakes a diagnostic of the middle voltage sector, (ii) analyses the conditions and modalities for opening the middle voltage grid for renewable energies and leverage international experience, (iii) addresses different grid opening options on a technical, legal and economic basis for all relevant stakeholders, (iv) provides the key principles for a progressive and harmonious opening of the MV to be included in the Decree, and finally (v) provides a concrete roadmap for 2020.</p> <p><i>International Energy Agency's Morocco in-depth Review (IEA, 2014): Morocco 2014 Energy Policy Review.</i> The IEA undertook a deep dive of the Moroccan power sector in 2014, and recommends accelerating work in the medium and low voltage area currently under way in Morocco – including access to the grid.</p>   |
| 2.1.3 | <p>The renewable energy opening for low voltage (rooftop photovoltaic) was assessed by the Ministry of Energy (MEMEE/GIZ, 2014)<sup>57</sup> through a study financed by GIZ and implemented by international PV experts and economists. The study strongly recommends the Moroccan Government to open the grid to decentralized rooftop PV to tap into the country's solar potential and to reduce energy dependence. Among others, the study estimates the technical and economic potential at the 2030 horizon, and assesses different scenarios for the development of PV in Morocco, and their respective results in terms of power generation, primary energy savings and avoided GHG emissions. On a final note, the study provides recommendations regarding the legal and regulatory framework to be adopted for this reform, which can inform a future decree.</p> <p><i>International Energy Agency's Morocco in-depth Review (IEA, 2014): Morocco 2014 Energy Policy Review.</i> The IEA undertook a deep dive of the Moroccan power sector in 2014, and recommends accelerating work in the medium and low voltage area currently under way in Morocco – including access to the grid.</p>   |
| 2.1.4 | <p>The following studies informed actions on reforming petroleum products subsidies:</p> <ul style="list-style-type: none"> <li>- <i>Recommendations for a new subsidy system for petroleum products in Morocco</i> (Beicip Franlab for World Bank, September 2009). The report provides recommendations to develop a new compensation system, while protecting the most fragile Moroccan classes. Several scenarios are designed, with a particular attention to LPG and diesel.</li> <li>- <i>Subsidization of petroleum products in Morocco</i> (Beicip Franlab for World Bank, June 2012). The report takes stock of the current situation and the measures already implemented to reduce the burden on the Moroccan public finances, including the history of the adjustments undertaken or recognized in the compensation fund computation.</li> <li>- The Bank also provided advice based on global best practice around key analytical products such as <i>Implementing Energy Subsidy Reforms: an Overview of Key Issues</i> (WB Working Paper, 2012).<sup>58</sup> Based on a review of 20 developing economies that have undertaken subsidies reforms, this report provides evidence that implementation of compensatory social policies and an effective communication strategy, before the changes were introduced, made a difference in securing the successful implementation of reforms.</li> <li>- Additionally, a PREM-HD-SD team helped the Government assess distributional impacts through the development of models to perform incidence analysis of the impacts of different reform scenarios proposed by the Government on macro variables (inflation, budget, poverty, etc.). Under the same activity, the Bank provided support to the development of mitigation measures, including by sharing international best practices on cash transfers (conditional and unconditional); identifying and designing key features of the cash transfer program, including program objective, conditionality, institutional arrangements, budget, benefits, payment mechanism, information campaign, Monitoring and Information System (MIS), and M&amp;E system.</li> <li>- Following high level workshops and study tours organized by the Bank in Mexico, Chile and Indonesia (2008), the Bank prepared at the Government's request a <i>Targeting and Social Protection Strategy Note</i>. A key recommendation of the Note is to reform subsidies which would free up the resources needed to scale up better targeted and more cost/efficient social protection programs.</li> <li>- The Bank also carried out a political economy analysis of reform acceptability dynamics targeting butane subsidies based on quantitative (nationally representative survey) and qualitative techniques (interviews and focus groups). The analysis showed the limited leeway for comprehensive subsidy reform, the need for gradualism in carrying out the reform agenda, and the need for a thorough communication campaign aimed at informing the population of the very existence of the subsidy system, in addition to its benefits and disadvantages.</li> <li>- To assess the long term welfare impacts of reforms, the Bank also helped the Haut Commissariat au Plan (HCP) and the Ministry of Energy develop a Computable General Equilibrium (CGE) model capable of assessing the longer term trade-offs (2030) involved in achieving Morocco's ambitious renewables and efficiency objectives and carrying</li> </ul> |

<sup>56</sup> <http://www.iea.org/Textbase/npsum/morocco2014sum.pdf>

<sup>57</sup> MEMEE / GIZ (2014): Étude sur l'opportunité de développement du photovoltaïque résidentiel à grande échelle au Maroc connecté au réseau Basse Tension

<sup>58</sup> Additional analytical underpinnings related to this axis are described in the Poverty and Social Impacts section of DPL1.

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|  | out subsidy reform, including in terms of distributional impacts.   |
| 2.2  | The German Development Cooperation (GIZ) supported a study on Environmental Fiscal Reform which benchmarked international experiences in environmental taxation and possible avenues to introduce environmental taxes in Morocco. Additionally, the Bank is currently providing technical assistance to the Ministry of Environment and the Directorates of (i) Budget; (ii) Taxes; and (iii) Customs of the Ministry of Economy and Finance to define the framework for introducing future environment taxation to additional polluting products and practices. The Bank, together with other donors, provided TA to help GoM demonstrate the win-win to be gained from integrating depollution within a broader processes of improving efficiency within firms, starting with industries generating organic pollution and potential for biogas generation, such as agro-industries.   |
| <b>Pillar 3 – Strengthening and diversifying the rural economy by leveraging human capital</b> |   |
| 3.1  | The FDA ( <i>Fond de Développement Agricole</i> ) has traditionally subsidized seeding machineries, with an average over 2011-2015 of more than 500 machines per year corresponding to a subsidy of MAD 20 million. The subsidy targeting direct seeding machines has been effective in 2015 for the first year, and 12 requests were received corresponding to a subsidy of MAD 0.5 million. This represents 2% of the envelope allocated to seeders (traditional and direct) in 2015, which amounted to MAD 22 million. It should be noted that in 2015, 13 additional direct seeders were purchased on grant funds in the frame of the GEF project on <i>Integrating Climate Change in the Implementation of the Plan Maroc Vert</i> , to the benefit of the farmers associations in the regions of Chaouia Ouardigha and Rabat Salé Zemmour Zaer. While there are clear signs of increasing interest of farmers in the technique, with positive impacts recorded on the ground, the target initially set for the DPL series (16.9% of the FDA envelope allocated to seeders - traditional and direct – directed to direct seeders by September 2017) is too ambitious considering a) the time required for a new technology to be picked up by farmers, especially small ones and b) the fact that in 2015 some seeding machine have been purchased from grant funds instead of FDA. The target is thus reduced to 6%.  |
| 3.2.1  | The analytical work leading to the Halieutis strategy, in which GoM identified aquaculture as a priority in increasing national production of fish products underpins the aquaculture axis. More analysis was carried out in the context of a GEF grant initiated in 2012 and targeted at pilot projects on integrated coastal zone management along the eastern Mediterranean coast of Morocco (P121271), and for which aquaculture is one of the main activities. In addition, ANDA commissioned a number of technical papers and benchmark studies, including to set up the level at which the licensing fees should be set. Finally, the willingness to pay of private operators for license fees was further determined through the results of various calls for bids ( <i>Appels à manifestation d'intérêt</i> ) that were launched by ANDA. The analytical work behind the development of the Directive and the SEA aimed at strengthening the control framework for aquaculture investments was funded by GIZ.  |
| 3.2.2  | The World Bank provided technical assistance to the Ministry of Tourism on the development of its ecotourism program. This study involved consultations with a large array of stakeholders – both at central and local levels. The results of the study have been a central input in the WB-Ministry of Tourism dialogue, which has very positively evolved towards the identification of a sectoral PforR currently under identification.  |
| Overall  | <b>Country Environmental Performance Review<sup>59</sup></b>  |
|  | <p>The United Nations Economic Commission for Europe has published in 2014 its first in depth environmental performance review (EPR) of Morocco. This work was particularly notable, as Morocco was the first country outside the Economic Commission for Europe region to request an EPR. As all EPRs, it was subject to a thorough peer review process. The proposed DPL2 and the EPR are fully consistent and both aim at promoting sustainable development in Morocco. While the EPR covers a wide range of environmental subjects, this box provides a synopsis of the commonalities between the ERP's recommendations and policies supported by DPL2:</p> <ul style="list-style-type: none"> <li>• Overall, the ERP recognizes that Morocco has put in place the foundations for a more diversified environmental protection policy and is increasingly placing emphasis on matters of sustainable development. It encourages the Government to further promote the development and adoption of <i>its National Sustainable Development Strategy</i>. The proposed DPL2 supports Morocco's National Sustainable Development Strategy (see Box 2) particularly as it helps the country achieve its transition towards a green economy.</li> <li>• The ERP recommends the finalization, adoption and implementation of the Coastal Zone Law (Policy Area 1.1.1).</li> <li>• The ERP recognizes the damaging impact of overexploiting aquifer and highlights the need to improve the performance management of all water bodies (Policy Area 1.2.1).</li> <li>• The ERP encourages the removal of environmentally harmful energy and recommends introducing a system of social assistance for low-income households that can be affected by the new tariff structure (Policy Area 2.1.4)</li> <li>• The ERP fully support the development of renewable energy and the creation of incentive to promote renewable energy (Policy Areas 2.1.1 and 2.1.2).</li> <li>• The ERP recognizes Morocco's progress in the use of economic instruments (such as the Voluntary Industrial Depollution Mechanism) to create incentives for more environmentally friendly businesses (Policy Area 2.2.1).</li> </ul> |

<sup>59</sup> United Nations Economic Commission for Europe. 2014. *Morocco Environmental Performance Review*