

**PROJECT INFORMATION DOCUMENT (PID)  
CONCEPT STAGE**

Report No.: AB7430

<b>Project Name</b>	Accelerating Sustainable Private Investments in Renewable Energy Program
<b>Region</b>	South Asia
<b>Country</b>	Maldives
<b>Sector(s)</b>	Renewable Energy (100%)
<b>Theme(s)</b>	Climate Change (60%); Private Sector Development (40%)
<b>Project ID</b>	P145482
<b>Borrower(s)</b>	Government of Maldives
<b>Implementing Agency</b>	Ministry of Energy and Environment (MEE)
<b>Environmental Category</b>	B--Partial Assessment
<b>Date PID Prepared/Updated</b>	December 5, 2013

## I. Introduction and Context

### Country Context

1. While the Maldives has achieved notable development progress through a combination of private sector-led tourism development and improving public service provisions, these gains are in danger of being eroded as a result of the political uncertainty that has plagued the islands since early 2011, when the then President, Mohamed Nasheed resigned after a series of escalating protests. As a result, the nascent democratic institutions of a country that had emerged from 30 years of one-party rule are being put to the test. Breach of contract claims linked to the Male airport concession are currently under arbitration in Singapore, and the country faces a political impasse after the elections held in October 2013, were annulled by the Maldives apex court. These events have cast a shadow on Maldives as an investment destination, and have had a dampening effect on economic growth. New elections (which have been delayed previously) are now being slated for early November, 2013. It is hoped that the expected political transition will occur after fresh elections, in time for project appraisal, scheduled in late January, 2014<sup>1</sup>. This backdrop provides a challenging environment for the implementation of the ASPIRE program, but is an important test and signal to re-affirm Maldives' place as a good destination for private sector investing. It is also a critical transformative initiative that helps the government reach its stated goal of becoming carbon neutral by 2020 – a sentiment that finds deep local resonance since the Maldives atolls are on very low ground, and will face the brunt of climate change effects from any rise in sea level. The introduction of renewables is therefore an essential part of this strategy. The benefits of (a) generation diversity and the accompanying lowering of price volatility, (b) greater sustainability, and (c) improved institutional capacity through reduced need for government subsidies are all additional benefits from this program approach. The paragraphs below provide more background on Maldives and its macro-economic status.

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<sup>1/</sup> Since then the elections have been held and President Abdulla Yameen was sworn in on 17 November, 2013

2. In the early 1980s, the Maldives had a population of 156,000 and was one of the world's 20 poorest countries. Today, with a population of over 340,000, it is a middle-income country with GNI per capita (PPP) of US\$ 7690<sup>2</sup>. Poverty rates, as measured by the headcount ratio at 15 rufiyaa per person per day, have fallen steeply, from 21% in 2003, to 15% in 2010<sup>3</sup>. Other human development indicators - infant mortality, maternal mortality, or educational attainment - have registered similar improvements. The country had achieved 5 of 8 Millennium Development Goals (MDGs) by 2007, but progress has been relatively slower toward achieving gender equality and women's empowerment (MDG3), ensuring environmental sustainability (MDG7) and developing a global partnership for development (MDG8). While poverty has declined sharply overall in recent years, vulnerability and inequality are a concern, as a significant number of people fell back into poverty during the recent crisis, and the disparities between remote islands with small populations and the capital Male region remain substantial.

3. The Maldives has been in a difficult economic situation over the last years. The global economic crisis exposed the Maldives' weak underlying fiscal situation. The fiscal deficit increased from around 11.3% of GDP (including grants) in 2008 to 13.5% of GDP in 2012 — purely in cash terms. When one includes payment arrears, the deficit is considerably higher and is estimated to be 16.5 - 19% of GDP<sup>4</sup>. This is the result of higher-than-budgeted expenditures from increased subsidies (including the electricity subsidy), social welfare payments, and transfers to state-owned enterprises (SOEs). Growth has moderated to 3.4% in 2012 from 7.1% in 2010. Consequently, the public sector debt dynamics worsened, reaching about 80.4% of GDP in 2012 and is estimated to rise further to 86.2% in 2013. Thus, macro-economic imbalances continue to derail the Government's development agenda. The serious cash flow constraint faced by the Government at present has severely compromised macro fiscal stability. Increasing the quality of service provision to a standard commensurate with the country's income levels is a challenge in this environment.

## **Sectoral and Institutional Context**

4. The Maldives is among the most geographically dispersed countries; spread over 90,000 square kilometers, with only 192 of its 1,192 islands being inhabited. Providing electricity to these dispersed islands that have no conventional resources of energy, means that the country is overwhelmingly dependent on imported fossil fuel, and therefore vulnerable to fuel price volatility. Island-based distributed generation is the only viable option for most of the islands, while some level of grid integration across the more populated islands near the capital can occur. Cumulative installed electricity capacity was 245MW in 2012. Of this, 105MW (43%) is located in resort islands which run their systems independent of state-owned utilities. The capital Male and surrounding islands accounted for 86MW of generation (35%), and is served by State Electricity Company (STELCO), the largest vertically integrated state-owned utility corporatized

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<sup>2/</sup> World Development Indicators, World Bank

<sup>3/</sup> Maldives Development Update, October 2013.

<sup>4/</sup> While the Ministry of Finance estimates arrears at 3 percent, the World Bank estimate is 6 percent or higher according to the Maldives Development Update, October 2013.

in 1997. Six additional regional utilities were servicing islands and atolls in their respective provinces, making up for a rather fragmented electricity sector. These have now been merged into a single entity, FENAKA, which is responsible for about 54MW of total generation (22%) catering to the other islands. It is gradually absorbing the small power systems run by Non-Governmental Organizations (NGOs) and island committees. Almost all of the country's current power needs are met through diesel fired generation, and the fuel has to be imported and transported to the dispersed generating locations, adding to the cost and difficulty of maintaining reliable power operations. As a result the Maldives has among the highest cost electricity generation in South Asia - 30-40 US cents per kWh in the larger islands, and even higher in the remote small islands.

5. The tariff (which includes a fuel surcharge) is subsidized but remains high for consumers, and varies from island to island. The subsidy remains a large burden on public expenditure absorbing \$25 million per year, representing an average of 5 US cents per kWh. The subsidy amount is growing as demand for electricity grows (about 8% per annum) and oil prices remain high. Tariffs are fixed by the Maldives Electricity Authority (MEA) which does not currently have a transparent and predictable mechanism for setting tariffs,. MEA is revisiting its tariff setting mechanism with the support of ADB to implement a more rigorous methodology based on cost recognition and recovery. Recently, GoM cut subsidies increasing the electricity tariff charged by STELCO by an average of 35% (this is for residents of Male; increases for the rest of the country are planned for later in the year).

6. Despite these challenges, access to electricity is universal in the Maldives, and the Government of Maldives (GoM) is constitutionally obligated to ensure the provision of electricity to every inhabited island at a reasonable standard. The 2010 National Energy Policy and Strategy is centered around creating an enabling environment for the growth of a reliable and sustainable energy sector.

7. Renewable energy (RE) resources in the Maldives are sizable but yet to be developed, with the exception of a few pilot projects. Per the SREP Investment Plan, Maldives' wind potential is estimated at 10-20MW, waste-to-energy at 20MW and heat recovery up to 10MW. Biomass, deep seawater utilization for cooling and other advanced technologies are also deemed feasible. The same study concludes that the potential for solar PV in the Greater Male region is 26 MW. While this may be true in theory, the actual PV possible will be limited by land availability, costs, as well as grid integration constraints. The SREP report suggests that the average electricity tariff in the Maldives (across different customer segments) is sufficient to support a feed-in-tariff for solar PV of between 20-35 US cents per kWh. Detailed financial modeling will be needed to assess whether this is sufficient to structure financially viable solar PV subprojects.

8. SREP IP has been endorsed by the President of Maldives in 2012. SREP IP envisions ASPIRE to add 15 MW of PV generation in Greater Male Region, 3 MW of renewable energy generation in Outer islands and 2 MW of waste-to-energy generations in 3 Outer islands. Assessments of waste-to-energy generations in terms of their environmental and social implications are ongoing.

9. In keeping with its goal of carbon neutrality, the Government aims at fostering private sector participation through Public-Private Partnerships (PPPs) for the development of RE on the islands. MEE is also focused on strengthening the regulatory framework covering environmental protection, licensing, investment approval, monitoring, performance standards, tariff setting methodology, investment planning and contract review. However, despite their efforts and significant interest from private sector for investment opportunities, a variety of risks have prevented large private sector investments in the sector. For example, a recent tendering process launched by GoM for Solar PV installations on 15 islands, resulted in over 10 investors sending in Expressions of Interest but, after reviewing the conditions, only two followed through with detailed proposals. Only one bidder provided the bond alongside the proposal, as was necessary for qualification. This sole qualified participant saw payment risk as a key hurdle and asked for credit enhancement through a letter of credit. Thus, an IDA guarantee structure would provide the appropriate comfort to future private sector investors that see this as a key risk.

### **Relationship to CAS**

10. While work on the ISN is currently stalled, the Government's development strategy is explained in its earlier Strategic Action Plan (SAP), which identifies five priority areas. These priority areas are closely linked to the SAP'S key themes of good governance, social justice and economic development. The Government hosted a donor conference in March 2010 around these themes, in order to mobilize resources. The five priorities are:

- i) **Macroeconomic Reform to support private sector-led economic growth:** Reducing the role of the state in the economy is a core component of the SAP as is facilitating conditions for growth in the tourism and fisheries sectors.
- ii) **Public sector reform:** A major plank of the structural adjustment program is public sector reform. The public sector is being streamlined in order to deliver more efficient and effective government services.
- iii) **Good governance initiatives:** Strengthening democratic institutions and processes is a priority to ensure that the new democracy is entrenched.
- iv) **Social development:** Investment in human resources development of the country is an immediate step required to deliver on all social development pledges.
- v) **Climate change and adaptation:** Climate change poses an existential threat to the Maldives. The Government is proposing a series of mitigation and adaptation measures.

11. While all 5 stated CAS objectives are helped by the ASPIRE program, implications on (i) Macroeconomic Reform to support private sector led growth, (ii) Public Sector Reform, and (v) Climate Change and Adaptation, are particularly pertinent. Given the large fiscal deficit, the Government had been active in implementing a stabilization program supported by IMF financing. Expenditure reduction is a key part of this initiative. GoM had implemented wage cuts for the public servants in October 2009 and cut domestically financed capital expenditures.

Increasing revenues also figured prominently in the government's program. A business profits tax and a goods and services tax on the tourism sector was proposed, which is in addition to the existing flat-rate bed tax. Supporting policy and institutional changes have also been implemented to ensure that the austerity measures are sustainable. The Bank had in particular focused on support to three areas: (a) public financial management, specifically budget preparation, implementation and monitoring; (b) public enterprise reform, specifically measures to help ensure that the Government's planned Public-Private Partnerships (PPPs) appropriately minimize future fiscal risks to the Government; and (c) social protection, especially efforts to lay the foundations for a harmonized national social protection system. Furthermore, as Maldives continues to face challenges in meeting MDG7 (Environmental Sustainability), and MDG8 (Global Partnership for Development) we expect that the IDA guarantee will be instrumental in fostering regional and global investing in the RE sector in Maldives, which will help in making energy access more sustainable, and open a new field for foreign investment, thus helping in the achievement of the two aforementioned MDGs.

## **II. Proposed Development Objective(s)**

### **A. Proposed Development Objective(s)**

12. The project objective is to increase share of renewable energy generation in Maldives by engaging private sector.

### **B. Key Results**

13. In keeping with the stated PDO, the key results are divided into two categories:

a) Final Results Indicators:

- (i) units of RE capacity installed in the program area
- (ii) US\$ equivalent of private sector investment in RE in the program area.

b) Intermediate Results Indicators:

- (i) development of risk mitigation instruments suitable for attracting private sector investing in the renewable area.
- (ii) development and finalization of a standard contracts for solar photovoltaic (PV) technologies.
- (iii) completion of the technical plan and related investments to make the grid ready for receiving renewables, and
- (iv) strengthening local capacity in managing and planning the integration of renewables into the electricity mix.

### III. Preliminary Description

14. This is a joint IDA-SREP project. Maldives is one of the pilot countries selected to benefit from the Scaling-up Renewable Energy Program (SREP). SREP operates under the Climate Investment Fund (CIF) that supports programs with potential for scaled-up, transformational action aimed at specific climate change challenge. CIF resources are available through Multilateral Development Banks (MDBs), and ASPIRE is one of the SREP supported programs in Maldives focusing on Greater Male Region. The main objective of ASPIRE is to promote RE with private sector participation to effectively contribute to poverty reduction and sustainable development in the Maldives. This also complements GoM objectives of becoming carbon neutral by 2020, diversifying private sector investments, as well as widening access to energy services so as to generate new economic opportunities. As an SREP requirement, the MEE developed the Investment Plan (IP) for the period 2013-2017 through extensive consultations and submitted it to the SREP Sub-Committee for approval. In line with SREP IP which has been endorsed by then President of Maldives in 2012, ASPIRE is seeking US\$ 11.9 million from SREP, US\$ 4 million from IDA, US\$4 million from Government of Maldives, to leverage US\$ 15.1 million from other bilateral and multilateral partners and 42.5 million from private sector. Total investment of about US\$ 73.5 million will be mobilized through ASPIRE to incentivize deployment PV generations by private sector developers, modernize electricity delivery infrastructure, and improve institutional capacity. This will support the transformation of the energy sector by scaling up RE in the country.

15. The proposed activities under ASPIRE will have the following two inter-related components, which will be phased:

- a) The Private Sector Component: This will include all activities that are geared towards attracting private sector investments in RE generation. This will have two models: (a) grid connected solar at a single location using a standard power purchase agreement, and (b) roof-top solar with a feed-in-tariff. This component includes use of IDA financing for setting up payment guarantee and facilitates unique ability of WBG guarantee to leverage US\$ 16 million from IDA financing of US\$ 4 million to mitigate risks for private sector developers. This component will also mobilize larger portion of SREP and other funds to incentivize private sector developers by partially subsidizing capital cost of PV installations and by offering other financing and risk mitigation instruments. Preliminary allocation for this component is US\$ 68.01 including expected US\$ 42.5 million investment from private sector and 11 million from JICA.
- b) The Public Sector Component: This will include all the TA and investment elements that are needed to make Male and the program regions ready for renewable energy integration. This will include feasibility studies and upgrading and modernization of the T&D infrastructure. Renewable energy resource mapping and mechanisms for determining feed in tariff, prices in PPAs, and levels of subsidy will be developed as part of this component. It is proposed that the SREP funds, appropriately supplemented with other funds be used in this phase.

This is not an extensive T&D initiative but is an effort to ensure appropriate integration of PV generations into existing electricity networks. This component will also include human capacity building for planning, implementation, and operation of RE systems. Preliminary allocation for this component is US\$5.48 million.

#### IV. Safeguard Policies that Might Apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
PS 1: Assessment and Management of Environmental and Social Risks and Impacts	X		
PS 2: Labor and Working Conditions	X		
PS 3: Resource Efficiency and Pollution Prevention	X		
PS 4: Community Health, Safety, and Security	X		
PS 5: Land Acquisition and Involuntary Resettlement	X		
PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	X		
PS 7: Indigenous Peoples		X	
PS 8: Cultural Heritage		X	

#### V. Financing (in USD Million)

Total Project Cost:	77.5	Total Bank Financing:	15.9 *
Financing Gap:	42.5		
* \$4 million guarantee allocation is included here but not part of project cost			
<b>Financing Source</b>	<b>Amount</b>		
BORROWER/RECIPIENT (GoM)	4.0		
International Development Association (IDA) Guarantee	4.0		
Asian Development Bank	0.4		
Strategic Climate Fund Grant (SREP)	11.9		
German Technical Assistance Corporation (GTZ)	2.9		
Japan International Cooperation Agency (JICA)	11.0		
Miscellaneous 1	0.8		
Financing Gap	42.5		
Total	77.5		

## **VI. Contact point**

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