



MINISTRY OF HIGHER EDUCATION

# ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK



**The Enhancing Employability through Human Capital and  
Entrepreneurship Development Project**

**March 2019**

## Table of Contents

1	Chapter: Introduction to the Enhancing Employability through Human Capital and Entrepreneurship Development Project.....	7
1.1	A. Country Context.....	7
1.2	B. Sectoral and Institutional Context .....	7
1.3	C. Relevance to Higher Level Objectives.....	10
<b>I.</b>	<b>PROJECT DESCRIPTION .....</b>	<b>10</b>
1.4	A. Project Development Objective .....	10
1.5	B. Project Components .....	11
	<b>Component 1: Integrating Skills Development with Labor Demand.....</b>	<b>11</b>
	<i>(Total costs including contingencies = US\$12 million IDA financing).....</i>	<i>11</i>
	<i>(Total costs including contingencies = US\$8 million IDA financing).....</i>	<i>13</i>
1.6	C. Project Beneficiaries.....	16
1.7	Due Diligence Principles.....	16
1.8	Implementation of ESMF .....	17
1.8.1	The ESMF as a Living Document .....	17
2	Chapter 2: Prevailing Environmental and Social Conditions in Project Area.....	19
2.1	The Physical Environment.....	19
2.1.1	Geographic and Topographic Characteristics .....	19
2.1.2	Coastal zone and beaches.....	20
2.1.3	Land Use.....	20
2.1.4	Soils .....	20
2.1.5	Water Resources:.....	21
2.1.6	Climate .....	21
2.1.7	Wave Energy and Tidal Effect .....	21
2.1.8	Natural Hazard (Seismicity, Tsunami, Typhoons): .....	21
2.2	The Biological Environment .....	22
2.2.1	Terrestrial Flora.....	22
2.2.2	Wetland Ecosystems.....	22
2.2.3	Faunal Diversity.....	22
2.2.4	Marine Biodiversity.....	23
2.2.5	Protected areas:.....	23
2.3	Socio-Economic Profile .....	26
2.3.1	Population Distribution.....	26
2.3.2	The Human capital context.....	28

2.3.3	The Labor market context.....	28
3	Environmental and Social Legislation, Regulatory and Institutional Framework in the Republic of Maldives.....	31
3.1	Constitutional and Regulatory Framework Overview.....	31
3.1.1	Overview Constitution of the Republic of the Maldives, 2008.....	31
3.1.2	Decentralization Act.....	32
3.2	Environmental Regulation, Institutional Framework and Policies.....	32
3.2.1	The Environmental Protection and Preservation Act, 1993 .....	32
3.2.2	The Environmental Impact Regulations, 2012 .....	33
3.2.3	The Regulation on Environmental Liabilities (Regulation No. 2011/R-9) .....	33
3.2.4	Environmental Impact Assessment Regulations, 2007, 2015.....	34
3.2.5	Environmentally Sensitive Areas (ESA) List, 2014.....	34
3.2.6	Handling of trees and palms .....	34
3.2.7	Regulation on Sand and Aggregate and Coral Mining .....	35
3.2.8	Regulation Governing Reclamation and Dredging of Islands and Lagoons of Maldives 2013/R-15 .....	35
3.2.9	Dewatering Regulation (213/R-1697) .....	35
3.2.10	Waste Management Regulation, 2013 .....	35
3.2.11	Noise and Excessive Vibration (Pollution Control) Regulations, 2008.....	36
3.2.12	Convention on Conservation of Biological Diversity, Regulations 2006.....	36
3.3	Environmental Policies and Guidelines:.....	37
3.3.1	National Waste Water Quality Guidelines, Maldives, 2007 .....	37
3.3.2	National Solid Waste Management Policy, 2008.....	37
3.3.3	Energy Policy .....	38
3.3.4	The National Energy Action Plan.....	38
3.4	Social Policies and Regulations. ....	39
3.4.1	Maldivian Land Act, 2002.....	39
3.4.2	Maldives Tourism Act.....	39
3.4.3	The Tourism Master Plan.....	39
3.4.4	The Historical and Cultural Property Law (Law No: 27/79).....	40
3.4.5	Public Health Protection Bill .....	40
3.4.6	Gender .....	40
3.4.7	Other Social Laws .....	41
3.5	International Conventions .....	43
3.6	Development priorities and SDGs .....	44
3.7	Compliance with World Bank Operational Policies .....	44

3.8	World Bank Safeguard Policies .....	44
3.8.1	Environmental Assessment (OP/BP 4.01) .....	45
3.8.2	Natural Habitats (OP/BP 4.04) .....	45
3.8.3	Involuntary Resettlement (OP/BP 4.12) .....	46
3.8.4	World Bank’s Social Safeguard Policies and Guidelines and Their Applicability.....	46
3.9	Adequacy of GOM Environmental Clearances.....	46
3.10	WB ESH Guidelines.....	47
4	Chapter 4: Generic Assessment of Environmental and Social Impacts .....	48
4.1	Overview .....	48
4.2	Potential Environmental Impacts.....	48
4.2.1	Pre-Construction and Construction Stages.....	49
4.2.2	Operations and Maintenance Stage .....	50
4.3	Potential Social Impacts.....	51
5	Chapter 5: Environmental and Social Management Framework.....	52
5.1	Environmental and Social Screening.....	52
5.1.1	National Level Screening.....	52
5.1.2	Project Level Screening .....	53
5.2	Environmental Assessments .....	53
5.2.1	Environmental and Social Impact Assessments (ESIAs).....	53
5.2.2	Environmental and Social Management Plans (ESMPs) .....	54
5.3	Inclusion of Environmental Specifications and Environmental Management Plan in bid documents .....	54
5.3.1	Guidance on Incorporation of ESHS Requirements for Contracts as per the World Bank’s Standard Bidding Documents.....	54
5.4	Procedure for Management of Physical Cultural Resources – protection and chance find procedures.....	56
5.5	Managing Adverse Impacts of Labor Influx .....	56
5.6	Clearance Procedures with the World Bank.....	59
5.7	Information Disclosure.....	59
5.8	Gender .....	59
5.9	Gender Based Violence .....	60
5.10	Citizen Engagement .....	62
5.11	Grievance Redress Mechanism (GRM) .....	62
5.12	Environmental and Social Compliance Monitoring and Reporting .....	63
5.13	Capacity Building on Environmental and Social Safeguards.....	64
5.13.1	Training objectives .....	65

5.13.2	Scope of the ESMF Training .....	65
6	Implementation Arrangements .....	67
6.1	Project Implementation Arrangements .....	67
6.2	Institutional Arrangement for Implementation of the ESMF .....	67
6.3	Rough Cost Estimates of Safeguards Instruments .....	68
7	Annexes.....	70
7.1	Annex 1: EPA EIA Screening Form and English Translation .....	70
7.2	Annex 2: Environmental and Social Screening Format for All New Construction .....	73
7.3	Annex 3: Environmental Clearance Procedure with the EPA.....	83
7.4	Annex 4: Typical Structure of an ESIA .....	84
7.5	Annex 5: Generic Environmental and Social Management Plan (ESMP) TOR .....	86
7.6	Annex 6: Minimal Provisions to be Included in Contract Documents .....	90
7.7	Annex 7: Environmental and Social Management in Construction Sites .....	92
7.8	Annex 8- Environmental and Social Monitoring Checklist for Project Activities .....	95
7.9	Annex 9: Special Monitoring Checklist for Ensuring Safe Conditions for Workers and Public. 96	
7.10	Annex 10: Guidelines for Health and Safety of Workers, Communities and Visitors.....	0
7.11	Annex 11: Consultation Notes .....	2

## **List of Acronyms and Abbreviations**

BP	Bank Procedures
CBO	Community Based Organizations
CSU	Coordinating Support Unit
EPA	Environmental Protection Agency
EPR	Environmental Project Report
ESSS	Environmental and Social Specialist
ESMF	Environment Social Management Framework
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Assessment
ESMP	Environmental and Social Management Plan
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GoM	Government of Maldives
ICZM	Integrated Coastal Zone management
IDA	International Development Agency
IP	Indigenous People
IPM	Integrated Pest Management
NGO	Nongovernmental Organization
MNQF	Maldives National Qualification Framework
O&M	Operation and Maintenance
OP	Operational Procedures
SoC	State Owned Corporation
SME	Small and Medium Enterprises
IFAD	International Fund for Agricultural Development
IOTC	Indian Ocean Tuna Commission
MoHE	Ministry of Higher Education
TVET	Technical and Vocational Education and Training
M&E	Monitoring and Evaluation
WB	World Bank

# 1 Chapter: Introduction to the Enhancing Employability through Human Capital and Entrepreneurship Development Project

## A. Country Context

1. Maldives, an archipelago nation of spectacular natural beauty, is a middle-income country with a gross domestic product (GDP) per capita of US\$10,536 in 2017. Maldives consists of nearly 1,200 islands and a population of about 436,330 inhabitants as of 2017: approximately 344,000 Maldivians and 63,000 expatriate workers. More than 30 percent of the population live in the capital city Malé, while the rest are distributed among just under 200 other inhabited islands. Basic human development indicators are high. Maldives ranks 101 out of 189 countries in the Human Development Index (HDI) for 2017,<sup>1</sup> the second-highest HDI rank in South Asia after Sri Lanka. The adult literacy rate is 98.6 percent, life expectancy is 77.6 years, the infant mortality rate is 7.3 per 1,000 live births, and the maternal mortality ratio is 68 out of 100,000 live births. The Government of Maldives (GoM) is seeking to accelerate human capital accumulation, increase employment opportunities for young people, and promote equitable economic and social progress in the country.

2. The Maldivian economy experienced average economic growth of 6.9 percent in 2017. The economy is dependent on a small number of sectors, with the following contribution to GDP in 2015: tourism (27 percent), government administration (11 percent), communication (11 percent), transport (10 percent), construction (10 percent), real estate (8 percent), wholesale and retail trade (4 percent), manufacturing (4 percent), education (4 percent), and several other relatively small sectors. The high share of tourism in the economy is both a strength and a limitation. The rapid rise in economic standards and living conditions in Maldives over the last three decades has been driven by fast growth in tourism. However, it also makes the Maldivian economy highly vulnerable to fluctuations in global economic and social conditions through their effects on tourism and the direct and indirect transmission of these effects to other sectors. Periods of global recession, when tourist arrivals have fallen, have been particularly difficult for the Maldives. The high dependence on tourism, and its economic benefits and risks, are typical of small island economies.

3. The GoM is emphasizing decentralization and the development of the atolls to facilitate improved service delivery for citizens. The GoM is seeking to improve the efficiency and effectiveness of public services, promoting enclave development where necessary, while also exploiting economies of scale and scope in larger urban areas to enable agglomeration benefits. This can benefit Maldivian youth, provided they are sufficiently educated and skilled to identify and exploit economic opportunities in the atolls. In addition, there is evidence that fast-growing urban areas can create conditions for increased criminal activities. Thus, improving employability and employment prospects for the youth is particularly important to reduce their idleness.

## B. Sectoral and Institutional Context

4. *Labor-market Demand and Supply.* Several aspects of the Maldives' recent development pattern highlight imbalances between labor demand and supply. Public sector jobs are predominantly in the civil service with the rapid expansion of cadres in the 1990s and 2000s. However, with the increasing standard of living over time, the labor market has become more challenging for Maldivians in general. Increasing educational attainment among the younger generation and expectations have coincided/collided with the rapid growth in low-skill service jobs associated with tourism and

---

<sup>1</sup> United Nations Development Programme (UNDP), Statistical Update, Human Development Index Reports, 2018.

construction, leading to a mismatch in skills supply and demand.

5. *Key challenges for a better educated young labor force.* Despite the high levels of growth and labor market conditions in public investments, tourism, fisheries and non-tradable tourism related activities, important challenges remain for young Maldivians. These relate to (i) the need for greater inclusion and productive employment for youth, especially for those who cannot rely on public sector jobs (because of a sharp reduction of public sector employment) or who are from the most vulnerable segments of the population; and (ii) an increasing reliance on foreign labor in important sectors such as tourism and construction services and limited opportunities for women.

6. Multiple factors limit the extent to which Maldivians participate in the labor-market, including (a) a high reservation wage; (b) lack of technical, managerial, and soft skills; (c) social norms inconsistent with the need to live in dormitories on resort islands or to work in proximity to foreigners with different social mores; (d) lack of adequate transport (resorts that are close to inhabited islands and have good transport links have a much higher proportion of Maldivian workers); (e) the high cost of housing for employees from outside their home islands; the high price of real estate contributes to significant costs for employers in the Maldives; and (f) the perception that tourism-related work does not constitute a ‘good’ job for women as well as for men. The absence of role models and low self-confidence and limited understanding of processes and procedures hinder the pursuit of ideas and innovation, especially for women, who often do not look for or apply for job vacancies.

7. A government-imposed quota requiring 55 percent of employees in tourism to be Maldivian nationals is customarily unmet, although the participation of Maldivian nationals in tourism increased significantly between 2006 and 2014. With the tourism sector contributing directly in 2017 to about one-fifth of total employment in the country, only 55 percent of the 34,500 jobs created were filled by Maldivian staff. The lack of participation in tourism jobs is particularly limited among Maldivian women, who account for 7 percent of labor in the industry, due in part to high level jobs’ availability and socio-cultural barriers. The growth of mostly luxury tourism services has outpaced the capacity of the Maldivian labor market to provide internationally competitive skills required by employers—technical, vocational, and soft skills. Young Maldivians are disadvantaged in seizing high-skilled jobs as their levels of education and skills accumulation are lower than those of high-skilled foreign workers.

8. In the services sector related to tourism, the demand for skilled labor has also been easily met by foreign workers who are present throughout Maldives in great supply and accept significantly lower wages. There are still unrealized opportunities for linking tourism to local communities (including, but not limited to, local providers of fish and agriculture products), while opportunities for service-provision links are more limited. This is in part because many resorts already own and operate their support services and ancillary functions, due to both geo-spatial challenges (given islands’ remote locations) and inadequate quality of local service provision.

9. *Small-scale sectors—heritage handicrafts.* Opportunities for linking to the local economy are limited to a small number of services in which Maldivians have a competitive advantage and are in demand by the tourism sector, such as authentic and cultural heritage-based excursions and handicrafts. While these are small-scale sectors, the potential economic impact for local communities is significant. In the guesthouse sector, which has emerged in recent years on islands with Maldivian populations, there are higher shares of local employment (75 percent Maldivian compared to 45 percent at resorts) through demand for local goods and services. The guesthouse subsector has grown rapidly since the Government’s policy change and currently has nearly 240 facilities with around 3,600 rooms. Moreover, the sector is projected to double in the next three years as global travel trends shift from luxury toward mid-level travel services with growing use of self-catering accommodations instead of traditional large hotels.

10. *IT-enabled Services.* Job creation potential exists in information and communication



technology (ICT) services, transport, and construction, given Maldives' sustained GDP and per capita income growth. ICT services are growing due to widespread Internet connectivity across the inhabited islands, and ICT jobs are especially well suited to women preferring to work from home, for example. Additionally, new goods and services may be nurtured in Malé to leverage the urban entrepreneurship talent, especially in sectors with high labor intensity. Beyond a macro focus on job creation, opportunities for skills in IT-enabled services, entrepreneurship and self-employment could engender a stronger micro focus. IT-enabled services would be particularly attractive to youth with higher levels of education and skills. However, they might lack the know-how to create, manage, and sustain SMEs.

11. *Behavioral aspects and social norms impinging on labor demand and supply.* From the demand side, employers indicate that there are significant challenges with hiring Maldivian youth. The lack of appropriate soft skills (absence of proper work ethics; the lack of discipline and commitment; inadequate socio-emotional, interpersonal, customer service, and communication skills), and inadequate technical/vocational skills are cited as some of the key challenges in recruiting Maldivian employees. From the supply side, there are misperceptions. The persistence of traditional gender roles and the narrow scope of occupations deemed acceptable by young women and especially their parents have limited the female labor supply, particularly for many job openings in tourism-related services. Job preferences among women center around desk work in front offices, administration, and human resource management over other jobs such as housekeeping and room service in resorts. In addition, gender stereotyping narrows the opportunities for women relative to men. The combination of a lack of skills, social norms, and perceptions deter Maldivian youth, especially females, from applying for the jobs. Maldivians also tend to have a high level of job turnover relative to foreign labor.

12. Many Maldivian youths are discouraged workers who have effectively exited the labor force and are best characterized as 'NEETs' (Not in Employment, Education, or Training). About 22 percent of working-age Maldivian youths fall into this category. Youth in Malé indicate that the key reasons for unemployment are the lack of economic opportunities in the island of residence and inability to find suitable employment that matches their respective education or training. About 50 percent of young females are NEET due to household chores and childcare. Finally, the reasons differ between residents of Malé' and other atolls. For young males, low pay was the foremost reason followed by transportation difficulties for those in Malé.

13. *A nascent but challenging entrepreneurship ecosystem.* To generate jobs, however, the private sector requires a strong ecosystem that combines an enabling regulatory environment, adequate support services to emulate entrepreneurship and a financial sector that provides the necessary means to businesses at each stage of their life-cycle. In the areas of the regulatory environment affecting business entry and business operations, although the Maldives ranks high in select areas (starting a business and dealing with construction permits), its overall Distance to the Frontier (54.42) is below the regional average in South Asia (53.64). In several areas that especially impact on MSMEs, such as getting credit, paying taxes and trading across borders, the country remains in the lower levels of the rankings compared to other high-income countries.

14. The absence of sufficient numbers of local entrepreneurs in the Maldivian small and medium enterprise (SME) space is also noteworthy. The limited supply of business support services and seed funding/start-up capital seems to be constraining entrepreneurial activities. Such an environment would benefit from entrepreneurship skills and competencies combined with a menu of seed funds in key sectors that could foster the setting up of SMEs. Equally, SMEs would require a pool of skilled and semi-skilled workers with technical and vocational know-how in different trades (carpentry, plumbing, machine operators, etc.). The GoM has proactively fostered entrepreneurship for the past five years in the atolls by establishing a framework to support entrepreneurship in regional centers through the creation of seven Business Development Centers (BDCs). Remedial measures could be instituted through ongoing skills support, counseling, and business support services.

15. *A new path for youth employment.* The Maldivian economy has arrived at a new juncture, one in which the skills of new labor force entrants need to be better aligned to available private sector jobs, to relieve the pressure and reliance solely on public sector jobs. Policy makers in Maldives are aware of these challenges and appreciate the importance of enhancing employment opportunities for youth through increasing human capital and diversifying the skills of future and recent labor force entrants to meet private sector labor demand and developing and encouraging entrepreneurship, particularly in the services sector. The proposed project will support GoM to enhance youth employability. The GoM is seeking to provide Maldivian youth with labor-market relevant skills in the technical, vocational, and entrepreneurship domains to enable Maldivian youth to compete for local jobs that are increasingly being taken by expatriate labor.

16. There is an urgent need to address socio-cultural and perception issues among youth regarding available jobs in the market. The mindset aspects require transformative interventions as early as in the schooling stage for parents and students. Employer associations such as the Maldives Association of Tourism Industry (MATI), the Maldives Association of Construction Industry (MACI) and specific resort managers have expressed their interest to work with government, education and training institutions, communities, youth and parents to demystify some of the misconceptions about careers in tourism, and to expose them to available opportunities.

17. The findings of four key background analysis and studies have informed the design of the proposed Project: (i) “Maldivian Labor Market: Spotlight on youth, tourism, and fisheries: Analysis based on census 2014 data” May 30, 2017; Report No. 115743/AUS16493; (ii) “Bringing the Spotlight on Youth: Labor Market Snapshot in the Maldives: An Analysis Based on HIES 2016”; (iii) “Enhancing Employability and Resilience for Youth in the Maldives through a Behavioral Approach” (P163376); and (iv) “Youth in the Maldives: Shaping a New Future for Young Women and Men through Engagement and Empowerment” dated October 3, 2014.

18. *Selectivity and Scope of the proposed Project.* The sectoral and institutional issues surrounding the skills and employment landscape in the Maldives are multi-layered. The economic, social, educational, behavioral aspects intersect. The project scope takes the following factors the: (i) the GoM’s mandate and imperatives; (ii) the institutional feasibility; (iii) economic and financial rationale for interventions; and (iv) implementation feasibility.

## **C. Relevance to Higher Level Objectives**

19. The higher-level objective of the proposed project is to meet the labor market demand for skills in specific areas and to foster innovation where there are skill shortages that are negatively affecting the country’s development and economic growth and its aspirations to reach upper-income status. The proposed project aims to support the Government’s efforts to enhance the long-term capacity of the education and skills development system to produce new graduates in priority skill and subject areas relevant for employability and development.

### **I. PROJECT DESCRIPTION**

#### **A. Project Development Objective**

20. The Project Development Objective (PDO) is to increase access to labor-market relevant vocational, technical, and entrepreneurship skills in priority areas.

## **PDO Level Indicators**

21. The key results would seek to bring about a better match between the demand and supply of labor. This would be reflected in the following project indicators:

- Percentage of graduates from improved skills development programs, of which females (%)
- Percentage of youth in employment (wage and/or self-employment) within six months of graduation, of which females (%)
- Number of new businesses registered by youth after receiving business support services, of which females (%)

## **B. Project Components**

### **Component 1: Integrating Skills Development with Labor Demand** (*Total costs including contingencies = US\$12 million IDA financing*)

22. The objective of this component is to improve the labor market outcomes of Maldivian youth with a special focus on improving female labor force participation by supporting the links between labor demand and supply. This component comprises three subcomponents: (a) strategy development, strengthening and diversifying skills development programs; (b) IT infrastructure for skills development and job matching and (c) addressing social and cultural barriers to employment.

23. ***Subcomponent 1.1: Strategy Development, Strengthening and Diversifying skills development programs (Total costs including contingencies: IDA US\$6 million)***. The objective is to strengthen and diversify skills development programs in priority sectors--tourism, IT-enabled services, and urban development.

24. The Project would finance the following activities:

(i) *21<sup>st</sup> Century Skills Development Strategy*. The project will support preparation of a 21<sup>st</sup> Century Skills Development Strategy for the Maldives in line with international standards. The MoHE is currently undertaking a capacity needs assessment to determine skills gaps that employers are facing. The new strategy will build synergies with the MoHE assessment to ensure that the Skills Strategy is co-constructed/co-created with private sector employers, and that industry/work-based training and skills development are incorporated into academic and technical/vocational programs.

(ii) *Modernizing curricula in priority sectors*. The project will support development of new and revision of existing curricula to align with the needs of the sectors/economy. To improve the alignment, the Employment Sector Councils<sup>2</sup> will be reactivated with the active participation of private sector employers to ensure that the curriculum in priority sectors are reviewed, readjusted, and rolled out in line with the needs of the sectors and the National Qualifications and Accreditation Standards.

(iii) *Rehabilitating and upgrading laboratories* in the project priority sectors to align with the curriculum at the technical training institutions.

25. *Capacity development*. The project will provide (i) occupational and instructional training to trainers/instructors and assessors to upgrade content knowledge, particularly in priority sectors trades for which curricula will be developed or revised; and (ii) market-relevant vocational, technical, higher-order, and soft skills training in the project priority sectors for: (a) trainers,

---

<sup>2</sup> Employment Sector Councils were established for the following five sectors: Transport; Fisheries and Agriculture; Tourism, Construction, and Social. However, these are no longer active.

instructors/professors, and assessors; and (b) youth ages 18–35, particularly focusing on NEET/2/ youth, through competency-based trade licensing mechanisms established by Technical and Vocational Education and Training Authority (TVETA) for industry recognized specific trades which would lead to Maldives Qualification Authority (MQA) recognized level 3 to 4 certification to help graduates transition to the labor market. This activity would include incentives to training providers to place trainees in employment. Close collaboration between TVET programs, employers, and training providers would be brokered to identify skills gaps and related training design and delivery. Training providers will be competitively selected to provide (a) market-relevant training based on the identified market needs/skills gap, validated by employers, and (b) job placement of the trainees. Detailed selection and eligibility criteria and processes will be described in full in the Project Operations Manual (POM).

26. ***Subcomponent 1.2: IT infrastructure for skills development and job matching (Total costs including contingencies: IDA US\$ 4 million).*** The objective of this subcomponent is to develop market clearing interventions for job matching using technology-based platforms.

27. The project will finance the following activities:

(i) Purchasing and adapting an eLearning platform, including a Learning Management System (LMS), and skills development content. Maldives has embarked on developing, implementing, and supporting technology-enabled solutions for various programs in education and skills development. Due to the geographical dispersion of the country, the GoM plans to promote eLearning services as a mechanism to foster quality access to digital content for students. Being an island nation with about 200 inhabited islands, it is challenging to provide physical library services for all the inhabited islands. This would require relevant digital infrastructure and skills to manage digital resources. New economy skills would be needed to manage and sustain the digital infrastructure;

(ii) Strengthening the IT infrastructure for job matching and program support to operationalize and expand the scope of web-based job search and the job-matching platform. In this connection, the GoM through financing from the Enhancing Education Development Project (EEDP) has already developed the job-matching platform ([www.guraha.mv](http://www.guraha.mv)). This is now operational. The project will finance further development to enhance features of the platform. The platform, which is in the pilot phase, is currently designed to allow stakeholders (the students, the youth, and the private sector) to register and provide/have access to timely and accurate information on vacancies. The goal is to make the platform a repository of labor market data, which can be used in the future for analyzing the trends of demand and supply of skills in the market.

29. ***Subcomponent 1.3. Addressing social and cultural barriers to employment (Total costs including contingencies: IDA US\$2 million).*** The objective of the subcomponent is to address social and cultural barriers to youth's and women's participation in the labor market. Narrow perception and understanding of the labor market offers and career opportunities have limited youth and women engagement in the labor market. The goal is to demystify the perceptions and create enhanced awareness about the potential and availability of jobs.

30. The subcomponent will finance (a) job fairs and demand-supply fora between employers and training institutions, (b) exposure programs and study visits<sup>3</sup> for students, teachers, and parents

---

<sup>1</sup> The exposure programs and study tour sessions will be organized together with the Maldives Association of Tourism Industry (MATI) and are expected to influence the mind-set and work ethics of youths.

<sup>2</sup> Career coaching and mentoring sessions will be delivered by successful entrepreneurs and career women and men. The goal is to present strategic examples of role models

<sup>3</sup> The pilot intervention would collaborate with resorts to introduce gender and culturally sensitive types of contract such as flexible work shifts, women friendly transport system.

to resorts (c) strengthening career guidance and counselling in schools combined with career coaching and mentoring<sup>4</sup>; and (d) pilot intervention to promote female-friendly work environments specially in resorts<sup>5</sup>.

## **Component 2: Enhancing Entrepreneurship Capacity**

*(Total costs including contingencies = US\$8 million IDA financing)*

28. This component will address key constraints and market failures on the supply and demand sides that limit youth and women effective participation in the labor market. It responds to business environment constraints, low awareness and challenges to the entrepreneurship development in the Maldives. This will promote an entrepreneurial mind-set as an alternative employment opportunity.<sup>6</sup> The component comprises three subcomponents: (a) creating an enabling business environment; (b) enhancing entrepreneurship support services; and (c) developing a pipeline of entrepreneurs. The component target beneficiaries include new and existing youth and women entrepreneurs.

29. ***Subcomponent 2.1: Creating an enabling business environment (Total costs including contingencies = US\$3 million IDA financing)***. The sub-component aims to address regulatory and institutional constraints to entrepreneurship in Maldives through technical assistance. Taking in to consideration government strategic plans and ongoing reforms, the subcomponent will focus *inter alia* on (a) reviewing policies for business entry and operations; (b) reviewing electronic transactions and payment systems policies to improve businesses' ability to tap into regional markets via online and virtual channels; and (c) providing technical assistance to ease access to credit information and support financial literacy programs for youth and women entrepreneurs.

30. ***Subcomponent 2.2: Enhancing entrepreneurship support services (Total costs including contingencies = US\$2 million IDA financing)***. The sub-component supports enhancement of the entrepreneurship ecosystem by (i) building the capacity of business development services (BDS) providers using a train-the-trainers (TTT) approach; and (ii) financing preincubation activities linked to the government incubation program.

(i) *BDS provider's capacity building*. This activity will support the training and exposure of existing and new BDS providers both in public and private sector. A TTT approach would be instituted by contracting an international firm with the required expertise to deliver a package of business and entrepreneurship trainings through several rounds. The design of the specific training program will be informed by an assessment of BDS provider's capacity and entrepreneurs' needs. Select BDS providers among those trained will then deliver high-quality and integrated business services to new and existing entrepreneurs supported under sub-component 2.3. The activity will also target women BDS providers and entrepreneurs. The relevance of the training program will be accessed at least twice during the project life and appropriate refresher programs designed to keep up with market dynamics.

(ii) *Incubation support activities*. Activities under the subcomponent will also support the proposed Government's Incubation Program by financing preincubation activities. This will include designing an effective business model that will address the needs of nascent entrepreneurship ecosystem. This would be achieved by developing operational guidelines, capacity development, and equipment for incubators to foster the emergence of young tech-preneurs and IT-related businesses in the Maldives.

---

<sup>4</sup> Career coaching and mentoring sessions will be delivered by successful entrepreneurs and career women and men. The goal is to present strategic examples of role models

<sup>5</sup> The pilot intervention would collaborate with resorts to introduce gender and culturally sensitive types of contract such as flexible work shifts, women friendly transport system.

<sup>6</sup> The entrepreneurship is not sector focused, but to align with GoM priorities, the project aims to stimulate enterprises related to ICT, tourism, construction, and greening among others.

The program will help improve businesses' access to both virtual and shared physical working spaces, capacity building, and technical support to create ICT-related solutions. The establishment of a successful Incubation Program will require (a) close collaborations, networks and partnerships between public institutions, the Chamber of Commerce, the private sector, and academic institutions and (b) the ability to provide flexible support tailored to the needs of entrepreneurs.

31. **Subcomponent 2.3: Developing a pipeline of entrepreneurs (Total costs including contingencies = US\$3 million IDA financing).** The subcomponent will support innovative interventions to stimulate youths and women to develop an entrepreneurship mind-set and business ideas. The subcomponent will finance (i) personal initiative training; and (ii) business plan pitch competitions. The target audience will be youth ages 15–35<sup>7</sup> and women.

(i) *Personal Initiative Training (PIT).* This is a psychology-based mindset training program<sup>8</sup> that develops key behaviors associated with a proactive entrepreneurial mindset and can deliver lasting improvements for emerging entrepreneurs (worked particularly well for women entrepreneurs)<sup>9</sup>. The training will include a substantial train-the-trainer element, so it can continue to be rolled out in the country after the project is completed by select BDS providers. The PIT will also be complemented with relevant mentoring, coaching and networking opportunities for the youths and women who demonstrate interest in developing business ideas. This will be facilitated through a series of three-day boot camp/workshops or seminars to improve emerging entrepreneur's ability to develop and strengthen their business ideas. These activities will serve to understand the potential pipeline of entrepreneurs for more advanced program.

(ii) *Business plans pitch competitions.* The business plan competition (BPC) will elicit business ideas from youths and women who are interested in starting up business. The objective is to stimulate entrepreneurship in strategic sectors such as ICT, greening (recycling), renewable energies, sustainable technologies, logistics, hospitality, and tourism, among others, and encourage youth and women to develop and show case their business ideas.

32. The competition will provide an opportunity for the business ideas to be evaluated and where applicable, relevant business support services will be provided by the project select BDS providers to expound on the idea and develop business plans. An independent professional management company (Business Plan Competitions Management Firm (BPC- MF) will be competitively recruited to manage the business plans competition and will organize two competitive rounds of selection. Up to 30 business plans will be selected based on economic viability and social impacts and will be awarded a prize ranging from US\$10,000 to US\$30,000<sup>10</sup>. The competitors who qualify through the first stage will be linked up with trained BDS providers who will provide relevant support services to strengthen their business ideas and develop business plans.

33. The BPC-MF will be responsible for screening applications to ensure that applicants meet the eligibility criteria for funding while the CSU will be responsible for disbursing funds to the winners 'bank account once it receives the list of BPC winners from the BPC-MF and has obtained No Objection from the World Bank.

34. *Eligibility criteria.* Young entrepreneurs and women applicants to be considered for funding would need to meet the following criteria:

- They must be registered with the BPC-MF and must have attended a training boot camp;

---

<sup>7</sup> This will include youth who have participated in the training programs under Subcomponent 1.2 and who are interested in becoming self-employed.

<sup>8</sup> The training program was developed at Leuphana University of Lüneburg, Germany

<sup>9</sup> For example, the personal initiative training program to boost small business development has been tested in Togo in the West Africa Region. Examples from the South Asia and East Asia Regions will also be incorporated.

(<https://openknowledge.worldbank.org/bitstream/handle/10986/28386/science.aan5329.pdf?sequence=1&isAllowed=y>).

<sup>10</sup> Detailed eligibility criteria for the business plans pitch competition, the selection process as well as the grants administration including grants agreement with the winner etc., will be detailed in an annex to the operations manual.

- They have received notification that their business plan has passed the BPC selection process set forth in the Operations Manual and will be awarded a prize;
- The prize award must be at least \$10,000 and no more than \$30,000 (equivalent in Rufiyaa at the prevailing Central Bank rate as at date of “No Objection” from the World Bank); Unregistered<sup>11</sup> entrepreneurs or firms will only receive awards disbursement if they show evidence of a formal business registration at the time of the grant agreement signature and the business has a valid bank account;
- They must be operating in Maldives and in any of the project target sectors or any activities related to one of these sectors;
- The project funding must be requested for utilization on eligible costs or activities
- The firm must satisfy the requirements on Environmental and Social compliance.

**Component 3: Project Coordination, Monitoring and Evaluation, and Technical Assistance**  
*(Total costs including contingencies = US\$1.6 million IDA financing)*

35. The EHCED will support the GoM to coordinate the project, undertake M&E, and provide technical assistance. The project activities will be coordinated by a team of experts in operations, M&E, procurement, FM, and environmental and social safeguards, if needed. This coordination support team will assist with the efficient implementation and monitoring of project activities. Monitoring of activities will take place regularly throughout the life of the project. For this purpose, a project management information system (MIS) would be developed early in project implementation and a functioning MIS will be the goal. The purpose of monitoring will be formative and to support implementation by identifying problems and facilitating actions to resolve issues and remove bottlenecks to efficient implementation. It will also help assess the results of the project, including through beneficiary feedback information. Technical assistance will be available to support the activities under the first two components of the project as well as policy analyses, especially on the labor market. This component will also support the communication and dissemination of project information to stakeholders, including policy makers, government officials, associations of employers and entrepreneurs, skills development institutions, and the public.

**Component 4. Contingent Emergency Response Component (CERC)**  
*(Total costs including contingencies = US\$0 IDA financing)*

36. This component has been added to permit rapid reallocation of project proceeds in the event of a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact. It would be triggered if/when the GoM declares a state of emergency or a state of a disaster or provide a statement of fact justifying the request for the activation of the use of emergency funding. To allocate funds to this component, the GoM may request the World Bank to reallocate project funds to finance and support response and reconstruction efforts. If the World Bank concurs with the assessment/determination of the disaster and associated response needs, the proposed component would draw resources from the categories primarily financing Components 1 and 2 and/or allow the Government to request the World Bank to recategorize and reallocate financing from any other project subcomponents to cover emergency response and recovery costs. Component 4 could also be used to channel additional funds should they become available as a result of an emergency. Disbursements would be made against a positive list of critical goods or the procurement of works and consultant services required to support the immediate response and recovery needs. The reallocation of funds would be done in such a way to achieve the key indicators in the Results Framework. An Emergency Operations Manual will be applicable to this component, which will be part of the Project Operations Manual (POM), and detailing FM,

---

<sup>11</sup> Not registered or incorporated formally.

procurement, safeguards, and other necessary implementation arrangements.

## C. Project Beneficiaries

37. The direct beneficiaries of the proposed Project will be: (a) youth who will benefit from increased access to new, revised, accredited, and innovative skills development programs (including personal initiative, life skills, career guidance and counselling programs); (b) faculty and staff from participating TVET and higher education institutions who will benefit from increasing their pedagogical capacity and facilities; (c) public and private institutions who will benefit from strengthened capacity and quality improvement measures aligned with regional standards; (d) adults, especially females who are already in the labor market. They will benefit from the project skills certification programs where their prior learning will be recognized, and through in-service training made possible by enabling access to training facilities and programs; and (e) existing and new entrepreneurs who will benefit from BDS, coaching, mentoring, networking, market links facilitation, and grants. The project is also likely to yield some spillover benefits, potentially through new jobs being created in the communities supporting TVET and higher education institutions, and through facilities support such as technological infrastructure, distance learning (software including content development, programming, etc.), management and administration of learning laboratories, and other services.

### 1.7 Due Diligence Principles

This ESMF considers and incorporates principles of due diligence that will be applied during project preparation and implementation in managing potential environmental and social risks that may be encountered. The key due diligence principles are as follows:

***Principle 1: Review and Categorization.*** All physical interventions will be subject to a social and environmental review and shall be categorized based on the magnitude of potential impacts and risks in accordance with environmental and social screening criteria.

***Principle 2: Social and Environmental Assessment.*** As per the GoM regulatory requirements, where necessary Initial Environmental Evaluations (IEEs) or Environmental and Social Impact Assessments (ESIAs) will be undertaken to address, as appropriate, the relevant social and environmental impacts and risks. The Assessment will also propose mitigation and management measures relevant and appropriate to the nature and scale of the proposed project as described earlier.

***Principle 3: Applicable Social and Environmental Standards.*** The ESMF will refer to the applicable World Bank Operational Policies and Environmental Health and Safety (EHS) Guidelines, as well as policies and standards of the GoM. The Assessment will establish the project's overall compliance with, or justified deviation from, the respective World Bank Operational Policies, Performance Standards and EHS Guidelines where applicable. The Assessment will address compliance with relevant Maldivian laws, regulations and permits that pertain to social and environmental matters.

***Principle 4: Environmental and Social Management System.*** For all physical activities, an Environmental and Social Management Plans (ESMPs) and monitoring indicators will be developed which addresses the relevant findings, and draws on the conclusions of the assessments. The ESMPs will describe and prioritize the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the assessments.



These actions will be costed and reflected as part of the contractual documents of the civil works contracts.

**Principle 5: Consultation and Disclosure.** For all activities affected communities will be consulted within a structured and culturally appropriate manner. If principle project activities or subproject activities are assessed to have significant adverse impacts on affected communities, the process will ensure their free, prior and informed consultation as a means to establish whether those activities have adequately incorporated affected communities' concerns. In order to accomplish this, this framework as well as all other safeguard instruments will be made available to the public by the borrower for a reasonable minimum period. The process will be documented, and account will be taken of the results of the consultation, including any actions agreed resulting from the consultation. For projects with adverse social or environmental impacts, disclosure will occur early in the assessment process, and on an ongoing basis.

**Principle 6: Grievance Redress Mechanism.** To ensure that consultation, disclosure and community engagement continues throughout project implementation, a grievance redress mechanism will be established, scaled to the risks and adverse impacts of the project or subproject, as part of the management system. The grievance redress mechanism will allow for concerns and grievances about the project's social and environmental performance be raised by individuals or groups from among project-affected communities to be received and to facilitate resolution of those concerns and grievances.

**Principle 7: Monitoring and Reporting.** All ESMPs will be monitored based on the monitoring schedule identified in the ESMP by the relevant responsible party. The Environmental and Social Coordinator will be responsible to ensure the monitoring activities have taken place including his/her monitoring and consolidate monitoring report is prepared bi-annually.

**Principle 8: Training.** Training to ensure project staff, staff of civil contracts and other parties who would play a role in managing environmental and social impacts will be necessary to ensure successful implementation of this ESMF. Necessary budget should be allocated to carry out the training plan.

## **1.8 Implementation of ESMF**

This ESMF shall be used as a guiding document and shall be followed for entire project cycle starting with project screening followed by site assessment, design considerations, impact assessment, mitigation measures selection, regulatory compliance, capacity building, project construction and sustainable operation. Institutional arrangement shall ensure that ESMF is integrated into planning of each project/subproject.

### **1.8.1 The ESMF as a Living Document**

ESMF shall be maintained as a dynamic document and shall updated based on the following considerations time to time:

- Any aspects not envisaged at the project preparation stage and thus not covered in ESMF. Such aspects shall be assessed, and appropriate measures shall be included in the ESMF.
- Unexpected situations and/or changes in the project or sub-component design.
- Change in Policies, new regulations, change of safeguard policies of funding agencies, international treaties
- Experience gained from implementation of ESMF and need for improvement in the ESMF
- Changes in the Govt. setup and intuitional framework requiring appropriate alignment in ESMF

Any change and modification in ESMF shall be shared with the World Bank and communicated to targeted beneficiaries and other stakeholders.

## **2 Chapter 2: Prevailing Environmental and Social Conditions in Project Area**

The Republic of Maldives, is a South Asian island country, located in the Indian Ocean about 671 km) southwest of Sri Lanka. It is one of the world's most geographically dispersed countries, as well as the smallest Asian country by both land area and population. Malé is the capital and most populated city, traditionally called the "King's Island" for its central location. The chain of twenty-six atolls stretches from Ihavandhippolhu Atoll in the north to the Addu City in the south with 1190 coral islet stretch over an area of 90,000 km<sup>2</sup>.

The atolls are composed of live coral reefs and sand bars, situated atop a submerged ridge 960 km long that rises abruptly from the depths of the Indian Ocean. The islands consist of coral, sea grass, seaweed, mangrove and sand dune ecosystems which are of great ecological and socio-economic significance. Generic physical characteristics across the atolls, including topographic, geographic and climatic conditions across the atolls do not vary on great scale. Similarly, the terrestrial ecosystems and marine ecosystems across the atolls are similar, except for minor variations such as the presence of mangroves, wetlands and sensitive marine protected areas. Maldives is home to a number ecologically sensitive marine habitat in shallow and intertidal zones which have been designated as protected areas by the Ministry of Environment.

With global warming and the shrinking of the polar ice caps, the Maldives is directly threatened, as none of its islands rises more than six feet above sea level. In 1987, the Maldives got a preview of this threat when one-third of the nation was flooded. To stave off flooding as much as possible, Govt. has banned the collection of coral and the use of anchors on the coral reefs that protect the islands. Due to degradation of natural reef around Male, the GoM has constructed artificial breakwaters made of concrete tetrapods at a cost of US\$10 million per kilometer in recent past, an expense which Maldives can ill afford. While atoll specific data availability is limited, the project specific assessment will determine the baseline condition of the sub project area. The detail outline based on country specific information which largely common to all Atolls is given in the following sections:

### **2.1 The Physical Environment**

#### **2.1.1 Geographic and Topographic Characteristics**

The islands of the Maldives are flat, with topographic variations generally less than two meters at highest elevation across. Over 80% of the total land area of the country is less than one meter above mean sea level and the highest point recorded in the country is a beach storm ridge at Fuvahmulah, in the Southern most Atoll with an elevation of four meters above mean sea level. Historically the Maldives is divided into 26 natural atolls, however based on a scientific evidence concluded in the 2004 the Maldives is classified into 16 complex atolls, five oceanic faros and four oceanic platform reefs. The 2008 Constitution of the Maldives, in its Schedule Two, divides the Maldives into 20 administrative atolls, and the capital Island of Male. Most of the atolls have a number of channels or openings in the outer reef which provide access to the islands in the enclosed interior sea or lagoon of the atoll. The shape of the atolls varies from circular and oval, to pear shaped. Some are fairly large such as Huvadhu Atoll in the south, which has approximately 250 islands and a lagoon area covering approximately 2,800 sq. km. Other atolls are very small and contain only a single island, such as Kaashidhoo and Gaafaru in the North Male' Atoll.

The islands can be divided physio-graphically into three zones namely: i) the foreshore or lower beach, ii) the beach crest (beach top) and iii) the inner island. The foreshore or lower beach zone, which includes the beach area between the high tide line and the beach crest, is totally exposed to wave action, wind and salt spray. It is unstable and composed mainly of coarse coral sand in the lower portion and shingle. The beach crest or beach top rises gradually and sometimes abruptly to a height of 0.8 to 1 m above the high tide line and includes a stable beach frontage composed of coral sand and rubble. It is exposed to winds and salt spray and its lower margin is occasionally or, in the case of an eroding beach, regularly inundated by seawater during spring tides. The beach crest may extend 5 to

20 m. The microclimate of the inner islands, protected by the beach-crest communities make them good environments for growth of larger trees.

Out of 1,192 coral islands, 1,074 are vegetated islands and approximately 450 un-vegetated islands. Vegetated islands comprise both natural vegetated islands and artificial vegetated islands. The un-vegetated islands include natural sand banks (Finolhu), natural coral conglomerates above High Tide Level (Huraa) and artificial un-vegetated islands. Inhabited Islands in all 3 zones are built up with housing units, either one (most commonly) or two stories and small home garden plots as well as buildings such as restaurants, office buildings and shops. The islands are planned out with designated areas for industry, harbors.

### **2.1.2 Coastal zone and beaches**

Land is the scarcest resource in the Maldives, comprising only 1% of the total reef area 21,436 km<sup>2</sup>. Given the small size of the islands (> 96% of the islands are less than 1km<sup>2</sup> in area), the whole land area can be considered coastal zone. Coastal zone and beaches are naturally dynamic with accretion and erosion patterns depending on complex interplay of oceanographic, climatic, geological, biological and terrestrial processes compounded by human activities.

Coastal ecosystems provide products and services that underpin people's well-being, such as the role they play in the provision of food security, livelihoods and health. These contributions to human wellbeing are made both directly through the products (provisioning services such as through fisheries, tourism, medicine and fuel etc.) provided by marine and coastal ecosystems, as well as indirectly through the variety of life support and production support functions they generate (regulating and supporting services such as fisheries productivity and shoreline protection etc.), and their intrinsic worth (or existence value) to people (cultural, spiritual, aesthetic services).

### **2.1.3 Land Use**

Land use in the Maldives revolves around 6 main types of utilization: human settlements, infrastructure islands (e.g. airport, waste disposal, oil storage), economic (tourism, agriculture, fisheries, aquaculture), stewardship or varuvaa, recreation and administrative (e.g. defense). Population increase remains the main pressure on land, despite consistently falling population growth rates, for instance: 3.4 in the 1990s to 1.6 in 2006. The impacts of population increases are more pronounced due to the small land area of the islands, leading to increased competition for the utilization of the little available land and encroachment of beaches for human settlements and other needs.

### **2.1.4 Soils**

The soils in the islands of the Maldives are geologically young. They consist of substantial quantities of the unweathered coral parent material, coral rock and sand. Soils are coarse in texture and shallow in depth with a top layer of brown soil (0 to 40 cm in depth) followed by a transition zone on top of the underlying parent material of coral reef limestone. In some low-lying areas and areas subjected to significant mechanical breakdown from human activity, fine deep soils are found with accumulated deposits of clay. In the wetland environment called kulhi the depth of the clay is substantial due to the accumulation of material from marine and biological sources over a long period, however as the limited wetlands in the Maldives is protected this material is not used for building purposes. In many places, top layers of the soils have a weakly developed structure and at times a 30 cm thick hard-pan layer cemented with calcium carbonate is present, preventing penetration of the roots of most plants except large trees. The water-holding capacity of the soil is very poor due to high porosity and very high infiltration rates. The soils of the Maldives are generally alkaline with pH values between 8.0 and 8.8, this high alkalinity is due to the presence of excess calcium. The soils that contain higher levels of humus, as found in depressions and wetlands, are less alkaline. The quality of the soils in the small islands is generally poor with marked deficiency in nitrogenous nutrients, potassium and several micronutrients particularly iron, manganese and zinc. Though the phosphorus content of the soils is high it is unavailable to plants as it is present mostly in the form of calcium phosphate.

### 2.1.5 Water Resources:

Freshwater resources are scarce in the Maldives. There are no rivers or streams in the islands. The main source of freshwater in the islands is the groundwater aquifer. Increased extraction exceeding natural recharge through rainfall over the years, has dramatically depleted the freshwater availability in inhabited islands. Sewerage contamination and salt water intrusion have made the water in inhabited islands unfit for portable sources thus many inhabited islands obtain water via reverse osmosis of sea water or rain water harvesting for portable uses and drinking water consumed is usually bottled and transported to the Islands.

### 2.1.6 Climate

The Maldives, in general, has a warm and humid tropical climate with average temperatures ranging between 25oC to 30oC and relative humidity ranging from 73 per cent to 85 per cent. The country receives an annual average rainfall of 1,948.4 mm. There is some variation in climatic conditions between northern and southern atolls. The **Table 2.1** provides a summary of key meteorological findings for Maldives.

**Table 2.1: Key meteorological Conditions of Maldives**

Parameter	Value
Average Rainfall	9.1mm/day in May, November 1.1mm/day in February
Maximum Rainfall	184.5 mm/day in October 1994
Average Air Temperature	30.0 C in November 1973 31.7 C in April
Maximum and Minimum Temperatures	34.1 C in April 1973 17.2 C in April 1978
Average Wind Speed	3.7 m/s in March 5.7 m/s in January, June
Maximum Wind Speed	W 31.9 m/s in November 1978

### 2.1.7 Wave Energy and Tidal Effect

Wave energy is important for sediment movement and settlement, and it is also a crucial factor controlling coral growth and reef development. Waves have been attributed to the diversity and the abundance of coral and algal species. These aspects have implications for the type and perhaps the supply of sediments to the island. Tides affect wave conditions, wave-generated and other reef-top currents. Tide levels are believed to be significant in controlling amount of wave energy reaching an island, as no wave energy crosses the edge of the reef at low tide under normal conditions. In the Maldives, where the tidal range is small (1m), tides may have significantly important influence on the formation, development, and sediment movement process around the island. Tides also may play an important role in lagoon flushing, water circulation within the reef and water residence time within an enclosed reef highly depends on tidal fluctuations.

### 2.1.8 Natural Hazard (Seismicity, Tsunami, Typhoons):

Maldives is not prone to Seismicity. However, seismicity of the surrounding plate margins while not in the immediate vicinity of the Maldives causes earth tremors, and more recently the tsunami, which originated some 700km away was experienced. Monsoon weather patterns characterize the islands, but the impact of typhoons has occurred mainly in the form of storm waves which travel out as swell. Several destructive storms have been recorded in the natural hazard history of the Maldives.

## **2.2 The Biological Environment**

### **2.2.1 Terrestrial Flora**

The tropical vegetation of Maldives differs in the inhabited and in the uninhabited islands. Inhabited islands have small groves of coconut, banana, papaya, drumstick and citrus trees by the homesteads, while breadfruit trees and coconut palms are grown in available patches of land. On the other hand, uninhabited islands have mostly different kinds of bushes (*magū, boshi*) and mangroves (*kuredi, kandū*) along the waterline as well as some coconut trees. Despite the poor and infertile soils, and lack of different habitats, the Maldives has a relatively diverse vegetation cover. The plant communities in the islands grow as per the physiographic morphology of the Islands. According to the Fifth National Report to the United Nations Convention on Biological Diversity, the flora of the country consists of 583 vascular plants of which 323 (55%) are cultivated plant species, while 260 are native and naturalized plants. Of the 260 native or naturalized plant species, fewer than 100 are truly indigenous.

Each of physiographic zone in an Island provides relatively uniform environment with its own associated plant community. As a result of the harsh environmental of the foreshore conditions, this zone supports no vegetation except occasional creeping sand-binders such as *Ipomoea littoralis* and *I. biloba* along with a few individuals of *Launaea pinnatifida* and *Portulaca alata* in the upper portion. The microclimate of the inner islands, protected by the beach-crest communities, supports the growth of a number of trees and shrubs, which occur either in pure stands or as a mixed forest. In many islands coconut grows abundantly in the areas immediately adjacent to beach crest vegetation and in moist areas the shelter provided by a complete coconut tree canopy supports the growth of under story tree species such as *Morinda citrifolia* and *Guettarda speciosa*. In some places, *Pandanus odoratissimus*, *Calophyllum inophyllum* and *Hibiscus tiliaceus* are also found in low numbers within coconut groves. In moist areas small pure stands of *Hernandia nymphaeifolia*, *Cordia subcordata* and *Barringtonia asiatica* are present.

### **2.2.2 Wetland Ecosystems**

There are at least 75 islands with wetland or mangroves in the Maldives. The wetland or mangrove areas cover a total area of approximately 8.01 km<sup>2</sup> according to a survey conducted by the Ministry of Planning and National Development in 2007. The island of Gan in the Lamu Atoll are noted as one of largest inhabited islands that also has wetland areas. Wetland areas in the Maldives are protected and thus no development activities are allowed in close proximity to these areas on inhabited islands, except for eco-tourism based activities.

### **2.2.3 Faunal Diversity**

The islands of the Maldives are not known for their abundant wildlife in comparison and demonstrate a rather small proportion of the representatives in comparison to the rich terrestrial faunal diversity of the region. Maldivian reptilian fauna including: two gecko (*Hemidactylus spp*) commonly seen throughout the country; two agamid lizard including the common garden lizard or blood sucker *Calotes versicolor*; the snake skin, *Riopa albopunktata*; and two species of snakes including the common wolf snake *Lycodon aulicus*, and *Typhlops braminus*. One species of frog is known, the short-headed *Rana breviceps*, and a larger toad, *Bufo melanostictus* has also been found. Among the reptiles of the Maldives, the Maldivian Black Turtle (*Melanochelys trijuga thermalis*) is a species of turtle listed on the International Union for Conservation of Nature (IUCN) Red List as 'near threatened'. The Maldivian black turtle is currently found in only three islands which are protected: Kaashidhoo (Kaafu Atoll in Zone Iii), Muli (Meemu Atoll) and Kunburudhoo (Haa Dhaalu Atoll). Maldives has also been noted to be particularly rich in spider species. Some 130 insect species including scorpions, centipedes, rhinoceros beetle and paper wasps were identified during scientific investigations across the Islands. The only native mammals endemic to the country are the two subspecies of fruit bats, *Pteropus giganteus ariel* and *Pteropus hypomelanus maris*. The latter is very rare and has been recorded only once in the Maldives, in Addu Atoll (Holmes et al, 1994). Other mammals, all likely to have been introduced, are the house mouse, black rat, Indian house shrew and cats (Webb, 1988). In the homestead, the domesticated animals reared are chickens and goats.

Over 167 bird species have been recorded in the Maldives including seabirds, shorebirds and terrestrial birds, a majority include breeding residents, southern winter visitors (shearwaters and storm-petrels), and northern winter visitors (mostly waders, raptors, passerines, as well as some terns). For some of the latter, the Maldives lies at the southern end of the major Indus-Valley – West Indian flyway. A few are introductions, and imported as pets. Very few bird species reside in the country, most of which are seabirds. Terrestrial birds are very minimal compared to other tropical islands and most are likely to be introductions. At least 40 to 50 species of seabirds are seen in the Maldivian waters, of which only 13-15 are known to nest and breed in the country. Some of them are terns including *Sterna sumatrana*, *S. albifrons*, *S. anaethetus*, *S. dauglli*, *S. bergi*, *S. bengalensis*, and *S. fuscata*, *S. saundersi*; others include two species of noddies, *Anous stolidus* and *A. tenuirostris*, as well as the white tern *Gygis alba monte* which is known to breed only in Addu Atoll (Anderson, 1996). Others such as frigate birds, white-tailed tropic birds, boobies and some shearwaters are also known to breed in the Maldives (Shafeeg, 1993). Most of the shorebirds found are common winter visitors to the Maldives; however, there are some resident and immigrant species. Four subspecies of bird have been identified as endemic to the Maldives (MHAHE, 2002). The bird subspecies endemic to the Maldives are Maldivian pond heron (*Ardeola graii phillipsi*), Maldivian little heron (*Butorides striatus albidulus*), central Maldivian little heron (*Butorides striatus didii phillipsi*), and the Maldivian water hen (*Amouronis phoenicurus maldivus*).

#### **2.2.4 Marine Biodiversity**

In contrast to the terrestrial biological diversity found in the country, marine biological diversity shows an outstanding richness, especially in the coral reefs. Indeed, the marine biodiversity of the archipelago is among the richest in the entire region, and the Maldives' has been recognized as having one of the world's most diverse marine ecosystems.

More than 250 different species of hermatypic corals exist, belonging to 41 genera from the north and 55 from the south. Over 1 200 reef fish species have been recorded<sup>15</sup> (Pernetta, 1993). As many as 5 000 different shell species, 100–200 sponge species, more than 1 000 species of marine crustaceans and over 100 species of echinoderms exist. A large range of different types of marine algae<sup>16</sup> have also been documented (Pernetta, 1993). In addition, a variety of sharks, eels, rays, dolphins, whales and aquarium fish are commonly observed throughout the archipelago. Five species of endangered turtles, namely loggerhead turtles, green turtles, hawksbill turtles, olive ridley turtles and leatherback turtles, are also known to live in Maldivian waters (Frazier and Frazier, 1987).

A recent research study, carried out by the Marine Research Section (MRS) of the Ministry of Fisheries and Agriculture, has documented economically important fish species in the Maldives. Some 900 species have been identified, nearly 300 of which were completely new records for the Maldives, and 7 of which had never before been recorded anywhere in the world<sup>17</sup>. A second study records some 899 species of pelagic and shore fish, including 201 records new to the Maldives (Randall and Anderson 1993).

At one time, the Maldives was the only country harvesting tuna from the Indian Ocean. Tuna fishing remains particularly important to the economy of the Maldives. Eight different types of tuna and similar fish are harvested commercially from the open seas. Tuna fishing requires live bait fish which are caught in lift nets near the reef and kept alive in the flooded hull of the dhoni. Bait fish are composed of species associated with the reef, and are dependent on a thriving reef environment. Twenty different species, regularly caught and used as bait fish, may be classified in to this group.

Over the last few decades many efforts have been made to ensure the protection of the marine biodiversity and the most sensitive reef ecosystems and habitats of vulnerable charismatic marine species, along with wetlands and mangrove ecosystems have been demarcated as protected areas.

#### **2.2.5 Protected areas:**

A total of 33 Marine Protected Areas has been gazetted across the country (Figure 3.1). For the most part these are relatively small, averaging only a few hectares in area. Apart from the traditional live bait fishing and recreational diving, all other activities are officially prohibited in MPAs.

Several government departments are responsible for ensuring the conservation and sustainable use of marine and coastal biodiversity in the Maldives, including the Ministry of Environment and Energy, the Ministry of Economic Development, the Ministry of Fisheries and Agriculture, and the Local Government Authority. The Environment Ministry not only has the mandate to conserve marine and coastal biodiversity but also promote sustainable economic and development practices.





**Legend**

- Bay of Bengal
- - - Large Marine Ecosystem Boundary
- Administrative Boundary
- - - Exclusive Economic Zone (EEZ)
- Marine Protected Area (Unknown Boundaries)
- Marine Protected Area (Polygon)
- Coral Reefs
- Seagrass
- Mangroves

**Bathymetry (depths in metres)**

0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600 625 650 675 700 725 750 775 800 825 850 875 900 925 950 975 1000 1025 1050 1075 1100 1125 1150 1175 1200 1225 1250 1275 1300 1325 1350 1375 1400 1425 1450 1475 1500 1525 1550 1575 1600 1625 1650 1675 1700 1725 1750 1775 1800 1825 1850 1875 1900 1925 1950 1975 2000 2025 2050 2075 2100 2125 2150 2175 2200 2225 2250 2275 2300 2325 2350 2375 2400 2425 2450 2475 2500 2525 2550 2575 2600 2625 2650 2675 2700 2725 2750 2775 2800 2825 2850 2875 2900 2925 2950 2975 3000 3025 3050 3075 3100 3125 3150 3175 3200 3225 3250 3275 3300 3325 3350 3375 3400 3425 3450 3475 3500 3525 3550 3575 3600 3625 3650 3675 3700 3725 3750 3775 3800 3825 3850 3875 3900 3925 3950 3975 4000 4025 4050 4075 4100 4125 4150 4175 4200 4225 4250 4275 4300 4325 4350 4375 4400 4425 4450 4475 4500 4525 4550 4575 4600 4625 4650 4675 4700 4725 4750 4775 4800 4825 4850 4875 4900 4925 4950 4975 5000 5025 5050 5075 5100 5125 5150 5175 5200 5225 5250 5275 5300 5325 5350 5375 5400 5425 5450 5475 5500 5525 5550 5575 5600 5625 5650 5675 5700 5725 5750 5775 5800 5825 5850 5875 5900 5925 5950 5975 6000 6025 6050 6075 6100 6125 6150 6175 6200 6225 6250 6275 6300 6325 6350 6375 6400 6425 6450 6475 6500 6525 6550 6575 6600 6625 6650 6675 6700 6725 6750 6775 6800 6825 6850 6875 6900 6925 6950 6975 7000 7025 7050 7075 7100 7125 7150 7175 7200 7225 7250 7275 7300 7325 7350 7375 7400 7425 7450 7475 7500 7525 7550 7575 7600 7625 7650 7675 7700 7725 7750 7775 7800 7825 7850 7875 7900 7925 7950 7975 8000 8025 8050 8075 8100 8125 8150 8175 8200 8225 8250 8275 8300 8325 8350 8375 8400 8425 8450 8475 8500 8525 8550 8575 8600 8625 8650 8675 8700 8725 8750 8775 8800 8825 8850 8875 8900 8925 8950 8975 9000 9025 9050 9075 9100 9125 9150 9175 9200 9225 9250 9275 9300 9325 9350 9375 9400 9425 9450 9475 9500 9525 9550 9575 9600 9625 9650 9675 9700 9725 9750 9775 9800 9825 9850 9875 9900 9925 9950 9975 10000

**Data sources:**  
 Exclusive Economic Zone (EEZ): VLLZ (2012) Maritime Boundaries Geodatabase, version 7.  
 Coral Reefs: UNEP-WCMC (2010) Global Distribution of Coral Reefs  
 Mangroves: Spalding et al (2010) World Atlas of Mangroves  
 Seagrass: UNFPA-WCMC, Short FT (2005) Global Distribution of seagrasses  
 Bathymetry: The GEBCO\_06 Grid, version 20100527, http://www.gebco.net  
 Marine Protected Areas: Compiled from various sources including ReefBase, BOBIME (2011) and FPA (2013) by WorldFish up to October 2013

0 25 50 75 100 km  
 Coordinate System: GCS WGS 1984  
 Datum: WGS 1984

Figure 2.1 Protected Areas of the Maldives

## 2.3 Socio-Economic Profile

The economy of the Maldives is based on the principal industries of tourism, fisheries and shipping. The government has played a central role in the rapid growth of fisheries and tourism sectors, which are the main foreign exchange earners of the country. With a per capita income of US\$ 19,151 in 2017, Maldives is considered an upper middle-income country. Furthermore, the island nation of Maldives has made impressive socio-economic progress as shown by improvements in socioeconomic indicators and poverty reduction.

In the early 1980s, Maldives was amongst the world's 20 poorest countries, with a population of 156,000. The total population enumerated in the 2014 Census was 407,660 and this is expected to reach 440,000 in 2020. Migration (including immigration and emigration) increases population by 1,952 people yearly in the Maldives. On average there are 7,105 births and 1,420 deaths per year. Rate of natural increase is approximately 1.31 % per year. The population density of Maldives has changed from 528 people /km<sup>2</sup> in 1980 to 1,506 people / km<sup>2</sup> in 2019. Among the 1,190 islands in the Maldives, only 198 are inhabited. The population is scattered throughout the country, and the greatest concentration is on the capital island, Malé.

For the first time, in Census 2014, a distinction was made between the resident population and non-resident population. Hence, for analytical purposes, reference to respective population would be made as given in the table below.

**Table 1: Total Population**

Population	Both Sexes	Male	Female
Total Population	407,660	230,453	177,207
Resident Population	402,071	227,749	174,322
Maldivian	338,434	171,962	166,472
Foreign*	63,637	55,787	7,850
Non-Resident Maldivian	5,589	2,704	2,885

\* Foreign population enumerated in Census 2014 is less than the official figures recorded in Immigration documents (Source: Census, 2014)

### 2.3.1 Population Distribution

Maldives is one of the world's most geographically dispersed countries and poses a wide range of development constraints. The population is distributed within the country among administrative and non-administrative islands. Census 2014 enumerated population from 188 inhabited islands, 109 resorts and 128 industrial and other islands. Table 2 provides a picture of Total Maldivian population distribution by these major categories.

**Table 2: Total Maldivian Population by categories, 1985-2014**

Census Year	1985	1990	1995	2000	2006	2014
<b>Maldivian population</b>						
Both Sexes	180,088	213,215	244,814	270,101	298,968	344,023
Male	93,482	109,336	124,622	137,197	151,459	174,666
Female	86,606	103,879	120,192	132,904	147,509	169,357

<b>Maldivian Population in Administrative Islands (including Male')</b>						
Both Sexes	175,854	208,423	239,212	262,186	288,101	330,468
Male	89,319	104,622	119,070	129,407	140,914	161,518
Female	86,535	103,801	120,142	132,779	147,187	168,950
<b>Maldivian Population in Resorts and Industrial Islands</b>						
Both Sexes	4,234	4,792	5,602	7,915	10,867	13,555
Male	4,163	4,714	5,552	7,790	10,545	13,148
Female	71	78	50	125	322	407

#### *Population in Administrative Islands:*

Based on statistic provided in Table 2, close to 96 % of the population live in administrative islands. From 1995 onwards, the female population outnumbered the male population in the Administrative islands. This outcome was caused by the outward migration of males for employment.

#### *Population in Non-Administrative Atolls:*

With the expanding economic development initiatives of the government, the shift in population from Administrative islands to non-Administrative island has increased over the years. As illustrated by the above table, the total Maldivian population residing in Non-Administrative islands increased from 4,234 in 1985 to 13,555 in 2014. This is due to increased number of operating resorts, agricultural islands and other ongoing projects in these islands. Population in resort islands accounted for 77% of the residents in these islands.

#### *Population in Male' and Atolls:*

The Maldivian population is vastly distributed across atolls consisting of small islands. Administratively there are 20 Atolls. Though there is no official categorization of urban and rural areas, the capital Male' is widely referred to as the urban center and the rest of the Atolls are recognized as the rural area. Census 2014 showed that 38 % of the population live in Male', the capital, while majority of the population reside in the Atolls. In Maldives, as in other small island states, internal migration and growth of urban centers can be attributed to inequalities between the capital city and the rest of the country.

Male' population has increased rapidly over the past two decades and Male' has remained as the country's fastest growing and the most populated island. The development of tourism within Male' Atoll, rapidly expanding government and private sector, and establishment of major health and educational facilities in Male', have created significant disparities between Male' and the Atolls. In addition, developments in Male' attract migration from all parts of the country. It passed the threshold of 100,000 residents in 2006, making it one of the most densely populated urban centers in the world. In 2014 Male population density stood at 23,002 people per km<sup>2</sup>.

#### *Population Structure*

The population growth and the changing age-sex composition of the Maldives resembles that of a developing country with a relatively large proportion of people in the adult age categories (below 30 years of age), and a relatively small proportion of people in the older age categories (above 60 years). The age cohort of 10 to 14 years was the smallest among the child population in 2014. Also, the 2014 statistics show that the population pyramid broadens at the youth age.

### **2.3.2 The Human capital context**

The Maldives has about 81,800 students enrolled in approximately 300 schools. The Maldivian education system consists of the following stages: primary education (grades 1-7, ages 6-12), lower secondary education (grades 8-10, ages 13-15) higher secondary education (grades 11-12, ages 16-17), and higher education (ages 18 onwards). The overall net primary enrolment rate is 100 %, with gender parity (100 % each for boys and girls). The net lower secondary enrollment rate is 84 %, with boys' net enrollment at 86 % and girls' net enrollment at 81 %.

Since education access and attainment were low until recently, public investment has mainly focused on extending secondary education and other public services. At the same time GoM has focused on expanding the civil service and employment in state owned enterprises (SOEs) to help deliver the country's development agenda. Today, however, the economy has arrived at a new juncture, one in which the skills of new labor force entrants are better aligned to available private sector jobs, to relieve the pressure and reliance solely on public sector jobs. New graduates typically seek administrative jobs, but these are in short supply, particularly in the private sector where employment opportunities are concentrated in the tourism and services-based economy. The heavy presence of government has created an expectation that "the state will provide" – whether through cash transfers, services, training or employment. The high reservation wage limits attractive job opportunities for new entrants, who are priced out of the market by foreign workers at both the low and high ends of the skills spectrum.

Despite impressive achievements in education provision, the education system faces several challenges. The GoM recognizes that increasing and deepening human capital is vital to sustain growth and improve access to suitable jobs for young people. The Government has therefore also been giving priority to develop tertiary education, including technical and vocational education and training (TVET) and higher education. Various government actions include (a) TVET pathways in the 10-level Maldives National Qualification Framework (MNQF); (b) establishment of a TVET Authority and Maldives Qualifications Authority; (c) programs focusing on universal enrollment for secondary level education; and (d) policies and programs to reduce dropouts. In particular, for secondary school students at such risk, the MoHE has opened TVET programs at the Maldives Polytechnic (Grade 8); BTEC (Business & Technology Education Council) programs at the O level and A level which includes hospitality, business, art and design; Dhasvaaru program (nationally accredited level 3 courses in any trade/skillset); and the 10 plus, under which students are tracked and provided guidance and support until age 18. In addition to these public TVET programs, there are several private sector providers of tertiary education.

While the supply of options have expanded, the school-to-work transition is still challenging due to the following reasons: (a) lack of soft skills (workplace ethics, ability to collaborate effectively within an organization, perseverance on the job, and responsiveness to clients) training in both technical and academic programs where they rank high for getting jobs; (b) weak quality and relevance of TVET, which also reduces students' interest in TVET; (c) inadequate linkages between tertiary education institutions and private firms; (d) low quality of teaching in TVET; (e) a lack of competency and outcome based curriculum and assessment; and (f) limited career guidance and counselling to students. Although sector skills councils exist, there is insufficient feedback to the tertiary education institutions and the policy makers.

### **2.3.3 The Labor market context**

Several aspects of Maldives' recent development pattern highlight imbalances between labor supply and demand. For example, increasing educational attainment among the younger generation and expectations of an "office job" has coincided with the rapid growth in low-skilled service jobs associated with tourism and construction. This has (or seems to have) resulted in unmet expectations of Maldivian job seekers vis-à-vis available jobs. Unrealistic expectations have been exacerbated by

the rapid expansion of the civil service in the 1990s and 2000s. Recent improvements in household wealth, declining poverty and the introduction of generous social pensions have also raised the reservation wage of young labor force entrants.

The enclave model of tourism development – one resort, one island – has increased the imbalance between labor supply in the inhabited islands and the demand for skilled and unskilled labor in nearby island resorts. The growth of mostly luxury tourism services has outpaced the capacity of the Maldivian labor market to provide internationally competitive skills required by Employers – both technical and soft skills. The persistence of traditional gender roles and the narrow scope of occupations deemed acceptable by young women and especially their parents have limited the female labor supply, particularly for many job openings in tourism-related services. The demand for labor has been easily met by foreign workers, who are present throughout the Maldives in great supply and accept significantly lower wages.

As a result, many Maldivian youth are discouraged workers who have effectively exited the labor force and are best characterized as “NEETs” (Not in employment, Education or Training). About 22% of working-age Maldivian youth fall into this category. Whereas official youth unemployment rates (i.e., those actively looking and available for work) are around 12 %, when NEETs are included, the share of youth failing to find work or continue education jumps to 25 % for 15-24 year old’s, and 37 % for 15-19 year old’s (the age group with the largest number of new labor force entrants due to low enrollment in higher secondary education and above). In the total Maldivian youth population of 67,000 potential workers in 2014, nearly 31,000 were employed, but over 10,000 were not, of which 6,000 had stopped looking for work. The largest number of unemployed and discouraged youth (44 %) live in Male’, and the second highest number live in the south of Maldives.

Between 2006 and 2014, the NEET rate for female youth decreased, while that for male youth increased, indicating that labor market conditions for young females have improved. This reflected a rise in the female youth employment rate from 34% to 38 % among the working-age population. This increase was primarily driven by added female employment in the education sector, services and public administration.

Female youth have a higher propensity to exit the labor force compared to males: 22% of female youth are NEET, compared to 17% of male youth. Unlike other culturally similar countries in South Asia, traditional Maldivian women have a relatively high labor force participation rate, at 49%, which is on par with other countries at the same level of development. It is unfortunate that Maldivian women (especially youth) are more likely to be discouraged than men; this is likely to be partly due to cultural factors related to perceptions of a “good” job, which are slower to evolve compared to attitudes on the importance of education for both girls and boys.

There is emerging concern over discouraged male youth due to their rising NEET rate, an indication of the youth who are at risk of being excluded from the social fabric and being drawn to undesirable activities. The reasons for being out of school and unemployed vary by gender. Male youth indicate that the biggest reasons for unemployment are the lack of economic opportunities in the island of residence and inability to find suitable employment that matches their respective education or training while 50 % of young females give reasons for unemployment due to household chores and childcare responsibilities.

The main challenge of unemployment in Maldives is not the lack of jobs, but the limited linkages with employment opportunities and perceptions that limit job uptake by young Maldivians. The tourism and construction sectors are the largest Employers besides public administration jobs, but these sectors also register the greatest numbers of foreign labor participation. According to the government, there are significant job opportunities in the tourism and construction sectors. However, fewer Maldivians are interested in jobs within resorts or in construction.

Employment choices are affected by misinformed social perceptions, and unrealistic job expectations

and aspirations. Given the improved educational outcomes, educated youth only expect to undertake middle and high level managerial jobs. However, most jobs in mid- and high-levels require some level of experience besides the certificates. In addition, the limited understanding of career progression opportunities in resorts hinder the youth to accept entry level jobs like housekeeping. Tourism and hospitality are some of the sectors where employees can start at the lowest level and climb up the ladder to the top level. Moreover, parents have a strong perception about work ethic and behaviors in resorts. Therefore, they discourage their children to opt for jobs in the tourism sector. They are concerned that the youth might develop behaviors that are contrary to their cultural expectations.

From the demand side, Employers indicate that there are significant challenges with hiring Maldivian youth. The absence of proper work ethics that are required, the lack of discipline and commitment, and inadequate socio-emotional skills, interpersonal, customer service and communication skills, and inadequate technical/vocational skills are cited as some of the key challenges to recruiting Maldivian employees. Jobs are available in the tourism sector. However, there are misperceptions. The combination of a lack of skills, social norms, and perceptions deter Maldivian youth, especially females from applying for the jobs. Maldivians also tend to have a high level of job turnover relative to foreign labor. Job preferences among women center around desk work in front offices, administration, and human resource management, over other jobs like housekeeping and room service in the resorts. In addition, gender-stereotyping narrows the opportunities for women relative to men.

### **3 Environmental and Social Legislation, Regulatory and Institutional Framework in the Republic of Maldives**

This chapter seeks to present a review of relevant legal, institutional and administrative framework relevant to the project. International laws and conventions that bear relevance to the implementation of the project have also been highlighted.

#### **3.1 Constitutional and Regulatory Framework Overview**

##### **3.1.1 Overview Constitution of the Republic of the Maldives, 2008.**

The Maldives democratisation story began in 1932 with the first written Constitution and the introduction of universal adult suffrage. The story with significant revisions was recast with the introduction of the Reform Agenda in June 2004. The Reform Agenda, proposed by the then President, culminated in the adoption of a new Constitution in 2008, set the country on a path of change that was unprecedented in the country's history. The changes introduced through the Reform Agenda, represented a paradigm shift in Maldivian society: political parties started functioning; oversight institutions, including the Human Rights Commission, the Anti-Corruption Commission, the Auditor General's Office, and an independent Elections Commission, were established; the new constitution provided for a complete separation of powers between the executive, legislative, and the judicial branches of the State.

**Article 22 - Protection of the environment:** The State has a fundamental duty to protect and preserve the natural environment, biodiversity, resources and beauty of the country for the benefit of present and future generations. The State shall undertake and promote desirable economic and social goals through ecologically balanced sustainable development and shall take measures necessary to 6 foster conservation, prevent pollution, the extinction of any species and ecological degradation from any such goals.

**Article 23 - Economic and social rights:** Every citizen the following rights pursuant to this Constitution, and the State undertakes to achieve the progressive realisation of these rights by reasonable measures within its ability and resources: (a) adequate and nutritious food and clean water; (b) clothing and housing; (c) good standards of health care, physical and mental; (d) a healthy and ecologically balanced environment; (e) equal access to means of communication, the State media, transportation facilities, and the natural resources of the country; (f) the establishment of a sewage system of a reasonably adequate standard on every inhabited island; (g) the establishment of an electricity system of a reasonably adequate standard on every inhabited island that is commensurate to that island.

**Article 67 – Responsibilities and duties:** The exercise and enjoyment of fundamental rights and freedoms is inseparable from the performance of responsibilities and duties, and it is the responsibility of every citizen (a) to respect and protect the rights and freedoms of others; (b) to preserve and protect the State religion of Islam, culture, language and heritage of the country; (c) to preserve and protect the natural environment, biodiversity, resources and beauty of the country and to abstain from all forms of pollution and ecological degradation; (d) Every person in the Maldives must also respect these duties.

**Article 230 - Decentralised administration:** The administrative divisions of the Maldives shall be administered decentrally.

**Article 231- Election of Councils:** All members of councils created for decentralised administration shall be democratically elected by secret ballot by their respective communities.

**Article 232 – Responsibilities:** The responsibilities of councils elected to provide for decentralised administration shall include: (a) to provide democratic and accountable governance; (b) to foster the social and economic well-being and development of the community; (c) to establish a safe, healthy and ecologically diverse environment; (d) to achieve such other objects as prescribed by law.

**Article 248 - Land, sea and naturally occurring valuable resources:** (a) The land, sea, and seabed, including all fish within the territory of the Maldives, and all naturally occurring resources, including metallic ores, petroleum and gas, shall vest in the State. (b) All living, non-living and naturally occurring resources of value within the Exclusive Economic Zone of the Maldives and the seabed shall vest in the State

**Article 249 - Ownerless property:** Any property found within the territory of the Maldives and any property occurring in the seabed or found drifting in the sea, save those naturally occurring or formed in the sea, without a rightful owner, shall vest in the State. (b) All property such as gold, silver, other precious metals, jewellery, money and items of historical interest, excavated within the territory of the Maldives without a rightful owner, shall vest in the State.

### **3.1.2 Decentralization Act**

The Decentralization Act establishes the local councils as the highest political authority in the locality and who shall have executive powers to be exercised in accordance with this Act. The Act establishes Atoll Councils, Island Councils and City Councils. As per Articles 24 (e) and 42 (e) of the Decentralization Act provision of electricity, water, sewerage and other utility services in their jurisdictions according to the laws of the Maldives is the responsibility of Island Councils and City Councils respectively. Articles 24 (b) and 42 (b) of the Act Mandate Island Councils and City Councils to provide adequate waste management services. As per Article 23 (h), (i) and Article 41 (g), Island Councils and City Councils are responsible for release of land for development according to the provisions of the Land Act, the Land Use Plan of the island, and any guidelines issued by the Ministry responsible for land.

## **3.2 Environmental Regulation, Institutional Framework and Policies**

### **3.2.1 The Environmental Protection and Preservation Act, 1993**

The Environmental Protection and Preservation Act (EPPA, Act No: 4/93) is the framework environmental law in Maldives and came into force on 19<sup>th</sup> March 1993. It aims at improving the legal and administrative co-ordination of the diverse initiatives in the field of environment with the ultimate objective of integrating environmental considerations into the country's overall economic and social development. The authority responsible for the Environment Act is the Ministry of Environment and Energy. The following Articles 2, 4, 5, 6, 7, and 8 of the law are relevant to this project.

**Article 2** states that the concerned government authorities shall provide the necessary guidelines and advise on environmental protection in accordance with the prevailing conditions and needs of the country. All concerned parties shall take due considerations of the guidelines provided by the government authorities. **Article 4** states that the Ministry of Environment shall be responsible for identifying protected areas and natural reserves and for drawing up the necessary rules and regulations for their protections and preservation. According to **Article 5 (a)** of the Act, an Environmental Impact Assessment study shall be submitted to the Ministry of Environment before implementing any development project that may have a potential impact on the environment. As per **Article 5 (b)**, The Ministry of Environment shall formulate the guidelines



for EIA and shall determine the projects that need such assessment as mentioned in paragraph (a) of this clause. As per Article 6, the Ministry of Environment has the authority to terminate any project that has any undesirable impact on the environment. A project so terminated shall not receive any compensation. **Article 7** states that any type of waste, oil, poisonous gases or any substances that may have harmful effects on the environment shall not be disposed within the territory of the Maldives. In cases where the disposal of the substances becomes absolutely necessary, they shall be disposed only within the areas designated for the purpose by the government. If such waste is to be incinerated, appropriate precaution should be taken to avoid any harm to the health of the population. **Article 8** states that Hazardous/Toxic or Nuclear Wastes that is harmful to human health and the environment shall not be disposed anywhere within the territory of the country.

### **3.2.2 The Environmental Impact Regulations, 2012**

Environmental Impact Assessment Regulations were issued by the Ministry of Environment and Energy (MEE) on 8 May 2012. The first step in environmental assessment process involves screening of the project to be classified as one that requires an Environmental Impact Assessment (EIA) or not. Based on this decision, the Ministry then decides the scope of the EIA which is discussed with the proponent and the EIA consultants in a “scoping meeting”. The consultants then undertake the EIA starting with baseline studies, impact prediction and finally reporting the findings with impact mitigation and monitoring programme. This report follows the principles and procedures for EIA outlined in the EIA regulations. The EIA report is reviewed by MEE following which an EIA Decision Note is given to the proponent who should implement the Decision Note accordingly. As a condition of approval, appropriate environmental monitoring may be required and the proponent shall have to report monitoring data at required intervals to the Environmental Protection Agency (EPA). The project proponent is committed to implement all impact mitigation measures that are specified in this EIA report. Furthermore, the proponent is committed to environmental monitoring and shall fulfil environmental monitoring requirements that may be specified in the EIA decision note as a condition for project approval. The processes specified in this ESMF for the EIA or ESMP preparation is based on the EIA regulations of 2012. Any requirement to carry out civil engineering works, such as construction of channels or harbours would need to comply with the requirements of the Environmental Impact Assessment Regulations, 2007. The requirement for and the regulations relating to the preparation of Environmental Impact Assessments are set out in the Environment Impact Regulations, 2007 which are enforced under Environment Protection and Preservation Act (Law No. 4/93).

Under this Law: (a) The “environment” means all the living and non-living things that surround and effects the lives of human beings; and (b) A “project” is any activity that is carried out with the purpose of achieving a certain social or economic objective.

### **3.2.3 The Regulation on Environmental Liabilities (Regulation No. 2011/R-9)**

The objective of this regulation is to prevent actions violating the Environmental Protection and Preservation Act 4/93 and to ensure compensations for all the damages that are caused by activities that are detrimental to the environment. This include all the activities that area mentioned in clause 7 of EPP Act as well as those activities that take place outside the projects that are identified here as environmentally damaging. The regulation sets mechanisms and standards for different types of environmental liabilities and equal standards that shall be followed by the implementing agency while implementing the regulation. According to this regulation the Government of Maldives reserves the right to claim compensation for all the activities which have breached the Environmental Protection and Preservation Act 4/93.

### **3.2.4 Environmental Impact Assessment Regulations, 2007, 2015**

The Law No. 4/93 on Environmental Protection and Preservation stipulates under Article 5, any development work or project should have an Environmental Impact Assessment consented to by the Ministry of Environment, Energy and Water [now the Ministry of Environment and Energy]. This regulation also deals with the selection of sites or islands for economic and social development by relevant authorities. Accordingly, the project will be required to undertake EIAs for the regional waste management facilities and submit an EIA screening form to EPA. EPA will then determine whether an EIA or ESMP is required for the development activity for the island waste management centers. The first regulation was put in place in 2007, followed by significant update to the regulation in 2012.

This regulation has undergone number of amendments in 2013, 2015 and 2016. These amendments included revision of EIA review period and associated costs, qualification required for monitoring the Environmental Management Plan, revision to the list of projects that requires EIAs, projects that can be undertaken by simply applying mitigation measures defined by EPA such as for dredging of harbors, clearance of vegetation within allocated plots for households and for roads, transferring EIA decision making to Minister of Tourism for tourism related activities; categorization of EIA consultants, point system for consultants to assess performance and license suspension, a code of conduct for consultants, and increment to the fine for non-compliance of regulation and violations.

### **3.2.5 Environmentally Sensitive Areas (ESA) List, 2014.**

Environmentally Sensitive Areas (ESA) are islands with unique features, reef systems, mangroves, wetlands, sea grass beds or places that are vital to the long-term maintenance of biological diversity, beach sediments, soil, water and other natural resources and features especially as they relate to human health, safety, and welfare, both on an island and in an atoll context. These features are highly valued, both for their scenic beauty and for the habitats they provide for the flora and fauna. The compilation of the list was initiated in 2009 with the assistance of the local Island Offices and other stakeholders. The list has been produced to identify environmentally and economically significant areas to offer protection, safeguard and enhance the conservation of the biological diversity of the country.

Commencing from 1st January 2011, under the Environmental Protection and Preservation Act: 4/93, the sites listed had been identified as Environmentally Sensitive Areas (ESAs). This ESA list helps in safeguarding, minimizing and mitigating the environmental impacts from different development projects, by monitoring the development in the area with the involvement of all stakeholders. The areas identified in the ESA are not protected areas. A site/habitat being identified as an ESA does not indicate that sustainable development cannot take place. It encourages development to take place, taking into consideration the conservation of the sensitive area, there by mitigating the negative impacts. It has been noted that ESA cannot be used as a reason for refusing sustainable development applications.

### **3.2.6 Handling of trees and palms**

Pursuant to Environment Protection and Preservation Act, Law Number 4/93, the Environment Ministry has made a by-law with the purpose of educating developers about the importance of trees including best management practices for maintaining trees and provide standards for preservation of trees in the Maldives and set down rules and regulations to be adhered to prior to commencing felling, uprooting, digging out and exporting of trees and palms from one island to another in Maldives. The bylaw states that the cutting down, uprooting, digging out or exporting of trees and palms from one island to another is only permitted if it is necessary and there is no other alternative. It further states that for every tree or palm removed in the Maldives two more

should be planted and grown in the island. The bylaw prohibits the removal of the following tree types;

- The coastal vegetation growing around the islands extending to about 15 meters into the island are protected by this bylaw;
- All the trees and palms growing in mangrove and wetlands spreading to 15 meters of land area are protected under this bylaw;
- All the trees that are in a designated protected area;
- Trees that are being protected by the Government in order to protect species of animal/organisms that live in such trees; and
- Trees/palms that are unusual in their structure.

### **3.2.7 Regulation on Sand and Aggregate and Coral Mining**

This regulation addresses sand mining from islands and bird nesting sand bars. Sand and aggregate mining from beaches of any island whether inhabited or uninhabited is banned for protection of the islands. Permissions for sand and aggregate mining from other areas shall be obtained from the relevant authorities. There is another similar regulation named “Regulation on Coral Mining (1990), which is only applicable to coral mining from the ‘house reef’ of islands and the atoll rim reefs

### **3.2.8 Regulation Governing Reclamation and Dredging of Islands and Lagoons of Maldives 2013/R-15**

The Article 22 of the Constitution states that the State shall undertake and promote desire based economic and social goals through ecologically balanced sustainable development and shall take measures necessary to foster conservation, prevention pollution, the extinction of any species and ecological degradation from any such goals and this regulation is constituted for the purpose of pursuing this undertaking. It determines the guidelines that would minimize the damage caused to the environment due to reclamation and dredging pursuant to Article 3 of Environment Protection and Preservation Act. This regulation is enforced by the Environmental Protection Agency.

### **3.2.9 Dewatering Regulation (213/R-1697)**

This regulation is constituted for the purpose of ensuring that the drainage of water in the islands of The Maldives in the process of dewatering and subsequent dumping of discharge water into the soil or to the sea, is conducted with minimal impact to the environment. Given water is the source of life and one of the essential elements forming the environment, the purpose of this regulation is to avoid contamination of the groundwater table, to mitigate the damage caused to the water table; and to protect the habitat, the environment, the public and all living organisms from the impact of dewatering. This regulation is enacted from the rights vested on the Ministry from article 3 of Act 4/93(Maldives Environment Protection and Preservation Act). This regulation is enforced by the Environment Protection Agency on behalf of the Ministry. In addition to the institutions of the state, it is a responsibility of every individual to protect the groundwater table of the islands of the Maldives and to manage it in a sustainable manner. The process of dewatering for any industrial purpose shall be conducted on any island pursuant to the guidelines prescribed in this regulation and after having obtained permission in writing from the implementing agency or from their delegate.

### **3.2.10 Waste Management Regulation, 2013**

Waste Management Regulation (WMR) was published on August 2013 and is effective from February 2014. It has been implemented by Environmental Protection Agency (EPA). The aim of WMR is to implement the national waste policy which contains specific provisions to: (a) Implement measures to minimize impacts on human health, (b) Formulate and implement waste

management standards, (c) Implement an integrated framework for sustainable waste management, (d) Encourage waste minimisation, reuse and recycling € Implement Polluter-Pays Principle ( f) Introduce Extended Producer Responsibility

WMR contains four main sections: (i) Waste management standards: Defines standards for waste collection, transfer, treatment, storage, waste site management, landfills and managing hazardous waste. (ii) Waste management Permits: Defines approval procedures for waste sites, (iii) Waster transfer: Standards and permits required for waste transport on land and sea, including trans-boundary movements. ( iv) Reporting requirements: Defines reporting and monitoring requirements and procedures. ( vi) Enforcement: Defines procedures to implement WMR and penalties for non-compliance.

If any hazardous waste including electronic waste is to be disposed in the Maldives, it should be handled by waste sites specifically approved to manage hazardous and Special Category waste. Transportation and handling shall also conform to the standards specified in WMR. If the waste is to be exported for reuse or disposal in another country, an application needs to be submitted to EPA 3 months prior to the shipping date. EPA will issue an approval based on compliance with WMR clauses and international conventions. Thus,, all the subproject projects will need to comply with the WMR in disposing construction and decommissioning related wastes as applicable.

### **3.2.11 Noise and Excessive Vibration (Pollution Control) Regulations, 2008**

These regulations apply to operation of equipment or machinery and engagement in commercial or industrial activity that is likely to emit noise or excessive vibrations. The regulations specify the limits or levels within which these shall be undertaken. The Regulations also stipulate in the second schedule that construction activities undertaken during the night should not emit excessive noise beyond the permissible levels.

### **3.2.12 Convention on Conservation of Biological Diversity, Regulations 2006**

The Maldives ratified the Convention on Biological Diversity (CBD) on 28 October 1992. Ten years later in 2002, the Maldives developed the first National Biodiversity Strategy and Action Plan (NBSAP). The vision of the first NBSAP was:

“a nation which appreciates the true value of the natural environment, utilizes its natural resources in a sustainable manner for national development, conserves its biological diversity, shares equitably the benefits from its biological resources, has built the capacity to learn about its natural environment and leaves a healthy natural environment for future generations (2002, p. 20).”

At the 12th Conference of the Parties to the CBD, Parties further agreed that the fifth national reports should facilitate the provision of essential information for a mid-term review of progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020 and progress towards the Aichi Biodiversity Targets. The Government has formulated a second NBSAP to address biodiversity issues, and developed an implementation plan with achievable targets. The new NBSAP is in line with the CBD targets for 2010- 2020. The Government of the Maldives has developed and adopted planning procedures and processes that consider biodiversity conservation. The incorporation of biodiversity conservation in the Fourth Tourism Master Plan, the Strategic Action Plan 2009-2013, the National Sustainable Development Strategy (NSDS) and Third National Environment Action Plan (NEAP III) are particularly noteworthy.

The NBSAP 2016-2025 will be a 10-year plan and is designed to address 6 broad areas of concern. A strategy with SMART targets was developed for each such area. Each target has an indicator and will be achieved through implementing the broad suggestive actions. Each action has a separate indicator, baselines, and responsible agency and is time bound. Monitoring of the progress of NBSAP and conducting its reviews will be carried by the government agency responsible for implementing the environmental mandate. The strategies under the NBSAP 2016-2025 are:

- Strategy 1 - Strengthen the governance, policies and strategies for biodiversity
- Strategy 2 - Enhancing communication and outreach through awareness programmes and capacity building
- Strategy 3 - Work together globally for biodiversity conservation
- Strategy 4 - Ensure sustainable use of biological resources
- Strategy 5 - Address threats to conserve biodiversity
- Strategy 6 - Strengthen information management and resource mobilisation

### **3.3 Environmental Policies and Guidelines:**

#### **3.3.1 National Waste Water Quality Guidelines, Maldives, 2007**

Waste water is one of the by-products in households and many industries which use water in a non-consumptive manner. It is also perceived to have very little value. It is therefore easily discharged in a least cost manner, without considering the total impact, including the economic impact, on the environment in which it is discharged. In many instances, the ESMP has places on low production cost with maximum profit. Developing countries are usually targeted for this approach because disposal of domestic and production waste is perceived not to be high on their priority list. In the case of the Republic of Maldives will a two-pronged approach in waste water management. On the one hand government, has taken a deliberate decision to protect its natural resources and citizens against the irresponsible discharge of waste water. An example of government's attention is the signing of the Islamabad Declaration.

The Government of the Republic of Maldives will follow a two-pronged approach in waste water management. On the one hand government, will set waste water guidelines for domestic and industrial waste. The purpose of guidelines is to guide individuals, organizations, licence holders, governments and regulators on the best way to achieve water quality goals for sustainability. On the other hand, individuals, organizations and licence holders will have to prove to government and the regulator that they are following international best practice in terms of Cleaner Production.” . The Guidelines were compiled considering the complexity and the nature of waste water and its interaction with the different environments into which it is discharged. It was therefore decided to define guidelines for waste water discharge based on its origin, the environment into which it is discharged and its effect on the most sensitive user of that receiving environment. In this regard an application to discharge waste water should not only be based on the competence of the applicant to comply with the prescribed maximum values in the guideline. The applicant will also have to prove to government that the production of waste water is per best Clean Production principals and that the waste water will not jeopardise the sustainable use by the most sensitive water user in the receiving environment. These waste water guidelines are therefore only guidelines. The guidelines will be used by government as one of the tools to protect its people and environment as well as to ensure sustainable use natural resources.

#### **3.3.2 National Solid Waste Management Policy, 2008**

The Government of Maldives announced the National Solid Waste Management Policy on February 3, 2008. The Policy has been prepared to reflect the status of solid waste management in the Maldives. The policy contains strategic principles that create the underlying logical and philosophical structure of the policy. They also represent universally accepted practices in waste

management viz Polluter pays principle, Integrated solid waste management, Waste management hierarchy, Best Practical Environmental Option (BPEO), Best Available Technology Not Entailing Excessive Costs (BATNEEC), Equity, Proximity principle, Private Sector Participation (PSP)

The overall policy framework for solid waste management is condensed into the following five Principle Objectives:

- Establishing and activating waste management governance;
- Creating waste producers' duties and responsibilities;
- Establishing waste management infrastructure;
- Activating the waste management system; and
- Influencing consumer choices and waste management practices.

Under the Principle Objectives are 12 policies and numerous strategies that systematically apply the strategic principles.

These regulations outline the responsibility of the waste generator and prescribe proper mechanism of handling all waste through segregation, recycling and reuse. Infrastructure subprojects proposed under EHCED would generate significant volumes of construction debris. The proponents should ensure that the waste is managed in line with the provisions of these regulations.

### **3.3.3 Energy Policy**

The National Energy Policy and Strategy is significant in that it embodies the principles that are set out in the Strategic Action Plan of the Government and provides for developing greater sustainability, conservation and efficiency in energy whilst promoting low carbon technologies and the quality of energy supply. The National Energy Policy has nine key policies. Policy 1: Provide all citizens with access to affordable and reliable supply of electricity, Policy 2: Achieve carbon neutrality in the energy sector by 2020, Policy 3: Promote energy conservation and energy efficiency, Policy 4: Increase national energy security, Policy 5: Promote renewable energy technologies, Policy 6: Strengthen the management capacity of the energy sector, Policy 7: Adopt an appropriate pricing policy for the energy sector, Policy 8: Ensure customer protection, Policy 9: Enhance the quality of energy services.

### **3.3.4 The National Energy Action Plan**

The National Energy Action Plan (2009-2013) that have been adopted to guide the development of the energy sector in the Maldives. In addition, a number of policies have been developed to encourage private investments in the energy sector - including a zero-import duty for RE related merchandise and the introduction of FIT regulations. The Energy Action Plan (2009-2013) includes a series of actions, measures, programmes and targets to be met over five years to achieve greater energy efficiency and conservation awareness, together with reductions in CO2 emissions. The key strategies in the action plan include: Provide all citizens with access to affordable and reliable supply of electricity through:, Developing utilities to upgrade and manage power infrastructure on the islands and improve the efficiency and quality of services; Encouraging private sector participation to develop, manage and sustain electric services; Encouraging national and international investments to develop and sustain energy; and Introducing incentives to power sector developers to ensure affordability of energy supply by facilitating access to grants and concessional finance.

Energy action plan also aim to Achieve carbon neutrality by year 2020 through: Developing plans for energy sector to include forecast of energy usage by different sources, GHG emissions and assessing status of carbon neutrality; Setting and monitoring targets to track energy sources,

composition, efficiency and losses to achieve carbon neutrality and sustaining it; Adopting standards for exhaust emission for power plants, vehicles and vessels that use fossil fuel in order to improve air quality; and Promoting carbon capture and sequestration.

Energy Action Plan also aim to promote energy conservation and energy efficiency to reduce costs through: Promoting energy efficiency and energy conservation to achieve economic use of energy without lowering the quality of service rendered; Promoting energy efficiency in electricity production, distribution and usage via workshops involving necessary stakeholders; Promoting demand side management with focus on large energy users; Identifying all areas of improvement and provide technical advice in fuel conservation and efficiency in different modes of transport; and Introducing incentives to encourage greater use of electric vehicles by establishing charging stations using RE sources.

It also plans to promote Renewable Energy ( RE) technologies through: Introducing and demonstrating new renewable technologies application; Facilitating and promoting research opportunities for locals and international parties by informing about potential of RE sources within the country; Developing human resource capacity for RE throughout the country by introducing RE related courses in college curriculum; Encouraging and promote bio fuels; and Encouraging the development of power generation capability by utilizing the household waste and bio fuels.

### **3.4 Social Policies and Regulations.**

#### **3.4.1 Maldivian Land Act, 2002**

The Act governs the allocation of Maldivian land for different purposes and uses and other issues regarding the issuing of land, issuing of state dwellings for residential purposes, conduct regarding state dwellings or private dwellings constructed for residential purposes and the sale, transfer and lease of Maldivian Land. All transactions concerning the issuing, receiving, owning, selling, lease, utilizing and using Maldivian land shall be conducted in compliance with this Act. In accordance with section 3 of this Act, land shall be allocated for the following purposes and uses. (a). For the construction of households and buildings for residential purposes. (b). For commercial use. (c). For social use. (d). For environmental protection. (e) For government use.

#### **3.4.2 Maldives Tourism Act**

The Maldives Tourism Act (Law No. 2/99) provides for the determination of zones and islands for the development of tourism in the Maldives: the leasing of islands for development as tourist resorts, the leasing of land for development as tourist hotels and tourist guesthouses, the leasing of places for development as marinas, the management of all such facilities; and the operation of tourist vessels, diving centres and travel agencies, and the regulation of persons providing such services. The Act has undergone several amendments to take in the sectors development goals. The Government of the Maldives has developed and adopted planning procedures and processes that consider biodiversity conservation. The incorporation of biodiversity conservation in the TMP IV, the Strategic Action Plan (SAP) 2009-2013, the NSDS and the NEAP III are particularly noteworthy in this context.

#### **3.4.3 The Tourism Master Plan**

The Tourism Master Plan IV (TMP IV) of the Maldives was launched on 29 September 2013. The TMP IV recognizes that the entire tourism industry depends on a wholesome environment and the conservation of nature. The Plan emphasizes that the tourism sector has strong interest in helping the agencies responsible for environment and conservation, both for the sake of the

tourism industry itself, as well as for the sake of future generations of Maldivians. The strategies and actions specific to biodiversity conservation in the TMP IV (2013) are: Improving waste management practices of local communities, Developing and enforcing management plans for sensitive environments, Establishing marine managed areas in resort house reefs. Implementing a “Responsible Visitor Programme.”. Implementing climate change adaptation programme for tourism industry, Implementing a low carbon programme for tourism industry and Strengthening environmental monitoring for evidence based decision-making.

#### **3.4.4 The Historical and Cultural Property Law (Law No: 27/79)**

The Historical and Cultural Property Law of the Republic of Maldives (Law No: 27/79) was passed in 1979. The law is vague and does not clearly define cultural and historical property and has no rules regarding trade and export of heritage items. Therefore, an appropriate legal framework is essential for promoting and preserving culture and heritage. It is an offence to damage destroy or dismantle any objects or buildings that are of historical and cultural value found within the Republic of Maldives.

Cultural and historical objects or buildings as stated in this Law are objects and places that were used by the inhabitants of Maldives or foreigners who lived in Maldives and which may help to gather information of a certain period. Cultural and historical buildings as stated in this Law are buildings that were constructed or raised by the inhabitants of Maldives or foreigners who stayed in Maldives, to live or pray, or as a monument for some person, or a memorial for any other such purpose, which may help to gather information of a certain period. Carrying out research work on cultural or historical objects and buildings with the prior permission of the appropriate authorities of the Government and without impairing its originality, is exempted from this Law.

#### **3.4.5 Public Health Protection Bill**

The purpose of this act is to establish policies for protection of public health, identify persons responsible for protection of public health, define how public health protection policies will be implemented and establish policies to limit basic rights ensured under the Maldives Constitution to Maldivians and people living in Maldives to necessary extents to protect public health.

#### **3.4.6 Gender**

Promoting and protecting the rights of vulnerable groups have been among the most important objectives of the Government’s human rights policy and has announced that the nation has made significant progress in this regard. The Domestic Violence Prevention Act, the Prevention of Sexual Harassment and Abuse Act, and Sexual Offences Act have strengthened the legal framework to protect women, children, and migrants from violence and sexual abuse. The President ratified the Bill on Gender Equality on 23 August 2016. On ratification, the Act has now been published in the Government Gazette. The Gender Equality Act seeks to ensure to eliminate discrimination between genders and establishes the role of government and other agencies in the implementation of the Act. This act will cement the national standards on gender equality and confirm that the policies and legal framework are consistent with the Convention on Elimination of All Forms of Discrimination against Women.

The Disability Act boosted the protection and rights afforded to persons with disabilities. Now, persons with disabilities have access to financial assistance, there are regulations on minimum standards and identification of persons with disabilities, and room for affirmative action including access to gainful employment.

More recently the Anti-Trafficking Act was a milestone in combating trafficking in the country, especially affording protection to the large number of migrant workers in the country from



exploitation. The National Action Plan to Combat Trafficking in Persons for 2015-2019 has been finalised. The Parliament has, on 27 April 2015, approved Maldives accession to the Optional Protocol to prevent, suppress and punish trafficking in persons, especially women and children. This will undoubtedly boost the protection framework offered to migrant workers in the country.

There has been no question about the role and the participation of women in politics and decision-making in the Maldives. Women in the Maldives have always been among the most emancipated in the region, without the systemic barriers of race, class, and caste that are prevalent in some parts of the world. Maldivian women have had the constitutional right to vote since 1932, which is way ahead of some developed countries. Maldivian women have always, without question, had equal pay, and paid maternity leave. Women have the same access to education and employment opportunities, with girls doing even much better than boys in higher education. Despite the apparent parity, challenges remain. Therefore, the Government is now concentrating on making women economically Empowered by introducing targeted micro-loans, single mother benefits, home-based employment opportunities, and day-care facilities. The Government policy framework hopes to see women, one half of our population, become more productive citizens of the country, in whatever capacity they choose for themselves.

The President’s human rights policy is guided by the belief, that human rights are not just about international instruments or pieces of law. It is also about belief; belief that needs to be carefully cultivated and nurtured.

The 2008 Constitution bans discrimination on grounds of sex except as prescribed by Islamic Sharia’s. This sits uneasily with the Maldives’ earlier commitments to international agreements including the Convention on the Elimination of All Forms of Discrimination (CEDAW) in 1993 and the CEDAW Optional Protocol in 2006 (with reservations on Articles 7 (a) and 16). The Maldives is also signatory to several international instruments addressing gender equality including the Commonwealth Action Plans on Gender Equality, and is party to all major human rights treaties, except for the Conventions on the Rights of Migrant Workers and their families.

### 3.4.7 Other Social Laws

Legislation relating to human rights and labour is listed in Error! Reference source not found.3.1.

**Table 3.1 Social Legislation Summary**

<b>Year</b>	<b>Name</b>	<b>Details</b>
1984	<i>International Convention on the Elimination of All Forms of Racial Discrimination</i>	Accession 24 April 1984
1990	<i>Prevention of Terrorism Act (Act No.10/1990)</i>	The Act prohibits acts of terrorism and imposes severe punishment for offenders.
1991	<i>Convention on the Rights of the Child</i>	1991 Ratified 11 February 1991
1993	<i>Convention on the Elimination of All Forms of Discrimination Against Women</i>	Accession 1 July 1993

<b>Year</b>	<b>Name</b>	<b>Details</b>
2002	<i>Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography</i>	Ratified 10 May 2002
2004	<i>Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment</i>	Accession 20 April 2004
	<i>Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict</i>	Ratified 29 December 2004
2006	<i>Human Rights Commission Act (Act No. 6/2006)</i>	Established the Human Rights Commission as an independent legal entity mandated to protect, promote and sustain human rights in the Maldives, and to assist NGOs.
	<i>Human Rights Commission of Maldives</i>	The Human Rights Commission of the Maldives was first established on 10 December 2003 as an independent and autonomous statutory body by Decree by the President of the Republic of the Maldives. The Commission was later re-established under the Human Rights Commission's Act in 2006. The aim of the Commission is to lead the promotion and protection of Human Rights under the Maldives Constitution, Islamic Sharia's and regional and international Human Rights Conventions ratified by the Maldives.  Although the Human Rights Commission currently focuses mainly on the public sector, the Commission also works with the private sector, specifically in creating awareness on human rights issues.
	<i>Optional Protocol to the International Covenant on Civil and Political Rights (OPICCPR)</i>	Ratified 19 September 2006
	<i>International Covenant on Economic, Social and Cultural Rights (ICESCR)</i>	Ratified 19 September 2006
	<i>Optional Protocol to the Convention on the Elimination of All Forms of Discrimination Against Women</i>	Ratified 13 March 2006

<b>Year</b>	<b>Name</b>	<b>Details</b>
	<i>Optional Protocol to the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment</i>	Accession 22 June 2006 (founding member)
2008	<i>Employment Act (Act No. 2/2008)</i>	Specifies the rights and duties of Employers and employees. The employment Act specifically prohibits forced labour, discrimination at the work place, and child labour.
2009	<i>Pension Act (Act No. 8/2009)</i>	Mandates upon every Employer to enrol all employees on a defined contribution pension scheme.
	<i>Employment Tribunal</i>	The Tribunal was established pursuant to the employment Act with the objectives of examining and arbitrating legal matters arising in the work environment between the Employer and employee and any matters ascribed to the employment Tribunal pursuant to the employment Act or any other Act or regulation or under any agreement, in an expeditious and simple manner.
2010	<i>The Convention on the Rights of Persons with Disability (CRPD)</i>	Ratified 1 April 2010
	<i>Sexual Harassment Bill [under development]</i>	Defining sexual harassment in work place and assigns responsibilities for prevention of different stakeholders of such acts and sets out penalties for the offenders.
other	<i>The President of Maldives Award for Human Resource Development in the Tourism Industry</i>	The Award was established to encourage hoteliers and resort operators to invest and contribute towards training and development of staff to demand for qualified staff within the tourism industry.

Source: FJS Consulting (2010)

### **3.5 International Conventions**

The Maldives is party to several international conventions<sup>12</sup> but has not yet signed or ratified any. In the context of this project, Maldives is a contracting party (CPC) to the Indian Ocean Tuna Commission (IOTC) and has a legal obligation to implement the resolutions agreed by its members. Illegal, unregulated and unreported (IUU) activities continue in the IOTC Area of Competence, and actions to reduce such activities have been taken through the implementation of

<sup>12</sup> Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Ship Pollution

Port State Measures (Resolution 10/11) and implementation of a Regional Transshipment Observer Programme (Resolution 11/05 and 12/05) to monitor all authorized transshipments in the IOTC Area of Competence. However, unauthorised transshipments and IUU activities evade detection due to the lack of electronic coverage and monitoring of this area. In May 2014, the Maldives co-sponsored a Memorandum<sup>13</sup> submitted by the United Kingdom which proposes mandatory VMS coverage of fishing vessels, carrier vessels and support vessels flying the flag of a CPC and vessels authorised to fish in the IOTC area. This will include all fishing vessels when fishing outside of waters of national jurisdiction. This resolution will oblige CPCs to electronically track and monitor activities of all vessels both national and joint venture under bilateral and multilateral agreements. The proposal also calls for the implementation of the centralised VMS for 2017 and defining the rules for sharing that data.

### 3.6 Development priorities and SDGs

This project is aligned with the following Strategic Objectives and Organizational Objectives. SO2 - Producers and natural resource managers adopt practices that increase and improve the provision of goods and services in the agricultural sector production systems in a sustainable manner. Work Areas of relevance are:

- Conservation, management and sustainable use of biodiversity
- Capture Fisheries Management.
- Governments and stakeholders are supported to strengthen capacity to participate in international governance mechanisms and develop and adopt instruments that contribute to improved and increased provision of goods and services in agricultural sector production systems in a sustainable manner.

### 3.7 Compliance with World Bank Operational Policies

#### 3.8 World Bank Safeguard Policies

The World Bank has a number of Operational Policies (OPs) and Bank Procedures (BPs) concerning environmental and social issues, which together are referred to as the Bank's 'Safeguard Policies'. If, during the development of a project, it is considered that it is possible that a proposed project activity could be the subject of one of the safeguard policies, that policy is considered to have been 'triggered'. In the subsequent development of the project, that activity must be considered in more detail to determine whether it is actually of no concern or adequate mitigation can be applied to address the concern, or the activity should be removed from the project (or the whole project should be dropped). The sections below address those Safeguard Policies that have been triggered by the project under review, and the actions that have been taken to ensure that the requirements of those policies will be satisfied in the further development of the project.

Safeguard Policies Triggered by the MCMP Project	Yes	No
Environmental Assessment (OP/BP 4.01)	√	
Natural Habitats (OP/BP 4.04)	√	
Pest Management (OP 4.09)		√

<sup>13</sup> IOTC, 2014., IOTC-2014-S18-PropJ[E]

Physical Cultural Resources (OP/BP 4.11)	√
Involuntary Resettlement (OP/BP 4.12)	√
Indigenous Peoples (OP/BP 4.10)	√
Forests (OP/BP 4.36)	√
Safety of Dams (OP/BP 4.37)	√
Projects in Disputed Areas (OP/BP 7.60)	√
Projects on International Waterways (OP/BP 7.50)	√

### 3.8.1 Environmental Assessment (OP/BP 4.01)

The project is expected to finance physical interventions associated with improvements to existing infrastructure and new infrastructure institutions for skill development both in the Greater Male Region and outer atolls. It is expected that these activities will take place on existing inhabited Islands. The nature of the expected infrastructure development works is assessed to be of medium scale and in potential locations where anthropogenic activities have already altered the natural environment. The exact sites where these interventions will be implemented, and technical designs will only be available during project implementation. As such construction activities may have potential site specific environmental impacts during the construction phase which can be managed with inbuilt due diligence. On interventions that will be undertaken in association with the Private Sector on skills development, the mission notes that there will be no physical interventions associated with the proposed activities. In addition, the project will also focus on promoting environmental management via its skills development component, which is a positive impact the project will generate. Thus, it is confirmed that the project may not have large scale significant irreversible environmental impacts and is categorized as Environmental Category B.

As the exact locations of project financed physical interventions will be known only during project implementation, as a risk mitigation measure, this ESMF will guide project implementation in terms of both Environmental and Social safeguards due diligence requisites as per the World Bank Safeguards Policies, World Bank Group Environmental Health and Safety Guidelines and Environmental Regulatory requirements of the GoM. The ESMF will include guidance on conducting environmental screening, preparation of environmental assessments and management plans as well as on monitoring, which will be key elements in ensuring sound environmental practices during the implementation of physical interventions.

This ESMF will serve as a roadmap outlining the prerequisite environmental and social screening and assessments that will need to be undertaken for all project activities, as per the national environmental legislations of the Maldives and the Bank's OP4.01 and other triggered safeguards policies. The ESMF will apply to all components of the project.

### 3.8.2 Natural Habitats (OP/BP 4.04)

The policy on Natural Habitats is triggered because all of the islands in Maldives are surrounded by coral reefs which are significant natural habitats. The overall project will not conduct any activities within designated protected marine or terrestrial areas. The ESMF has in place due diligence measures to avoid or reduce the impacts to the coral reefs, marine ecosystems and

associated fauna and flora during the implementation of physical interventions to be undertaken via the project.

### **3.8.3 Involuntary Resettlement (OP/BP 4.12)**

The objective of this policy is to:

- I. avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs;
- II. assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them;
- III. encourage community participation in planning and implementing resettlement; and
- IV. Aid affected people regardless of the legality of land tenure.

This policy also covers any loss of land or other assets resulting in relocation or loss of shelter, loss of assets or access to assets and loss of income sources or means of livelihood whether or not the affected people must move to another location. The policy also applies to the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. An important clarification on policy application, however, provides for two specific natural-resource exclusions: the policy does not apply to projects involving national or regional regulation of natural resources to promote their sustainability; or to community-based projects that restrict access to natural resources outside of parks or protected areas where the scope and extent of restrictions are decided by the involved communities themselves (even though some individuals in the community might disagree). Instead, good practice suggests that social analysis (since it is not site or project specific) should be done, and policy measures should be put in place to address social impacts, including, as appropriate, social safety nets for vulnerable groups.

OP 4.12 is recommended to be triggered if and when some of the potential investments in the project areas might lead to the loss of land or structures and/or the loss of access to areas of importance for livelihood support. These issues have been taken into consideration whilst conducting the ESMF, and none of the interventions that have been considered / proposed by the project would cause such problems. Moreover, the screening protocols and mitigation guidelines referred to under OP/BP 4.01 above will ensure that any interventions considered in future within the project itself will not cause involuntary resettlement and/or loss of livelihood.

### **3.8.4 World Bank's Social Safeguard Policies and Guidelines and Their Applicability**

The project is designed not to have any negative social impacts and has the potential to produce considerable positive social benefits. In addition, the project will finance only small-scale improvements to existing skills development premises in the Maldives and will not require acquisition of new land. Therefore, the project will not trigger Bank social safeguards policies on involuntary resettlement and indigenous people. Maldives has a unique land ownership structure where all lands are under state ownership. Thus, all Maldivians are entitled to shelter and as a result, squatters are never found in public land or buildings. Within this context, the project will not require triggering of the OP/BP 4.12 – Involuntary Resettlement. There are also no indigenous peoples in Maldives and therefore the OP/BP 4.10 – Indigenous Peoples will also not be triggered. All social requirements which will arise due to project activities will be managed through the Environmental and Social Management Plans.

### **3.9 Adequacy of GOM Environmental Clearances**

The GoM has a number of environmental policies, regulations and standards of specific relevance to environmental protection as highlighted in detail in the sections above. The main legal instrument pertaining to environmental protection is the Environmental Protection and Preservation Act (Law No. 4/93) of the Maldives, passed in April 1993. This Act provides the

Ministry of Environment and Energy with wide statutory powers pertaining to environmental regulation and enforcement. This umbrella law focuses on issues such as environmental impact assessment, protected areas management and pollution prevention. In addition, the GoM also enforces the Environmental Impact Assessment Regulations, which came into force in May 2007, as per the statutory requirements of the EPPA. The EIA Regulations have been the basis for Environmental Impact Assessment in the Maldives and since its advent it has helped to improve the quality of EIAs undertaken in the country. All solid waste management projects have been categorized as types of projects that will require the preparation and subsequent environmental clearance from the EPA Maldives has a sound track record of implementing the Environmental Impact Assessment process. The technical capacity of the EPA is reasonably good in terms of ensuring the adequacy of EIAs and their implementation.

### **3.10 WB ESH Guidelines**

The World Bank Groups Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry specific examples of Good International Industry Practice (GIIP). EHS Guidelines are applied as required by their respective policies and standards. These industry sector EHS guidelines are designed to be used together with the General EHS Guidelines document, which provides guidance to users on common EHS issues potentially applicable to all industry sectors.

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. Application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets, with an appropriate timetable for achieving them. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project on the basis of the results of an environmental assessment in which site-specific variables, such as host country context, assimilative capacity of the Defined as the exercise of professional skill, diligence, prudence and foresight that would be reasonably expected from skilled and experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally. The circumstances that skilled and experienced professionals may find when evaluating the range of pollution prevention and control techniques available to a project may include, but are not limited to, varying levels of environmental degradation and environmental assimilative capacity as well as varying levels of financial and technical feasibility. Environment, and other project factors, are considered.

The applicability of specific technical recommendations should be based on the professional opinion of qualified and experienced persons. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures than those provided in these EHS Guidelines are appropriate, in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment.

## **4 Chapter 4: Generic Assessment of Environmental and Social Impacts**

### **4.1 Overview**

The project is not-expected to bring detrimental environmental effects by causing irreversible environmental impacts via its interventions. The project is expected to finance physical interventions associated with improvements to existing infrastructure and new infrastructure institutions for skill development both in the Greater Male Region and outer atolls. It is expected that these activities will take place on existing inhabited Islands. The nature of the expected infrastructure development works is assessed to be of medium scale and in potential locations where anthropogenic activities have already altered the natural environment. The exact sites where these interventions will be implemented, and technical designs will only be available during project implementation. As such construction activities may have potential site specific environmental impacts during the construction phase which can be managed with inbuilt due diligence. On interventions that will be undertaken in association with the Private Sector on skills development, the mission notes that there will be no physical interventions associated with the proposed activities. In addition, the project will also focus on promoting environmental management via its skills development component, which is a positive impact the project will generate. Thus, it is confirmed that the project may not have large scale significant irreversible environmental impacts.

This ESMF has been designed to achieve sound environmental practice within the purview of EHCED. The ESMF provides the mechanism to allow program implementation by screening out or enhancing acceptability of sub-project proposals on the basis of environmental criteria. By a simple process of elimination, the first step in the screening process is to identify subproject activities not suitable for funding. All processes described in the ESMF can be adjusted based on implementation experience.

The ESMF will be a living document and will be reviewed and updated periodically as needed.

It is recommended that the following types of subprojects are not financed and therefore should be considered as a "Negative List":

- Sub-projects that involve the significant conversion or degradation of critical natural habitats such as marine and terrestrial protected areas.
- Activities that could lead to invasion or spread of weeds and feral animals or the use of toxic chemicals, intensive use of pesticides.
- Activities that could dangerously lead to the exposure of sensitive/critical/vulnerable habitats.
- Construction of large new infrastructure within or directly adjacent (in buffer zones) to protected areas
- Illegal Activities as defined specifically under the environmental regulations of the Government of Maldives.

### **4.2 Potential Environmental Impacts**

The environmental impacts are expected to be limited to (i) the management of construction level impacts at the rehabilitation /construction sites (waste water, solid waste, rejection and elimination of wastes such as oils and paints, demolished material), soil erosion, loss of vegetation, as well as dust and noise during the works, occupational and public health and safety and associated nuances; (ii) issues around the water supply, sanitation and solid waste management in with regard to the operation of such facilities are also envisioned; (iii) high demand of material for construction, such as wood for furniture and windows, sand, etc.; (iv)



structural integrity of the facilities; and (v) issues related to use and disposal of solid waste and effluents such as sewerage and waste water during the operation of training institutes and boarding facilities.

In addition to new construction activities, there may be rehabilitation activities related to water proofing of roofs, replacement of broken fittings, repairing malfunctioning drainage, water and electrical installations, painting, etc. that may give rise to environmental issues. The extraction of construction material particularly sand and coral aggregates could constitute a source of potential impacts on the natural environment.

Overall environmental impacts are expected to be temporary and of minimal if appropriate mitigation and management measures are adopted. Potential impacts that are likely are presented below.

#### **4.2.1 Pre-Construction and Construction Stages**

**Poor Designs:** issues such as inadequacy of sanitation facilities, water supply and waste management on-site and improper placement of sanitation facilities will contribute to the already existing issues such as water and air pollution. Poor designs can also contribute to the loss of vegetation, flooding, soil erosion, etc. New water supply may create conflicts between water users. Building design issues may lead to safety issues due to poor structural integrity and energy loss.

Thus designing of any new facilities should ensure the adequacy of portable water in the proposed project location, the adequacy for the existing sewerage and waste water management system to undertake the associated increase in need for the use of these systems, structural integrity and incorporation of green building elements such as the use of alternate energy and means of using climate resilient building materials and architectural designs that incorporate the adequate use of light and ventilation to reduce the demand on sources of energy and ensure energy efficiency during facility operations.

**Soil Erosion and Water Contamination:** During site clearing, any vegetation that is not properly disposed of can block drains and waterways and contaminate the water. Gravel/soil brought for any filling purposes if not properly stored and is exposed to the natural elements can be washed off to low lying areas and sea causing sedimentation. Storm water congestion on site can create inconveniences to existing activities and construction work. Also waste water generated during construction and from labor camps can also contaminate drinking water sources if not properly treated, particularly in islands where groundwater is still utilized for drinking purposes. The use of machines working with fuel, oils and lubricants on work sites maybe a source of groundwater contamination risks by infiltration. Accidental spillage of oil and chemicals are also possible during construction, which will impact groundwater, as well as uncontrolled site runoff to nearby mangrove areas and/or coastal waters will impacts the water quality due to suspended solids and other contaminants.

**Waste Generation:** Various types of waste such as litter, human waste, food waste, etc. from labor camps, as well as construction-related wastes will be generated that can create an inconvenience to public and users, as well as contribute negatively towards public health if not properly managed.

In addition, wastes that are not disposed of properly can become breeding grounds for vector borne diseases and can contribute to groundwater and coastal water contamination. Unsafe disposal of asbestos from degraded roofs may cause public health issues.

**Resource Extraction:** The construction work is likely to create a huge demand for construction materials such as sand, timber, coral aggregates, etc. which will place a burden on resources. Groundwater extracted for construction work, if uncontrolled may lead to its depletion and salination.

**Transport:** Transportation of material to and from the site will create disturbances during operational hours; can cause injury to children and increase traffic congestion in the area. Transportation of construction material on open vehicles and the high speed of vehicle running can generate dust and will cause potential safety issues.

**Labor Camps:** As construction work will be conducted on premises, if labor camps are required, location of camps and workers interactions with students can create negative social impacts. Most of the laborer working in Maldives are expatriates, which can also contribute towards negative social impacts.

**Safety:** Safety of workers, students and residents will be an issue. Construction related operations will generate safety risks to workers. Given work will be on premises, construction sites that are not cordoned off can contribute towards potential safety hazards to students and residents who are located close to the construction site.

**Noise:** During site preparation and construction work noise will be generated due to construction related work. During daylight hours this may create disturbances to sensitive receptors and to residents living close to the construction site. In addition, construction-induced traffic movement from pick-ups, excavators, dump trucks, etc., use of powerful mechanical equipment, and demolition of existing buildings will also contribute to noise pollution.

**Dust:** Dust generated during excavation work, backfilling, reinstatement work, demolition activities, cement mixing, handling construction material, truck movement in the site area in addition to wind erosion can impacts the air quality during construction. Dust generated during clearing and construction work can cause difficulties for students who have respiratory problems and become a nuisance during day light hours. Soil/ gravel kept for long periods without proper cover can generate dust and become an inconvenience during operational hours and for surrounding residents. Transportation of materials to site will also generate dust. Decommissioning of existing structures can also create dust that is potentially hazardous.

**Other Air Quality Impacts:** The possibilities of burning of vegetation removed can contribute to air pollution. In addition to gaseous emissions from construction plants, paint and vehicles are also possible.

#### **4.2.2 Operations and Maintenance Stage**

**Drinking Water Supply Issues:** Use of contaminated / non-purified water sources can cause health issues to users of the facilities.

**Poor Sanitation Facilities:** Poor maintenance of sanitation facilities will also cause health issues.

**Waste Generation:** With the potential increase of facilities, the number of users (students and teachers) will also increase causing the amount of solid waste generated. This will contribute towards the already existing issue of storage and disposal.

**Diminishing Aesthetics of the Existing Facility Environment:** With more buildings coming up, vegetation of the facility premises will likely to be removed, opening the land further to elements and reducing the aesthetics of the site. In addition, the aesthetics will be reduced if the facility grounds are not kept clean all the time.

### **4.3 Potential Social Impacts**

The EHCED is expected to create positive social impacts such as fostering access to quality jobs-oriented vocational, technical, and entrepreneurship skills in priority sectors (Tourism, ICT, and urban development) as well as promoting youth Employability. The project further seeks to bring about a better match between the demand and supply of labor in priority sectors such as Tourism, ICT, and urban development. The project aims to create a number of beneficial outcomes such as (i) increased number of graduates completing tertiary education programs; (ii) improved graduate employment rates especially in the priority sectors (iii) improved self-employment opportunities for youth; and (iv) improved female participation in the labor force. Furthermore, The EHCED will also pay close attention to specific groups of disadvantaged youth (i.e. secondary school drop-outs and those with substance abuse issues), and help such youth become productive members of society by providing them support to overcome their issues as well as providing opportunities for vocational skills training. In addition, the project is also likely to yield some spillover benefits, potentially including new jobs in the communities supporting the TVET and higher education institutions, and providing facilities support such as technological infrastructure, distance learning (software including content development, programming), management and administration of learning laboratories, and other services to participating higher education institutions.

Only very minor construction activities / renovations on existing facilities are planned under EHCED. These will not require land acquisitions. Hence, involuntary displacements or livelihood impacts due to project activities are not expected. Further, during construction, it is likely to be the case that the required labour force and associated goods and services cannot be fully supplied locally for a number of reasons, among them worker unavailability and a lack of technical skills and capacity. The labour force (total or partial) needs to be brought in from outside the project area. the rapid migration to and settlement of workers and ‘followers’ in the project area can affect project areas negatively, in terms of increased risks of social conflict, illicit behaviour, burden on and competition for public service provision, risk of communicable diseases and burden on local health services, including sexually transmitted diseases, and gender-based violence, particularly in the form of inappropriate behavior.

## **5 Chapter 5: Environmental and Social Management Framework**

The Environmental and Social Mitigation Plan outlined as a framework below consists of a set of measures to ensure sound implementation of environmental and social safeguards from planning through to operation and eventual decommissioning (where applicable) of the activities to be financed by EHCED. It outlines a plan for determination of adverse environmental and social impacts through a system of screening, assessment, management and monitoring to ensure that project interventions are implemented with zero/minimal impacts.

All Activities under Activity 2.2.3. of Component 2 which will provide initial seed funding to successful business proposals as pilots to create a demonstration effect, and to provide learning and incentives to young entrepreneurs. It is not expected that these would include projects that will cause significant environmental impacts, however as due diligence all proposals will be screened as per the screening criteria for subprojects stipulated in the ESMF and will follow all due diligence requirements indicated in the EAMF. The operational Manuel that will govern the processes laid out for Activity 2.2.3 will refer to the EAMF and all relevant sections and guidelines of the EAMF that need to be followed. Once proposals are received the CSU Environmental and Social Specialist will be responsible for ensuring due safeguards screening is conducted in accordance with the stipulated requirements and adequate guidance is provided to the proponents on the requisite safeguards instruments.

### **5.1 Environmental and Social Screening**

Environmental and social screening is counted to be a useful tool in identifying safeguard issues in large investment programs consisting of many sub-projects. The main objective of Environmental and social screening of sub-projects will be to (a) determine the anticipated environmental/social impacts, risks and opportunities of the sub-project (ii) determine if the anticipated impacts and public concern warrant further environmental/social analysis, and if so to recommend the appropriate type and extent of assessments needed.

At the national level, screening is the process by which proposed developments are reviewed to determine the level of environmental assessment to which they should be subjected, which could range from none up to a full Environmental Assessment (EIA). At the project level, screening is the process of reviewing a proposed activity against a checklist of factors to determine whether it is likely to have adverse environmental effects, and if so, what mitigation measures should be applied. The present ESMF is largely concerned with the project level, but some notes are provided on national screening for completeness.

#### **5.1.1 National Level Screening**

The Maldives national requirements for environmental assessment are set out in the Environmental Impact Assessment (EIA) Regulations, 2012. Part III of those regulations includes a description of the Screening Process applied to development proposals. Schedule D of the Regulations is a screening list of all development types for which full EIA is mandatory. According to Schedule D included in Amendment 2 to the EIA regulation 2012, fisheries and aquaculture practices that require preparation of an EIA are:

- Development of new tourist hotel
- Building structures, with more than ten (10) stores (excluding the foundation raft) or higher than thirty-one (31) meters.
- Buildings with foundation structures that cater for more than ten (10) stores
- Buildings with basements
- Buildings with foundations deeper than five (5) feet or a foundation of a unique structure

Proposed developments that do not fall within Schedule D are subject to manual screening by the EPA, for which a Screening Form (**Annex 1**) must be submitted providing relevant development details. Within 10 days, the EPA will decide whether the proposed development is approved, or needs further study, which may be required in the form an EIA or ESMP

The National level screening should be conducted if any sub-projects selected for finalizing fall within the above-mentioned thresholds.

In practice, all reports are required to be submitted to EPA and a copy of EIA is sent to the respective councils for their contentment. Relevant councils are also invited to scoping meetings. However, EPA should be consulted at the outset, to determine whether the formal national screening process should be applied. A specific TOR for the ESMP is issued by the EPA post a scoping meeting which is conducted post the emulation of the screening form once submitted.

### **5.1.2 Project Level Screening**

At the project (component) level, proposed sub-component activities need to be subjected to screening to determine whether they should be subject to an Environmental / Social Review. (This is a simple review, by the CSU environmental and social specialist, of the likely implications of the activity, to determine whether it is acceptable, and if so, whether any particular mitigation measures should be applied.). The objective here is to provide a level of environmental / social review that is appropriate to the small scale of the sub-component activities, i.e. without the need to conduct an EIA.

All interventions identified under the project that do not undergo national screening and subsequent preparation of safeguard instruments will be subject to a project level environmental screening with the objective to: (a) determine the anticipated environmental impacts, risks and opportunities of sub-project; and (ii) determine if the anticipated impacts and public concern warrant further environmental analysis, and if so to recommend the appropriate type and extent of Environmental Assessment needed as per the set criteria in the ESMF.

The Environmental and Social screening questionnaire to be used for this purpose is presented in **Annex 2**. An outcome of the above environmental and/or social reviews will, in most cases, be the development of Environmental Management Plans (ESMPs).

## **5.2 Environmental Assessments**

### **5.2.1 Environmental and Social Impact Assessments (ESIAs)** (Referred to as EIAs by the Maldives EPA)

It is not envisioned that any major subprojects that will require individual ESIAs as per the national regulations of the Maldives will be undertaken.

The operational Manuel that will be prepared for the operation of that the environmental and social screening deems the need for an ESIA, he is following guidance will be used.

**Annex 3** presents a detailed account of the environmental clearance procedures applicable to ESIA and **Annex 4** provides a Generic structure of ESIA/EIA as per EPA requirements.

## **5.2.2 Environmental and Social Management Plans (ESMPs)**

All physical sub-projects/activities in addition to the assessments will prepare ESMPs that will describe and prioritize the actions needed to implement mitigation measures, corrective actions and monitoring measures necessary to manage the impacts and risks identified in the screening assessments, ESMPs. A generic term of reference for ESMP is provided in **Annex 5**. The project will ensure that all works contracts will include the ESMPs, and the cost of implementing the ESMPs will be identified as an item in the Bill of Quantities for the respective contracts of physical interventions.

Measures and actions that address identified impacts and risks will favor the avoidance and prevention of impacts over minimization, mitigation wherever technically and financially feasible. Where risks and impacts cannot be avoided or prevented, mitigation measures and actions will be identified so that the activities operate in compliance with applicable national laws and regulations etc., and meets the requirements of relevant World Bank Environmental Health and Safety standards. A detailed set of Environmental Management guidelines for Construction Sites is presented in **Annex 7**, taking in to account typical impacts during infrastructure subprojects in the Maldives. **Annex 10** provides guidelines to be used for deducing permissible measures for the management of Health and Safety of Workers, Communities and Visitors, to project sites.

In addition, the World Bank Group General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to construction and can be downloaded via the following link. They should be used to deduce the minimum requirement in terms of best practice when deducing mitigatory measures when preparing ESMPs.

- [https://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/sustainability-at-ifc/policies-standards/ehs-guidelines](https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines)

## **5.3 Inclusion of Environmental Specifications and Environmental Management Plan in bid documents**

It is important to ensure the environmental specifications and ESMPs are included in the bid documents prior to commencement of the bidding process. It will be necessary to include a provisional sum for the ESMP as part of the Bill of Quantities for those mitigations measure that are not part of the engineering costing. The environmental specifications should also include penalty clauses for non-compliance, specifically for complex and large contracts. The procurement staff of the relevant implementing agency and SCU together with environmental officer(s) will be responsible for this step. The minimum requisite conditions to be included in contracts is presented in **Annex 6**.

### **5.3.1 Guidance on Incorporation of ESHS Requirements for Contracts as per the World Bank's Standard Bidding Documents**

With the revision to the World Bank's Standard Bidding Documents in January 2017, Environmental and Social Health and Safety (ESHH) requirements are now more clearly defined in the document and there is also the need for a ESHS Performance Security to be incorporated in to the requirements from potential bidders for implementation of works under project financing. This revision incorporates changes to enhance environmental, social, health and safety performance. A positive measure that is intended to enhance the commitment of a given contractor towards sound environmental and social management

which clearly define what the expectation is from them as an implementing entity during project execution and reporting.

The following guidance will facilitate in the tailoring of these ESHS requirements during the use of the World Bank Groups Standard Bidding Documents for procurement activities. The Environmental Specialist and team of the SCU will be required to liaise with the Procurement Specialists of the project on ensuring the following guidance is incorporated accordingly.

- All standard language on ESHS and guidance is presented in the Standard Bidding Documents on what expectations are there from the contractor's side and what information should be provided from the client's side during procurement, implementation and reporting in terms of ESHS. The Environmental Specialist and team should conduct a thorough review of these requirements and ensure the following.
  - All sections are to be reviewed in detailed and cross reference will need to be made to the safeguards policies and instruments relevant to the specific subprojects which have been prepared as per the requirements of this EAMF.
  - Where required the SCU Environmental specialist may be required to update recommendations in the respective EA/ESMP to match the language in the Bid Document where major discrepancies have been noted to facilitate consistency in all documents.
  - In projects where safeguards documents for environment and social are prepared independently, it is recommended that the project Environmental and Social teams, based in the SCU, work together to ensure that social safeguard requirements are incorporated and Social Management Plans (SMPs) and ESMPs are merged and represented as ESMP.
  - This ESMP already includes guidance for ESMPs that incorporate the requisite measures for labor management, labor working conditions, worker health and safety, public health and safety and grievance redressal are incorporated in line with the projects parallel social safeguards instruments.
- The ESHS Performance Security, is to be maintained between 1-3% of the total contract value as per the Guidance provided supplementing the World Bank's Standard Bidding Document, depending on the associated risks of the project. The total performance security for contracts will typically be 10% of the total contract value of which 3% should be allocated to the ESHS performance security, where a contract has a performance security of 20% the ESHS performance security is to be maintained at a maximum of 5% of the total contract value.
- While it is recommended that indicative costs should be presented with ESMP measures, on the addition of ESMP related costs to the BOQ, if indicative costing have not been done on individual ESMP implementation items at the time of ESMP preparation, due the difficulty of estimating indicative costs in the context of Sri Lanka the following is to be undertaken. A **Lumpsum amount of 5% of the total contract value** should be maintained as the allocation for ESMP implementation. (*This amount has been typically adequate in managing with some contingency also so the same should be exercised in the BOQ guidance in the bid documents in projects in Sri Lanka.*)
  - The contractor is required to provide a costing at minimum within this amount in his BOQ, listing itemized values for ESMP implementation.
  - The language should indicate that the contractor will be required to provide an itemized costing with the BOQ within this allocation.

- In addition, for large scale contracts that are assessed as high risk during environmental screening, it is also requested for the contractors to have the following certifications in the Eligibility and Qualifications Subsection, in Section III of the Standard Bidding Documents, under Contractor Requirements.
  - Registration with ISO 14001 (Environmental Management)
  - Registration with ISO 45001/ OSHAS 18000/ or equivalent on (Occupational Health and Safety Management)
  - If not already registered, must be willing to register as such prior to requesting mobilization amount or any other payment for the contract

#### **5.4 Procedure for Management of Physical Cultural Resources – protection and chance find procedures**

If any person discovers a physical cultural resource, such as (but not limited to) archeological sites, historical sites, remains and objects, or a cemetery and/or individual graves during excavation or construction, the Contractor shall:

1. Stop the construction activities in the area of the chance find;
2. Delineate the discovered site or area;
3. Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible authorities take over;
4. Notify the Supervising Officer who in turn will notify the responsible authorities immediately (within 24 hours or less);
5. Responsible authorities are in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by archeologists. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values used by the GoM;
6. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
7. Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
8. Construction works could resume only after permission is granted from the responsible local authorities concerning safeguard of the physical cultural resource.

The provisions presented above should always be included in ESMPs as a precautionary measure regardless of a site having known or unknown cultural heritage or physical cultural resources.

#### **5.5 Managing Adverse Impacts of Labor Influx**

To address the above-mentioned impacts from labour influx on local communities, the Project will:

- Reduce labour influx by tapping into the local workforce, to the extent possible;
- Assess and manage labour influx risks based on appropriate instruments; and



- Incorporate social and environmental mitigation measures, including those relating to GBV, into the civil works contract.

In order to achieve that, the following steps will be adopted:

- Administer the Social Screening Checklist prepared for this ESMF to identify and assess the type and significance of potential social impacts on local communities that may be generated by labour influx;
- As part of the ESA, carry out an assessment of the location of the Project, contextual factors of the location, and the legal and policy framework of the GoM, if the screening suggests potential impacts;
- Incorporate the recommendations of the ESA, including those relating to SEA risks, and define mitigation measures, including those recommended by the World Bank's Good Practice Note on GBV, which has been prepared based on the recommendation of World Bank's Global GBV Task Force<sup>14</sup>;
- Develop specific measures to mitigate the risks associated with the social and environmental impacts from labour influx into the ESMP/SIMP in consultation with affected communities, in the civil works bidding documents, and subsequent contracts (contractor responsibilities are outlined in Box 1 below);
- Implement the appropriate mitigation and monitoring programmes, which includes the development and implementation of a stakeholder engagement programme;
- Establish a GRM for workers and host community which among others will integrate protocols established by the World Bank's Good Practice Note on GBV;
- Monitor and supervise regularly, including on GBV-related issues, in co-ordination with other government agencies and civil society organisations; and
- Prepare periodic reports for submission to the PMU, the World Bank, and other relevant Ministry/government agencies on implementation and the results of the ESMP, SIMP, EMP, and other relevant plans, as well as the GRM resolutions relating to labour and GBV-related issues.

Further, mitigation measures will be driven by consultations with stakeholders and in alignment with the World Bank's Guidelines on 'Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labour Influx'. It will be the contractor's obligation to prepare and submit a plan that outlines code of conduct for workers, worker camp management plan and measures to address GBV. These will be part of the tender package and construction contract as elaborated in Box 1.

---

<sup>14</sup> Report of the Global Gender-Based Violence Task Force (2017): Working together to prevent sexual exploitation and abuse: recommendations for World Bank investment projects (<http://documents.worldbank.org/curated/en/482251502095751999/Working-together-to-prevent-sexual-exploitation-and-abuse-recommendations-for-World-Bank-investment-projects>)

### Box 1. Contractors' Responsibilities

The Environment and Social Management Plan (ESMP) is developed during project preparation. Based on the findings of the screening report and the ESA, the management plans contain general mitigation measures. These mitigation measures will be part of the tender package and construction contract.

Prior to starting construction, the Contractor will be required to prepare and submit its own ESMP to the supervision engineer (who is the GoM's representative) for acceptance. The Contractor's ESMP will provide a detailed explanation of how the Contractor will comply with the Project's safeguards documents, including the ESMF, and demonstrate that sufficient funds are budgeted for that purpose. The Contractor's ESMP will include management plans for: (i) work activities; (ii) traffic management; (iii) occupational health and safety; (iv) environmental management; (v) social management; (vi) labour influx and worker camp management plan; (vii) code of conduct for workers, including measures to address GBV; and (viii) chance-finds, where relevant.

The project will verify and ensure the consistency of the Contractor's ESMP and the plan prepared under each sub-project. If issues emerge during implementation for which the Contractor's ESMP does not contain appropriate mitigation measures, the Contractor will be required to update their ESMP to include such mitigation measures and, if necessary, the civil works contract will be amended.

Civil works for the sub-projects will not commence until the Contractor prepares an appropriate ESMP, which properly identifies and proposes risk mitigation measures, and it is approved by the project.

During implementation, the Contractor will implement civil works in accordance with its ESMP/SIMP, including all works conducted by sub-contractors under the Contractor's control. The Contractor will also be required to train workers on the roles and responsibilities under these plans, policies, and standards.

The Contractor will submit regular reports to the PMU and/or other relevant Ministry/Agency, and proactively address any issues that arise.

## **5.6 Clearance Procedures with the World Bank**

All safeguards instruments listed below will be subject to World Bank prior review and clearance by the World Bank safeguards specialist assigned, both environment and social, to the ECHED. Only cleared safeguards instruments can be included in bidding documents and other procurement instruments. No work can commence on project sites without due clearance of the respective safeguards instrument.

- All Environmental and Social Screening Reports
- All TORs for ESIAAs
- All ESIAAs, and ESMPs

Upon project commencement the environmental and social specialist will be required to prepare a table, tracking all requisite safeguards instruments for sub-projects as outlined in the generic template and have the tracking sheet format cleared by the World Bank's Environmental Specialist and Social Specialist assigned the project task team. This sheet should be continuously updated and managed by the project SCU and shared with the World Bank safeguards specialist every quarter or when requested.

## **5.7 Information Disclosure**

Disclosure of relevant project information will help affected communities understand the risks, impacts and opportunities of the Project. The implementing agency will publicly disclose the ESMF and all Environmental and Social Assessment documentation, including any ESMPs and/or ESIAAs, the management program and action plan(s) for public review and comment in appropriate locations in the Project area.

The documentation will also be made available on the implementing agencies web site both in English and in local languages, ie Divehi. Newspaper, social media and other media outlets will alert the community to the availability of the documentation. The website will also enable the community opportunity to provide comment electronically.

All safeguards Documentation will also be made available in the World Bank Info shop and Maldives World Bank external website.

## **5.8 Gender**

At the sub project level, gender analysis will be part of the social assessment and the analysis will be based on findings from gender specific queries during primary data collection and available secondary data. The quantitative and qualitative analysis will bring out gender disaggregated data and issues related to gender disparity, needs, constraints, and priorities; as well as an understanding of whether there is a potential for gender based inequitable risks, benefits and opportunities. During the gender analysis, close attention needs to be paid to factors that may be contributing to the large gender disparity in employment rates among young females in the Maldives as identified in the 2017 Gender Gap Report. Unemployment is at 77% among young females compared to 33% for young males. The report cites a number of reasons for the gender gap in employment such as: (i) cultural and attitudinal factors relating to perceptions about what constitutes an acceptable job; (ii) the caregiver roles women are expected to play in the household; (iii) the absence of role models for women; and (iv) limited understanding of processes and procedures

that hinder the pursuit of ideas and innovation. At a macro level, contributing factors that create obstacles for female youth employment participation include: (i) the lack of access to information and resources to establish Small and Medium Enterprises (SMEs); (ii) enabling and safe environments for women to participate productively in the Tourism and ICT sectors; (iii) safe transportation and travel between the atolls in the archipelago.

Based on the gender analysis, specific gender responsive interventions will be designed and a gender action plan will be prepared. These will include activities to promote skills development for young women at the TVET level, foster a shift in attitudes among young men and women about sharing responsibilities for child raising and caregiving, set up a mentoring program to match male and female role models, facilitate information dissemination on accessing microfinance options, and develop entrepreneurship skills among young women and men. The project will: (i) review the Women Enterprise Fund (WEF) to identify opportunities for greater access to financing for female entrepreneurs; (ii) review current practices and the implementation of policies and procedures around zero tolerance towards sexual harassment; (iii) assess options such as flexible working hours, home-based work, and the provision of creches for creating safe and enabling environments for young women in the Tourism and ICT sectors; (iv) introduce information, education, and communication (IEC) campaigns around positive imaging of women and gender-balanced responsibilities for child rearing and caregiving in the project priority sectors using social and mass media. The project will also work with the Ministry of Law and Gender (MLG) to encourage the enactment of the Gender Equality Act (GEA) to ensure public and private entities implement enabling policy environments for women's employment while addressing women's safety and mobility in public spaces.

It will also be necessary to ensure sufficient consultation and dialogue with female project beneficiaries during both the design stage as well as the project implementation stage. A mechanism must be built into the project to allow such two-way interactions between the beneficiaries and the implementing agencies.

In addition, the overall monitoring framework of the project should include a gender disaggregated indicator and a gender relevant indicator.

## **5.9 Gender Based Violence**

The EHCED has been assessed as having a “low risk” rating with regards to gender based violence (GBV) risks. Based on the guidance given in the Bank's Good Practice Note (GPN) for addressing GBV risks, where the project's GBV risk rating is considered “Low Risk” the following mitigation measures are recommended at key stages of the project.

Identification / Appraisal Stage: Sensitization of project staff regarding GBV issues and a GBV risks assessment is required at the onset of the project. GBV risks are to be adequately reflected in safeguards instruments. Also, the mapping of GBV prevention and response actors in project adjoining communities needs to be undertaken. As part of the project's stakeholder consultations, those affected by the project will need to be properly informed of GBV risks and the project activities to get their feedback on project design and safeguards issues. Consultations with a variety of stakeholders (political, cultural / religious leaders, healthcare teams, local councils, social workers, women's organizations and groups working with youth) is recommended at the start and continuously throughout the implementation of the project. In addition, an effective grievance redress mechanism (GRM) with multiple channels to initiate a complaint with specific procedures for reporting GBV is required.

**Procurement Stage:** The implementing agency will clearly define the GBV requirements and expectations in the bid documents. Based on the project's needs, the Bank's Standard Procurement Documents (SPDs), and the implementing agency's policies and goals, it will be necessary to define the requirements to be included in the bidding documents for a contractor Code of Conduct (CoC) which addresses GBV issues. In addition, the procurement documents will need to set out clearly, adequate costs required to increase safety of women and children in the host communities and female workers on the site.

**Implementation Stage:** The implementing agency will need to review Contractor's ESMPs to verify that appropriate GBV mitigation actions are included as it is a fundamental instrument for ensuring oversight and management of GBV risks. To ensure grievances regarding GBV are promptly addressed, the implementing agency and the Task Teams will also review that the GRM receives and processes complaints, follows protocols and responds in a timely manner, through an established mechanism. Codes of Conduct need to be signed with the contractors and the implementing agency will ensure the following: (i) requirements in CoCs are clearly understood by those signing; (ii) have CoCs signed by all those with a physical presence at the project site; (iii) train project-related staff on the behaviour obligations under the CoCs; and (iv) disseminate CoCs (including visual illustrations) and discuss with employees and surrounding communities. In addition, the implementing agency will be responsible for providing awareness to project workers and local community on issues of Sexual Exploitation and Abuse (SEA)<sup>15</sup> and Sexual Harassment (SH)<sup>16</sup>. To properly address GBV, the training and sensitizing of workers is essential. GBV training modules may be embedded into the regular Occupational Health and Safety (OHS) 'toolbox' meetings with workers, official training and/or stand alone training efforts. In addition, the implementing agency will be responsible for M&E of progress on GBV activities, including reassessment of risks as appropriate. Should GBV risks become apparent over the course of project implementation, these issues will need to be escalated to ensure they are duly addressed.

For a detailed explanation of the measures to address GBV risks discussed above please refer to the World Bank's Good Practice Note on Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works<sup>17</sup>.

World Bank's Good Practice Note on GBV also provides guidance on ensuring a survivor centered approach when responding to GBV incidents, which ensures confidentiality, safety and wellbeing of the survivor. It also recommends working with GBV Services Provider(s) and community-based organizations that are able to support the project in addressing GBV incidences while also working to proactively prevent such cases. Further guidance is also given in the Good Practice Note in handling GBV complaints, resolving cases and ensuring appropriate support for survivors.

---

<sup>15</sup> Any actual or attESMPted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. Sexual abuse is further defined as "the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions." Women, girls, boys and men can experience SEA. In the context of World Bank supported projects, project beneficiaries or members of project-affected communities may experience SEA.

<sup>16</sup> Unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature. SH differs from SEA in that it occurs between personnel/staff working on the project, and not between staff and project beneficiaries or communities. The distinction between SEA and SH is important so that agency policies and staff training can include specific instructions on the procedures to report each. Both women and men can experience SH.

<sup>17</sup><http://pubdocs.worldbank.org/en/399881538336159607/Good-Practice-Note-Addressing-Gender-Based-Violencev2.pdf>

## **5.10 Citizen Engagement**

During the social screening stage stakeholders are to be consulted focusing on identifying their issues and concerns with regards to the project interventions. Stakeholder needs, and management responses will be incorporated in the project development plans and the relevant information on the implementation of these plans will be shared with the stakeholders. Furthermore, citizen engagement will be embedded in the project design through stakeholder feedback. The stakeholder feedback surveys will cover private and public-sector employers, students and staff of tertiary education institutions, and policy makers and officials. These surveys will enable the needs of stakeholders to be articulated and communicated to the relevant levels of the project implementation system. The analysis of feedback surveys will be disaggregated by gender to assess whether any gender related issues are emerging, so that timely action can be taken.

As discussed below the project will adopt a grievance redress mechanism (GRM) that will be transparent, objective and unbiased and will also provide a means for stakeholders to raise concerns or provide feedback.

## **5.11 Grievance Redress Mechanism (GRM)**

To ensure that consultation, disclosure and community engagement continues throughout project implementation, a grievance redress mechanism (GRM) will be established, scaled to the risks and adverse impacts of the project or subproject, as part of the management system. The grievance redress mechanism will allow for concerns and grievances about the project's social and environmental performance to be raised by individuals or groups from among project-affected communities, so that resolution of those concerns and grievances can be facilitated.

The GRM will be transparent, objective and unbiased and will take into consideration grievances related to both environmental and social. The GRM will operate at three levels. The lowest level of the GRM is at the site (sub project) level where the project implementation and/or supervision team at site will keep a feedback register and receive project related complaints or comments or suggestions from the local level stakeholders. The project team will review this feedback and take appropriate actions.

The middle level of the GRM will seek to resolve an issue quickly, amicably, and transparently out of courts in order to facilitate activities to move forward. Middle level grievance redress committees (GRCs) will have representatives from training providers or institutes, parents/guardians, and representatives of local communities. The Grievance Redress Committee (GRC) shall constitute a panel of at least four members, one of whom shall be a staff member (at the respective sites), to be selected by the respective training provider/institute where sub-project activities are being implemented. S/He will be responsible for providing secretarial support to the panel. The GRC will also include a representative from the host community who is publicly known to be a person of integrity, good judgment and is respected within their community. S/he can be considered an independent third party and will chair the GRC. Other members need to include at least one representative from island/atoll council or Civil Society organization (CSO) and a representative of the Project Affected Persons (PAPs) in the area.

The designated project staff shall:

- Convene meetings of the committee as necessary at such place or places in the project area as s/he considers appropriate; and
- Provide all necessary secretarial support to the committee including recording of the committee meeting discussions and dissemination of deliberations and decisions taken to all concerned parties.

The chair of the GRC shall:

- Conduct the proceedings in an informal manner as s/he considers appropriate with the object to bring an amicable settlement between the parties;

All grievances received will all be entered in a dedicated database, regularly updated and will include information on the date of receipt of grievance, type of grievance and resolution arrived at, and the date of resolution. The GRM will be monitored regularly, as it provides important feedback on the functioning of the project.

At the national level, all stakeholders including parents, training providers and partner agencies will have the opportunity to make complaints, if any, related to the project through a Grievance Redress Service of the Bank. This system allows communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project to submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project 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 Grievance Redress Service (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)."

The likely impacts due to project activities will be limited to disturbances caused by construction-related work. The training authorities will make efforts at site level to resolve grievances through negotiations before it is escalated. The report of the members of the CRC shall be recorded in writing and attested copies shall be provided to the parties. In case of continuing differences and notwithstanding the provisions of nationally applicable legislation, the GRC can take a decision regarding entitlement and compensation. The decision taken during negotiations and GRC meetings shall be formally recorded for future reference and presentation in the court, if necessary.

If the matter cannot be resolved at the local level, complaints will be referred to the Project Director, MoEH, who will head a committee, which will include the respective PAP representatives and members of well-known national level NGO/CBOs. All expenses incurred in arranging grievance negotiations and meetings of GRC as well as logistics required, shall be arranged by MoEH.

The aggrieved PAP, if not satisfied with the decision of GRC, has the right to refer his / her petition to a court of law.

## **5.12 Environmental and Social Compliance Monitoring and Reporting**

Supervision of the ESMPs, along with other aspects of the project, will cover monitoring, evaluative review and reporting in order to achieve, among others, the following objectives:

- determine whether the project is being carried out in conformity with environmental and social safeguards and legal agreements;
- identify issues as they arise during implementation and recommend means to resolve them;
- recommend changes in project concept/design, as appropriate, as the project evolves or circumstances change; and identify the key risks to project sustainability and recommend appropriate risk management strategies to the Proponent.

An appropriate environmental supervision plan will be developed aiming to ensure the successful implementation of the ESMPs across the project.

Quarterly, the SCU will collaborate with project proponents in the field and, will monitor the implementation of the respective environment mitigation measures outlined for all project interventions. Annually, the Project Implementation in collaboration with the environmental and social coordinator based in the SCUs will have responsibility of carrying out this monitoring by regularly visiting the project sites, and pursuing the following corrective measures as required.

Compliance monitoring comprises on-site inspection of construction activities to verify that measures identified in the ESMPs are included in the clauses for contractors are being implemented. This type of monitoring is similar to the normal technical supervision tasks ensuring that the Contractor is achieving the required standards and quality of work. Photo documentation of non-compliance as well as best practices is recommended as a means of recording implementation conditions efficiently.

A standard Environmental Compliance Monitoring Checklist for Project Activities is presented in **Annex 8. Annex 9**, provides the special monitoring checklist to be completed in relation to ensuring safe conditions for workers and the public.

Monitoring of compliance with ESMP specifications by the contractor is essential for proper environmental management and will be conducted primarily by the implementing agency. Ensuring compliance with environmental safeguards is an integral part of the monitoring program. Each respective ESMP will outline monitoring responsibilities and parameters. The environmental and social coordinator of the implementing agency will withhold the overarching responsibility for maintaining all documentation in line with the ESMF and ensure timely reporting to the World Bank.

Regular World Bank missions will include specialists to monitor the project's compliance with World Bank safeguard policies. The progress of environmental monitoring will be formally communicated to IDA through regular progress reports and updates as per the compliance monitoring agreement made during project implementation.

### **5.13 Capacity Building on Environmental and Social Safeguards**

Effective implementation of the Environmental and Social Management Framework will require capacity development for EHCED SCU, the implementing institutions as well those responsible for implementing sub-projects at grass-root levels. Implementers need to understand inherent social and environmental issues and values and be able to clearly identify indicators of these.



### **5.13.1 Training objectives**

The overall objective of the training was to mainstream environmental and social consideration into participatory processes of sub-project identification, planning, implementation and mitigation as well as monitoring of the mitigation activities in the sub-projects and main projects activities.

The specific objectives of the training included:

- To ensure that key stakeholders understand the ESMF, how to apply it to sub-projects and other activities of EHCED;
- To actively involve stakeholders and projects affected communities in the screening of environmental and social aspects of EHCED projects from design, planning, monitoring and implementation;
- Domesticating the SFMF to fast track the implementation of the associated subprojects.

### **5.13.2 Scope of the ESMF Training**

While undertaking this study a capacity needs assessment identified requirement to strengthen capacity on social and environmental evaluation, screening, mitigation and monitoring. It was established that knowledge of environmental management of implementing institutions is still inadequate. EHCED aims to enhance capacity to enable it to have dedicated staff who can follow on social and environmental challenges of the project to ensure maximum benefits.

The capacity building exercise took into consideration the integration and fulfilment of the requirements of World Bank Environmental and Social Safeguards as well as those of the Environmental Act, Fisheries Act and applicable policies and regulations. The programme involved training directly linked to the implementation of the ESMF as well as training on aspects influencing success of ESMF and was clustered to cater for various target groups. Topics to be covered included:

- Background of the EHCED project – its objectives, target groups and footprints;
- Role of ESMF in implementation of EHCED sub-projects;
- Environmental Act and relevant environmental regulations;
- World Bank Environmental and Social Safeguards;
- Project screening methods;
- Environmental Impact Assessment (EIA) and Environmental Audit (EA) procedures;
- Project activities and their potential environmental and social impacts
- Development of environmental management/mitigation plans;
- Responsibilities for ESMF implementation, monitoring and reporting;
- Use of Standardized ESMPs by Communities to develop Simple Environmental Review reports.

The Environmental and Social Coordinator will be trained by the Environmental Specialist and Social Specialist of the World Bank project team on the ESMF implementation, safeguards and procedural requirements of World Bank.

All contractors are expected to disseminate and create awareness within the workforce ESMP compliance, and any staff training necessary for their effective implementation. Where contractors do not have

existing environmental staff, Environmental and Social Specialist of the CSU will make arrangements for adequate capacity building within the workforce to be involved. Where construction work is to be undertaken by community members, training should be provided by the E&S Coordinator and Island Councils, who have been pre-trained on the project and ESMPs. That training should consist of an introductory talk, dissemination of the guidelines, and an on-site talk prior to the start of each new task within component implementation.

## **6 Implementation Arrangements**

### **6.1 Project Implementation Arrangements**

The Ministry of Finance and Treasury will be the executing agency and the Ministry of Higher Education will be in overall charge of implementing the Project. The MoHE will also coordinate with the Ministry of Economic Development, Ministry of Youth and Sports, and the Ministry of Tourism, based on their respective mandates and responsibilities. The MoHE has substantial prior experience in working with the World Bank, and the proposed implementation arrangements for the EHCED will utilize the capacity built during the implementation of previous education projects and the ongoing Enhancing Education Development Project (EEDP) which is scheduled to close on June 30, 2018. An integrated fiduciary assessment will be carried out during project preparation to identify fiduciary risks to design appropriate risk mitigation measures and required actions to strengthen financial management and procurement capacity as needed. The MoHE during project preparation will prepare an Environmental and Social Management Framework (ESMF) to guide project implementation. The MoHE will also prepare a Projects Manual (OM) to guide the implementation of the Project. The Coordination Support Unit (CSU) for the ongoing EEDP will coordinate preparation of the EHCED.

The MoHE will be in overall charge of EHCED. The MoHE will coordinate with the MoFT, MoED, MoYS and MoT, based on their respective mandates and responsibilities. The MoHE has substantial prior experience in working with the Bank, and the proposed implementation arrangements for the EHCED will utilize the capacity built during the implementation of previous education projects and the ongoing EEDP. The project will have a Consultative Group (CG) with representatives from the MoFT, MoED, MoYS and MoT, Department of Statistics, Sector Skills Councils, Chamber of Commerce, representatives from the private sector, academics, researchers, NGOs and representatives of civil society. The State Minister of MoHE will chair the CG, and Coordinator of the CSU will be the Secretary of the CG. The CG will have clear role and functions which will be distributed to all members. To ensure proactive participation of all representatives at senior level, there will be a clear agenda for each meeting, minutes of the discussion will be prepared and distributed to all representatives, and progress of the follow-up actions will be shared. The CG will periodically discuss implementation performance of the EHCED to identify areas for support, observe important emerging issues and assist the implementing agencies to resolve problems and strengthen performance. It is expected that CG's deliberations could also lead to new innovative ideas to ease the challenge of youth unemployment and increase participation of female youth to enable them to become fully engaged in economic and social prosperity.

The SCU to be established within the MoFA will need to second/hire environmental specialists to focus on the tasks and responsibilities outlined in the ESMF in the role of an Environmental and Social Coordinator (EHSC).

### **6.2 Institutional Arrangement for Implementation of the ESMF**

The CSU to be established within the MoHE will need to second/hire an environmental and social specialists to focus on the tasks and responsibilities outlined in the EAMF. His/Her roles are specified in detail below.

***The Environmental and Social Specialist at the CSU;*** he/she will be responsible for the implementation of all steps presented in the environmental management framework of the ESMF. The facilitation of the preparation of environmental instruments, such as ESIA's and ESMPs, requesting for environmental clearances from relevant authorities such as the EPA where applicable, and monitoring/reporting on compliance of due diligence mechanisms set forth the ESMF and relevant trainings. He/she will be

responsible for the implementation of environmental and social management plans, grievance redress mechanism; addressing gender and social inclusion; citizen engagement, liaison with other agencies, contractors and engineering supervisors at the island level; monitoring and evaluation; and training for all safeguards assessments when it is required. The CSU will outsource detailed studies to external consultants and also manage them. The CSU Environmental Officer will be responsible for ensuring the delivery of such outsourced tasks. He/she will be responsible for the preparation of quarterly compliance summaries and formally communicating to IDA on environmental safeguards matters. The Specialist will be responsible for managing the Environmental and Social Officers assigned to the field.

***Environmental and Social Officers in the field, where deemed necessary and as identified during project implementation;*** he/she will be responsible for ensuring Island level activities as per the ESMF are well managed and report to the EHSC based in the CSU. They will assist in collecting data and the timely completion of environmental and social instruments, such as ESMPs and EISAs, in collaboration with Island Councils and take proactive efforts during monitoring/reporting on compliance of due diligence mechanisms set forth the ESMF as well as conduct trainings as instructed by the Environmental and Social Specialist of the CSU who will provide them with training as required. They will be required to conduct regular monitoring visits and facilitate good communication between the ICs and the CSU on safeguards issues and provide guidance to the ICs. Project monitoring officers can be trained to meet this dual purpose.

### **6.3 Rough Cost Estimates of Safeguards Instruments**

It is difficult to provide accurate cost estimates for the preparation of safeguards instruments due to the dynamic nature of the environmental consultancy market within the Maldives. Drawing from the project experience of other World Bank and doner funded operations and current indicative costs the following table provides a rough estimation of costs for safeguard instruments. In terms of costs, competition and an increase in the number of players in the consultancy market within the country has led to drops in preparation costs since 2016 when done by local consultants. All safeguards instruments have been inbuilt in to the project modality and will be financed via the project and detailed project cost tables will include the necessary costs accordingly.

<b>Instrument</b>	<b>Rough Indicative Cost as at 2019</b>
Environmental and Social Management Plan for done by Local Consultants	US\$ 2500 at Minimum (MVR 38,000)
Environmental and Social Assessments done by Local Consultants	US\$ 5000 at Minimum (MVR 77,000)

The associated cost to implement ESMPs has been integrated into the project budget. The project will ensure that all works contracts will include the ESMP, and the cost of implementing the ESMP will be identified as an item in the Bill of Quantities.

# ANNEXES



National Emblem

Ministry of Environment and Energy

Environmental Protection Agency

**DEVELOPMENT PROPOSAL SCREENING FORM**

Form No: \_\_\_\_\_

(Office Use)

A Development Proposal Screening Decision will be issued after the receipt of this Development Proposal Screening Form.

The form is divided in 2 parts, please complete all parts.

---

**Part 1: Proponents Information**

Name of person submitting form:

.....

On behalf of (company, other person, self):

.....

Address:

.....  
.....

Telephone Number: ..... ID Card Number:

.....

Fax Number: ..... Date: Year..... Month .....  
Day .....

Email: ..... Signature:

.....

---

**Part 2: Project Description**

Project Title:

.....  
.....

Type of Development:

.....  
.....

Location of Project:

.....  
.....

Duration of Project:

.....  
.....

Government Agencies responsible for Authorization:

.....  
.....  
.....

Brief description of the project activities not exceeding 3 A4 size papers in chronological order (include information about equipment and machinery to be used):

.....  
.....  
.....

Details of existing environment of the project location and the changes that will be brought to the environment by the project, not less than 5 A4 size papers:

.....  
.....  
.....

Expectations of labour requirement to carry out the civil works and description of how that requirement will be met:

.....  
.....  
.....  
.....

- Please use additional sheets where appropriate

As the proponent of this project, we hereby declare that to the best of our knowledge the information provided here are accurate and complete.

Name:

.....  
.....

Date: Year ..... Month ..... Day .....

Signature: .....



**7.2 Annex 2: Environmental and Social Screening Format for All New Construction**

*The Screening Report must include a copy of the technical engineering design for the proposed intervention, at least preliminary designs and description of the proposed project activity.*

**A. Description of Intervention**

**Project Identification**

Project title	
Project Proponent	

**Project Location**

Location	<b>(Location Map and Site Photographs to be Annexed):</b>
Definition of Project Area  <i>(The geographical extent of the project &amp; areas affected during construction)</i>	
Adjacent land and features	

**. Project Justification**

Need for the project  <i>(What problem is the project going to solve)</i>	
Purpose of the project	

<i>(what is going to be achieved by carrying out the project)</i>	
Alternatives considered <i>(different ways to meet the project need and achieve the project purpose)</i>	

**. Project Description**

Proposed start date	
Proposed completion date	
Estimated total cost	
Present land ownership	
Description of the project <i>(with supporting material such as maps, drawings etc attached as required)</i>	
Project Management Team	Agency –  Contact person -  Nature of consultation and input received

## **B. Site Description Questionnaire**

### **1. Site Setting and Land use/Ownership**

- a) Who is the owner/occupier of the site (refer to land registry/title deed)?
- b) What is the current land use of the site?
- c) When was the site first developed to the current land use?
- d) What is the historical land use of the site prior to the current development of the site?
- e) What is the current land use of the properties surrounding the vicinity of the site and adjacent to the site? (Request for land use plan with planned developments at the island/note land use during site vicinity walk around)

### **2. Potential for Resettlement Impacts**

- a) Will the intervention include new physical construction work?
- b) Does the intervention include upgrading or rehabilitation of existing physical facilities?
- c) Is the intervention likely to cause any permanent damage to or loss of housing, other assets, resource use?
- d) Is the site chosen for this work free from encumbrances and is in possession of the government/community land?
- e) Is this sub project intervention requiring private land acquisitions?
- f) If the site is privately owned, can this land be purchased through negotiated settlement?
- g) If the land parcel has to be acquired, is the actual plot size and ownership status known?
- h) Are these land owners willing to voluntarily donate the required land for this sub-project?
- i) Whether the affected land owners likely to lose more than 10% of their land/structure area because of donation?
- j) Is land for material mobilization or transport for the civil work available within the existing plot/ Right of Way?
- k) Are there any non-titled people who are living/doing business on the proposed site/project locations that use for civil work?
- l) Is any temporary impact likely?
- m) Is there any possibility to move out, close off business/commercial/livelihood activities of persons during constructions?
- n) Is there any physical displacement of persons due to constructions?
- o) Does this project involve resettlement of any persons? If yes, give details.
- p) Will there be loss of /damage to agricultural lands, standing crops, trees?
- q) Will there be loss of incomes and livelihoods?
- r) Will people permanently or temporarily lose access to facilities, services, or natural resources?
- s) Have there been any previous land acquisitions and has the identified land been already acquired?
- t) Are any indigenous people living in proposed locations or affected/benefitted by the project intervention?

### **3. Protected Area/Sensitive Habitats**

- a) Are there any culturally/historically significant sites surrounding the vicinity of the project site?
- b) Are there any marine or terrestrial protected areas, nature reserves or sensitive habitats (sea grass beds, wetlands and mangroves) located within the vicinity of the site?

- c) Have you observed, or do you have any prior knowledge of known rare or endangered species at the site and/or surrounding the vicinity of the site?
- d) Are there trees on the project, if so please include a count of all large trees and their species.

#### **4. Geological/Hydrogeological**

- a) Are any geological maps/hydrogeological and topography maps available for the site? Have there been any such studies conducted at the site?
- b) Have there been any environmental impact studies, soil and groundwater investigations conducted at the site, if so; are any of the reports available for review?
- c) Is the site located on reclaimed land or natural land? If it was reclaimed, where was the fill material from?
- d) Are there any surface waters surrounding the vicinity of the site or adjacent to the site?

#### **5. Existing Site Condition**

- a) What are the current key facilities at the site?
- b) Are any Asbestos or Asbestos Containing Material (ACMs) present at the site (e.g. as roof sheeting materials)?
- c) What are the current issues and needs of the site based on the existing condition of the site?
- d) What is the current number of students enrolled at the school?
- e) What is the projected number of students to be enrolled at the school?
- f) What are the grades supported by the school?
- g) What is the present and projected number of teachers at the school?
- h) Where do the students originate from (within the island/other islands in the vicinity)?

#### **6. Energy & Fuel Supply/Water Supply/Wastewater and Solid Waste Management**

- a) What is the current arrangement for power supply at the site?
- b) Is there an emergency generator located at the site?
- c) Are there any Aboveground/Underground Storage Tanks (ASTs/USTs) at the site?
- d) What do these USTs/ASTs store and what are their capacities?
- e) Are there any leak detection systems in place? What is the frequency of inspection for these tanks?
- f) Have there been any recent leakage incidents, are there any documents that can be reviewed pertaining to any recent/historical leakage incidents at the site?
- g) What is the current waste management collection and disposal practice at the site? (Please note if open burning/waste burial/green waste mulching is practiced within the site);
- h) What is the amount of waste generated and the composition of the waste generated?
- i) Have you observed any significant environmental issues because of the current waste management practice at the site?
- j) What is the main source of water for potable and non-potable use at the site (groundwater extraction/municipal supply/communal or individual rainwater tank/bottled water/desalination plant)?
- k) Is there a groundwater monitoring/extraction well at the site or surrounding vicinity of the site? (Please note colour and odour of the groundwater if accessible)
- l) What is the main system of wastewater/sewage disposal at the site (septic tank system/municipal sewer)?

## **7. Proposed extension/Improvement work**

- a) Please provide more details on the proposed extension/improvement work for the site? (Request for site layout plan with proposed infrastructure development plan);
- b) Is there a likelihood of associated secondary development for the site (e.g. new access roads, storm water drains, new gates, etc.)?
- c) Would new land be required for the proposed extension/improvement work?
- d) If new land is required, where is the proposed plot of land located. Please also provide the size, owner/occupier and the current and historical land use of the proposed plot of land; 37) Is this new plot of land used for agricultural use or any other purpose?
- e) Are any environmentally friendly/environmentally sustainable design concepts proposed to be included in the extension/improvement work?
- f) How are you planning to source the construction material and labour force required for the site's construction?

## **8. Consultations with island council/local communities and civil society organization**

- a) What are the main community groups/civil society groups that are active on the island?
- b) Would there be any households that may need to be relocated due to the planned extension/improvement work at the site?
- c) Would there be any loss of agricultural and residual land due to the planned extension/improvement work at the site?
- d) What would be your main concerns during the construction phase at the site (e.g. noise/dust/groundwater impact/waste management/foreign labors etc.)?
- e) Do you have any concerns/views regarding the source of construction material and labour force for the expansion/improvement work?
- f) In your view what would be important environmental and socio-economic issues that needs to be assessed/monitored during the construction phase?
- g) Do you have any concerns regarding the likely increase in number of students and teachers after the site has been upgraded?
- h) What are your needs and aspirations regarding the facility once the extension/improvement work is complete?

### ***Additional information required from island council:***

- 1) ***Current and projected population;***
- 2) ***Number of households (and Empty houses);***
- 3) ***Planned development activities;***
- 4) ***Present employment by industry;***
- 5) ***Income distribution;***
- 6) ***Public health status.***

## **9. Screening for Potential Environmental and Social Impacts in relation to the proposed project intervention**

	<b>Screening question</b>	<b>Yes</b>	<b>No</b>	<b>Significance of the effect</b> <b>(Low, moderate, high)</b>	<b>Remarks</b>
1	Will construction and operation of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in water bodies, etc)				
2	Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?				
3	Will the Project produce solid wastes during construction or operation?				
4	Will the Project release pollutants or any hazardous, toxic or noxious substances to air?				
5	Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?				
6	Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater or coastal waters?				
7	Will the project cause localized flooding and poor drainage during construction?  Is the project area located in a flooding location?				

8	Will there be any risks and vulnerabilities to public safety due to physical hazards during construction or operation of the Project?				
9	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?				
10	Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?				
11	Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?				
12	Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other water bodies, mountains, forests which could be affected by the project?				
13	Is the location within or adjacent to the coastal zone? If so, what is the distance to the coast?				
14	Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, migration, which could be affected by the project?				
15	Are there mangrove, coral reef, sea grass bed, turtle beach habitats etc within close proximity?				
16	Is the project located in a previously undeveloped area where there will be loss of green-field land				

17	Will the project cause the removal of trees in the locality?				
18	Can any of the identified historic or culturally importance sites on or around the location be affected by the project?				
19	Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?				
20	Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?				
21	Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?				
22	Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?				
23	Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?				
24	Will the project involve treatment of Solid Waste, if so indicate the amounts, nature of waste and briefly describe proposed waste management technologies to be implemented on				



	site.				
25	How many workers will be needed for the sub-project, with what skill set, and for what period?				
26	Can the project hire workers from the local workforce?				
27	Will there be workers brought in from outside?				
28	Will a camp be required to house these incoming workers?				
29	Will the incoming workers be from a similar socio-economic, cultural, religious or demographic backgrounds?				
30	Given the characteristics of the local community, are there any adverse impacts that may be anticipated?				

### 10. Project operating requirements

- |  | Yes | No |
|--|-----|----|
| 24 Does the project belong to a prescribed category of the Environmental Protection Authority for EIA            |     |    |
| 25 Does the project need to obtain clearances from agencies such as the EPA, Island Council, Atoll Council etc : |     |    |

### 11. Conclusion and Screening Decision

#### Summary of environmental effects:

Assuming that all mitigation measures are implemented as proposed, the following effects can be predicted

	N/S - Effect not significant, or can be rendered insignificant with mitigation
	SP - Significant positive effect
	SN - Significant negative effect
	U - Outcome unknown or cannot be predicted, even with mitigation

--	--

**12. Screening Decision Recommendation (check one):**

Environmental assessment is still underway, and not final.

	<p>All potentially adverse effects can be classified as general construction related impacts and are mitigatable with known technology. Public concern does not warrant further assessment.</p> <p>Therefore, standalone Environmental Assessment not required, an Environmental Management Plan would be suffice.</p>
	<p>Potential adverse impacts are significant, hence, standalone Environmental Assessment and Management Plan needed before the project can proceed</p>
	<p>Potential adverse impacts are significant, hence project cannot be justified</p>

**13. Details of Persons Responsible for the Environmental Screening**

**Screening report completed by**

**Name/Designation/Contact information      Date**

**Signature**

**Screening report reviewed by**

**Name/Designation/Contact information      Date**

**Signature**

**Approved by**

**Name/Designation/Contact information      Date**

**Signature**

### 7.3 Annex 3: Environmental Clearance Procedure with the EPA

It is recommended that each proponents/investor go through the environmental clearance process for their subprojects. All the planned installations that fall under a sub-project can be lumped together as a single project.

The following process follows the EIA regulations issued by EPA in 2012.

- Step Environmental Clearance Procedure for the major subprojects.**
- 1 The Proponent prepares a Development Project Screening form and Submit to EPA.
  - 2 EPA will complete the process and inform the proponent either to: (i) undertake the preliminary Environmental assessment or (ii) to prepare an Environment Management Plan.
  - 3 If a preliminary Environment Assessment is required, the Proponent will prepare the report and submit to EPA for further appraisal.  
If an ESMP is required, follow Step 5.
  - 4 EPA will issue a decision on the Environment Assessment and request to either: (i) prepare an ESMP or; (ii) and Environment and Social Impact Assessment.  
For an ESMP, follow Step 5; and for an ESIA, follow Step 7
  - 5 Proponent will prepare an ESMP and submit to EPA for approval.
  - 6 EPA will evaluate the ESMP and issue an approval. No further approvals are required after an **ESMP approval is granted.**
  - 7 Proponent will prepare and submit an EIA report.
  - 8 EPA will evaluate and either: (i) request additional information or; (ii) **issue a Decision Note.** If a Decision Note is issued, no further approvals are required. If additional information is required, follow Step 9.
  - 9 Proponent will prepare the additional information and submit to EPA.
  - 10 If the additional information is adequate, EPA will issue a **Decision Note.** If inadequate additional requests can be made and Step 9 will need to be followed.  
EPA reserved the right to reject a project if there are significant environmental impacts that cannot be substantially mitigated. This situation is very unlikely for the ECHED projects, given its low impacts.

Note: All the application forms are available from EPA website: [www.epa.gov.mv](http://www.epa.gov.mv).

## **7.4 Annex 4: Typical Structure of an ESIA**

The Environment Impact Assessment (ESIA) Report would cover the following sections and is based on the EIA regulations 2012.

### **Cover Page:**

Should contain the project title, location(s), consultant names, proponent names and date

### **Executive Summary:**

Should be prepared in local language or if the report is in English, in both Dhivehi and English.

### **Introduction:**

A summary of information relating to the proponent, contractors, costing and terms of reference.

### **Project description:**

A brief description of the project including its rationale, objectives, main components, activities, work plan, project management arrangements, inputs (such as solar panels, inverters, water for panel washing) and expected output (including solar panel decommissioning waste).

### **Analysis of Alternatives:**

This section would address alternatives for the proposed action, which would include the "no project" alternative as well as other alternatives considered before selecting the proposed action. These may include alternative sites and solar panel types.

### **Legal and regulatory considerations:**

A summary of the pertinent legislation, regulations and standards, and environmental policies that are relevant and applicable to the proposed subproject, and identify the appropriate authority jurisdictions that will specifically apply to the project. Include permits, approvals and agreements (including roof-lease agreement, if available) in the EIA document.

### **Description of the environment:**

A summary of existing conditions around the site, including any vegetation cover present, adjoining building and how their windows are arranged. An assessment of social conditions in the proposed facility and surrounding buildings may be required.

### **Potential Impacts:**

This section would identify potential environmental impacts that may arise as a result of the proposed project. All cumulative effects will be considered – positive and negative, direct and indirect, long term and short term. A stronger focus should be on social impact assessment, particularly surrounding buildings and social equity issues.

### **Mitigation Measures:**

This section would include a detailed explanation of how the potential environmental impacts identified above could be mitigated.

### **Monitoring Plan:**

This section should include a long term plan for monitoring to ensure that there are no adverse impacts due to the project.

### **Environmental and Social Management Plan:**

Considering the nature of the sub-projects, it is unlikely that any major or irreversible environmental impacts will be encountered. Therefore, the most important section of the EIA would be the section on Environmental Management Plans (ESMPs). Prediction of potential adverse environmental and social impacts arising from project activities will be at the core of the environmental impact assessment process. By following the procedure described in this document and the EIA Regulations 2012, the environmental assessments to be conducted under the Project will be able to identify environmental and social impacts as a result of implementing the sub-projects. While impact identification is important, an equally essential element of this process is to develop measures to eliminate, offset or reduce impacts to acceptable levels during implementation and operation of the projects.

The integration of such measures into project implementation and operation is supported by clearly defining the environmental requirements within a ESMP. ESMPs provide an essential link between the impacts predicted and mitigation measures specified within the EIA and implementation and operation activities. The plan outlines the anticipated environmental impacts, the mitigation measures to minimize these impacts, responsibilities for mitigation, timescales, costs of mitigation and sources of funding.

The EHCED subprojects are classified as Category B Projects. World Bank guidelines state that detailed ESMP's are essential for Category A projects, but for many Category B projects, a simple ESMP may suffice. The ESMP will address the following aspects:

- Summary of impacts
- Description of Mitigation Measures
- Description of Monitoring Programs
- Institutional Arrangements/responsibilities
- Implementation Schedule and Reporting Procedures
- Cost estimates and sources of funds

## 7.5 Annex 5: Generic Environmental and Social Management Plan (ESMP) TOR

### Objective and Scope of Preparation of Environmental and Social Management and Monitoring Plan (ESMP)

In order to ensure short and long term environmental and social impacts that would arise due to improvement and rehabilitation work (to be described in the first section based on the sub-project/activity), are mitigated an ESMP plan will need to be developed as per the scope presented below and in accordance with the ESMF of the Project:

1. *Identification of impacts and description of mitigation measures:* Firstly, Impacts arising out of the project activities need to be clearly identified. Secondly, feasible and cost effective measures to minimize impacts to acceptable levels should be specified with reference to each impact identified. Further, it should provide details on the conditions under which the mitigatory measure should be implemented (ex; routine or in the event of contingencies) The ESMP also should distinguish between type of solution proposed (structural & non structural) and the phase in which it should become operable (design, construction and/or operational).
2. *Enhancement plans:* Positive impacts or opportunities arising out of the project need to be identified during the preparation of the check list Environmental Assessment and Social Screening process where applicable. Some of these opportunities can be further developed to draw environmental and social benefits to the local area. The ESMP should identify such opportunities and develop a plan to systematically harness any such benefit.
3. *Monitoring programme:* In order to ensure that the proposed mitigatory measures have the intended results and complies with national standards and donor requirements, an environmental performance monitoring programme should be included in the ESMP. The monitoring programme should give details of the following;
  - Monitoring indicators to be measured for evaluating the performance of each mitigatory measure (for example national standards, engineering structures, extent of area replanted, etc).
  - Monitoring mechanisms and methodologies
  - Monitoring frequency
  - Monitoring locations
4. *Institutional arrangements:* Institutions/parties responsible for implementing mitigatory measures and for monitoring their performance should be clearly identified. Where necessary, mechanisms for institutional co-ordination should be identified as often monitoring tends to involve more than one institution.
5. *Implementing schedules:* Timing, frequency and duration of mitigation measures with links to overall implementation schedule of the project should be specified.
6. *Reporting procedures:* Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigatory measures and monitoring itself should be specified. Guidelines on the type of information wanted and the presentation of feedback information should also be highlighted.
7. *Cost estimates and sources of funds:* Implementation of mitigatory measures mentioned in the ESMP will involve an initial investment cost as well as recurrent costs. The ESMP should include costs estimates for each measure and also identify sources of funding.
8. *Contract clauses:* This is an important section of the ESMP that would ensure recommendations carried in the ESMP will be translated into action on the ground. Contract documents will need to be incorporated with clauses directly linked to the implementation of mitigatory measures. Mechanisms such as linking the payment schedules to implementation of the said clauses could be explored and implemented, as appropriate.

The format to present the ESMP in a matrix is provided below:

Activity	Environmental Impact	Proposed Mitigatory Action	Location	Frequency of Implementation/ Application	Implementation Responsibility	Monitoring Responsibility	Monitoring Frequency	Implementation Progress
<b>Pre-Construction Phase</b>								
<b>Construction Phase</b>								
<b>Demobilization Phase</b>								
<b>Operational Phase</b>								

Important to note the following when using this ESMP template:

The ESMP that will be prepared should have all sections in place, except the last column on Implementation Progress

What go in as the ESMP to the bid and contract documents of construction contractor is the sections highlighted in blue, as Implementation Progress is not relevant at the time of bidding and Operational responsibilities would lie with the council.

Any activity that may be identified as the responsibility of design engineers should not be part of the ESMP that goes into the bid and contract documents of construction contractors

**Important to note:** The consultant is responsible to ensure the ESMF requirements are taken into consideration in the designing of infrastructure.

The following is a template for presenting adverse social impacts and a relevant mitigation plan for these impacts:

Adverse Social Impact	Mitigation Measures	Location/ Place	Implementing Cost	Responsibility	Timeframe
<b>(1) Access disturbances - Temporary Impact</b>					

<b>(2) Pedestrians Safety Issues - Temporary Impact</b>					
<b>(3) Traffic Congestion - Temporary Impacts</b>					
<b>(4) Shifting of Common and Private Utilities - Permanent Impact</b>					
<b>(5) Siting of construction camps, labour camps, stock yards and managing the risk of adverse impacts on communities from temporary project induced labour influx - Temporary Impact</b>					
<b>(6) Dust, Noise and Vibration - Temporary Impact</b>					
<b>(7) Parking of Contractor's vehicles along the Road - Temporary Impact</b>					
<b>(8) Social Mobility Issues - Temporary Impact</b>					
<b>(9) Occupational Health and Safety - Temporary Impact</b>					
<b>(10) Lack awareness &amp; gender base violence issues of workers - Temporary Impact</b>					
<b>(11) Handling complains from community - Temporary Impact</b>					



--	--	--	--	--	--

**The ESMP Presentation**

The ESMP should follow the same sequence as the tasks described above including the ESMP matrix provided above.

**Consultant Qualifications**

The design consultant team should include an expert with at least 8 years of experience preparing environmental management and monitoring plans for infrastructure construction, improvement and rehabilitation, costing of mitigation measures and preparing contractor clauses necessary to capture ESMP implementation needs.

**Reporting and feedback schedule**

All submissions related to the assignment should be submitted to Project Management Unit, as hard copies and electronically. The duration of the consultancy is x months. During the final submission of the ESMP report, if changes requested during the draft report stage have not been incorporated in a satisfactory manner to the client and the World Bank, the consultant will be required to work further on the document until it is considered satisfactory.

## **7.6 Annex 6: Minimal Provisions to be Included in Contract Documents**

*Unless the WBGs Standard Bidding Documents, that already contain ESHS provisions are used at the minimum the following provisions shall be included in all contract documents for any physical works that include construction and/or rehabilitation.*

### **Implementation of environmental and social impacts mitigation measures and monitoring**

#### **General Conditions**

The Contractor shall provide adequate measures to avoid, reduce or off-set any environmental and/or social impacts during the construction period due construction activities or any other related activities. The Contractor shall implement the Environment and Social Management Plan (ESMP) attached with the Bidding Documents. The remedial actions shall comply and be acceptable to Engineer and other project monitoring agencies.

The Contractor shall be responsible to ensure all construction material are sourced from approved sites or licensed commercial vendors. All key environmental parameters such as vibration and noise shall not exceed the limitation imposed by the Environmental Protection agency.

#### **1. Applicable Laws, Regulations and Policies covering the proposed project**

Following national laws and regulations will be applicable for this project.

- Environment Protection and Preservation Act (Law No. 4/93)
- Regulation on Environmental Liabilities (Regulation No. 2011/R-9)
- Environmental Impact Assessment Regulation, 2007
- By law, Cutting Down, Uprooting, Digging Out and Export of Trees and Palms from one island to another (Regulation No. 493)
- Regulation on Sand and Aggregate Mining
- Regulation on Coral Mining (1990)
- Building Act and Building Code
- Land Use Planning and Management and Traditional Rights to Land

In addition to national laws and regulations, the project should comply with World Bank Operational Policies.

#### **2. Controlling environmental impacts**

The Contractor shall be responsible to maintain and monitor the impacts to the environment to ensure the construction and related works are harmless to the environment. In order maintain the activities in accordance with EMAP, the Contractor shall be asked to quote the required rate in the Bill of Quantity.

The Contractor shall submit methodology and frequency of remedial activities for the approval of Engineer, as per the construction plan addressing the following, but not limited to:

- (a) Identification of construction material extracting sites and disposal sites and related approvals from authorities and/or time-based plan to obtain the approvals;
- (b) Measures to avoid and/or control the occurrence of environmental impacts;

- (c) Measures to provide positive environmental offsets to unavoidable environmental impacts;
- (d) Measures to implement environmental enhancements;
- (e) Site specific environmental management techniques and processes for all construction activities which are important for the quality of the environment in respect to permanent and/or temporary works including specific measures on safety;
- (f) Locational details of important elements such as temporary dust and noise barriers, portable amenities, truck, plant and material storage, access locations, provision of site hoarding, etc.; and
- (g) Identification of the role, responsibility, authority, accountability and reporting of personnel relevant to compliance with the ESMP

If the Contractor fails to adhere to the ESMP to a level acceptable to the Engineer or other monitoring the Engineer shall be temporarily suspend the work until such time proper mitigation measures are implemented.

If any of the defects are not remedied by the Contractor within the time given by the Engineer, the

Engineer shall consider the contractor's work is non-compliance towards environmental safeguards and necessary remedial action shall be undertaken by the Engineer through a third party. Further the cost of the third party and 12% (twelve percent) for supervision charges shall be deducted from the Contractors Interim Payment that has non-compliance towards environmental safeguards. Any additional cost or time incurred due to above shall be at contractors' expense and shall not be subjected to extension of time or claim.

The contractor shall be responsible for cleaning up and disposing of all waste materials and rehabilitating (landscaping) all construction sites and work areas so that these can be returned as close as possible to their previous use. This includes the stabilization and landscaping of all of the construction sites. Any borrow pits that were operated by the contractor are to be reshaped and closed. Any contaminated soil must be removed from fuel and oil storage areas. All construction debris is to be removed. Payment will be withheld from the contractor until all of the sites are satisfactorily cleaned, all spoils removed and the sites satisfactorily rehabilitated. The final payment will be released only after confirmation by the Environmental and Social Specialist that the above mentioned tasks have been completed satisfactorily by the Contractor

### **Measurement and Payment**

The measurement will be based on weekly assessment of all activities given as per the construction plan and related ESMP.

## 7.7 Annex 7: Environmental and Social Management in Construction Sites

### Management of Construction Sites

It is acknowledged that most of the physical sub-components will be small-medium scale activities undertaken by local contractors. Nevertheless, it is necessary to apply best practice management measures to ensure that the work will have a minimum effect on the natural environment.

- Vehicles must not be washed at construction sites.
- All liquid fuel and lubricant storage tanks must be bunded to retain the entire contents of the tank in the event of leakage or rupture.
- Construction sites must be watered to suppress dust whenever appropriate during the dry season.
- All site drainage water must be passed through a sediment trap.
- Care must be taken to prevent cement laden drainage water from entering the wetlands.
- Temporary toilets must be provided for construction workers.
- All sewage must be treated before discharge, e.g. using septic tanks.
- All effluents must comply with any national environmental standards.
- All emissions (e.g. from engines, crushers, batching plants, etc) must comply with any local environmental standards.
- All motor-driven generators, compressors, pumps, etc., must be properly silenced.
- The running of machinery and lighting in the vicinity of housing must be limited to normal working hours.
- All solid wastes must be properly disposed of (Management of construction solid wastes and toxic wastes below).
- Proscribed toxic and hazardous substances must not be used or disposed of (see below).
- All plant, equipment and wastes must be removed at the end of construction, and each site must be restored to its original condition.
- A Code of Practice must be issued to all construction workers. This should specify required behavior, e.g.:
  - No unauthorized cutting of trees or branches.
  - No lighting of fires.
  - No hunting or fishing.
  - No disposal of any kind of waste into water courses
  - Behaviour to comply with defined local cultural and religious sensitivities.
  - No unauthorised entry onto private property
  - Recommended health protection measures (see also Health and Safety below).

*Environmental Standards* – Contractors must comply with any national environmental standards. In the absence of relevant national standards, international standards should be applied, e.g. as published in the World Bank Pollution Prevention and Abatement Handbook, 1997.

*Toxic and Hazardous Materials* – Contractors must not use any substances which are internationally banned.

### Management of construction solid wastes and toxic wastes

- Waste generation is to be minimised. The treatment of waste should follow the hierarchy: Avoid > Minimise > Reuse > Recycle > Treat > Dispose.
- All waste arising during construction is to be disposed of to the island's recognised waste disposal site. Recyclable materials (e.g. glass, cans, plastics, paper) should be separated and recovered. Organic waste should be composted.

- Any toxic or hazardous waste must be either returned to its source, or stored and disposed of separately in consultation with EPA; this includes oil filters, batteries, temporarily paint cans and the packaging of toxic construction materials.
- The containers of toxic or hazardous liquids must be punctured or crushed to avoid them being used subsequently for drinking water.
- Waste lubricating oil is to be stored prior to recycling.
- Vehicle batteries are to be stored prior to recycling.
- Vehicle tyres are to be stored prior to recycling.
- Construction generated wood, paper, glass bottles, cans, plastic and other recyclables are to be separated and recycled.
- No waste is to be burnt.

### **Management of Land**

- Topsoil must be removed and stored for future use, before any further excavation work.
- In the case of temporary land take in agricultural areas, the positions of all walls, fences and hedges should be recorded, and they should be replaced at the end of construction.
- All land used temporarily during construction must be restored to its pre-construction condition.
- Cut and fill volumes must be planned to minimize the generation of spoil.
- Spoil from excavation must only be disposed of in planned spoil disposal sites that have been approved by the EPA; specifically, excavated spoil must not be dumped in wetlands or lagoons or on agricultural land.

Completed spoil heaps must be profiled, covered in topsoil and grassed to maintain stability.

- All excavations below ground level should be bunded to prevent water inflow or outflow.
- Water pumped out of excavations should be passed through a settlement facility before disposal.
- The use of heavy machinery should be minimized to avoid soil compaction.
- Arrangements must be made for the halting of work and the consultation of specialists from the National Museum, in the event that any potential archaeological remains are uncovered during excavation.

### **Management of Transport**

- All vehicles must be in a safe and legal condition with respect to all of their systems.
- All vehicles must comply with national regulations on emissions and noise.
- All drivers must be properly licensed for the class of vehicle they are driving.
- All vehicles must carry a fire extinguisher and first aid kit.
- All construction vehicles must have upward facing exhaust pipes.
- All vehicles must have audible indicators for reversing.
- Public roads must be promptly cleaned if affected by material loss.
- Truckloads of construction materials or spoil must be covered to prevent dust or losses.
- Where public roads are to be used, an official \_construction route\_ is to be defined, avoiding housing as much as possible, and this route should be marked with road signs.
- Unsurfaced haul roads must be watered to suppress dust whenever appropriate during the dry season. □ Vehicles must not be washed at construction sites.

### **Community Facilities**

- Consultation is required with neighbouring communities before the start of construction, to identify any notable features or issues of local concern.
- Features that are to be protected during construction (cemeteries, mature trees, wells, etc) should be marked with brightly coloured tape.
- Excavation works below ground level in the vicinity of settlements should be marked with posts and tapes for safety.

- Temporary bridges or diversions must be provided wherever existing footpaths, tracks or roads are to be cut by construction works.
- Temporary water supplies are to be provided where either an existing water source is to be interrupted by construction, or access to the existing supply is severed.

### **Health & Safety**

- All employed construction workers must be given a medical examination (including sight and hearing tests) before being accepted for employment. This must be repeated annually. The results of these medical examinations must be kept by the contracting company.
- All employees must be given printed information on the health implications of their work and how to avoid problems. This should incorporate advice in the field of sexually transmitted diseases (STDs), including HIV / AIDS.
- All construction workers must be given H & S training.
- All construction workers must be provided with a set of appropriate personal protective clothing and equipment (e.g. hard hat, hard boots, leather gloves, ear defenders and dust mask). Workers are required to wear appropriate protective equipment before being allowed on active construction sites.
- A permit to work 'system is to be instituted for all work at hazardous locations, e.g. working over water or in boats.
- All excavations below ground level should be marked with posts and tape.
- Drinking water, toilet and washing facilities must be provided at each active site.
- Each active site must be equipped with a comprehensive First Aid kit and eyewash bottle.
- All construction vehicles must carry a fire extinguisher and first aid kit.
- All (legal) toxic or hazardous materials (e.g. water chlorination agents) must be stored in a locked, waterproof, ventilated enclosure.
- All compressed gas bottles must be stored, chained in the upright position, in a locked ventilated enclosure.
- International occupational health standards must be applied to all contractors 'workplaces. Contractors should consult the World Bank Environment, Health and Safety Guidelines.

**7.8 Annex 8- Environmental and Social Monitoring Checklist for Project Activities**

**Title of project :**  
**Proponent :**  
**Contractor's Name :**  
**Monitoring Date :**  
**Monitor's Name & :**  
**Designation**

Issue	Proposed mitigation measures (from the ESMP)	Implementing Responsibility	Compliance Yes/No	Reason for non-compliance	Follow up Action

**Photo-documentation of Issue Identified Above**  
**Issue # (fromDate of photograph description above)**                      **Photograph depicting issue**

7.9 Annex 9: Special Monitoring Checklist for Ensuring Safe Conditions for Workers and Public.

<b>Date inspection conducted:</b>	<b>Location:</b>
<b>Name(s) of those participating in this inspection:</b>	
<b>INDICATE EITHERS:</b>	
<b>A = Acceptable/Yes; U = Unacceptable/No; N/A = Not Applicable</b>	

No.	Safety Title	A	U	N/A	Action Taken
<b>1</b>	<b>PERSONAL PROTECTIVE EQUIPMENT:</b>				
	Foot protection worn as required?				
	Hand protection used/worn as required?				
	Safety glasses and/or goggles available + being used?				
	Hearing protection worn where required?				
	Hard hats worn when falling object hazard is present?				
	Dust masks used when needed?				
	Traffic vests being worn where needed?				
<b>2</b>	<b>EMERGENCY ITEMS:</b>				
	Emergency phone numbers posted and known by all?				
	Emergency eyewash and/or shower units accessible?				
	First aid kit available at work site?				
<b>3</b>	<b>ELECTRICAL SAFETY ISSUES: if required</b>				
<b>4</b>	<b>CONSTRUCTION SAFETY &amp; HEALTH ISSUES:</b>				
	100% fall protection in place above 6-5... feet in height?				
	Excavation? Protection from cave-ins for >5 feet deep				
	Hand tools are kept in safe				
	Employees instructed in proper use of all power tools? If available				
	Employees below protected from falling objects?				



	Proper access provided for workers and surrounding community?				
	<b><i>Trenches Excavation and Shoring:</i></b>				
	Materials are stored at least two feet from trench?				
	Proper number of workers for each operation?				
<b>5</b>	<b>Job Information/Administrative:</b>				
	First aid kit stocked?				
	First aid kit available?				
	Work areas properly demarcated				
	Work areas properly barricaded?				
<b>6</b>	<b>Housekeeping:</b>				
	Work area neat?				
	Protected from projecting nail points (removed/bent over)?				
	Waste containers provided?				
	Waste containers used?				
<b>7</b>	<b>General:</b>				
	Toilet facilities available?				
	Toilet facilities maintained?				
	Drinking water available?				
	Visitor hard hats available?				
	Visitor hard hats used?				
	Record Maintaine at Site level:				
	Unsafe Acts or Practices Observed:				
	Comments:				
	Signature: _____ Date: _____				

## **7.10 Annex 10: Guidelines for Health and Safety of Workers, Communities and Visitors**

Health and safety of workers and the public should be designed into constructions, before and during and after the building phase. It is cheaper and easier to control risks in construction to workers as well as the public before work starts on site by proper planning, training, site induction, worker consultation and incorporating strict safety procedures in construction plans. The proposed project interventions will mostly involve small to medium scale construction sites. As such, extreme dangers posed by working in environments such as great heights, deep water and involving dangerous chemicals and radioactive material will not be present. Potential dangers associated with ESCAMP sites will include falling from moderate heights, vehicle accidents, falling into trenches, drowning, breathing dust and other air pollutants, back aches caused by handling heavy material, wildlife attacks, etc. and can be mitigated with following safety guidelines.

EA/ESMP for each site should mandatorily include a risk assessment as to what are the hazards involved in the work site, who might be harmed and how seriously, how likely this harm might happen and what actions are required to eliminate or reduce the risk and incorporate such measures in the ESMP and clearly set out in the tender documents. All sub-projects must observe health and safety regulations, hence during implementation it is important to check if these control measures are put in place and are meeting the legal requirement.

Further guidance can be found in the World Bank Group General EHS Guidelines. The following measures have been developed to fit the country context based on the General EHS Guidelines.

### **Training**

- Ensure constructors carry out suitable training programs on occupational health and safety for workers prior to commencement of construction, especially with regard to working in wild territory.
- Ensure only experienced and well trained workers are used for the handling of machinery, equipment and material processing plants
- Ensure all persons, including managers, are trained and able to carry out their work without risk to the safety or health of themselves, other workers or the public

### **Personal Protective Equipment**

- Ensure appropriate safety equipment, tools and protective clothing are provided to workers and that safe working methods are applied. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored.
  - Any person who works or operates in an area where there is a risk of flying objects, such as splinters, should wear safety goggles at all time. These should be securely fitted to the face. Welders should protect the entire face from hot sparks and bright rays by using a welding mask.
  - Any person exposed to high levels of dust or hazardous gases (when working in tunnels) should wear respiratory protection in the form of disposal masks or respiratory masks which fit more snugly around the nose and mouth.
  - Any person working in an area where there is the risk of being struck on the head by a falling or flying object should wear a hard hat at all times. These should be well maintained in order to be fully effective, and any helmets or hard hats that are damaged or cracked should immediately be replaced.

- All workers will be required to wear shoes or strong boots to prevent sharp objects from penetrating or crushing the foot. Those working in muddy conditions and in canals with polluted water should avoid hand/foot contact with water and should never wear slippers.
- Road workers should wear reflective vests to avoid being hit by moving vehicular traffic.

### **Site Delineation and Warning Signs**

- Ensure delineation devices such as cones, lights, tubular markers, orange and white strips and barricades are erected to inform about work zones.
- Ensure all digging and installing work items that are not accomplished are isolated and warned of by signposts and flash lamps in nighttime (for those sites outside PAs).
- Ensure dangerous warning signs are raised to inform public of particular dangers and to keep the public away from such hazards, such as warning for bathing when working on river sites and irrigation works.
- Ensure rehabilitation of trenches progressively once work is completed.
- The safety inspection checklist must look to see that the delineation devices are used, whether they are appropriately positioned, if they are easily identifiable and whether they are reflective.

### **Equipment safety**

- Work zone workers use tools, equipment and machinery that could be dangerous if used incorrectly or if the equipment malfunctions. Inspections must be carried out to test the equipment before it is used, so that worker safety can be secured. Inspections should look for evidence of wear and tear, frays, missing parts and mechanical or electrical problems.

### **Material management**

- Ensure easily flammable materials are not be stored in construction site and that they are transported out of project site

### **Emergency Procedures**

- Ensure an emergency aid service is in place in the work zone.
- Ensure all site staff is properly briefed as to what to do in the event of an emergency, such as who to notify and where to assemble for a head count. This information must be conveyed to employees by the site manager on the first occasion a worker visits the site.

### **Construction camps**

- Ensure installation of adequate construction camps and sanitation facilities for construction workers to control of transmission of infectious diseases.
- Ensure that adequate warning is provided on issues of poaching and wildlife attacks

### **Information management**

- Develop and establish contractor's own procedure for receiving, documenting and addressing complaints that is easily accessible, culturally appropriate and understandable to affected communities.
- Provide advance notice to local communities by way of information boards about the schedule of construction activities.

### **Worker consultation**

- Consulting the workforce on health and safety measures is not only a legal requirement, it is an effective way to ensure that workers are committed to health and safety procedures and improvements. Employees should be consulted on health and safety measures and before the introduction of new technology or products.

## **7.11 Annex 11: Consultation Notes**

As part of the Environmental and Social Assessment, consultations with the polytechnic focal points (assigned by the ministry of Higher Education or the Maldives Polytechnic), were conducted. Due to time limitations only, a few stakeholders were consulted regarding this project. The main messages and feedback from these consultations are presented below. A few pictures from each site has also been presented.

### **Conditions of the existing polytechnic facilities**

All focal points urged the need for reviving polytechnics for the promotion of technical and vocational education. Some polytechnics are operational at minimal levels while some of them require extensive renovation to accommodate the need for the revival of polytechnics and projected students that would be enrolled at these institutes. Some of the existing facilities require extensive rehabilitation ( for example K.Thulusdhoo) while some require building from ground up (Addu) because the existing facilities are totally unsuitable to run a polytechnic according to the information provided by the focal points during consultations.

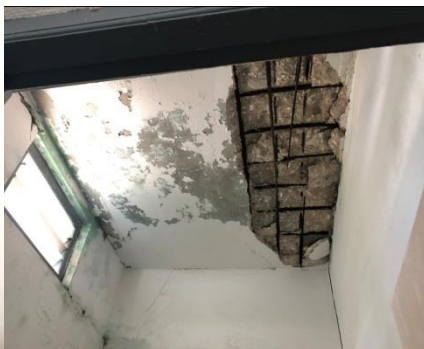
Focal points from all islands except R.Alifushi expressed concerns regarding the existing facilities. The facilities in R.Alifushi are adequate for polytechnic operations. The only major concern raised from Alifushi was regarding the toilets which require rebuilding. The focal point from Alifushi has also highlighted the a newly allotted plot of land by the island council for the development of a polytechnic building because the existing facilities are old. Alifushi also has plans to develop an accommodation block in the newly allotted land for students from other islands in the region and also for visiting teachers.

The focal point from Addu has mentioned serious challenges ranging from administrative and existing facilities for a properly functioning polytechnic. The current facility used as polytechnic in Addu was previously a fire station building used by the Maldives National Defence Force. The building is temporarily used by the polytechnic in Addu. It was informed that the building lacked security measures and the facility is open to outside intrusion. Currently 2 courses are run at the polytechnic in Addu. It was requested by Addu for a new building because the existing facility is totally unsuitable for polytechnic functions especially without major workshops such as a carpentry workshop.

The existing polytechnic in K.Thulusdhoo has been informed as in a very dire situation and requires extensive rehabilitation. It has been informed that the building has not been properly maintained resulting pest infestation destroying books and equipment at the facility. The building has workshops with access openly available for anyone. Currently the polytechnic is looked after by the Thulusdhoo School principal. He has informed about challenges faced in keeping the place safe from vandalization and stealing due to the open entrance without being locked out from the public.

**Photos**

**Alifushi Polytechnic**



**Thulusdhoo Polytechnic**



Villigili Polytechnic



**Addu Polytechnic**





