



**Low Emission
Climate Resilient
Development**

A Programme funded by the Government of Denmark and delivered by the UN in partnership with the Government of Maldives.



Low Emission Climate Resilient Development Final Programme Report



FINAL PROGRAMME NARRATIVE AND FINANCIAL REPORT
REPORTING PERIOD: 8 NOVEMBER 2013 – 31 NOVEMBER 2018

| | | | | | | | | | | | | | | | |
|--|--|-----------|-------|-----------|--------|---------|-----|---------|-------|---------|----------|---------|-----|---------|---|
| <p>Programme Title & Project Number</p> <p>Programme Title: Low Emission Climate Resilient Development (LECReD) Programme Number: 00088009 & MV102 MPTF Office Project Reference Number: 00088009</p> | <p>Country, Locality(s), Priority Area(s) / Strategic Results</p> <p><i>Laamu Atoll, Maldives</i></p> | | | | | | | | | | | | | | |
| <p>Participating Organization(s)</p> <p>UNDP UNFPA UNICEF UNOPS UN Women WHO FAO</p> | <p><i>Priority area / strategic results:</i> UNDAF Outcome 9: “Enhanced capacities at national and local levels to support low carbon lifestyles, climate change adaptation and risk reduction”</p> | | | | | | | | | | | | | | |
| <p>Programme/Project Cost (US\$)</p> <p>Total approved budget as per project document: \$9.2 million MPTF /JP Contribution:</p> <table border="0"> <tr> <td>UNDP</td> <td>6,273,835</td> </tr> <tr> <td>UNOPS</td> <td>1,254,163</td> </tr> <tr> <td>UNICEF</td> <td>340,750</td> </tr> <tr> <td>WHO</td> <td>621,468</td> </tr> <tr> <td>UNFPA</td> <td>330,009</td> </tr> <tr> <td>UN Women</td> <td>211,861</td> </tr> <tr> <td>FAO</td> <td>184,575</td> </tr> </table> <p>TOTAL: US\$ 9.2 million</p> | UNDP | 6,273,835 | UNOPS | 1,254,163 | UNICEF | 340,750 | WHO | 621,468 | UNFPA | 330,009 | UN Women | 211,861 | FAO | 184,575 | <p>Implementing Partners</p> <p>National counterparts (government, private, NGOs & others)</p> |
| UNDP | 6,273,835 | | | | | | | | | | | | | | |
| UNOPS | 1,254,163 | | | | | | | | | | | | | | |
| UNICEF | 340,750 | | | | | | | | | | | | | | |
| WHO | 621,468 | | | | | | | | | | | | | | |
| UNFPA | 330,009 | | | | | | | | | | | | | | |
| UN Women | 211,861 | | | | | | | | | | | | | | |
| FAO | 184,575 | | | | | | | | | | | | | | |
| <p>Programme Assessment/Review/Midterm Eval.</p> <p>Assessment/Review - <i>attached</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date: 29.02.2016 Mid-Term Evaluation Report – <i>attached</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date: 29.02.2016</p> | <p>Programme Duration</p> <p>Overall Duration <i>59 months</i></p> <p>Start Date: <i>08 Nov 2013</i> Original End Date: <i>11 Nov 2016</i></p> <p>Current End date: <i>31 Nov 2018</i> (agreed extended date)</p> | | | | | | | | | | | | | | |
| | <p>Report Submitted By</p> <p>Name: Yuko Oaku Title: Coordination Specialist Participating Organization (Lead): United Nations Email address: yuko.oaku@one.un.org</p> | | | | | | | | | | | | | | |

ABBREVIATIONS AND ACRONYMS

| | |
|---------|--|
| AA | Administrative Agent |
| CCA | Climate Change Adaptation |
| CDAP | Capacity Development Action Plan |
| CSES | Communication and Stakeholder Engagement Strategy |
| CTA | Chief Technical Advisor |
| DMTP | Data Management Training Plan |
| DNP | Department of National Planning |
| DRM | Disaster Risk Management |
| DRR | Disaster Risk Reduction |
| FAO | Food and Agriculture Organisation of United Nations |
| IWG | Island Working Group |
| IWRM | Integrated Water Resource Management |
| JAWP | Joint Annual Work Plan |
| LECRd | Low Emission Climate Resilient Development |
| LGA | Local Government Authority |
| LWG | Laamu Working Group |
| MEE | Ministry of Environment, Energy |
| MoFA | Ministry of Fisheries and Agriculture |
| MoU | Memorandum of Understanding |
| MHA | Ministry of Home Affairs |
| MHI | Ministry of Housing and Infrastructure |
| MPTF | Multi-Partner Trust Fund |
| MRC | Maldivian Red Crescent |
| MTR | Mid-Term Review |
| NBS | National Bureau of Statistics |
| NCIT | National Centre for Information Technology |
| NDMC | National Disaster Management Centre |
| NGO | Non-Governmental Organization |
| PB | Programme Board |
| PC | Programme Coordinator |
| PCA | Programme Cooperation Agreement |
| PCU | Programme Coordination Unit |
| PTC | Programme Technical Committee |
| PUNO | Participating United Nations Organizations |
| RFP | Request for Proposal |
| SDG | Sustainable Development Goals |
| SOP | Standard Operating Procedure |
| SWM | Solid Waste Management |
| ToR | Terms of Reference |
| UN | United Nations |
| UNDAF | United Nations Development Assistance Framework |
| UNDP | United Nations Development Programme |
| UNFPA | United Nations Population Fund |
| UNICEF | United Nations Children's Fund |
| UNTG | United Nations Technical Group |
| UNOPS | United Nations Office for Project Services |
| UNRC | United Nations Resident Coordinator |
| UNWOMEN | United Nations Entity for Gender Equality and Empowerment of Women |
| WASH | Water, Sanitation and Health |
| WDC | Women's Development Committee |
| WHO | World Health Organisation of the United Nations |

TABLE OF CONTENTS

| | |
|--|------------------------------|
| EXECUTIVE SUMMARY | 5 |
| PART I: NARRATIVE REPORT | 7 |
| 1. Background and context | 7 |
| 2. Summary and objectives | 9 |
| 2.1 Programme summary | 10 |
| 2.2 Outcomes | 11 |
| 3. Implementation and Monitoring Arrangements | 15 |
| 3.1 Implementation: Roles of UN Partner Agencies | 16 |
| 3.2 Coordination arrangements and Programmatic reviews | 18 |
| 3.3 Financial Resources | 20 |
| 3.4 Human Resources | 21 |
| 3.5 Procurement Procedures | 22 |
| 3.6 Monitoring Arrangements | 22 |
| 3.7 LECReD Knowledge Management System | 22 |
| 4. Evaluation | 23 |
| 5. Narrative of Key Programme Results | 27 |
| 5.1 Report on Progress against JAWP Targets | 27 |
| 5.2 Implementation Issues and Major Challenges | 44 |
| 5.3 Lessons learned and best practices | 47 |
| 6. Indicator Based Performance Assessment | 53 |
| 7. Cross-cutting themes | 56 |
| 7.1 Sustainability of the Programme | 56 |
| 7.2 Capacity Development | 56 |
| PART II: FINANCIAL REPORT | Error! Bookmark not defined. |
| PART III: CERTIFICATION ON OPERATIONAL CLOSURE OF THE PROJECT | Error! Bookmark not defined. |
| ANNEXES | 58 |

EXECUTIVE SUMMARY

The Low Emission Climate Resilient Development (LECReD) Programme, funded by the Government of Denmark, assisted government authorities in the Maldives in building capacities at national and local levels to support low carbon life-styles, climate change adaptation, and disaster risk reduction. The programme has provided support to 11 islands in Laamu atoll to realize low emission and climate resilient development. The programme sought to mainstream LECReD issues into local level development planning and service delivery for greater community-level ownership and sustainability of programme results.

Towards these objectives, the programme focused on achieving four key strategic outputs:

1. Partnership, coordination and participation platform for local LECReD planning and action is strengthened;
2. Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level;
3. Improved Local Level Planning and Management for LECReD;
4. Practical local experience in LECReD's interventions leads to learning and promotes replication

LECReD Programme has built on the integrated efforts of seven Participating United Nations Organizations (PUNOs) operating in the Maldives: UNDP, WHO, UNICEF, UNOPS, UNFPA, UN Women and FAO. The LECReD Programme Board (PB), comprised of a wide range of stakeholders, provided policy direction and approved financial allocations. Oversight and coordination functions were carried out by the Programme Coordination Unit (PCU), the Programme Technical Committee (PTC), and the UN Technical Group (UNTG) integrating focal points from all PUNOs. The Multi-Partner Trust Fund (MPTF) Office served as the Administrative Agent for the LECReD Programme Fund. The Programme has been administered under the Maldives One Fund.

The Final Narrative Report of the LECReD Programme covers the period from 8 November 2013 to 31 November 2018. This report is in line with the established in LECReD Programme document and Memorandum of Understanding (MoU) signed by the PUNOs. It is a consolidation of information, data and financial statements submitted by the Regional Office and is based on programmatic information contained in reports from individual participating UN organizations (UNDP, UNICEF, UNOPS, UNFPA, UN WOMEN, WHO and FAO) and from the LECReD PCU.

LECReD programme's implementation was initiated in November 2013, mostly focusing on the conceptualization and joint-programming of detailed activities and the effort to initiate multi-stakeholder dialogue. The launch of the PCU in May 2014, integrated within Laamu Atoll Council, has allowed for the process of dialogue with the local communities to be strengthened and offered the grounds for the establishment of Island Working Groups (IWGs). The Programme took time to fully establish itself but gained momentum with key activities such as the Laamu Climate Change Forum (LCCF), Laamu Working Group (LWG), and Laamu Atoll Development Planning Database unfolding during 2015. These activities, at the basis of the local development planning process, were conducted in support to local councils in Laamu and in coordination with national and local partners, allowing for the establishment of a collaborative approach through the development of the needed platforms for cooperation as well as tools and capacities required to deliver programmatic outputs in the most effective and efficient manner. This collaborative process was crucial to develop important implementation activities within a strategic integration approach. Key priority sectors were identified and implementation was focused on those key sectors: public health and DRR, energy security, water safety and security, ecosystem resilience (including waste management), food security, gender and climate change, as well as strategic emphasis on integration potential and multi-sector multi-stakeholder coordination through local development planning and green growth. As part of this process and in support to Laamu community-led activities in the fields of low emission and climate resilience, a small grants scheme was also established. The second stage of the programme, initiated during 2016,

targeted the implementation of priority actions aimed at increasing ecosystem resilience (in particular solid waste management) and water safety and security.

The programme was hindered by the political instability at the country level with impacts on the local communities and uncertainties over legal and administrative structures, in particular in what relates to the decentralization process. Despite visible political polarization during the period of implementation, the team efforts have been successful in reducing negative impacts on the Programme's implementation and to concentrate on the technical support to climate change adaptation and mitigation while constantly readjusting the priorities within a spirit of adaptive management. With the growing sense of local ownership and understanding of the programme, it has become clearer to the communities how the Programme may improve local resiliency to climate change and bring important positive outcome in terms of building capacities and improving livelihoods.

PART I: NARRATIVE REPORT

1. Background and context

The Republic of Maldives is highly vulnerable to climate change due to its low-lying geography that makes it extremely susceptible to climate induced changes in sea level, rainfall, sea surface temperature, storm activity, wave action, and ocean acidification, and also due to its dependence on economic activities that are sensitive to climate change, such as fisheries and tourism. The Maldives is also highly dependent on imported fossil fuels for its energy supply and this represents a major source of greenhouse gas emissions for the country. More than 80% of the land is less than 1 meter above sea level and more than 75% of critical infrastructure and 45% of dwellings are within 100 meters of the ocean. The potential for climate change to impact adversely on Maldives makes it a highly vulnerable country. Climate change is expected to present a number of profound challenges to the Maldives in particular sea level rise, rainfall, temperature and extreme events. Consequently, the Maldives has made significant commitments to the pursuit of a low emission climate resilient development (LECReD) agenda.

The Maldives has undergone a series of political changes in recent years, culminating in the country's first multiparty elections in November 2008. The decentralization reform adopted since then required the government to devolve many of its planning and decision-making functions to the atolls and islands. However, technical, professional and administrative capacity constraints constituted a serious barrier to effective decentralization and mainstreaming, in particular with matters of climate change and DRR considerations. The period of programme implementation was marked by political concerns and uncertainty about the planning system, and the decentralization and population consolidation strategies. Despite this, stakeholders remained engaged and have shown strong willingness to collaborate in the process of implementation.

Adaptation to climate change and increased resilience to its impacts is a development priority for the Maldives, which was expressed in the Maldives National Adaptation Programme of Action (NAPA), the Maldives Strategic Action Plan 2009-2013 (SAP) and more recently in the Maldives Climate Change Policy Framework (MCCPF, 2015) where these issues were placed as critical for sustainable development. More specifically, the documents emphasise the need to reduce emissions and transform the economy to more sustainable energy sources. NAPA identified key sectors which are determinant to provide an urgent and immediate climate change adaptation and these were taken into consideration when designing the programme: extensive erosion, impacts on critical infrastructure, tourism, fisheries, human health, water resources, agriculture and food security. This positioned climate change response in the Maldives as a multi-sector, multi-stakeholder challenge. LECReD also builds upon the premise that resilient development is strongly linked to society's ability to plan for, detect and respond to change in a way that makes it better equipped to manage its exposure and sensitivity to climate change and disasters. Consequently, strengthening the capacity of local governments, civil society and communities is essential to low emission climate resilient development that is viable and sustainable.

The recent Climate Change Policy Framework has re-centered the Programme at the policy level. MCCPF has set the following eight principles that will be foundations for the Maldives approach:

- *Climate Leadership: Strong political commitment and demonstration of "climate leadership" at the highest levels of government, including the President, the Cabinet, the Parliament and island and atoll councilors and non-governmental partners;*
- *Intergenerational equitability: Safeguard the country's natural assets or "exclusive economic zone", social, economic and national security and ensure that future generations of Maldivians rightfully enjoy and have the opportunity to achieve national development and wealth. Equitable development between population groups*

through recognition of the unique nature of each of the atolls, diversity of needs and access to opportunities, services, goods and privileges. Respect for human rights, the rule of law, gender equality and sensitivity;

- *Mainstream Climate Change: Focus on direct implementation (not just policies and plans); and mainstream climate change considerations into core economic and social development goals and the development and implementation of sectoral plans and programs;*

- *International Commitments: Recognize and fulfil to the extent possible, the Maldives international commitments and obligations, including those under the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, and leverage sub-regional, regional and international opportunities and partnerships;*

- *Multilateral Partnership: Collaborate as appropriate and feasible, with regional and international partners and organization to pursue the climate change agenda of the Maldives through resource mobilization to implement the programmes and projects on climate change;*

- *Transfer of Technology: Adoption of Environmentally Sound Technologies and Practices (ESTs) in reaching of a low carbon economy. Create an enabling environment for the adoption of appropriate technologies and practices that will assist in meeting national and international commitments with respect to the causes and effects of climate change;*

- *Climate Resiliency: Recognize the inherent complexity of the climate change challenge, and the need for multi-focal and cross-sectorial responses, designed and implemented in a coherent and coordinated way. Recognize that the resilience of the natural environment is key to coping with climate change, thus adaptation measures that enhance, maintain, and where necessary, restore, the integrity of ecological processes are essential for reducing vulnerability of both natural and physical systems.*

| SECTOR | VULNERABILITY |
|-------------------------------|---|
| COASTAL ZONE MANAGEMENT | <ul style="list-style-type: none"> Over 80% of the total land area of the Maldives is less than 1 m above mean sea level. Approximately 44% of the settlement footprints of all islands are within 100 m of the coastline More than 50% of the housing structures in 121 islands are within 100 m of the coastline More than 67% of inhabited islands reported beach erosion in 2013 at different scales and of different severity. The adaptation measures to mitigate erosion in the islands, due to its lack of planning and poor design have lead to increased maladaptation countrywide |
| CRITICAL INFRASTRUCTURE | <ul style="list-style-type: none"> The infrastructure of the four international airports are within 50 m of the coastline. More than 90% of all resort infrastructure and 99% of all tourist accommodation are within 100 m of the coastline Approximately 70% of all fisheries infrastructure is within 100 m of the coastline Utility facilities including most powerhouse and waste facilities are located within 100 m of the coastline. More than 75% of communications infrastructures are located within 100 m of the coastline |
| TOURISM | <ul style="list-style-type: none"> Nearly 45% of tourist resorts have reported varying degrees of beach erosion. Rise in temperature leads to coral bleaching, loss of beach, saltwater intrusion and loss of tropical vegetation. Maldivian tourism product is based on sea, sand and sun. Adverse impacts on climate variability will have negative consequences to the tourism industry. |
| FISHERIES | <ul style="list-style-type: none"> During the 1997/1998 El Niño event the Indian Ocean purse seine fishery shifted to the east, unlike other years, owing to the elevated depth of the 20°C isotherm Over the last few years ocean temperature changes has lead to the transformation of the biophysical conditions of the pelagic environment, resulting in decreased tuna catch in the islands. |
| HUMAN HEALTH | <ul style="list-style-type: none"> Changes in temperature and rainfall regimes are causing higher incidence of vector-borne diseases. There is evidence that dengue outbreaks are becoming more frequent and it appears that there is an association with El Niño Southern Oscillation events. The vulnerability to climate change-related health risks is further compounded by local characteristics such as the level of malnutrition in children, accessibility and quality of healthcare, high population congestion and low income levels Climate change-related impacts on fisheries and agriculture threaten food security in the Maldives. Such impacts will have a direct effect on the nutrition status of children and overall health of the population. |
| WATER | <ul style="list-style-type: none"> Rainwater is the main source of potable water in the outer islands. After the 2004 Indian Ocean Tsunami, there is observed increased demand of bottled water as drinking water, mainly associated with groundwater contamination and reduced precipitation. 7 out of 196 inhabited islands including Capital Male' have access to piped desalinated water. |
| AGRICULTURE AND FOOD SECURITY | <ul style="list-style-type: none"> The total cultivable land area is estimated at 27 km², including 18 km² on inhabited islands and 9 km² on uninhabited islands The agriculture sector is constrained by the limited availability of cultivable land, poor quality of soil and the abundance of cheap imports of vegetables and fruits Due to the high import dependency, the food security of Maldives is vulnerable to climate change-related impacts on the agriculture of other countries Heavy import dependency, limited food storage and ad hoc distribution also pose severe food security risk to the population. The Maldives imports almost all food items except fresh tuna and coconut. Long-term and emergency food storage is virtually absent except for warehousing in Male' and nine other islands |

Table 1: Climate change vulnerabilities in the Maldives, as identified in the Maldives Climate Change Policy Framework (MCCPF), 2015

Within this framework, LECReD remains of high relevance, addressing all key priority areas for sustainable development in the Maldives.

As a pioneer for the LECReD concept, the UN has been providing a leadership role in global dialogue on climate change adaptation and low emission development and has paved the way to bringing LECReD into mainstream discourse. LECReD programme was created within the process of addressing climate change in the Maldives and under the overall guidance of the United Nations Maldives Country Team - specifically the United Nations Development Programme (UNDP), the World Health Organisation (WHO), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the United Nations Office for Project Services (UNOPS), the United Nations Entity for Gender Equality and Empowerment of Women (UN Women), and the Food and Agriculture Organisation of United Nations (FAO). Albeit with no acronym at the time, the Programme was conceived in 2010 with the aim of assisting the Laamu Atoll and its islands, which was assessed at the time as highest in need for such programme, to realize low emission and climate resilient development. The initial joint work plan was drafted, building on community consultation workshops held between June and October 2011 and scoping missions conducted in 2012 to ten islands of Laamu Atoll to identify the vulnerabilities of the atoll population.

The programme framework was presented to the LECReD technical working committee, comprised of participating UN agencies and national partners, for validation and improvement. However, after several consultations and meetings with the stakeholders, the process of programme finalization and implementation was put on hold at the request of the donor due to political changes that took place in February 2012. This created dismay in the Laamu Atoll community as they had put in very high hopes for the programme and were unsure of whether these resources would ever be accessible again. The process of programme finalization was resumed in 2013 when the One UN Fund Board endorsed the LECReD Project Document (ProDoc) at its meeting on 3 October 2013, and LECReD programme document was signed by all seven participating UN organisations (PUNOs, namely UNDP, UNICEF, UNFPA, WHO, UNOPS, UN Women and FAO), and national authorities (namely Ministry of Finance and Treasury, Ministry of Environment and Energy, Ministry of Health and the Laamu Atoll Council).

The start of the LECReD's implementation was set at 8 November 2013. It was conceived as a three-year project; hence its planned completion date was set initially at 11 November 2016. A one year extension was approved in 2016, based on Programme Midterm Review & Evaluation recommendation. The justification for extension was: 1) delayed start of the project because of lengthy mobilization period; 2) slow filling up of the management posts and reduced pool of local experts; 3) unstable political situation in Maldives before the project started; and 4) lack of experience in implementing One UN project. An additional extension of four months was allowed to complete all residual activities of the Stage Two work. Following approval of extension request at Programme Board meeting of August 2017, the new end date was set to 31 March 2018.

Much of the programme's key areas of work are aligned with the 'action areas' of the Samoa Pathway Agenda – areas that have been identified as being critical for Small Island States to make progress on climate change. Of these action areas, the primary concerns are in the areas of sustainable energy, water and sanitation, food security, health and non-communicable diseases, disaster risk reduction, gender equality and women's empowerment, oceans and coastal areas, sustainable tourism, adaptation/resilience and climate finance.

2. Summary and objectives

LECREd's main objective was to support low emission climate resilient local development in Maldives. It aimed to achieve this by taking an atoll-based approach, focusing on Laamu Atoll, and supporting local decision-makers and planners at both the island and atoll level to integrate climate change and disaster risk management considerations into local development planning. The programme was designed to directly align with the existing Decentralization Act that required Atoll and Island councils to prepare Development Plans and integrate them into 5-year Development Plans and annual work plans.

LECREd was programmed to be closely linked to the implementation of the United Nations Development

Assistance Framework (UNDAF) for Maldives, within which the UN had committed itself to support Maldives towards low emission climate resilient development. The proposed programme therefore responded to UNDAF Outcome 9: “Enhanced capacities at national and local levels to support low carbon life-styles, climate change adaptation, and disaster risk reduction”.

The focus of this area-based programme was on the sub-national or local level with application to Laamu Atoll and its islands. Like all atolls in Maldives, Laamu Atoll is comprised of rings of coral on the Maldives archipelago in the Indian Ocean some of which host emergent islands. Laamu is the second largest atoll in the country in terms of land area. Based on the Census 2014, Laamu total population is 12,676 with the major population centres being Gan, Fonadhoo, Maavah, Hithadhoo and Isdhoo. Population density is not uniform across the islands and environmental and resource potential also vary. Consequently, development challenges and opportunities differ from island to island. The main climate and socio-economic vulnerabilities in Laamu atoll are: coastal erosion and flooding and rain-induced flooding, solid waste management, water insecurity, outmigration, sustainability of future generations, education, trust and social cohesion, governance, poor management of health care facilities and other services, ageing and poorly maintained power generation and distribution systems, fishing, and access to markets.

The programme drew from best practices and lessons learned from previous experience of the Participating UN Organizations (PUNOs) in order to leverage the extensive skills, knowledge and operational experience of the UN County Team. The main conceptual element of the programme is the emphasis on mainstreaming LECReD considerations into local level development planning and management. This is reflected in the emphasis on improved coordination and partnerships, integrated participatory planning and area-based approaches, indicator development, management arrangements and selection of local implementing partners. The programme has built on existing institutional arrangements and planning mechanisms to strengthen participation and coordination and ensure an integrated and inclusive local level LECReD planning.

2.1 Programme summary

| | | | | | |
|---------------------------------------|--|-------------------------|----------------|-----------------------------|-------------|
| Participating UN Organizations | UNDP; UNFPA; UNICEF; UNOPS; UN WOMEN; WHO; FAO | | UN Fund | Maldives One UN Fund – MPTF | |
| Implementing Partners | National counterparts (government, private, NGOs & others) | | | | |
| Programme number | 00088009 | | | | |
| Programme title | Low Emission Climate Resilient Development (LECREd) | | | | |
| Total budget approved | US\$ 9.2 million | | | | |
| Location | Laamu Atoll, Maldives | | | | |
| Starting date | 08 Nov 2013 | Project duration | 40 months | Completion date | 31 Mar 2018 |
| Programme description | The Low Emission Climate Resilient Development (LECREd) Programme in the Maldives seeks to mainstream resource efficiency, low carbon and climate change adaptation issues into local level development planning. Towards this objective, the programme supported local councils, civil society, private sector and other local stakeholders to establish platforms for stronger partnerships, improved coordination, and enhanced participation in local planning for LECReD; to strengthen data and knowledge systems for LECReD; to improve local level LECReD development planning and management of | | | | |

| | |
|-----------------------------------|--|
| | service delivery; and, through a learning-by-doing approach, establish early lessons and build demand for LECReD planning and management for replication and scaling-up. |
| Programme outcome | Enhanced capacities at national and local levels to support low carbon lifestyles, climate change adaptation and risk reduction. |
| Outputs and key activities | Output 1: Partnership, coordination and participation platform for local LECReD planning and action is strengthened; Output 2: Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level; Output 3: Improved Local Level Planning and Management for LECReD; Output 4: Practical local experience in LECReD’s interventions leads to learning and promotes replication |

Table 2: Programme summary

2.2 Outcomes

The programme activities were conducted in line with the previous (2011-2015) United Nations Development Assistance Framework Outcome 9 which aimed at promoting “*Enhanced capacities at national and local levels to support low carbon lifestyles, climate change adaptation and risk reduction*” and was built on the comparative strengths of the United Nations Organizations. The programme was seen as innovative, representing a pioneering initiative of bringing together the wealth of diverse development-oriented expertise from the Participating United Nations Organizations with equally diverse national and local partners to address this multi-faceted development challenge. While keeping to the initial agreed outcome, following the approval of the new UNDAF for the period 2016-2020, the programme has realigned to the new framework in particular to its Outcome 4: *By 2020, growth and development are inclusive, sustainable, increase resilience to climate change and disasters, and contribute to enhanced food, energy and water security and natural resource management.*

The two indicators identified to measure this outcome are: 1) *Percentage reduction in Carbon emission in atolls and islands in Laamu Atoll*; 2) *Percentage of atoll and island councils in Laamu undertaking low emission climate resilient development planning*. The first indicator, 1) Percentage reduction in Carbon emission in atolls and islands in Laamu Atoll, was later agreed to be put on hold as measuring a reduction in Carbon emission is not feasible for such small land mass and the indicator does not appropriately reflect the main objective of the Programme.

LECREd contributed to UNDAF through its four interlinked programme specific key result areas:

- 1: Partnership, coordination and participation platform for local LECReD planning and action is strengthened;
- 2: Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level;
- 3: Improved Local Level Planning and Management for LECReD;
- 4: Practical local experience in LECReD’s interventions leads to learning and promotes replication

The first key result area focused on building a cooperative approach by **promoting a partnership, coordination and participation** platform for local LECReD planning and action. This has resulted in an increased understanding and openness in the dialogue towards LECReD implementation in the Maldives. Under this key results area a multi-sector public/private Laamu Working Group was formed in May 2015, regularly meeting for improved local level coordination, ensuring appropriate articulation of field-led activities with the community’s expectations and initiatives. This has ensured synergies were met between local level authorities and has translated into ownership of Programme activities. The legal and institutional arrangements for LECReD and DRM governance at local level were reviewed by UNDP, and a capacity development “roadmap” and local language advocacy tools were produced for use by local councils, Women’s Development Committees (WDCs), Local Government Authority (LGA), and line ministries. This activity provided insight into the current institutional arrangements and has

provided a framework for capacity development. A training manual on gender issues and the role of women in addressing climate change was developed by UN Women, and a Training of Trainers was delivered to relevant stakeholders in Laamu Atoll. This activity also unfolded to target concrete areas identified as specific vulnerabilities in the approach to climate change such as women's leadership and waste management and has allowed to develop joint-training activities between UNOPS and UN Women.

Based on a detailed stakeholder survey conducted in Laamu, a Communication and Stakeholder Engagement Strategy (CSES) was developed by UNDP, in a consultative process, integrating all LECReD key partners and participating UN Organizations. A public information campaign was designed and implementation began during 2016. UNICEF and UN Women have provided technical expertise in the areas of advocacy and awareness on child and women centered DRR and CCA. WHO has conducted a series of community awareness trainings and workshops on first aid, emergency preparedness and response, vector control, and medical waste management. As part of the work on communications, LECReD programme's visual identity package as well as design of communication products and materials was developed, including social media (Facebook and Viber) and a LECReD webpage, integrated in UN Maldives website.

UNDP organized three Laamu Climate Change Forums (LCCFs) during the period: two LCCFs were held during 2015 (April and December) and one in 2016 (October) and a 20% increase of participation was registered from 2015 to 2016. As part of the process, several multi-sector dialogue sessions were designed and conducted by UNDP, with national, atoll and island focus, aiming to ensure the cross-sector debate and promote the inclusion of women, different age groups, as well as different community representatives (e.g. private sector, different political representatives, people with disability, etc). The MSDs allowed to identify issues and challenges within that island, including the difficulties faced by each stakeholder in addressing these issues. The MSDs allowed the councils and Laamu citizens to discuss and identify issues in the community and what can be practically done to address these issues. The participants then came up with action points that was taken for discussion at the Atoll level and then at the national level, which were then included in the island development plans. This initiative showcased a clear example of participatory and bottom-up planning.

The second key result area targeted the local as well the national level by developing the **data and knowledge management system aiming to support evidence-based planning and policy development** for LECReD at the local level. The process was structured at the national level with Laamu as a pilot for implementation. A baseline for LECReD including the development priorities and initiatives was carried out by UNDP. The baseline looked at socially and economically vulnerable groups within a context of changing climate and collected household level data on different indicators relating to vulnerability of these communities. Similarly, UNDP developed risk and vulnerability guidelines and tools for local planners and emergency responders and developed high resolution risk and vulnerability maps for each island, identifying imminent and long-term threats, frequency and intensity. An integrated energy resource assessment and a survey on detailed land and marine surveys were also conducted to collect scientific data on natural resources, habitat classification, landscape/seascapes, mangroves, coral reefs and certain benthic communities of high economic value to the people of Laamu and the Maldives in general. Scientific understanding of climate change impacts on the Atoll was also strengthened through the development of the Laamu Climate Profile. The various climate financing options and opportunities available for the communities were also explored.

WHO supported to prepare and train "Stake holder Committee on health sector climate vulnerability and adaptation (V&A) assessment" and conduct the assessment. High priority climate sensitive health risk identified through the assessment included diarrhoea, food borne disease, vector borne disease, nutritional problems, and mental stress. Based on the report of the assessment WHO in partnership with the Ministry of Health and Ministry of Environment and Energy have devised and implemented mitigation measures.

UNFPA has focused on establishment of Laamu Atoll Development Planning Database, Laamu Koshaaru, which was launched during LCCF3 in October 2016. UNICEF has developed LaamuInfo (based on the DevInfo architecture), to facilitate evidence-based decision making, integrating a component of monitoring of the Sustainable Development Goals (SDGs) at the local level. WHO has provided support on the integration of public health and DRR related climate sensitive variables and resources into activities and associated training. Similarly, WHO supported training on first aid and prepositioned an Interagency Emergency Health Kit that caters to the health need of 10,000 people for 3 months during emergency. Thus over all the Atoll's capacity to prepare and respond to emergencies has been enhanced. UNOPS has supported the integration of water related climate sensitive variables and FAO has supported the integration of agriculture related climate sensitive variables and resources into activities and has provided associated training in Laamu atoll. Laamu atoll climate profile was developed including a detailed analysis of LECReD options through an assessment of key sectors at island and atoll level, and analysis of possible adaptation and mitigation options.

The third area was related to the **improvement of local level planning and management for LECReD**, which included development of guidelines, tools and systems for local LECReD planning and management. With a combined effort between national counterparts and different agencies, all guidelines and tools included age and gender specific references. The process was integrated within the web portal developed under LECReD Programme as part of the knowledge management system and coordination efforts were put into place in order to establish synergies and articulate different outputs into a coherent package for effective LECReD implementation. Under this key results area, a strong focus was put into the local development planning processes in support to the local councils and in partnership with the Local Government Authority. This involved a series of trainings and capacity building activities for integrated development planning and management for LECReD. This also encompassed the LECReD and DRR planning methodology. The process entailed the elaboration of guidelines for local development planning, integrating LECReD aspects into the local planning process, a video with a step-by-step approach and ToTs at national level. More detailed support was provided to Atoll and island development plans as well as identification of priority LECReD actions. This process was supported through climate finance and green growth approaches, including the development of concrete investment plans for Laamu islands, integrated into the local development plans. By the end of the Programme, all of the atoll and island councils were undertaking low emission climate resilient development planning. Since the guidelines and tools established through the programme were carried out in very close cooperation with LGA, these were used as a basis for the ToTs established at national level, resulting in all councils at national level applying the same methodologies and template planning documents and a far greater outcome than initially expected.

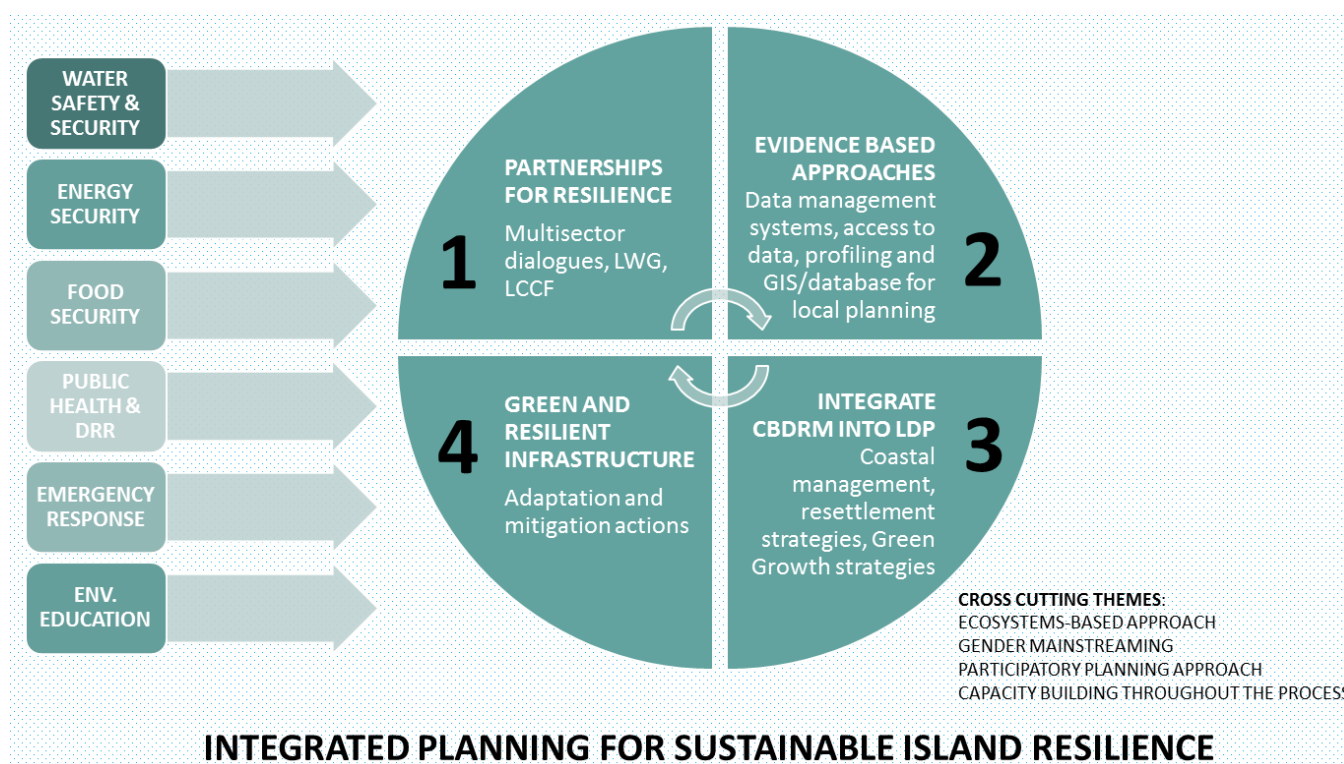
The fourth area focused on practical local experience in LECReD's interventions, aiming to **promote learning and replication**. This included the development of a small grants facility in support to local-led initiatives which was fully operational by the end of 2015, as well as the implementation of "No-regrets" actions identified in the early stages of programme design. The LECReD small grants scheme was established in cooperation with the "Mangroves for the Future" Programme benefiting from the experience and lessons learned by MFF Programme in the Maldives and utilizing the mechanisms and expertise of this well-established grant scheme.

During the initial consultation stages of LECReD, the sectors of water, waste management and energy were identified as a priority. Both national and local partners agreed to promote concrete immediate actions in these three sectors as part of a process of early learning and engagement of local partners. Under this output, a feasibility study on distribution networks and renewable energy options was conducted which has led to the selection and implementation of two initial options for investment related to energy efficiency: installation of solar panels in public buildings in all inhabited islands in Laamu atoll. The Programme installed solar panels on 11 schools and replaced harbor lights in all principal harbors of the Atoll. Under this output, the Programme has also implemented community rainwater harvesting facilities on 9 islands (Isdhoo, Kalaidhoo, Dhanbidhoo, Maabaidhoo, Mundoo, Maavah, Kunahandhoo, Hithadhoo and Maamendhoo). Reverse Osmosis water purifiers have also been installed in all health facilities and will ensure safe water is available at health facilities for the staff,

patient and visitors. Solar feasibility assessments were done in health facilities which showed that solar power alternative is feasible for the health sector.

Solid waste management plans were also finalised during the period, with a view to identifying concrete implementation options. Capacity building and exchange of experiences in this field were also promoted during the period, in support to these processes. Lessons from these interventions were captured under knowledge products.

Health care waste policy and strategy was developed through technical support of WHO and endorsed, followed by piloting of green initiative for managing health care waste. All Island health centers and the Gan Hospital will use autoclaves to disinfect medical waste before they will be managed as part of the general health waste. WHO experts have trained the staff of all islands on the green waste management including the use of autoclaves. National Medical Waste Management Policy and Strategy are being used as reference for the procedures.



WHO assessed feasibility and cost effectiveness of installing solar power generated energy system in Laamu. The technical report shares that the initial investment for the switch is equal to 6.7 years of fuel-based operations cost at the Regional Hospital and 5.85 years of operations cost at the Island Health Centre. Solar PV system is thus a cost effective and sustainable alternative for energy. The result of the assessment has been shared with key decision makers.

WHO procured an air quality monitoring equipment and handed them over to the Ministry of Environment and Energy in October 2016. Maldives can now generate regular information on quality of air. This information will support to identify health hazards, prioritize activities to address the issues, monitor progress and report to national and international bodies.

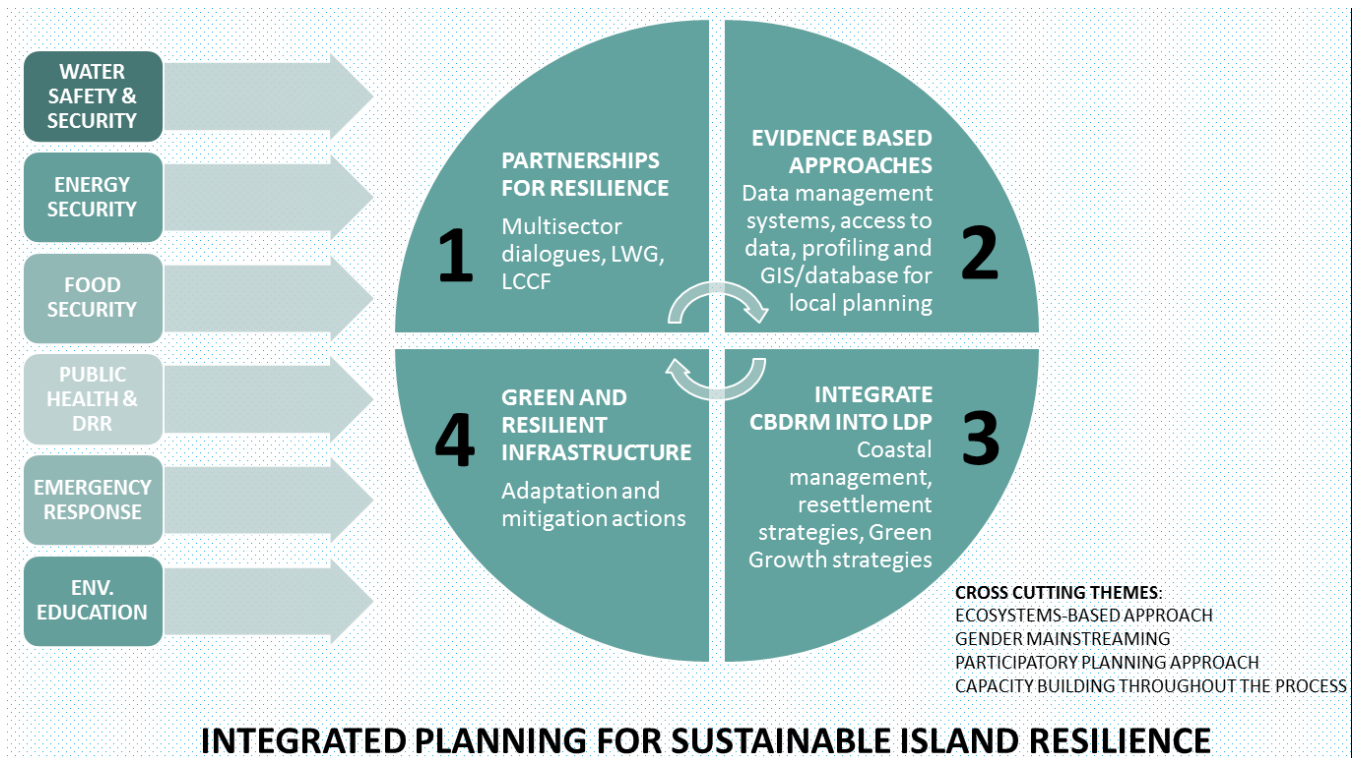


Figure 1: LECReD 4 key outputs and relation to thematic areas and cross cutting themes

The Programme has persistently made efforts to strengthen local and national ownership, by reinforcing dialogue with particularly with MEE, the Local Government Authority and with the Laamu Atoll Council. Capacity building of local government counterparts (e.g. local councils, Women’s Development Committees, local health providers and community health workers) was understood as a cross-cutting objective and was reinforced throughout different programme activities within a multi-sector and multi-stakeholder approach. This was achieved by ensuring participation of local government and different local stakeholder groups in programme activities such as MSDs, training activities and participation in the local development planning process. Other important cross-cutting themes were gender mainstreaming, participatory planning and an ecosystem-based approach, which remained as a challenge.

3. Implementation and Monitoring Arrangements

LECREd Programme aimed to support local development plans in evolving from stand-alone action plans into more strategic and evidence-based instruments, which are climate smart and able to mobilize public and private investment. For this reason, the Programme was set-up to build capacities of local and national partners engaged in these local processes. The rationale being that lessons learned would be used to inform replication throughout the country and directly support the national agenda.

In order for the Maldives to shift to a low emission climate resilient economy, there must be support for change and development at the local level. Climate change policies cannot be developed in isolation from the overall development context, and therefore, capacity at the local level must be able to turn policy into action. The objectives of strengthening resilience to climate change and climate risks and shifting to a lower GHG emission economy with improved access to secure energy, are closely intertwined with development choices across a variety of sectors such as land-use, energy, water management, sanitation, waste management, agriculture, health and marine resources.

Facilitating an active participation of different national and local stakeholders has contributed to a stronger, more effective, and more equitable outcome by ensuring that local knowledge, perspectives and innovations are taken into account. Local communities have unique perspectives and aspirations for development and environment that are frequently not heard by decision-makers. Supporting their strong engagement and participation up to and during LECReD implementation, was a way to ensure that their voices are heard. The process was designed to integrate different sectors, key stakeholders and local communities, and provide them with a structured platform to advance their needs and priorities, while coordinating and advancing in the access to knowledge in this area.

This is particularly relevant in the Maldives due to the remoteness of the islands and the distance between the populated areas. For this reason, effective and sustainable risk management strategies had to be based on the resilience and coping capacity of communities at risk. Community-based adaptation and DRR was an effective approach since it addresses perceived problems, capitalizes on local knowledge and resources, empowers people, is cost-effective and contributes to sustainability.

3.1 Implementation: Roles of UN Partner Agencies

This was an interagency UN Programme involving **FAO, UN Women, UNDP, UNFPA, UNICEF, UNOPS, and WHO**. To promote synergies while ensuring managerial clarity, an interagency Memorandum of Understanding (MoU) was developed and signed by all relevant heads of agencies regarding each agency's responsibility in programme implementation and to clarify matters such as lines of reporting and decision-making. The MoU established the reporting, monitoring, evaluation, auditing and joint communication obligations of the agencies, under the One UN approach. The Programme document and joint work plan further detailed these responsibilities and the roles of the different programme entities in terms of management, coordination, guidance, and quality assurance functions.

The programme proposed to address an important challenge identified in the early stages of drafting the programme documents, which is to link development planning with the current and future challenges of climate change. LECReD was developed aiming at being implemented within a highly participatory approach given that it aimed to use and build upon existing development strategies, plans and mechanisms in the country. This participatory approach extends to different levels of the Government in addition to the in-depth involvement of the expertise of UN agencies present in the Maldives. All this required unprecedented levels of coordination at the level of PUNOs, in addition to various levels of central, atoll and local government. Emphasis was therefore placed at the initial stages of this programme to establish a strong mechanism through which such coordination could be achieved.

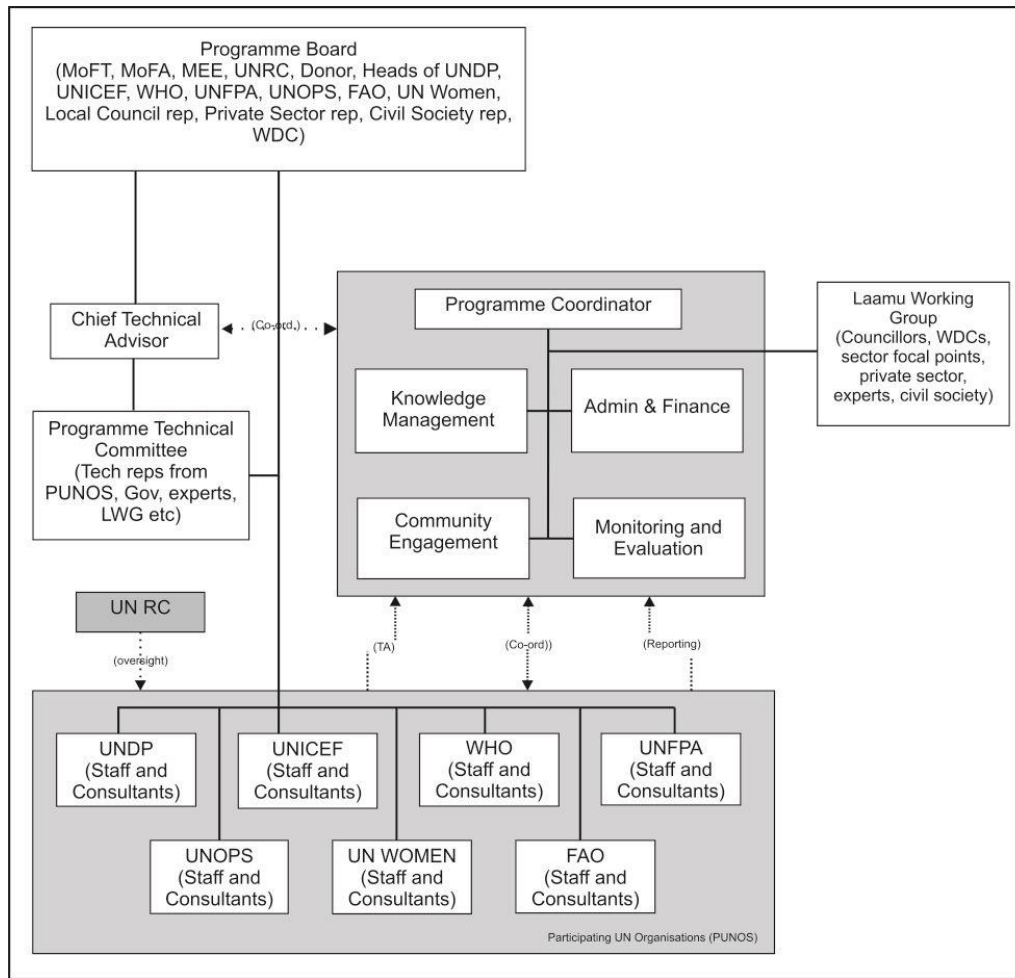


Figure 2: LECrED Programme Management Structure, as proposed in the ProDoc

The LECrED Programme Board (PB), comprised of a wide range of stakeholders, provided policy direction and approved financial allocations. Oversight and coordination functions were carried out by the Programme Coordination Unit (PCU), the Programme Technical Committee (PTC), and the UN Technical Group (UNTG) integrating focal points from all PUNOs. The Multi-Partner Trust Fund (MPTF) Office served as the Administrative Agent for the LECrED Programme Fund. Laamu Working Group (LWG) was responsible for coordination of LECrED Programme activities in Laamu atoll. Concerning Island Working Groups (IWGs), this was a new programme entity proposed during the inception phase (refer to table below for details).

| Entity | Key Function |
|---|---|
| Programme Board (PB) | Overall programme management, decision making and oversight |
| Individual Participating United Nations Organizations (PUNOs) | Day-to-day decision-making on specific outputs, activities and inputs |
| United Nations Technical Group (UNTG) | Coordination of UN agencies outputs, activities and inputs |
| Programme Technical Committee (PTC) | Programme level technical guidance and quality assurance |
| Chief Technical Advisor (CTA) | Independent day-to-day technical input, advice and quality assurance |
| Programme Coordination Unit (PCU) | Programme level coordination |
| Local Working Group (LWG) | Atoll level coordination |
| Island Working Groups (IWGs) | Island level coordination |

Table 3: Summary of Management, Coordination, Guidance and Quality Assurance functions of Programme Entities, as defined during inception.

The detailed ToRs for each Programme entity were revised at inception stage and the inception report provided the updated final narrative of specific institutional roles and responsibilities of various programme entities. Following inception and the appointment of a CTA, it was decided that the CTA would accumulate technical and advisory functions with the role of Programme Manager, Programme Coordinator, act as head of the PCU, lead UNTG and be a member of Programme Board. It was also decided that the PCU would integrate the RCO and take over its functions in the programme (secretariat and support to fund management). In order to implement this, the DPC was based in Male' in support to management, coordination and secretariat.

The Joint work plan, revised annually and endorsed by the Board, clarified in detail the responsibilities of participating organization through project delivery.

3.2 Coordination arrangements and Programmatic reviews

The **Programme Coordination Unit** was responsible for programme level coordination and has coordinated on the ground activities in Laamu atoll, including in relation to PUNOs planned activities and monitoring missions. The PCU also supported the harmonized reporting, budgeting and programme level planning, including the coordination of the Joint-Annual work plans and budgets. The PCU has also provided guidance and support in organizing all logistical arrangements for the Programme activities both in Laamu at the atoll and island level and in Male'. The PCU has kept a calendar of planned programme events at national, atoll and island level (including missions, meetings, workshops and surveys) which was approved by the Board annually and shared online with all stakeholders and kept a log of missions, issues, lessons learned, and the Programme's risk matrix. The PCU has also supported the preparation of a programme wide knowledge management system, and the communication of results, including with appropriate visibility of donor, PUNOs, national and sub-national implementing partners. The PCU has provided secretarial support to UNTG, LWG, PTC and PB meetings and provided regular joint-programme updates at UNCT, PB, and PTC meetings, and to the donor.

UNTG was an important coordination platform in order to maintain the technical level programme coherence and strategic approach of the Programme. UNTG met regularly to debate programme level activities – in total 29 UNTG meetings were conducted during the period of implementation. The Programme Technical Committee ensured the technical guidance, providing coherence with national level activities and quality assurance, supporting review of joint-work plans and technical lessons learned and proposing follow-up actions to the PB. In total 12 PTC meetings were held during the period of implementation, gathering national and local level stakeholders to discuss programme progress and plan future key activities such as LCCF. The **Programme Board** had the responsibility to oversee the LECReD Programme and be responsible for achievement of stated results. The Board met twice yearly and 7 Board meetings were organized in the period. The UNCT was an additional important element for coordination, serving as a coordination platform where joint-Programme updates were provided on a regular basis, and delivery rates were analysed. UNCT ensured coordination with relevant financial and contractual compliance with UN rules and procedures, providing accountability from PUNOs and oversight on delivery.

Eight **LECreD Programmatic work sessions** were organized with all LECReD Programme staff:

- December 2014, Two-day Programmatic workshop, held in Male', focusing on JAWP;
- June 2015, Three-day Programme review, focusing on coordination and communication aspects, held in Baa atoll in 'retreat' format;
- August 2015, Review session held during PTC5, to present and discuss progress; review and program core activities and discuss main upcoming activities, in preparation of the Third Programme Board Meeting and MTR/evaluation – this session was held at Bandos, in Male' and gathered both Programme staff, Technical Committee members as well as LWG representatives;
- Two sessions in November 2015: Leadership retreat, gathering all Laamu councilors as well as national level representatives in Hulhule' island, as part of Programme midterm review and as preparation of MTE

and Second LECReD Programmatic workshop, undertaken as a two-day workshop and carried out at LGA in Male' with the entire PCU and PUNOs and followed by individual work sessions with PUNOs to wrap-up the revised JAWP;

- Three sessions in July and September 2016: two Thematic discussions held during PTC9 and PTC10 in Male', aimed at improving quality assurance from the Programme's Technical Committee and inter-agency coordination at thematic level and LECReD UNTG meeting held in Thulusdhoo as a one day Programmatic discussion on Knowledge management and communications with particular focus on lessons learned.

The first half of 2014 can be evaluated as an active mobilisation period, when the PCU was established in Laamu. The PCU started operating in premises temporarily offered by the LAC, where they moved on 29 April 2014. Subsequently, PCU had to leave the premises and it moved to a rented office, in early 2015. The two-week Induction Programme was held at UN offices in Male from 23 March to 3 April 2014. The only setback during the mobilisation period was the fact that Chief Technical Advisor (CTA) was hired only at the end of 2014, i.e. a year after the official start of the programme. To cover for this delay, as a temporary measure, the UNDP Maldives has appointed an acting CTA through a detailed assignment during the period of April to July 2014. The assignment was facilitated by the Environment and Energy Specialist from the UNDP Pacific Centre in Fiji. The objective of the assignment was to provide short term technical assistance to LECReD including supporting the PCU in preparation of the Inception Report as well as preparation and implementation of selected baseline activities.

Following the appointment of a CTA in November 2014, the first Programmatic Workshop was held in December 2014. LECReD's joint annual work plan and budget for 2015-2016 biennium was developed with input from all partner agencies. The final review meeting from UNTG was held on the 20th January before being shared for comments from the Programme Technical Committee. The document was approved by the Programme Board on 2nd February 2015 during PB2. Detailed timelines and sub-activities were agreed and coordinated with all parties, in alignment with the LECReD's strategic timeline.

The **Joint Annual Work Plan (JAWP)** required that all PUNOs and partners collaborated in a single approach to local governments and authorities with clear methodologies to support autonomous communities with strong capacities to undertake LECReD. All these processes needed to be streamlined and coordinated within an adequate communication process, involving government partners and the different stakeholders involved.

The **Midterm evaluation** has provided a clear assessment of LECReD Programme Progress and offered a basis to evaluate the need for Programmatic revision in terms of coordination arrangements and recommendations for Programme extension. The independent evaluation undertaken between PB3 and PB4 has also given valuable recommendations for strategic key areas of work for LECReD for the remaining time period of the programme. One of the key strategic areas which remained relevant was to get more visibility on the programme in order to best carry out the way forward and to continue to engage the PTC and all stakeholders in Programme implementation. Following these recommendations and alignment of main strategic timeline and milestones, a second Programmatic workshop was organised in Male' in November 2015 to undertake the detailed planning of 2016 JAWP, integrating required changes and new proposed activities.

The final evaluation of the Programme was held in November 2017 to achievements and challenges as well as to take a note of lessons learned and recommendations for similar future programming.

ROADMAP towards LECReD IMPLEMENTATION



Figure 3: Roadmap established for LECReD implementation

3.3 Financial Resources

The Programme received its funding from the Maldives One UN Trust Fund with the government of Denmark as a donor. Additional contribution was provided by UNDP, WHO and the government of Maldives. The programme review process was held annually in connection with the Funds transfer requests to the Multi-Partner Trust Fund (MPTF) Office. Following the Programme Board meetings, and adjustments to the Joint-Annual work Plan, the Funds Transfer requests were formalized and the receipt of the installments was recorded.

The funds were allocated to PUNOs, in accordance with what was established in the Programme document, in two stages, where the first allocation stage was based on the activities indicated in the Programme document. The second stage was allocated in accordance with pre-agreed criteria by the PB and based on the activities identified in the solid waste management investment plan which was developed based on LECReD local level planning process of islands and Atoll councils and assessment of priorities. Activities funded under the two stages ran concurrently. This mechanism required that a portion of the total fund was reserved and unallocated for use in the second stage.

| Participating Organizations | Stage 1 Budget | Stage 2 Budget |
|-----------------------------|----------------|----------------|
| UN WOMEN | 211.86 | - |
| FAO | 184.58 | - |
| UNICEF | 240.75 | 100.00 |
| UNFPA | 330.01 | - |
| WHO | 451.97 | 169.50 |

| | | |
|--------------|-----------------|-----------------|
| UNOPS | 1,040.19 | 214.00 |
| UNDP | 4,649.76 | 1,624.07 |
| Total | 7,109.09 | 2,107.57 |

Table 4: Budget Stage 1 and 2 Funds (US\$'000)

3.4 Human Resources

Regarding Human Resources, since 2013 LECReD team has grown and at various times employed a total of 22 team members. They were positioned in the offices of PUNOs in Male' and in the Programme Coordination Unit in Laamu atoll. For improved strategic coordination, three team members were positioned directly at counterparts' offices (MoFA, NBS and Laamu atoll Council). The team was comprised of the following positions:

UNDP

<International Staff> Programme Manager / Chief Technical Adviser (1).

<National Staff> Under the Programme Coordination Unit: Programme Coordinator (1), Deputy-Programme coordinator / Knowledge Management and Communications Officer (1), Monitoring and Evaluation and Results Reporting Associate (1), Community Engagement and Coordination Assistant (1), Administration and Logistic Assistant (1).

Upon departure of the Programme Coordinator in November 2016, the Coordination Specialist at the Resident Coordinator's Office has taken over the management and coordination function.

To speed up the implementation, UNDP contracted six additional team members during the period: Project Manager (1), Project Officer (3), Senior Programme Associate (1), Small Grants Officer (2), Project Assistant (3).

UNICEF

C4D Officer (1).

UNFPA

Program Associate (1) and National Project Professional (1).

UNOPS

Project Manager (1) and Project Officer (2).

UN-Women

There was no full time staff contracted by UN-Women for LECReD. UN Women Maldives office staff based at RCO acted as a LECReD focal point and worked directly with national and international consultants.

FAO

FAO's National Correspondent (1) was based at MoFA and worked directly with one national consultant based at PCU – Laamu atoll.

WHO

National Professional Officer – Health and Environment (1) and Project Assistant (1).

Further to LECReD UN team, in partnership with NBS, an Atoll Statistics Officer was in place in Laamu, working closely with local authorities, and established the direct link with NBS dealing mostly with data management at the local level, while fully supported by NBS as NBS staff member. With the scaling down of the programme towards the end of its implementation period, teams were downsized accordingly.

3.5 Procurement Procedures

In general, the overall procurement for the programme is carried out by the respective individual agencies in accordance with the guidelines and standards set by the agencies themselves. All procurements are based on the activities in the Joint Annual Work Plan that is approved by the Programme Board. The Joint Annual Work Plan and its budget is reviewed bi-annually.

With regard to United Nations Development Programme (UNDP) and the Programme Coordination Unit (PCU), the procurement for the programme activities is carried out in accordance with the MPTF guidelines and the standard financial procedures of the UNDP. An annual procurement plan is prepared by UNDP and PCU respectively and submitted to the Operations and Financial Unit of the UNDP before any procurement is carried out. All procurements for these units are also done in accordance to the budget approved by the Programme Board for the respective implementing years. PUNOs also abide by the procurement rules and regulations of their own agencies.

3.6 Monitoring Arrangements

The monitoring and evaluation mechanism was coordinated by PCU. PCU coordinated quarterly reporting and annual narrative reporting to MPTF and Programme Board. Participating Agencies were responsible for individual annual financial reporting.

The outcome indicators were established to measure the objectives of lowering emissions and improving climate resilience, however they do not relate to overall programme outcome of capacity building for LECReD. Regarding the first outcome indicator, *Percentage reduction in Carbon Emission in atolls and islands in Laamu Atoll*, best efforts were made by UNDP and PCU, along with the Ministry of Environment and Energy, to obtain GHG emissions, establish protocols for measurement of emissions, and to have access to fossil fuel consumption records. However, and following analysis at midterm review and with Programme Technical Committee it was determined that the fossil fuel consumption records were not available and also that emission reduction resulting from island planning implementation could only be measured on a longer-term period.

3.7 LECReD Knowledge Management System

In terms of information system, throughout the implementation of Programme activities, LECReD Programme has used a unified, cloud-based system which allowed for data sharing, online information sharing system, collaborative coordination and unified reporting. The Programme also benefited from access to the MPTF Gateway which aims to offer partners full transparency regarding the funds administered and gives real-time data access to staff of Participating UN Organizations and for stakeholders in country and at headquarters to all relevant information (such as programme reports, MoUs or annual financial statements). The Gateway offered useful features to assist LECReD partners and contributors, such as a document center with search capability and easy navigation; interactive tools such as maps, timelines, charts and figures; access to programme-level information and documents; ability for PUNOs to track transfers made to them and see their purpose; ability for the donor to track the deposits they have made to the Programme and directly follow fund administration with access to real time data, for example in terms of programme delivery.

These information management systems were mostly used for internal programme management purposes and did not aim to replace a comprehensive support to the multiple components of the LECReD Programme. LECReD webportal was designed in the second quarter of 2016 and developed in close collaboration with all partners, in particular PUNOs, NBS, LGA and the Laamu Atoll council. With integration of LaamuInfo websystem, this platform allowed for comprehensive data collection, and integrates a knowledge resource library with knowledge products such as LECReD guidelines, training modules and the videos produced under LECReD programme.

Guidelines, tools and systems were established and training was provided to support effective LECReD participatory planning and management and integration in service delivery. LECReD has supported a pilot mechanism in Laamu Atoll to manage administrative data at island and atoll levels. The system is based at the Local Government Authority and will provide the evidence needed for island, atoll and national level planning. It represents a concerted effort from different government agencies; working together to establish a common database that will be accessible to all and that will support the path to resilience-building.

The mechanism was developed based on the assessment conducted by LECReD/UNFPA in 2015 to review the data availability, quality and the capacity of the island based institutions for collection, analysis and use of the data, with an emphasis on strengthening partnerships with the Laamu Atoll and Island Councils, National Bureau of Statistics and the Local Government Authority to host, pilot and own the system beyond the project period. A partnership with UNESCAP was established to define national standards for data and indicators, including environment statistics.

The database will facilitate Atoll level analyses, ensure safe and secure storage of data, and make the data accessible to all. During 2015, templates were produced to standardize the data collection forms used at the island and atoll levels. This was completed based on the priorities identified by the local councils after a wide consultative process with local and national institutions, such as the National Bureau of Statistics, Ministry of Environment and Energy, and the Ministry of Fisheries and Agriculture.

The aggregate data from the forms will directly feed into LaamuInfo developed by UNICEF under the LECReD Programme. LaamuInfo will ensure data gaps at the atoll level are addressed for evidence-based decision making and will also be used as a monitoring tool to assess Agenda 2030 and the Sustainable Development Goals implementation. LaamuInfo incorporates statistical data for the past 25 years, from sources such as the national census and various national studies conducted.

4. Evaluation

The Programme has undertaken two independent evaluations, commissioned by the PCU and which were coordinated following the procedures recommended in the *Guidance Note on Joint Programmes* (UNDG, 2014). These point out to the emphasis on results and on the Joint Programme process. As such, the joint evaluation modality was adopted, wherein all evaluation units of all concerned organizations participated in both the midterm and final evaluation.

The process has encompassed an initial UNTG and PTC assessment carried out during 2015 and has included the Smart Output review. Smart Output review was undertaken through a series of targeted meetings with key stakeholders, to analyze progress to date and any need for review of the activities under each smart output. The process also included a LECReD Government of Maldives retreat, which took place in October 2015 and which highlighted some of the key challenges and success stories in the process and contributed to coordinate the planning of 2016 main areas of work, making sure all partner agencies and key stakeholders were well aligned with future steps in the Programme.

As per the programme document, *“given the importance of identifying early lessons and closely engaging with local planning, an independent mid-term evaluation will be undertaken in mid-2015 (...). The mid-term evaluation will focus on reviewing performance and guiding the second half of the programme to ensure delivery of results. This will include a detailed review of the risks and assumptions and indicators identified in the Results Framework.”*

The independent Mid-Term evaluation of the Programme results was conducted in late 2015 and the report was released in February 2016. It reviewed LECReD programme vis-à-vis its objectives and provided an assessment of

the relevance of its activities to the current situation on the field, effectiveness and efficiency of delivery and the operational and coordination structures of the programme and sustainability. Despite the programme's slow start-up, delays and lack of tangible results it was deemed as important to implement Mid-Term Evaluation/Review on time and as planned in order to analyse the reasons for slow initiation and improve overall programme performance. This aimed at promoting earlier course corrections that may potentially result in better implementation and greater outcome progress. Preparatory work for this review has been undertaken by LECReD's PCU, the United Nations Technical Group, and a participatory review meeting has been promoted with the Programme Technical Committee, composed of agency and Maldives government representatives, as well as through a leadership review meeting which was held with all Laamu atoll council presidents, high-level representatives from national authorities (in particular with Deputy-Minister of Environment and Energy and Local Government Authority's CEO) and technical level representatives from PUNOs and partners.

The independent international consultant has assessed progress towards the achievement of LECReD Programme's outcomes and outputs, as specified in the Programme Document, and early signs of programme success or failure with the goal of identifying the necessary changes to be made in order to set the programme on track to achieve its intended results. The MTR has also reviewed the programme's strategy, and its risks to sustainability.

The review ultimately sought to a) analyse the overall set-up and preliminary results of the efforts invested in the whole Programme, and particularly in the four outputs, and in the cross cutting / integrated activities in order to achieve the UNDAF Outcome 9: Enhanced capacities at national and local levels to support low carbon life-styles, climate change adaptation, and disaster risk reduction and to b) propose a set of recommendations for the way forward.

The specific objectives of the mid-term review were to:

- Analyse the current monitoring process and evaluate results and impacts;
- Provide a basis for decision making on necessary amendments and improvements;
- Promote accountability for resource use; and
- Document, provide feedback on, and disseminate lessons learned.

The evaluation, finalised in February 2016, was presented in draft version to the United Nations Participating UN Organisations during a meeting held in November 2015. MTR concluded that LECReD Programme was still relevant with respect to its national importance, and consistent with national policies and strategies for improving the climate resilience and developing low-emission lifestyles. The evaluation has recommended that the Programme's overall structure should remain unchanged. The speed of implementation at midterm was deemed to be far from satisfactory. The Joint Programme Monitoring Framework's indicators, as amended during the Inception Phase, were still considered to be relevant. However, the evaluation highlighted that major outputs still had to be produced. No changes were proposed in the indicator system as a result from MTE.

The overall rating based on the evaluation findings was Moderately Satisfactory (see below table). Summary comments highlight aspects of the assessment that best illustrate the rationale for the rating given.

| Aspect of the project | Summary assessment | Rating |
|-----------------------|---|-------------------------------------|
| Project design | The project is still relevant in view of its national importance and consistency with the national policies and strategies for improving climate resilience. While the conceptual approach to the issue is fundamentally correct, the approach to the implementation of the LECReD's components is quite vague and not been | Moderately Satisfactory (MS) |

| | | |
|--------------------------|---|---------------------------------------|
| | developed enough, while a number of technical details in both the ProDoc and IR are left to be desired. | |
| Progress Towards Results | The project has been greatly delayed in early stages of implementation, which is being felt now at the end of the second year of implementation. Many activities of the project have been changed in the course of preparation of 2014 and 2015 JAWP. The convergence of the project activities, run by seven PUNOs is at an early stage resulting in the current project status being perceived as almost haphazard collection of smaller projects than one “strong” project. Certain progress has been made towards attainment of the LECReD’s overall objective. | Moderately Unsatisfactory (MU) |
| Adaptive Management | No major shortcomings perceived, but there are areas that need improvement, such as work planning, financial planning and reporting, which should be made more transparent and accessible. | Moderately Satisfactory (MS) |
| Management Arrangement | The additions to the management arrangement made during the Inception Phase were beneficial to the project. | Moderately Satisfactory (MS) |

Table 5: LECReD’s Summary evaluation at midpoint

The report proposed 22 recommendations divided in four groups. The most important recommendations were: speed up implementation of LECReD’s activities in the remaining period; increase disbursement of funds by speeding up the implementation of the project's activities; take measures to improve quality of deliverables and avoid lengthy delays in their delivery; finalise communication plan; improve local capacity to prepare SGP proposals; request a 12 month no-cost extension; undertake a review of the PCU and UNDP/EE LECReD staff with a view to assessing the capacity needed for the implementation of remaining activities; finalise detailed procedure for Stage 2 projects selection, contracting, implementation and monitoring; and finalise development of the “convergence” strategy of LECReD.

At the time of midterm review the major lessons learned from the hitherto LECReD’s implementation were: project document prepared for situations similar to this one should not omit defining in greater detail some critical outcomes and outputs; the implementation of the One UN approach had not been up to the expectations yet; commitment of the project staff is of critical importance for the success of the project; quality control procedure has to be integrated into the project’s workplan; and the stakeholders' involvement should not be considered as a phrase.

The full Midterm evaluation report may be found in the annexes to this report.

An independent joint-evaluation of LECReD, was carried in November 2017 and the report was released in March 2018. It reviewed the Programme vis-à-vis its objectives, and provided an assessment of its relevance, effectiveness, efficiency and sustainability. A summary of the assessment is given below:

| Criterion | Status | Comments |
|-----------|-----------|---|
| Relevance | Very Good | The programme is highly relevant to the needs of the country and is in line with national development strategies and the SDGs. On the sub-national level, the programme addressed the most pressing issues such as climate resilient development and waste management. The programme also undertook considerable efforts in building the knowledge base of island and atoll authorities, communities and non- |

| | | |
|----------------|--------------|---|
| | | governmental sector with regard to low carbon and climate resilient lifestyle, private-public partnerships and multi-sector dialogue. Financing local initiatives stemming from development plans through the small grants scheme reinforced the 'soft' components of the programme. Overall the evaluator estimates that the programme relevance is "very good". |
| Effectiveness | Medium | While the main targets were achieved, overall the programme experienced bottlenecks and delays throughout its implementation. The original timeframe could not be maintained, and the programme duration had to be extended by at least 15 months. Nevertheless, respondents were usually satisfied with the quality of support provided (whether it was expertise / soft or equipment & works / hard). In particular, the respondents noted the high level of commitment and availability of the PCU area team throughout the programme implementation. Therefore, effectiveness is rated as "medium". |
| Efficiency | Medium – Low | It is difficult to gauge whether the project was good value for money. On the one hand, the Maldives is a very expensive country due to lack of local production and high reliance on imported goods. On the other hand, PUNOs and island / atoll councils alike noted that there was scope for improvement in terms of cost sharing and efficiency and there was certainly some overlap of activities. In order to be able to measure the added value of the money spent, an evaluation would have to be carried out a few years from now. Some respondents noted lengthy procurement procedures, but this may also be due to external factors such as unavailability of specialized equipment or difficulties in identifying suppliers that can provide the best quality-price ratio. Overall, efficiency is rated as "medium low". |
| Impact | Medium | Although it is too early to determine whether the received knowledge will be applied at the local and national levels in the long term, some short-term impact of the programme is visible. Respondents were overall positive about the various activities carried out by all PUNOs. Nevertheless, it has been difficult to gauge impact in terms of development indicators. This is in part due to lack of baseline indicators, but also because statistical data, notably at the sub-national level, lack or are not objectively verifiable. Long term impact in terms of shift in attitudes among authorities, the private sector and the population at large is also difficult to estimate, but due to limited human capacity and financial resources it is likely to be low. Overall short-term programme impact is ranked "medium". |
| Sustainability | Low | Sustainability is rated "low" because the evaluator found that many activities were unlikely to continue or may lose momentum after programme completion. This remark refers in particular to the soft measures such as local planning & monitoring, Atoll Working Group, the multi-sector dialogues. The outlook for sustainability of the initiatives supported through grants is better, but whether or not this assumption holds true remains to be seen in two-three years' time. It was too early for the evaluator team to establish this aspect in December 2017. |

Table 6: Independent Evaluation of LECReD – Key findings as per OECD DAC criterias

The full Programme evaluation report may be found in the annexes to this report.

5. Narrative of Key Programme Results

Key Programme results were focused on national and local level support to improve capacities to plan and manage the implementation of low emission and climate resilient interventions. The main activities undertaken and measurable achievements/results are structured into 4 key results areas as follows:

- 1: Partnership, coordination and participation platform for local LECReD planning and action is strengthened;
- 2: Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level;
- 3: Improved Local Level Planning and Management for LECReD;
- 4: Practical local experience in LECReD's interventions leads to learning and promotes replication

5.1 Report on Progress against JAWP Targets

Output 1: Partnership, coordination and participation platform for local LECReD planning and action is strengthened

Three main “smart outputs” were developed under this output, which have collaborated to build a cooperative approach towards LECReD planning and implementation: 1.1 Review of legal and institutional arrangements for LECReD; 1.2 Public awareness and access to information on LECReD and DRM; 1.3 Inclusive platform for LECReD and DRM Planning and Management.

1.1 Legal and institutional arrangements for LECReD and DRM governance at local level clarified and more inclusive

The ‘**Review of the National and Local level Institutional and Governance Arrangements and Legislative Frameworks**’ was completed, analyzing the existing arrangements for environmental, LECReD, and disaster-risk management governance, as well as proposing capacity development “roadmap” recommendations, targeting local and national institutions, to identify where capacity is lacking and propose capacity building activities and trainings required immediately and within the short (next 1-2 years) and long term (next 3 years). Resulting from this review, an advocacy package was prepared including tools for use by local councils, Women’s Development Committees (WDCs), Local Government Authority (LGA), and line ministries. This activity provided insight into the current legal, regulatory and institutional arrangements and has provided a framework for capacity development.

UN Women has prepared a training manual on gender and climate change with a focus on the impacts and roles of women in mitigation and adaptation, and a Training of Trainers was delivered to relevant stakeholders in Laamu Atoll. A study tour comprised of 23 women from Laamu Atoll communities undertook a visit to Addu City and Hulhumeedhoo Island, Seenu Atoll in 2015. The tour focused on mainstreaming gender issues into the LECReD climate resilience debate and to increase female participation in LECReD activities. The study tour also promoted the exchange of experiences with successful women-led projects and provided an opportunity for the participants to engage directly with women involved in these projects to enable them to share experiences and knowledge as well as skills with a view to build their capacity and economically empower the women of Laamu Atoll. Furthermore, it also created a platform for networking especially on economically empower women in the communities..

This activity also unfolded to target concrete areas identified as specific vulnerabilities in the approach to climate change such as women leadership and waste management and has allowed to develop joint-training activities between UNOPS and UN Women. This involved training for women from Maabaidhoo, Fonadhoo and Gan on segregation of waste at household level.

UN Women together with stakeholders held the first Laamu Women's Consultation Forum where WDC representatives from all islands of Laamu Atoll as well as selected islands across the country came to a common platform to deliberate on the role of the WDCs in empowering women in their communities. This included sessions on the role of women in climate action at all levels whilst addressing the structural challenges they face. The Forum culminated with a list of recommendations for future actions.

1.2 Public awareness and access to information on LECReD and DRM at local-level strengthened

Following a detailed stakeholder survey conducted by UNDP during 2015, the Communication and Stakeholder Engagement Strategy (CSES) was completed and handed over to the PCU for implementation and integration to the Communication Action Plan. A public information campaign was designed and implementation began during 2016. CSES and the advocacy campaign were developed in a consultative process, integrating all LECReD key partners and participating UN Organizations. UNICEF and UN Women have provided technical expertise in the areas of advocacy and awareness on child and women centered DRR and CCA. An introductory advocacy package on women and climate change was prepared, and this work proceeded with further elaboration during 2016 in coordination with other LECReD communication tools. UNICEF together with the National Disaster Management Centre (NDMC) conducted child and gender-centered community-based disaster risk planning aimed at building the capacity of all 11 island communities to natural hazards.

WHO held two missions to Laamu atoll in 2016 to assess reported dengue outbreak and support control. WHO supported public health response to a dengue outbreak focusing on heightened preventive measures adopted by the community, surveillance, early diagnosis and confirmatory testing, medical care and vector control. The assessment has revealed critical deficiencies in communications and coordination between health facilities, councils and Ministry of Health that needs to be addressed to prevent and contain disease outbreaks in the future.

WHO lead awareness activities on vector borne diseases like Dengue and launched a national campaign at Laamu. The activities stemmed from a revised national community-based disaster risk management guideline that incorporate social and behavior change communication elements aimed at bringing communities together to draw upon own experiences to develop island-specific preparedness plans and response actions.

CSES provided the basis for addressing the communication and engagement needs of the programme including awareness and advocacy, programme updates and access to environmental and disaster risk management information. The report provided interesting insights into the stakeholder perceptions towards LECReD Programme as well as identified strategies to reach out to different target groups. Based on the report, the overall branding and communications package and guidelines were developed for the entire programme. LECReD programme's visual identity package, as well as design of communication products and materials, have greatly contributed to improve Programme communication. Several communication tools were also introduced, such as social media (Facebook, Viber, Twitter) as well as LECReD's webpage, integrated in UN Maldives website.

1.3 Inclusive platform for LECReD and DRM Planning and Management established

Three Laamu Climate Change Forums were organized and a multi-sector public/private Laamu Working Group was created. As part of the process, several Multi-sector dialogue sessions were conducted with national, atoll and island focus, aiming to ensure the cross-sector debate and promote the inclusion of women, different age groups, as well as different community representatives (eg private sector, different political representatives, people with disability, etc). This has allowed for the identification of gender friendly resilience options and comprehensive gender specific support.

At the initiative of the Local Government Authority (LGA) and LECReD, a Governance week was organized in March 2015 integrating a National level LECReD conference. LECReD conference was held in cooperation with a series of

events including a governance forum, co-organized by UNDP, which have allowed to debate many of the underlying governance issues at the root of local development planning. The conference was an opportunity to discuss LECReD options in the Maldives and to reinforce the debate around central topics such as national planning strategies, the decentralization act, green growth opportunities, as well as to establish initial sharing of lessons from national experience and also from LECReD.

The First Laamu Climate Change Forum was held from 21 to 22 April 2015 in Laamu Fonadhoo under the theme "Climate Resilience and Laamu". The Second Climate Change Forum was held from 16 to 17 December 2015 in Laamu Gan under the theme "Green Growth and Climate Resilience". The Third LCCF was held from 16 to 18 October 2016 and the selected theme was "Learning from Laamu".

The forums were an opportunity to debate LECReD achievements and share knowledge and results. Key presentations were delivered by Participating United Nations Organizations, Local councils, Government bodies, independent experts and private sector representatives. The events tried to engage also the general public through different activities, targeting the school communities and the overall Laamu community such as the screening of environmental documentaries, photo exhibitions, information stalls and inauguration events. The second LCCF included a "LECreD Fair". The exhibitors included representatives from businesses and NGOs. The main objective of the Fair was to showcase green products and services and facilitate networking opportunities. The Fair included activities for children and music items and was a crowd-puller, with considerable impact in the local communities.

The first local development plans produced under the Decentralization Act 2010 were reported to have been produced without much public consultation. Discussions with Council Members reveal that the entire process was carried out within a short time period, and by the Council Members and Staff, in order to meet a legal deadline. As inclusivity and participatory process is central to achieving the goals of LECReD, a series of Multi Sector Dialogues (MSDs) were incorporated into the design of the LECReD Programme. The MSDs were launched in 2015 at the First Laamu Climate Change Forum and followed throughout the year.

The participatory methodology of the Multi-Sector Dialogues (MSDs) in identifying local issues and proposing the most appropriate solutions form an integral link in LECReD Programme's objectives to develop strong platforms for partnership, coordination and inclusive participation across all levels of the communities of Laamu Atoll. Following the launch of the MSDs during LCCF1, the first round of formal MSDs was conducted in Laamu in August 2015 and the second round was initiated in October 2015, before LCCF2.

As an initial preparatory activity in order to carry on Multi-stakeholder dialogues and improve communication processes at the local level, a Conflict Mediation Workshop was conducted in Laamu atoll. The training on conflict mediation was carried out as a training of trainers (ToT). Representatives were invited from all islands, with a focus on local councils, WDCs, NGOs, community leaders, and youth. Building upon this ToT, the second phase was to see the training carried out for council members, WDCs, and CSOs. Under the second phase, an additional workshop was carried out in October 2015, in providing training on conflict mediation, negotiation skills, leadership training and consensus building. The objective of these trainings was to equip local participants, particularly council members and other decision makers, with the required skills to improve social cohesion and support institutions, communities and individuals to enable peaceful management of tensions such that there is an enabling environment created for inclusive policy formulation and communities receptive to development interventions.

The first phase of the MSDs focused on island level discussions and the second phase was focused on atoll level deliberations on the discussions held in the island level. The dialogues were divided into three clusters and included a combined total of 76 participants from all islands of the atoll. Participants of each cluster included council members, political party representatives, youth, schools, farmers, fishermen, local NGO's, Women's Committee Members and health centers. The sessions were held under different thematic areas, including energy,

food security, water security, education, local development planning, waste management and public health which were covered during the first cycle, and during 2016, the second cycle of MSDs focused on biodiversity, economic development and employment generation.

The Atoll Level Multi Sector Dialogue Session was held on 14 November 2015 in Gan. Representatives from atoll council, island councils, multiple organizations and institutions participated in this important forum to deliberate on issues that were highlighted during the island level dialogues held earlier. Key issues discussed and considered include solid waste, water, energy and food security. The solutions proposed from these discussions were documented for further deliberations at the national level at the Second Laamu Climate Change Forum.

The second cycle of MSD, carried out during 2016, saw a 20 percent increase in the total participation rate, and a 13 percent increase in female participation from the first cycle. A total of 95 participants joined in the island level MSDs out of which 32% were female. In the atoll level dialogue, a total of 38 participants (32% females) attended. The increase in participation is attributed to the change in methodology to invite participants. Rather than obtaining participant names from the local councils, the participants were pre-identified from other workshops and meetings and also through directly contacting government offices, Women's Development Committees, Schools and local NGOs. This method of directly contacting participants is observed as more effective and engaging.

The local NGO Water Care, under a Small Scale Funding Agreement (SSFA) was engaged to support UNICEF on multi-sector dialogue between islands, and between local and national levels on child-centered and community-based WASH from May to October 2015. UNICEF, together with partner local NGO Water Care, held a MSD session on Water, Sanitation and Hygiene (WASH) in October in Laamu, with 16 participants from island councils, women's development committees and youth of the communities. The objective of the session was to empower the participants to be able to facilitate community dialogue sessions regarding water, sanitation & hygiene in their communities.

The final outcome from the multi-sector dialogue process has fed into the local development planning process. Moreover, the discussions of these sessions also collaborated to inform the small grants component, the prioritization process for the implementation of the local development planning processes and the implementation of the solid waste management plans under stage two.

The Island Working Groups and Laamu Working Group have served to affirm the community linkages with the programme and sought to ensure effective coordination and support to the programme at the sub-national level. The LWG members consisted of locally-based representatives from Island and Atoll Councils, Women's Development Committees, sector focal points, civil society, private sector and other key stakeholders closely linked to the implementation of the programme. Through its work, the Group has ensured effective coordination and support to the programme at the local level and has served as a community-led platform to provide guidance on local perspectives. The initial LWG workshop was held in Laamu Atoll on 26 and 27 February 2015. This workshop was an opportunity to hold knowledge sharing sessions with other national programmes, highlighting green growth opportunities for local development. All 12 island working group, Presidents and Vice Presidents were present for the very first formal meeting of LWG. The official meeting was followed by a discussion on specific inputs from LWG towards the Small Grants scheme of LECReD programme and water component discussion.

Since its establishment, representatives from LWG have participated in key discussions and meetings such as the Programme Technical Committee meetings and many other validation workshops and programme level discussions held both in Laamu and in Male'. The local and contextualized input that LWG representation provides at these meetings gave valuable insight into community perceptions and expectations which in turn allowed the programme to better align and augment the design and delivery of its activities.

Output 2: Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level

Three main “smart outputs” were developed under this output, which have supported the establishment of a knowledge management system through the creation of a web portal focusing on the local development planning database: 2.1 Data management system and tools; 2.2 Laamu atoll climate Profile; 2.3 LECReD options identified and analyzed.

2.1 Data management system and tools enhanced

A key component of establishing the evidence base that will support LECReD policy development at the local level is the Laamu Atoll development planning database. Work on this database was under the responsibility of the National Bureau of Statistics (NBS) and UNFPA who have worked closely with the Laamu atoll council, for closer coordination and consistency with the national and local level databases. Cooperation with different agencies and the government was essential in order to integrate and collect the different sectorial data into a harmonized database. The work was also coordinated with LaamuInfo (under UNICEF) and an initial presentation was held for National level stakeholders, including council representatives from all the country, during LECReD national conference held in March 2015, following which more detailed presentations and debates were held both in Laamu during LCCF2 and Male’ during a detailed stakeholder work session. The final launch of the webportal was held during LCCF3 in November 2016 and integrated LECReD local development planning database, LaamuInfo and knowledge products developed under the Programme.

The National Bureau of Statistics with support from UNFPA has undertaken the analysis of the existing sectorial data and sectorial data needs for LECReD. The programme underscored the importance of building capacity at the local level to collect, manage and analyze information and statistical data. In order to better understand the current strengths and weaknesses in this area as well as capacity strengthening needs at local level, an assessment of local level capacities to collect, compile and analyze data was conducted across all the islands of Laamu atoll. In addition, the assessment also provided an inventory of the data that was being collected, compiled and analyzed by the councils and other relevant institutions. An assessment of PUNOs data needs for LECReD was also developed. These assessments were at the basis for the LECReD Data Collection and Management Plan (DCMP) and the training plan. One of the first training needs identified was Microsoft Excel and Access skill-based training for all administrative staff in the councils. LECReD has worked closely with Laamu Atoll Councils to strengthen data management capacity of all administrative staff in the Atoll and Island Councils, as well as statistics focal points from island level institutions. As a result, 69 staff were trained on basic, intermediate and advanced use of Microsoft Excel. Additional 4 batches of trainings were conducted in December 2015.

A partnership with UNESCAP was established in order to define national standards for data and indicators (including environment statistics) and a Stakeholder workshop on Environment Statistics was held in 2015 to launch the process of defining a minimum core set of environmental indicators/statistics at policy level. The workshop convened the main stakeholders operating in the field of statistics, data management and planning, and has highlighted the links with the National Strategy for the Development of Statistics (NSDS) and the need for the development of indicators on environment at national and atoll/Island level. This has provided support to the assessment studies of available statistics and data collection instruments in the Maldives with a focus on quality of statistics and alignment with international guidelines and standards, such as FDES (Framework for Development of Environment Statistics) and SEEA (System of Environmental Economic Accounting).

The first working session on standardization of data forms used in Laamu Councils was held from 26-27 August 2015 jointly organized by UNFPA and NBS. During this session, standardized data collection formats initially for seven sectors (mosques, health, education, special service, water and waste facilities and housing/population) was discussed and finalized by the statistics focal points of the councils. This working session was instrumental in

bringing together the statistics focal points with an interest and capacity to strengthen the atoll level data management system.

Development of the Laamu Knowledge Page (integrated into www.laamu.gov.mv) was a key activity, incorporating the aggregate data collected through the Programme. The aggregate data from the tables will also directly feed into LaamuInfo. Standardized administrative data forms were created for 9 sectors (1. Land, 2. Plot, 3. Households, 4. Population including registered, resident and expatriate populations, 5. Health facilities, 6. Pharmacies, 7. Education facilities, 8. Special Service Facilities and 9. Mosques). UNFPA and NBS have also closely worked with the Ministry of Environment and Energy to draft the island level environment data form. The Programme has worked closely with the Ministry of Environment and Energy (MEE) and NBS to ascertain that MEE's database on water related climate sensitive variables would be reflected in the data systems developed under LECReD Programme as well as the Atoll and Island water and waste management plans.

Eleven participants from ten islands of Laamu atoll completed training on LaamuInfo user modules, enabling them to complete the data collection, and submission to National Bureau of Statistics. Data entry and retrieving additional data from the recently released Census 2014 island level data was incorporated into LaamuInfo. This database will be used for island development and monitoring plans with a special focus on DM and monitoring of SDG implementation and progress.

The climate sensitive agricultural data collection and management tools were supported by FAO. To make the tools farmer friendly, consultations were undertaken with farmers, atoll and island councils. The pre-piloted tools were distributed to the farmers with on-site training.

2.2 Laamu atoll climate Profile

LECreD baseline was produced, an activity which is at the root of the local development planning process, as well as monitoring activities. Data for the baseline was collected from a household survey conducted with the assistance of island councils. Information was gathered on five indicators centered on vulnerability and a detailed socio-economic assessment was conducted. A Vulnerability Reduction Assessment Methodology was developed to facilitate replication in other atolls.

A partnership was established with the Maldives Land and Survey Authority (MLSA) for collaboration on land use maps and natural resource maps within the scope of strengthening the National Geographic Information System (NGIS). The activity was conducted in two simultaneous phases; a land survey and a marine survey. Detailed cadastral survey was conducted in all islands (inhabited and uninhabited) in Laamu Atoll, gathering information on the island's natural profile, while raw satellite images were acquired and processed to extract information regarding to natural habitats, followed by a field validation process.

| Components of the Land and Marine Surveys |
|--|
| <ul style="list-style-type: none">• Identification of the marine, coastal, and terrestrial ecosystem resources and uses• Classification of local natural resources• Limits of the island (shoreline, LWL, HWL, island boundaries)• Limits of vegetation lines, forests, including coconut groves, isolated trees of significance• Limits of island waters, including inland lakes, ponds, swampy grounds etc• Limits of agricultural land |

- Limits of open space including parks, sports grounds, reclaimed areas, cemeteries, historical sites etc
- Roads, harbours, jetties and all coastal defences, other permanent structures
- Block level demarcation of private residences
- Public buildings, utility facilities, commercial areas
- Bathymetry
- Coral classification and cover
- Detailed habitat/ecosystem classification
- Abundance and biomass of selected economically significant benthic communities
- Spawning sites

Whilst the NGIS will ultimately be based in the Maldives Land and Survey Authority, the local councils will be able to utilize the resource maps with the training that will be conducted for the council members following the mapping process. LECReD has also worked with the Maldives National Defense Force to synergize work on environmental sensitivity index mapping of Laamu atoll, which was carried out in cooperation with LSA and the Environmental Protection Agency (EPA).

As part of the studies conducted for the establishment of Laamu atoll profile, the Integrated Water Resource Management Plan (IWRM) was developed. Following consultations with island communities, Atoll and Island Councils, Island Level Solid Waste Management Plans for all Laamu atoll islands have also been drafted. The review of existing Solid Waste Management (SWM) centers was an important step in order to identify retrofitting options to get these facilities operational in the short term.

2.3 LECReD options identified and analyzed

This activity links closely with the local development plans detailed under Output 3 (below). The various available options, both locally and internationally, for financing the local development plans produced by the councils was explored through this work. Specifically, the existing governance mechanisms for low carbon and climate resilient growth (or green growth), the prioritization and scheduling for climate resilient development and setting out the financial arrangements for this development model was identified through this activity. The existing trust fund within the Laamu Atoll Council was also reviewed and re-designed as the “Laamu Climate Resilience Fund” to facilitate green growth, mainly through the introduction of green funding streams, and concessions on interest and payback terms.

Output 3: Improved Local Level Planning and Management for LECReD

Three main “smart outputs” were developed under output 3, which have supported the integrated local development planning process: 3.1 Guidelines, tools and systems for local LECReD planning and management; 3.2 Capacity for integrated development planning and management for LECReD; 3.3 Integrated atoll LECReD plan and priority LECReD actions.

Smart output 3.1 Guidelines, tools and systems identified or developed for local LECReD planning and management

This was a combined effort between national counterparts and different agencies. A Guidelines Review Committee was formed to establish synergies and coordinate different outputs into a coherent package / toolbox for effective LECReD implementation. The complete final toolbox structure and content is available in the annexes to this report. The toolbox aimed to provide a framework for replication at national level and puts focus on the following key areas of work: 1) Participatory and inclusive LECReD planning approaches; 2) Environmental planning and management; 3) Water Safety and Security; 4) Energy Security; 5) Public Health and DRR; 6) Food Security.

As a starting basis for the LDP process, work on the community-based disaster response plans was conducted including the training of community-based vulnerability and capacity assessments by the island level facilitators supported by UNICEF. The facilitators acted as island level focal points to conduct island level Community Based Disaster Risk Management (CBDRM) activities and became change agents in their respective communities, responsible to drive future CBDRM activities at the island level. The facilitators were trained under CBDRM methodologies designed to maximize community empowerment through community engagement and participation. The trainings also helped to increase understanding and knowledge of the importance and the need for local level development planning at island level, including CBDRM and vulnerability and capacity assessment planning and process. Island level focal points were also established to coordinate logistical arrangements for the implementation of disaster management plans. UNICEF supported the trainings on community based disaster risk management were held in all 11 islands of Laamu atoll, in very close cooperation with the National Disaster Management Center (NDMC). Working with 237 local participants, the training started off the process of developing disaster management plans in all islands based on the vulnerability and capacity assessments done in each island. The trainings also became an opportunity for advocacy and positive dialogues among islands, their island councils and other island level stakeholders. The support to the preparation and implementation of the Community-based Disaster Response Plans was conducted in accordance with national guidelines and coordinated with NDMC and MNDF in training and emergency drills in all Laamu atoll islands.

In cooperation with NDMC, one validation workshop for the post disaster risk assessment was held on September 2015 in Male'. The workshop helped to finalize the indicators from sectors that were part of the post disaster assessment forms as well as through the proposed framework. The master trainers' 3-day workshop for the Post Disaster Assessments was held during the first week of October 2015 in Laamu Atoll.

Based on the experiences from the CBDRM exercises conducted together with NDMC, UNICEF supported the revising of the national CBDRM guidelines (dubbed CBDRM 2.0), which focused on child and gender sensitive DRR. As part of this intervention, personnel from MNDF were trained on conducting disaster preparedness and response planning in light of the revised guidelines.

In 2017 and 2018, continuing on the support provided by UNICEF to build the local capacity for emergency preparedness and response (including DRR), Community Emergency Response Teams (CERTs) were established in 4 islands in Laamu atoll. Starting with the development of the conceptual framework (including training regime) CERTs are to become the primary emergency planning and response (including DRR) team in each island nationally which would decrease the reliance on central government support to plan and respond to emergencies including those arising from natural hazards such as seasonal flooding. As per the national CERT framework, the teams will receive training on disaster management, basic first aid training and firefighting skills training facilitated by NDMC, Maldivian Red Crescent and the Maldives National Defense Force.

The hospital safety index plan which assesses the regional hospital and island health centers vulnerability to disasters was completed in this period. This plan can directly feed into the local development plans with the hospitals and health centers as well as the planning phase of emergency disaster preparedness with important stakeholders involving also MNDF and NDMC. In partnership with Maldivian Red Crescent, a basic first aid training was conducted in Laamu Atoll. The recipients of these trainings were representatives from atoll and island councils, health sector, schools and other key stakeholders.

Local-level guidelines for planning health interventions were produced, based on WHO guidelines and aiming to strengthen disaster risk reduction in health facilities. A table top exercise tool was developed for all health facilities to use as a basis for their health sector emergency planning. One of the key issues that was identified as a priority for the health sector is health care waste management at the hospitals and island health care centers in Laamu. WHO held a ToT workshop in which Island health center focal points were trained and added inputs to the national policy and guidelines.

The guidelines in support to the water component of LECReD were developed and the work was coordinated with MEE in order to review and update existing material. This activity was initially designed as part of the local level planning and management for LECReD with an aim to support local level integrated water resource management. After initial review of current needs and considering the already existing guidelines as well as the need to support adaptation emergent needs, at MEE's request, the guidelines have put focus mostly on community rainwater harvesting (CRWH). This work was coordinated with work on guidelines for safe rainwater harvesting, with emphasis on water quality. Scientists from WHO collaborating centre in India conducted a comprehensive microbiological and chemical composition study of all the inhabited islands in Laamu. This gave an accurate portrayal of the water quality of the ground water and other fresh water sources, and served as a tool for the community to use for advocacy and treatment of their water sources. WHO supported to install Reverse Osmosis water purifiers in all health facilities of Laamu atoll. The Programme has further supported MEE and the councils to establish SOPs with regard to operating CRWH system and community level solid waste management.

3.2 Capacity for integrated development planning and management for LECReD strengthened

This smart output encompassed capacity building activities, including the LECReD and DRR planning methodology, in coordination with local councils and health providers. One of the main results that was achieved under the programme was the national adoption of the revised local development planning methodology by the Local Government Authority for the second planning cycle under the Act on the Decentralization of the Administrative Divisions of the Maldives (Law Number: 7/2010) (Commonly referred to as the Decentralization Act). The planning methodology that existed prior to this revision excluded critical elements such as those relating to climate adaptation, mitigation and disaster risk reduction. The lack of these elements in the local development plans presented a huge challenge for the programme, the local communities and the central government, as the necessary vision, policies, strategies and resources were not adequately available to address these issues.

The central objective of the LECReD Programme involves transitioning towards a low emission and climate resilient development future, through evidence based and climate smart local development plans and investment plans. In this regard, the revised planning methodology was developed within a framework of the Sustainable Development Goals (SDGs) and favors an inclusive and participatory approach to planning, while factoring in measures to address climate change adaptation and mitigation, disaster risk reduction and gender equality. The revision of the existing planning methodology, including the revision of the planning templates, forms and processes, was critical to the achievement of this objective. A planning handbook was also produced in the local language to act as a guide for local planners throughout the nation to develop both resilient and sustainable development plans. Follow up interviews with local planners from Laamu confirmed that this tool was extremely useful in guiding them throughout the planning process. Flooding and erosion guidelines were also produced.

To attain this result, UNDP worked with multiple national and local level stakeholders while simultaneously undertaking relevant prerequisite assessments and reviews to support the process. Two National Consultants were placed within the Planning Department of the Local Government Authority (LGA) to work with the LGA staff while following the technical guidance of the International Planning Consultant working remotely. This institutional arrangement provided a more direct link with the LGA, and also facilitated in speeding up the process of methodology revision and adoption. Together with LGA and the national and local level stakeholders, guidelines, tools and systems for local LECReD planning and management were produced and launched at national

level. This activity was closely coordinated with LGA in order to prepare Local Development Planning tools (including LDP methodology, templates, handbook, pilots and video) which were used as a basis for national level ToTs and offered a basis for national level replication.

In support to the effective implementation of the LDPs, a policy training workshop was conducted for the local councils in Laamu to improve the local capacity in the development of bylaws, policy, standard operating procedures and their enforcement. Additional workshops on climate change and local development planning, spatial planning, financial planning and scenario setting were conducted. All workshops were attended by both council members and council civil staff to ensure that the capacity will be maintained within the island council despite change in political staff. The workshops were met with positive feedback from the participating councils.

3.3 Integrated atoll LECReD plan developed and priority LECReD actions supported

This smart output was structured having in consideration four clusters of islands in Laamu atoll. The activities were conducted in support to the local councils and in coordination with LGA, based on the established methodology and supporting guidelines to integrate LECReD aspects into the local planning process.

Integrated Atoll LECReD planning activities have been discussed with the relevant government partners and it was decided to incorporate climate change and disaster risk reduction elements into the revisions of the national and local development planning methodology and associated templates and also to adopt Laamu Atoll as the pilot atoll to test the revised plans. It is to be noted that LGA has decided that the island and atoll local development planning process which was established to be started in May 2015 should be postponed to start in Q2 2016. As such, rather than running in parallel to the process, LECReD Programme collaborated with LGA and Laamu Atoll Council to develop the tools at the basis of the process.

LECREd visioning workshop took place in Laamu on 26 and 27 November 2015, as part of the local development planning process. Central and local government representatives met together with representatives from the different sectors of Laamu atoll, including public health, education, fisheries, tourism, and transport. The purpose of this workshop was to discuss the vision for the future development of Laamu Atoll. This visioning workshop was linked to the MSD conclusions which have provided baseline arguments for the discussions held by the participants and also considered other crucial sectors such as energy, water, biodiversity, waste management, etc. Both atoll vision and MSD results were a useful basis for drafting the LDPs..

The seven visions identified within the framework of SDGs were:

1. Quality Education
2. Good health and well being
3. Decent work and economic growth
4. Sustainable housing
5. Dynamic, friendly and safe communities
6. National beauty and richness
7. Justice and strong infrastructure

In partnership with the central and local government, different community representatives and the private sector, a Local Development Planning workshop was held in November 2015 in Laamu atoll. During the workshop, participants from different islands in Laamu tested the new methodology proposed by LGA to develop their island plans. This was the first cycle of revision of the previous local development plans, and the process included specific measures to deal with the impacts of climate change.

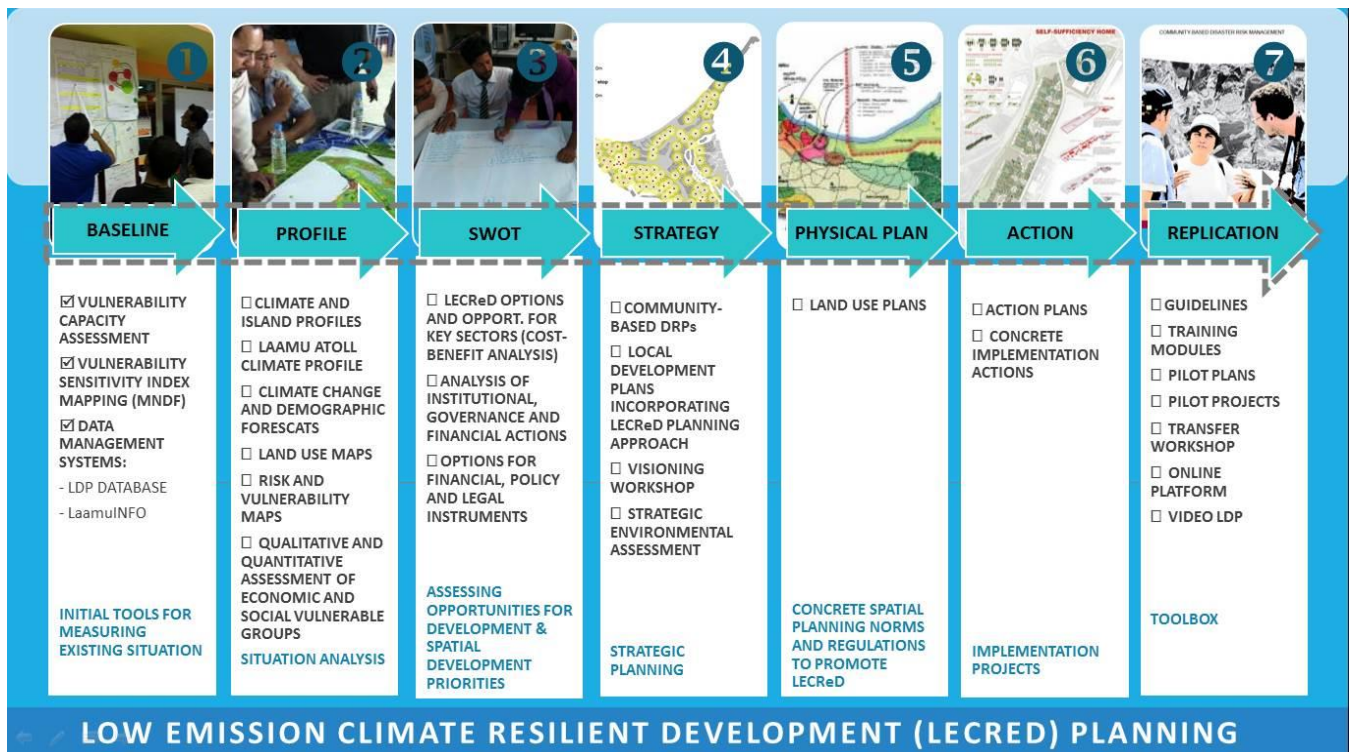


Figure 4: Step by step approach to integrated LECReD planning

Output 4: Practical local experience in LECReD’s interventions leads to learning and promotes replication

Under this output, five main activities were coordinated in support to establishing a solid practical local experience in low emission and climate resilience: 4.1 Small grants scheme; 4.2 No-regret actions; 4.3 Knowledge products; 4.4 Actions to improve water safety and security; 4.5 Actions to improve ecosystem resilience.

4.1 Laamu atoll LECReD small grants scheme

The LECReD Small Grants Scheme was launched to allow small grants for community-based projects. The concept, guidance materials and toolkits were finalized in the second quarter of 2015. A first round of informative sessions was held in Laamu in May 2015. Following the receipt of the concept notes, a Project Cycle Management workshop was held for the shortlisted proponents. Rather than set up a separate grant evaluation mechanism, it was proposed that the evaluation procedures of Mangroves for the Future (MFF) program be used to evaluate the LECReD Small Grants. This activity was led by UNDP with inputs from UN Women and FAO who supported the training and guidance provided to small grants projects. Two calls for proposals were advertised and in the first round, 41 concept proposals were received, and 15 proposals were shortlisted; in the second round, 70 concepts were received out of which 17 final proposals were submitted by the deadline.

A Memorandum of Understanding was signed between UNDP and the Mangroves for the Future Programme in the Maldives, in order to utilize the mechanisms and expertise of a well-established grant scheme. As per this MoU, the National Coordination Body evaluated the shortlisted proposals and identified the successful grantees. A total of 15 grants were awarded in both cycle one and two of the small grants programme. All grants were funded through UNDP funds while one female led project was funded through UN Women.

It is observed that the second cycle attracted more participation from the community, a good indicator of the acceptance of the first cycle of grants. There was a 73 percent increase in the number of concepts submitted and

a 103 percent increase in participation in the outreach programme as compared to the first cycle. Female participation was also noted to increase by 106 percent.

Similarly, significant improvement in the content and quality of the concepts submitted was also noted. Clear linkages with the rest of the programmatic activities were observed. These improvements can be attributed to the continuous engagement with the community through different initiatives to improve community knowledge and understanding of climate change and related issues. Additionally, the diversity of the concept topics was also noted. Areas in which concepts were submitted include business and innovation, coastal bio-shield/tree planting/reef protection, disaster risk reduction, fisheries, hydroponics/auto pot farming, renewable energy, mangroves and natural resource conservation, organic farming, street lighting, waste management and behavioral change, innovative and sustainable organic farming.

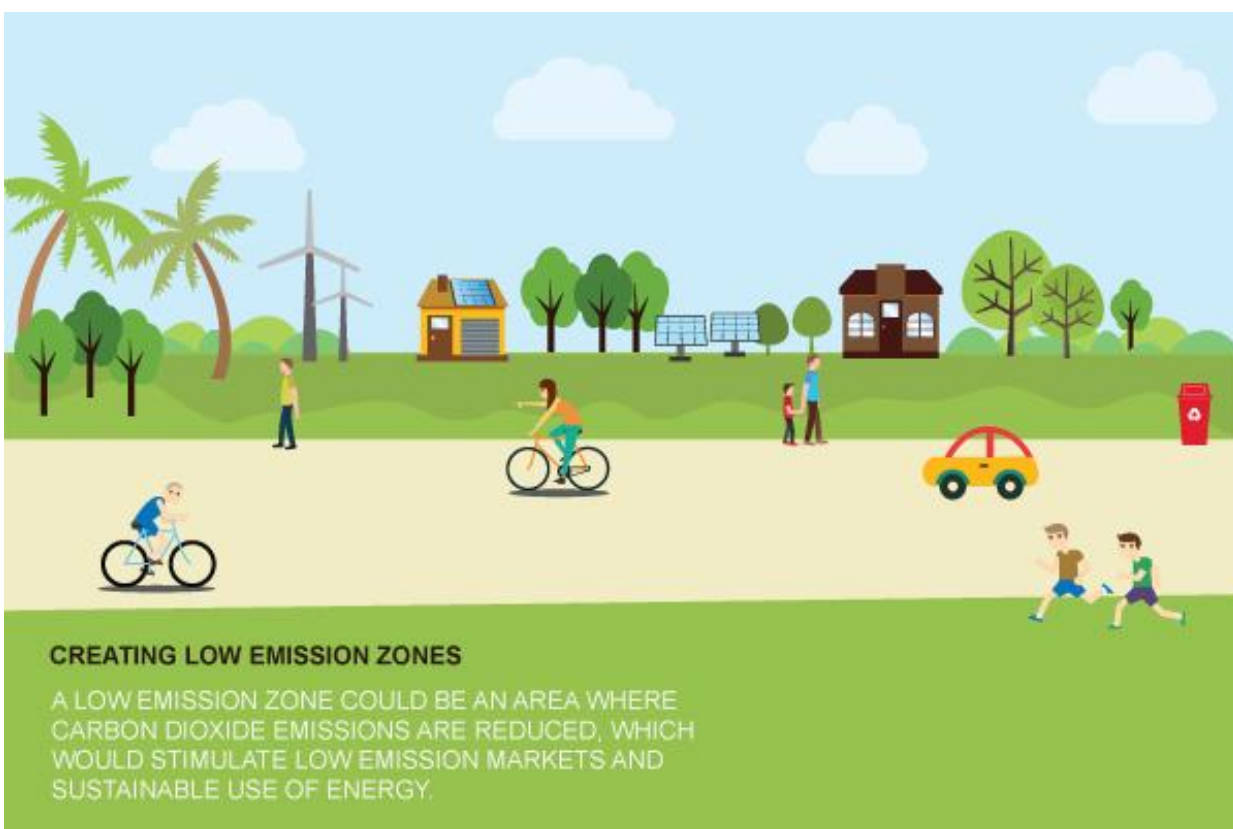


Figure 5: LECReD’s Small Grants scheme Promotion material

4.2 “No-regrets” actions implemented

UNDP conducted a feasibility study and technical requirements to build a central power station, distribution network and renewable energy opportunities in the Gan-Fonadhoo stretch. The Feasibility Study on the Electricity Distribution Network and Intake of Renewable Energy has been completed during the period and was subject to broad discussion, refocusing on the available options for renewable energy intake, with particular emphasis on waste to energy and solar energy options. MEE and Fenaka have taken particular interest in the discussion, also in trying to align government strategies and scope future investment alternatives.

Two priority projects were identified under energy efficiency projects and rolled out in the period: replacing existing harbor lights with energy efficient versions and to install solar panels on school and health center roofs.

The retrofitting of energy efficient LED Lights was completed in all the harbors of 11 islands in Laamu Atoll. Through this project, a total of 460 lights were distributed to the islands together with spare lights to each island. The lights that were procured were specifically designed for high temperature, humid and high saline environment. The new lights are estimated to reduce the energy consumption by 50 percent while bringing a cost saving of USD 56,000 a year to the entire atoll. The harbor LED lights were officially inaugurated in Laamu Maamendhoo on 15th December 2015 by the Minister of State for Environment and Energy Abdulla Ziyad and the UN Resident Coordinator Shoko Noda.

Rapid assessments of school roofs across 11 islands was completed as the first stage of the school Solar PV project. The final report for the assessment was finalised during Q1 2016 and this report contained detailed specifications required to carry out the procurement for the solar panels. The official inauguration was held during LCCF3 in October 2016.

Following consultations with community members (including women, fishermen, and farmers, other different working cohorts) to discuss their concerns related to water and waste management, the project implementation options for “no-regret actions” in these sectors have been evaluated. An initial concept design has been presented and discussed with UNTG, MEE and the Atoll council for specific actions to be detailed regarding community rainwater harvesting, including filtering options, and community sewage treatment plants as well as island based solid waste management options. The options for waste to energy were also initially evaluated with MEE in order to support a central regional organic waste centre.

For multiple years, the islands have faced water shortages during dry periods and often have had to rely on the Government, via the National Disaster Management Centre (NDMC), to transport water from Malé or other islands to meet demand for safe drinking water during these shortages. Access to sufficient clean water in Maldives is difficult due in part to the country's isolated location in the middle of the Indian Ocean, and there are no rivers, streams or viable lake sources to draw from. Overuse and pollution of groundwater, as well as droughts, put further pressure on already scarce freshwater resources. At less than two metres above sea level on average, Maldives is especially susceptible to flooding. This susceptibility, combined with the country's porous soil, means that seawater intrusion into the country's limited groundwater is a constant threat.

For a more sustainable, cost effective and low emission option to ensure water security in the short term, through LECReD, UNOPS proposed to rehabilitate and upgrade existing community rainwater harvesting facilities in 9 islands at Laamu atoll (Isdhoo, Kalaidhoo, Dhanbidhoo, Maabaidhoo, Mundoo, Maavah, Kunahandhoo, Hithadhoo and Maamendhoo). This work was combined with the water safety component under WHO in order to offer safe drinking water to the communities in Laamu atoll. The Government in Maldives has comprehensive plans in place to implement larger integrated water project developments for the populations of Gan and Fonadhoo Islands, and Gaadhoo Island has undergone a relocation of its population to Fonadhoo, hence no work through the RWH project was defined for Gan, Fonadhoo and Gaadhoo islands. The Six Senses resort privately leases the island of Olhuveli, and they are responsible to manage their own water system.

This activity aimed at implementing immediate actions that would contribute towards improving the resilience of the recipient communities by increasing their water reserves and subsequently reducing the need for external support during the dry seasons. The contract for the rectification of community rainwater harvesting systems in nine islands of Laamu Atoll was signed on 18 November 2015 between UNOPS as the lead UN agency for this component of the programme and the contractor SAS Construction Pvt Ltd. The parameters and concept design for community rainwater harvesting systems, including filtering options, was presented and discussed with UNTG, PTC, MEE and the Atoll council during 2015. Following the approval of the concept, the detailed project was drafted based on the data forms which have been used to collect data from the islands on the existing water storage capacities (community level) and future expansion of these systems. The data collected also supported the island council in the development of water management plans for the islands. Additionally, LECReD supported the islands in designing for future expansion of existing community water storage. The works on this component were concluded in 2016 and official inauguration and hand-over was held in October 2016.

Solid waste management plans were also drafted for all Laamu islands, with a view to identifying concrete implementation options. The work was grouped into 4 clusters of 3 islands as a means of operational simplification. Physical implementation of waste management actions started following the approval of the waste management plans. There were five proposals submitted under the LECReD Small Grants for the sector of waste management, of which four proceeded for implementation and these were coordinated with actions in the same sector, in order to promote coherence and avoid duplication of efforts.

Capacity building and exchange of experiences in this field was promoted. In support to “no-regret actions” in the field of Waste Management and Waste Management Symposium was held in April 2015 in Laamu Maamendhoo where councilors from 11 of the 12 programme islands participated. The symposium was held in partnership with the Atoll Council and the Ministry of Environment and Energy (MEE) as a preparatory activity for LCCF1 and the MSDs. The participants provided valuable insights into identifying the current realities with regard to solid waste management in the islands. MEE also presented the government policies on waste management to the participants, with emphasis on the roles and responsibilities of the atoll and island councils. The participants also engaged in a learning trip to Six Senses Laamu, to observe the waste management practices at the resort. The symposium was further reinforced by a study trip to learn about local waste management practices, in support to immediate actions being programmed. A total of 23 participants from Laamu Atoll traveled to Alif Dhaal Fenfushi and Alif Ukulhas to learn about local waste management systems. The participants included members from the council, Women’s Development Committees and the civil society. Participants were given a tour of the waste management centers in both islands where local experts shared details of their waste management process including how they collect and separate waste from the households, as well as composting biodegradable waste to produce fertilizer. The participants also got the opportunity to share their ongoing waste management plans and receive feedback from the Ukulhas council. They were also able to visit the households and observe how the waste segregation is done at a household level.

In addition to the practical experience for LECReD priority areas, the Ministry of Health’s Health Protection Agency and WHO conducted a week long ‘epidemiological analysis workshop’ which included on-field training course in proper detection and analysis of records regarding vector borne diseases such as dengue in Laamu Gan. Training in disease surveillance methodologies and reporting techniques was held in order to properly prepare structures reporting to feed into the weekly, monthly and outbreak reports of diseases centrally to the regional hospital and to HPA. This training also included field work in which the participants were introduced to recognise the vector breeding sites and learn to identify and treat these particular problems such as minimizing larvae’s mosquitoes’ breeding site.

4.3 Knowledge products prepared and lessons disseminated

This smart output was led by UNDP and a knowledge management strategy concept note was produced in 2015. As part of the replication strategy, the first draft of the knowledge management system was developed through technical expertise from the Regional Office. The KM framework was finalized in cooperation with all PUNOs and partners as an integrated system housed on Laamu’s webportal. Implementation of the strategy was combined with the communication and stakeholder strategy.

Even though a lot of discussions are raised during the MSDs and a lot of international best practices were provided as examples, the lack of practical know-how remains a key challenge in the Atoll similar to the rest of the country. It was therefore important to facilitate opportunities for learning and knowledge sharing at all possible levels. A study tour on the thematic area of “good agricultural practices” was conducted from 24 – 26 November 2015 in Haa Alif Maafahi, Haa Dhaal Hanimaadhoo and Shaviyani Goidhoo. The objective of the study tour was to learn about best practices and new techniques for resilient agriculture and food production. The content for the study tour was developed with the support from the technical staff of the Ministry of Fisheries and Agriculture through arrangements facilitated by FAO. A total of 31 participants from all islands of Laamu Atoll participated in this study

tour. The participants included local farmers, island councilors, WDC members, representatives from NGOs and CBOs based in Laamu. The participants were trained on the theory of good agricultural practices and were exposed to farming practices and management models employed by the councils, corporative bodies and farming communities in the northern atolls.

An international study tour to the Seychelles was held during April 2016. The objective of this study tour was to observe and identify how other small island developing states addressed issues exacerbated by climate change through their local governance systems. While selecting participants, requests were made to favour civil servants over political appointees in order to ensure knowledge retention within the council structures. Additionally, a planning staff from the Local Government Authority and the statistical officer from the Atoll Council were included to contribute towards national level capacity building. A total of 17 participants travelled to Seychelles on this study tour, out of which 3 were female. As a measure to ensure enhanced learning through the study tour, participants were asked to conduct an institutional audit of their respective Councils. These audits looked at a given environmental problem for a specific island and identified the current and future management environments (for the local councils), the challenges they faced and opportunities available to respond to this issue. A pre-departure workshop was conducted to present the institutional audits prepared by the participants. Through conducting this exercise, participants were required to think about pertaining environmental issues, and the strengths and weaknesses of the local councils, which prepared them for the study tour.

In the Seychelles, participants were exposed to various management strategies employed by local councils in the Seychelles in addition to ongoing UNDP projects on renewable energy, waste management, water conservation, and managing marine reserves through presentations, demonstrations, site visits and interviews with the local beneficiaries. The study tour helped council members and planners from Laamu Atoll to identify strategies, projects and programmes that could be adopted and replicated in their respective islands, through their local development plans, the small grants programme or through other means of funding. For example, participants identified the importance of including policies to develop management plans for marine parks within their local development plans. Further, the learnings from the sessions and site visits on waste management systems have contributed to improve implementation of stage two of the programme.

The programme also held a Knowledge Sharing Session: Learning from Low Emission Climate Resilient Development (LECReD) in Male' in October 2017 to share the experience and knowledge earned to Atolls and islands beyond Laamu. The session was attended by over 30 participants covering all 26 Atolls in the Maldives and covered the following topics presented by the members of the UN and the Laamu community; 1) Introduction to LECReD, 2) Establishing data and knowledge systems and importance of evidence-based planning, 3) Making climate smart local planning, and 4) Benefits of LECReD planning.

Moreover, the Programme developed four ten-minutes introduction videos which were publicly shared on YouTube and Facebook. The videos cover the following topics; 1) Introduction to the Programme including challenges in Laamu and programme strategy, 2) on programme results in evidence based local development planning as well as innovative solutions for waste management and energy security, 3) on programme results in the area of food security, water safety and security, public health, disaster reduction, and gender and 4) integrated waste management system.

4.4 Actions to improve water safety and security

Immediate actions on water (Activity 4.2) were conducted in Laamu in order to rehabilitate existing community rain water supply systems. By the end of January 2016, 95% of the initial works requested was completed. However, in the process of implementation, both local and central government have identified the need to address overall water safety and security in Laamu atoll. Following site visits by UNOPS Project Manager and additional knowledge exchange between councils, additional requests were presented by the local councils. On February 9, 2016, the LECReD Programme Board approved an additional \$200,000 to address these additional

requests, which included new water tanks, RWH site relocations, walls to shield some RWH shelters, and request for pumps. In order to maintain the operational standards, further training was offered to local councils in order to build capacity of the community to ensure sustainable operation and maintenance of the system.

Based on the needs-assessment provided by each island, the rehabilitation and upgrades included some or all of the following: repair or construction of new concrete foundations; repair/supply and installation of new or repaired PE tanks with locally customized and produced concrete lids; supply and installation of 70mm and 40mm PVC pipe work with individual tank shut-off valves; repair, supply and installation of gutter, tank interconnection pipes and down pipes; construction/repair of roof frame (to also adjust for height and appropriate collection size) roof and some siding; supply/repair and installation of first flush and drain pits; installation of pipe reinforcement ties (PVC coated cable used for support from roof frame) and concrete support stands for pipe running along the foundation; direction arrow marks painted at ball valves (open and close switch) to avoid breakage hazard; neutral coloured emulsion paint applied to all pipes, foundation, tap sites, roofing structure and flush pits for aesthetics.

According to LECReD/UNOPS monitoring and evaluation of report of April 2016, the majority of the islands now feel confident that they will have enough safe water reserves to sustain during the dry season, and even in crisis situations in times of extended drought for as long as up to six months in some cases; communities are ultimately more resilient and self-reliant in the face of disaster related to water shortages.

The monitoring report also mentions one major impact at the technical level: the upgrade of existing plumbing to allow for individual tank maintenance. In the past, multiple tanks were inter-connected with one shut-off valve for all. With the new system, if there was a problem with one tank, it can be individually addressed and the others connected to the system remain undisturbed. Foundation upgrade/replacements ensure that tanks are leveled and stabilized, ultimately protecting the longevity and security of the connected piping seals. Roofing over the tanks provide safe water collection surfaces and shelter the tanks from the elements. High quality stabilizers and support fasteners have been used to secure the pipes, ensuring longevity. Improved flush systems, gutters and overflows have greatly impacted on groundwater recharge. The new systems include components of groundwater recharge and storm water re-use to retain the first flush. This will gradually collaborate to depollute groundwater and to improve aquifer storage and recovery. Locally innovated cement lids are now locally cast for the tanks. Sealing them with silicon ensures the RW does not get contaminated. A broken seal can then be detected, and the water quality of that tank checked. Top quality PVC piping used, which is durable, long-lasting and a sustainable choice because they can take higher pressures if connected to a pressurized pump system in the future. Neutral tones used to paint the piping and shelters to improve overall aesthetics. Location and access has improved to better accommodate fishing vessels and community tap sites for easier access.

In times of water shortage and crisis, islands have typically relied on the state to provide water. The National Disaster Management Centre (NDMC) has been delivering emergency water to islands in need since 2009. Prior to that, it was administered through the Ministry of Environment. Shipping of this water incurs high costs in petrol and carbon footprint. The alternative option is for locals to purchase bottled water, which can get costly for low-income families and adds more pressure to waste management burden with the use of plastic bottles. Drawing on national, annual data provided by NDMC, we can see that the cost of water delivery varies year to year depending on rainwater conditions. In 2009, it cost the state 7.3 million MVR (USD 475,000) to deliver to 88 islands across the country; in 2012 4.4 million MVR (USD 286,000) to 84 islands. If RWH systems are maintained properly, they could potentially last up to 10 years, and the hardware, like tanks and structure, for up to 20 years. Knowing that it cost USD 500,000 to fully upgrade 9 islands in Laamu, it would be worth undertaking a full cost-benefit analysis on a minimum 10 year projection for other atolls. Not only is it possible that it will cost the state less financially in the long-run, but it will also align with national environmental priorities to reduce carbon footprint.

To support the Laamu communities on addressing water security issues, UNICEF worked with MEE to carry out water safety and water, sanitation and hygiene (WASH) sensitization workshops in 3 islands (with participants

representing all islands), in 2017. This activity also utilizes the H2S water testing kits procured by UNICEF to allow all households across the atoll to understand the importance of safe rainwater harvesting.

As part of the training regime for the CERT, UNICEF worked with Maldivian Red Crescent (MRC) in 2017 to develop a learning module on WASH-in-emergencies (E-WASH) which would also be used to teach all national emergency response teams (e.g. ERT's under MRC). The module aims to build the knowledge of first responders on WASH needs of community members, such as daily potable water requirements, sanitation and feminine hygiene.

WHO has recommended the development and implementation of Water Safety Plans (WSP) to manage the risks to the quality of public drinking-water supplies and is supporting the implementation of WSPs in the Maldives at present. Groundwater quality assessment of all islands of Laamu atoll also were conducted. Rain water harvesting guideline were also developed. In addition, an accessible guideline for maintaining RWH systems for health and safety was produced and distributed to community through health centres. The guideline explains sources of potential health risks (ie collection surfaces and contaminants may be affected by, vandalism, cleaning), and provides solutions to mitigate these risks. Since the adoption of the Decentralization Act, it has not been made clear whose responsibility it is to ensure the safety of community water. As such, though Councils are responsible for the RWH hardware, most are looking to partner with the local Health Centre to provide water testing support to monitor for safety. Ultimately it is the responsibility of the entire community to protect and respect their water, and with additional community awareness, a deeper sense of ownership and responsibility for water safety can be ensured.

Having access to potable water is a fundamental basic need, but the peripheral benefits of the delivery through the LECReD programme, has extended the benefits to include areas that are harder to quantify. Human capacity building has increased through inclusive consultations, participatory decision-making, multi-sector dialogue, and skills training. Capacity has also grown from enhanced communications within the atoll, allowing for inter-island transfer of knowledge of best practices and innovations. LECReD/UNOPS monitoring and evaluation report emphasizes the fostering of inter-island communication, knowledge-sharing, supportive relationship building and innovative practices/developments achieved through integration in LECReD Programme. The report concluded that the majority of Council members indicate that they and the community are more aware of the range of vulnerabilities they face regarding water safety and security. Council members expressed that they are more equipped and informed about how to develop and maintain Island Water Safety Plans into the future.

4.5 Actions to improve ecosystem resilience

Stage two of the LECReD Programme focused on improving ecosystem resilience, mainly through establishing proper solid waste management facilities in the communities. Solid waste management was identified as a key priority area from the multi sector dialogue sessions, climate change forums and discussions with the Laamu Working Group. A Solid Waste Management Investment Plan was developed by UNOPS which included capital costs and support costs to establish a functioning SWM system in Laamu Atoll. Capital costs included the construction and upgrade of Island Waste Management Centers, procurement of vehicles, waste management equipment machinery and composting tools. Support costs included the development of Environment Management Plans and conducting Environment Impact Assessments, conduct training workshops and awareness programmes.

The Programme Board assigned the implementation of the Stage Two work to UNDP, while the implementation of the health waste was assigned to WHO and the awareness component to UNICEF.

The SWM Investment was re-designed to meet with national policies and plans linking to the Government's planned initiatives to establish a regional waste management facility in the Laamu region. Four new waste management centers were constructed (Kunahandhoo, Maavah, Maabaidhoo and Kalaidhoo) and upgrade work

was done in five islands (Isdhoo, Maamendhoo, Hithadhoo, Fonadhoo and Mundoo). For various reasons, the plans for Gan and Dhanbidhoo was not implemented.

Successful waste management system requires community ownership, and this was addressed by the Programme through support to the councils, training and awareness programmes. UNDP provided guided support to all councils to obtain the required approvals from the Ministries and State Authorities. Additional support was also provided in establishing waste management committees, conduct community consultations and household level surveys, developing waste collection schedules and routes. Specialized waste management equipment such as balers, shredders, compactors, glass crushers were also handed over to the councils and the required commissioning and training sessions were conducted.

UNICEF engaged a national consultant to conduct awareness raising sessions on community-based waste management in the 9 islands of Laamu Atoll where UNDP supported in establishing the waste management centres. As part of the activity, a review of the literature produced in relation to waste management under the LECReD Programme by the partner UN agencies was conducted and in light of the findings and from consultations with key personnel involved from UNDP, Ministry of Environment and Energy (MEE) and Environmental Protection Agency (EPA) as key stakeholders of the waste management component of the LECReD programme, a methodology for conducting the awareness sessions was proposed and a toolkit was developed. The methodology used for conducting the awareness sessions in the islands of Fonadhoo, Mundoo, Maabaidhoo, Isdhoo, Kalaidhoo, Maavah, Kunahandhoo, Maamendhoo and Hithadhoo, were focus group sessions for key community stakeholders where the primary target audience were school students of Grades 6 and above. The toolkit developed consisted of a handbook on safe waste management practices (approved by the Ministry of Environment) and PowerPoint presentation whereby, the same content was delivered to all the participants of the focus group sessions.

5.2 Implementation Issues and Major Challenges

General context

Climate change and natural disasters pose an overarching threat to small island states such as the Maldives and further undermine the inherent fragility and vulnerability of the island communities. Given the small dimension of the islands, the majority of their population, settlements, and supporting infrastructure are located in coastal areas. Developing and sustaining adaptation measures as they evolve at the community level is not easy, and includes the speed of adaptation, and what can realistically be expected to be achieved in the short term.

The essential strategies, policies, and skills required to better manage local development include outlining clear national visions and priorities in particular in what regards human settlements; building on current regional initiatives; establishing the appropriate balance between generating plans and policies and delivering infrastructure and services; forging partnerships and seeking long-term commitment to LECReD; tackling land and housing markets; documenting knowledge learned and building a base of evidence for change; and raising the bar in education and advocacy.

Since its design stage, LECReD operated in a highly sensitive environment and facing absence of support from both the current government since the Programme was seen as an initiative from the previous government, and from the opposition since the efforts to collaborate and synergize with government led initiatives and presence of government representatives in programme functions placed the Programme as a GoM initiative. This weakened national and local level ownership and made it challenging for the Programme to establish itself in an often very disruptive environment, suffering from constant lack of continuities in commitment from government representatives. Even so, and despite this unconducive political environment, the Programme Board and Programme Technical Committee have managed to create a positive environment for the programme activities to move forward as constant efforts were made by the programme team to engage government officials from different spheres of authority in technical level debate and secure their participation in the most important key

Programme milestones. This is partly because the Programme remains a highly relevant initiative for the Maldives and as such, it is unquestionably touching areas which the country has assessed as priorities.

There are no easy solutions to addressing the plethora of issues emanating from climate change and how they may affect the most vulnerable in the Maldives. LECReD has attempted to identify and promote solutions to address some of these underlying challenges, in particular those that might risk to slow down the pace of implementation and successful outcome of the Programme. However, some of these challenges are beyond the life of the Programme. Given its multidisciplinary approach, the Programme touched a very wide spectrum of issues (from gender to safe drinking water and energy security, from public health to data management systems, etc.) which made it difficult to promote in-depth solutions to this wide array of issues within its 4 year period.

An area which remained particularly challenging throughout the programme implementation was the absence of clear National Development Plans, national policies regarding spatial planning, as well as national quality standards and quality assurance systems with regard to local planning and renewable energy. Absence of a national plan and policies in what regards a clear settlement strategy poses a risk of sustainability of the investments made through the Programme. Efforts were made to support LGA in the process of establishing national and local level planning systems, and also to improve the dialogue with the Ministry of Housing and Infrastructure in what regards the Population Consolidation Strategy. These have resulted in an improved dialogue between the different sectors and pose a good basis for future complementarities to be established. However, additional resources would be required in order to address in more detail the required capacities and for technical packages to be developed in a longer-term integrated land and marine use management strategy in the Maldives.

On a technical level, the absence of appropriate baseline data (as in measuring GHG due to government impositions in what regards access to fossil fuel consumption records) and difficulties in attracting appropriate consultancy services, posed challenges for the implementation of Programme activities. In its advancement as a middle-income country, the Maldives has made significant developmental progress in recent years and is seeking its autonomy and trying to establish a solid pool of technical level consultancy services. However, as is common in other small island nations, due to its reduced population size the country faces difficulty in establishing quality consultancy services in certain specialized areas such as the case of local development planning and climate change.

In fact, one of the key challenges reported by all PUNOs entailed recruitment of competent local individuals and firms to undertake the activities. Considerable amount of time was spent on recruitment processes and it was common for announcements to enter a second and even third round of announcements, which delayed implementation significantly.

Further to this, significant delays in publication of Census 2014 dataset, and the commencement of the Housing, Income and Expenditure Survey (HIES), have had a negative impact on the work being conducted in regard to the Laamu Island Profiles.

Certain local and national level celebrations also had a negative impact on Programme progress by keeping government staff totally engaged in the preparations. Such is the case of the 50th Independence Day Celebrations in 2015 which have been at the heart of government activities throughout the country immediately following the Ramadan period and continued on throughout the year. Councils were under directive from central government to cooperate and fully engage in these celebrations and have therefore expressed difficulties to participate in trainings, workshops, surveys or other activities planned by the agencies during this period.

Quality of governance is essential to promote more effective urbanization patterns

Seven overarching challenges associated with better managing urbanization processes at island level have been identified. These challenges focus on achieving improved LECReD outcomes and rely on effective leadership and

governance. These are: i) a growing and younger population and the need to effectively address demographic changes; ii) accessing land and financing for green infrastructure and services; iii) supporting the local economy; iv) improving articulation between state and local governance systems; v) developing island-specific planning systems for management of LECReD that are able to address climate change, disaster risk management, and negative environmental impacts; vi) placing LECReD local development planning on to national and regional development agendas; vii) lack of evidence-based decision making processes and need to enhance data collection and management systems..

Effective policy frameworks are needed for LECReD to be grounded to national planning strategies that reflect population needs and aspirations. Maldives has put a big effort into the promotion of policies in the field of environment and climate change and towards compact, resource efficient communities. However, the measures to clearly communicate such strategies and capacitate the local communities to plan accordingly are still pending. Results from the legal and institutional review (activity 1.1.1) offered a basis for such a process to be undertaken. Investment in decentralization and clarification of the resettlement processes are areas to which the Programme has contributed, in particular by putting emphasis on the legal frameworks and collaborating to improve the communication processes towards more effective implementation. Laamu Climate Change Forum served as a strategic platform to bridge national and local dialogue, increase knowledge sharing and promote the debate around climate change impacts and solutions at the local level.

Governance systems remain fractured in the Maldives as state government systems and local traditional structures struggle with limited effectiveness including planning arrangements and effective management systems. Importantly, formal state and local governance structures remain unaligned and out of step with the needs of a growing body of inhabitants who are increasingly disenchanted with their quality of life.

Administratively, there have been numerous recent changes to islands delimitations and there is not always a clear alignment between community identity and their official local elected council members who struggle to represent and engage the community in different forums. The situation of particular islands in Laamu has been discussed during the period. Gaadhoo island (pop. 178, according to 2014 census) was subject to relocation during the period. A land use survey was undertaken on the island in March 2015 by the Ministry of Housing and Infrastructure (MHI). Through a formal letter and public announcement, the MHI stated that from June 2015 (the date the announcement was made) the council should not allocate new land plots for the purpose of living or commercial needs. Further, it stated that no new buildings could be constructed on the island and distribution of land plots for other social needs had to be stopped from the date of the announcement. This relocation process was concluded in January 2016 and was analyzed by the Programme PTC and PB in order to introduce specific support modalities identified together with all partners. However, the island council will remain in function until the President declares it as an uninhabited island. As such, LECReD has decided to maintain its full cooperation with all 12 island councils but it was determined by the Board to put all infrastructure support in Gaadhoo on hold. Gaadhoo was later incorporated into the Fonadhoo council, thus reducing the number of our cooperation to 11 island councils. A second island, Mundhoo (pop. 236, according to 2014 census) was also discussed, in view of its future displacement. In both cases, the information related to the displacement of population was never clearly transmitted to the councils and communities and the arguments for population resettlement are unclear and seem to be linked to economic reasons rather than risks in relation to climate change. Gan island has also been the subject of discussion due to difficulties in defining a commitment from local level officials in several key programme activities – the island is the biggest island in Laamu in population and land size and represents much of the potential development opportunities. However, this island council is resulting from the unification of three administrative units and the council has still not established a community sense that would allow for more shared and consensual decision-making processes. It was observed that in Gan such as in other islands in Laamu atoll, this lack of “reality” of administrative structures gave rise to a gap in local governance since very often the communities do not feel represented by their elected representatives. Coupled with political polarization, this process has resulted in absence of political leadership and difficulty in establishing progress in programme activities.

5.3 Lessons learned and best practices

LECRéD has drawn from valuable lessons, good practices and experiences that were useful to other similar projects in the Maldives and at the international level. A summary of the lessons learned since the programme's inception in 2013 is provided below:

Multi-sector multi-stakeholder approach: Collaborative approach and Programme delivery

LECRéD is a pioneering project in terms of 7 UN agencies working together in the Maldives towards the same results or 'delivering as one', and significant challenges were faced in terms of coordination, alignment to create synergies and sharing of knowledge. Agencies have been noted to carry out activities without much consideration of the bigger picture and much effort was required to align work plans to feed into the local development planning process and build synergies between different agencies' work. Delays in the implementation of activities have also raised difficulties in this process. For example, UNFPA mentioned difficulties in identifying data requirements for their 'data needs assessment' since agencies were still in the process of developing concept notes and ToRs for many activities. Adaptive management measures were needed in order to break the cycle of inter-agency dependency, aligning strategic integration with ongoing work.

At the same time, it should be noted that the results of LECRéD as a collaborative approach and partnership potential of working together with different sectors and levels of government were unexpected for all partners. The "Delivering as One" joint UN formula drew on the strengths of the 7 participating UN organizations to provide technical support and guidance in the overall delivery of the programme. Despite the difficulties in coordination and management of the complex multi-sector multi-stakeholder approach, results can be achieved quickly when all agencies and sectors work together toward a common goal. Many agencies wished to maintain its total autonomy while being aware that the joint-programme proposed a different approach. This has translated into much inefficiency as a result of unwillingness to share resources, office spaces, make better use of procurement and selection/engagement of consultants, benefit from advisory resources, and in particular in terms of unwillingness to act under one management structure. Instead, the Programme has adjusted to a collaborative approach, much like other coordinated activities led by RCO. More support is required from regional offices to provide the appropriate tools (templates, knowledge and information management systems) that would allow such joint-programmes to develop in a more integrated interagency approach. In order to work to its full optimal, it is recommended that in similar joint/programmes' all project staff, regardless of its agency, should be integrated in the programme structure, sharing the same office and with clear reporting and management lines.

Community and stakeholder engagement: managing diverse expectations

Implementation of the Communication and Stakeholder Engagement Strategy was an important element for a more effective implementation process: more engagement with the communities and stakeholders, through targeted and strategic events and activities collaborated to build trust and awareness in the community about LECRéD. Expectations can be better managed with clear information shared early through a Communications Strategy, website and public data/resource portal and branding that is prepared in advance to programme implementation. Connecting with politically neutral bodies early will help ensure equal access to information. Communications resource tools need to be context sensitive. Multiple awareness tools were required in order to share real-life stories and successes that different audiences can relate to.

Challenges were also faced in ensuring local participation in workshops or trainings. Local councils in Laamu persistently stressed their human resource limitations, and the difficulties they face by having one or few individuals engaged in almost all activities. The increased frequency of trainings are said to cause challenges in undertaking their original responsibilities. Usually, workshops require the council members or civil servants to be away from their island for two to three working days, which has been quoted as a major reason why participation

is low. Sharing the training calendar with the council members at the beginning of the year was found to be a useful method of getting more participation as this allowed for council staff to organize and plan their commitments around the training schedule.

Prioritizing cross-cutting support services: Gender mainstreaming and long-term value of capacity building

Capacity building was one of the most important outcomes of the programme and is essential to ensure sustainability of results. The programme aimed to build capacities of government staff both at central and local government levels, but did not factor in the required training of national staff for project management, monitoring and evaluation. This is a specific difficulty in the context of the Maldives where there is a very reduced pool of technical experts in the fields of local development planning, environment and climate change available for short term projects. Capacity of staff is required to perform synergic results. Context specific professional training, with particular regard for One UN coordination would be of value for future programmes. For optimal results more specialized staff would also add value for smoother implementation. During the programme design level, strong efforts should be put into a realistic programme staff structure, which includes support to on-the-ground technical processes and making efforts to factor in capacity building of the team.

The Programme was designed within a collaborative multi-sector approach and support for cross-cutting issues was integrated from the early stages of implementation. In particular, gender mainstreaming was a critical element of the programme and addressing gender-specific needs in what regards climate change enhanced both men and women's participation in the programme. Because the pathway toward gender equality is still lagging in Maldives, and because women are disproportionately affected by climate change and their contribution and role is pivotal in low-emission development, it is critical that women's ability to participate in public and private spheres be strengthened. It is also vital that gender equality continue to be mainstreamed across programme plans and result indicators.

In order to improve participatory processes, key stakeholders in the communities have been identified and their contribution was vital. LECReD also invested on the gender mainstreaming component of the Programme by engaging in training activities on gender and climate change promoting links to inclusive resilience planning, as well as specific training modules on "gender responsive climate change and climate resilience planning", and on developing a training manual on Gender and Climate Change. The consultation process at the basis of these documents was an opportunity to further engage national and local level stakeholders in the dialogue around this topic.

Cultural norms and traditional gender roles restrict women's ability to participate in decision-making both publically and privately. The Programme has identified Women's Development Committees as a good platform to engage and empower women in the public sphere. LECReD has provided platforms to raise awareness in the value of bringing women's voice to the table in consultation, decision making and in planning. There is community recognition of this. It has been relevant to use cultural awareness and build on platforms that are socially acceptable in engaging women. Women's roles in certain activities such as agriculture, waste management and securing water for the household make them particularly vulnerable to climate change. Women are innovating and adapting to climate change in their practices and the Programme has used the exchange of experiences (such as a study tour to Addu, and LCCF Fair) to develop a pilot on gender and climate change and showcase how women are impacted, providing a platform for knowledge sharing. Women are attending technical trainings and information sessions. In order to increase women's participation, it is important to provide the necessary support to aid women's ability to attend information and training sessions, ie: choose appropriate time of day, bring the training to their island, offer daycare, use channels that are tied to women's current defined roles (ie: for example, via Parent Teacher Association). Dissemination of awareness and success stories has proved effective to educate and inspire.

Presence on the ground: drawing on local knowledge and frequent face-to-face monitoring

Presence of PUNOs and government officials on the ground was visible through consultations, attendance at milestone events, and through the conducting of scoping, awareness activities and trainings and has proven to be valuable in building trust. PCU's full time presence has been vital in prompting Councils, Working Groups and implementing partners to remain engaged, motivated and informed. It has provided the basis for coordination and logistics support at the island level, the necessary linkages between LWG, IWGs, Councils, health facilities PUNOs and community representatives. The participatory process of consulting community directly has yielded valuable information about what communities actually want and need, and has also provided insight into LECReD based practices, innovations, adaptations and assets that communities have naturally developed on their own. A rise in temperatures; changes in rainfall patterns, water table, and flooding, have prompted people to alter how they do things to protect their livelihoods. Some of these behaviours have been harmful (like the use of chemical pesticides or destroying seagrass), while other skills and practices can be learned from, shared, and built upon. Drawing on local expertise and input continues to deepen local ownership of the overall process toward LECReD.

The collaboration established through the local development planning process has played an important role in blending the scientific and technical knowledge on LECReD, with the knowledge of traditional Maldivian culture. This blend of local traditional knowledge with scientific expertise culminated in local development plans that reflect how Maldives have managed their islands and resources for many years developing into an ecosystem-based approach to resource management that is culturally adjusted. This was an important structural basis of LECReD's integrated local development planning approach.

Regular field visits with multiple activities, such as preparatory support and engagement in cross-cutting issues worked very well in supporting the implementation of the Programme and promoting the inclusion of all participants. Joint-monitoring missions were also conducted with participation of different PUNOs and addressing multi-sector aspects of programme delivery, such as required in the fields of water management or support to small grants initiatives. The staff also focused on gender mainstreaming and integration of particularly vulnerable groups which collaborated to create a more conducive environment for LECReD implementation. Due to substantive delays in programme implementation during the earlier stages of the Programme, the monitoring also suffered from considerable delays. It would be beneficial to agree in advance on an annual schedule of monitoring visits, in order to promote more interagency coordination on the ground.

Adaptive programme activities: 'learn-as-we-go'

National and local priorities have changed since the design stage. The emphasis of LECReD was focused on building capacity for low emission planning at the local level. But priorities expressed have also evolved to focus on building up infrastructure to manage solid waste and water supply. Having flexibility built-in annually in the revision of the JAWP, and allowing for short-term response to unforeseen circumstances, has been integral to achieving results. To learn and respond during the programme cycle helps maintain buy-in from counterparts and allows for the refinement of processes in shorter timeframes.

The initial investment on a fully detailed JAWP and defining the strategic orientation of key priorities within a consultative approach has been very important in order to promote interagency coordination. However, the delay of specific activities hindered community awareness, and pushing some activities to limit their full potential. Some early activities went ahead out of sequence which ensured programme progress and it provided some useful short-term lessons to inform following activities. It is important to ensure that baseline activities and strategies for communication, community engagement and knowledge management are completed early on.

Although it was time consuming to constantly reassess programme needs and re-prioritize based on the dynamic circumstances of the different partners, flexibility in programmatic and operational arrangements have contributed to the success of the programme. This was particularly relevant in avoiding the domino impact of delays: hiring programme staff, programme planning, activity delays, reporting, etc. Flexibility is important to

address unforeseen delays and changing in local/national/donor priorities and adaptive management is vital in very dynamic sociopolitical environments. On a project management level, this implies the recognition that some activities can change or happen out of sequence as long as the main outputs are achieved.

LECRéD has been subject to high expectations that dramatic multisector development changes can be obtained in a short period of time. Considering the very challenging political environment complex programmes addressing capacity building would benefit from a 5-year cycle to allow for behavioral changes to occur. It is also important to recognize that the 'learn-as-you go' approach builds sequential knowledge, and therefore allow flexibility to revisit and refine planning and measuring tools.

The strategic programmatic planning, identifying priority milestones through technical groups is a useful aspect to replicate to coordinate and keep large-scale and multifaceted projects on task. Strategic planning with established milestones and visualization schemes also provide more opportunities to manage expectations.

Improved coordination towards a strategic integration approach: promoting ownership

Achieving higher levels of sustainable local development and resilience to climate change requires clear policies, simple norms and principles, and concerted efforts from different stakeholders working together. It also requires that different sectors and levels of government learn to cooperate. Effective decentralization processes require a strong coordination capacity of the central government and should lead to dynamic and well-planned communities. Clear political and sound leadership buy-in and support was a crucial element for the Programme's success. This has greatly contributed to the national ownership, management of expectations and sensitivities and the sustainability of programme outputs.

With numerous activities and operating partners at the island level happening simultaneously, the programme is so multifaceted that it was easy for some of the partners to lose sight of the bigger picture. The Programme Board and Technical Committee were fundamental in activating the strategic integration of the Programme and the contribution of Laamu Working Group and local level representatives in these structures were essential to effectively link national and local level stakeholders. Regular PB, PTC and LWG meetings were important to reinstate government support to LECReD and devise more strategic collaboration and coordination processes throughout the Programme's implementation. Laamu Climate Change Forum was a successful event in its aim to effectively bridge national and local level stakeholders, share information on LECReD and debate national and local options for integrated low emission climate resilient development.

Ownership of the Programme at national and local level was reinforced aiming at successful sustainability of Programme results. The effort to promote national ownership and support the growing autonomy of local counterparts was at the forefront of the process. Throughout the Programme, efforts were made to establish dialogue also with the international community and sharing of international lessons (for example in the field of waste management) proved to be useful, in particular regards to south-south cooperation. For example, the Programme was visited by the Masters students of the Faculty of Architecture and the Built Environment of Technical University of Delft, which included a field visit to the Programme activities in the Atoll. The Programme could have benefited from more international dialogue, in terms of more direct participation from regional headquarters and donor presence, which could have translated into improved knowledge exchange and quality assurance through sharing of global lessons from similar programmes. For the case of small island states, it is particularly important to integrate cooperation with similar cases.

An ecosystems-based approach to local development planning

Partnerships with local governments can reduce social conflict, political instability, bureaucratic procedures, and therefore create an environment conducive to better decision-making processes and more resilient communities. The Programme has provided support to these matters, not only through the investment on national debate but

also through the development of tools and guidelines that will act as “way forward” for an ecosystems-based approach to local development planning and for the reconciliation of nature protection vs human development.

In this process, a National Urban Policy is needed, turning from a strict population consolidation strategy to an ecosystems-based approach to community development, aiming at stronger, more resilient local development processes that are capable to propel economic growth, reduce poverty and safeguard existing ecosystems. Ecosystem-based adaptation efforts are vital to ensure ecosystems remain healthy and protected, allowing local communities to benefit from the ecosystems services such as provision of clean water, improved habitat for fisheries as well as improve climate resiliency and effective protection from extreme weather events. Investments in the protection of mangroves and coral reef systems seem crucial for the case of Laamu, starting from clear planning options and Land Use / Marine Use Plans that are based on environmental risk and vulnerability mapping.

A compact development pattern may not only increase and improve access to natural resources (including marine resources), and promote climate resiliency of local communities, it may also ensure access to basic services and infrastructure, in particular mobility, reducing the vulnerability of certain specific inhabitants (e.g. women). Compact settlements may also bring synergies for economic development, especially for the private sector and lower the costs for energy, attracting green and blue economy for tourism for example. Promoting higher densities, compact urban form and mixed-use development are examples of sustainable urban development options; these measures need to be enforced through land use regulations that promote infill development and communicated in a manner that is clearly perceived by all as an opportunity rather than as an imposition from the central government. Spatial planning regulations and standards pose a critical component in this process and more effective links between Local development plans, community-based disaster risk management plans and land use plans are needed. It is also worth highlighting the need to adopt a new framework for “land use” planning that is more adapted to the Maldivian geospatial reality, integrating or linking to a strong component of marine use planning.

The integrated planning approach proposed by the LECReD programme has been adopted by local and national authorities and will form the basis for island development plans and local financial plans for 2017-2021. The planning method itself is built on an ecosystems-based approach to adaptation. A vital lesson has been to ensure that planning employs a participatory and inclusive approach to build trust and so that all relevant community stakeholders including, women and civil society, have a sense of inclusion in the decision-making process which enhances overall ownership for the future. Throughout the LECReD programme, it has generated trainings, tools, reference materials and assets to support planning, capacity building and informing the public with advocacy and information tools. The participatory process used in creating these materials promoted opportunities for sharing, replication and scaling up.

Local capacity to input and interpret data was lower than anticipated and much effort is still needed in order to implement an ASPU (Atoll Statistics and Planning Unit) as initially intended. Replication will require enough capacity and to consider budgeting for dedicated NBS staff at HQ and one to two at the atoll level at minimum. It is important to ensure civil servants are included in all trainings from the beginning to help sustain the knowledge across council terms. In this process, it is advisable to consider language barrier and prepare training materials in Dhivehi.

Effectiveness of Knowledge Sharing

Improved coordination mechanisms for communication and knowledge management were another key element to achieve an integrated planning approach, both at the national and local level. The creation of a web platform for communication and knowledge sharing was an important step to improve coordination and trigger replication potential.

Development of the Laamu webportal gave public access to data. Clean, accessible data will empower citizens to hold governing bodies accountable and will foster innovation for evidence based green growth and planning. The web portal links directly to LaamuInfo which is modeled after MaldivesInfo (based on the DevInfo architecture) and will be associated to local level monitoring of SDG implementation. This concept can easily be replicated to other atolls since the portal was established directly at the final government host and capacity building of government staff was integrated within the establishment of the data management system hence avoiding the handing over process.

It is important for the Maldives to remain engaged and aligned with international priorities, like the Sustainable Development Goals (SDGs), and knowledge management systems can collaborate to promote this integration. LECReD programme has worked to promote all 17 Global Goals by implementing the SDGs through the planning process; all island plans will be based on a thematic structure that works on SDG themes and implementation will be monitored according to that structure through the LaamuInfo database tool. These tools can improve a systematic decision-making process based on data and context specific while at the same time promote linkages between local level governance systems and national and international priorities.

LECREd compiled a set of knowledge documents and tools into a LECReD toolbox that also summarises the key lessons learned and best practices within six key areas of the programme: i) Participatory and inclusive LECReD planning approaches; ii) Environmental planning and management; iii) Water Safety and Security; iv) Energy Security; v) Public Health and DRR and vi) Food Security.

6. Indicator Based Performance Assessment

| | <u>Achieved</u> Indicator Targets | Reasons for Variance with Planned Target (if any) | Source of Verification |
|---|--|---|---|
| Outcome: “Enhanced capacities at national and local levels to support low carbon lifestyles, climate change adaptation and risk reduction” | | | |
| Outcome Indicator 1: <i>Atoll and island councils in Laamu have increased capacities to perform integrated LECReD planning in a participatory, sustainable and environmental manner</i> Baseline: 0% Target: tbd% | N/A | | Surveys |
| Outcome Indicator 2: <i>Percentage of atoll and island councils in Laamu undertaking low emission climate resilient development planning</i> Baseline: 0% Target: 100% | 67% | | Council minutes, Atoll and island 5 year development / action plans, yearly budgeting |
| Output 1 Partnership, coordination and participation platform for local LECReD planning and action is established Indicator 1.1 <i>Progress towards establishing the platform</i> <i>Baseline: no platform</i> <i>Target: 1) LWG convened by May 2014; 2) CSES published on website by May 2014; 3) CC Forum by Dec 2014 and each year; 4) 20% increase in participation in CC Forum each year</i> Indicator 1.2 <i>Proportion of local people surveyed that indicated local development planning is inclusive</i> <i>Baseline: 0</i> <i>Target: 65%</i> Indicator 1.3 <i>Proportion of women and youth and female-headed households in targeted islands receiving training and support on reducing carbon emissions and building resilience to climate change</i> <i>Baseline: 0</i> <i>Target: 50%</i> | 1) 12 IWGs and LWG formed. LWG convened in May 2015. Regular meetings are being held. 2) CSES finalized. 3) CC Forum held in Q2 and Q4 of 2015, Q3 of 2016 4) N/A | The Programme Coordination Unit was established in Laamu in March 2014. The Inception Report was completed in May 2014 and highlighted the need to establish Island Working Groups prior to establishing the Laamu Working Group. This work was not previously envisaged and caused delay in establishing as planned. The delay in Programme staffing has also impacted on delays in CSES and CC Forum. 2015 was the first year of LCCF when a total of 155 participants has registered in the event. | Activity Reports |
| | Not applicable for the reporting period. | Survey has been delayed to be undertaken after LECReD planning activities have been initiated | Public Perception Survey |

| | | | |
|---|--|----------------------------|--|
| | 77.8% | | Training evaluation reports, programme monitoring reports, mission reports, annual review report |
| <p>Output 2 Data and knowledge systems established or identified to support evidence-based planning and policy development for LECReD at the local level</p> <p><i>Indicator 2.1 Data management system established</i> Baseline: No data management system Target: Fully operational data management system by end of 2015</p> <p><i>Indicator 2.2 Proportion of government staff identified in the capacity assessment trained in utilization of climate data</i> Baseline: 0% Target: 85%</p> <p><i>Indicator 2.3 Number of inhabited islands in Laamu which have Climate Profiles</i> Baseline: Atoll and island level climate change profiles does not exist Target: Atoll-wide and separate island profiles prepared by end of Q1 2015</p> | Data management system initiated. Data assessments finalized and database design ongoing. | | |
| | 60% | | Training evaluation reports, annual review reports, mission reports |
| | 100% | Climate Profiles completed | Laamu Atoll climate profile documents |
| <p>Output 3 Improved Local Level Planning and Management for LECReD</p> <p><i>Indicator 3.1 Local LECReD Planning Guidelines and tools include age and gender specific references.</i> Baseline: Guidelines and tools do not exist Target: All guidelines and tools include age and gender specific references</p> <p><i>Indicator 3.2 Proportion of targeted persons identified in CDAP is trained.</i> Baseline: 0% Target: 85%</p> <p><i>Indicator 3.3 Percentage of atoll and island councils in Laamu undertaking low emission climate resilient development planning</i> Baseline: 0% Target: 100%</p> | Completed | Guideline made | Published planning guidelines and tools |
| | - | CDAP developed | Training evaluation reports, Annual review reports |
| | 100% | | Council minutes, Atoll and island 5 year development / action plans, yearly budgeting |

| | | | |
|---|--|--|--|
| <p>Output 4 Practical local experience in LECReDs interventions leads to learning and promotes replication</p> <p><i>Indicator 4.1 Laamu Atoll LECReD small grants scheme operational</i></p> <p>Baseline: No scheme Target: Operational by end of 2016</p> <p><i>Indicator 4.2 Number of “no-regret” projects implemented</i></p> | <p>Laamu atoll small grants scheme is completed except for 1 grant, which had to be terminated</p> | | <p>End of programme report, terminal evaluation report.</p> |
| <p>Baseline: 0 Target by 2016: 2 in energy sector 2 in water sector 1 in WM sector 1 in Health sector</p> <p><i>Indicator 4.3 Number of lessons learned produced for specific audience and disseminated</i></p> | <p>Completed. All islands have operational waste management centres.</p> | <p>1 “no-regret” project implemented in energy sector; Energy, water and waste management projects under implementation. Waste management centres operational on all islands</p> | <p>End of programme report, Terminal evaluation report, Project review report.</p> |
| <p>Baseline: 0 Target: 1 lesson learned product by end of 2014, 1 in 2015, 2 in 2016</p> | <p>3 in 2014, 5 in 2015</p> | <p>Activity delayed due to slow implementation.</p> | <p>Lessons learned log, Annual Review Report</p> |

7. Cross-cutting themes

7.1 Sustainability of the Programme

A one-year extension was required for LECReD to compensate from delays in its early stages and gradually exercise a coordinated withdrawal to ensure that the programme counterparts maintained results. During PTC10, in September 2016, concerns were raised over the issues of the political commitment and government ownership regarding success and sustainability of the programme. During this time, LECReD worked closely with PUNOs and partners to coordinate a summary toolbox which would provide the basis for replicability of programme results. The sustainability strategy focused on two main components: 1) consolidating knowledge exchange and 2) advocacy and capacity development for LECReD.

The first component was achieved mainly through LECReD's Toolbox, gathering the knowledge products developed through the programme. Another aspect of this knowledge exchange is linked to LECReD's advocacy strategy and aimed at raising awareness to the paradigm shift required in order to achieve development patterns incorporating low emission and climate resilience. The campaign also incorporated a number of activities aiming at improving capacities at national level and scaling up results through trainings and knowledge exchange opportunities, where the toolbox was used. The Toolbox served as a mean for LECReD knowledge transfer in order to consolidate the institutional capacities and strengthen institutional coordination, mainstream gender and public participation in local development planning and ultimately, raise awareness on the importance of low emission and climate resilient development, ecosystem-based adaptation and the roles of respective stakeholders in the process.

LECREd's Toolbox is meant to benefit to a wide range of stakeholders, including governmental institutions at the central and local level, both political leadership and technical staff, nongovernmental organizations, universities, private sector (small and medium enterprises), professional associations, civil society and hard-to-reach groups i.e. persons with special needs, minority groups and young people.

The Toolbox is grouped into six focus areas listed below, each including a number of tools associated with related contents. The toolbox will also be uploaded on UN Maldives LECReD websites.

Laamu Climate Change Forum was regarded as an important platform to maintain results and in that sense LCCF3 focused on lessons learned and trying to guarantee ownership and commitment from national and local level counterparts.

The Programme worked during this period to establish the gradual handover of Programme Board, Programme Technical Committee and Laamu Working Group. LWG, as a transitory arrangement, took care not to replicate the existing sub-national structures and worked with the intention of supplementing sectorial coordination to ensure the programme's integrated approach. During the extension period, the programme worked to ensure the role of LWG was gradually mainstreamed into local structures as a result of the strengthening of existing systems undertaken during the programme.

7.2 Capacity Development

LECREd took capacity building as a cross-cutting theme and many efforts were made throughout the implementation period to integrate capacity building within all activities, having consultants work closely with counterparts and designing the processes within a 'learning-by-doing' approach. Further to this, training modules were developed and ToTs, learning workshops and formal training sessions were developed in support to all sectors (governance, data collection and data management systems, local developing planning, gender and climate change,

smart agriculture, DRR, water safety and security, etc.). A full fledged capacity development plan was designed, structured to support LECReD replication at national level and allow for scaling up of results.

As part of the LECReD sustainability strategy, capacity building of relevant government staff and officials took place during the final months in consultation with MEE and LGA. It primarily included capacity building sessions leading to the final handover to the GoM. The process involved discussions identifying government initiatives that could provide support to LECReD, as well as training seminars for MEE and LGA technical staff and representatives from other atolls on LECReD concept and making use of the toolbox developed throughout the programme.

ANNEXES

ANNEX I - [LECRd Joint Annual Work Plan](#)

ANNEX II - [Midterm evaluation](#)

ANNEX III – [Final Evaluation](#)