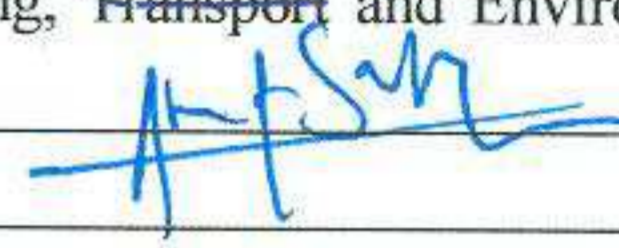




United Nations Development Programme

Country: Maldives

Project Document

<b>Project Title</b>	HCFC Phase-out Management Plan for Maldives – UNDP Component: [MDV/PHA/60/INV/20]	
<b>UNDAF Outcome(s):</b>	Outcome 9: By 2015, capacities at national and local levels are enhanced to support low carbon lifestyles, climate change adaptation, and disaster risk reduction	
<b>Expected CP Outcome(s):</b> <i>(Those linked to the project and extracted from the CPAP/UNDAF Action Plan)</i>	UNDAF Action Plan Output 9.1: A coherent mechanism developed for renewable energy systems establishment UNDAF Action Plan Supporting Activity 9.1.5: Assist with HPMP (HCFC Phase-out Management Plan) Plan, energy efficiency co-benefit and carbon Neutrality	
<b>Expected Output(s):</b> <i>(Those that will result from the project and extracted from the CPAP)</i>	Maldives will achieve targets specified under the Agreement signed by the Government with Executive Committee of the Multilateral Fund on phase-out of HCFCs.	
<b>Implementing Agency:</b>	National Ozone Unit, Ministry of Housing, Transport and Environment (MHTE)	
<b>UN Responsible Party(ies):</b>	United Nations Development Programme 	
<b>Project Summary</b>		
<p>The XIXth Meeting of the Parties to the Montreal Protocol in September 2007, through its Decision XIX/6, adopted an accelerated phase-out schedule for HCFCs. The first control is the freeze on production and consumption of HCFCs which would be from 01 January 2013, at the Baseline Level (average of 2009 and 2010 consumption levels). The other control steps are reduction of 10% by 2015, reduction of 35% by 2020, reduction of 67.5% by 2025, reduction of 97.5% by 2030, allowance of 2.5% of baseline (annual equivalent) for period 2030-2040 and complete phase out by 2040. Government of Maldives was given assistance amounting to US \$ 85,000 to prepare HCFC Phase-out Management Plan (HPMP) with UNEP as the lead implementing agency. The Government also sought assistance from UNDP for preparation of investment activities relating to this project.</p> <p>During the 60<sup>th</sup> Meeting of the Executive Committee, HCFC Phase-out Management Plan of Maldives was approved by the Executive Committee with UNEP as Lead Agency and UNDP as Cooperating Agency. Total funding approved was US \$ 1.1 million for both the agencies. Through the HPMP, Maldives Government has committed itself to an accelerated HCFC phase-out i.e., achieving 100% phase-out of use of HCFCs by 2025 with the period 2020-2024 using only 2.5% of baseline consumption for servicing. For achieving these targets, out of the approved amount of US \$ 1.1 million, funds aggregating to US \$ 420,000 was allocated to UNDP for assisting in implementation of the investment and associated components of HPMP. Of this, US \$ 400,000 was approved during the 42<sup>nd</sup> Meeting of the Executive Committee.</p> <p>Upon implementation of the current UNDP component, Government of Maldives in reducing its consumption of HCFCs to 3 ODP tons (54.5 MT) in 2015 from estimated current consumption of 3.7 ODP tons (67.3 MT) and will indirectly support other national level activities for reducing of HCFC consumption beyond 2015 in line with agreement.</p>		
<p><b>Programme Period:</b> 2011 – 2013</p> <p>Key Result Area (Strategic Plan): <u>Assist Maldives in achieving HCFC phase-out compliance targets with available HCFC-free and low GHG emission technologies.</u></p> <p>Atlas Award ID: _____</p> <p>Start date: 31 January 2011</p> <p>End Date: 31 December 2013</p> <p>PAC Meeting Date: _____</p> <p>Management Arrangements: NIM</p>	<p>2011-2013 AWP budget: 400,000US\$</p> <p>Total resources required: 400,000US\$</p> <p>Total allocated resources: _____</p> <ul style="list-style-type: none"> <li>• Regular _____</li> <li>• Other:             <ul style="list-style-type: none"> <li>○ MLF 400,000US\$</li> </ul> </li> </ul> <p>Unfunded budget: -</p> <p>In-kind Contributions: -</p>	

Agreed by (Implementing Partner):   
 28 September 2011

Agreed by UNDP: Andrew Cox, UNDP Resident Representative  
 28 September 2011

## **I. SECTION-1: SITUATION ANALYSIS**

### **1. OBJECTIVE**

The objective of this project is to systematically implement projects under HPMP in line with overall strategy and implementation plan outlined in the HPMP document approved by the 60<sup>th</sup> Meeting of the Executive Committee (decision no. 60/37 and Annex VII to the report of the 60<sup>th</sup> Meeting of the Executive Committee).

### **2. BACKGROUND**

#### **2.1 Country Profile**

The Republic of Maldives is located at the centre of Indian peninsula on top of a 960 km long submarine ridge Ocean and consists of approximately 1,190 coral islands naturally grouped in a double chain of 26 atolls, spread over roughly 90,000 square kilometres. For administrative purposes the islands are divided into 19 atolls, and recently, as part of the ongoing decentralization process, they are further divided into 7 provinces.

Maldives is one of the lowest lying countries in the world. The average height of the islands does not exceed 1.7m above mean sea level. Hence, Maldives is recognised as one of the most vulnerable countries in the context of climate change and sea level rise. It is widely accepted that if the sea level rises one meter as predicted by the IPCC, a large part of the country will sink and vanish from the face of the earth.

The population of Maldives has increased rapidly during the last few decades. With a population of nearly 309,000, the country still remains one of the smallest independent nations in Asia.

The Maldives economy has been growing at an annual average of 10% for the past two decades. Tourism is the main industry, contributing close to 20% of the GDP. Commerce and Fisheries follow close behind. Refrigeration and air-conditioning sector has seen an exponential growth because of tourism and fish exports. Per capita GDP of Maldives is US \$ 2,908. Maldives was lifted from being one of the 20 poorest countries in the 1970s to developing countries status.

#### **2.2 ODS Phase Out Activities in Maldives**

Maldives became a party to Vienna Convention in 1988 and Montreal Protocol in 1989. The Table 1 below presents details of Ratification / Accession of Maldives to Montreal Protocol and its Amendments.

**Table 1: Status of Ratification of Montreal Protocol and its Amendments  
by Maldives**

<b>Agreement</b>	<b>Entry into force</b>	<b>Date of ratification</b>
Vienna Convention	22/09/88	26/04/88 (Ac)
Montreal Protocol	01/01/89	16/05/89 (R)
London Amendment	10/08/92	31/07/91 (R)
Copenhagen Amendment	14/06/94	27/09/01(R)
Montreal Amendment	10/11/99	27/09/01 (R)
Beijing Amendment	25/02/02	03/09/02 (Ac)

*Note: R: Ratification Ac: Accession*

*Source: Ozone Secretariat.*

The Country Programme (CP) for phasing out ODSs in Maldives was approved at the 10th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (6/1/1993). The CP was prepared in April 1993 by the Ministry of Planning and Environment, with the technical assistance of the Industry and Environment Program Activity Centre (IEPAC) of UNEP. To address CFC phase-out in Refrigeration and Air-Conditioning (RAC) sector which was primarily in servicing RAC equipment, Maldives also prepared Refrigerant Management Plan (RMP) and Terminal Phase-out Management Plan (TPMP) which were approved in 2002 and 2007, respectively. For RMP and TPMP, UNEP has been assisting Government of Maldives in implementing non-investment activities and UNDP has been assisting Government of Maldives in implementing investment activities.

Over the last two decades, Maldives has been implementing Montreal Protocol activities to phase-out ODSs. These activities include a combination of investment project activities to help consumers / industry to phase-out use of ODSs, information outreach and awareness activities on ODS free alternative technologies and measures to promote use of ODS free technologies, policies and regulations to control and monitor use of ODSs and ODS using products and training and capacity building of regulatory authorities and service agencies for smooth phase-out of ODSs and fast-track adoption of ODS free alternatives. Through these measures, Maldives has successfully achieved reduction of ODSs from 4.6 ODP tons in 2000 to zero ODP tons in 2010 for all ODSs excluding HCFCs, as given in the Table below.

**Table 2: ODS consumption phase-out in Maldives**

Anx	Grp	AnxGrpName	Baseline	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
A	I	CFCs	4.6	4.6	14.0	2.8	0.0	0.0	0.0	2.1	0.0	0.0	
A	II	Halons	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
B	I	Other Fully Halogenated CFCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
B	II	Carbon Tetrachloride	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
B	III	Methyl Chloroform	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
C	II	HBFCs		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
C	III	Bromochloromethane				0.0	0.0	0.0	0.0	0.0	0.0	0.0	
E	I	Methyl Bromide	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

### 1.2.1. Evolution of HCFC Phase-out Management Plans

HCFCs, which have Ozone Depleting Potential (ODP) up to 15% of that of CFCs, are also classified as controlled substances under Annex-C, Group-I of the Montreal Protocol. HCFCs therefore, have use restrictions and would eventually have to be phased-out. Initially for developing countries, the scheduled phase-out date for HCFCs was 1 January 2040 with an interim control measure of freezing HCFC production and consumption at 2015 levels, from 1 January 2016.

During the implementation of the CFC phase-out under the Montreal Protocol, HCFCs were approved as interim substitutes for CFCs in many of the projects, particularly in foam applications, and activities supported by the Multilateral Fund. Given that HCFCs did not have specific control measures such as freeze, phase-out limits till 2015, during the late 1990s and early 2000s, HCFC consumption saw significant increase in foam and RAC applications.

The XIX<sup>th</sup> Meeting of the Parties to the Montreal Protocol in September 2007, through its Decision XIX/6, adopted an accelerated phase-out schedule for HCFCs keeping in mind Ozone Depleting Potential and Global Warming Potential of HCFCs. The first control is the freeze on production and consumption of HCFCs from 1 January 2013, at the baseline level i.e., average of 2009 and 2010 consumption levels. The second control step is the reduction of 10% from the Baseline Levels on January 1, 2015. Subsequent control steps are 35% reduction by 2020, 67.5% by 2025, 97.5% by 2030 and complete phase out from January 1 2040. The decision also directed the Executive Committee of the Multilateral Fund to assist Article-5 Parties in preparation of HCFC Phase-out Management Plans (HPMP).

### 1.2.2. HCFC Phase-out Management Plan of Maldives

During the 55<sup>th</sup> Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol (“Executive Committee”) held in July 2008, Government of Maldives received assistance amounting to US \$ 85,000 for preparation of HPMP. The Government of Maldives designated UNEP as the lead agency for preparation of HPMP. UNDP was requested by the Government to implement investment components of HPMP.

The HPMP of Maldives was prepared and submitted for the consideration of 60<sup>th</sup> Meeting of the Executive Committee held in April 2010. UNEP has been designated as lead agency and UNDP is the cooperating agency for implementation of the project. The salient features of the plan include the following:

1. Maldives committed to an **accelerated phase-out of HCFCs**. Maldives has indicated that it will phase-out all uses of HCFCs except for 2.5% of baseline as service tail by 2020 and complete phase-out of all uses by 2025.
2. Maldives has also indicated that they would achieve HCFC phase-out by incorporating policies and measures which would not only control and monitor HCFC and HCFC based products supply and use but also facilitate adoption of energy efficient and low GHG emission technologies. This would be in line with the overall objectives achieving HCFC phase-out through technologies and processes which will minimize GHG emission impact.
3. UNDP component of project activities that would assist the country in achieving HCFC phase-out would include (a) recovery & recycling of HCFCs during servicing and prior to disposal of equipment and (b) End-user retrofit/ replacement pilot incentive programme.
4. HCFC phase-out plan of Maldives is expected to help the Government in its proposal to achieve Carbon Neutrality by 2020. HCFC phase-out would contribute to this primarily through adoption of low GHG intensive (direct and indirect combined) technologies and adoption of energy efficient technologies.

The Executive Committee approved HPMP of Maldives at a funding level of US \$ 1.10 million (decision no. 60/37 and Annex VII to the Executive Committee report). Of this, the total funds approved for UNDP component amounts to US \$ 420,000 and of this, US \$ 400,000 has been disbursed to UNDP for implementation at the 60<sup>th</sup> Meeting held in April 2010. Upon implementation of UNDP component, Government of Maldives in reducing its consumption of HCFCs to 3 ODP tons (54.5 MT) in 2015 from estimated current consumption of 3.7 ODP tons (67.3 MT) and help in sustaining HCFC consumption reduction in future. Extract of the Agreement with the Executive Committee is presented in Annex II to this document. Further, in June 2010, a Memorandum of Understanding for assistance in implementation of HPMP was signed between UNDP, Maldives and Ministry of Housing, Transport and Environment, Government of Maldives.

## **II. STRATEGY FOR HPMP IMPLEMENTATION**

The main result expected from this project is timely and cost-effective achievement of HCFC phase-out target committed in the Agreement with the Executive Committee. This project proposes to adopt an integrated approach with the ongoing ODS phase-out activities, mainly Refrigerant Management Plan (RMP) and Terminal Phase-out Management Plan (TPMP) so that synergies which would not only sustain CFC phase-out but also support HCFC phase-out can be utilised.

Given that UNEP is the lead implementing agency for this project, UNDP will work closely with the National Ozone Unit (NOU) of Maldives and UNEP in project implementation activities.

The overall approaches for delivery of two investment component activities, namely Recovery and Reclaim Programme and End-user Retrofit/ Replacement Pilot Incentive Programme, are given below.

### **1. Recovery and Reclaim Programme**

This programme would be undertaken on priority so that HCFC recovery and reclamation, wherever feasible, can be maximised. Overall strategy would be to initiate implementation of this program in high HCFC consuming pockets in the country and expand program implementation to other areas. The broad activities would include:

- Definition of detailed action plan in consultation with industry on implementation – including distribution of HCFC recovery and reclamation equipment and technical assistance support.
- Finalising technical specifications of recovery and reclamation equipment and the procedures for identification, distribution and monitoring performance of equipment. To the extent feasible, the equipment specifications would be defined to accommodate multiple refrigerants to maximise its utility.
- Finalising contents of technical assistance for recovery and reclamation program. As far as possible, the program would be conducted along with retrofit training for cost-effective outreach.
- Technical assistance support for service technicians for recovery and reclamation program.
- Delivery of recovery and reclamation equipment to the identified target audience. This would be either provided as a grant to service technicians or as a part subsidy.
- Monitoring and reporting performance of recovery and reclaim program.

Information outreach on recovery and reclamation program would be undertaken to maximise participation from service agencies. This will be undertaken in coordination with National Level awareness activities implemented under this project and is expected to help in maximising HCFC recovery and reclamation over time.

It is recognised that successful implementation of program would be determined by reduction in availability of HCFCs which would be achieved through national HCFC supply control regulations, greater availability and adoption of HCFC free alternatives including retrofit options and increase in price of HCFCs as phase-out activities progress.

## **2. End-user Retrofit/ Replacement Pilot Incentive Programme**

This programme would be undertaken to facilitate faster market adoption of HCFC free alternatives and demonstrating utility of recovery and reclamation of HCFCs. Given that the consumption of HCFCs in Maldives is primarily in unitary air-conditioners (i.e., split units, window a/cs) as well as HCFC based refrigeration in fishing industry, these applications would be given priority. This program would also cover incentive scheme for small commercial, large commercial and industrial refrigeration and air-conditioning systems.

- Definition of procedures for providing incentives under the program through service agencies and monitoring mechanisms for the incentive program. Inventory of RAC equipment using HCFCs, primarily large commercial and industrial RAC equipment, would also need to be developed for ensuring effective implementation of this program in these applications.
- Implementation of training program and roll-out of incentive program.
- Monitoring and reporting performance of the incentive programme.

Information outreach on this incentive programme would be undertaken in coordination with National level awareness activities undertaken in this project. Technical assistance activities would also be provided along with those planned for recovery and reclamation program.

### 3. Time Frame/Monitoring Milestones

Overall time plan for implementation of the programs is given in the table below:

MILESTONE/TIME FRAME (In months)	Half-Years (HY) beginning 31 January 2011							
	2011		2012		2013		2014	
	HY-1	HY-2	HY-3	HY-4	HY-5	HY-6	HY-7	HY-8
Developing a national plan for implementation of investment component								
Procurement of recovery & recycling equipment and reclamation equipment								
Stakeholder consultations on retrofit options								
Finalization of retrofit incentive plan and procedures								
Implementation of incentive plan for retrofit for small air-conditioners								
Implementation of incentive plan for retrofit for small commercial, large commercial and industrial refrigeration and air-conditioning systems								
Technical assistance for implementation								
Information dissemination/industry interaction								



### III. RESULTS AND RESOURCES FRAMEWORK

Intended Outcome:	By 2015, capacities at national and local levels are enhanced to support low carbon lifestyles, climate change adaptation, and disaster risk reduction			
Applicable Goal (UNDAF):	<b>UNDAF Action Plan Supporting Activity 9.1.5:</b> Assist with HPMP (HCFC Phase-out Management Plan) Plan, energy efficiency co-benefit and carbon Neutrality			
ATLAS Award ID:	00000000000			
ATLAS Project ID:	00000000000			
Intended Outputs	Output Targets for 2011 to 2013	Indicative activities	Responsible Parties	Inputs (US \$)
<b>Output 1:</b> Investment component which includes (a) Recovery & Reclamation Program, and (b) End-user Retrofit Pilot Incentive Scheme, implemented. This would help Government of Maldives in reducing its HCFC consumption to 3 ODP tons (54.5 MT) in 2015 from estimated current consumption of 3.7 ODP tons (67.3 MT) and facilitate sustaining phase-out.	<b>Targets: 2011 – 2012</b>  Procurement and distribution of Recovery & Recycling kits and Reclamation Centers in high-consumption pockets.  End-user pilot retrofit incentive support in unitary air-conditioner users and HCFC users fishing industry – initiation in high-consumption pockets.  Technical assistance support for project implementation.	<b>Project Management</b>  <ul style="list-style-type: none"> <li>- Technical, Financial and operational management</li> <li>- Monitoring quantities recovery &amp; reclamation of HCFCs</li> <li>- Undertaking information outreach activities on the project</li> <li>- Coordination with industry and Government on implementation issues</li> </ul>	UNDP / NOU - MHTE	420,000
	<b>Targets: 2012 - 2015</b>  Procurement and distribution of remaining Recovery & Recycling kits and Reclamation Centers.  End-user pilot retrofit incentive support in unitary air-conditioner users, commercial equipment and HCFC users fishing industry.  Technical assistance support for project implementation.  Report on performance of recovery & reclamation and end-user pilot retrofit incentive program	<b>Procurement of recovery &amp; reclamation equipment</b>  <ul style="list-style-type: none"> <li>- Developing technical specifications for equipment</li> <li>- Bidding and procurement of equipment through agreed process with NOU</li> <li>- Distribution of equipment to beneficiary agencies</li> <li>- Technical assistance on use of equipment for recovery &amp; reclamation</li> </ul> <b>End-user retrofit pilot incentive scheme</b>  <ul style="list-style-type: none"> <li>- Develop eligibility criteria for incentive scheme participation</li> <li>- Promote utility of the scheme among target audience</li> <li>- Assist in providing incentive support to end-users based on “performance base mechanism”</li> </ul>		

		<p><b>Monitoring and reporting</b></p> <ul style="list-style-type: none"><li>- Continue monitoring implementation of the scheme with support from industry (particularly fishing industry and RAC service enterprises)</li><li>- Report on performance of recovery &amp; reclamation and end-user pilot retrofit incentive program</li></ul>		
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## IV. ANNUAL WORK PLAN

AWARD ID	00000000000							
PROJECT ID	00000000000							
Project Title	Implementation of HPMP of Maldives – UNDP Component							
Executing Agency	Ministry of Housing, Transport and Environment (MHTE)							
<b>ATLAS Activity</b>	<b>Party responsible</b>	<b>Source of funds</b>	<b>ATLAS Code</b>	<b>ATLAS Budget Description</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Total</b>
<b>Activity 1 :</b> Technical Assistance	MHTE	63030	71200	International experts for training activities	15,000	15,000	10,000	40,000
					<b>15,000</b>	<b>15,000</b>	<b>10,000</b>	<b>40,000</b>
<b>Activity 2 :</b> Project Management and monitoring	MHTE	63030	74200	Promotional materials	4,000	4,000	2,000	10,000
	MHTE	63030	74500	Miscellaneous (monitoring)	4,000	3,000	3,000	10,000
	MHTE	63030	75700	Workshop and conferences	8,000	6,000	6,000	20,000
					<b>16,000</b>	<b>13,000</b>	<b>11,000</b>	<b>40,000</b>

<b>Activity 3 :</b> Recovery & reclamation programme	MHTE	63030	72100	Contractual Services (Recovery & Recycling and Reclamation programme)	70,000	60,000	60,000	190,000
					<b>70,000</b>	<b>60,000</b>	<b>60,000</b>	<b>190,000</b>
<b>Activity 4 :</b> Retrofit incentive program for end users	MHTE	63030	72100	Contractual Services (Retrofit incentive program for end- users)		80,000	50,000	130,000
						<b>80,000</b>	<b>50,000</b>	<b>130,000</b>
					<b>101,000</b>	<b>168,000</b>	<b>131,000</b>	<b>400,000</b>

## V. MANAGEMENT STRUCTURE FOR HPMP IMPLEMENTATION

### 1. Execution Modality

The project will be managed in accordance with standard UNDP procedures under National Implementation Modality (NIM). The Government of Maldives through its National Ozone Unit, Ministry of Housing, Transport and Environment (MHTE) will be implementing project activities with support from UNDP. NIM has been chosen as the Government has capacity to undertake implementation of the project with technical support from UNDP technical experts. The UNDP Country Office has consulted the Government and agreed with the Government on the implementation modality.

The project tasks would be executed through Memorandum of Agreement (MoA) between the Government and service providers for specific activities / tasks. This is a performance based agreement which would define specific activities and milestones and payment schedule linked to completion of these milestones. The MoA will define the terms of association between the Government and service providers for identified tasks. On completion of intended milestones duly confirmed by the Government, payment would be released to the service providers.

UNDP will be work closely with the MHTE during the course of project implementation. UNDP Maldives will be responsible for overseeing project budgets and expenditures, recruiting and contracting project personnel and consultant services, procuring equipment, and project evaluation and reporting, result-based project monitoring, and organizing independent audits to ensure the proper use of UNDP/MLF funds. Financial transactions, auditing and reporting will be carried out in compliance with UNDP procedures for national execution.

### 2. Roles and responsibilities

The activities under HPMP will be undertaken by NOU with technical assistance from the implementing agencies namely UNEP and UNDP.

Details of the responsibilities for HPMP implementation for this project are presented in the following paragraphs.

#### **National Ozone Unit, Ministry of Housing, Transport and Environment**

- Act as a convenor and coordinator for HPMP Project Implementation Coordination Group or equivalent identified for project implementation
- Planning project activities in consultation with UNEP and UNDP for HPMP implementation
- Coordination with national stakeholders including different Government organisations and private sector enterprises (including service agencies) on project activities
- Coordination of review of policy/regulatory framework among related Government agencies and national stakeholders and evolving consensus on the same

- Provide inventory of HCFC based equipment and consumption data required for project implementation, particularly HCFC based equipment used in fishing industry
- Facilitate industry consultation as required for project activities during the course of implementation
- Coordinate project implementation modalities including signature of MoA with relevant service providers for project staff responsible for implementing the project
- Project progress and financial reporting on HPMP as required under the Project Document

## **UNDP**

UNDP is designated as the cooperating agency for implementation of HPMP of Maldives. For implementation of HPMP, UNDP would be responsible for the following activities:

- Designing overall time plan for project implementation in consultation with the Government.
- Ensuring that disbursements/incentive payments relating to UNDP components are made to Government and beneficiaries as required upon receipt of support documents which are properly substantiated.
- Providing technical inputs, relating to UNDP project components. This would include defining technical assistance requirement for the project, assistance in defining equipment / component specifications for recovery & reclamation component and supervision of activities being implemented.
- Ensuring performance and financial verification in accordance with specific UNDP and Multilateral Fund procedures, rules and regulations.
- Assisting the Government of Maldives in preparation of yearly implementation progress reports.
- Providing support to UNEP on specific verification required for project performance to the Executive Committee and project progress reporting.
- Carrying out required project support missions to monitor implementation of project, in consultation with Government of Maldives.

## **Technical experts**

Technical experts would work under overall supervision of UNDP and in close coordination on activities with National Ozone Unit. Technical experts would provide assistance on:

- Definition of technical specifications for HCFC recovery and reclamation equipment
- Providing technical inputs on implementing HCFC free retrofit options for HCFC using unitary air conditioners, small commercial units, large commercial units and industrial RAC units
- Providing inputs to NOU and UNDP for improving effectiveness of performance of program, as found necessary.

## VI. MONITORING FRAMEWORK AND EVALUATION

### a. Monitoring and Reporting

UNDP Maldives will be responsible for financial monitoring and reporting on all disbursements of the programme and will ensure continued reporting to the Government of Maldives and Multilateral Fund Secretariat. Financial disbursements and auditing, as well as the procurement of goods and services, and the recruitment of personnel shall be based on UNDP procedures and guidelines.

The reporting with respect to the project shall include the following reports:

- Annual Project Progress Report (APR) as per UNDP format to be submitted annually as of project initiation.
- Progress of Implementation of Country Programme (including HCFCs)
- Article 7 ODS Data Report (including HCFCs)

Monitoring will include a continuous and systematic review of the various activities and will be intended to (i) measure input, output, and performance indicators; (ii) provide regular and up-to date information on the progress towards meeting the overall project objectives; and (iii) alert implementing partners to potential problems in implementation, and propose corrective measures. Milestone review will be undertaken jointly with national counterparts and all concerned stakeholders and beneficiaries.

### b. Quality Management for Project Activity Results

Quality management for project activity results is presented in the table below.

<b>OUTPUT 1: Implementation of Recovery and Reclamation Program and End-user Retrofit Incentive Program</b>			
<b>Activity Result 1</b>	<b>Project Management</b>	<b>Start Date:</b> January 2011 <b>End Date :</b> December 2013	
<b>Purpose</b>	Ensuring smooth technical and operational management of project, build partnership with project stakeholder sand monitor performance		
<b>Description</b>	<ul style="list-style-type: none"> <li>• Technical and operational management of the project</li> <li>• Establishment of good partnership with national stakeholders</li> <li>• Monitoring HCFC recovery and reclamation</li> </ul>		
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>	
Positive performance of project on technical and operational aspects	Positive evaluation by National Stakeholders	End of each year	
Recovery and reclamation of HCFCs achieved on an ongoing basis	Cumulative quantities of HCFCs recovered and reclaimed Feedback from service agencies on recovery & reclamation of HCFCs	End of each year	
<b>Activity Result 2</b>	<b>Procurement and delivery of recovery and reclamation equipment</b>	<b>Start Date:</b> January 2011 <b>End Date :</b> December 2013	
<b>Purpose</b>	Procurement and deliver HCFC recovery and reclamation units to identified service agencies.		

<b>Description</b>	<ul style="list-style-type: none"> <li>Defining technical specifications of recovery &amp; reclamation equipment</li> <li>Bidding and procurement of equipment through an agreed process with NOU</li> <li>Distribution of equipment to identified beneficiary enterprises</li> </ul>	
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>
Technical specifications of equipment finalized	Confirmation of specifications by technical experts	January 2011 – June 2011
Bidding and procurement of equipment completed	Equipment delivered as per quality specifications in Maldives	End of each year – as per plan
Equipment distributed to identified service agencies	Equipment receipt by service agencies	End of each year – as per plan
<b>Activity Result 3</b>	<b>Support for End-user Pilot Retrofit incentive scheme</b>	<b>Start Date:</b> December 2011 <b>End Date :</b> December 2013
<b>Purpose</b>	Adoption of HCFC free alternatives and accelerated reduction in dependence on HCFCs	
<b>Description</b>	<ul style="list-style-type: none"> <li>Defining criteria for target audience for pilot retrofit incentive program</li> <li>Information outreach among target audience on incentive program</li> <li>Providing retrofit incentives to the target audience</li> </ul>	
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>
Criteria for target audience for pilot retrofit incentive program defined	Criteria for target audience defined	December 2011 – June 2012
Information dissemination undertaken for incentive program	Completing information outreach program among target audience	June 2012 onwards
Retrofit incentives to target audience provided	Retrofit incentive paid to different target audience	October 2012 onwards on a quarterly basis
<b>Activity Result 4</b>	<b>Technical assistance for recovery &amp; reclamation and end-user retrofit incentives</b>	<b>Start Date:</b> December 2011 <b>End Date :</b> December 2013
<b>Purpose</b>	Training and capacity building of service technicians on recovery and reclamation of HCFCs	
<b>Description</b>	<ul style="list-style-type: none"> <li>Designing technical assistance tools for HCFC recovery and reclamation process</li> <li>Delivering technical assistance</li> </ul>	
<b>Quality Criteria</b>	<b>Quality Method</b>	<b>Date of Assessment</b>
Technical assistance tools for HCFC recovery and reclamation program and end-user retrofit incentive program developed	Technical assistance program content developed and agreed with NOU	July 2011 – September 2011
Technical assistance provided	Feedback on implementation of technical assistance from participants	Within 1 month after completion of training program



## VII. LEGAL CONTEXT

This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Maldives and the United Nations Development Programme, signed by the parties on 10 February 1986.

The UNDP Resident Representative in Maldives is authorized to effect in writing the following types of revisions to the Project Document, after consultation with the project partners:

- Revisions which do not involve significant changes to the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation;
- Mandatory annual revisions which re-phase the delivery of agreed project outputs or increased expert or other costs due to inflation, or take into account agency expenditure flexibility.

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference, together constitute a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

The responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner. The implementing partner shall:

- Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- Assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999).

## **SECTION 6: ANNEXES**

**Annex-I:** Risk Analysis

**Annex-II:** Agreement between Government of Maldives and Executive Committee of Multilateral Fund to the Montreal Protocol on HPMP implementation

ANNEX I

RISK ANALYSIS

Description	Date identified	Type	Impact and Probability (Low 1 to High 5)	Counter Measures	Owner
Delay in completion of project deliverables	Project initiation date	Operational	Probability - 3 : Impact - 4	Close coordination with NOU/MHTE and periodic monitoring of project tasks. Facilitating timely completion of tasks.	UNDP / MHTE / NOU
Delay in available cost-effective HCFC free retrofit options	Project initiation date	Operational	Probability - 3 : Impact - 4	Consultation with subject specialist technical experts on technical options, closely monitoring technical developments	UNDP / MHTE / NOU
Delay in implementation of regulations (i.e., HCFC supply controls) for promoting feasibility of HCFC recovery & recycling	Project initiation date	Operational	Probability -2 : Impact - 4	Close coordination with NOU and regulatory agencies on expeditious implementation of regulations	UNDP / MOEF / NOU
Delay in endorsement of action plans by Government	Project initiation date	Operational	Probability - 2 : Impact 4	Work on project preparation through consultative process with stakeholders. Stakeholder endorsement prior to Government approval. Coordination with Government on providing necessary clarifications relating to project.	UNDP / MHTE / NOU

## ANNEX-II

### AGREEMENT BETWEEN REPUBLIC OF MALDIVES AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR PHASE-OUT OF CONSUMPTION OF HYDROCHLOROFLUROCARBONS

1. This Agreement represents the understanding of the Government of Maldives and the Executive Committee with respect to reductions of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (the Substances) to a sustained level of 0.0925 ODP tonnes from 1 January 2020.

2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (Targets and Funding) in this Agreement. The country also agrees to meet the consumption limits specified in the Montreal Protocol reduction schedule for all Substances as well as for those ODS where the Montreal Protocol reduction schedule has already led to complete phase-out, except to the degree that the Parties have agreed on essential or critical use exemptions for the Country. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances which exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this agreement for all ODS specified in Appendix 1-A, and in respect to any consumption of each of the substances which exceeds the level defined in row 4.1.3.

3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 3.1 of Appendix 2-A (Targets and Funding) to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (Funding Approval Schedule).

4. The Country will meet the consumption limits for each of the Substances as indicated in Appendix 2-A. It will also accept independent verification, to be commissioned by the relevant implementing agency (IA), of achievement of these consumption limits as described in sub-paragraph 5(b) of this Agreement.

5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:

- (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved. Exempt are years for which no obligation for reporting of country programme data exists at the date of the Executive Committee Meeting at which the funding request is being presented;
- (b) That the meeting of these Targets has been independently verified, except if the Executive Committee decided that such verification would not be required;
- (c) That the Country has substantially completed all actions set out in the previous tranche implementation plan and submitted a tranche implementation report in the form of Appendix 4-A (the "Format of Tranche Implementation Report and Plan") for each previous calendar year; and

- (d) That the Country has submitted and received endorsement from the Executive Committee for tranche implementation plans in the form of Appendix 4-A (the “Format of Tranche Implementation Reports and Plans”) for each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (the “Monitoring Institutions and Roles”) will monitor and report on that monitoring in accordance with the roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in sub-paragraph 5(b).

7. While the Funding was determined on the basis of estimates of the needs of the Country to carry out its obligations under this Agreement, the Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the goals prescribed under this Agreement. Reallocations categorized as major changes must be documented in advance in a tranche implementation plan and endorsed by the Executive Committee as described in sub-paragraph 5(d). Major changes would relate to reallocations affecting in total 30% or more of the funding of the last approved tranche, issues potentially concerning the rules and policies of the Multilateral Fund, or changes which would modify any clause of this agreement. Reallocations not categorized as major changes may be incorporated in the approved tranche implementation plan, under implementation at the time, and reported to the Executive Committee in the tranche implementation report. Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular that the:

- (a) Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) Country and the implementing agencies will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the “Lead IA”) and UNDP has agreed to be cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the IAs taking part in this Agreement.

10. The Lead IA will be responsible for carrying out the activities of the plan as detailed in the first submission of the HPMP with the changes approved as part of the subsequent tranche submissions, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by being responsible for carrying out the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have entered into a formal agreement regarding planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including

regular co-ordination meetings. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the funding approval schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amounts set out in Appendix 7-A in respect of each ODP tonne of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the country did not comply with this agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5.

12. The funding components of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to information necessary to verify compliance with this Agreement.

14. The completion of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption has been specified in Appendix 2-A. Should at that time activities be still outstanding which were foreseen in the plan and its subsequent revisions as per sub-paragraph 5(d), the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per Appendix 4-A (a), (b), (d) and (e) continue until the time of the completion if not specified by the Executive Committee otherwise.

15. All of the agreements set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

## APPENDICES

### APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	3.7

APPENDIX 2-A: TARGETS AND FUNDING

Row	Parameter/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	3.7	3.7	3.7	3.7	3.7	3.3	3.3	3.3	3.3	3.3	2.4	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	3.7	3.7	3.7	3.3	3.3	3.0	2.4	2.4	1.3	1.3	0.0925	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	355,940	0	0	173,400		100,660	0	50,000	0	0	0	680,000
2.2	Support costs for Lead IA (US \$)	46,272	0	0	22,542	0	13,086	0	6,500	0	0	0	88,400
2.3	Cooperating IA (UNDP) agreed funding (US \$)	400,000	0	0	20,000	0	0	0	0	0	0	0	420,000
2.4	Support costs for Cooperating IA (US \$)	30,000	0	0	1,500	0	0	0	0	0	0	0	31,500
3.1	Total agreed funding (US \$)	755,940	0	0	193,400	0	100,660	0	50,000	0	0	0	1,100,000
3.2	Total support costs (US \$)	76,272	0	0	24,042	0	13,086	0	6,500	0	0	0	119,900
3.3	Total agreed costs (US \$)	832,212	0	0	217,442	0	113,746	0	56,500	0	0	0	1,219,900
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)												3.7
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)												0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)												0.0925

#### **APPENDIX 3-A: FUNDING APPROVAL SCHEDULE**

1. Funding for the future tranches will be considered for approval not earlier than the first meeting of the year specified in Appendix 2-A.

#### **APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS**

1. The submission of the Tranche Implementation Report and Plan will consist of five parts:
  - (a) A narrative report regarding the progress in the previous tranche, reflecting on the situation of the Country in regard to phase out of the substances, how the different activities contribute to it and how they relate to each other. The report should further highlight successes, experiences and challenges related to the different activities included in the plan, reflecting on changes in the circumstances in the country, and providing other relevant information. The report should also include information about and justification for any changes vis-à-vis the previously submitted tranche plan, such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information about activities in the current year;
  - (b) A verification report of the HPMP results and the consumption of the substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
  - (c) A written description of the activities to be undertaken in the next tranche, highlighting their interdependence and taking into account experiences made and progress achieved in the implementation of earlier tranches. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
  - (d) A set of quantitative information for the report and plan, submitted online into a database, as per the relevant decisions of the Executive Committee in respect to the format required. This quantitative information, to be submitted by calendar year, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the country and agency; and
  - (e) An Executive Summary of about five paragraphs, summarizing the information of above sub-paragraphs 1(a) to 1(d).



#### **APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES**

1. The overall monitoring will be the responsibility of the National Ozone Unit (NOU), Ministry of Housing, Transport and Environment.
2. The consumption will be monitored based on data collected from relevant government departments and crosschecking it with data collected from the distributors and consumers.
3. The NOU will be responsible for reporting and shall submit the following reports in a timely manner:
  - (a) Annual reports on consumption of substances to be submitted to the Ozone Secretariat;
  - (b) Annual reports on progress of implementation of this Agreement to be submitted to the Executive Committee of the Multilateral Fund; and
  - (c) Project-related reports to be submitted to the Lead IA.

#### **APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY**

1. The Lead IA will be responsible for the following:
  - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's phase-out plan;
  - (b) Assisting the Country in preparation of the Tranche Implementation Plans and subsequent reports as per Appendix 4-A;
  - (c) Providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;
  - (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future tranche implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
  - (e) Fulfilling the reporting requirements for the tranches and the overall plan as specified in Appendix 4-A as well as project completion reports for submission to the Executive Committee; this responsibility includes the reporting about activities undertaken by the Cooperating IA;
  - (f) Ensuring that appropriate independent technical experts carry out the technical reviews undertaken by the Lead IA;
  - (g) Carrying out required supervision missions;
  - (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;

- (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (j) Ensuring that disbursements made to the Country are based on the use of the indicators; and
- (k) Providing assistance with policy, management and technical support when required.

2. After consultation with the country and taking into account any views expressed, the Lead IA will select and mandate an independent organization to carry out the verification of the HPMP results and the consumption of the substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

#### **APPENDIX 6-B: ROLE OF COOPERATING IMPLEMENTING AGENCY**

1. The Cooperating IA will be responsible for the following:
  - (a) Providing policy development assistance when required;
  - (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
  - (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

#### **APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY**

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$10,000 per ODP tonne of reductions in consumption not achieved in the year.