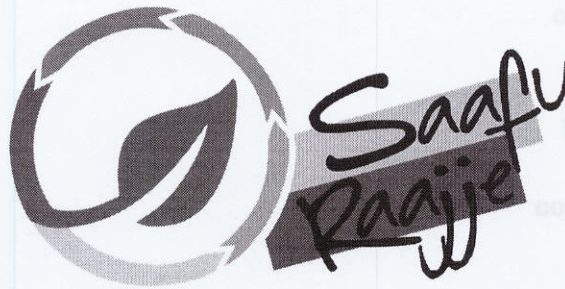




Ministry of Environment and Energy

Male', Republic of Maldives



# SUPPLY AND DELIVERY OF WASTE MANAGEMENT EQUIPMENT TO 10 ISLANDS OF HUVADHU ATOLL

*Funded by*

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# SUPPLY AND DELIVERY OF WASTE MANAGEMENT EQUIPMENT TO 10 ISLANDS OF HUVADHU ATOLL

## 1. INTRODUCTION

Ministry of Environment and Energy (MEE) on behalf of the Government of Maldives is seeking the assistance of a qualified and competent company/firm for the **Supply and Delivery of Waste Management Equipment to 10 Islands of Huvadhu Atoll** that include the following islands:

1. GA. Maamendhoo
2. GA. Dhevvdhoo
3. GA. Kodey
4. GA. Gemanafushi
5. GDh. Madaveli
6. GDh. Hoadedhdhoo
7. GDh. Nadella
8. GDh. Gadhdhoo
9. GDh. Fiyoari
10. GDh. Vaadhoo



## 2. DELIVERABLES

#	Type of Equipment	Qty.
<b>1</b>	<b>To be Delivered to GA. Maamendhoo</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>2</b>	<b>To be Delivered to GA. Dheevadhoo</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>3</b>	<b>To be Delivered to GA. Kodey</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>4</b>	<b>To be Delivered to GA. Gemanafushi</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>5</b>	<b>To be Delivered to GDh. Madaveli</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>6</b>	<b>To be Delivered to GDh. Hoadedhdhoo</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>7</b>	<b>To be Delivered to GDh. Nadella</b>	
a	Glass to Sand Crusher	1

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b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>8</b>	<b>To be Delivered to GDh. Gadhdhoo</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>9</b>	<b>To be Delivered to GDh. Fiyoari</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1
<b>10</b>	<b>To be Delivered to GDh. Vaadhoo</b>	
a	Glass to Sand Crusher	1
b	Plastic Shredder	1
c	Metal Can Baler	1
d	Vegetation Shredder	1
e	Mechanical Rotary Compost Screen	1

### 3. REQUIREMENTS - SPECIFICATION OF EQUIPMENT

#### 5.1. Glass to Sand Crusher

#### 5.2. Plastic Shredder

#### 5.3. Metal Baler

#### 5.4. Vegetation Shredder / Chipper

#### 5.5. Manual Rotary Compost Screen

\*All equipment provided must be brand new items.

\*The brand name, model number and country of origin must be described in the proposal

\*The supplier must carry out full capacity test run with the presence of a personal from Island council for all the supplied and installed equipment.

\*The supplier must provide operations training to the operators of the equipment.

#### 5.1. Glass to Sand Crusher

#	Feature	Requirement
<b>General Information</b>		
1	Crushing Time	0.5 to 1.0 tonne/hour
2	Crushing Ratio	Maximum output grain not more than 0.5mm in diameter
3	Motor	2 to 5 HP
4	Standard Electrical Power	3 Phase electrical, 400V AC, 50Hz
<b>Glass Crusher Dimensions and Weight</b>		
5	Feeder Hopper	Measurement of Feeder mouth diagonal measurement not less than 300mm
<b>Other Specifications</b>		
6	Control	Should have an automatic cut off switch
7	Seal	Air tight seal when feeding the machine and when transferring the crushed material to the collection container
<b>Parts and Documents</b>		
8	Operating Manual	Operating manual for safe operations of the machine under normal operations. The operations manual must include trouble shooting and remedy guide table
9	Maintenance Manual	Maintenance manual covering routine service requirements. The maintenance manual must include a labelled diagram
10	Language of Documents	All literature in the English language
11	Free to customer parts	Free to customer spare parts
12	Replacement Parts	Should be readily available in the Republic of Maldives, South Asia or South East Asia
13	Warranty	Each unit supplied to carry a statement of minimum one year warranty.



## 5.2. Plastic Shredder

#	Feature	Requirement
<b>General Information</b>		
1	Motor	3 to 5 HP
2	Standard Electrical Power	3 Phase electrical, 400V AC, 50Hz
4	Type of Plastic	<b>Can shred all types of plastic</b>
5	Input Size	Capable of shredding plastic material of dimension not less than 600mm during continuous feed operations;
	Shredding Ratio	Largest dimension of output material not more than 10mm
6	Shredding Blade Material	Blades should have a lifetime not less than 5 years and be made of corrosion resistant material
7	Output of Plastic Material	30 – 100 kg per hour
<b>Other Specifications</b>		
8	Safety Measures	“hands free” cutting operation for all plastics and dust curtain fitted at the feed hopper and the discharge
	Control	Should have an automatic cut off switch
<b>Parts and Documents</b>		
10	Operating Manual	Operating manual for safe operations of the machine under normal operations. The operations manual must include trouble shooting and remedy guide table
11	Maintenance Manual	Maintenance manual covering routine service requirements. The maintenance manual must include a labelled diagram
12	Language of Documents	All literature in the English language
13	Free to customer parts	Free to customer spare parts
14	Replacement Parts	Should be readily available in the Republic of Maldives, South Asia or South East Asia
15	Warranty	Each unit supplied to carry a statement of minimum one year warranty.

### 5.3. Metal Baler

#	Feature	Requirement
<b>General Information</b>		
1	Motor	3 to 5 HP
2	Standard Electrical Power	3 Phase electrical, 400V AC, 50Hz
4	Type of Metal	<b>Can compact and bale all types of metal</b>
5	Compaction Compartment Size	Inside volume of feeder not less than 2 square meters
	Bale Tying	Bale tying material readily available in the country
	Bale Ejection	Hydraulic
<b>Other Specifications</b>		
8	Safety Measures	Hands free compacting operation for all metals
	Control	Should have an automatic cut off switch
<b>Parts and Documents</b>		
10	Operating Manual	Operating manual for safe operations of the machine under normal operations. The operations manual must include trouble shooting and remedy guide table
11	Maintenance Manual	Maintenance manual covering routine service requirements. The maintenance manual must include a labelled diagram
12	Language of Documents	All literature in the English language
13	Free to customer parts	Free to customer spare parts
14	Replacement Parts	Should be readily available in the Republic of Maldives, South Asia or South East Asia
15	Warranty	Each unit supplied to carry a statement of minimum one year warranty.

#### 5.4. Vegetation Shredder/Chipper

#	Feature	Requirement
<b>General Specifications</b>		
1	Details	Supplied new. Petrol/diesel driven mobile multi vegetation shredder/chipper (leaf and wood etc.) similar to that offered by Hansa (C21), Ducar 15HP, Echo bearcat (SC5720b) etc. Similar products offered by other manufactures will be considered without prejudice.
2	Engine	15 -20 HP 4 stroke air cooled petrol engine (Brigs and Stratton/ Kolher/Honda etc or similar) with Manual- or Electric-Start. Diesel equivalent maybe offered.
	Control	Should have an automatic cut off switch
4	Chipping Capacity	100-130mm chipping capacity (approx.)
5	Chipping Method	Blade or disc with hammer operating action
7	Body	heavy duty welded structural steel
9	Mount	Self-mounted or trailer mounted with inflatable tyres
10	Paint and Finish	Painted with primers and powder / epoxy finish to all exposed surfaces
<b>Parts and Documents</b>		
12	Operating Manual	Operating manual for safe operations of the machine under normal operations. The operations manual must include trouble shooting and remedy guide table
13	Maintenance Manual	Maintenance manual covering routine service requirements. The maintenance manual must include a labelled diagram
14	Language of Documents	All literature in the English language
15	Free to customer parts	Free to customer spare parts
16	Replacement Parts	Should be readily available in the Republic of Maldives, South Asia or South East Asia
17	Warranty	Each unit supplied to carry a statement of minimum one year warranty.

### 5.5. Manual Rotary Compost Screen

#	Feature	Requirement
1	Power	Manual
2	Drum Diameter	1000 to 1500 mm
3	Screen Size	10x10mm with 7x7mm supplied sieve insert
4	Rotation	Manual rotation
5	Collection of Material	Allows easy collection of material in a removable tray
6	Body	heavy duty welded structural steel
7	Mount	Self-mounted
8	Paint and Finish	Painted with primers and powder / epoxy finish to all exposed surfaces
10	Operating Manual	Operating manual for safe operations of the machine under normal operations. The operations manual must include trouble shooting and remedy guide table
11	Maintenance Manual	Maintenance manual covering routine service requirements. The maintenance manual must include a labelled diagram
12	Language of Documents	All literature in the English language
13	Free to customer parts	Free to customer spare parts
14	Replacement Parts	Should be readily available in the Republic of Maldives, South Asia or South East Asia
15	Warranty	Each unit supplied to carry a statement of minimum one year warranty.



