SPREP
Secretariat of the Pacific Regional Environment Programme

2025-GEFIS-013 Request for Tender: Supply and Delivery of Waste Management Machinery for Kiribati, Nauru, and Tonga

Annex 1: Minimum Specifications for the equipment to be supplied.

Country	Equipment	Specifications		Proposed Use
		Specification	***Requirement***	
		Make/Model	HINO 300 Series or equivalent	
		Drive Configuration	4x2, right-hand drive	
		Gross Vehicle Weight (GVW)	8,500 – 10,000 kg minimum	
		Wheelbase	3,400 – 3,800 mm (to suit compactor body)	
		Engine Type	Diesel, 4-cylinder, water-cooled, turbocharged	
		Engine Power	Minimum 140 – 150 HP	
		Engine Torque	Minimum 400 Nm	
		Transmission	Manual or Automatic, 5–6 forward + 1 reverse	
Kiribati	Garbage Truck	***Fuel Tank Capacity***	Minimum 100 litres	Collection of garbage from communities on Tarawa
		Suspension	Heavy-duty front and rear leaf springs with shock absorbers	
		Brakes	Full air brake system with ABS	
		Tyres	7.50R16 or equivalent, with spare tyre	
		Power Take-Off (PTO)	PTO provision for operating hydraulic compactor system	
		Compaction Type	Rear-loading hydraulic compactor	
		Body Capacity	8–10 m^3	
		Hopper Capacity	Minimum 1.5 m^3	
		Compaction Ratio	Minimum 3:1	
		Hydraulic System	PTO-driven hydraulic pump, pressure 180–200 bar	
		Cycle Time	≤ 30 seconds per full compaction cycle	

Country	Equipment	Specifications		Proposed Use
		Loading	Rear hopper compatible with 240L, 660L, 1,100L bins	
		Ejection System	Hydraulically actuated ejector blade	
		Leachate Tank	Minimum 200 litres with drain system	
		Safety Features	Emergency stop, interlocks, reverse buzzer and camera	
		Finish / Protection	Anti-corrosion primer + enamel paint, suitable for tropical/coastal environment	
		Warranty	Minimum 2 years or 50,000 km (chassis + compaction system)	
		Additional Requirements	Operator training and maintenance manual in English	
	Scrap metal/e-waste baler	***Specification***	***Requirement***	Compressing metals, small electronics, and other e-waste into compact bales.
		Machine Type	Vertical or horizontal hydraulic baler for scrap metal and e-waste	
		Frame/Chassis Construction	Heavy-duty welded steel frame, reinforced for high compression forces	
		Operating Weight	3,000 – 6,000 kg (depending on capacity)	
		Motor Type	15 – 30 kW 3-phase electric motor (400/415V, 50Hz)	
		Hydraulic System	Industrial-grade axial piston pump, pressure rating 180–250 bar	
		Compression Force	30 – 60 tonnes	
		Bale Size (approx.)	800 × 600 × 500 mm (adjustable depending on material)	
		Bale Weight	100 – 300 kg (depending on density of scrap metal/e-waste)	
		Cycle Time	≤ 60 seconds per compression cycle	
		Control System	PLC or push-button control with emergency stop	
		Safety Features	Interlocking doors, pressure relief valves, emergency stop button, safety cage	
		Mobility	Stationary; optionally designed with forklift slots for relocation	
		Finish	Anti-corrosion primer + powder coat paint, suitable for tropical/coastal conditions	
		Additional Requirements	Operator and maintenance manual in English, training for staff	

Country	Equipment	Specifications		Proposed Use
Nauru	Bobcat-type skid-steer loader chassis & engine specification, with the flexibility to swap attachments — specifically from a front loader bucket to a forklift attachment (pallet forks).	***Specification***	***Requirement***	To handle pallets (ULAB, Cans, PET, scrap), shredded green waste, compost, bulk materials
		Machine Type	Skid Steer Loader (compact loader, Bobcat or equivalent)	
		Operating Weight	2,500 – 3,500 kg	
		Rated Operating Capacity	800 – 1,200 kg (ISO standard 14397-1)	
		Tipping Load	Minimum 1,600 – 2,400 kg	
		Chassis Frame	Heavy-duty welded steel, suitable for rough terrain operations	
		Drive System	4-wheel drive, hydrostatic transmission	
		Engine Make/Type	Diesel, 4-cylinder, water-cooled, Tier 3 / EU Stage IIIA or higher compliant	
		Engine Power	Minimum 45 – 60 HP (34 – 45 kW)	
		Engine Torque	Minimum 150 – 200 Nm	
		Fuel Tank Capacity	70 – 100 litres	
		Transmission	Hydrostatic, infinitely variable speed, forward and reverse	
		Travel Speed	10 – 12 km/h	
		Hydraulic Pump Flow	60 – 80 L/min @ 200 bar (sufficient for loader and fork operations)	
		Tyres	10×16.5 heavy-duty pneumatic or solid tyres (with spare set optional)	
		Steering System	Skid steer (zero-radius turning)	
		Quick Attachment System	Universal quick coupler for bucket, pallet forks, and other standard attachments	
		Operator Cabin	ROPS/FOPS certified, enclosed with air-conditioning	
		Safety Features	Seat belt, reverse alarm, beacon light, emergency stop, hydraulic lockout system	
	Scrap/Aluminum can baler	***Specification***	***Requirement***	Achieve high bale density for export, enabling for cans collected through ARFD and light scrap
		Frame/Chassis Construction	Heavy-duty welded steel, reinforced for high compaction loads	
		Machine Type	Vertical or Horizontal baler (to be specified by supplier, depending on available space and operations)	
		Motor	7.5 – 15 kW 3-phase electric motor (400/415V, 50Hz)	
		Power Supply	3-phase, 50 Hz (adaptable to Pacific Island grid standards)	

Country	Equipment	Specifications		Proposed Use
		Hydraulic System	Industrial-grade hydraulic pump, pressure rating 120–160 bar	
		Compression Force	20 – 40 tonnes (suitable for aluminum cans and light recyclables)	
		Bale Size (W × H × L)	Approx. 600 × 400 × 300 mm (customizable)	
		Bale Weight	25 – 35 kg (depending on material density)	
		Cycle Time	≤ 30 seconds per compaction cycle	
		Control System	PLC or push-button control with emergency stop	
		Safety Features	Interlocking doors, pressure relief valve, emergency stop button	
		Mobility	Fixed installation, with provision for forklift slots or castor wheels (if portable)	
		Finish	Anti-corrosion primer + powder coat paint (suitable for tropical, coastal environment)	
	Car Baler	***Specification***	***Requirement***	
		Machine Type	Hydraulic baler for End-of-Life Vehicles (car bodies, light trucks, metal scrap)	
		Chassis Frame	Heavy-duty welded steel frame, reinforced to withstand >100 tonnes compression force	
		Mobility	Stationary installation OR mobile (trailer-mounted) depending on supplier offering	
		Operating Weight	18,000 – 25,000 kg	
		Chamber Size (L×W×H)	Minimum 5,000 × 2,000 × 800 mm (suitable for full car body)	
		Compression Force	120 – 150 tonnes minimum	
		Bale Size (approx.)	1,000 × 800 × 600 mm (depending on chamber design)	
		Bale Density	1.2 – 1.5 t/m³ (for vehicle scrap and light metals)	
		Cycle Time	≤ 120 seconds (full compression cycle)	
		Engine Type	Diesel engine (for mobile unit) OR Electric motor (for stationary unit)	

Country	Equipment	Specifications		Proposed Use
		Diesel Engine Rating	100 – 150 HP, water-cooled, turbocharged	
		Electric Motor Option	30 – 45 kW, 3-phase, 400/415V, 50Hz	
		Hydraulic System	Heavy-duty axial piston pump, pressure rating 250 – 300 bar	
		Hydraulic Oil Tank	800 – 1,000 litres with filtration system	
		Controls	PLC or manual lever operation with safety interlocks	
		Safety Features	Emergency stop switches, hydraulic overload relief, interlocking doors, safety cages	
		Operator Cabin (mobile)	ROPS/FOPS certified, air-conditioned, with full control console	
		Paint/Finish	Anti-corrosion primer with industrial enamel finish (suitable for coastal/tropical climate)	
	Medium-duty stationary hydraulic baler	***Specification***	***Requirement***	Achieve high bale density for export, enabling for PET collected through ARFD
		Machine Type	Vertical or horizontal baler (suitable for PET bottles and cardboard)	
		Frame/Chassis Construction	Heavy-duty welded steel frame, reinforced to withstand repeated hydraulic compression	
		Operating Weight	1,200 – 2,500 kg (depending on baler size)	
		Motor Type	5 – 15 kW 3-phase electric motor (400/415V, 50Hz)	
		Hydraulic System	Industrial-grade hydraulic pump, pressure rating 120–160 bar	
		Compression Force	15 – 40 tonnes (depending on model and material)	
		Bale Size (approx.)	600 × 400 × 300 mm (adjustable depending on material)	
		Bale Weight	20 – 35 kg (typical for PET bottles and cardboard)	
		Cycle Time	≤ 30 seconds per compaction cycle	
		Control System	Push-button or PLC control with emergency stop	
		Safety Features	Interlocking doors, pressure relief valves, emergency stop button	
		Mobility	Fixed installation; optional forklift slots or castor wheels for repositioning	
		Finish	Anti-corrosion primer with powder coat paint, suitable for tropical/coastal conditions	

Country	Equipment	Specifications		Proposed Use
Niue	Car Baler (ELV)	***Specification***	***Requirement***	The car baler compacts end-of-life vehicles and large metal scrap into dense bales, facilitating safer handling, storage, transport, and recycling of ferrous materials.
		Machine Type	Hydraulic baler/crusher for End-of-Life Vehicles (car bodies, light trucks, metal scrap)	
		Chassis Frame	Heavy-duty welded steel frame, reinforced to withstand >100 tonnes compression force	
		Mobility	Stationary installation OR mobile (trailer-mounted) depending on supplier offering	
		Operating Weight	18,000 – 25,000 kg	
		Chamber Size (L×W×H)	Minimum 5,000 × 2,000 × 800 mm (suitable for full car body)	
		Compression Force	120 – 150 tonnes minimum	
		Bale Size (approx.)	1,000 × 800 × 600 mm (depending on chamber design)	
		Bale Density	1.2 – 1.5 t/m³ (for vehicle scrap and light metals)	
		Cycle Time	≤ 120 seconds (full compression cycle)	
		Engine Type	Diesel engine (for mobile unit) OR Electric motor (for stationary unit)	
		Diesel Engine Rating	100 – 150 HP, water-cooled, turbocharged	
		Electric Motor Option	30 – 45 kW, 3-phase, 400/415V, 50Hz	
		Hydraulic System	Heavy-duty axial piston pump, pressure rating 250 – 300 bar	
		Hydraulic Oil Tank	800 – 1,000 litres with filtration system	
		Controls	PLC or manual lever operation with safety interlocks	
		Safety Features	Emergency stop switches, hydraulic overload relief, interlocking doors, safety cages	
		Operator Cabin (mobile)	ROPS/FOPS certified, air-conditioned, with full control console	
		Paint/Finish	Anti-corrosion primer with industrial enamel finish (suitable for coastal/tropical climate)	

Country	Equipment	Specifications	Proposed Use
	Aluminum Can Crusher	***Specification*** / ***Requirement***	Achieve high bale density for export, enabling for cans collected through ARFD and light scrap
		Frame/Chassis Construction — Heavy-duty welded steel, reinforced for high compaction loads	
		Machine Type — Vertical or Horizontal baler (to be specified by supplier, depending on available space and operations)	
		Motor — 7.5 – 15 kW 3-phase electric motor (400/415V, 50Hz)	
		Power Supply — 3-phase, 50 Hz (adaptable to Pacific Island grid standards)	
		Hydraulic System — Industrial-grade hydraulic pump, pressure rating 120–160 bar	
		Compression Force — 20 – 40 tonnes (suitable for aluminum cans and light recyclables)	
		Bale Size (W × H × L) — Approx. 600 × 400 × 300 mm (customizable)	
		Bale Weight — 25 – 35 kg (depending on material density)	
		Cycle Time — ≤ 30 seconds per compaction cycle	
		Control System — PLC or push-button control with emergency stop	
		Safety Features — Interlocking doors, pressure relief valve, emergency stop button	
		Mobility — Fixed installation, with provision for forklift slots or castor wheels (if portable)	
		Finish — Anti-corrosion primer + powder coat paint (suitable for tropical, coastal environment)	
Niue	Glass Crusher	***Specification*** / ***Requirement***	The glass crusher processes bottles, jars, and container glass into small fragments for safe handling, storage, and recycling, reducing landfill volumes and supporting sustainable waste management.
		Frame/Chassis Construction — Heavy-duty welded steel, reinforced to withstand vibration and impact from glass crushing	
		Machine Type — Glass crusher for bottles, jars, and other container glass	
		Motor — 7 – 15 kW electric or diesel engine (depending on site availability)	
		Power Supply — 3-phase, 50 Hz electric supply or diesel fuel (adaptable to Pacific Island standards)	
		Crushing Mechanism — Rotor or hammer mill with hardened steel blades or hammers; replaceable components	
		Feed Hopper Size — Minimum 500 L, wide opening for easy loading of glass items	
		Discharge Capacity — Conveyor or chute for crushed glass, with dust suppression system	
		— 200 – 600 kg/hour, depending on glass size and type	

Country	Equipment	Specifications		Proposed Use
		Output Size	10 – 30 mm crushed glass (adjustable depending on requirement)	
		Safety Features	Emergency stop, safety guards, overload protection, dust containment, complies with occupational safety standards	
		Mobility	Stationary or mobile unit (wheels or skid-mounted for transport between sites)	
		Noise Level	≤85 dB, compliant with occupational noise regulations	
		Maintenance	Easy access for cleaning and replacement of hammers/blades; minimal downtime; spare parts readily available	
		Warranty	Minimum 12 months covering manufacturing defects and motor performance	
		Finish	Anti-corrosion primer + powder coat paint suitable for tropical, coastal environment	
		Documentation	User manual, maintenance guide, and spare parts list (in English or local language)	
	Organic Shredder	***Specification***	***Requirement***	The organic shredder processes green waste, into smaller, manageable pieces to improve collection, and composting.
		Frame/Chassis Construction	Heavy-duty welded steel, reinforced to withstand vibration and high loads during shredding	
		Machine Type	Organic shredder for green waste, food waste, and other organic materials	
		Motor	5 – 15 kW electric or diesel engine (depending on site availability)	
		Power Supply	3-phase, 50 Hz electric supply or diesel fuel (adaptable to Pacific Island standards)	
		Cutting Mechanism	Rotor with hardened steel blades, capable of shredding branches up to 50 mm diameter; blades replaceable	
		Hopper Size	Minimum 500 L, wide opening for easy loading	
		Discharge	Conveyor or chute for efficient ejection of shredded material	
		Capacity	200 – 500 kg/hour, depending on material type and moisture content	
		Safety Features	Emergency stop, safety guards, overload protection, complies with occupational safety standards	
		Mobility	Stationary or mobile unit (wheels or skid-mounted for transport between sites)	
		Noise Level	≤85 dB, compliant with occupational noise regulations	
		Maintenance	Easy access for cleaning and blade replacement; minimal downtime; spare parts readily available	
		Finish	Anti-corrosion primer + powder coat paint suitable for tropical, coastal environment	
Tonga	Car Baler	***Specification***	***Requirement***	To reduce the size and volume of scrap metal, facilitating safer

Country	Equipment	Specifications		Proposed Use
		Machine Type	Hydraulic baler for End-of-Life Vehicles (car bodies, light trucks, metal scrap)	handling, efficient storage, and transport for recycling or disposal.
		Chassis Frame	Heavy-duty welded steel frame, reinforced to withstand >100 tonnes compression force	
		Mobility	Stationary installation OR mobile (trailer-mounted) depending on supplier offering	
		Operating Weight	18,000 – 25,000 kg	
		Chamber Size (L×W×H)	Minimum 5,000 × 2,000 × 800 mm (suitable for full car body)	
		Compression Force	120 – 150 tonnes minimum	
		Bale Size (approx.)	1,000 × 800 × 600 mm (depending on chamber design)	
		Bale Density	1.2 – 1.5 t/m³ (for vehicle scrap and light metals)	
		Cycle Time	≤ 120 seconds (full compression cycle)	
		Engine Type	Diesel engine (for mobile unit) OR Electric motor (for stationary unit)	
		Diesel Engine Rating	100 – 150 HP, water-cooled, turbocharged	
		Electric Motor Option	30 – 45 kW, 3-phase, 400/415V, 50Hz	
		Hydraulic System	Heavy-duty axial piston pump, pressure rating 250 – 300 bar	
		Hydraulic Oil Tank	800 – 1,000 litres with filtration system	
		Controls	PLC or manual lever operation with safety interlocks	
		Safety Features	Emergency stop switches, hydraulic overload relief, interlocking doors, safety cages	
		Operator Cabin (mobile)	ROPS/FOPS certified, air-conditioned, with full control console	
		Paint/Finish	Anti-corrosion primer with industrial enamel finish (suitable for coastal/tropical climate)	

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