



TERMS OF REFERENCE

AGRONAT VESSEL

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Issued by:

Agro National Corporation

A. Background

Agro National Corporation (AgroNat) was formed 21st April 2020 as a State-Owned Enterprise (SOE) with the overall mandate to assist in developing the agricultural sector in the Maldives. AgroNat is working towards enforcing objectives such as enabling an efficient supply-chain for agriculture, providing technical expertise and training to farmers, expanding the role of women in farming, and facilitating access to quality fertilizers across islands. AgroNat will also aim to achieve economic targets relating to food security, import substitution, creation of jobs and improving the trade balance.

The Government of Maldives, in its Strategic Action Plan devised for 2019 – 2023, had proposed to establish a dedicated SOE for agricultural development, with an objective of revitalizing the agriculture sector as per the Blue Economy vision. Despite being an integral part of Maldivian society for ages, the agriculture sector has remained under-developed and unexposed to modern developments in farming techniques and technology. The government under its agenda for economic diversification aims to promote agriculture as a meaningful sector in the Maldivian economy.

AgroNat aims to expedite an efficient supply-chain for local agricultural products that will enable farmers to collect a fair price for their produce. Hence, AgroNat is purchasing locally produced fruits and vegetables from farmers and re-selling the produce to wholesale buyers. In the intermediate term, the corporation aims to work towards an import substitution policy that will reduce imports of certain locally produced crops by 50%.

AgroNat is working on addressing the challenges faced by farmers in maintaining the cold chain and timely delivery of produce to the market. As such, the company is planning to construct purpose build transport vessels, with reduced fuel requirement and solar power for energy production.

The *Project for Developing Sustainable Agricultural Economy (PDSAE)* builds on the success of the *Sustainable Economic Empowerment and Development for SMEs (SEEDS)* project and aims to further strengthen local productivity of agricultural produce in the Maldives. By doing so, the project aims to enhance food security in the archipelagic nation, which has very limited arable land, and enable more entrepreneurs interested in the agricultural businesses to enter the sector and facilitate secondary and tertiary production of related commodities including foodstuff and textiles. This will be achieved through three outputs focusing on: 1) strengthening assistance to increase local farmer expertise in agriculture, 2) enhancing agricultural capacities and opportunities to ensure food security and 3) enhancing support industries and value-added services to augment agro businesses.

The project, funded by the Government of Japan, will be implemented through partnership with the United Nations Development Programme (UNDP) in Maldives, the Ministry of Economic Development (MED), Ministry of Fisheries, Marine Resources and Agriculture (MoFMRA), Agro National Corporation (AgroNat), Maldives Fund Management Corporation (MFMC), the Business Centre Corporation (BCC) and Housing Development Corporation (HDC).

Under this project, AgroNat will establish a sustainable, effective, reliable, and timely transportation mechanism utilizing low-carbon technology for agricultural produce from farmers to markets, clients, and customers. The assurance of a dedicated and fit-for-purpose transportation mechanism will help increase entry of new businesses to the market as it provides greater confidence that their produce can be delivered to different markets through the nationwide transport network to be introduced by AgroNat.

B. Objectives

AgroNat intends to hire a firm for construction, delivery, and testing of AgroNat vessel.

C. Scope of Services and Expected Deliverables

- a. Construction of vessel as per the design and specification provided and agreed.
- b. Supply of necessary documents required for vessel registration.
- c. Ensure compliance with current statutory and regulatory requirements as per the national regulations and maintain the best practices used in vessel construction.
- d. Perform all the operational dock trials and sea trials for the vessels in accordance with the requirement provided by AgroNat and testing plans by AgroNat.

D. Facilitate in monitoring

The firm is expected to work very closely with the AgroNat, stakeholder ministries and UNDP in all projects related matters and will report directly to the Head of Business Development Department. The firm shall assist AgroNat and its technical consultants during routine monitoring of boat building work.

E. Quotation

The firm is to submit two quotations. The quotations should have a break down price for,

- Mould
- Hull construction
- Solar component
- Engine
- Generator
- Other boat equipment and accessories
- Building work

1. Including solar power system batteries
2. Excluding the solar power system batteries

F. Marking Criteria

#	Details	Marks
1	Price	40
2	Duration	25
3	Experience	15
4	Warranty	05
5	Technical evaluation	10
6	Financial capacity	05

G. Technical Evaluation Criteria

#	Details	Marks
1	Fibre resin mechanical properties / quality (data sheet to be submitted) Fibre gelcoat properties (data sheet to be submitted)	40
2	Main Engine <ul style="list-style-type: none"> • Engine warranty • Overhaul timing • Spare parts availability (document proof to be submitted) • Fuel consumption 	30
3	Generator <ul style="list-style-type: none"> • Generator warranty • Overhaul timing • Spare parts availability (document proof to be submitted) 	20
4	Solar Panel <ul style="list-style-type: none"> • Solar warranty • Aftersales service • Data sheet to be submitted 	10

H. Payment Terms

#	Description	Percentage
1	Advance payment	15
2	Completion of hull (except for cabins)	10
3	Completion of cabins	5
4	Payment 4	15
5	Payment 5	15
6	Payment 6 – after completion and handover of vessel	35
7	Payment 7 – Retention (up to the end of warranty period)	5

* Payment 4 & 5 will be date shall be assigned, depending on the duration proposed by the bidder.

Annex 1

TECHNICAL SPECIFICATIONS FOR 65 FEET VESSEL

Description	Size/Material	UOM
Hull Material	Fiberglass	
Length Overall	20.421	M
Beam Max	5.791	M
Length On DWL	20.322	M
Depth at Mid Ship	3.111	M
Draft	1.281	M
Displacement Light	24	Tons
Fuel Capacity	2400	Litres
Fresh Water Capacity	1500	Litres
Captain accommodation	1	pax
Crew accommodation	4	pax
Container storage measurement	2	L 5486, B 1698 H 1900

65FT vessel with standard specification including the following features:

- White gelcoat finishing on hull & deck exteriors, FRP hardtop, laminate-glass front & side windscreens as per shared drawings and hydraulic steering system.
- Wiring should be DC marine grade cable.
- Fiber mat thickness of the vessel (keel region 25mm, above from keel: 12mm).
- AgroNat logo and name to be in gelcoat.
- Non-skid deck to be in gray gelcoat.
- D-fender to be fixed in stern.
- 18' x 6' cargo compartment with 24000BTU AC for temperature controlling.
- Cargo storage compartments underneath deck with 3 NOS access hatches.
- Air-conditioned wheelhouse setup with fiberglass gelcoat finished dashboard, cabinets, and bench on sides (dashboard fitted with VHF, COMPASS, GPS and necessary switch panels).
- Air-conditioned crew cabin with 4 beds (mattress not included).
- All AC used should be of inverter type and the coolant used should be HFC and HCFC free
- Standard galley kitchen with sink, exhaust blower and power socket for kitchen appliances.
- Standard toilet with marine electric toilet, wash basin, showerhead, towel holder.
- Electrical wiring (with DC 200AH house battery x 2, battery switch, engine room blower, cabin and deck lights, switches, switch panel, USB charger, navigation light set & search light x 1)
- Engine foundation, engine's seawater-line, fuel and water tank connections and fittings.

- Detail of fiberglass material to be used for building to be mentioned by the bidder.

VESSEL EQUIPMENTS AND ACCESSORIES

	UOM	QTY
Maintenance free Battery 200AMP (house & engine start batteries) – data sheet should be provided	Nos	4
Maintenance free Battery 75AMP (generator) – data sheet should be provided	Nos	1
Battery selector switch	Nos	5
DC-DC converter	Nos	1
Blige pump 2000GPH 24V with float switch	Nos	3
Bilge alarm system	Nos	1
Fresh water pump 26LPM 24V	Nos	1
Engine room blower 10”	Nos	2
Exhaust blower 4” (toilet & kitchen)	Nos	2
Marine electric toilet 24V	Nos	1
Engine room light	Nos	6
Compartment and cabin lights	Nos	32
USB charger port dual	Nos	6
Search light	Nos	1
Navigation light set	Nos	1
VHF set with 5’ antennae	Nos	1
Marine compass	Nos	1
GPS chart plotter with 9” display	Nos	1
Eco sounder with 9” display	Nos	1
Rader system with 9” display (30 miles minimum range)	Nos	1
Indian sub-continent blue chart G3	Nos	1
Captain seat	Nos	1
Solar charging setup with data sheet	Nos	1
Minimum 15kWh Lithium Battery (LiFePO4 Battery) The battery voltage should match output voltage of the proposed hybrid invertor		
Data sheet should be provided		
Generator		
Marine generator 20kW 1500 rpm – 230V/50Hz (single phase – silenced)	Nos	1
Date sheet should be provided		
Engine		
Marine diesel engine complete set with a capacity – boat speed minimum 12 knot	Nos	1
Data sheet should be provided		
Others		
Fender F7 (blue) with rope	Nos	10
Rope (24mm) - nylon	Roll	1
Anchor (No.10)	Nos	2
Fridge 200L	nos	2
Deep freezer 100L	Nos	1

Engine & Generator spare parts

- One set of spare parts for first maintenance interval

Documentation

- Standard documentation (soft copy) including:

1 operation manual (engine and generator)

Solar charging system operating manual

Warranty For

- Hull
- Engine
- Solar charging system
- Generator

Safety Equipment

- Safety equipment to be provided as per Ministry of Transport and Civil Aviation Authority guidelines.

Insurance

- It is the responsibility of the contactor to ensure the boat building facility and the boat is insured during the making stage until the boat is completed and handed-over to AgroNat,

Annex 2
DRAWINGS



















