PART - B

REQUEST FOR INFORMATION (RFI) :
HIGH MOBILITY VEHICLE GENERAL SERVICE 8X8 WITH MHC 1.5 TON TO 2 TON

1. The Ministry of Defence, Government of India, intends to procure approximately **259** Nos High Mobility Vehicle General Service 8x8 with MHC 1.5 Ton to 2 Ton. **The vehicle will be used for handling of stores mechanically by Material Handling Cranes to save on man-hours and to improve their efficiency.** The vehicle will be provided with **8x8 drive** and be capable of operating as a General Service High Mobility load carrier with **payload capacity of not less than 12,000 Kg on highway and 10,000 Kg in earthen roads**. The platform should facilitate modification for other uses including troop carriage, containerization and other specialist roles.

2. This RFI consists of three parts parts as indicated below:-

(a) **Part I**. The first part of the RFI **incorporates Operational Parameters, broad technical requirements** that should be met by the equipment, tentative date of issue of the RFP and the quantity required to be procured.

(b) **Part II**. The second Part of the RFI states the **methodology for seeking response from vendors.** Submission of incomplete response will render the vendors liable for rejection.

(c) **Part III**. Guidelines for Framing Criteria for Vendor Selection/Pre-Qualification in Buy Indian (IDDM), Buy (Indian) and Buy & Make (Indian) Cases.

PART - I : OPERATIONAL PARAMETERS AND BROAD TECHNICAL REQUIREMENTS

3. **Operational Parameters**.

(a) The vehicle should employ contemporary technology in all its systems to deliver optimum performance and reliability.

(b) **Vehicle Dimensions and Weight**. Unladen Vehicle Weight 13700 Kg $\pm$ 5% and Gross Vehicle Weight 28000 Kgs. The overall dimensions and weight of the vehicle should allow it to go across a bridge classification of **Class-70. The max height of the vehicle should not exceed 3300mm.**

(c) The vehicle should have a facility for easy and **quick conversion to flat bed configuration** by removal of side walls, super structure and tail board. The vehicle should have locking arrangements for container transportation.The vehicle should have a facility for loading, unloading and lashing of vehicles/ Earthmovers on the Flat Bed.

(d) Operating Temperature Range. The vehicle will be designed to operate in the temperature range of minimum **- 5^0C to -15^0C** and maximum **40^0C to 45^0C.**

4. **Broad Technical Requirements**.

(a) **Engine**. The vehicle engine will have the following characteristics:-

(i) **Type of Engine**. Contemporary Diesel Engine meeting BS-IV Emission Norms.

(ii) **Maximum Engine Output**. The minimum power to weight ratio reqd to carry a load of 12 Tons on flat bed on highways or to tow a trailer with loaded tank/ other eqpt with total towing weight upto 100 Tons on highway.

(iii) **Fuel Efficiency**. Not less than two Km per litre (± 0.5 Km) of fuel with full payload under standard conditions.

(iv) Service Life of the Vehicle. Service life of the vehicle including engine should not be less than **2,00,000 km/11 Years whichever is earlier .**

(b) **Power Train**.

(i) The transmission system can be fully automatic/ manual with **selectable 8x8 drive**. Differential lock facility will be provided on all axles. Engagement of high/ low gear and differential lock to be controlled from the driver"s cabin.

(ii) Power Take Off arrangement will be provided on the gear box/ transfer case.

(iii) A **winch mechanism** will be provided in front & rear for self recovery.

(iv) Hub reduction feature on all axles to enhance tractive effort in cross country driving to be provided. Power driven winch mechanism with minimum 80 meter long winch rope of minimum pulling capacity for loading of unserviceable tank weighing upto 50 Ton on the trailer to be provided.

(c) **Brake System**. Vehicle will have a twin circuit pneumatic/ hydraulic service brake system with ABS. It should be able to hold the vehicle with payload of 12 Ton on a gradient of not less than 25^0 and on a gradient not less that 7^0 with loaded trailer of 50 Ton. In addition to the Service brakes, Emergency, Parking and Exhaust brakes should be provided. Parking brake must be able to hold the vehicle on all gradients which it is capable of negotiating. Brakes to comply with latest IS applicable at the time of trials. The brake system should also provide connection to towed trailer, through twin line direct actuating system or single line indirect actuating system. Hill assist feature will be provided.

(d) **Suspension**. Suspension system should comply with latest AIS and IS standards

(e) **Steering System**. Vehicle should have **Right Hand Drive with adjustable tilt/ telescopic Power Steering**. Emergency power steering will be provided to enable steering of vehicle when engine power is switched off.

(f) **Cabin**. The vehicle cabin shall be based on fully forward control design. The cabin will be hydraulically tiltable. A self adjusting hydraulic/ pneumatic seat will be provided for the driver. Co-driver seat will be manually adjustable. Three point seat belts will be provided for both the seats. A berth type seat to be provided behind the driver and co-driver seats. The cabin will be fitted with Heating, Ventilation and Air Conditioning system. The cabin will have provision for central locking. HAVC system will be provided in the vehicle cabin with arrangements for both heating and cooling. The system will be capable of maintaining cabin temperature of 25^0 C$\pm$ 5^0 up to ambient temperature above 45^0C and 15^0 drop in temperature for ambient temperature above 45^0C will be achievable. Similarly, a temperature of $25^0 \pm 5^0$ up to an ambient temperature of 0^0C and 15^0 C rise in temperature for ambient temperature below 0^0 C will be achievable. The co-driver seat should have an observation hatch atop it.

(g) **Body**. The load body should be having a light super structure which is easily removable with a canvas top. It should have adequate storage space for counter weights (ballast weights) and carriage of general service loads. Box cum seats over the entire length of body, on either side, will be provided storage boxes for ballast weight for its easy handling and storage in the body of the vehicle.

(h) **Stowage Facilities**. Rifle racks to be provided for driver, co-driver and crew members in the driver compartment. Stowage arrangements for two Showels and Pick axes, camouflage net poles, 5 litre oil can and eight x 20 litres jerricans (for spare fuel) to be provided. A 150 litre capacity Stainless Steel water tank will also be provided. Parking Scotches to be provided with the vehicle.

(j) **Camouflage and Concealment**.

(i) The vehicle should have as low a silhouette as the physical characteristics permit.

(ii) The vehicle should have latest technology/ feature for cam & concealment, like special paints which reduce the signature of vehicle.

(iii) Provision will be made for carriage of camouflage nets and poles. Brackets shall be provided at suitable places with which posts/ poles of camouflage net can be fitted.

(k) **Navigation System**. A GPS based navigation system compatible/ interoperable with IRNSS should be provided along with a display in driver cabin.

(l) **MHC**. Hydraulic Material Handling Crane of 1.5 Ton to 2 Ton Capacity with operation and powered by the vehicle engine will be provided. The performance capacity of MHC should be as under :-

(i) Outreach payload capability should be to lift ammunition pallets/ heavy loads weighing minimum 700 Kgs at a reach of 9 meters.

(ii) It should be able to unload/ load the ammunition pallets from the vehicle directly into the ammunition pit/ into the vehicle from ammunition pit with depth from ground level up to 3 meters as well inside the other vehicle.

(iii) Placement of crane should ensure optimum utilization of cargo space.

(iv) The lifting and stewing operations should be possible simultaneously, without loss of efficiency.

(v) The stewing should be continuous upto 360 degree and should be able to halt at required position.

(m) **Mounting of MHC**. The MHC should be mounted just behind the driver‟s cabin and occupy space not more than 1.0 meter so as to ensure maximum permissible space of 4600 of the vehicle body is available for loading. The equipment should alow easy fixing and removal of the MHC at appropriate EME echelon.

(n) The MHCs should be provided with the standard safety arrangements, overload warning and safety switch.

(o) **Controls for Operation**. The controls for MHCs should be smooth of handle. The control of the operation should be in driver‟s cabin. However for better observation and handling, the control should also be manually operable from outside the driver‟s cabin.

(p) **Height and Width of MHC**. The height of the MHC in folded position should be within the upper limit of vehicle cabin dimensions and width wise it should be within the limit of vehicle superstructure dimensions.

5. Vendors should confirm that the following conditions are acceptable: -

(a) The solicitation of offers will be as per **‘Single Stage-Two Bid System’**. It would imply that a **‘Request for Proposal’** would be issued soliciting the technical and commercial offers together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the date of submission of offers.

(b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.

(c) **Trials**. Post technical evaluation, the equipment will be put through a Field Evaluation Trial (FET) in India on a **‘No Cost No Commitment’** basis. Trial timelines will be issued in the RFP. One vehicle will be provided for the FET process which would comprise of :-

(i) Desert trials in summer.

(ii) Winter trials in winter in High Altitude area.

(ii) MET (Maintainability Evaluation Trials).

(iii) DGQA evaluation.

(d) A General Staff evaluation would be carried out by Service Headquarters to analyze the result of field evaluation and shortlist the equipment for introduction into service.

(e) Amongst the vendors cleared by General Staff evaluation, a Contract Negotiation Committee would decide the **lowest cost bidder** (L1) and conclude the appropriate contract.

(f) Vendors would be accountable to provide product support for minimum 15 years which would included supply of Spares, material and maintenance. Vendor should also provide details of facilities and availability of infrastructure across Indian or abroad to repair and overhaul assemblies/ sub-assemblies/ parts.

(g) The vendor would be required to accept the general conditions of contract given in the **Standard Contract Document at Chapter-VI of DAP 2020**.

(h) **EMD (if applicable)**. An EMD is a mandatory requirement as per Schedule-I, to Chapter-II of DAP-2020.

(j) **Performance-cum-Warranty Bank Guarantee**. A Performance-cum-Warranty Bond of 3% of value of the contract would be furnished by the seller in the form of a Bank Guarantee after signing of the contract.

(k) **Delivery**. The tentative delivery schedule for supply of the equipment after conclusion of contract will be based on delivery at different locations within the country with numbers specified.

(l) Vendors may be advised to consider RFI as advance information to obtain requisite government clearances.

6. The parameters/broad specifications of the equipment are sought in the questionnaire attached as per **Appendix 'A'**. The vendors are required to respond to the same.

PART - II : PROCEDURE FOR RESPONSE

7. Vendors must respond to the Questionnaire as per **Appendix 'A'** attached giving maximum possible details. The vendors must also fill the form of response as per **Annexure II to Appendix 'A' of DAP 2020 attached** to this RFI as **Appendix 'B'**. Apart from giving details about the company, details about the specific product, generic technical specifications should also be indicated. Additional literature on the product can also be attached with the form.

8. The filled form should be dispatched at the under mentioned address: -

(a) **Directorate General of Supplies and Transport (ST-11)**
QMG Branch, Room No 323, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ, PO-New Delhi-110105
Tele Number - 011-23018592
NIC Mail ID -dirtpt-ihq@nic.in

(b) **Directorate General of Capability Development (RFP Cell)**
General Staff Branch, Room No 436, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ, PO-New Delhi-110011

9. Last date of acceptance of filled form is_____ **2023** (**Eight weeks** from hosting of RFI on ADG PI Website). The vendors shortlisted for issue of RFP would be intimated separately.

10. Vendor interaction may be planned if considered necessary.

11. The Government of India invites responses to this request only from Indian OEM/ Authorised Vendors. The end user of the equipment is the Indian Army.

12. This information is being issued with no financial commitment to procure the said equipment and the Ministry of Defence reserves the right to change or vary any part thereof at any stage. The Government of India also reserves the right to withdraw this RFI, should it be so necessary at any stage. The acquisition process would be carried out under the provisions of **DAP-2020**.

Part-III

GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION/ PRE-QUALIFICATION IN 'BUY (INDIAN-IDDM)' 'BUY (INDIAN)' AND 'BUY & MAKE (INDIAN)' CASES

13. The guidelines prescribed for short-listing/ pre-qualification of Indian vendors in Buy (Indian-IDDM), Buy (Indian) & Buy & Make (Indian) cases are enumerated in the succeeding paragraphs.

14. **Parameters**.

(a) **General Parameters**.

(i) Applicant Entity should be an Indian Vendor as defined at Paragraph 20 of Chapter I of DAP 2020.

(ii) Business dealing with applicant Entity or any of its allied entities should not have been suspended or banned, by MoD/ SHQ or any Government Department or organization (as defined in Guidelines for Penalties in Business Dealings with Entities issued vide Ministry of Defence, D(Vigilance) MoD ID No 31013/I/2006-D(Vig) Vol II dated 21 Nov 2016). None of the Promoters and Directors of applicant entity should be a willful defaulter.

(iii) "**Entities**" will include companies, with whom the Ministry of Defence has entered into, or intends to enter into, or could enter into contracts or agreements.

(iv) "Applicant entity" may be a company, subsidiary, an associate company (as defined in the Companies Act, 2013), a consortium or a Joint Venture (JV).

(b) **Technical Parameters**.

(i) Vendor shall be a manufacturing entity or a system integrator of defence equipment and not a trading company, except in cases where the OEM participates only through its authorised Vendors.

(ii) Minimum two year experience in broad areas like manufacturing/ electronics/ explosives etc. as applicable in the instant procurement case. If not, then cumulative experience of at least three years in above areas, resulting in gaining of competence for manufacturing the proposed product. (In case the SHQ feels that for a particular equipment a lesser experience could be accepted, then the same should be got approved by the competent authority before including the same in the RFP).

(iii) Where product involves integration, previous experience of not less than one year/ one project in integration of systems/ equipment shall be required.

(c) **Financial Parameters**.

(i) **Average Annual Turnover**. Minimum average annual turnover for last three financial years, ending 31st March of the previous financial year, should not be less than 30% of estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project and for Buy & Make (Indian) should not be less than 30% of estimated cost of the Make portion.

(ii) **Net Worth**. Net worth of entities, ending 31st March of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian-IDDM) and Buy (Indian) project and for Buy & Make (Indian) should not be less than 5% of estimated cost of the Make portion. For orders above ₹ 5000 crores, the Net Worth of group companies can be considered on production of suitable documentary assurance.

(iii) **Insolvency**. The entity should not be under insolvency resolution as per Indian Bankruptcy Code at any stage of procurement process from the issuing of RFP to the signing of contract.

(iv) **Credit Rating (Mandatory Parameter)**. Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as CCR-BBB or better, and SME-04 or better for SMEs issued by credit rating agencies recognized by SEBI. Credit rating should be as on 31st March of the previous financial year.

(**Note 1**: All the above Financial Parameters, except Paragraph 14(c)(iii) above (Insolvency) will not be applicable for Capital Acquisition cases where estimated cost is ₹ 150 crores and below. However, Net worth of entities should not be negative.

Note 2: The turnover and net worth of the vendor shall be rounded off to the nearest lower ten/ hundred crores so as to keep the estimated cost of procurement confidential).

(d) **Other Parameters**.

(i) **Industrial License (IL)**. Vendors should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the vendor must confirm holding of IL before commencement of FET. (Items requiring IL will be as per DIPP Press Note 3 of 2014 as amended from time to time).

(ii) **Registration**. Registered for a minimum of two years (one year for SMEs). Minimum number of years not applicable for JVs constituted specifically for a project.

15. **Stipulations for Applying Parameters**.

(a) Areas like manufacturing/ electronics/ explosives etc referred to at Paragraph 14 (b) (ii) should be defined in each case of procurement.

(b) In case the Applicant Entity is unable to meet the Financial Parameters by itself, it may rely on its Holding Company (as defined in the Companies Act, 2013 and amendments thereof) ("Companies Act") for fulfilment of the Financial Parameters, in which case reliance must be placed on the Holding Company towards fulfilment of ALL the Financial Parameters.

(c) In case the Applicant Entity is unable to meet one or more of the Technical Parameters by itself, it may rely on a Group Company (ies) for fulfillment of the Technical Parameters. A Group Company in relation to the Applicant Entity may be:-

(i) A company of which the Applicant Entity it is an Associate Company. Such company should have ownership, directly or indirectly, of at least 26% of the voting shares of the Applicant Entity.

(ii) A company which is an Associate Company of the Applicant Entity. The Applicant Entity should have ownership directly or indirectly, of at least 26% of the voting shares of such Associate Company.

(iii) A Company with whom the Applicant Entity is commonly owned, directly or indirectly, for at least 26% of the voting shares by another company. For example: An Applicant Company A is an Associate Company of Company B, in which B holds at least 26%. Further, C is also an Associate Company of B, in which B holds at least 26%. In this case the Applicant Company may use the credentials of C as well.

(iv) The Holding Company and Subsidiary Companies (as defined under the Companies Act) of the Applicant Entity.

(d) The Applicant entity may be a single entity or a group of entities (the "Consortium"), coming together to implement the project. In such case:-

(i) The credentials of only those members or their related entities may be counted, who have at least 26% equity stake in the Consortium.

(ii) Each Consortium should have a designated Lead Member.

(iii) For Technical Parameters, any of the Consortium members or their Group Companies may meet the criteria.

(iv) For Financial Parameters, the Turnover and Net Worth of the Consortium Member shall be reckoned proportionate to Consortium Member"s equity stake in the Consortium, and each Consortium member should meet the other criteria pertaining to Insolvency and Credit Rating. In case the Consortium Member relies on its Holding Company for any one of the above-mentioned Financial Parameters, then reliance must be placed on the Holding Company for meeting all the financial Parameters.

(e) Vendors should provide all necessary self-authenticated documentation in support of their achievement of criteria. Such documentation should inter-alia include:-

(i) Details of projects/ supply orders successfully executed in the last two years.

(ii) Annual reports for three years of applicant entity, parent and associate companies, consortium and JV partners.

(iii) Details of shareholders, promoters, associated, allied and JV companies.

(iv) Details of vigilance action, viz. ongoing investigation and suspension/ debarment/ blacklisting actions against the applicant entity or any of its allied entities, parent company or consortium and JV partners, if any by any Department/agency of Central Government.

(v) A certificate from CA/CS indicating the financial parameters for the last three years.

(**Note**: If a vendor is already a supplier to MoD and/ or has already provided the above documents in such cases, it should be necessary for the vendor to resubmit only such documentations as is necessary to update the above).

(f) Any vendor furnishing false information will be liable for action as per existing guidelines.

Appendix 'A'
(Ref Para 6 of RFI)

DRAFT QUESTIONNAIRE : HIGH MOBILITY VEHICLE GENERAL SERVICE 8x8 WITH MHC 1.5 TO 2.5 TON

Note: Please provide all relevant details and technical specifications to the extent possible. Compliance to relevant Automotive Industry Standards (AIS)/CMVR norms may be mentioned quoting the relevant specification/ standard number in your reply.

S No	Specification/Parameter	Reply
Operational Parameters		
1	**Performance Capabilities in Fully Laden Condition**.	
	(a) What is the **Power Output**?	
	(b) What is the **Power Torque**?	
	(c) What is the **max speed**?	
	(d) What is the **Gradability (in degrees)**?	
	(e) What is the **Angleof Approach**?	
	(f) What is the **Angle of Departure** ?	
	(g) What is the **Turning Circle Diameter** of the vehicle?	
	(h) What is the **fording capability** of the vehicle without any preparation?	
	(j) What is the **side-slope stability** of the vehicle? (give figures in degrees)?	
	(k) What is the **payload** of the vehicle?	
	(l) What is the **Fuel Tank Capacity**?	
	(m) Is there any **locking arrangement in Fuel Tank**?	
	(n) What is the **Vertical Step Climbing Ability**?	
	(o) What is the **KPL** of the vehicle?	
	(p) What is the hauling Capacity of the vehicle on highway & x-country?	
	(q) What is the **Cold Starting arrangement** for starting the engine in cold climate?	
	(r) What is power to weight ratio?	

S No	Specification/Parameter	Reply
	(s) What is the max range of operation on highway with full fuel tank?	
	(t) What is the minimum ground clearance in fully laden condition?	
2	**Vehicle Dimensions**.	
	(a) Height Over Cabin	
	(b) Width	
	(c) Length	
	(d) Ground Clearance	
3	**Operating Temperature Range**. What is the Operating **Temperature Range** of the vehicle?	
4	**Vehicle Weight**. What is the **Gross Vehicle Weight/ unladen weight** of the vehicle?	
5	What is the total hauling capability of the vehicle **on highway and cross country**?	
6	**Cabin**.	
	(a) What would be the **design of the cabin** with respect to the engine i.e (**fully forward/ semi forward**)?	
	(b) Which type of Cabin will be provided **(Tiltable/ Non tiltable)**?	
	(c) How many seats will be provided in the cabin of the vehicle?	
	(d) What type of the **Seat for the driver** will be provided?	
	(e) What type of the **Seat for the Co- driver** will be provided?	
	(f) Can both the **seats with integrated head rest** be provided?	
	(g) Can **three point seat belts with pre-tensioners** for driver and co-driver be provided?	
	(h) Can **two sleeper berths (Upper and Lower) behind the driver and co-driver seats** be provided?	
	(j) What would be the dimensions of the **two sleeper berths (Upper and Lower) behind the driver and co-driver seats**?	
	(k) Can **collapsible upper berth** be provided?	
	(l) Can **lower berth accommodate seating of four personnel**?	
	(m) Can **Belly / Lap type seats belts on lower berth** for four personnel be provided?	
	(n) Can cabin having **two/four doors with locking arrangement** be provided?	
	(o) Can observation **hatch** be provided in the cabin roof?	

S No	Specification/Parameter	Reply
	(p) What will be the type of **wind screen**?	
	(q) Can **wind Screen Washing and Wind Screen Wiping System** be provided in the vehicle ?	
	(r) Can **Outside Rear View Mirrors** (ORVM) be provided for driver and co-driver?	
	(s) Number of **additional mirrors suitably positioned to minimise blind spots** provided?	
	(t) Will **ORVMs be included in the vehicle width**?	
	(u) Will **'Climb' and 'Hand Hold' facility** be provided in the cabin?	
	(v) Can **First Aid Box** with contents as per latest Central Motor Vehicle Rules be provided in the Cabin?	
	(vi) Can be provided Air bags for driver & Co-diver?	
7	**Load Body**.	
	(a) Can load body having a **height adjustable, removable super structure with a water proof canvas top** be provided?	
	(b) Can canvas top having **foldable front and rear curtains and ventilation vents on the sides** be provided ?	
	(c) Can **flat load body floor (without wheel arches)** be provided?	
	(d) Can **foldable bench seats on both sides to seat passengers with their weapons and personal equipment** be provided?	
	(e) Can **adequate space for counter weights (ballast weights)** be provided in the load body?	
Technical Parameters.		
8	**Engine**.	
	(a) **Type of Engine**.	
	(i) What type of engine will be provided?	
	(ii) What Emission norms does the vehicle comply with?	
	(iii) Can a BS-III or BS-IV compliant engine be provided?	
	(iv) What is the "minimum power to weight ratio required to carry a load of 12 tons on flat bed on highways or to tow a trailer with tank/ other equipment weighing upto 50 tons weight on highway?	
	(v) What is the max power to weight ratio which can be provided?	
	(b) **Cooling System** :-	

S No	Specification/Parameter	Reply
	(i) What **type** of cooling system can be provided?	
	(ii) What Ideal & Max cooling temp can be provided?	
	(iii) What **operating temperature** range can be provided?	
	(c) **Power Train**.	
	(i) Can **Manual Transmission system with selectable 8x8 drive** be provided?	
	(ii) Can fully automatic transmission system with **selectable 8x8 drive be provided**. If yes, what will be the cost difference in percentage terms & ₹ between a Manual & Automatic Transmission System?	
	(iii) Can **Differential locks on all axles and Inter axle differential locks** be provided?	
	(iv) Can **engagement of differential lock from the driver's cabin** be provided?	
	(v) In case of selectable drive options, will **activation of differential lock** be possible from within driver cabin?	
	(vi) Can **Hub Reduction Feature** on all axles to enhance tractive effort in cross country driving be provided?	
	(d) **Service Life of the Vehicle** What is the Service Life of the vehicle and Engine in years & Km?	
9	**Suspension**. What is the type of suspension system provided in the vehicle with applicable AIS & IS standard?	
10	**Brakes**. Elaborate upon the type of brakes provided :-	
	(a) Service Brakes.	
	(b) Parking Brake.	
	(c) Exhaust Brake.	
	(d) Emergency Brake.	
	(e) Can an **Anti-Lock Brake System (ABS)** be provided?	
	(f) Is a **twin circuit brake system** provided for towing any other equipment/ trailer?	
	(g) What is the **braking efficiency** and **braking distance** with full payload at cruising speed?	
	(h At what **gradient** will the parking brake be able to hold the vehicle with full payload?	
	(j) Can a „**Hill Assist Feature'** be provided to prevent vehicle roll back on steep gradient? How is it activated? At what maximum gradient will it be effective?	

S No	Specification/Parameter	Reply
	(k) What is the brake mechanism provided for towing a trailer?	
11	**Steering**.	
	(a) What **type of steering system** will be provided?	
	(b) Is **emergency power steering** provided in the vehicle?	
	(c) Can an **adjustable (Tilt/ Telescopic) steering** be provided?	
	(d) „Can Electrical or electro hydraulic Power Steering be provided?"	
12	**MHC**	
	(a) What is payload capacity of the MHC?	
	(b) What is the outreach payload capacity of the MHC?	
	(b) What type of operation mechanism will be provided?	
	(c) What is the range of the MHC (in width & height)?	
	(d) What type of safety arrangement will be provided?	
	(e) How much space will be occupied by the MHC?	
	(f) What is the power take off mechanism for operation of MHC?	
	(g) What would be correspond reduction in size of load body after installation of MHC?	
13	**Winch**.	
	(a) Can a **winch mechanism** be provided to facilitate loading of an unserviceable tank on the trailer? How is it operated?	
	(b) Specify the **pulling capacity of the winch rope in kN and Ton**?	
	(c) What is the **winch diameter**?	
	(d) What type of winch mechanism will be provided?	
	(e) What is the pulling capacity of the winch mechanism?	
	(f) Can a winch mechanism fitted on the front or rear of the vehicle, could be used for self-recovery from both sides and for loading of unserviceable tank weighing upto 50 ton on the trailer or do we require a winch mechanism both at front and rear of the vehicle to undertake this task?	
	(g) Can the winch be controlled from both inside and outside the driver cabin with audio & visual warning for overload?	
14	**Towing Arrangement**.	

S No	Specification/Parameter	Reply
	(a) What are the **towing arrangements provided in the front** and rear of the vehicle?	
	(b) Is the towing mechanism **compatible with a draw bar with swiveling type eye bolt**?	
	(c) What type of the **Lock** will be provided?	
	(d) What are the **towing arrangements provided in the** rear for towing a trailer?	
15	**Tyres**.	
	(a) What is the **type and size of tyres** provided in the vehicle?	
	(b) Are the tyres indigenous or imported?	
	(c) Can **Tyre Locks to prevent the tyre from sliding off the rim** in the event of puncture be provided?	
	(d) Can the Tyre facilitate fitting of anti-skid chain?	
	(e) Will BIS compliant/ certificate tyres by provided?	
	(f) Does the tyre permit sustained/ continuous operation for eight hours with max payload on bituminous road?	
	(g) Can one spare wheel with winch mechanism (specify type of mechanism available) for lifting/ lowering be provided?	
16	**Central Tyre Inflation System (CTIS)**.	
	(a) Can **Central Tyre Inflation System for real time monitoring and inflation of tyres to maintain the rated tyre pressure** be provided?	
	(b) Can Central Tyre Inflation System capable of monitoring and inflation of tyres of the vehicle including the tyres of the trailer from the driver‟s cabin be provided?	
17	**Electrical System**.	
	(a) **Battery**.	
	(i) How many batteries does the vehicle have?	
	(ii) What is the Battery **type**, voltage and capacity?	
	(iii) Can **Maintenance Free Battery** (ies) be provided?	
	(iv) Can a **Battery Isolating Switch** be provided?	
	(v) Can **additional attachment/ regulator for charging batteries** be provided?	
	(b) Can **defogger** be provided?	

S No	Specification/Parameter	Reply
	(c) Whether the vehicle will meet the requirements for Electromagnetic Compatibility as per **AIS-004**?	
	(d) **Lighting and Fitments**. Can the under mentioned lights / sockets be provided? Amplify against each.	
	(i) Head Lights.	
	(ii) Fog Lamps.	
	(iii) Tail Lamp Assembly.	
	(iv) Indicators.	
	(v) Engine Compartment.	
	(vi) Map Reading Light.	
	(vii) Cabin Lights.	
	(viii) Blackout / Convoy Lamp.	
	(ix) Beacon Light.	
	(x) Charging Sockets.	
	(xi) Light Socket.	
	(xii) Horn.	
	(xiii) Seat Belts for driver & Co-driver	
	(xiv) Air bags for driver & Co-driver	
	(xv) Does the electric system operate at 24 Volt or otherwise?	
	(xvi) Can LED type lights be provided for Head/ Tail/ Indicator lamps?	
18	**Instruments and Controls**.	
	(a) What type of instrument panel be provided?	
	(b) Can speedometer, Digital Odometer and Trip Meter be provided on the instrument panel?	
	(c) Can engine temperature, Fuel, Engine rpm, Air and Oil Pressure be displayed on the instrumental panel?	
	(d) Can audio / visual alarm be provided to indicate the under mentioned aspects?	
	(i) High Coolant Temperature.	
	(ii) Low Oil Pressure.	
	(iii) Low Air Pressure (for Brake System).	

S No	Specification/Parameter	Reply
	(iv) Low Fuel Level.	
	(v) Hand Brake applied.	
	(vi) Door ajar.	
	(vii) Seat Belt open.	
	(viii) Battery not charging.	
	(ix) ABS.	
	(x) Engagement of Differential Lock.	
	(xi) Engagement of 8x8 drive.	
	(xii) Alternator not charging.	
	(xiii) Engine temperature exceeding safe limits.	
	(xiv) Any of the tyres getting punctured.	
	(xv) Warning device to indicate winch rope completely paid out (for safety reasons).	
	(xvi) Fire alarm system.	
	(xvii) Differential locked/ Axle locks engaged.	
	(xviii) Ignition key in the socket, once the engine has been switched off.	
19	**Additional Fitments**.	
	(a) **Heating, Ventilation and Air Conditioning (HVAC) System**. Can **HVAC system in the vehicle cabin with arrangements for both heating and cooling** be provided?	
	(b) What is the capacity of HVAC system to **maintaining cabin temperature**?	
	(c) Can a HVAC system capable of **demisting the wind screen** be provided ?	
	(d) **Buzzer**. Can a buzzer/bell be provided near the Dandaman seat to alert the driver?	
	(e) **Fire Extinguisher**. Can **two portable ISI approved Dry Chemical Powder type fire extinguishers of minimum 2 Kg capacity each in the driver compartment,** be provided ?	
	(f) **Rear View Camera**. Can a **rear view camera with Audio alarm with an integrated display panel in the driver's compartment** be provided ?	
	(g) **360 Degree Camera**. Can a 360 Degree **camera with Audio alarm with an integrated display panel in the**	

S No	Specification/Parameter	Reply
	driver's compartment be provided ?	
	(h) Can **electrical circuit diagram be engraved on an aluminum plate inside Cabin and Engine compartment** be provided?	
Maintainability & Ergonomic Parameters.		
20	**Stowage Facilities**.Can the following Stowage facilities be provided?	
	(a) Rifle racks for driver, co-driver and crew members in the driver compartment.	
	(b) 100 litre capacity Stainless Steel water tank with tap and PUF insulation	
	(c) Tool Box, Jack and spare parts.	
	(d) Glove compartment with locking arrangement.	
	(e) Arrangement to carry four stretchers on the floor of the body.	
	(f) Stowage arrangements for two Showels and Pick axes each.	
	(g) Stowage arrangements for camouflage net poles.	
	(h) Stowage arrangements for eight 20 litres Jerricans and one 5 litre Oil Can.	
	(j) Stowage arrangements for four parking scotches.	
	(k) Stowage for one spare wheel be provided.	
	(l) NBC protective clothing for driver and crew.	
	(m) Bracket for NBC/ First Aid Kit.	
	(n) Bracket for portable NBC decontamination apparatus.	
21	**Oils and Lubricants**.	
	(a) What type of **oils and lubricants are used in the vehicle?**	
	(b) Are oil & lubes used in the vehicle commercially and readily available in India?	
	(c) Are any oils/ lubes used in the vehicle of foreign origin- specify. Has indigenous production of these lubes started?	
	(d) Can **lubrication chart showing recommended lubricants** on an engraved aluminum anodized plate, at a prominent place in the engine compartment be provided?	

S No	Specification/Parameter	Reply
22	**Weather Proofing**.	
	(a) Will all sub assemblies of the vehicle be capable of withstanding extreme weather conditions in the temperature range of minimum - 5^0C to -15^0C and maximum 40^0C to 45^0C?	
	(b) What measures will be provided to withstand high humidity and dust?	
Misc		
23	**Starting System**. What type of starting system can be provided in the vehicle?	
24	**Tools and Accessories**. What all tools and accessories can be provided with the vehicle?	
25	**NBC Protection**.	
	(a) Can NBC Protection Kits be provided with the equipment for providing protection to the crew against chemical, Biological and Radiological (CBR) hazards ?	
	(b) Can drivers cabin be sealed/secured for protection from nuclear radiation?	
26	**Maintenance Philosophy**.	
	(a) Can Maintenance philosophy for repair and maintenance of the vehicle **be aligned** with the system of unit and Field level repairs prevalent in the Defence Services?	
	(b) Would the vehicle have **interoperability with the present fleet of in-service vehicles**? Please elaborate.	
	(c) What would be the infrastructure & skill sets needed for maintenance?	
	(d) What would be the training requirement for maintenance of the vehicle at unit and field level?	
	(e) What are Special Maintenance Tools (SMTs) for maintenance and repair related tasks?	
	(f) What are Special Test Equipments (SMEs)/ Test Jigs (TJs) for diagnostics to support maintenance and repair tasks?	
	(g) What are Inspection gauges to check serviceability standards/ tolerances?	
	(h) Is Technical literature includes illustrated Spare Part List (ISPL) and manuals covering all aspects related to operation, maintenance, diagnostics and repair for various echelon?	
	(j) Which inspection standards to ascertain serviceability of equipment as well as its modules/ components?	
	(k) Is there a requirement of periodic calibration of any Special Test Equipment‟s (STEs)/ Gauges? If yes, will you	

S No	Specification/Parameter	Reply
	provide capability to undertake calibration, as part of Engineering Support Package?	
	(l) Is the equipment modular in construction to facilitate repairs in field by replacing defective module? What is the Mean Time to Repair (MTTR) for repair through replacement	
	(m) What is the expected life of your equipment and maintenance assemblies like engine, transmission, gear box, axles & Rotables like alternator, compressor, self-starter, etc. (as applicable) in terms of usage?	
	(n) Is there any software applicable to your equipment? If yes, can it be restored in field in case of any fault? Is it upgradable? Is it upgradable? Whether open paper license is available or not.	
	(o) Does your equipment of any of its sub system have counter to display cumulative usage to facilitate usage based preventive/ periodic maintenance?	
	(p) Can you provide Indian origin generators and batteries with your equipment, wherever applicable?	
	(q) Will you be providing details of Indian equivalents of oil & lubricants used with your equipment?	
	(r) Can it provide life support with respect to repair, overhaul and spares for minimum 15 years or more?	
	(s) Does it have overhaul facility of major assemblies in India or abroad (mentioned the locations)?	
	(t) Does it have the capability to supply spares across India through its service centers/ franchise?	
	(u) List out the assemblies/ sub-assemblies/ spares dependent upon foreign vendors/ agencies for spares and maintenance?	
	(v) What is the maximum number of personnel required to repair any assembly of vehicle?	
	(w) Is there any difficulty in accessibility of any component/ assembly of the vehicle for fitment and removal?	
	(x) Whether the details of Itemized Spare Parts Price Lists (ISPPL), Repairable Items Price Lists (RIPL) of assemblies/ sub-assemblies & Man Day Rates of Specialists for a period of five years post warranty can be provided?	
	(y) Is the vendor ready to carry out Life Cycle Support Contract (LCSC)?	
	(z) If AMC/ CMC can be provided? Provide the scope, max period and cost per year?	
	(aa) Does it have any BITE facility for diagnosis of faults in the vehicle?	
	(ab) Will you be providing spares, Special Maintenance Tool and special Test equipment for carrying out major repair?	
	(ac) Have your supplied the equipment to any other government agency/ paramilitary forces? If yes, furnish details of quantity supplied and year of supply and specification of the equipment?	
	Upgradation Philosophy	
	(a) What would be the upgradation philosophy with respect to the vehicle?	
	(b) Elaborate upon the frequency and nature of upgrades recommended by you.	

S No	Specification/Parameter	Reply
	(c) Will software upgrades/patches be provided whenever required?	
	(d) Details of various inbuilt test & fault warranty system?	
	(e) Can the overhaul facility for major assemblies & component level repair be provided by OEM?	
	(f) Details of lead time for supply of critical spares?	
27	**Training**.	
	(a) Can training be provided for the drivers / personnel carrying out repair and maintenance of the vehicle?	
	(b) What is the recommended training period of maintenance and QA persons and user/crew?	
	(c) Can sectionised cut models of major assemblies, CBT packages, Training Charts and other Training related reference material be provided ? Please specify.	
	(d) What are the facilities available at OEM/ Vendor premises to conduct training?	
	(e) Will you provide soft copies of the „User Handbook" and other manuals including technical manuals along with the CBT for training?	
	(f) Is the equipment available in Indian market?	
	(g) What is the level of **Indigenization** of the vehicle ?	
	(h) What is the level of **Maintenance Support** of the vehicle ?	
	(j) What is the level of **Life Time Support** of the vehicle ?	
	(k) Specify, availability of any **training simulators** for the said vehicle?	
	(l) Have your developed a class room trainer and Computer Based Training (CBT) package for training?	
	(m) What is the likely training schedule in terms of theoretical and practice classes and On Job Training on the equipment?	
	(n) Do you have a separate training program for user and maintenance personnel?	
	(o) Can you provide modern training aggregates for maintenance, repair, usage of SMT/ STEs and overhaul, like based on Virtual Reality/ Virtual augmentation etc?	
	(p) Will you be providing Interactive Electronic Training manuals (IETMs) as part of technical literature? if yes which class?	
28	**Indigenous Content/ Production**.	
	(a) Elaborate upon the **capability to indigenously design, develop and manufacture the equipment (IDDM capability)?** If yes, what will be the percentage of Indigenous Content provided & verification process?	

S No	Specification/Parameter	Reply
	(b) What are the **critical technologies which the industry has taken from their global partners** or Joint Venture, if any? Or what are the essential critical technologies which are required to be obtained?	
	(c) How much time will the **startup/ Joint Venture** take to start production?	
	(d) Does your Firm have the **capability to design, develop, manufacture, test and integrate the system** including the critical technology?	
	(e) Does your Firm have the **Industrial Licenses for the production** of the vehicle? If not, have you applied for the same and when (date) and by which it is likely to be granted?	
	(f) **How much time is required by your firm to deliver the equipment / platform** with the stipulated indigenous content, post trials/ contract for operational use?	
	(g) Confirm the feasibility of use of indigenous military material already being manufactured in the country as per Para 11of Chapter II of DAP 2020?	
29	**Trials/ Prototypes.**	
	(a) Is the **prototype readily available** or has to be designed/ manufactured ?	
	(b) What will be the time penalty and fall out if additional features/ higher technology is asked in the prototype? **OR**, If the equipment is to be fielded in 4 months/ 6 months, what level of technology (or type of prototype) would be made available?	
	(c) What is the likely **time period required to field the prototype for trials post intimation of clearance in TEC**? This date should factor in time for clearance, transportation etc.	
	(d) Are you willing to participate in trials as per DAP-2020 in India on **'No Cost No Commitment (NCNC)' basis**?	
	(e) What is the **suitability of equipment for deployment in various types of terrains in India**? Specify separately for deserts, plains, mountainous, High Altitude Area.	
30	**Commercial Terms / Cost.**	
	(a) Specify the elements which need to be structured in the costing of the vehicle (including comprehensive maintenance / product support package).	

S No	Specification/Parameter	Reply
	(b) What will be the **estimated price of the complete vehicle**?	
	(c) What will be the **estimated cost of the 'Equipment Support Package (ESP)' recommended by the OEM / Vendor**?	
	(d) **Elaboration of Total cost indicating following aspects** :-	
	(i) Basic Cost per unit	
	(ii) GST @____% of basic cost of veh	
	(iii) **Total Cost per unit (including above)**	
	(e) Will you be able to deliver as per DDP-INCOTERMS 2020 or otherwise?	
	(f) What is your **preferred mode of shipment of vehicle** - rail, road, sea or air/ or a combination?	
31	**Warranty**.	
	(a) What is the warranty of the vehicle in terms of both period and kilometer?	
	(b) Is the seller warranty repairs be provided at free of cost?	
	(c) What is the necessary service and repair backup of the vehicle under warranty period?	
	(d) Will your able to provide onsite comprehensive warranty for 24 months or more?	
32	**Production Capacity**.	
	(a) What is your **Annual Production Capacity**? Is it likely to increase?	
	(b) How much **time would be required to deliver the equipment** after conclusion of contract?	
33	(a) Will the complete vehicle/ Major assemblies/ subassemblies be governed by CMVR norms/ AIS/ IS?	
	(b) Please specify the AIS/ IS against each parameter/ assembly/ subassembly.	
	(c) Can integrated IRNSS navigation system be provided? Inclusion of the same is mandatory as per latest government instructions.	
	(d) Is the Applicant Entity an Indian Company as defined under Companies Act 2013?	
	(e) Has the Applicant Entity or any of its allied entities ever been banned or suspended by MoD/ shq OF ANY Government Department of Orgnisation? Details of vigilance action viz ongoing investigations by any Department/ agency of Central Government may be provided.	
	(f) Does the Company have any previous experience/ expertise in the field of manufacturing/ production/ assembling of HMVs?	

S No	Specification/Parameter	Reply
	(g) Is the Applicant Entity a Manufacturing Entity or system Integrator or a Trading Company?	
	(h) Specify the field of expertise of your company and duration of experience in years?	
	(j) Specify the turnover and net worth of your Company in the last three (03) Financial Year.	
	(k) Is your company under insolvency resolution as per Indian Bankruptcy Code ?	
	(l) What is the Credit Rating of your Company equivalent to CRISIL rating?	
	(m) Does our company qualify under Start Up or Micro or small Enterprise Category?	

Appendix 'B'
(Para 7 of RFI)

VENDOR INFORMATION PROFORMA

1. **Name of the Vendor/Company/Firm**
(Company profile including Share Holding pattern, in brief, to be attached)
_____
_____

2. Type (Tick the relevant category).

   (a) Original Equipment Manufacturer (OEM): Yes/No

   (b) Authorised Vendor of foreign Firm : Yes/No (attach details, if yes)

   (c) Others (give specific details)

3. **Contact Details**.

   Postal Address : _____
   _____

   City :_____ State :_____

   Pin Code :_____ Tele :_____

   Fax :_____ URL/Website:_____

4. **Local Branch/Liaison Office/Agent (if any)**.

   Name & Address:
   PIN Code:
   Tel: Fax:
   Email:

5. **Financial Details**.

   Category of Industry (Large/Medium/Small Scale):_____

6. **Certification by Quality Assurance Organisation**.

Name of Agency	Certificate	Applicable from (Date and Year)	Valid Till (Date & Year)

7. **Details of Registration**.

Agency	Registration No	Validity (Date)	Equipment
GeM			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Any other Government Agency			

8. **Membership of FICCI/ASSOCHAM/CII or other Industrial Associations**.

(a) Name of Organisation

(b) Membership Number

9. **Equipment/Product Profile (to be submitted for each product separately)**

(a) Name of Product : _____

(IDDM Capability be indicated against the product)
(Should be given category wise for e.g. all products under night vision devices to be mentioned together)

(b) Description (attach technical literature) :_____

(c) Whether OEM or Integrator : _____

(d) Name and address of Foreign collaborator (if any): _____

(e) Industrial License Number : _____

(f) Indigenous component of the product (in percentage): _____

(g) Status (in service/ design and development stage)_____

(h) Production capacity per annum:_____

(j) Countries/agencies where equipment supplied earlier (give details of quantity supplied):

_____

_____

(k) Estimated price of the equipment _____

10. Alternatives for meeting the objectives of the equipment set forth in the RFI.

11. Any other relevant information : _____

12. **Declaration**. It is certified that the above information is true and any changes will be intimated at the earliest.

(Note: Paragraph 44 and Appendix F to Chapter II of DAP may be referred)

(Authorised Signatory)
Name :
Appointment :
Tele No :
Mob No :
eMail :