# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Content</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message from Minister</td>
<td>3</td>
</tr>
<tr>
<td>Foreword by the Secretary</td>
<td>4</td>
</tr>
<tr>
<td><strong>PART – I MoDP AND ITS ALLIED DEPARTMENTS</strong></td>
<td>5</td>
</tr>
<tr>
<td>Existing Defence Production Sector of Pakistan</td>
<td>5</td>
</tr>
<tr>
<td>Expansion in Defence Production under MoDP</td>
<td>5</td>
</tr>
<tr>
<td>Mandate of MoDP</td>
<td>6</td>
</tr>
<tr>
<td>Key Functions of MoDP</td>
<td>6</td>
</tr>
<tr>
<td>Internal Structure of MoDP</td>
<td>6</td>
</tr>
<tr>
<td>Allied Departments</td>
<td>7</td>
</tr>
<tr>
<td>Defence Production Establishments (DPEs) of MoDP</td>
<td>7</td>
</tr>
<tr>
<td>Commercial Subsidiaries / Semi Government Enterprises</td>
<td>8</td>
</tr>
<tr>
<td>Private Defence Production Firms</td>
<td>8</td>
</tr>
<tr>
<td>Executive Departments of MoDP</td>
<td>8</td>
</tr>
<tr>
<td><strong>PART – II VISION AND OBJECTIVES</strong></td>
<td>9</td>
</tr>
<tr>
<td>Vision of MoDP for Defence Production Sector</td>
<td>9</td>
</tr>
<tr>
<td>Key Objectives Derived from the Vision</td>
<td>9</td>
</tr>
<tr>
<td>Goals</td>
<td>10</td>
</tr>
<tr>
<td><strong>PART – III INITIATIVES / ACHIEVEMENTS</strong></td>
<td>11</td>
</tr>
<tr>
<td>POF</td>
<td>11</td>
</tr>
<tr>
<td>HIT</td>
<td>11</td>
</tr>
<tr>
<td>PAC</td>
<td>12</td>
</tr>
<tr>
<td>KS&amp;EW</td>
<td>12</td>
</tr>
<tr>
<td>NRTC</td>
<td>12</td>
</tr>
<tr>
<td>Establishment of Gwadar Shipyard</td>
<td>13</td>
</tr>
<tr>
<td>Inclusion of ToT in Big-Ticket Contracts</td>
<td>13</td>
</tr>
<tr>
<td>Empowerment of BoDs</td>
<td>13</td>
</tr>
<tr>
<td>Restructuring</td>
<td>13</td>
</tr>
<tr>
<td>Focused R&amp;D</td>
<td>13</td>
</tr>
<tr>
<td>Revision of Manuals</td>
<td>13</td>
</tr>
<tr>
<td>R&amp;D Cases Approval</td>
<td>13</td>
</tr>
<tr>
<td>New Import NOC SOP</td>
<td>13</td>
</tr>
<tr>
<td>Content</td>
<td>Page</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>E-Governance System</td>
<td>13</td>
</tr>
<tr>
<td>Connectivity with Service HQs</td>
<td>13</td>
</tr>
<tr>
<td>Cyber Security Mechanism</td>
<td>13</td>
</tr>
<tr>
<td>Think Future (Seminars).</td>
<td>13</td>
</tr>
<tr>
<td>Engagement with Govt / Legislative Bodies</td>
<td>14</td>
</tr>
<tr>
<td>Policy Formulation</td>
<td>14</td>
</tr>
<tr>
<td>Export Promotion</td>
<td>14</td>
</tr>
<tr>
<td>Clean &amp; Green Pakistan Initiative</td>
<td>14</td>
</tr>
<tr>
<td>Savings to National Exchequer</td>
<td>14</td>
</tr>
<tr>
<td>Commercial Earnings</td>
<td>14</td>
</tr>
<tr>
<td>Provision of Jobs</td>
<td>15</td>
</tr>
<tr>
<td>Corporate Social Responsibilities</td>
<td>15</td>
</tr>
<tr>
<td>Media Excerpts / Testimonials</td>
<td>16</td>
</tr>
<tr>
<td><strong>PART – IV PICTORIAL OVERVIEW</strong></td>
<td>17</td>
</tr>
<tr>
<td><strong>PART – V MAJOR PRODUCTS</strong></td>
<td>20</td>
</tr>
<tr>
<td>POF</td>
<td>20</td>
</tr>
<tr>
<td>HIT</td>
<td>23</td>
</tr>
<tr>
<td>PAC</td>
<td>27</td>
</tr>
<tr>
<td>KS&amp;EW</td>
<td>29</td>
</tr>
<tr>
<td>NRTC</td>
<td>31</td>
</tr>
</tbody>
</table>
Message from the Minister

Pakistan defence production sector has a significant role in strengthening of conventional defence and national economy. Ministry of Defence Production is striving hard for a self-reliant / self-sustained defence production industry with a view to increase job opportunities, generate revenue, decrease dependence on imports and increasing the exports to earn valuable foreign exchange. Pakistan has a robust industrial base which is being modernized to meet the domestic and international demand. We are also focusing on accelerating indigenization through fully integrated public and private sectors in defence production.

“Year Book 2018-21” is presented to showcase our efforts in pursuit of the set objectives / goals. Though the journey towards self-reliance in defence production is quite long, but it is hoped that we would achieve the ultimate objective with dedication and patience.

May Allah Almighty grant us the requisite strength and fortitude to contribute with resolve and commitment towards a strong, secure, and developing Pakistan.

Ms Zobaida Jalal
Minister for Defence Production
Foreword by the Secretary

Security through self-reliance has always remained a cornerstone of Pakistan's national defence policy. Government of Pakistan had been striving since independence to equip the Defence Forces of Pakistan with the latest weaponry at a reasonable cost. Our history and geo-strategic location have strengthened our resolve of achieving self-reliance in the defence production capabilities and diversifying sources of military procurements.

I feel immensely pleased to present the "Year Book 2018-21" of the Ministry of Defence Production, in pursuance of Sub-Rule (2) of Rules of Business, 1973. It contains a brief introduction of the Ministry, and a brief account of its performance during the said period.

I cherish and hope that this book shall provide requisite information regarding the achievements of MoDP, mainly related to self-reliance / self-sustenance according to the mandate of MoDP. I acknowledge concerted efforts of concerned officers and staff in the preparation of this book.

Feed-back and the suggestions are welcomed and shall be given due consideration.

Lieutenant General (Retired) Sadiq Ali
Secretary Defence Production
PART – I
MODP AND ITS ALLIED DEPARTMENTS

"Against them make ready your strength to the utmost of your power, including steeds of war, to strike terror into the hearts of the enemies of Allah and your enemies, and others besides them, whom you may not know, but whom Allah does know. Whatever you shall spend in the cause of Allah, shall be repaid unto you, and you shall not be treated unjustly."

Al-Quran (8:60)

1. **Existing Defence Production Sector of Pakistan.** After the partition all 16 x Ordnance factories went under Indian possession, since not even one of them was situated in Pakistan. The indigenous development of arms kick-started with the establishment of Pakistan Ordnance Factories (POF) in 1951 to produce the required munitions for the Defence Forces and Law Enforcement Agencies. 1965 & 1971 Wars further strengthened the resolve of achieving self-reliance in the defence production capabilities and diversifying sources of military procurements.

2. **Defence Production Division** was constituted in 1972, under Ministry of Defence with an aim to supervise the defence production / procurement activities and to accelerate pace of technological development for achievement of greater self-reliance through indigenization. Later, Defence Production Division was elevated to the status of **Ministry of Defence Production (MoDP)** in 2004 to spearhead the defence production / indigenization efforts.

3. **Expansion in Defence Production under MoDP.** Since inception, MoDP has undergone vast expansion in quest of its aim and objectives which is illustrated below:
4. **Mandate of MoDP.** To meet the requirements of armed forces through indigenous production as well as foreign / inland procurement and to **export surplus capacity to friendly countries.**

5. **Key Functions of MoDP**
   a. Formulation and execution of **policies** related to Defence Production.
   b. **Indigenous production** and manufacturing of defence equipment / stores.
   c. **Procurement** of defence equipment / stores for Defence Forces.
   d. **Research & Development** related to defence equipment / stores.
   e. **Coordination** of defence scientific research with civil scientific research organizations.
   f. Declaration of **industries** for defence and war.
   g. Negotiations of agreements / MOUs for **foreign cooperation and collaboration in Defence Production and Procurement.**
   h. Loans for purchase of military stores and Transfer of Technology (**ToT**).
   i. **Export** of defence products including marketing and promotion of activities relating to export of defence products.
   j. Coordinate and monitor activities of all Defence Production Establishments (**DPEs**) and Executive Departments (**EDs**).

6. **Internal Structure of MoDP**
8. **Defence Production Establishments (DPEs) of MoDP**

a. **Pakistan Ordnance Factories (POF) Wah.** Established in 1951. Produces Arms & Ammunition for all three Services and Law Enforcement Agencies. It has 14 x factories and 12 x subsidiaries. Main production items are rifles, machine guns, rocket launchers, mortars & their ammunition as well as tank / artillery munitions.

b. **Heavy Industries Taxila (HIT).** Established in 1971. Produces / rebuilds Tanks & APCs for Army and Law Enforcement Agencies. It has 7 x factories and 1 x subsidiary unit. Its main products are Tank Alkhalid and different versions of APCs.

c. **Pakistan Aeronautical Complex (PAC) Kamra.** Established in 1972. Produces, rebuilds, and overhauls the fighter and trainer aircraft for PAF and Army Aviation. It has 4 x factories. Its main products are JF-17 thunder and Mushshak aircraft.

d. **National Radio Telecommunication Corporation (NRTC) Haripur.** Established in 1960 and develops communication equipment / IT Solutions. It has 3 x factories which produce radio sets, jammers, sensors etc. Its main products are software defined radio sets and LMRs.

e. **Karachi Shipyard & Engineering Works (KS&EW).** Established in 1956 and engaged in Shipbuilding / repair. It has 6 x factories that produce / repairs / overhauls ships, vessels, boats, submarines.
f. **Gwadar Shipyard.** In the process of establishment. It will have the capacity of 400–600-ton ships.

9. **Commercial Subsidiaries / Semi Government Enterprises**
   a. Wah Industries Limited – A subsidiary of POF.
   b. Wah Nobel Limited - A subsidiary of POF.
   c. Margalla Heavy Industries Limited - A subsidiary of HIT.
   d. KAIL - A subsidiary of PAC.

10. **Private Defence Production Firms.** Around 145 x private firms are engaged in producing defence related items.

11. **Executive Departments of MoDP**
    a. **Directorate General Defence Purchase (DGDP).** Defence purchases and procurements.
    b. **Directorate General Munitions Production (DGMP).** ToT contracts and facilitation of local defence industry.
    d. **Defence Export Promotion Organization (DEPO).** Export promotion of Defence products (surplus capacity of) DPEs and private sector.
PART – II
VISION AND OBJECTIVES

12. **Vision of MoDP for Defence Production Sector.** In line with the PM’s Vision, the vision of MoDP is “to facilitate Defence Production Sector that collateralizes local Defence Industries with the Defence needs of the Armed Forces through Public Private Partnerships and contributes toward national security and economy”.

13. **Key Objectives Derived from the Vision.** In line with the PM’s vision, MoDP started a focused campaign for a self-reliant / self-sustained defence production industry along with increasing job opportunities, generation of revenue, decreasing dependence on imports and increasing the exports to earn foreign exchange. Accordingly, following key objectives were set for the defence production sector:-

   a. **Modernization of Public Sector** Defence Industry to fulfil needs of Armed Forces at an affordable cost.
   
   b. **Sustainable growth of Private Sector** Defence Industry through public-private interface.
   
   c. **Optimum self-reliance through R&D / ToT / Offsets.**
   
   d. **Minimize burden on national exchequer through earning / saving of foreign exchange** from defence exports and import substitution.
   
   e. **Boost to national economy through industrialization and employment generation.**
   
   f. **Streamlining the procedures for maximum Ease of Doing Business (EoDB).**
14. **Goals.** Major goals are to achieve self-reliance and self-sustenance in defence production:

a. To achieve **Self Reliance** through :-
   (1) Revitalization of Public Defence Industry.
   (2) Growth of Private Defence Industry.
   (3) Gradual indigenization using R&D, ToT, Offset, Human Resource Development etc.

b. To achieve **Self Sustenance** through:-
   (1) Enhanced Defence Export.
   (2) Corporatization.
PART – III
INITIATIVES / ACHIEVEMENTS

15. Operational Improvements in DPEs

a. POF
   (1) Enhanced efficiency with Posting of 2 x DGs i.e., DG Production and DG Commercial.
   (2) Selective Modernization
       (a) Upgradation of plants & machinery / infrastructure like commissioning of Small Arms Ammunition manufacturing plant.
       (b) Development of POF-X Pistol.
   (3) ToT of Gun & Tk Ammo
       (a) ToT absorption for ammunition manufacturing of new guns at POF is in process.
       (b) ToT of ammunition manufacturing for VT-4 Tanks is progressing smooth.

b. HIT
   (1) Rolling Out of Al-Khalid Tanks. Rolling out of indigenously manufactured Al-Khalid Tanks completed at the 1/3rd cost of the international market.
   (2) Rebuild of Tk T80UD and ToT for its assembly at HIT is progressing smooth.
   (3) Indigenous Dev of VT-4 Gun Barrel. The project is progressing smooth.
   (4) Commercial Window. Margalla HIL has been established after amendment in the HIT Act, in order to enhance its inland and foreign sales.
c. **PAC**
   (1) **Commercial MRO Facility.** Maintenance, Repair & Overhaul (MRO) facility being established at Islamabad Intl Airport for the commercial airliners as a JV (USD 70 M) with ASG, Lithuania and Navtek, China.
   (2) **All Weather Shed.** All-weather sheds have been constructed for MRO facility at PAC.
   (3) **Design Improvement.** Twin Engine JF-17 has been developed.
   (4) **New Export Avenues**
      (a) Export of JF-17 to Nigeria - USD184 Mn.
      (b) Contract finalization of 12 x Mashaks to Iraq - USD 33.33 Mn.

d. **KS&EW**
   (1) **Transformed from Sick to A Thriving Unit**
      (a) **Full Financial Sustainability** of KS&EW achieved after settlement of all previous liabilities.
      (b) **Massive upgradation** of shipyard worth Rs. 12 Bn financed through PSDP has been completed including the first of its kind Ship Lift Transfer System (SLTS) in Pakistan.
   (2) **ToT** worth millions of USD has been acquired for submarine and ship manufacturing (**MILGEM & HANGOOR**).

e. **NRTC**
   (1) **Dynamic Business Uplift.** NRTC has become a role model being self-sustainable and profit earning enterprise with diversified business solutions. NRTC is venturing into new and diversified products like RFID no plates, safe city projects, integrated intelligent transport system, ground surveillance system, EoD solutions, Robotics and Artificial Intelligence solutions.
   (2) **JV.** Italian Firm is planning to establish repair / maintenance facility in Pakistan in collaboration with NRTC.
   (3) **Transfer of TIP to NRTC.** Principal approval accorded by the PM. Modalities being worked out in consultation with all stakeholders.
   (4) **Fight Against COVID.** Indigenous manufacturing of Ventilators. 25,000 Masks, 400 lit Sanitizer and 500 PPE suits pd.
16. **Major Initiatives / Achievements by MoDP**

   a. **Establishment of Gwadar Shipyard.** This national level project is being vigorously pursued by MoDP. An MoU has recently been signed with Govt of Balochistan for handing over the land to MoDP. Executive Project Director has been appointed and Rs. 245 Mn have been allocated in the budget of CFY to kickstart the project.

   b. **Inclusion of ToT in Big-Ticket Contracts.** ToT is now being made part of all big-ticket items in order to ensure self-reliance.

   c. **Empowerment of BoDs.** POF and HIT BoDs now being made more dynamic, responsive & forward looking through required amendments in Acts, rules, and procedures.

   d. **Restructuring.** MoDP has been re-organized in sync with the institutional reforms initiated by the government. Directorate General of Research & Development Establishment (DGRDE) has been created after merger of 3 x R&D establishments. Defence Export Promotion Organization (DEPO) has been designated as a permanent Executive Department. Coord, Policy Cell have been established at MoDP whereas Foreign Cooperation Cell has also been restructured. MoDP shall transform into a dynamic, vibrant, and efficient entity with correct div of responsibilities resulting into good governance and Ease of Doing Business after restructuring.

   e. **Focused R&D.** Rs 2 Bn allocated first time for 10 x Projects.

   f. **Revision of Manuals.** DPPI and DGMP Green Book have been revised.

   g. **R&D Cases Approval.** Process reduced to two weeks only.

   h. **New Import NOC SOP.** Issued in 2020 and the process has been reduced to 15 days.

   i. **E-Governance System.** Digital mailing has started. DGMP’s record has been digitized. A Dashboard being designed for quick decision making at all levels.

   j. **Connectivity with Service HQs.** Connectivity with service HQs has been improved manifolds through digital mailing system.

   k. **Cyber Security Mechanism.** Fresh policy issued and implemented. Cyber Security Audit conducted by NRTC and NITSB.

   l. **Think Future (Seminars).** 2 x Seminars were conducted to deliberate upon various options to modernize and achieve self-reliance / self-sustenance in
defence production sector. Recommendations of seminars being implemented.

m. **Engagement with Govt / Legislative Bodies.** MoDP is extensively engaged with the standing committees of NA & Senate and Cabinet Committee of Institutional Reforms. Around **15 x meetings** held with various state committees and different issues deliberated / resolved.

n. **Policy Formulation**

(1) Def Production Policy - 1st Draft under consideration
(2) Offset Procedures - Final consultation in progress.
(3) Export NOC Procedure - Finalized.
(4) Import NOC Procedure - Finalized
(5) Single Regn Procedure - Being simplified.

o. **Export Promotion**

(1) Foreign Delegations - 22
(2) National Delegations - 10
(3) Foreign Exhibitions attended - 28

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<tr>
<th>Exhibition</th>
<th>Chief Guest</th>
<th>Foreign Firms</th>
<th>Local Firms</th>
<th>Visitors (Approx.)</th>
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</thead>
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<tr>
<td>SAVDEX</td>
<td>CJCSC</td>
<td>N/A</td>
<td>60</td>
<td>15,000</td>
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<tr>
<td>IDEAS</td>
<td>President</td>
<td>320</td>
<td>204</td>
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<td>International Rawal Expo</td>
<td>Provincial Minister</td>
<td>40</td>
<td>100</td>
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<td>5th Defence Port Turkey 2019</td>
<td>Senator Azam Sawati</td>
<td>11</td>
<td>13</td>
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<td>SAVDEX - 2020</td>
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<td>73</td>
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<td>Virtual Rawal Expo - 2020</td>
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<td>20</td>
<td>80</td>
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p. **Clean & Green Pakistan Initiative.** Clean & Green Pakistan drive was undertaken with full zeal and enthusiasm at MoDP and all allied setups. Around one Mn trees were planted during the campaign.

q. **Savings to National Exchequer.** MoDP and its allied departments have made substantial contributions to national exchequer by huge savings through import substitution, procurement negotiations, exports, and taxes / duties.

r. **Commercial Earnings.** An unprecedented boost in the Defence Exports (Approx. Rs. 60 bn) and Inland Sales (Approx. Rs. 70 Bn) was accomplished
due to dedicated / synergic efforts of MoDP / DPEs and respective Services HQs during three years period. Rs. 6 Bn Taxes / duties are paid annually.

s. **Provision of Jobs.** Around **8,000 jobs** have been provided to unemployed youth in Defence Production Sector during past three years. Quota system was strictly adhered in all the enrolments.

t. **Corporate Social Responsibilities.** A substantial amount is also spent annually on quality education, medical facilities, respectable living, and welfare of over 50,000 employees.
(1) **PM’s Tweet after Visiting NRTC Haripur**

![PM's Tweet](image)

(2) “Pakistan has the potential to emerge as a global platform for defence research, scientific growth, manufacturing, and joint ventures in order to strengthen its defence capabilities and spur developments as well as exports in this sector. Towards this, the Ministry of Defence Production is continuing to evolve clear priorities and approaches for protecting and defending the interests of the defence industry of Pakistan at home and abroad”.

Minister for Defence Production’s address to the IDEAS 2018.

(3) “Apart from public sector and defence production organizations, there is a dire need for a fully integrated private sector in the country’s defence industry. There is a need to amplify indigenization through fully integrated public and private organizations in defence production for meaningful progression in defence of the country,”

COAS’ address to Defence Production Seminar – 2019.

(4) “Gwadar Shipyard being bigger than Karachi Shipyard, carries immense geographical importance where world class ships will come for repairs which would be significant for boosting the economy of Balochistan.”

Minister for Defence Production’s address at MoU signing of Gwadar Shipyard.
PART – IV
PICTORIAL OVERVIEW

President of Pakistan visiting IDEAS

Inauguration of Electro Medical Lab at NRTC by PM

Minister for Defence Production with PM at COMSTECH

Minister for Defence Production inspecting the repairing of ventilators at NRTC

Nigerian delegation visiting POF

Rolling out of Alkhalid Tank at HIT
COAS Visiting HIT

Minister for Defence Production visiting PAC Kamra

Minister for Defence Production launching Fast Attach Craft at KS&EW

MoU Signing Ceremony of Gawadar Shipyard

Minister for Defence Production at IDEF Turkey

Minister for Defence Production hosting Turkish delegation at MoDP
Team of KS&EW at work

Rebuilding of a Self-Propelled Gun at HIT

Tank overhaul at HIT

PAC team at work

Uplift of KS&EW
PART – V
MAJOR PRODUCTS

POF

- Machine Gun MG1A3
- Rifle G3A3
- Sub Machine Gun MP5 A2
- DMR - Designated Marksman Rifle
- 12.7 mm Anti Aircraft Machine Gun
- .308 Win Sporter Hunting Rifle
- POF - 4 9 mm Pistol
- POF - 5 9 mm Pistol
- POF Eye
- LSR - Light Sniping Rifle
- POF-X
- 7.62 x 39 mm Ball
- 7.62 x 39 mm Ball & Tracer
- 7.62 x 54 mm Ball & Tracer
- 9 x 19 mm Ball
- 7.62 x 25 mm 30 Bore
- 7.62 x 51 mm Blank
- 7.62 x 54 mm Rifle Grenade
- 7.62 x 39 mm Blank
- 105 mm HE TK P1A1
- 105 mm APFSDS P1A1
- 125 mm HE FS TK
- 125 mm APFSDS/T
- Tungsten Alloy Penetrator & Rod
Tank Al-Khalid

Tank VT4

ARVs W-653

APCs M113P

Tank Al-Khalid 1

Tank T-85 IIAP

Tank T-69 IIMP

Maaz BSWS Carrier
Mouz RBS-70 Carrier
Comd Veh Sakb
Log Veh Al Qaswa
ARV Al Hadeed
Rebuild Tank T-59
Rebuild Tank Al Zarar
Rebuild Tanks T-85 IIAP
Rebuild Tank T80 UD
Bullet Proof Vehicles

AGP Ahan

Bullet Proof Jackets
Mashshak Aircraft

JF-17 Thunder Aircraft

K-8 Aircraft

Maintenance, Repair & Overhaul
Upgradation / Retrofit

Maintenance of AW-139 Helicopter
Multi Mission F22P Frigate  Midget Submarine
Maritime Patrol Vessel  Jalalat Class Missile Boat
Floating Dock  Fast Attack Craft (MISSILE)
32 Tons Bullard Pull Tug  17,000 Tons Fleet Tanker
Coastal Oil Tanker
Multi-Purpose Barge
Multi-Purpose Auxiliary Craft – Missile
Harbour Utility Vessels
Small Tanker Cum Utility Ships
Dredge Tender
32 Ton Bollard Pull Tug
10 Ton Bollard Pull Tug
NRTC