

A: CONSULTANT’S SCOPE OF WORK

The current situation in the port sector in the Ukraine is one of the major constraints to growth in trade and successful development of the national economy. The challenge is to improve the productivity of existing port assets and to upgrade these assets to support modern cargo handling methods. For this purpose, a strategy has been developed with four components as described below. To implement this strategy, technical support is required to complement the efforts of the Ministry and to provide the institutional knowledge to sustain the efforts to improve and modernize the activities of the port sector

This scope for this technical assistance covers tasks that would be undertaken over a one-year period. Given the urgency of the situation, the first task would be given priority in order to complete the initial tender process within six months from agreement to proceed.

I: Agreement for Terminal Operation – Port of Oktyabrsk

Objective: to develop a process for transparent, competitive and timely implementation of private sector cargo terminal operations utilizing performance-based agreements.

The introduction of new laws regarding ports and private sector involvement in port operations has created both opportunities and confusion. Additional regulations and amendments are likely to be introduced in the future, but there is need to introduce additional port capacity now. Therefore, it is important to develop a transparent and efficient procedure for designing and tendering performance-based agreements for cargo-handling facilities and services that can be implemented within the current legal structure. This is necessary not only to improve port services but also to attract a broader pool of potential operators/investors, facilitate the diversification and expansion of the country’s foreign trade and, over the long term, increase FDI in port infrastructure.

In order to develop these procedures, it will be essential to identify potential terminals that have minimum facilities (thereby avoiding legacy issues) and have already attracted interest from potential investors. These terminals would be designed for exports of bulk and neo-bulk¹ cargoes since this is the dominant form of cargo terminals. For this purpose, the port of Oktyabrsk was selected based on the following advantages:

- The port is under-utilized and handles less than 2 per cent of total national port traffic.
- It is operated by a single public stevedoring company.
- There are no apparent legacy issues.
- Any advantages the port currently offers to shippers can be found at other ports in the region.
- It has the potential to be divided into three or more terminals designed for specific types of cargo, e.g. neo-bulk, dry bulk and liquid bulk.
- The port infrastructure is in good condition and there is substantial backup area available.

For this task, the consultants will undertake the following with regards to the Port of Oktyabrsk:

1. Confirm the opportunities already identified.
2. Develop a conceptual Master Plan for cargo-handling terminals as well as for the additional land located away from the berths and for the road and rail network within and connecting to the port
3. Develop a conceptual design for three or more terminals identifying both the layout and potential uses.

¹ Neo-bulk is used to refer to general cargo shipped as homogenous or project cargo

4. Provide a technical review of the suitability of the existing facilities (marine infrastructure, land infrastructure, services and utilities) for their identified market role.
5. Identify any significant environmental problems that might prevent the operation of the terminals
6. Prepare a marketing study to identify demand for these terminals and potential bidders for operating these terminals
7. Collaborate with the Ministry of Infrastructure (MUI) in develop a procedure for organising the tendering process for the terminal concession(s), taking into account both international best practices and local procurement procedures.
8. Evaluate the current legislation on concessions and propose changes, if necessary.
9. Prepare the documents for this tender including a *pro-forma* operating agreement that reflects best practices but is appropriate for the type of terminal and the performance expectations required by both domestic and international investors.
10. Coordinate with the Ministry in implementing these procedures for an initial terminal operating agreement up to the point of commercial closure.

The consultants will provide the services of local legal counsel to review the legal requirements and opportunities for implementing an operating agreement and to assist in the preparation of the tendering document and any assistance required to achieve financial closure subject to an agreed budget.

II: Terminal Performance

Objective: to increase the contribution of port terminals to the growth of Ukraine's trade through replacement of underperforming terminal operators and incentivizing capital investment in existing terminals.

Once the tendering process has been established and validated, it needs to be applied in other ports, but this time for existing terminals. This requires an initial assessment of the viability and availability of the terminals in these ports. The assessment would include:

- a physical inventory and assessment of condition of the assets
- an assessment of the quality of service provided and efficiency of operations
- a review of terms of the lease agreements and related contracts, and
- an evaluation of the potential of individual terminals for significantly increasing throughput or handling other cargoes.

This information would be used to develop a prioritized list of facilities that could be converted to other uses based on their date of availability. The Ministry would assume responsibility for collection of the necessary background information as shown in the Annex. For this task, the consultants will, for each port:

- Review the data collected on traffic, physical assets and their condition, easements, and layouts collected by the Ministry
- Review the data provided by the Ministry on the agreements governing the control and operation of the terminals including dates of termination and conditions for early termination and rollover.
- Conduct physical inspections of the terminals
- Identify terminals that are under-utilized and suggest possible alternative uses.
- Identify terminals that are inefficient and suggest initiatives for increasing productivity including investments in new assets, modification in layout, changes in operation.
- Identify terminals that do not provide the quality of service needed to increase trade competitiveness and suggest changes in terminal management and operations as well as investments in new assets, and modifications in layout.

- Define any technical (engineering) barriers that would constrain the development of effective terminal performance.
- Prioritize efforts according to the potential timing of the transactions and based on their potential contribution to the economy through efficiency gains and improvements in trade competitiveness.

For the selected terminals, the transfer of control from the existing terminal operators to new operators can be accomplished in a variety of ways including:

- Agreements transferring portions of the area and services controlled by a public stevedoring company to private terminal operators.
- Change in ownership of private stevedoring companies.
- Agreements for transferring terminals to new operators at the time of termination of the leases with their current operators

III: Port Modernization & Connectivity

Objective: to improve performance by consolidating demarcated areas and restructuring the berths.

In many of the Ukraine ports, the current configuration of the areas controlled by individual stevedoring companies results in small terminals with difficult access that limit both berth productivity and terminal throughput. As a result, terminal operators are unable to achieve economies of scale or provide the quality of service necessary to improve the competitiveness of their clients, especially larger shippers. For example:

- Many of the ports are designed around piers with alongside depths of 11 meters or less and backup area of 2 to 3 hectares per berth, whereas modern terminals tend to be built with straight quays, which have a draft of 12 to 15 meters and much larger backup areas located directly behind the berth. In some cases, the conversion to new more suitable configurations can be accomplished by filling the area in between the piers and extending the quay wall into deep water.
- In other cases, there is a straight quay wall, but it has been divided into relatively short berths with the backup area configured in such a manner that it prevents the smooth flow of cargo between the vessel and land transport. In this situation, the boundaries need to be adjusted.
- In still other cases, an under-utilized terminal may be adjacent to a congested terminal, in which case an adjustment in boundaries should be arranged.

Related to these issues is the problem of hinterland connectivity. Most bulk and neo-bulk materials move by rail, although there is a substantial amount of grain that moves by road. Insufficient capacity in the road and rail infrastructure that connects the port to its hinterland reduce throughput and limits the benefits from expansion of port facilities or modernization of terminals.

Similar bottlenecks result from inefficient land transport services. Large bulk operations require block trains with private wagons and reliable schedules (requiring relatively little pre-notification). In the case of road transport, they require large fleets of well maintained equipment provided through long-term contracts. The problems of bottlenecks in rail infrastructure and services are multiplied in the case of on-dock rail operations which are meant to minimize the turnaround time of vessels and wagons and reduce the required port storage.

For these tasks and for each of Ukraine's ports, the consultants will:

- Review the configuration of the port terminals in each port.
- Identify opportunities for improvements in terminal configuration.

- Develop conceptual designs for these improvements.
- Review the layout and utilization of the road, rail and service networks within each port.
- Provide recommendations for realignment of these networks.
- Review the capacity and utilization of the principal road and rail corridors linking the ports to their hinterland.
- Where there are bottlenecks provide recommendations for increasing the road and rail corridor capacity and improving the land transport services for the ports

IV: Institutional Sustainability

Objective: to strengthen the capacity of port administrators for monitoring the performance of cargo-handling operations, enforcing the contracts with stevedoring companies/terminal operators, developing port facilities/investments and attracting new terminal operators.

A modern port requires strong leadership since it must interact with a wide range of stakeholders while overseeing a large variety of services. The port's objective, unlike that of individual terminal operators, is to improve the overall performance of the port and its contribution to the regional and national economy rather than focusing on profits or cash flow.

A national port management has limited effectiveness beyond planning, because the activities of ports are very much local in terms of their orientation and client base. At the same time, the role of the port administrator is largely administrative and passive. In a few cases, a more pro-active administrator has emerged and improved the level of interactions with not only terminal operators but also potential investors and local government.

In the medium term, Ukraine will need to develop a set of autonomous ports that can compete through development of efficient terminals. To assist in this process, the consultants will, for each port:

- Examine the current organization of the port management.
- Identify the current stakeholders
- Collaborate with the Ministry in preparing a plan for introducing autonomous port authorities
- Discuss with the port administrator their perceptions as to their current and potential role.
- Develop a detailed plan for recruiting and educating personnel to undertake a broader and more pro-active role in port management.
- Develop a prioritized program to apply these principles to each of the major ports².

B: CONSULTANT TEAM

I: Team Composition

The consultant team chosen to undertake this assignment must include experts in:

- Bulk and neo-bulk terminal operations.
- Marine and civil engineering.
- Design of port facilities.
- Bulk cargo logistics/economics.
- Hands-on experience with private terminal operating agreements, concessions and business plans.
- Legal issues related to international terminal agreements and applicability under Ukrainian law.
- Port management structure and allocation of responsibilities

² Excluding ports in Crimea and eastern Ukraine.

C: COSTINGS

The overall costings for this identified body of work are detailed in the following table. All figures mentioned are net amounts to be received by the Consultant, in other words, these amounts do not include any Ukrainian taxes.

COST INDICATIONS

	€
I: Terminal Concessions - Oktyabrsk	
Confirm the opportunities already identified and by means of a 'conceptual' Master Plan	7500
Cargo handling and accessibility Master Plan	14000
Develop a conceptual design for three or more terminals	20000
Identify any significant environmental problems	22000
Prepare a marketing study to identify demand for these terminals	14500
Collaborate with the MUI for organising the tendering process	20000
Provide an overview technical review of the existing facilities	35000
Develop the procedure for organising the tendering process for the terminal concession	15000
Prepare concession documents including a <i>pro-forma</i> concession agreement	75000
Coordinate with the Ministry in implementing these procedures	20000
Total (professional fees only - excluding travel costs; see underneath table)	243000
II: Terminal Performance	
Review the agreements under which the existing port terminals are operated	30000
Identify terminals that are under-utilised and suggest possible alternative uses	15000
Identify terminals that are inefficient and suggest initiatives for increasing productivity	15000
Identify poor quality terminals and suggest changes in terminal management	15000
Define any technical (engineering) barriers that will constrain development	60000
Prioritise efforts according to their potential contribution to the economy	15000
Total (indicative - professional fees only)	150000
III: Port Modernisation & Connectivity	
Review the configuration of the port terminals in each port	25000
Identify opportunities for improvements in terminal configuration	10000
Develop conceptual designs for these improvements	45000
Review the layout and utilisation of the road and rail networks within each port	30000
Provide recommendations for realignment of these road, rail and service networks	35000
Review the capacity and utilisation of the principal road/rail corridors	20000
Review IWT opportunities	22000
Recommendations for increasing the road and rail corridor capacity	20000
Total (indicative - professional fees only)	207000
IV: Institutional Sustainability	
Examine the current organisation of the port management	18000
Discuss port administrators' perceptions	10000
Develop a detailed plan for strengthening port administration	30000
Develop a prioritised programme to apply these principles to each of the major ports	24000
Total (indicative - professional fees only)	82000
TOTAL	682000

Travel budget for I:	35000
Travel budget for II, III and IV (indicative)	40000

Annex: Information to be Collected by Ministry from the Public Cargo Ports

Data Requirements

Port

Layout showing

- ⇒ location of current terminals and other large areas under lease
- ⇒ lessee
- ⇒ Track layout on each leased facility
- ⇒ Lease terms for each location - expected termination, rollover provisions and conditions for early termination
- ⇒ Major structures erected on each location
- ⇒ Depth of water alongside berths and in channel
- ⇒ History of dredging activity for both
- ⇒ Report on condition of quay wall for each berth

Data on Cargo handling terminals

- ⇒ Area of terminal total and surfaced area
- ⇒ Condition of surfaced area
- ⇒ Number of berths
- ⇒ Number of fixed cargo handling equipment on terminal by type
- ⇒ Capacity of closed storage

Current level of utilization

- ⇒ Volume of cargo by commodities over last three years
- ⇒ Annual hours of operation by cargo handling equipment
- ⇒ Annual berth throughput last three years by commodity group
- ⇒ Annual storage throughput in tons per commodity
- ⇒ annual turns for current storage (throughput divided by capacity)

Estimated berth capacity by type of cargo

- ⇒ average size of vessels served by vessel type
- ⇒ average cargo transferred per vessel call by vessel type
- ⇒ average vessels turnaround time by vessel type
- ⇒ average vessel berth waiting time last three years
- ⇒ annual berth occupancy last three years

Rail connections

- ⇒ Location of nearest rail yard
- ⇒ Capacity of track connecting port to yard
- ⇒ Annual number of wagons moved between port and rail yard over last three years
- ⇒ Responsibility for shunting wagons to/from port, within port
- ⇒ Size and availability of locomotives used
- ⇒ Maximum capacity for unloading/loading wagons
- ⇒ Average wagon movements per day over last three years
- ⇒ Location and dimension of rail sidings for loading/unloading cargo

Road connections for each terminal

- ⇒ Capacity of road connection to port
- ⇒ Annual level of truck traffic over last three years
- ⇒ Problems with congestion at entrance to port and for individual terminals
- ⇒ Location and size of truck parking areas

Backup area

- ⇒ Areas performed in leased areas not used for cargo handling operations

Terminal operators

- ⇒ Areas controlled by public stevedoring company
- ⇒ Areas used by public stevedoring company for own operations
- ⇒ Areas leased by private stevedoring companies and the area they lease

Glossary

- ⇒ data to be collected by MIU

Vessel Type

Bulkers
Tankers
General Cargo
RoRo

Commodity

Petroleum oil and gas
Iron ores & Coal
Gravel, Crushed stone, Clay
Maize (corn), Wheat Barley
products of iron or steel
Seed oil - safflower, sunflower/cotton
Wood timber
Other dry bulk
Other liquid bulk
Other general cargo

Fixed berth equipment

Fixed cranes
Cranes on rails
Shiploaders with conveyors
Pipes