DATA COLLECTION SURVEY
ON
INTEGRATED PHYSICAL DISTRIBUTION SYSTEM
IN
TURKMENISTAN

FINAL REPORT

MARCH 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

ORIENTAL CONSULTANTS CO., LTD.

THE OVERSEAS COASTAL AREA DEVELOPMENT INSTITUTE OF JAPAN

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Exchange Rate

1 US Dollar = 2.834 Manat = 90 yen

(As of December 2009)

PREFACE

The Japan International Cooperation Agency (JICA) decided to conduct a Survey on Data Collection Survey on Integrated Physical Distribution System in Turkmenistan to the State Turkmen Maritime and River Lines (TMRL) and Ministry of Transport, Government of Turkmenistan for collection of the basic information and confirmation, which may be required for extending the assistance from the Government of Japan in future.

The survey had been carried out based on the contract agreement between JICA and Consultants of the Oriental Consultants (OC) in association with the Overseas Coastal Area Development Institute of Japan (OCDI) from November 2009 to March 2010.

The survey team which was headed by Mr. Atsushi SATO of the Oriental Consultants (OC) had carried out the field survey at Ashgabat, Turkmennbashi and its surrounding areas and held number of meetings with MTRL, officials of agencies and Ministries concerned of the Government of Turkmenistan. Upon returning to Japan, the team has conducted further studies and prepared this final report.

This final report contains the measures of improving trade facilitation, plans of procurement of equipment for Turkmenbashi Marine College and development of port facilities related with the Improvement of Turkmenbashi Port together with data and information required for extending assistances to Turkmenistan in future.

We hope that this report will contribute to JICA, which proceed with sincere arrangement to the cooperation for TMRL and other agencies concerned in Government of Turkmenistan.

Finally, We wish to express our sincere appreciation to JICA, Embassy of Japan in Turkmenistan and TMRL, officials concerned of the Government of Turkmenistan for the close cooperation and assistance extended to the survey team. Taking this opportunity, we shall pray for deepening the friendship with Japan and Turkmenistan more.

March 25th, 2010

Oriental Consultants
Data Collection Survey on Integrated Physical Distribution System in Turkmenistan
Team Leader Atsushi SATO

(Abbreviations)

A	ADB		Asian Development Bank
	AIS	:	Automatic Identification System
B	BOD	:	Biochemical Oxygen Demand
	B/C		Benefit and Cost Ratio
	BSL		Baltic Sea Level
C	CAREC		Central Asia Regional Economic Cooperation Programme
	CAS, WB		Country Assistance Strategy, World Bank
	CEP		Caspian Environment Program
	CIF		Cost, Insurance and Freight
	CIS	:	Common Independent State
	CIQ		Customs Immigration Quarantine
	CSP, ADB		Country Strategy and Program, Asian Development Bank
D	DWT		Dead Weight Ton
E	EA	:	Executing Agency
	EBRD	:	European Bank Reconstruction and Development
	ECO	:	Economic Corporation Organization
	EDI	:	Electric Data Interchange
	EEZ		Exclusive Economic Zone
	EIA	:	Environmental Impact Assessment
	EIRR	:	Economic Internal Rate of Return
	EU	:	European Union
	EUR	:	Euro (currency of EU)
F	FDI	:	Foreign Direct Investment
	FIRR	:	Financial Internal Rate of Return
	FOB	:	Free On Board
	FSU		Former Soviet Union
	FTA	:	Free Trade Agreement
G	GDP	:	Gross Domestic Product
	GOT	:	Government of Turkmenistan
	GMDSS		Global Maritime Distress Safety System
H	HS	:	Harmonized Commodity Description and Coding System Conventions
I	IAPH		International Association of Ports and Harbors
	IC/R	:	Inception Report
	IEA		International Energy Agency
	IMO	:	International Maritime Organization
	INCOTERM	:	International Rules for the interpretation of Trade Terms
	ISPS	:	International Ship and Port Facility Security

	IT	:	Information Technology
J	JICA	:	Japan International Cooperation Agency
K	KOICA	:	Korean International Cooperation Agency
L	LOA	:	Length OverAll
	LOS	:	liquidate Oil Spill
	L/C	:	Letter of Credit
	LPG	:	Liquefied Petro Gas
M	MARPOL		International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
	MCA		Multi Criteria Analysis
	ME	:	Ministry of Environment
	(or MoE)		
	MLTM		Ministry of Land, Transport and Maritime Affairs (Korea)
	(T)MNT	:	Turkmenistan MANAT (Turkmenistan currency)
	MOFA	:	Ministry of Foreign Affairs
	MOH	:	Ministry of Health
	MORD	:	Ministry of Regional Development
	MOT	:	Ministry of Transport, Republic of Turkmenistan
N	NATO	:	North Atlantic Treaty Organization
	NGO	:	Non-Government Organization
	NM	:	Nautical Mile(s) 1 NM = 1.852 km
	NPV		Net Present Value
	NSI	:	National Statistical Institute
O	O/D	:	Origin and Destination
	ODA	:	Official Development Assistance
P	PCI		Per Capita Income
	PFI		Private Finance Initiative
	PIANC		Permanent International Association of Navigation Congress
	POT	:	Port of Turkmenbashi
	PPP		Public Private Partnership
	PSA		Production Sharing Agreement
	PRC		People's Republic of China
Q	QGC	:	Quay Gantry Crane
R	Ro-PAX		Roll on/Roll off Passenger
	RORO		Roll On Roll Off ship
S	SAPROF	:	Special Assistance for Project Formation
	SCF		Standard Conversion Factor
	SCM		Supply Chain Management
	SCRME	:	State Commodity and Raw Material Exchange
	SOLAS	:	International Convention for the Safety of Life at Sea

	STCW		Standards of Training, Certification and Watch keeping for Seafarers, 1978 (STCW-1978)
T	TA	:	Technical Assistants
	TACIS		Technical Assistance for the CIS (EU)
	TEU	:	Twenty feet Equivalent Unit
	TDS	:	State Standard Services (Trukmenstandardlary)
	TISP		Turkmenbashi International Sea Port
	TMC	:	Turkmen Marine College
	TMRL	:	Turkmen Marine & River Lines
	TOR	:	Terms of Reference
	TRACECA	:	Transport Corridor Europe-Caucasus -Asia
	TTF	:	Trade and Transport Facilitation
U	UAE	:	United Arab Emirates
	UCP	:	Uniform Customs and Practice for Documentary Credit
	UN		United Nations
	UNCLS		United Nations Convention on the Law of the Sea
	UNDP	:	United Nation Development Program
	UNECE	:	United Nations Economic Commission for Europe
	USSR		Union of Soviet Socialist Republics
	USTDA	:	United States Trade and Development Agency
V	VAT	:	Value Added Tax
	WB	:	World Bank
W	WHO	:	World Health Organization
	WTO	:	World Trade Organization

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SUMMARY

1. Investigation on Transport Sector and Customs System

1.1 Transportation and Custom System

1.1.1 Policies, Laws and Regulations related to Transportation and Customs

Government of Turkmenistan approved "National Program of Strategies for Economic, Political and Cultural Development for the Period through 2020" in 2003 and decided the national transport policies based on this strategic national program.

The legal system of customs in Turkmenistan is comprised of "Customs Code of Turkmenistan", which describes the basic concept of customs, and "Civil Code of Turkmenistan", which constitutes the basis of civil legislation in Turkmenistan and governs, in particular, the legal relations arising from the contracts of carriage. Specifications of custom procedures and their precise contents are prescribed in the decrees and regulations such as Presidential Decree No. 9925 which shows "Custom Tariff Schedules of Turkmenistan".

1.1.2 Present activities under international frameworks on Caspian Sea issues

The only existing international convention ratified by all five Caspian littoral nations is the framework on environmental issues. "The Framework Convention for the Protection of the Marine Environment of the Caspian Sea" is a legally binding framework agreed among all littoral states, which entered into force on the 12th August 2006.

1.1.3 Legal Status of the Caspian Sea

Russia, Azerbaijan and Kazakhstan signed four treaties in 1998-2003 settling delimitation of the seabed and subsoil. Since 2007, the improvement in relations between Turkmenistan and Azerbaijan has led to renewed bilateral discussions on Caspian border issues. The remaining major border issues are those between Iran and its neighbors.

Although Turkmenistan, as well as Kazakhstan and Azerbaijan has not ratified the United Nations Convention on the Law of the Sea (UNCLS), Turkmenistan has accepted the basic concept of the convention and has established domestic law of the sea in which major provisions of UNCLS are reflected. Turkmenistan doesn't levy any customs duties on transit cargoes complying with article 127 of UNCLS. The Turkmen Government declared that any transship cargo is allowed to enter its territory unless that cargo would be illegal or would violate its neutrality policy.

As an impetus for reaching a multilateral agreement, bilateral negotiations on maritime transport should also be activated. Turkmenistan has concluded bilateral agreements on rail ferry transport with Russia and Azerbaijan but there is no bilateral agreement with Iran.

1.1.4 Analysis of Present situation of networks and strategic function of Turkmenbashi Port, Railway and Road

(1) Port and Maritime Sector

Turkmenbashi Port, which is located on the eastern coast of Caspian Sea, is the largest port in Turkmenistan. Turkmenbashi Spit shelters the port from rough waves of open sea and this preferable natural condition has made the port a gateway of the country. Turkmenbashi Bay is very shallow and the port is connected to the open sea by a navigation channel of approximately 20 km through the spit. The port is linked with the railways network irrigating the landlocked countries of Central Asia. This explains the important role this port plays in the transport chain between Central Asia and Caucasian countries. Thus, the Port of Turkmenbashi serves both regional and international sea-borne trade.

Turkmenbashi Port is owned, managed and operated by the State Turkmen Maritime and River Lines (TMRL). TMRL is a state-owned enterprise with financial autonomy. TMRL is independent from ministries, and it is under the supervision of the Cabinet of Ministers. TMRL manages all major ports in Turkmenistan and it is the sole shipping company in the country.

Although the design depth is 7 m and the width is 140m, due to accumulation for about 20 years without major dredging the current available depth is much shallower. The maximum depth just inside and outside the cut through section is 5.5m where available width is around 100m.

The records of channel closure for oil tanker in 2009 indicate that the ratio of channel closure is extremely high. The channel was closed every three days, and the average duration of the closure was 10.1 hours. The cause of channel closure is wind. The duration of channel closure for ferries is a little longer due to their larger windage.

(2) Railway Sector

GOST (design standards) used in the CIS (Commonwealth of Independent States) and Russia is applied to design of railway facilities such as tracks, stations and bridges in Turkmenistan. Broad gauge 1,520mm in width is used for railway tracks in the former Soviet Union including Mongolia and the gauge is used in Turkmenistan as well, but standard gauge 1,435mm in width is used in Iran which is a neighboring country to Turkmenistan. The difference of gauge between Turkmenistan and Iran is a serious hindrance in passing trains at the border between two countries.

(3) Road Sector

Turkmenistan road network has two linchpins which connects a basic point from east to west direction and toward north from Ashgabat. One of the road passing major cities (Turkmenbashi-Ashgabat-Mary-Turkmenabat) to the east and west is placed with a main highway of Turkmenistan, and carries the part as the east and west corridor of the Central Asia. In addition,

the highway from Ashgabat to Dashogus connecting north and south performed completion in 2009.

1.1.5 Progress of national projects related to Turkmenbashi Port, Railway and Road development by own finance or international cooperation, and anticipated cargo flow upon the completion of on-going national projects

(1) Projects in the Port sector

The Government of Korea financed a feasibility study on the modernization project of Turkmenbashi Port in 2009 (MLTM 2009). Based on the result of the FS, the Government of Korean expressed their readiness to extend an ODA loan for port development, but the GOT does not intend to request financial assistance for proposed port projects to the Government of Korea.

In 2007 the European Union carried out a feasibility study on the improvement of the navigation channel in Turkmenbashi Port as a part of the TRACECA project (TACIS 2007). Basically, EBRD has a positive intention to finance development projects in Turkmenbashi Port, though EBRD has no plan to cooperate in the implementation of the channel improvement project only.

(2) Projects in Railway Sector

The project which has been completed last year and ongoing project are as follows;

1) Atamurat (Kerki) — Kerkichi Bridge across Amu Darya River
2) North-South Corridor (Uzen – Kyzylkaya – Bereket – Etrek - Gorgan)

The total length from Uzen in Kazakhstan to Gorgan in Iran is approximately 930 km and north of Bereket 250 km in length has been constructed as of January, 2010. It is expected that the railway line would be ready for service by December, 2011. It is expected that the initial load capacity of the line would be 5 million tons of cargo annually and expanded up to 12 million tons by 2012. In addition to cargo, the railway link is expected to handle passengers.

(3) Projects in Road sector

As the national projects the Turkmen Highways State Concern plans to update and construct main highways forming the road networks of the nation by 2020. The development plans has started construction in 2005. This program entails “Widening road to 6 traffic lanes” and “Reinforcement of pavement” for development of road network and road service which can support heavy trucks of the international standard and increased traffic density in the future. “Turkmen Highway State Concern” operates and manages the design and construction of facilities, and maintain as-built facilities with their own funds.

Approximately 1,000km which has been newly constructed and widening of Ashgabat-Dashogus was completed. The target of construction is 500kmper year. Finally a highway network which is uniform and robust is planned to be spread throughout the country.

1.2 Identification of Issues to Improve Function of Present Integrated Physical Distribution System

1.2.1 Analysis of Investment Policies and Environment for Port, Railway and Road Sectors

(1) Analysis of Overall Investment Policy and Environment in Turkmenistan

As for the promotion and support policy for the privatization of state-owned company and the private entrepreneur, which is important together with the good treatment system for foreign investment, the share of private sector in GDP is occupied 40% at present, and the government targets to increase it to 70% by 2020.The development of legal system to accelerate the privatization is required in order to achieve 70% of GDP by private sector until 220.

The investment policy for Turkmenbsahi Port, the railway sector and road sector is studied in relation to the national program of strategies and developments, but the practical use of private sector for the infrastructure development is not concretely specified in the law. It'll be required in near future to verify the appropriateness of the investment policies and environment for each infrastructure in the middle term national program until 2020 and explore the ideal methodology for the infrastructure development by the public and private partnership.

(2) Analysis of Investment Policy and Environment of Turkmenbashi Port

According to the Article 66 of the Maritime Code of Turkmenistan, international commercial seaports shall be owned and operated by the government enterprise, therefore all infrastructure in commercial ports including Turkmenbashi Port should be basically constructed by the State owned Turkmen Maritime River Lines (TMRL) which is the sole government enterprise in the port sector.

Thus, limited range of private investment in commercial seaports is permitted and already exists, however large scale infrastructure investment in commercial seaports by private sector is less likely to occur considering relatively small amount of cargo throughput. The main investor in commercial seaport will continue to be TMRL. And some investments by other related state agencies such as Refinery and the Ministry of Railways can be expected.

In Kiyanli Port which is under developing as a large scale port for offshore gas exploration and shipment, a supply base is being developed based on BOT agreement between the Government of Turkmenistan and Petronas, and an Iranian company is constructing an LPG loading facility. Such kind of specialized ports will be a prospective field of foreign investment.

(3) Analysis of Investment Policy and Environment for Railway Sector

There is no problem to start railway business by private funds according to laws in Turkmenistan. However, considering that demand in Turkmenistan is not so high, existing railway network of Turkmenistan already covers the almost whole of Turkmenistan and it is not practical to start another railway business by private funds.

1.2.2 Identification of Issue to Improve Strategic Function and Networks of Present Physical Distribution System by Turkmenbashi port, Railway and Road Sectors

(1) Turkmenbashi Port

1) Improvement of the access channel, 2) Strengthen Ro-Ro track links by increasing the capacity of the port, 3) To Strengthen the port function for passengers transport by development of RO-PAX ferry, 4) Enhancement of environmental sustainability and safety of shipping by upgrading quality of seafarers, 5) Improvement of cargo handling efficiency, 6) Improvement of efficiency of the existing rail ferry link, 7) Reinforcement of facilities for container handling.

(2) Railway Sector

1) Procurement of additional rolling stocks due to presently lack of rolling stocks
2) Rehabilitation of the bridge across Amu Darya river between Turkmenabat and Farap as constructed in 1901, which becomes too old for use and is required for rehabilitation.
3) Improvement of bogie exchange facilities at Serakhs to minimize the loss time which is causing a bottleneck for transport between Turkmenistan and Iran.
4) Development of maintenance equipment in the repair workshop of diesel engine locomotive
5) Construction of a new line Atamuarat to the line between Mazar-e sharif and Herat in Afghanistan

(3) Road Sector

1) Enhancement of system of road maintenance management -
2) System to identify whether damaged roads should be executed as repair works/rehabilitation or construction works as fresh project
3) Setting maintenance repair standards
4) Fiscal resources of the running cot of the road maintenance when the traffic increases.

1.2.3 Potential International Cooperation Projects

(1) Trade Facilitation Aspect

- Privatization of state-owned company in the infrastructure sector
- Supporting system of private entrepreneur
- Policy Framework to introduce the foreign direct investment
- Diversification of industrial structure
- Simplification of customs procedure and computerization
- Improvement of international legal framework with CIS countries of physical distribution
- Improvement of information technology system
- Transparency of Social, Economic and financial indicators

(2) Port and Maritime Sector

- Improvement of access channel in Turkmenbashi Port
- Repair and improvement of navigation aid in Turkmenbashi Port
- Construction of Ro-PAX ferry terminal in Turkmenbashi Port
- Construction of Container terminal in Turkmenbashi Port
- Expansion of general cargo berth for polypropylene loading in Turkmenbashi Port
- Construction of shipyard
- Procurement of equipment for seafarers training
- Procurement of equipment to respond oil spill, such as a skimmer boat
- Procurement of equipment for heavy cargo handling in Turkmenbashi Port
- Procurement of equipment for container handling at rail ferry terminal
- Improvement of seafarers training
- Maintenance dredging plan including operation of dredger
- Environmental management
- Ship inspection

(3) Railway Sector

- The development study for construction of new line from Atamurat to Sarakhs through Tagtabazar and for construction of new Atamurat to Afghanistan in order to meet the future traffic demands of traffic between Turkmenistan and Afghanistan
- Technical transfer for capacity building of new engineers to cope with the issue of un-sufficient special engineers and aging of engineers

2. Analysis of Basic Data of Turkmenbashi Port and Review of Port Development Projects

2.1 Outline of Port Development Plans

2.1.1 "Study of Port Modernization by KOICA"

The study was carried out by KOICA as T/A of the Government of Korea. The final report was submitted to TMRL in July 2009. The survey team was informed that the Government of Korea expressed willingness to provide financial assistance for the port development, but TMRL has not applied any requests to the Government of Korea since the final report was submitted.

The basic policies of the port development proposed by the KOICA Study are as follows;

Creation of international logistics hub,
Creation of high efficiency port,
Construction of multifunctional port,
Improvement of the quality of waterfront and
Promotion of ship building industry.

In this Study cargo volume were taken from the growth of the railway cargo volume in neighboring countries which would be diverted to Caspian shipping cargo through Turkmenbashi Port. Taking the tourism development project (Awaza) into account, passenger traffic was forecasted.

Based on the above traffic demands, the infrastructure development plan by three stages is prepared and whole project is completed by 2019. The study report concluded that the results of the economic and financial feasibility of the whole port project (except shipyard construction) are questionable. When only two berths of the general cargo terminal are constructed, it is not feasible without a very preferential financial scheme.

2.1.2 "TRACECA Channel Study"

The study was carried out as a part of the TRACECA programme which was initiated by the European Commission aiming at improvement of the transport corridor. The purpose of the project was to ensure safe and reliable access to Turkmenbashi Port according to international standards for all ships operating on the Caspian Sea, and to protect the environment.

This study proposed that the present alignment of the North Channel shall be maintained. Based on the characteristics of the design vessels determined in the traffic forecast, and on the prevailing conditions on the site, the required cross section for the channel was determined in accordance with international standards. The channel was designed with the following widths:

· Outer section: 170m, Cut through the spit: 220m, Inner section: 140m

The total dredging volume was estimated to be 10.2 million cum. The study assessed the new disposal site for dredged material, which is located to the south of the entrance through the spit because it is down drift of the natural long shore process and thus there is a lower risk of dumped material finding its way back into the channel. The study estimated that the annual volume of sedimentation in the channel would be nearly 1 million cubic meters. The study estimated capital dredging costs at 50.9 mil Euro.

EIRR was worked out to be 22%. Under the most pessimistic scenario, which is cost plus 50% and benefits minus 50%, the EIRR was still 12%. Financial analysis was not carried out.

2.1.3 Revised Port Development Plan by TMRL

TMRL has reviewed port and channel plans proposed by the Study of KOICA and the TRACECA Channel Study. The revised plan has already been approved by the Cabinet of Ministers. By the completion of the development plan, TMRL estimates that annual throughput of the port will increase up to 15 million tons.

2.2 Review of Proposed Development Plan of Cargo and Ro-PAX Terminals

2.2.1 Basic Policy on Port Development

The development concepts should clearly deliver the nation's intention toward port development, and the national strategy on socio-economic development should be fully reflected in them considering that Turkmenbashi Port is overwhelmingly the most important port in Turkmenistan.

Considering the national strategy of Turkmenistan and current regional socio-economy and the need for port development to improve people's life and industrial competitiveness, the survey team would propose the following four targets.

1) Gateway to Central Asia, 2) Port of Fraternity, 3) Port for Industrial Diversification, 4) Port of Safety and Environmental Sustainability

2.2.2 Forecast of cargo throughput and passenger traffic volume

The cargo forecast of 2020 at each terminal is estimated by the survey team as follows;

PKK3; Unloading crudes oil up to 1,687,000 ton, and oil products at 5,299,000 tons, PKK2; 4,254,000 tons, PKK1 and new berth; 2,231,000 tons of cargo and 270,000 passengers traffic.

2.2.3 Requirement of Port facilities for 2020

Two (2) new berths for Ro-Pax ferry and six (6) additional berths for general cargo are required

2.2.4 Ship yards Development

The JICA survey team assesses the plan of shipyard construction affirmatively, since number of shipyard in the Caspian Sea is insufficient. Turkmenistan, in particular, does not have any shipyard. Therefore the shipyard in Turkmenbashi can contribute to the promotion of Caspian maritime transport, development of regional economic activities, function of smooth cargo flow through east-west corridor, improvement of maritime safety and prevention of environmental disasters.

2.3 Review of Channel Improvement Plan

2.3.1 Demand Forecast for Use of the Channel

Based on the cargo traffic forecast, the numbers of ship calls are estimated at 6,330 in 2020

2.3.2 Dimensions of Design Vessels

The design vessel should be 8,000 DWT tanker and the rail ferry vessels of 3,950 DWT due to longer LOA and breadth than those of 8,000 DWT tankers.

2.3.3 Channel Design

(1) Channel Alignments

Considering dredging cost, sailing time through the channel, environmental impact, navigational issues, and ease of implementation, as a result of assessment by the survey team, the presently used north channel is considered preferable alignment.

(2) Channel Width

The channel is designed to provide the expected downtime of 5 days a year for a two way traffic channel under "bad weather" conditions. As a result of assessment by the survey team, the channel widths are considered 160 m to 240m reasonable.

(3) Channel Depth; 6.7 m to 8.2 m

(4) Dredging volume; The capital dredging volume is estimated 5.5 mil cubic meters

2.3.4 Maintenance dredging plan

As a result of assessment by the survey team, the annual maintenance dredging volume will be less than one third of the volume estimated by TRACECA Channel Study. It is estimated around 300,000 cubic meters a year.

2.4 Examination of Requests for Training Equipment Supply for Seamen at TMC

TMRL set policies to educate well trained seafarers at own training institute who have been fully complied with requirements of STCW. TMRL determines to improve the quality of education and to up grade the level of training facilities of National Seafarers Education and Training by providing necessary training equipment required by STCW.

TMRL will develop the curriculum for capacity building of graduated students of the TMC to be qualified crews, engineers and seafarers enabling to issue authorized certification in accordance with STCW regulations so as to operate and manage the above listed ships, instead of sending to the Academies abroad to obtain qualified certification or of recruiting foreign crews from other institutes abroad.

The policies of upgrading education and training quality by procurement of necessary equipment is evaluated that the survey team considers it reasonable. As a result ships procured by TMRL in future will be able to operate and manage by Turkmenistan crews and engineers and captains.

The marine transport industry of Turkmenistan will be enhanced by such investment in education and transport services, promotion and development of maritime industries.

2.5 Urgent Port Development Projects

2.5.1 Necessity and Background of the Proposed Projects

Considering the current situation of the port and the compatibility to the basic concepts of port development, the survey team evaluated that the following components of the projects shall be implemented immediately.

Access Channel

The present situation of the channel is very bad and accidents have happened in the channel especially near the cut through section. And the frequent closure of the channel seriously lowers the productivity of the port. The channel would not be able to allow two-way traffic for large vessels and it would leave the productivity of the port below the international standards. Therefore the capacity of the existing channel is quite insufficient in the context of efficiency and safety. Frequent closure of the access channel makes the productivity of the port extremely low. If this situation is not improved, the port will not be able to serve as the Central Asian gateway, nor contribute to industrial diversification. The survey team evaluated that the project shall be implemented immediately.

Ro-PAX Ferry Terminal

At present large volume of cargo are transported by trucks through the East-West corridor by going around the Caspian Sea through north and south routes. The potential demands for Ro-Pax ferry is estimated more than 1.0 million tons. It is also expected that the Ro-PAX network plays an important role in the transportation of humanitarian goods to Afghanistan.

It is clear that Ro-PAX ferry network will greatly strengthen the gateway function of Turkmenbashi Port. In the interview survey to forwarding companies, it was revealed that a considerable amount of demand exists for the Ro-PAX ferry transport across the Caspian Sea.

For these reasons, the survey team evaluated that “the Access channel development and Ro-Pax ferry terminal development” shall be implemented immediately as urgent projects.

2.5.2 Executing Agency and Operation and Management of Facilities

Executing agency of the port development project shall be the State Turkmen Maritime and River Lines (TMRL). They will be also responsible of operation and management of the facilities as built.

2.6 Technical Cooperation and Assistance

The Japan International Cooperation Agency (JICA) has been operating in Turkmenistan since 1997. JICA provided support for policy and human recourses development to assist in the process of transition to a market economy on the following projects:

- Medical re-equipment programmed (1997, € 4 mln);
- Sport equipment for the Turkmen State Olympic Committee (2001, € 0.34 mln);
- Audiovisual equipment for the National Library of Turkmenistan (2004, € 0.14 mln).
- Japanese Bank for International Cooperation (JBIC) provided project loan for the Railway Transportation Modernization Project, which aimed to rehabilitate a diesel locomotive repair facility in the capital, Ashgabat (1997, € 33 mln).
- JBIC provided three loans for Turkmenistan Bank for Foreign Economic Affairs for the textile industry (a cotton processing plant project) and business related to natural gas projects (2005, € 344 mln).

2.7 Outline of Regulation and System Related to Environmental Impact Assessment

In Turkmenistan, Environmental Impact Assessment (EIA) is required for all types of projects including construction, reconstruction, extension, feasibility study, developing new technology, new legislations and policies. Necessity of EIA and the procedure is stipulated in the following legislation, regulation and guideline.

The Ministry of Nature Protection issues a report on their findings of the review of the EIA (approval) within one or three months. In the case of state/international projects such as Turkmenbashi port project, Environment Protection Department of the head office of the Ministry of Nature Protection has responsibility on the review and approval.

Referring to the JICA's guideline for environmental social considerations, the system on EIA of Turkmenistan seems to satisfy most of the requirements from the guideline including assessment on both natural and social environment, considering alternative options and obligation of encouraging public participation. In case of the assistance by Japanese government, it is necessary to confirm the timing of stake holder meetings which should be held in early stage, as well as the relevancy of the selected environmental elements to be assessed.

2.8 Analysis of Debt for Sustainability of Turkmenbashi Port Development Projects

The external debts balance exceeded GDP at the point in time in 1999, but it has been decreased steadily afterwards and became 5.7% of the GDP in 2007. The large amount of fund for infrastructure development are needed near future, it is anticipated that such investment will be provided with the borrowing from public fund, FDI, and the financial funds of the trade surplus of the country.

As a result, it is analyzed that the current economic development will be sustained and continued. The external debts by borrowing from the public funds for the port development projects did not foresee largely increase in the national external debts.

As a result of trail calculation of the limited amount of external debts of sustainability of national budget, in case the loan amount per year is below US$ 1,116 million, all debt indicators will not

reach any thresholds. Therefore, if the amount of loan is kept within US$ 1,116 million per year, the Government of Turkmenistan will be able to manage debt-sustainability in the national budget for future 20 years period.

The loan amount for proposed urgent required facilities development of Turkmenbashi port should be determined with reference of this result.

2.9 Effects on Cargo Flow by Implementing Port Development Project

2.9.1 Present Cargo Flow through Turkmenistan and Issues

(1) Present Cargo flow through Turkmenistan

1) Cargo from Afghanistan cargo through Turkmenistan

Out of the imported cargo from India/Pakistan through Afghanistan 90 % are delivered for exporting to Uzbekistan and Kazakhstan by railway and 10% are transported by trucks to Kazakhstan and Turkmenistan for domestic consumption.

2) Cargo from EU, Russia and Ukraine

Steel bars, Cement, filler material, steel pipe, woods, general construction material and equipment, dry cargo are imported from Russia, Ukraine, EU, and Iran by Railway ferry cargo ships and Ro-Ro ferry through Turkmenbashi Port.

(2) Future Prospects of Cargo Flow

1) From Port users

Ro-Ro ferry company of Astrakhan of Russia considered it necessary to increase number of trips per month and operate regularly ferry transport service to meet the demands near future.

The trucks company received strong demands of supply goods from both sides of west and east. Pakistan and India including Afghanistan want steel and its products, construction materials, cotton and wheat from the west, while Kazakhstan and Uzbekistan need fresh vegetable and fruits from east and south. The company prospects, if the security in Afghanistan is improved, are to increase trade volume of cargo, thus people's traffic volume will also increase by exchanging between west and east.

The forwarding company requests to handle containers at Turkmenbashi port for customers in Baku port.

2) EBRD keeps interests to assist for infrastructure development of the logistic service networks in Central Asian region.

3) Prospects of export cargo from Turkmenbashi Port by regional industrialization

The industries and manufactures located in the hinterland of the port has prospective plan of exporting their products through the port.

- LPG terminal is developing and planned to delivery about 30 million ton per year by 2030.
- Polypropylene products will increase exporting volume to be 300,000 ton per year. Out of this about 80% will be exported to Iran, Japan, Vietnam.
- The Government plans to produce 5 million ton per year in future by development of cement factories, 40 % of this volume will be exported from the port.

(3) Issues to Improve Integrated Logistic System of Turkmenistan

1) For East - West corridor

i) Improvement by modernization and upgrading infrastructures facilities and equipment.
ii) Establishing well managed operation and management system for road, railway and port/Ro-Ro ferry transport service.
iii) Open markets of logistic service to the market oriented economic system and to provide opportunities of participation of privatization in order to reduce cost of integrated logistic service between EU to this regional corridor.
iv) Enhancement of sea transport capacity by providing punctual and regular service of Ro-Ro ferry service connecting coastal ports in the Caspian Sea.
v) Rationalization of trade facilities system with neighbor countries and modernization of management system
vi) The operational rules and regulations related to trade facilities of each country shall be harmonized and standardized among the countries.

2) For North - South corridor

i) Development and upgrading existing infrastructures facilities and equipment.
ii) Establishing well managed operation and management system for road, railway and port/Ro-Ro ferry transport service.
iii) Enhancement of railway transport capacity by upgrading efficiency of railway equipment
iv) Establish efficient complex transport service with punctual and regular Ro-Ro ferry and railway/road connection to reach the ports in Iran as gate for inland countries.
v) Unification of trade facilities system with neighbor countries
vi) Establishing mutual agreement of free trade among countries concerned for creating regional benefits.

(4) Requests for Port Facilities Development for Cargo Transport

The truck company requested 1) to develop an exclusive Ro-Pax Ferry terminal for transporting trucks with cargo and passengers, 2) to increase number of regular trips of the present Ro-Ro ferry service, 3) to minimize number of days and times of closing the access channel so as to minimize waiting time of ships at the entrance of the channel.

2.9.2 Merits of Using the Port

The merits and predominance in travelling distance, time required and fuel consumption is compared between using the Turkmenbashi port and not using the port. The predominance of using the port is identified.

(1) Case-1 Cargo from EU to Central Asian countries by trucks

It is found that difference of transport distance, time required and fuel consumption volume by not using the port are derived more than 200% to 246% by using the port.

(2) Case-2 Cargo from Afghanistan to Black Sea region

It is found that difference of transport distance, time required and fuel consumption volume by not using the port are derived more than 140% to 170% by the case of using the port.

The East-West corridor routes using port of Turkmenbashi by the service of the Ro-Ro ferry are also same as the cargo transport from west to east.

For trucks operating companies, trading companies, logistic service companies working in this region, the route using the port by Ro-Pax ferry service is more economical and financial predominant corridor than other routes for cargo transport between the European countries and Central Asian countries.

2.10 Scope of Practicable Components and Cooperation

2.10.1 Turkmenbashi Port Related Projects

From engineering points of view, the following components of the project shall be implemented immediately as the urgent projects for the Turkmenbashi port.

(1) Improvement of the navigational channel
(2) Development of Ro-PAX ferry terminal facilities.
(3) Maritime Education and Training Improvement Project at Turkmen Maritime College (TMC), Including Technical assistance for the training program and operation of supplied navigational and mechanical simulation equipment for training
(4) Technical cooperation and Assistance;
    1) Assessment of the existing dredger of TMRL for mechanical/electrical repairs

together with supply of spare parts for future maintenance dredging works.

2) Assisting the improvement of maritime environmental protection facilities in TMRL including procurement of necessary equipment.

The detailed necessity and scope of the above components are described in Chapter 3.

2.10.2 Railway Sector

The construction of the two lines listed among planned new lines is important to strengthen railway network and increase physical distribution in Turkmenistan The development study by the technical assistance is required.

(1) Construction of New Line from Atamurat to Sarahks through Tagtabazar

It is expected that transport volume between Tahikistan and Iran by railway will be increased and it is important to construct short-cut line, Atamurat – Sarakhs. The length of Atamurat to Tagtabazar is approximately 300km and the length of Tagtabazar to Sarakhs is approximately 150km. The total length of the line is approximately 450km.

(2) Construction of New Line Atamurat to Afghanistan

There is only one line connecting between Turkmenistan and Afghanistan. Since at present study on railway line between Mazar-e sharif and Herat in Afghanistan is in progress and it is expected to increase demand for physical distribution between Afghanistan and Turkmenistan and others, it will be required to construct a line from Atamurat to the line between Mazar-e sharif and Herat.

2.10.3 Cooperation for Improvement of Trade Environment

The survey team evaluated it vitally important to provide technical cooperation and assistance for making international standard of statics including the improvement of customs system, in particular, the simplification of procedures, visa issues at the cross-border, diversification of industrial sectors, and acceleration of privatization for improvement of trade environment for Turkmenistan.

1. Background and Outline of Survey

1.1 Background of the Survey

Turkmenistan having about 6.5 million populations in 2008 according to EBRD estimates and land area of 488,000 km^2 is one of the inland countries in the Central Asian region and is located in the central parts of the region. Geographically the country has the large Karakum desert which covers much of the national land and is an impediment to transport. The country has 5 provinces (Balkan, Ahal, Mary, Lebap, Dashoguz).

The part of the country facing the Caspian Sea in the west is surrounded by the borders of Uzbekistan in the north, Afghanistan in the southeast, Iran in the south and Kazakhstan in the northwest.

Through the border of Afghanistan in the long route extending from the port of Turkmenbashi, which is the corridor from the Europe turns opens access to Pakistan and India to the southeast and to China in the east, and is one of the major potential transport corridors of the entire region.

Turkmenistan gained independence in 1991 from the Union of Soviet Socialist Republics (USSR) when USSR collapsed. Since then the Government took the foreign policy of "Positive neutrality and non-interference into internal affairs of other countries" which was set and declared along with other principles identified in the Constitution of Turkmenistan. These principles are core principles for Turkmenistan to establish its relations with countries of the world community.

Since 2006 a new administration took office and there have been political and economical changes taking place in the country, aiming at reversing social and economic policies of the previous regime and ending the country's international isolation.

1.1.1 National Program of Strategies for Development

The Government set the National Program of "Strategies for Economic, Political, and Cultural Development of Turkmenistan for the Period through 2020. The Government is updating the development strategy up to 2030, in which the development of the transport sector and improvement of trade facilitation are set as important sectors to develop.

Three priority tasks of the above Strategy period identify are as follows;

(1) Turkmenistan is to attain the level of developed countries, maintaining its economic independence and stability on account of the fast paced economic growth, introduction of new technologies and production and increase of labor efficiency.
(2) Steady growth of total output of production per person
(3) Intensified investment activity and increase the amount of construction for production purpose

1.1.2 National Economy

The global financial crisis of 2007 had virtually no direct impacts on financial institutions of the country. Since adopting the new strategy of reform the country has made GDP growth of 13% in 2005 to 10.5 % in 2008. According to EBRD estimate, GDP in 2008 was 247,152 Billion Manat (86,627.7 Billion USD) and expected in 2009 will be 361,670 Bil Manat (127,214.2 Billion USD).

The Turkmen economy has been growing strongly in the last few years, with double digit GDP growth up to 2007, mainly on the back of increasing hydro-carbon prices. Exports receipts increased by 20 per cent in 2008 while domestic demand for imports of goods and service also picked up due to easier access to foreign exchange by adopting exchange rate unification.

FDI inflows continue to mainly reflect investments in offshore oil production in the Caspian Sea. The amount of FDI in 2005 was 418.2 million US$ and in 2008 it jumped to 820 Million US$.

Exchange rate unification was completed on 1 May 2008 at the rate of 14,250 Manat per US dollar, a level broadly consistent with the country's strong external position and then currency redenomination took place in January 2009. The present exchange rate as of December 2009 is 2.834 Manat per US dollar.

The government plans to diversify multilateral economic developments such as new pipe line developments to supply gas to China, Iran and Russia, and increasing petrochemical products for export by expansion of refinery plant capacity, which will be supported by active investment for development of social and transport infrastructures.

In the agriculture sector under the above National Program the Government sector share will be decreased gradually, whereas the private sector‘s share will increase by 2020.

The Government expresses a commitment to introduce a banking system designed to secure financial stability of the country and strengthen the purchasing power of the national currency. Exercise of project financing, by means of attracting foreign investment on a task basis, will be developed and widely practiced due to a new foreign investment law together with unification of the exchange rate. However in order to maintain sustainable economic growth, the government has much more to do to establish the basis for market oriented economic development like improvement of trade facilitation.

1.1.3 Transport Sector

The transport sector in Turkmenistan is regulated and managed by separate line ministries which cover each transport sub-sector, including automobile transport, railways, aviation, and marine and river transport. Large investments in new construction and rehabilitation of the transport network and fleet modernization are provided by the state budget through the line ministries based on the procurement rules established in the Law of Tendering.

The Government of Turkmenistan has developed and approved in 2008 the Country Development Strategy up to the year 2020 covering 15 sectors of the country's economy, out of which seven are in the infrastructure field.

The new Maritime Law, drafted with the assistance of the EBRD consultants in 2002 has yet to be adopted. Significant reform, especially enhancing management capacity at all levels is required in order that the port service and management shall be competitive among regional ports of Aktau (Kazakhstan), Baku (Azerbaijan), Mahachkala and Astrakhan (Russia).

(1) Development Projects Railway, Road and Air Port

According to the Development Strategy, modernization of the transport operations and rehabilitation of the transport network and facilities should be fully completed during the period out of the funds provided from the state budget.

The transport system where more or less commercially oriented principles have been introduced (in particular for foreign companies) is for those the facilities that play an important role on the regional level, such as the new North-South railway link connecting Kazakhstan, Turkmenistan and Iran, which totals more than 900 km.

1) Railway and Road

Currently, the government is devoting huge financial resources for rehabilitation of the road and railway networks, including construction of new road and railway bridges over Amudarya River, and railway rolling stock.

Information provided by the Ministry of Railways showed that the Government is ready to consider possibilities for external financing by the IFIs for the North-South railway project, taking account of the fact that the longest section of this railway - about 700km – lies within Turkmenistan, and considering also the project is due to be completed by the end of 2011.

The ADB is currently discussing possible financing of part of this project with the Government.

2) Airport and Sea Port

Modernization of the aviation fleet as well as construction of new cargo and passenger terminals in several of the country's airports is planned.

TMRL expects that the modernization of the Port of Turkmenbashi will promote the integration of Turkmenistan into the region by opening new trade routes to Russia, Kazakhstan and Azerbaijan by introducing Ro-Ro passenger ferry services.

According to the Ministry of Economy and Development, there is a USD 1 billion investment program approved by the government for rehabilitation of infrastructure, mainly the transport network, airport and sea port of the City of Turkmenbashi, including a new seaside resort "Avaza" development.

(2) Turkmenbashi Port

The Balkan province, in which the Study port Turkmenbashi Port is located, plays an important role for the national economy and to function as a national gateway to the Central Asia region and Afghanistan. Therefore, investment in this province is crucial to the development of the Turkmenistan and regional economies.

Turkmenbashi port (They call it the Gateway of the Central Asian Region) is major international port of the country and region at the southeast coast of the Caspian Sea. The port functions a very important role of transiting goods from Europe to Asia and vice versa in the Eurasian Continent. The volume of humanitarian goods handled, and construction materials to Afghanistan have gradually increased through the port. In the future if the restoration program progresses, then the importance of this port function will be raised in the trade between European countries, Russia to Afghanistan and beyond to Pakistan.

Considering the geographic situation of the port and its importance in the region, the Government set development of Turkmenbashi port as the highest priority in the transport sector in the Development Strategy for the period through to 2020.

The coastline of Turkmenistan is limited between the national boundary of Iran and Kazakhstan and its coastline is short at about 600 km. There are 5 major ports along the coast of the Caspian Sea in Turkmenistan such as Turkmenbashi port, Kiyanly port, Alajan Garabogaz and Ekeren as south Ports.

The Turkmenbashi port is listed as important transport infrastructure to be developed of CAREC (Central Asia Regional Economic Cooperation Programme) corridors.

1) Port related development study by other donors

A number of development studies of the Turkmenbashi port were carried out by EBRD assistants, World Bank TA for “Transport and Trade Facilitation Issues in the CIS 7, Kazakhstan and Turkmenistan” in 2003 and KOICA “Feasibility Study on the Modernization Project of Turkmenbashi International Port” by the Korean Government in 2009

(3) Summit Conference between the President of Turkmenistan and Prime Minister of Japan

The outline of the summit conference held on 16 December 2009 in Tokyo, which was published in home page dated December 16, 2009 of Ministry of Foreign Affair is extracted as follows;

The summit conference was held on December 16, 2009 in Tokyo between the Prime Minister of Japan and President of Turkmenistan who made official government guest of the Japanese government. The extracted outline of the summit conference are as follows;

1) Bilateral Relation in General

i) Prime Minister expressed the welcome of receiving the President of Turkmenistan for his first visit to Japan, and express the intension to support efforts of Turkmenistan government to transfer the national economy to be democratized and market oriented economy, and current foreign policies of opening to international communities.

In response to the statement of Prime Minister, the President appreciates for invitation to Japan and expressed that both countries have already good cooperative relation toward the issues in the international and bilateral relations through the eight (8) joint meeting of the Turkmen-Japanese committees for economic cooperation, which will be enhanced further.

ii) Regarding the promotion of exchanging economic cooperation, the President evaluated the global activities of Japanese companies. As practical subjects of bilateral relation, the President expressed the expectation of Japanese cooperation for development of the Turkmenbashi Port and in the field of culture exchange programs.

The Prime Minister responded that the practical proposals will be studied and proceed the implementation of requested cooperation from those proposals as materialized.

iii) The President stated that one of university in Turkmenistan will open the Japanese language course by the initiative of the President. The Prime Minister expressed the appreciation and request for supports of improving the environment of Japanese language study

2) Geopolitical situation and Cooperation through the frame works of dialogue of Central Asia and Japan

The Prime Minister pointed out that the peace of Afghanistan and Pakistan as neighbor countries of Turkmenistan is the most important issue in the international society and in addition to this recognition, the Prime Minister explained the supporting policy of Japanese government which will continue the cooperation toward the progress of the political and economical stability between both countries.

The Prime Minister pointed out that the region is facing the threats of illegal trade of narcotic and international terrorism. In order to cope with such threats effectively and attempt to achieve stability and development of the Central Asia countries, the regional cooperation among Central Asian countries is indispensable. The Japanese government will continue to extend the cooperation through the frame works by dialogue of Central Asia and Japan

(4) EBRD program

EBRD provided a number of technical studies by different programs and financial assistance related to the port development, particularly the following related port development

- Navigational Channel for Turkmenbashi Port in 2001 and 2007

- Financial assistance for Turkmenbashi port development to construct multipurpose berths, Ro-Ro railway ferry jetty, Procurement of cargo handling equipment in 2000-2003
- TRACECA Corridor Traffic and feasibility studies New Caspian Shipping Service in 2001.

EBRD intends to continue assistance to Turkmenistan, particularly **Improvements projects for important regional transport infrastructure,** which will be a part of CAREC corridors connecting to Afghanistan for assisting reconstruction and to supply humanitarian needs, with other IFIs or key bi-lateral donors including key Caspian Seaport infrastructure projects.

1.1.4 Trade Facilitation Program

Considering the geographic location of TRACECA countries in the context of trade development between Europe and Asia, the shipment of goods to Europe via TRACECA transport Corridor (EAS-WEST) appears to be much more attractive than other routes through the region. TRACECA transport networks pass along the territories of the countries having rich natural and energy resources to be developed, which imply the large potential of cargo flow by trade through this corridor between East and West.

There are however many transport bottlenecks not only in Turkmenistan, but also in neighboring countries that typically cause delays in the movement of goods through the Central Asian countries.

The present condition of transport infrastructure within Turkmenistan constitutes the first barrier to trade and transport of goods and people. The country has a strong need of development of road and rail conditions, which are essentially for improvement of both international and local traffic. Reducing waiting times at the border and port of Turkmenistan by custom clearance procedures, which is one of the key indicators of improved TTF.

It will be difficult to attract continuous Foreign Direct Investments (FDI) to a country or region with poor logistic services. Multinational companies increasingly rely on Just-in-Time and door-to-door services, where the main feature is reliability.

World Bank TA for "Transport and Trade Facilitation Issues in the CIS 7, Kazakhstan and Turkmenistan" in 2003 indicates that OECD estimate the total savings in cost and time resulting from Trade and Transport Facilitation (TTF) measures can be between 2-15 percent of trade transaction costs in general. Due to the present magnitude of TTF barriers in the country as well as in the Central Asian countries, the potential savings by improving present trade facilitation for the country are likely to be on the higher side of trade costs.

According to the Japanese trading company surveying the regional logistic system, unofficial payments further exacerbate this situation and deteriorate their international competitiveness (For example, truckers that transit the Caucasus or Central Asian countries typically have to pay up to USD 1,500-2,000 in unofficial payments or for semi-compulsory guard services.)

Depending on the world market prices of the commodities, total transportation costs (official and informal) in these countries may amount to 50 percent of the value of the goods, which far exceeds the comparable costs of the main competitors outside the Central Aisin countries.

The business community needs better access to reliable information with regard to international trade and transport.

The currently under-developed logistics services, as well as the low performance of Transport operators and the lack of a conducive environment for the development of multimodal transport is as much a barrier to international transport as the physical infrastructure impediments.

The Country and regions all need to build the institutional and legal foundations of a market economy, attract foreign investment, and make better use of their natural resources.

In the frameworks of the JICA technical assistance program the Government of Turkmenistan as the beneficiary country with assistance of the JICA has tried to identify the problems and weaknesses on the trade routes between East Asian countries and European Union countries. The specific requirements for improvement of trade and transport facilitation could be integrated with the overall benefits of the whole intermodal freight corridor through Turkmenistan.

Under such background as explained above, this study carried out for basic data collection and confirmation of the present situation on Integrated Physical Distribution Systems in Turkmenistan and analysis of such collected data to indentify the candidate project components for contributing to improve the transport sectors and trade facilitations of Turkmenistan.

1.2 Outline of Survey

1.2.1 Objective of the Survey

This Study was carried out to meet the following objectives.

(1) To collect and confirm basic data and information regarding the Railways and Roads and Turkmenbashi port forming an integrated national logistic supply system in order to contribute economic development and enlargement of trade by Turkmenistan and the Central Asian Region
(2) To analyze the basic data and information as collected for the potential candidate projects for improvement of trade and transport facilities.

1.2.2 Scope of the Survey

(1) Preparation and submission of Inception Report

(2) Field Survey
In order to grasp the Present situation of the port, railway and road sectors the following survey shall be conducted and Findings by analysis and assessment

1) Analysis and assessment of basic data of present situation of Turkmenbashi Port, railway and road sector.

   i) Policy, laws and regulations related to transportation and custom procedures
   ii) Organizational setup number of employees and budgets related to Ministries and Agencies concerned with Transport and Custom procedures
   iii) Custom clearance and formality systems
   iv) Present activities among littoral countries under international frameworks on Caspian Sea issues
   v) Progress of negotiation toward establishment of Legal Status of Caspian Sea
   vi) Analysis of Present situation of networks and strategic function of Turkmenbashi Port, Railways and Roads
   vii) Progress of national projects related to Turkmenbashi Port, Railway and Road development by their own finance, bilateral and donor assistance, and anticipated cargo flow upon the completion of current on-going national projects

2) Identification of issues to improve function of the present Integrated Physical Distribution system based on findings by analysis and assessment of basic data

   i) Analysis of present activities of companies involved in physical distribution
   ii) Analysis of investment policies and environment to Port, Railway and Road development
   iii) Analysis of capacities (existing legislative system, organization and personnel) related to Transport and custom procedures
   iv) Identification of issues to improve strategic function and networks of present Integrated Physical Distribution system by Turkmenbashi Port, Railway and Road sectors
   v) Potential international cooperation Projects

3) Review the Port modernization study by KOICA

   i) Outline of long term port development plan
   ii) Review of proposed development plan of cargo and Ro-Ro passenger terminal (scope of projects, project cost and schedule etc)
   iii) Review of channel improvement plan
   iv) Examination of requests for training equipment supply for seaman at maritime college
   v) Urgently required port facilities development
   vi) Technical cooperation and assistance
   vii) Outline of regulation and system related to of environmental impact assessment
   viii) Analysis of debt for sustainability of Turkemnbashi Port development projects

ix) Effectiveness on Cargo flow by Turkmenbashi Port development
x) Scope of practicable components and cooperation

(3) Preparation and Submission of Final Report

1.2.3 Structure of the Report

This report presents the background, the analysis and results of the activities executed in this survey, including the results of the field survey. The report is organized in 4 main chapters and sub chapters.

1 Introduction
2 present situations of port, railway and road sectors and Findings by analysis and assessment
  2.1 Analysis and assessment of basic data of the present situation of Turkmenbashi Port, railway and road sectors
  2.2 Identification of issues to improve function of the present Integrated Physical Distribution system based on findings by analysis and assessment of basic data
3 Review the Port modernization study of Turkmenbashi Port by KOICA
  3.1 Outline of long term port development plan
  3.2 Review of proposed development plan of cargo and RO-PAX ferry terminal
  3.3 Review of channel improvement plan
  3.4 Examination of requests for training equipment supply for seaman at maritime college
  3.5 Urgently required port facilities development
  3.6 Technical cooperation and assistance
  3.7 Outline of regulations and system related to environmental impact assessment
  3.8 Analysis of debt for sustainability of Turkemnbashi Port development projects
  3.9 Effectiveness and adequacy of Turkmenbashi Port development
  3.10 Scope of practicable components and cooperation
4 Recommendations

1.2.4 Survey Period

The Study started November 9, 2009 for preparation and submission of the Inception Report.

From November 22, 2009 till February 4, 2010 the field survey of data collection and confirmation were carried out in Turkmenistan.

The Final Report of the Study was submitted March 25, 2010.

1.2.5 Experts Assigned for the Survey

The Survey was carried out by the following experts.

Expert	Company	Assignment
Atsushi SATO	Oriental Consultant	Team Leader/Port Facilities Design
Tadashi NAGAI	CIPD	Trade Facilitation
Takashi KADONO	OCDI	Port and Channel Planning
Nobuyoshi KAWAI	Oriental Consultant	Railway Engineering
Yasunori KAWAGUCHI	Oriental Consultant	Road Engineering
Kyoko MISHIMA	Ides	Environmental Consideration
Kiyoshi NAKASHIMA	OCDI	Macro Economy and Financial Expert

1.3 Survey Area

The Survey covers such areas including Ashgabat, Turkmenbashi and its neighbor ports, Turkmenabat and the hinterland of the port. See the attached Location Map of Figure 1.4.1.

Source: UN

Figure 1.1 Location Map of the Study Area

2. Present Situation of Port, Railway and Road Sectors and Findings by Analysis and Assessment

2.1 Analysis and Assessment of Basic Data of Present Situation of Turkmenbashi Port, Railway and Road Sectors

2.1.1 Policies, Laws and Regulations related to Transportation and Custom procedure

(1) Policies, Laws and Regulations on Transportation

1) Present Situation of Transportation in Turkmenistan and Outline of Policies

Government of Turkmenistan approved "National Program of Strategies for Economic, Political and Cultural Development for the Period through 2020" in 2003 and decided the national transport policies based on this strategic national program. In this program, GDP per capita is estimated at 4,700 US$ in 2020, which increase by 8.3 fold compared to 2,000. (2008 estimate of GDP per capita is 5,800 US$[1], which already exceeds this target.) The contribution rate of private sector to GDP is 40% at present but it's expected to increase to 70% in 2020. The transportation system of the country, by 2020, is expected to provide for one fifth of the national income. And the government plans to increase the overall transportation of freight by 5.4 fold by 2020.

The government is promoting the construction of roads and new railway lines as part of large-scale infrastructure projects throughout 2011 - 2020. The roads; Serdas – Etrek - Gudriolum, Mari - Sehetabad, Tedjen - Serahs, Turkmenbashi - Garabogazgoz - gosgranitsa（Kazakhstan）will be reconstructed and the existing east - west corridor will be enhanced with the north – south corridor. The new railway north – south corridor : Uzen (Kazakhstan) – Turkmenbashi, Bereket and Etrek (Turkmenistan) – Gorgan(Iran) is now being constructed, aiming to complete the construction till 2011, and the new railway line ; Tedjen – Babadauhan has been activated. The construction of Ashkhabad – Karakumu Dashoguz railway line was already completed in 2006 (Figure 2.1.1).

At Turkmenbashi Port, the modernization project is now being studied, as one of the most important transport nodes of east- west corridor to link Black Sea, Central Asia, China and East Asia, and also as a gate to link Turkmenistan and Caspian seafront countries.

[1] The European Union's TRACECA Programme for "Partner Country" / Task A Report – Turkmenistan, September 2009

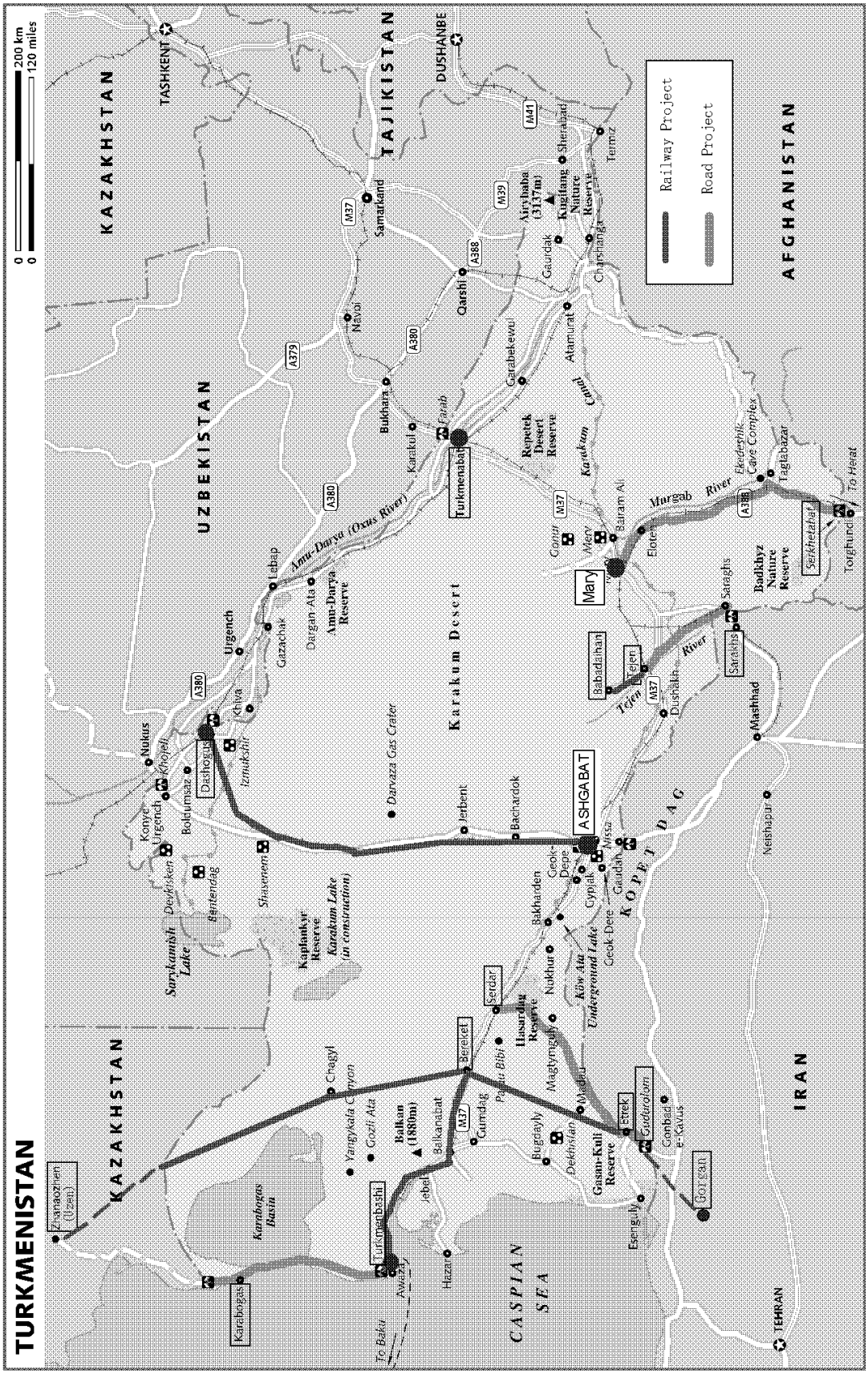


Figure 2.1.1 Big Infrastructure project in Turkmenistan (2011～2020)

World Bank is announcing the ranking of 150 countries in the world by using the distribution performance index. Turkmenistan is not entering within 150th place in 2007, and 2010 year is 114th place, it is shown that the distribution performance is very low. Central Asia..Kazakstan..62nd place..extremely high next Uzbekistan 68th place continue Afghanistan..143rd place.

In the export cargo transportation in 2004, 86% of all goods exported from Turkmenistan ware carried by trucks, 10% via pipelines, and 3% by railway on the weight basis. Looking at the trend of foreign trade by commodity, the mineral products and the phytogenic products rapidly increase for these 3 year (Refer to Table 2.1.1), and as transport means to carry these type of cargo, the ship and railway has to play important roles. The redevelopment of Turkmenbashi Port, the development of railway network integrated with the maritime transport in Caspian Sea and their efficient operations are so much expected.

In Turkmenistan, the licensing system is adopted for insuring the capacity and qualification of haulers. According to Article 20 of "Law on Licensing of Certain Types of Activities", the following 4 licenses are necessitated for the transport activities. However, the railway transport doesn't require the license except the transportation of dangerous cargos. In compliance with the President Decree No.10281 issued on 27th, Feb. 2009, this law prescribed the Ministries and Agencies issuing the required license by the type of transport activities as follows.

- Transport activities of dangerous cargos --- State Standard Service (TDS: Turkmenstandardlary)
- Air transport activities --- The State Civil Aviation (Turkmenhowayolary)
- Maritime and river transport activities --- Turkmen Maritime & River Transport Line (Turkmendenizderyalary)
- Truck transportation and forwarding activities --- Ministry of Motor Transport

The World Bank announces the ranking of 150 countries in the world, using the Logistic Performance Index (LPI). In 2007, Turkmenistan wasn't ranked within 150 places but in 2010 is ranked 114th place. This shows the logistics performance of Turkmenistan is very low among 150 countries. In Central Asia, Kazakhstan is ranked 62th place, Uzbekistan 68th place, and Afghanistan is ranked 143th Place in 2010.

As the ranking of Turkmenistan wasn't within 150 places in 2007, no performance indicators are shown in the list and it cannot be directly compared with the performance indicators in 2010 for analyzing in which points the logistics environment are improved. The logistic performance indicators are comprised of 6 components: Customs, Infrastructure, International Shipments, Logistics Competence, Tracking & Tracing, and Timeliness. Looking into these 6 indicators of Turkmenistan precisely, the data of customs is not collected. Therefore, comparing the remaining 5 indicators with the present logistic situations in Turkmenistan, it's supposed that the infrastructure development contributed to the improvement of performance indicators and raised

the ranking of Turkmenistan within 150 places, which the government is now putting great efforts.

Table 2.1.1 Turkmenistan Foreign Trade 2006 – 2008

Product	2006 (kg)	2007 (kg)	2008 (kg)
Living animals, animal products	10,738,707	16,836,454	30,413,304
Phytogenic products	90,841,999	137,519,975	416,042,761
Phytogenic oils	15,187,009	19,543,173	19,343,766
Food products, alcohol and non alcohol beverages vinegar; tobacco and its substitutes	90,940,480	14,4676,447	133,100,643
Mineral products	135,197,283	92,433,846	665,742,943
Chemical products	64,895,040	98,818,075	106,205,365
Polymer materials, plastics, rubber, rubber products	21,268,320	41,891,254	44,071,968
Leather, fur, production from them	7,322,245	13,841,704	8,380,634
Wood /wood production	19,093,485	32,638,114	36,964,265
Paper, polygraph production	8,876,973	10,207,422	21,843,220
Textiles	60,914,557	81,737,250	64,952,908
Shoes, hats	1,935,785	3,594,490	3,788,586
Stone, gypsum, cement, asbestos, isinglass stone	72,652,419	118,859,748	158,491,982
Jewelries	3,311	9,835	19,000
Non jewelry materials	156,579,784	223,329,225	242,156,187
Computing techniques, audio video apparatus	50,053,107	87,166,757	95,474,223
Transport and its parts	14,848,924	6,499,901	32,563,607
Optics, photograph equipment, cinematographic, measuring, control, medical, surgery equipment; watches; musical instruments	864,524	1,280,693	1,210,043
Furniture and household goods	9,308,379	16,625,988	24,521,268
Arts	10,734	15,010	588

Source: State Customs Service on Turkmenistan

2) Maritime and River Transport

The total tonnage of export cargo at the Caspian Seaport under the control of TMRL is about 4 times as much as the import cargo. The biggest export goods are the oil products, and Azerbaijan and Iran are the largest export countries for Turkmenistan, and Russia comes next. For the import, the tonnage of the chemical products is the biggest, and the largest import country is also Azerbaijan.

In the export with the neighboring countries, Turkmenistan exported 1.4 million tons of crude oil to Iran, and 1.8 million tons of other oil products to Azerbaijan in 2008. And Turkmenistan imported 0.6 million t of chemical cargo and 0.2 million tons of construction materials from Azerbaijan in 2008. (Refer to Table 2.1.2 – 4).

”Merchant Shipping Code” issued on 5th, Nov. 2008, is the basic law to regulate the maritime and river transport. This law provides the legal, economic and institutional basis of the national admisistration in the maritime and river transport field, and the regulatory framework for the maritime and river transport activities including transportation contract.

In this law, the basic concept of regulations such as the registration of vessels and its title, state port control, contract of cargo transport, Marine mediation, contract of marine insurance, indemnity for losses related to collision of ship, and liability for damage caused by oil pollution from vessel, etc. is prescribed, and it’s the guideline for the maritime and port administration of Turkmenistan.

Turkmenbashi Port is located at the very important location of east – west corridor, and especially, AWAZA Project in the vicinity of the port is implemented, which is designated as FEZ which core will be a tourist zone, and also as a national project to lead the economic development vision of Turkmenistan.

However, as a vessel route doesn’t have been dredged for a long time, the sea depth along the route becomes shallow, caused by the sand drift phenomena and Turkmenbashi Port is regarded as the most dangerous port in the Caspian Sea by shipping agents. Therefore, it’s required to dredge the vessel route and to redevelop the port facilities as key nodes of physical distribution and passenger for promoting the national economic development.

3) Land Transportation

The reconstruction of inter-city road is delayed, compared with the inner-city road. Most of the road section between Ashgabat - Turkmenbashi and between Ashgabat - Mary, which is the major part of the east-west corridor, is just only one lane on one side and isn’t well maintained and It’s very far from the arterial road. The road section of one side lane between Mary – Turkmenabat is finished to construct, but Amdarya River is connected by the pontoon bridge from Turkmenabat to the direction of Uzbekistan and the heavy vehicle cannot cross the river on both side at the same time.

The road section of east – west corridor between Turkmenbashi and Turkmenabat is planned to finish.

Table 2.1.2 Import Cargo by Country and Commodity at Caspian Port under Control of TMRL in 2008

(Unit: t)

		Russia	Azerbaijan	Iran	Turkey	Kazakhstan	Ukraine	Other
1	Crude oil	0	0	0	0	0	0	0
2	Polypropylene	0	0	0	0	0	0	0
3	Coke	0	0	0	0	0	0	0
4	Other oil products	656	134,714	0	0	0	0	0
5	Chemical cargo	0	579,493	0	0	0	0	0
6	Construction materials	5,768	179,223	0	50,141	0	0	460
7	Metals and its products	29,753	71,113	0	8,921	0	0	0
8	Timber and converted timber	6,894	2,670	0	43	0	0	0
9	Machinery and equipment	18,183	34,211	0	1,949	0	216	931
10	Food products	17,472	103,704	0	0	0	0	0
11	Agriculture products	0	419	0	0	0	0	0
12	Various general cargo and other cargos	33,387	101,214	0	0	0	0	0
Total		112,113	1,206,761	0	73,244	0	216	1,391

Table 2.1.3 Export Cargo by Country and by Commodity at Caspian Port under Control of TMRL in 2008

(Unit: t)

		Russia	Azerbaijan	Iran	Turkey	Kazakhstan	Ukraine	Other
1	Crude oil	0	433,985	1,434,808	0	0	0	0
2	Polypropylene	23,814	1,387	10,650	0	0	0	0
3	Coke	84	5,120	0	0	0	0	0
4	Other oil products	656,931	1,829,982	924,300	0	17,700	0	0
5	Chemical cargo	0	172,602	0	0	0	0	0
6	Construction materials	28,723	29,124	0	0	0	0	0
7	Metals and its products	346	31,821	0	0	0	0	0
8	Timber and converted timber	0	148	0	0	0	0	0
9	Machinery and equipment	1,137	17,992	0	0	477	0	0
10	Food products	0	23,607	0	0	0	0	0
11	Agriculture products	0	1,089	0	0	0	0	0
12	Various general cargo and other cargos	3,576	190,586	0	0	0	0	0
Total		714,611	2,737,443	2,369,758	0	18,177	0	0

Table 2.1.4 Trend of Export and Import Cargo at Caspian Port under Control of TMRL in 2008

(Unit: t)

Import				Export			
2005	2006	2007	2008	2005	2006	2007	2008
1,427,691	1,651,044	1,423,432	1,381,535	5,406,996	5,090,147	6,240,586	5,839,989

Source: Table 2.1.2 – 4 The European Union's TRACECA Program for "Partner Country" Sep. 2009

The road section of east – west corridor between Turkmenbashi and Turkmenabat is planned to finish construction of one side in 2010. And the design of pontoon bridge over Amudarya River is already finished and now at the stage of the bidding for the contractor. As for the north and south road corridor, the road section between Ashgabat and Dashoguz is already completed, but the reconstruction of road section between Tejen－Sarahs and between Mary-Sarahs is expected to finish as soon as possible. The new north and south road corridor is also planned in parallel with the north – south railway corridor.

The legal system of Turkmenistan on the land transportation is not well developed but there is a law named SNIP, which corresponds to the Japanese "Law on Road" and "Law on Road Structure". Turkmenistan also has "Presidential Decree on Passenger Transport" for the public transportation and "Law about Motor Transport" for the safety of land transportation. Presidential Decree No.11 issued on 7th, Apr. 1994 is attached to the "Law about Motor Transport" and the following regulations are provided.

- Regulation on traffic security services
- Regulation about order of investigation on the causes of traffic accident
- Report on the accidents related to the moving motor transport
- Regulation about driver – supervisor
- Regulation of organizing compulsory annual training for the drivers of motor transport organizations for increasing professional level.
- Regulation about probation period of drivers
- Regulation of driver – instructor
- About specialized medical point

Most of public transportation enterprises are state-owned but the cargo transportation enterprises are privatized. The regulations related to the motor transportation are based on the laws in USSR era, and it's necessitated to renew the contents of laws in the near future. The revision of laws are put strength on the privatization.

The inspection on vehicles is conducted by "DAI" (State Auto Inspection). The emission control is under the jurisdiction of "Ministry of Nature Protection" and the Police play a role to be on the alert to protect the regulations. The maintenance of car parks and the check of over-loaded trucks, etc. are conducted more than once per 6 months to satisfy the emission standards. The trucks and buses satisfied for the emission control and safety standards are imported from Russia, etc.

Ministry of Motor transport issues the following 2 licenses. The forwarders over 100 and the transportation companies over 1,200 are licensed in Turkmenistan, and when they extend the business from Turkmenistan to the overseas countries, it's required to submit the application form to Ministry of Motor Transport. In case they transport the dangerous cargo and heavy cargo, the permission by Ministry of Motor Transport is required every time.

- Forwarding and transportation license (Main)
- Forwarding License

In Turkmenistan, the forwarders and transportation companies provide the services of custom brokers. In case they provide these services, they have only to report it to "Chamber of Commerce and Industry". Table 2.1.5 shows the number of trucks by loading capacity.

Table 2.1.5 Number of Trucks by Loading Capacity

Loading capacity	Number of Vehicles
More than 20 tons	32,379
From 10 to 20 tons	2,379
Transit /More than 20 tons	10 ,432
Transit/from 10 to 20 tons	598

Source: Ministry of Motor Transport; January – April 2009

4) Railway Transport

The construction of the railway network in Turkmenistan was started at the coastal area of Caspian Sea inside the present territory of Turkmenistan in Czarist Russia Era of 19th Century. The USSR Central Asia Railway Bureau was established in 1964, and the railway administration was under the jurisdiction of this Bureau. The present network was rational in terms of the overall territories of USSR but it's not fitting in terms of the present and future physical distribution, passenger movement and economic development in the territory of each country after the collapse of USSR.

"Law of Turkmenistan on Railway Transport", issued on 15th, Sept. 1998 provides the legal and institutional basis for the development of the railway transport functions and operation. The license required in "Law on Licensing of Certain Types of Activities" is not necessitated for the railway, and the monopolistic ownership and operation of the railway network, the rolling stocks, and containers, etc. is allowed.

The government of Turkmenistan is, at present, putting a great deal of effort into the construction of north – south railway corridor to connect three countries of Kazakhstan, Turkmenistan and Iran, and aims to complete the construction in 2011. 700 Km of railway lines go through the territory of Turkmenistan, of which 530 Km of railway section between Dashoguz and Karakum Dessert are already constructed with the budget of Ministry of Railway Transport and the remaining section is to be constructed with the fund from ADB and. Islamic Bank, etc. The total length of railway network, at present, has doubled inside the territory of Turkmenistan, compared with the length in 1992 when Turkmenistan was independent from USSR.

It takes 24 to 48 hours for transshipping the cargo wagons at Sarakhs transshipment yard and Ministry of Railway Transport gives the first priority to the improvement of transshipment facilities. The average transport distance of the railway cargo is 270km in the domestic

transportation and 560km in the international transportation and the Ministry expects to increase the transport distance and the amount of international transport by improving the Sarakhs transshipment yard which handles the largest cargo among the cross-border points (Information of Ministry of Railway Transport).

The railway transport tonnages of export and import are one third of the domestic transport tonnages, and the transit transport tonnages are 10 to 40% smaller than the domestic transport. The transportation of oil goods is the overwhelming majority in the export and they transport the cereals & flour, black metal chemicals and cement in the import, and the oil goods, cereals & flour and cotton is the major transit cargo. The tendency of export and import is that Turkmenistan exports the natural resources and imports the cereals & floor, construction material and chemical products for the plant.

Overlooking the issues and problems of the railway transport operation in terms of physical distribution, they lack the number of locomotives and loading / unloading equipments for the demand. It causes the cargo wagon left in the terminal area for a long time and as a result, the traders have to pay unnecessary cost.(In case the foreign wagons pass through the territory of Turkmenistan, it costs 21 US$ / wagon / day and 500 US$ / 20 wagons.) This will deteriorate the competitiveness of the railway itself with the decrepitude of railway facilities. Unless the modernization of the railway is realized together with the port redevelopment, it's difficult to build the physical distribution network all over Turkmenistan.

Table 2.1.6 Railway Traffic 2005 – 2008 (tonnages)

Type of traffic	2008	2007	2006	2005
Local				
- tons	9 437 880	9 919 162	9 498 560	9 793 048
- ton km.	4 199 928	4 171 259	4 221 799	4 874 414
Export				
- tons	1 047 075	1 283 022	1 574 431	1 289 523
- ton km.	716 831	874 704	1 076 427	941 903
Import				
- tons	2 290 756	1 244 871	682 807	1 029 258
- ton km	721 807	491 513	317 293	445 081
Transit				
- tons	5 820 899	8 544 634	8 165 761	7 577 288
- ton km	3 563 623	4 526 791	3 771 866	3 408 602
Total				
- tons	18 596 610	20 991 689	19 921 559	19 689 117
- ton km	9 202 189	10 064 267	9 387 385	9 670 000

Source: Ministry of Railway Transport

Table 2.1.7 Export Tonnages moved by Rail

	2008	2007	2006	2005
Oil goods	645 813	994 108	1 207 465	982 519
Cereals and flour	--------	----------	----------	---------
Construction	--------	----------	----------	---------
Cement	--------	----------	----------	---------
Black metal	--------	----------	----------	---------
Chemicals	17 759	7 618	24 327	38 477
Cotton	36 878	57 362	44 895	28 238
Coke	137 660	129 862	175 250	124 375
Other	208 965	94 072	122 494	115 914

Source: Ministry of Railway Transport

Table 2.1.8 Import Tonnages Moved by rail

	2008	2007	2006	2005
Oil goods	13 511	8 735	5 346	12 717
Cereals and flour	471 497	174 754	22 411	6 526
Construction	18 350	1 923	4 051	412
Cement	123 881	9 078	9 059	209 221
Black metal	365 534	239 935	143 203	195 580
Chemicals	247 074	174 970	31 808	80 931
Cotton	----------	---------	---------	---------
Coke	----------	---------	---------	---------
Other	1 050 909	635 476	466 929	523 871

Source: the Ministry of Railway Transport

Table 2.1.9 Transit Tonnages moved by Rail

	2008	2007	2006	2005
Oil goods	799 934	1 921 439	1 458 067	1 519 910
Cereals and flour	700 838	1 004 963	868 114	713 045
Construction	17 644	111 298	90 159	210 712
Cement	10 709	323 258	525 579	403 907
Black metal	338 756	582 909	598 429	519 985
Chemicals	16 184	318 721	472 906	333 612
Cotton	551 130	672 207	619 703	706 047
Coke	169 683	43194	5122	28401
Other	3 216 021	3 566 645	3 527 682	3 141 669

Source: Ministry of Railway Transport

5) Air Transport

"Aviation Code of Turkmenistan" provides the legal, economic and institutional basis for the air cargo transport and various activities in relation to the aviation.

The transport tonnage of air cargo in 2009 is 11,316 tons and major types of cargo are the consumer goods, and construction equipment & materials. The increase rate of air cargo was 22% from 2008 to 2009. The air cargo is exported and imported to / from Europe, Arab, China and CIS countries (Refer to Table 2.1.10).

The new international airport is to be opened on May 2010 in Turkmenbashi. The old runaway will be reconstructed to 3,500m and the old passenger terminal building will be rebuilt as the cargo terminal building. The construction cost of the new airport is 125 million EURO, which was subsidized by the government. The new international airport is expected to be a air transportation core to promote the AWAZA Project.

Table 2.1.10 Trend of Air Cargo

(Unit: t)

Activities	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Transport amount of air cargo and mail	15 613.0	12 355.0	11 936.0	10 994.0	9 356.0	7 110.0
International	13 447.0	10 735.0	10 081.0	9 166.0	6 979.0	4 497.0
Domestic	2 166.0	1 620.0	1 855.0	1 828.5	2 377.0	2 613.0
	2007	**2008**	**2009**	**2010** (expected)	**Total**	
Transport amount of air cargo and mail	8 827.0	9 305.1	11 316.0	12 449.0	96 813.2	
International	6 270.2	7 126.7	9 264.4	10 191.0	77 566.3	
Domestic	2 556.8	2 178.4	2052.2	2 258.0	19 246.9	

Source：The State Civil Aviation

At the eastern side of Ashgabat, the new international airport is now being planned and the government aims to complete the construction at the end of 2013 or in the beginning of 2014. The air cargo distribution center is to be developed inside the site of Ashgabat Airport, and it enables to collect the dispersed bonded warehouses at new Ashgabat Airport and the realize the efficient air cargo distribution.

Besides these airports, the new airport is already opened in Mary in compliance with the development of many plants by foreign investment, and in Turkmenabat and Dashoguz, the new airport project is ongoing. The negotiation with Islamic Bank for financing the new Turkmenabat Airport is already started and the construction is expected to be started in the middle of 2010.

(2) Policies, Laws and Regulations on Customs

1) International Conventions, Bilateral Agreement and Regulations

The ratified international conventions, bilateral agreements and regulations are given priority to

the laws of Turkmenistan on customs, and as these rules affect the contents of documents required for the customs clearance, the present situations in Turkmenistan are shown in the following.

i) "Washington Convention"(Treaty on international trade of wild animals and plants with the fear of extinction) is ratified on 26th Sept. 1992.
ii) "Paris Convention" (Protective treaty for industrial property) is ratified on 15th, Jan. 1995.
iii) "WTO Agreement" is not yet ratified, but the unification of the currency rates in 2008 and the denomination of "Manat" in 2009 were put into force, and it's on the way to make the environment of the ratification step bay step. In Central Asia, Kyrgyz is a member of WTO and Tajikistan will be a member of WTO in near future.
iv) "Uniform B/L (Bill of Lading) Convention" and "HS (Harmonized Commodity Description and Coding System) Conventions" are not yet ratified. Turkmenistan is not the member of ICC (International Chamber of Commerce) for "INCOTERMS" (International Rules for the interpretation of Trade Terms) and "UCP" (Uniform Customs and Practice for Documentary Credit). However, Turkmenistan substantially follows these international conventions and rules.
v) "Treaty of Commerce and Navigation" in the Caspian Sea is not yet ratified but it's under the comprehensive negotiation among the Caspian Seafront Countries.(See the sections of "International framework of activities" and "Negotiations on legal position of Caspian Sea")
vi) "Customs Convention on the International Transport of Goods under Cover of TIR Carnets" was ratified in 1975. After the collapse of USSR, the cross-boarding agreement for the railway was ratified among CIS and neighboring countries but it still remains some problems such as the cross-boarding transport with Russia by trucks.
vii) Turkmenistan doesn't ratify the agreements to be a member country of regional corporative organization such as CIS, ECO (Economic Corporation Organization) and CAREC (Central Asia Regional Economic Cooperation), but ratifies Free Trade Agreement with Russia, Kazakhstan, Uzbekistan, Azerbaijan and Kyrgyz on the basis of bilateral agreement.

2) Laws Correlated with Customs

The legal system of customs in Turkmenistan is comprised of "Customs Code of Turkmenistan", which describes the basic concept of customs, and "Civil Code of Turkmenistan", which constitutes the basis of civil legislation in Turkmenistan and governs, in particular, the legal relations arising from the contracts of carriage.

"Custom Code of Turkmenistan" prescribes the legal framework of customs systems such as; major role, duty and responsibility of custom office, movement procedure of cargo to pass the custom office, custom tariff and commission fee, custom procedure, matters on the customs control, customs inspection, customs declaration, cargo storage rules under the customs control, customs privilege, sorts of customs violation and matters on violation, open duty of law and

decree to the public, protest to the decision, action and breach of customs office, matters on the priority of bilateral agreements and international conventions to "Custom Code of Turkmenistan".

Custom procedures and their precise contents are specified in the decrees and regulations such as Presidential Decree No. 9925, which shows "Custom Tariff Schedules of Turkmenistan".

"Civil Code of Turkmenistan" prescribes such matters as; carrier's obligation for the agreed reward to deliver cargo to the point of destination under the contract of carriage, carrier's liability for the detriment incurred for the damage or loss of the cargo, no liability in case of detriment incurred by force majeure, specification of the carrier's liability by the contract, contract of carriage executed in the form of an invoice (B/L; a bill of lading), and specification of the content and validity of the contract of carriage by the norms of Civil Code pertaining to it, irrespective of the availability of the invoice, its defects or loss,

3) Laws Correlated with Trade

In Turkmenistan, "Law on Trade" and "Law on Foreign Currency" are issued just same as Japan, and besides, the following laws are correlated with the trading activities.

- Law on foreign investment
- Law on licensing certain types of activities
- Law on invention and industrial samples
- Law on trade mark and appellation of place of goods origin

The government announces the list of items such as the chemical features, the industrial waste, culture products, the wild animals and plant and the fuel-energy primary and mineral raw materials, which require the export or import license upon the permission of Cabinet of Ministers. In case that the export and import goods correspond to the list of items, it's required to export or import by getting the license through the Ministries and Agencies concerned. (Refer to Table 2.1.11)

And also the government announces the list of dangerous goods such as the nuclear materials, the narcotic & psychotropic materials and poisons, which require the registration under the export or import license upon the permisssion of President of Turkmenistan. (Refer to Table 2.1.12)

As for the military goods to go through the territory of Turkmenistan, the government announces the precise list of items (Specification No.1) shown in Table 2.1.13 and it's not permitted to transit accross the territory of Turkmenistan without the permisssion of President of Turkmenistan. And also, as for the Hazardous cargo comprised of 80 chemical items (Specification No.2) shown in Table 2.1.14, it's not permitted to transit across the territory of Turkmenistan without permisssion of President of Turkmenistan.

As for the list of Ministries and agencies which is in charge of issuance of license and permission for each items, refer to "2.1.2 (2) Organization, Number of Staffs and Budget of Ministries and Agencies for Custom Administration".

Table 2.1.11 List of products which necessitates the export or import license upon the permission of Cabinet of Ministers

Designation of products	Product Code
Chemical Features	3808
Toxins	3001
Industrial waste	2618-2620,3915
National Jewelry	7113, 7114, 7115, 7116, 7117, 7118
National Treasures Ancient printed materials, manuscript Archeological finds Numismatics Culture products	9701,9702,9703,9704,9705,9706
Picket materials of mineralogy and biology	970500000
Central Asian Shepherd Ahal-Teke Hourses Pedigree cattle Wild Animals	010600990 010111000 010119900,010290900,010391900,010392900, 010410900,010420900 – only wild animals
Wild plant, Ancient animals bones, elephant ivory, horns and unguis, coral and analogous material	030110,0407,05,07,0508,0604,070951-070952; 071080600; 071230000; 080221000; 080222000;0810-0812; 121220000,1301,1302 (except 130219300): gr. 14; 9601
Earth interior information, fuel - energy primary and mineral raw materials via minefield and areas, located on Turkmenistan territory and in continental shelf and sea zone	

Source: Ministry of Trade and Foreign Economic Relations

Table 2.1.12 List of Specific Products (Jobs and Services) legislated strictly which necessitates the registration under the export or import license upon the permisssion of President of Turkmenistan

Designation of products	Product Code
Standard nuclear materials, technology, equipment and installations, specific nonnuclear materials, radioactive sources, including	2613, 2844, 2845, 8401
Narcotic and psychotropic assets. Individual type of raw produce, materials, equipment technology, scientific and technical information applied upon production of armament and defense technology	
Materials, equipment and technology of peaceful assignment, but which also can be used on manufacture of rocket, nuclear, chemical and other types of weapons of mass destruction	
Outside country Investments	
Toxins and poisons (except mentioned in Specification № 2)	

Source: Ministry of Trade and Foreign Economic Relations

Table 2.1.13 The military goods legislated strictly to transit accross the territory of Turkmenistan, which necessitates the permisssion of President of Turkmenistan (Specification No.1）

1. Space craft, carrier rockets, ballistic rockets, upper-stage rockets and it's component.
2. Crafts, helicopters and other military aircraft.
3. Tank and other automotive technology with or without defensive function.
4. Vechicles and other self-propelled machine crawler-mounted or wheel-mounted.
5. Artillery, starting rocket and other bomb utilities, howitzer, minethrower and other war action assets.
6. Small arms weapon.
7. Ammunition: bombs, rockets, garnets, projectile, weapons and other assets for conduction of war action.
8. Explosive, condensed explosive materials,considered as hazardous cargo in compliance with UNO classification and in compliance with hazrdous cargo shipping classification,approved on the Meeting of Cometee of Railway Transport,5th of April,1996.
9. Construction engineering vechicles, minelayers, maintenance facility, weapons and other engineering production of army provision.
10. War application complex different types of guidance, launch and controlling system.
11. Components, spare parts, componentry of arming and defense technology including technical documentation.
12. Specialised equipment,materials, accessories and tools for fabrication and repairing of armament, defense technology and defense materials.
13. Parachute assets.
14. Unified enviroment of manipulation and cartographical production analyses.
15. Radiocommunication and radio navigation assets.
16. Electromotor engine and internal-combustion engine of defensive aim.
17. Dedicated tare.
18. Training-simulating equipment for Army competense training.
19. Autonomous life support system of armed forces personnel.
20. Communal and individual protective equipment against the weapon of extermination.
21. Prevention and treatment facilities of deployment of use of weapons of extermination.
22. Custom rear environment.
23. Military uniform and it's accessories .
24. Process environment and store, including arms production in particular period.
25. Electronics and electronic system, instrument engineering products of defense materials.
26. Specific goods and cargo (confidential mode).
27. Military cargo, transmitters and recipients of which are: Ministry of Defense of Turkmenistan, Ministry of Internal Affairs, Turkmenistan State border services, and other governmental militarized structures.

Source：Ministry of Trade and Foreign Economic Relations

Table 2.1.14 Hazardous cargo legislated strictly to transit across the territory of Turkmenistan, which necesitates the permisssion of President of Turkmenistan (Specification No.2）

1. Uranium Ore concentrates
2. Uranium hexafluoride
3. Fresh nuclear fuel
4. radioactive material, specific activity of which exceeds 70 кБт/кг
5. Transport packing set utilized for transporting specific cargo
6. Acetilanthranilic acid
7. Wolfsbane
8. Aconitine
9. Liquefied ammonium hydrate
10. Acetic acid anhydride
11. Anthranilic acid
12. Aceclydine
13. Acetone

14. Benzol
15. Hyoscyamine
16. Sulphate Hyoscyamine
17. Sulphate Camphorate
18. Glyfluor -composition of 1,3-Difluoro-2-Propanol (70-75%(1))
19. Double chlor ethane
20. Isosafrole
21. Serpentine
22. Cadmium cyanide
23. Potassium permanganat
24. Potassium cyanide
25. Calcium cyanide
26. Carbacholine
27. Fluor- hydrogen acid
28. Copper cyanide (Cu cyanide)
29. Mercaptophos
30. Methanol
31. Methyl ethyl ketone
32. Methyl bromide
33. Methyl chloride
34. Arsenium anhydride
35. Arsenic anhydride
36. Sodium arsenate and it's dosage form in miscellaneous batch
37. Sodium arsenide
38. Sodium cyanide
39. Nickel Tetracarbonyl
40. Nitrotoluene
41. Promeram and and it's dosage form in miscellaneous batch
42. Piperonal
43. Piperonal
44. Novarsenole
45. Chlorine organic pesticide
46. Refined bee bane
47. Hydrargyrum diiodide (2-iodide)
48. Mercuric chloride
49. Hydrargyrum Oxycyanide
50. Hydrargyrum salicylate
51. Hydrargyrum cyanide
52. Metallic hydrargyrum
53. Safrole
54. Argentums cyanide
55. Sulfuric acid
56. Hydrochloric acid
57. Scopolamine hydro bromide
58. Strychnine nitrate and it's dosage form in miscellaneous batch
59. Deadly nightshade alkaloid's summation
60. Toluene
61. Tetraethyl lead and it's mixture with different substance (ethyl fluid, etc…except leaded gasoline)
62. Green grass of Jangara's aconite
63. Uranyl 4- chlorbenzaldehyde nitrate
64. Phenyl acetic acid
65. Phenyl acid
66. Yellow phosphor
67. Red phosphor
68. Anhydrous hydrogen fluoride
69. Henuclidin 3 -benzylat
70. Chlor
71. Chloropicrin
72. Barium Cyanide
73. Hydrogen Cyanide
74. Cyclone

75. Zink phosphide 76. Cynhonine 77. Strychnine tree infusion 78. Ethylmercurchloride 79. Ethyl ether 80. Aconite

Source: Ministry of Trade and Foreign Economic Relations

NOTE: As the words couldn't be found in the Russia-English Dictionary, it is written in Russia

4) Decree about Animals Quarantine

The decree for the animal and livestock contagion prevention is issued in Turkmenistan, and it's prohibited to export or import the animal and livestock suffered from the disease. The quarantine of animal and livestock is under the jurisdiction of Veterinary Service (Turkmenmalary).

5) Law about Quarantine of Plant

"Law about Quarantine of Plant" prescribes the basic procedure for the issuance of "Phytosanitary Certificate" and prohibits the export or import of the plant with the harmful insect and the plant suffered from disease. The quarantine of plant is under the jurisdiction of Ministry of Agriculture.

6) Law about the Quality and Safety of Food and Medicine

In Turkmenistan, the regulation for keeping the quality and safety of the food has been enforced since 1999. Presidential Decree was issued in 2005 and the companies to make activities related to the food including the export and import are requested to register at Ministry of Health and Medicine Industry, irrespective of overseas or domestic companies. This decree provided the basis for the quality and safety of the food, and "Food Hygiene Law" was approved on Apr. 2009. The food imported to Turkmenistan for the first time is requested to submit the documents on the quality and safety and if necessary, it's inspected in the laboratory and the permission is provided.

As for the medicine, "Law on licensing of Certain Types of Activities" issued on Jun. 2008 was ratified, and the registration and licensing for the following 4 types of activities is put in force by the presidential decree on Feb. 2009.

- Pharmaceutical - includes the wholesale - retail business of medical drug and items of patient care
- Medical – includes medical treatment and clinical studies
- Physician – technical service of equipment, wholesale - retail business of equipment, inventory and the other products
- Services - disinfection, disinsection and disinfestations

7) Laws Correlated with the Protection of Cultural Properties

The followings are the laws on the protection of cultural properties, and the "Law on the Protection of Movable Cultural Properties and Export & Import" is related to the custom clearance.

- "Law on the Protection of Historical Sites and Cultural Properties" issued on 19th Feb. 1992
- "Law on National Territory of Special Nature Protection" issued on 19th May. 1992
- "Law on Museum and Museum Business" issued on 20th Dec. Dec. 1996
- "Law on the Protection of Movable Cultural Properties and Export & Import" issued on 15th Sep. 1998
- "Law on Turkmenistan Popular Arts and Cradt" issued on 19th Dec. 2000
- "Law on Patent" issued on 1st Oct. 1993

8) Laws Correlated with Regulations for Gunpowder, Firearms and Swords

The followings are the laws on the regulations for Gunpowder, firearms and Swords

- Law of weapon (issued in the newspaper Neutral Turkmenistan on November, 28 2009 and will come into effect from January 2010)
- Law of Police
- Law on Authorities of Internal Affairs of Turkmenistan
- Criminal Code of Turkmenistan
- Law of Disciplinary action (Administrative breach of order)

9) Laws on Drugs Control

Since the narcotic production was started in Afghanistan in 2000, the drugs increased 44%. According to the official announcement of United Nations, the total amount of the narcotic produced in Afghanistan was 192 t in 2001 and increased to 8200 t in 2007, out of which 660 t was refined to Heroin.

Law of Turkmenistan about narcotic resources, psychotropic substances and drugs' producing materials was affirmed in 2004 by President of Turkmenistan. After Turkmenistan has become an independent country, it has jointed such UN treaties like:

- Year 1961 treaty in regards to the narcotics substances
- Year 1971 treaty in regards to the psychotropic substances
- Year 1982 treaty in regards to the synthetic narcotics

Ever since, Turkmenistan Agency of Drug Enforcement and Control reports on the current status and activities carried out to UN Committee. Japan is also being a member of UN Committee, so basically it does the same reporting on the yearly basis.

Turkmenistan cooperates with other international agencies and countries such as USA, UK and Germany. With a help of UK government, Turkmenistan has enhanced Sehretabad checkpoint at the border with Afghanistan, same goes for Atamyrat and Farap checkpoints with the support of USA government by enhancing the capacity of officers and by introducing X-ray equipments for large cargo, etc.

2.1.2 Organizational Setup Number of Employees and Budgets Related to Ministries and Agencies Concerned with Transport and Custom Procedures

(1) Organization, Number of Staffs and Budget of Ministries and Agencies for Transport Administration

The Ministries and agencies in charge of the transport administration are divided into the following four organizations, of which 2 agencies are under the jurisdiction of Cabinet of Ministers. The institutional structure, the number of staffs and the budget size are as follows.

- Turkmen Maritime and River Lines (TMRL)
- Ministry of Motor Transport
- Ministry of Railway Transport
- The State Civil Aviation

1) Turkmen Maritime and River Lines (TMRL)

Figure 2.1.2 and Figure 2.1.3 each shows the organization chart of TMRL and Turkmenbashi International Port which is one of TMRL departments. The total number of TMRL staffs is 1,466 in 2008 and TMRL is comprised of Turkmenbashi International Seaport (926 staffs), River Lines (480 staffs), State Control OG Port (31 staffs) and Turkmenbashi Maritime Port (29 staffs). Beside these organizations, TMRL runs Charlak Hotel.

The headquarters of TMRL has “Human Resource Department”, “Legal Department”, “Administrative Department”, “Internal Audit Department”, “Technical Development Department”, “Foreign Economic Relation Department” “Finance and Economic Department” and “Account Department”, and manages the subsidiary organizations. The management organization of Turkmenbashi Onternational Port is divided to 4 groups; “Management & Operation Group”, “Technical Group”, “Accounting and Human Resources Group”, “Administrative Group” and “Harbor Master Group”

TMRL is managed and operated by the self-supporting system, and the income is composed of the fees from Turkmenbashi International Port, River Lines, State Control OG Port and Turkmenbashi Maritime College. The total income of TMRL in 2008 is 20,653.9 thousand US$ and the total expenditure is 12,018.8 thousand US$ (currency rate; 2009). The rate of return for the expenditure is 72% and TMRL is successful for the high return operation. (Refer to Table 2.1.15)

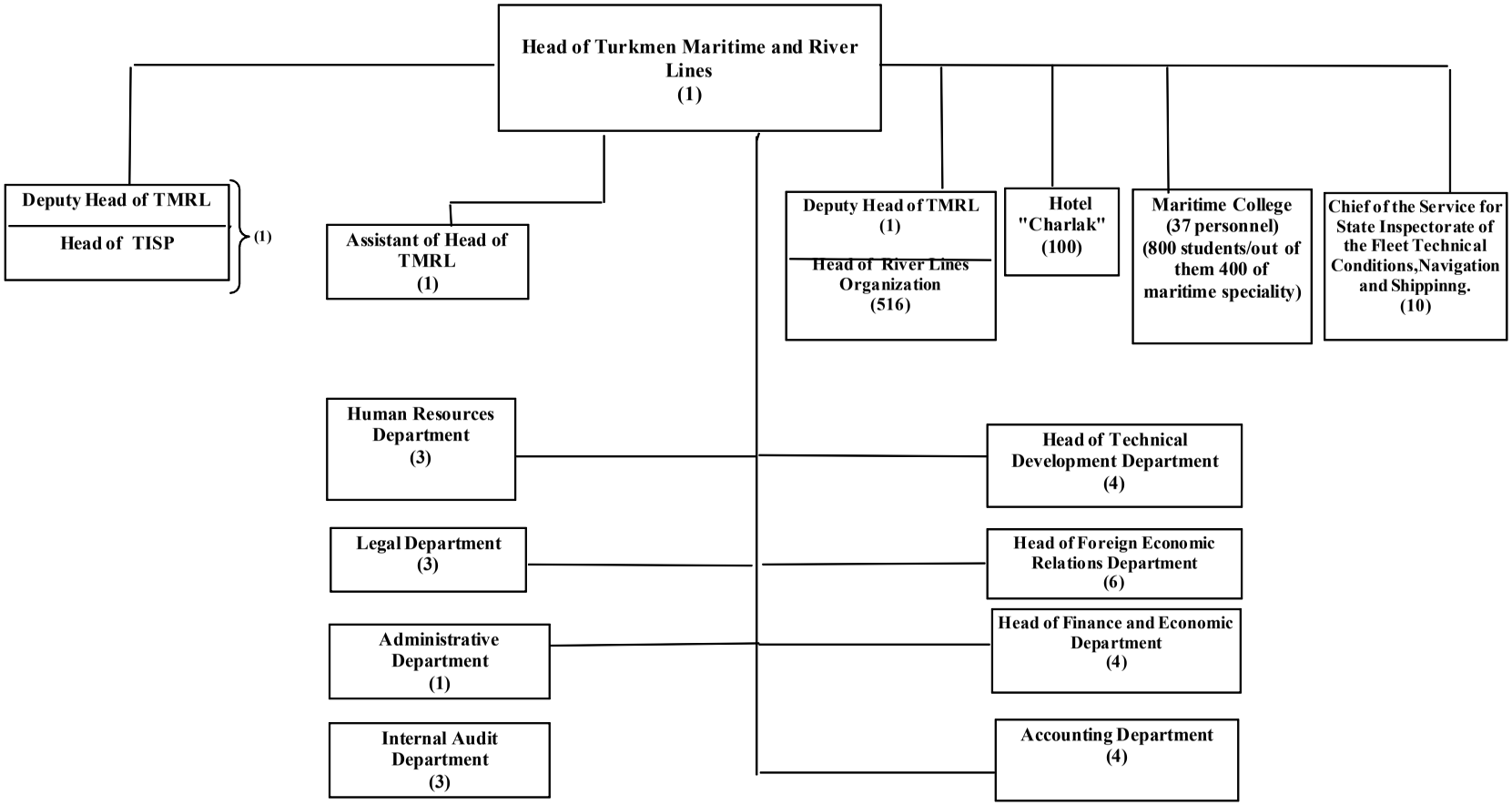
The institutional reformation of TMRL is to be scheduled in the middle of 2010. This reformation aims at the future independence of the agency in charge of the maritime regulatory work from TMRL organization, and aims at the integration of "Vessel Inspection Department" of TMRL, and "Harbor Master Department", "Ship Navigation Department" and "Dispatcher Department" of Turkmenbashi International Seaport.

Table 2.1.15 Financial Income and Expenditure of TMRL in 2008

(Unit : 1,000US$)

Organizations under TMRL	Income	Expenditure	Balance Profit	Rate of Return
Turkmenbashi International Seaport	15,321.7	10,708.7	4,613.0	43%
River Lines "DERYAYOLLARY"	3,748.4	1,215.8	2532.6	208%
State Control OG PORT	1,475.7	0	1475.7	-
Turkmenbashi Maritime College	108.1	94.3	13.8	15%
TMRL Total	20,653.9	12,018.8	8,635.1	72%

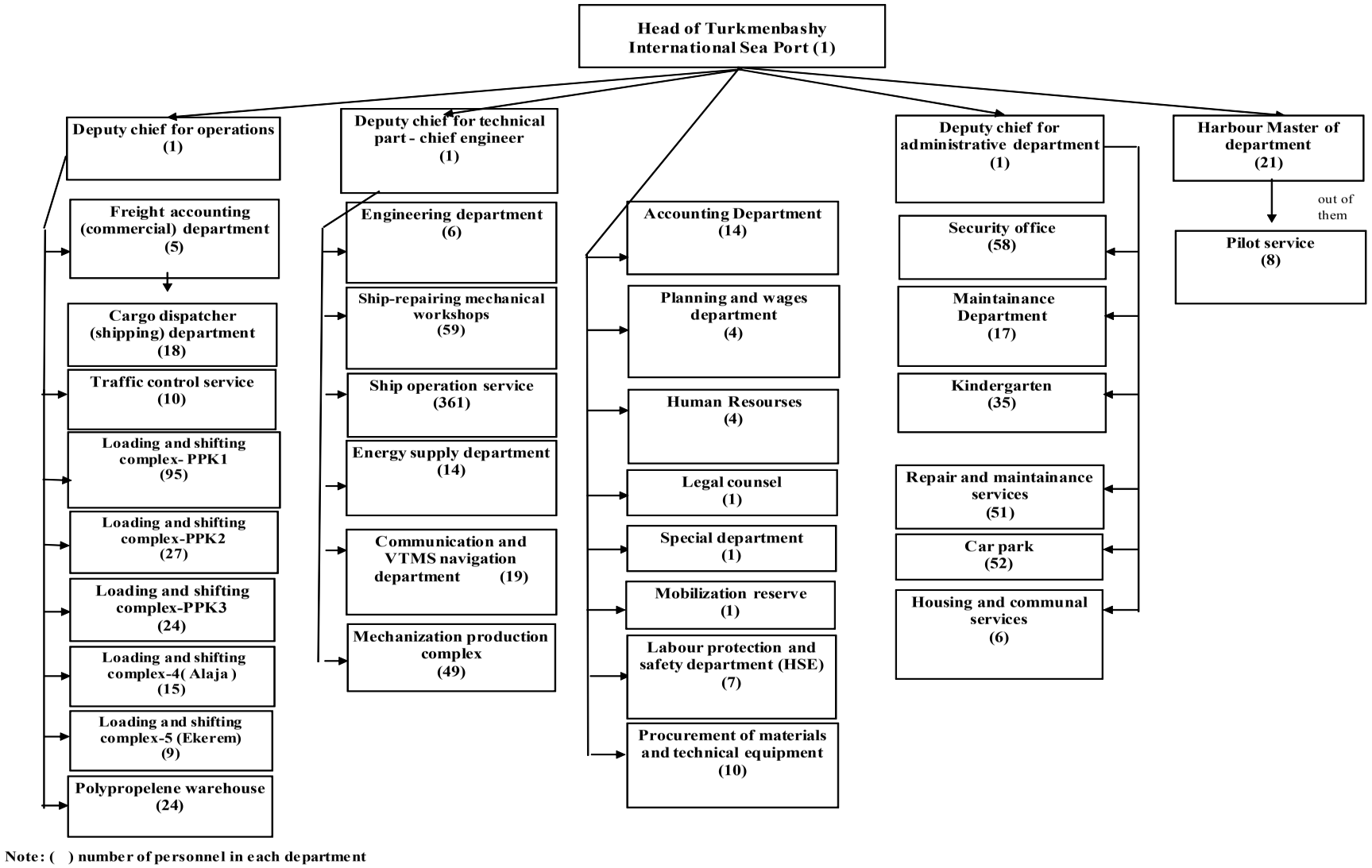
Source: TMRL



Note: ( ) number of personnel in each department

Figure 2.1.2 Organization Chart of TMRL (No.1)

Organization Chart of Turkmenbashy International Seaport



Note: ( ) number of personnel in each department

Figure 2.1.3 Organization Chart of Turkmenbashi International Seaport under TMRL(No.2)

2) Ministry of Motor Transport and State Concern Highway

i) Ministry of Motor Transport

Ministry of Motor Transport is authorized to control the public passenger transport and the truck cargo transport, and has 24 state-owned enterprises under the headquarters. The number of staffs is 8,389 in 2009, and the local institutions and. The budget is 25.0074 million US$ in 2009. (Refer to Figure 2.1.4)

"Passenger Auto Transport Enterprise of Ashgabat" employs the biggest 1,094 staffs among 24 enterprises and next follow "Auto Transport Enterprise Tejen" (928 staffs) and "Balkanautolag" (public transport operation organization in Balkan Province; 698 staffs), "Association of the Auto School" (634 staffs), and "Auto Transport Enterprise of Kunya-Urgench" (625 staffs).

The enterprise to have spent the biggest expenditure in Ashgabat is "Passenger Auto Transport Enterprise"(40,974 thousand manat) and next follow "State Enterprise Turkmen Transport Inspection" (6,406 thousand manat), and "Ashgabat Passenger Auto Transport" (4,595 thousand manat). In comparison with the budget among Ashgabat and the local provinces, Ashgabat is 40,770 thousand manat and next follow Lebap (9,102 manat), Mary (7,305 manat) and Dashoguz (5,586 manat).

ii) State Concern Highway (Avtoyollary)

State Concern Highway is the organization under the jurisdiction of Cabinet of Ministers and is authorized to control the road construction and road maintenance in Ashgabat city, Balkan Province, Ahal Province, Mary Province, Lehap Province and Dashoguz Province. The number of staffs is 6,090 of which 30 staffs belong to the headquarters, and the budge in 2010 is estimated at 197 million US$. (Refer to Figure 2.1.5)

The institutional structure is divided to the headquarters and the local organizations. The headquarters is comprised of "Accounting Department", "Department of Implementation of Hi-technologies, Equipment and material Procurement", "Technical Operation Department", "Department for Use of Motor Road", "Department of Human Resources', "External Relationship Management Department", "Planning and Economics Department", and "Inspection Department"

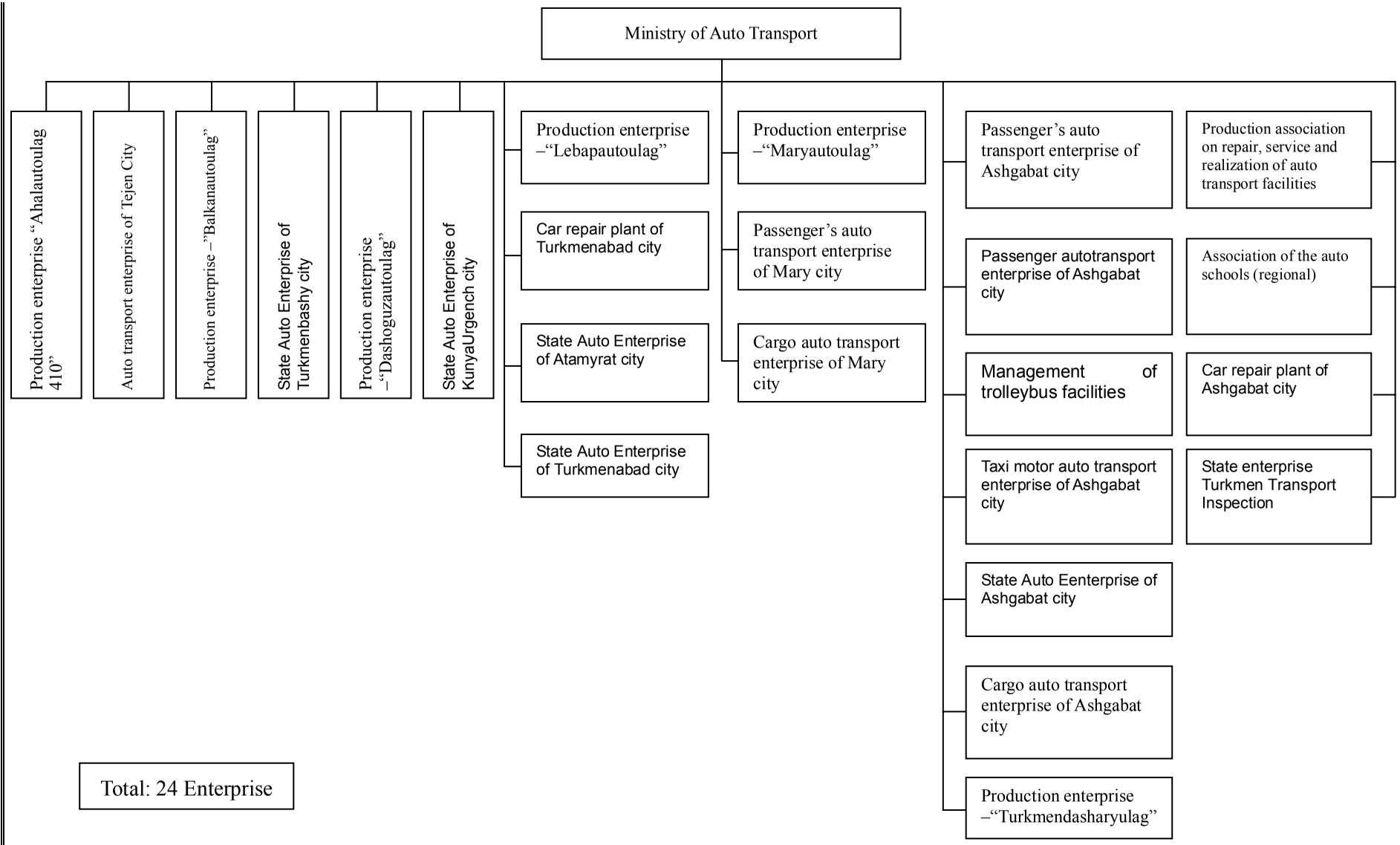


Figure 2.1.4 Organization Chart of Ministry of Motor Transport

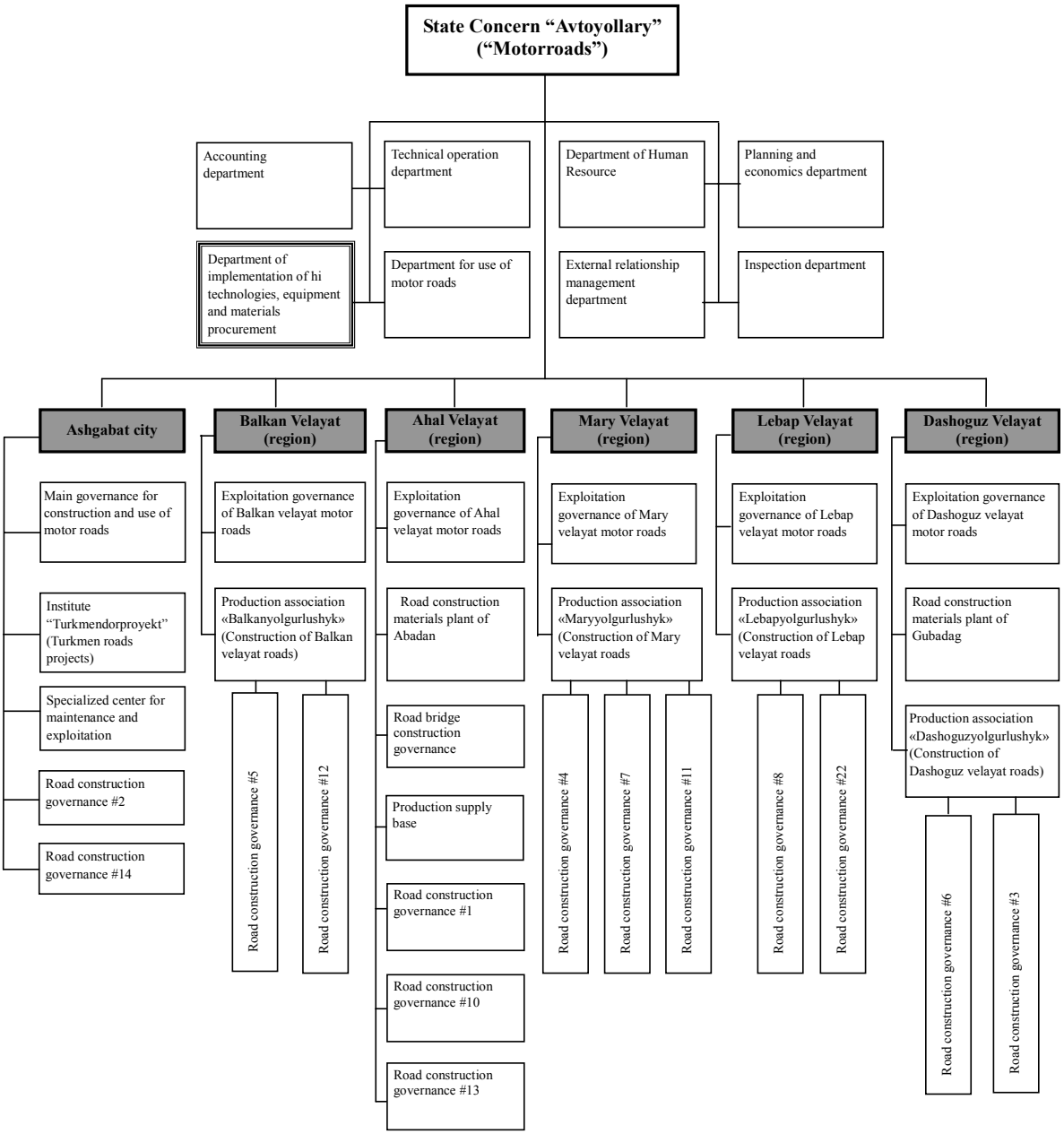


Figure 2.1.5 Organization Chart of State Concern Highway

The institutional structure are different among the local organizations and in case of Ashgabat City, it's comprised of "Main Governance for Construction and Use of Motor Roads", "Institute of Turkmen Roads Projects (Turkmendorproyekt)", "Specialized Center for Maintenance and Exploitation" and "Road Construction Governance", and each local organization makes up the institutional structure which reflected the special local conditions into this basic organization.

3) Ministry of Railway Transport

Ministry of Railway Transport is authorized to control the railway cargo transportation and the railway passenger transportation. The headquarters under the direct control of Minister has "Economics and Finance Department", "Contract and Audit Department", "Human Resource Department" and "Minister's Assistant". Besides them, Deputy Minister in charge of "Passenger Transportation Department", "Locomotive Sector Department", "Cargo Transportation Department" and "Wagon Sector Department", Deputy Minister in charge of "Economics Matters", Deputy Minister in charge of "Turkmenabat Section", Chief Engineer and "Railway Traffic Security Department" are under the direct control of Minister. (Refer to Figure 2.1.6)

The total number of staffs in Ministry of Railway Transport is 20,000, of which 90 staffs belong to the headquarters. As for the budget in 2010, the income is estimated at 327.5 million US$ and the expenditure is estimated at 217.9 million US$. (currency rate; 2009)

4) The state Civil Aviation

The State Civil Aviation is the organization under the direct jurisdiction of Cabinet of Ministers, and it's authorized to control the air passenger and the air cargo transportation.

The State Civil Aviation was established on 4th, May. 1991, for managing and operating the aviation- related organization and facilities (Turkmen Airline〈Turkmenhowayolary)), 5 Airports (Ashgabat, Turkmenbashi, Tukmenabat, Dashoguz and Mary), 5 ticketing agencies, 11 representative offices in the world, Lachyn Hotel, Training Center, Medical Center. (Refer to Figure 2.1.7)

The total number of staffs is about 5,000 and the share of Turkmen Airline (Turkmenhowayolary) is 60%. The budget in 2009 is 214 million US$, of which 173 million US$ is the revenue from the passenger tickets. The budget will increase 10 % in 2010. For the airport construction and the purchase of the aircrafts, the government provides the budget and subsidies for the s, but this organization is operated by the self-supporting system.

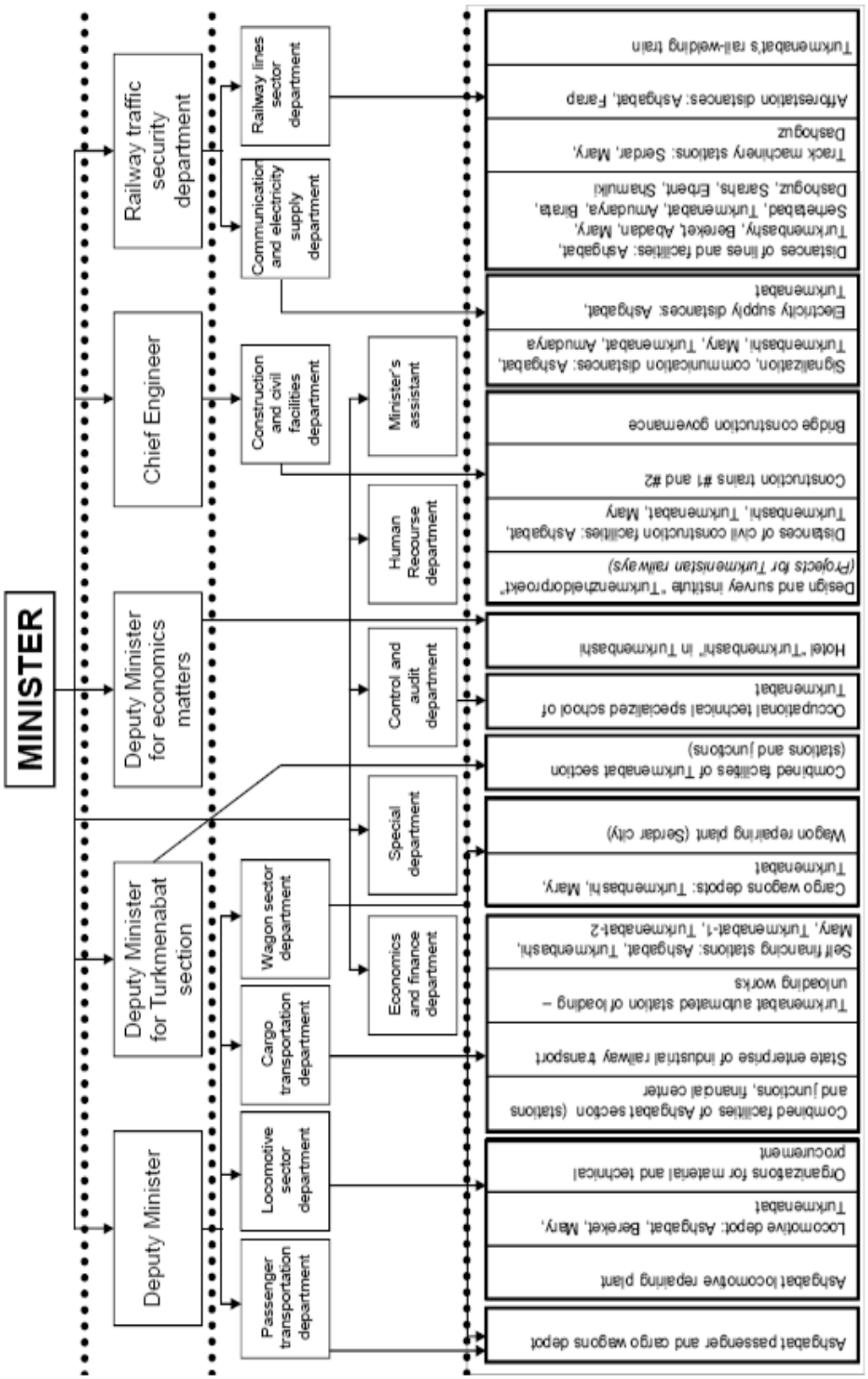
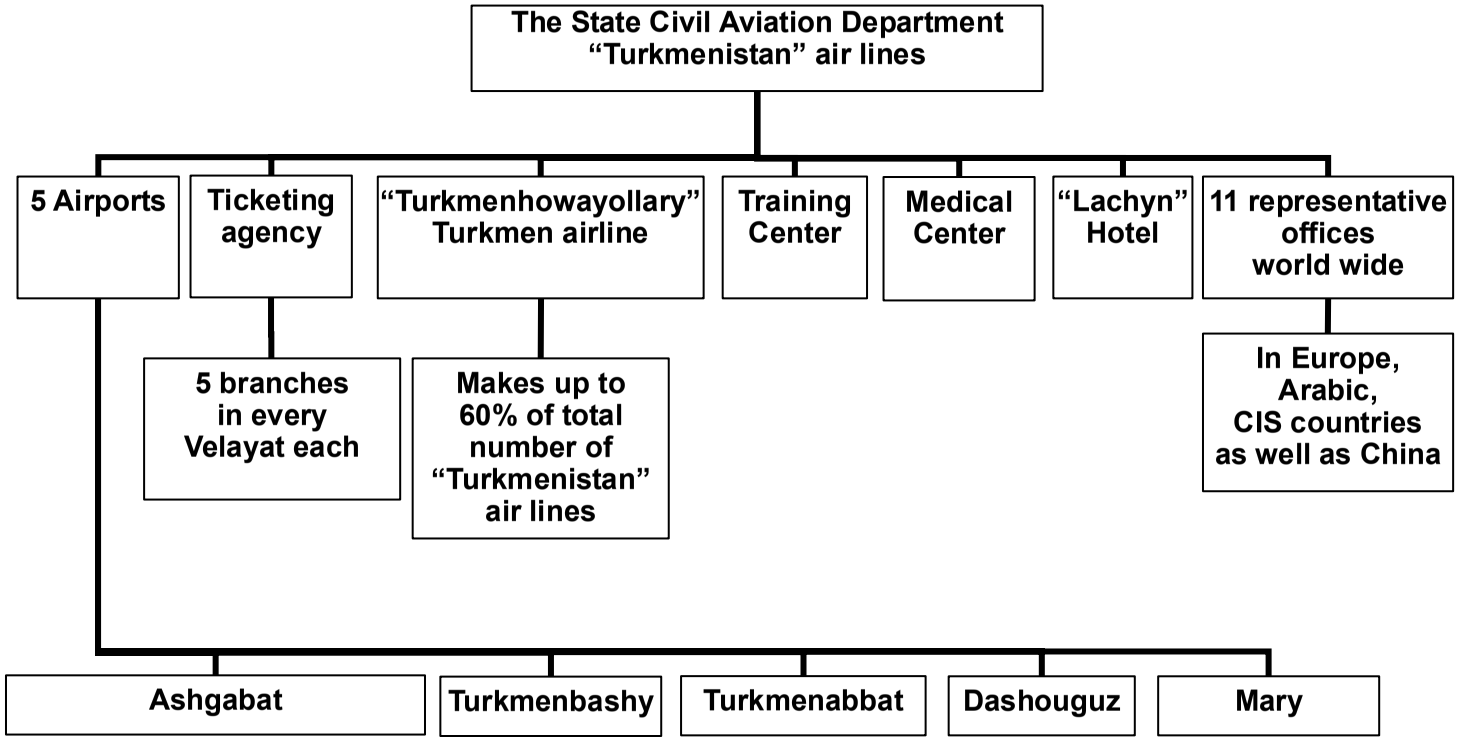


Figure 2.1.6 Organization Chart of Ministry of Railway Transport



NOTE:

- Total number of staff is more than 5000 people
- Total profit for year 2009 is around TMM 600 million, and it is expected to be 20% higher in year 2010
- Only passenger transportation sector have gained around TMM 270 million
- Total cargo transferred in year 2009 is equals to around 11,500 tons

Figure 2.1.7 Organization Chart of The State Civil Aviation

(2) Organization, Number of Staffs and Budget of Ministries and Agencies for Custom Administration

Ministries and Agencies correlated with custom procedures can be categorized into the following 6 groups in terms of their functions. (Refer to Figure 2.1.8)

1) Export / import license-issuing Ministries and Agencies
2) Export / import permission-issuing Ministries and Agencies
3) "State Custom Services" in charge of customs
4) "State Commodity and Raw Material Exchange (SCRME)" in charge of registering the export / import contract
5) "State Standard Services (TDS)" in charge of inspection of goods and issuing "Certificate of Compliance"
6) Banking and insurance related organizations

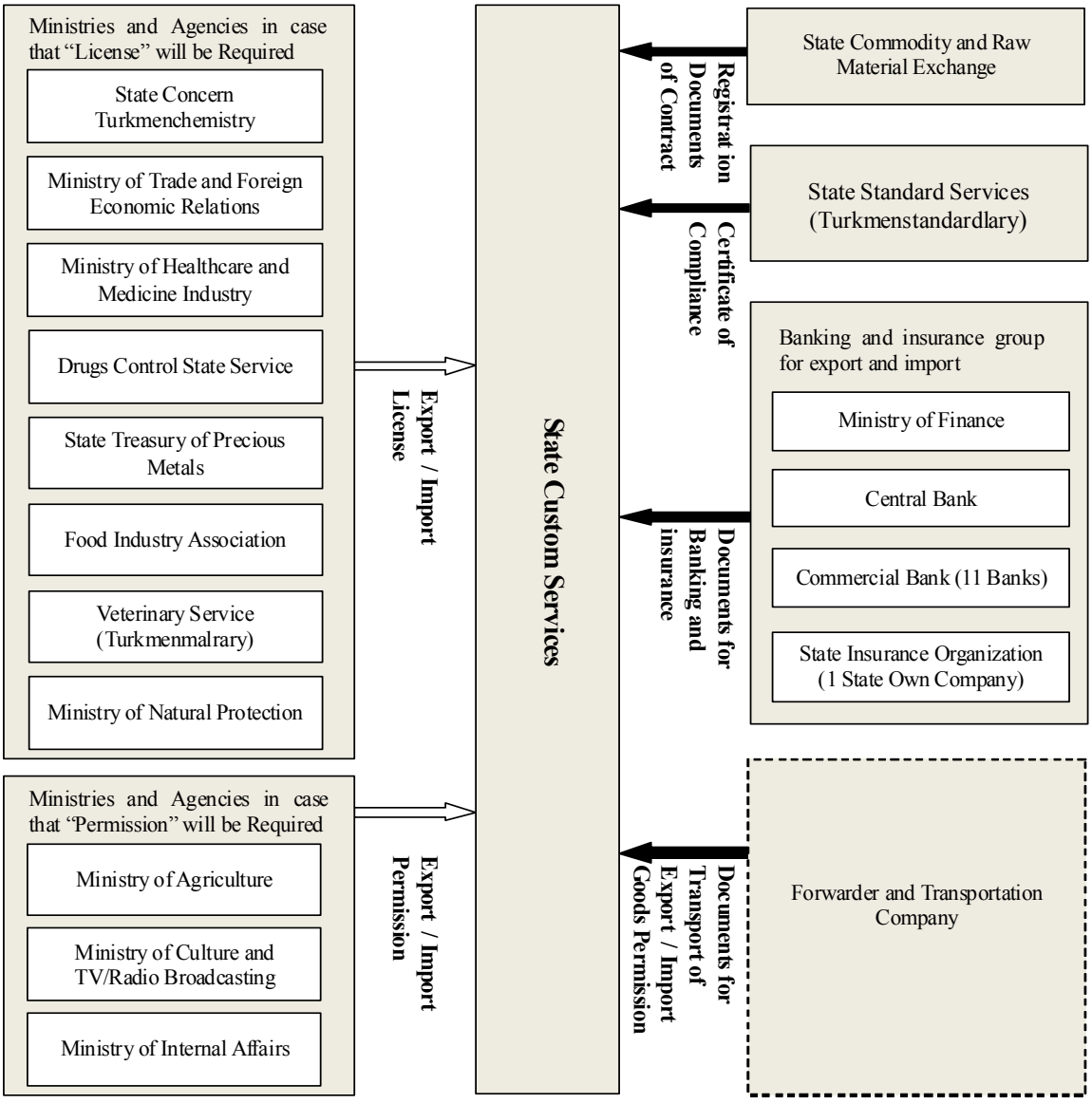


Figure 2.1.8 Institutional System for Custom Clearance

Table 2.1.16 shows the list of Ministries and Agencies which issues the licenses, in case that the types of products in the table will be exported or imported. Besides these types of products required for licenses, there are other types of products which require the permissions, and the major Ministries and Agencies which issue the permissions are shown in Figure 2.1.8. As it takes more than 1 month for getting the licenses or permissions, the prior consultation with these Ministries and Agencies is necessitated to make a smooth custom clearance.

In addition to the above-mentioned license or permission, when the social organization such as religious corporations will be the recipient of imported goods, the registration in Ministry of Justice is required. And also, when the imported goods are the type of technical cooperation service, the registration in Ministry of Economy and Development is required. These registrations affect the customs tariff.

The peculiar customs procedure to Turkmenistan is that "State Commodity & Raw Materials Exchange (SCRMW)" and "State Standard Services" are placed as an important organization. The outline of these organizations is described in the following, together with the other categorized group.

Table 2.1.16 List of Export / Import License-Issuing Ministries and Agencies for Specific Goods

	Licensing Ministries and Agencies	Types of Products
1	State Concern "Turkmenchemistry"	Ozone layer destructive materials, pesticides and other agrochemical products*
2	Ministry of Trade and Foreign Economic Relations	Alcohol beverages and alcohol beer, public catering*
3	Ministry of Health and Medicine Industry	Medicine drugs for human, animals and birds, except psychotropic and medicine that contains psychotropic substances. Components to produce medicine drugs
4	Drug Control State Services	Narcotics and psychotropic drugs
5	Turkmenistan State Treasury of Precious Metals	Precious metals or other products evaporated by precious metals**
6	Turkmenistan Food Industry Association	Spirits (except those that are being imported for Ministry of Health)*
7	Veterinary Service (Turkmenmallary)	Drugs used for the veterinary (except those that have psychotropic substances*
8		Karakul and karakul fur**
9	Ministry of Nature Protection	Animals, birds and fish that are in the red book of Turkmenistan, as well as fish products

Source: State Custom Services

Note: * Being licensed only for import
** Being licensed only for export

1) Ministries and Agencies Issuing Licenses

i) State Concern Turkmenchemistry (Turkmenhimia)

Turkmenhimia was established in 2001 under the jurisdiction of Cabinet of Ministers and in charge of the issuance of license for the chemical production and import activities of goods to contain 80 chemical items (Refer to Table 2.1.14) and Ozone depletion materials which require the permission of Cabinet of Ministers, in line with Kyoto and Montreal International Conventions. This regulation is to be continued until 2015. Trukmenhimia also produces the chemical products together with their export and import of product materials. The number of staffs in headquarters is 55 and 9,000 staffs are working, including 9 plants under Turkmenhimia.

Three plants produce the chemical fertilizer and Turkmenhimia is old acquaintances with Japanese companies in this field. After the visit of President to Japan on Dec. 2009, The consortium of Kawasaki Plant Systems, Ltd. and Sojitsu Cooperation finished the contract to provide JBIC loan for 80% of construction cost (10 billion US$) of the plant producing ammonia and carbamide in Mary. Besides, the following agreements etc. are ratified

- Mitsubishi Heavy Industries and Mitsubishi Corporation made a framework agreement for the construction of the plant producing ammonia, methanol and carbamide in Tejen.
- Sojitsu Cooperation made an framework agreement for the design, equipment procurement and technical consultative assistance for the plant producing caustic soda and other chemical products in Jebel town

The pros and cons for licensing will be judged by the licensing committee comprised of 5-10 members established inside Turkmenhimia. This licensing system is now reviewed for the simplification of procedures and the new Presidential Decree is expected to be issued for changing the overall system from the license system to the permission system for the individual application. In that case, the permission department is to be newly established for making a technical appraisal.

At present, when the traders import the chemical products to contain the designated chemical items in Turkmenistan, it's required to get the license, and after the new Presidential Decree will have been issued, the permission of Turkmenhimia are required for each import activity.

When the company try to start the manufacturing or the import of chemical products to contain 80 chemical items and ozone depletion materials in Turkmenistan, the company is required to submit the application form and to be accepted. If necessary, the company gets a environmental consultation with Ministry of Natural Protection, and the pros and cons of license will be judged by Trukmenhimia.

ii) Ministry of Trade and Foreign Economic Relations

Ministry of Trade and Foreign Economic Relations is responsible for the market saturation (food products, technical equipment, production equipment), purchase and procurement, foreign

economic relations, licensing of public catering, and quality control

It' required to get the license from Ministry of Trade and Foreign Economic Relations, when the trader imports the alcohol beverages, alcohol beer and public catering to Turkmenistan.

iii) Ministry of Health and Medical Industry

Ministry of Health and Medical Industry is responsible for the quality and safety of food and medicine, and the permission or license is required when the traders export or import the food or medicine. Ministry of Health and Medical Industry has laboratories for inspecting the quality and safety of the food and medicine, but 60% of inspection equipments are already old.

The procedure of the registration and the permission for the production of food and the export or import of the food is as follows.

- Expertise of documents presented by manufacturer (supplier) on the food-stuffs and confirming their correspondence to the requirements of normative document, conditions of the fabrication or deliveries of the food-stuffs
- Expertise on the result of the quality and safety test of the food-stuffs, conducted in the event of its need
- Putting into the state register of the food-stuffs, allowed for the fabrication on the territory of Turkmenistan or for the import to the territory of Turkmenistan and their suppliers
- Issue the certificate about the state registration of the food-stuffs to declaring and enabling on their fabrication on the territory of Turkmenistan or the import of it on the territory of Turkmenistan and their trade turnover

As for the medicine, the license will be issued based on four types of activities above-mentioned (Refer to 2.1.1. (2) 6)) and it's required to get the license in compliance with the content of activity for the production and both the export or import.

It takes about one month for the issuance of the license or the permission. The inspection result of chemical ingredients which requires the permission and license in Turkmenistan is the pre-conditions to issue the permission and license for the food and medicine.

iv) Drugs Control State Service

Drugs Control State Service was established on 18th Jan. 2008 by the resolution of Presidential Decree. Turkmenistan has 800 kilometers cross-border with Afghanistan. Every border checkpoint has military forces, national security officers, custom officers, police officers and the officers of Drugs Control Agency. Agency was developed in order to coordinate the drug enforcement activities, at the border in particular. The role of the Agency is to brief, educate on the importance of the prevention and control of drugs transportation.

Almost all cross border checkpoints use X-Ray equipment designed for large cargoes. German and Belgian trained the officers as well. However, they have stated the urgent need in X-Ray equipment

designed for the public places, such as airport and railway stations in order to identify the hand baggage.

In cooperation with UN and other Central Asian countries, program called TARSIET-2 was executed. This is already second program in its kind, that is aimed to prevent import of drugs' producing chemical substances to Afghanistan. Using this chemical substances, Afghanistan' illegal drug producers can make 1 kilogram of heroin out of 10 kilogram of opium.

Usually it is 7 to 8 persons, but even the agency is not present at any particular checkpoint at the moment of cargo check, they can always instruct the customs services of Turkmenistan to perform the check on their behalf.

The permission of President and the registration under the license is required for the export and import of the narcotic, and Drugs Control State Service will be the window for it.

v) Turkmenistan State Treasury of Precious Metals

Turkmenistan State Treasury of Precious Metals is under the jurisdiction of Cabinet Ministers and it's required to get the license from this treasury when the trades export the precious metals or other products evaporated by precious metals.

vi) Turkmenistan Food Industry Association

When the traders import the spirits except those which are being imported under the jurisdiction of Ministry of Health and Medical Industry, the traders are required to get the license of Turkmenistan Food Industry Association.

vii) Veterinary Service (Turkmenmallary)

The association "Turkmenmallary" was established in 1996 by the resolution of the President under the jurisdiction of Cabinet of Ministers and the number of staffs is about 3,000 and the budget in 2009 is 1.326 million US$. It contains: 86 livestock farms; veterinary association for animal and birds care; production association Turkmenorimeydansuvlylandyrysh", that carries out irrigation of pastures; research institute of livestock and veterinary.

"Turkmenmallary" has developed and implemented lease relationship in regards to the sheep breeding, cattle-breeding, aviculture, camel breeding. Based on the conditions of such relationship shepherds do get 50 % of animal yield as a remuneration of labour.

Main activities are aimed for preservation and perfection of gene pool *SARDZHIN* and *KARAKUL* sheep, *ARWANA* breed camels and bovine animals. Due to well-directed effort of specialist and scientists of the livestock and veterinary institute it is now accurately defined quantity of pedigree economy: 14 in sheep breeding, 5 in camel breeding, 4 in cattle-breeding and 23 in total.

Research institute of livestock and veterinary was established in 1928. Institute is being the only one organization that is providing scientific basis for livestock and veterinary in whole Independent and

Neutral Turkmenistan. It is being a part of "Turkmenmallary" association's structure and carrying out scientific production works. The institute has two scientific divisions: livestock sector and veterinary science.

Its activities are aimed to the salvation of the below listed problems:

- Preservation and perfection of gene pool *SARDZHIN* and *KARAKUL* sheep, *ARWANA* breed camels and bovine animals.
- Rational use of local forage and mineral funds of the Country in feeding the livestock.
- Enlarging, enhancement and rational use of the pastures in Turkmenistan.
- Animal protection and prevention of infectious non-contagious diseases, creation and development of new veterinary biological medicine and medicine based on the vegetable and mineral recourses.

The import of drugs used for the veterinary except those that have psychotropic substances and the export of Karakul and karakul fur is required to get the license from Veterinary Service (Turkmenmallary).

viii)Ministry of Nature Protection

The export and import of Animals, birds and fish that are in the "red book[2]" of Turkmenistan, as well as fish products are required to get the license of Ministry of Nature Protection.

2) Ministries and Agencies Issuing the Permission

i) Ministry of Agriculture

Ministry of Agriculture is responsible for the plant epidemic prevention, and the epidemic prevention is divided to two activities; phytosanitary certificate activity and plant protection service. As major departments of Ministry of Agriculture related to the epidemic prevention, there is "Fumigation Department", "Quarantine Department", "Central Laboratory" and "Research Institute of Agriculture".

The phytosanitary certificate activity is separately conducted at two branches of export and import. In case of export, the specialists inspect the parasitism and disease of the plant with the inspection equipment, and issue "Phytosanitary Certificate", based on the result of plant quarantine. In case of import, the Turkmenistan certificate based on the result of the sample inspection is necessitated together with "Phytosanitary Certificate" issued at overseas country. As it takes about 1 month to issue the quarantine certificate, it's necessary to submit the quarantine application form before one month.

The plant protection service is conducted at the subdivisions of five provinces of Turkmenistan, getting the cooperation of famous US and European companies. The climate of Turkmenistan is

[2] The Red Data Book of Turkmenistan volume 1-Invertebrate and Vertebrate Animals

so hot and dry that the eggs of insets easily grow on the plant. Therefore, the plant protection is been conducted with biologically clean methods.

The problems of Central Laboratory and Research Institute of Agriculture are that it takes so much time as there is no high-tech equipment. Turkmenistan makes an agreement with European, CIS and Asian countries so as to make a smooth quarantine activity.

In case to introduce the new chemical fertilizer, Turkmenistan makes an agreement with the foreign company and tests it at the specific area. If there is no problem, Ministry of Agriculture issues "Certificate of Approval". This is the national level test and it's not treated as the license. Turkmenistan had imported the fertilizer from Japan through this kind of test.

ii) Ministry of Culture and TV/Radio Broadcasting

Ministry of Culture and TV/Radio Broadcasting is authorized to issue the permission when the traders export the commodities with the cultural value. The department to inspect the historical value is different by commodity, but the overall window of Ministry of Culture is "International Department".

The government level export & import requires both sides agreement. For the private export, it is necessary to obtain the permission from the relevant department of Ministry of Culture: "Musical Instrument Department", "Department of Work of Art", "Department in charge of Museum", "Musical Department", "Jewel Department", etc. For this, it is required to address to Ministry of Culture and they will issue the permission at the same day.

Foreigners who wish to take carpets out of Turkmenistan must obtain the permission certificate from the Museum in the Central Ashgabat, indicating that the carpet is not of historical value. Some private shops may have carpets for sale for which they already obtained certificates. In addition, buyers may have to pay a tax calculated according to the size of the carpet.

If the permission for export and import obtained, Turkmenistan customs authorities will allow to export from Turkmenistan of items such as: carpets, jewel, musical instruments, pieces of art, archeological artifacts, protected animals etc. Turkmen dog – Alabay is also considered a national treasure and is banned for export without prior permission.

iii) Ministry of Internal Affairs

Ministry of Internal Affairs has its subdivisions in provinces, towns, and villages. The main purpose of the Ministry of Internal Affairs is the maintenance of public security. The export and import of the gunpowder, firearm and sword etc. is strictly legislated and Ministry of Internal Affiars will be the window to treat this kind of issues. Only with the written permission of Ministry of Internal Affairs, the gunpowder, firearms and sword can be taken abroad or brought into the country.

3) State Customs Services

i) Whole of State Customs Services

State Customs Services was established on 4th, Nov. 1991, and ever since, based on the basic international regulations and national practice enhancing customs law, it's also enhancing the custom bodies' facilities, strengthening the material and technical basis and with the help of up to date satellite communications system, it executes the activity of electronic customs operation in "online format".

The custom services has the state central machinery (HQ), 6 Custom houses (Ashgabat, Ahal Province, Mary Province, Lehap Province, Dashoguz Province, Balkan Province) and 48 custom points , of which 15 custom points are located at the cross-border. The number of staffs is about 1,000 and the budget in 2009 was 151 million US$. The state central machinery (HQ) of State Customs Services is composed of:

- Organization of custom control department
- Prevention of custom rules violation department
- Legal and international relationship department
- Department of custom payment
- Human resources
- Custom statics department
- Accounting department
- IT and automation department
- Common department
- Department of economical governance and construction

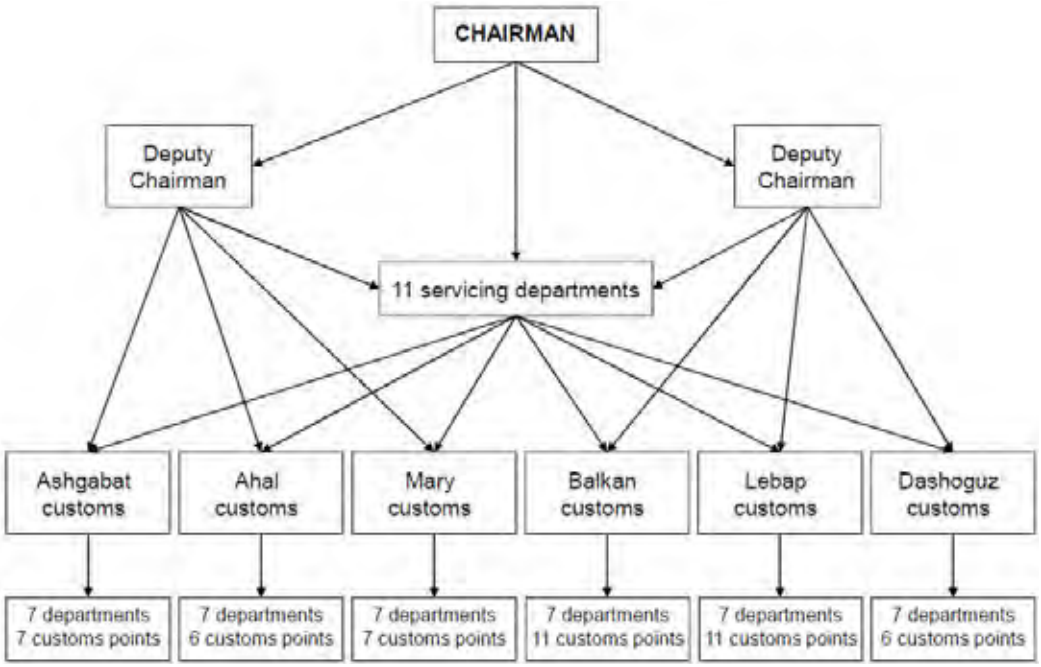


Figure 2.1.9 Organization Chart of State Customs Services

One of the main activities carried out by custom bodies of Turkmenistan is the drug, weapon and cultural values smuggling prevention, as well as the illegal transportation of psychotropic substances and their components. The execution of such activities is been carried out with other law-enforcement bodies of Turkmenistan such as Ministry of Internal Affairs, Drug Control State Service, and Ministry of Culture and TV/Radio Broadcasting.

As a result of contraband prevention by the custom bodies of Turkmenistan, only during the year 2008, 10,840 cases of customs regulations violation were detected. 155 cases of drug, weapon, psychotropic and jewelry smuggling at the border of Turkmenistan and some law violations were passed to the investigatory bodies of Turkmenistan.

During the year 2008, the following attempts of illegal transportation through the border of Turkmenistan were suppressed:

- Firearms (1 pneumatic riffle, 1 double-barreled hunting rifle, 1 single-barreled rifle, V3-2; ammo in amount 2,715 pieces)
- Following drugs: 33.32 kg of heroin, 8.76 kg of opium
- Psychotropic substances: 14,900 pieces of various psychotropic pills
- 211.6 thousands of motor fuel

ii) Ashgabat Airport Customs Office

The number of staffs is about 20 at Ashgabat Airport Custom Office and they are in charge of the inspection of air cargo and custom clearance, based on the export/import license or certificate of permission if necessary, and the documents necessitated for the custom clearance. They have vacant seats for 22 staffs, and they are ready to employ the specialists if necessary. The inspection of illegal export and import goods and quarantine is usually executed by the customs officers but as for the special goods, there is a case to invite the specialists from Ministries and Agencies in charge.

iii) Sarakhs Cross-Border Customs Office

At Sarakhs truck cargo custom office located at the cross-border with Iran, 15 to 16 staffs are stationed, comprised of the customs officers and the staffs related to military, drugs and immigration. Sarakhs is the important custom point of Turkmenistan on the route for the cargo loaded and unloaded at Bandar-Abbas Port of Iran. At this custom point, the inspection of documents on the export and import cargo by truck and the inspection of smuggling of gunpowder, firearm, sword, and drugs, etc. are their major missions.

The inspection of the illegal export and import cargo such as smuggling is at present executed by visual check and it takes only 15 minutes. The inspection of documents on the export and import goods takes only 5 minutes. However, in case the documents are inadequate, the truck can't go through the custom point and is compelled to go back. The smuggling is found twice a month. The custom office is opening from 8:00 o'clock to 17:00.

The major facilities inside the custom office is; several births with the oblong pit for visual smuggling check of the bottom side of truck vehicle, inspection office of documents on the export and import goods, X-ray equipment for the hand baggage, immigration office, customs office, quarantine office (Turkmenmallary and Ministry of Agriculture), tax payment office (Trukmenbashi Bank), and the car parks for Truck's waiting space, etc. The facilities of other custom points are almost the same as Sarakhs.

The construction of new cross-border custom office is to be started this year by getting the support of U.S.A. and the large X-ray equipment is to be introduced for the truck vehicle and the inspection of Truck cargo can be so much efficient without missing the illegal export and import cargo such as smuggling.

The Sarakhs railway cargo custom office is located along the railway line which is a little bit away from the truck cargo custom point, and 21 staffs are working there. The inspection of documents on the export and import cargo and the check of illegal export and import cargo such as smuggling of gunpowder, firearm, sword and drugs, etc. are their major missions. The inspection of suspicious goods by smuggling, etc. is executed both by the visual check and the document check. It takes 30minutes for the visual inspection and takes another 30 minutes for the document inspection. Recently, there is no detection of smuggling. The suspicious cargo judged through the document inspection is checked by opening the bonded key of the cargo wagon.

In the Sarakhs railway custom point, there are three railway lines for the Iranian narrow gauge and another three railway lines for the Turkmenistan wide gauge. The railway custom point is opening for 24 hours and 7 days a week by 2 shift system. After the custom clearance, the railway cargo wagon is sent to the Sarakhs railway transshipment yard, and the narrow and wide gauge of axles are exchanged. This railway transship yard is located both in Turkmenistan and Iran.

4) State Commodity and Raw Material Exchange

State Commodity and Raw Material Exchange (SCRME) was established by the presidential Decree on 29th, Jul. 1994 for the protection of national profits in the commercial dealings, and 500 staffs are working at SCRME including 70 staffs in the headquarters. The budget in 2009 is 150 million US& and the commission fee of SCRME is included in this budget.

All export and import contracts are obliged to register at SCRME, and the registration certificate issued by SCRME has to be attached for the custom clearance. However, in case of construction materials, as it takes a long time to finish the contract, the registration at SCRME is exempted. Besides, the private entrepreneur is also exempted to register so as to reduce the burden. At present, 34 countries and 120 brokers register at SCRME for the commercial bidding and dealings.

The organization of SCRME is composed of the following department, and "Exchange Contract Registration Department" is divided to five sections; oil, gas and chemistry, light industry, agriculture and construction materials.

- Agency of analysis and information technology
- Exchange contract registration department
- Market studies and price analysis department
- Billing department
- Economical analysis department
- Market department

The significance of the registration at SCRME is to realize the appropriate price and protect the national profit through the analysis of international market and the check of international market price. Figure 2.1.10 shows the flowchart from the bidding stage of goods to the contract and registration stage at SCRME, for understanding the overall functions of SCRME. The contract price will be kept appropriate through this bidding process and the registration of the export and import contract at SCRME is to certify the appropriateness of the contract. The flowchart shows there are several cases of contract;

- The domestic trading company participates in the bidding as a broker of SCRME, and purchases the goods from state-owned company, and makes a contract with the foreign trading company.
- The foreign company to participate in the bidding as a broker of SCRME and purchase the goods from the government or the state-owned company, and makes a contract with the overseas trading company.
- The domestic company and the foreign company makes a direct contract with each other without involving SCRME.

It's required to purchase the broker place per one year for participating in the bidding and required to submit the application form, permission, certificate of origin, statement of production cost, certificate of compliance, explanation papers of commodity and raw material and license, etc. for placing the commodities and raw materials in the bids.

As the privatization of the state-owned companies is delayed, at this moment, the functions of organization such as SCRME is necessary, but in the process of privatization, the functions of SCRME will change from the president registration agency to the commercial dealings agency.

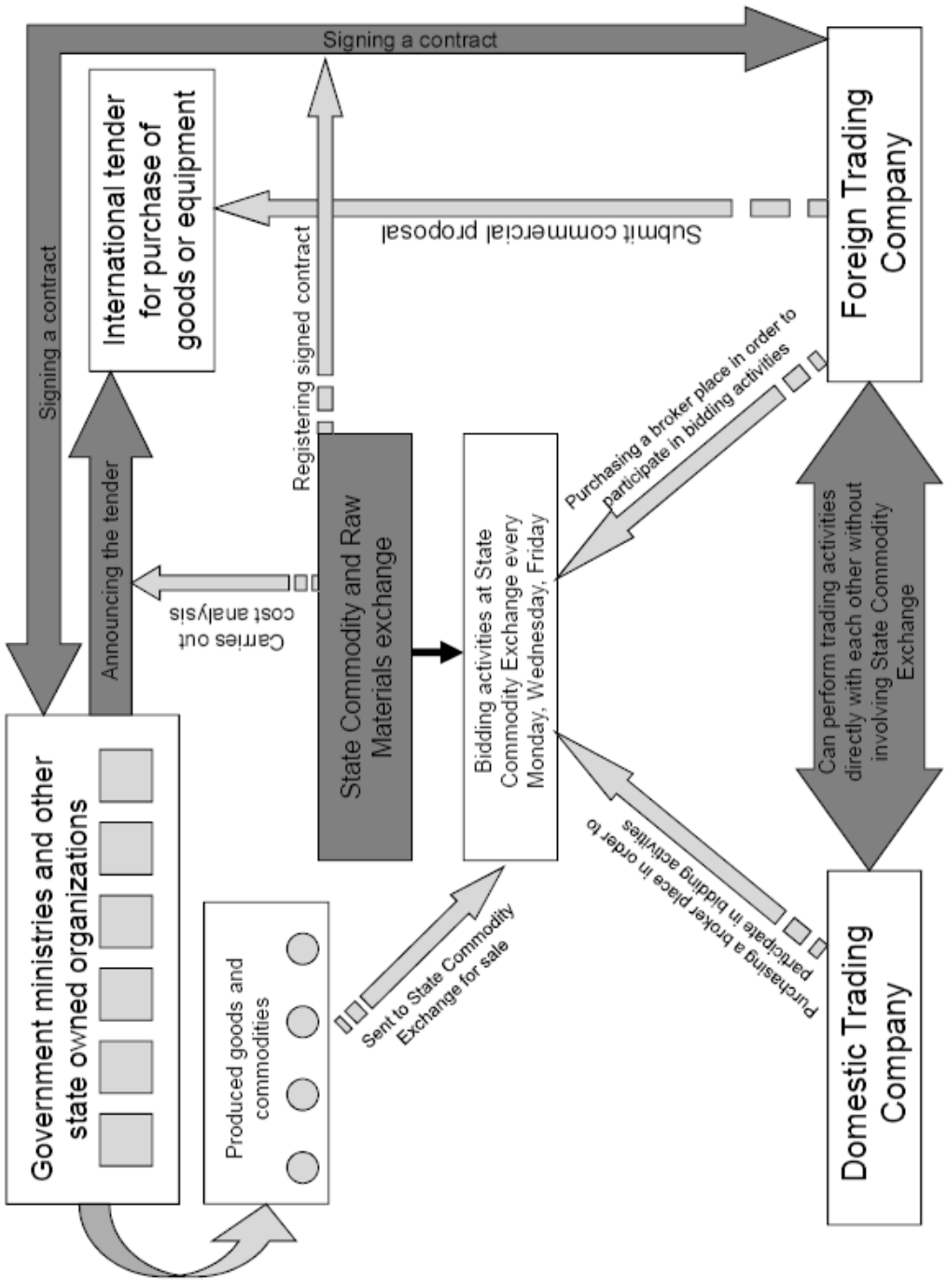


Figure 2.1.10 Functional Chart of State Commodity and Raw Material Exchange

5) State Standard Service (TDS: Turkmenstandardlary)

State Standard Service is the authorized inspection agency established in 1994, based on "Law on Certification and Services" ratified in 1993, and plays a role as an information center for the officially fixed standard of goods and issue "Certificate of Compliance", which is required to be attached for the custom clearance.

The chairman and directors of TDS are appointed by President, and TDS is obliged to report directly to Cabinet of Ministers. 32 staffs are working in the headquarters, and the number of inspectors is 65 in Ashgabat, and TDS has about 360 inspectors in total all over Turkmenistan. The total number of TDS staffs is about 1,000.

Upon the arrival of cargo at the customs office, the issuance of "Certificate of Compliance" is requested. The samples are being collected and go through the laboratory testing. So, TDS checks whether it complies with Turkmenistan standards. As a rule, TDS do require the radiological measurements for all types of cargo. The large cargo is inspected by visual check.

TDS has physicochemical laboratory, construction laboratory, textile laboratory, TV-radio laboratory, shoes laboratory, radiological laboratory, laboratory of cable insulation. TDS laboratories can perform the standardization for more than 200 types of goods.

TDS doesn't get the cooperation of the private international inspection companies such as SGS. TDS is ISO member and is also following the international system of certification. TDS has 18 public inspection subsidiaries, and 3 categories of business: the quantitative inspection, qualitative inspection and issuance of certificate and 60 testing laboratories in Turkmenistan. TDS is a monopoly certification body in Turkmenistan since 1994 and the cargo can't go through the customs office without "Certificate of Compliance" issued by TDS.

Every standardization procedure has its own timeframe, 3 to 4 days in average. However, as it takes 28 days in case of cement and it takes so long time in case to import the metrological equipment, it's necessitated to register the goods at TDS and inspect it before importing.

Turkmenistan has bilateral agreements with 13 countries, which is all of CIS countries and Turkey, and this agreement enables the smooth cargo inspection. Turkmenistan is also negotiating with Korea, UK and Iran but doesn't yet have an inspection agreement with Japan.

The commission fee for the inspection of cargo is included in the commission fee of customs (0.2 % to 0.5%).

6) Banking and insurance Group for Export and Import

i) Banking Group for Export and Import

The unification of foreign currency rates was given to Turkmenistan on May. 2008 and the issue of dual currency rate was settled. There was a five-fold price difference between the bank and the

black market before 2008. The settlement of the contract with State Commodity and Raw Materials Exchange was able to be conducted without any obstacle at the commercial bank.

The denomination of "Manat" was also enforced on Jan. 2009 and 5,000 Manat was devaluated to 1 new Manat. One year has passed on Jan. 2010 and the economic activities are making satisfactory progress without any disorder.

The commercial dealings of banks increased by 5 folds with these two monetary reformations and the functions of commercial banks were enhanced. Turkmenistan has 11 commercial banks shown in Table 2.1.17 and the ownership of commercial banks is: 6 state-owned banks, 2 joint stock banks by state and private, 2 foreign state-owned banks, and 1 joint stock bank by Turkmenistan and foreign state. Each bank is characterized in the investment field and they have dealings with Deutsch Bank and Commerzbank of Germany and Mitsubishi-Tokyo Bank and Mitsui-Sumitomo Bank of Japan. Daykhan, Senagat and Garagum Bank are approved to provide the fund for the private investment including the private entrepreneur by the government.

All 11 banks of Turkmenistan have money transaction functions for the export and import, and accept L/C ((Letter of Credit) dealings, D/P (Documents against Payment) dealings, D/A (Documents against Acceptance) dealings, remittance dealings, following the international standard prescribed in "INCOTRMS 2000". There is no difference from the money transaction functions of banks all over the world.

Table 2.1.17 The Characteristics of Commercial Banks in Turkmenistan

	Name of Bank	Ownership	Characteristics
1	Dayhan Bank	State owned	Agriculture Investment, Private Investment
2	Turkmenbashy Bank	State owned	Industrial Investment
3	Turkmen Bank	State owned	Government-financed organization & Trade Investment
4	Halk Bank	State owned	Savings
5	Senagat Bank	Joint Stock (state & private)	Private Investment
6	Karakum Bank	Joint stock (state & private)	Private Investment
7	Turkmen-Turk Bank	Joint state owned	Turkmenistan & Turkish
8	President Bank	State owned	Mostly credit and Loan
9	Sadirat Iran Bank	Foreign state owned	Branch of Iranian state owned
10	Pakistan Bank	Foreign state owned	Branch of Pakistan state owned
11	Bank of Foreign Economic	State owned	Direct Foreign Investment and Foreign Trade

The loan can be provided for the traders with the bank guarantee, in case that the traders have no sufficient fund for trading, and also the tax payment can be delayed if the traders have only to get

aguarantee from the commercial bank, and thus, the commercial banks contribute to the smooth export and import activities. There is no regulation for the provision of loan and also no regulation for taking the foreign currency out of the country by Ministry of Finance. The dollar peg system is taken for the foreign currency exchange rate. The commercial banks are obliged to report the money transaction to the Central Bank but there is no process of registration and permission for the Central Bank and Ministry of Finance.

ii) Insurance Group for Export and Import

State Insurance Organization is only one state-owned insurance company in Turkmenistan, established by License No. 13 on Aug. 1992 with the permission of Ministry of Finance, and the company has about 40 branches, 150 agents and 400 specialists. The capital of the company is 30 million US$ and small as a insurance company.

State Insurance Organization accepts about 40 types of insurance and reinsurance including the cargo transport insurance, but as the capital is small, it's not permitted to insure more than 40 fold of the capital (1.2 billion US$) by Ministry of Finance. And as State Insurance Organization has no survey capacity in the overseas, only the domestic accidents can be insured and the overseas accidents cannot be accepted unless the accidents are reinsured by the foreign insurance companies..

The insurance clause of State Insurance Organization for the cargo transport is been developed by himself, based on Institute Cargo Clause (ICC) which Institute of London Underwriters (ILU) provided in 1992. However, in case of reinsurance by the foreign insurance company, the insurance clause of new ICC provided by ILU is accepted for the overseas accidents.

(Insurance Clause of State Insurance Organization for Cargo Transport)

(Clause A) "All Risks Liability"

- Claims for damage or full destruction in part or whole of the shipment caused by any reason except cases of extreme humidity in the vessel causing moisture damage to the cargo by atmospheric precipitation;
- Claims for losses, expenses and payments for all accidents;
- Claims caused by the disappearance of the transportation vehicle;
- Claims for all necessary and reasonable expenses for the rescue of the vehicle;

(Clause B) "Particular Accident Liability"

- An explosion, fire, natural disasters;
- Grounding, turnover or sinking of the vessel;
- Collapse of bridges and tunnels;
- Collision of the vessel or the vehicle with an object;
- Ice damage to vessel;
- Damages caused as a result of measures taken to rescue the cargo or extinguish a fire;
- Water damage to the cargo from outboard water;

- Claims for accidents which occurred during the loading of cargo and /or during fuelling or re-fuelling of the vehicle;
- Claims, expenses and payments to general accidents and etc.

(Clause C) "No Liability for Damages except in Wreck"

- An explosion, fire, natural disasters
- Grounding, turnover or sinking of the vessel;
- Turnover or derailment
- Collision of the vessel or the vehicle with any object;
- Cargo unloading at a port due to the accident;
- Claims, expenses and payments for a general accident and etc.

When the trader exports or imports the goods, the registration of insurance is required at State Insurance Organization even though the trader doesn't use this organization for insurance. In case that the trader insures at State Insurance Organization, State Insurance Organization has to reinsure with the foreign insurance companies for the damage of cargos in the overseas. The damage of cargos in the overseas will be investigated by the overseas surveyor appointed by the foreign insurance company. State Insurance Organization uses the foreign reinsurance companies such as Munich Reinsurance Co., Zurich Financial Services Ltd. and Lloyd's. All exports from Turkmenistan on FOB (Free on Board) basis and all imports to Turkmenistan on CIF (Cost, Insurance and Freight) basis can be insured by any other foreign insurance company in case of trading.

However, any construction and investment activity in Turkmenistan has to be insured and more than 15% of the risk on the territory of Turkmenistan has to be insured at State Insurance Organization. State Insurance Organization can reinsure high risk activities with foreign internationally recognized insurance companies such as Marsh Maklene, Willis ltd., AON, Colloman and Lloyd's. This figure is allowed to be dropped to 5% in case of high risk. According to "Presidential Decree No.23-21" issued on 15 June 1992, unless the construction and investment activities are insured, they aren't registered at Ministry of Finance, and the penalty equal to the amount of the insurance premium has to be paid.

Ministry of Finance is in control of insurance activities. When State Insurance Organization make an insurance contract, it requires the approval of Ministry of Finance. The insurance itself will be done very fast, however, the reinsurance may take some time as it is 10 days needed only for Ministry of Finance to give their consideration in regards to the chosen reinsurance company. It takes about one month in total.

As Turkmenistan has only one state-owned insurance company, the reformation is studied. In case that the foreign insurance company will start the insurance activities, the company has to deposit the fund, which is equal to the 5,000 fold of the employee's minimum salary', in Ministry of

Finance. However, as a matter of fact, the usage of State insurance Organization is obligatory and it's difficult for the foreign insurance company to find a market in Turkmenistan.

2.1.3 Custom Clearance and Formality System

(1) Items to Keep in Mind at the Prior Stage of Export and Import

According to the interview of traders, forwarders and transportation companies, they don't find any problem in the custom clearance and they can move the cargo out of the bonded area for one or two days. However, in case that they submit the incomplete documents or violate the rules decided in the custom clearance systems, they may suffer from the problems that the cargo happen to be left in the bonded warehouse for more than 1 month. Therefore, the traders must understand the custom clearance and customs system including the prior stage of export and import. And it's important to entrust the experienced forwarders and transportation companies of Turkmenistan and to make prior consultations with Ministries and Agencies concerned so as to make a smooth custom clearance.

i) Registration of Foreign Investment

This is not directly related to the custom clearance but it's obligatory to register the foreign investment at Ministry of Economy and Development. (Registration No. is issued) If the foreign investment is acknowledged as a technical cooperation service in the screening process, Ministry of Finance is in charge of the window to coordinate Main State Tax Services and State Customs Services. Then, the contents of the good treatment system are decided for the tax and customs exemption in compliance with the investment level. Therefore, in the custom clearance of goods produced by the foreign investment, it's necessary to keep the content of registration in mind.

ii) Check of Export and Import Goods and Prior Consultation with Ministries and Agencies Concerned

At the prior stage of export or import, it must to be checked whether the following military goods, chemical goods and the specific items designated by Turkmenistan described in the section 2.1.1 are included or not in the export or import good.

- List of products which necessitates the export or import license of Cabinet of Ministers (Refer to Table 2.1.11)
- List of Specific Products (Jobs and Services) legislated strictly which necessitates the registration under the export or import license upon the permisssion of President of Turkmenistan (Refer to Table 2.1.12)
- The military goods legislated strictly to transit accross the territory of Turkmenistan, which necessitates the permisssion of President of Turkmenistan (Specification No.1) (Refer to Table 2.1.13)
- Hazardous cargo legislated strictly to transit across the territory of Turkmenistan, which

necesitates the permisssion of President of Turkmenistan (Specification No.2）(Refer to Table 2.1.14)

If the export or import goods should correspond to the above items, the traders has to submit the application form for getting the export or import license / permission to Ministries and Agencies in charge, described in the section of 2.1.2, at the latest before one month of export or import, and start the discussions based on the proper documents for the license or permission.

iii) Registration of Export and Import Contract at SCRME

The traders have to register the export or import contract at SCRME in principle and attach the registration documents for the custom clearance. However, in case of the export or import of construction materials, the registration documents is not required to attach for the custom clearance as it takes long time for the contract, (which is prescribed in Decree No.9945), and in case of private entrepreneur, the attachment of the registration documents is also exempted for reducing the burden.

The commission fee of SCRME is free for the registration of the export and import contract related to the government or AWAZA project, but as for the registration of other export or import contract, it costs 0.1 % commission fee.

It usually takes 5 to 7 days for the registration of the contract but it takes only one or two days, if the necessitated documents are already provided such as license, permission, certificate of compliance and others.

iv) Prior Consultation with State Standard Services (TDS)

The attachment of “Certificate of Compliance” is required for the custom clearance, which is issued by State Standard Services after the inspection of goods. It takes 3 or 4 days on average for the inspection at the customs office. However, it may take so long time by commodity that it’s necessitated to register the goods at TDS earlier and request the inspection of sample before importing for fastening the custom clearance. (ex. it takes 28 days for the inspection of cement and it takes so long time in case of metrological equipment.) The commission fee for the inspection of cargo is included in the commission fee of customs office. (0.2 % to 0.5 % of CIF price of goods) If necessary, it may be requested to attach the catalog, pamphlet, drawings and explanation paper etc. at TDC.

v) Ministries and Agencies related to Banking and Insurance

The export or import contract is the most important document for avoiding the misunderstanding, misconception and for preventing the trouble on the sales contract between the parties concerned, and also it’ an inevitable document as a basis of solution in case of the arbitration or trial, as an evidence for acquiring the export or import license, and as a material for the money transaction in the bank.

When the trader makes a contract, the payment terms, such as L/C ((Letter of Credit) dealings, D/P (Documents against Payment) dealings, D/A (Documents against Acceptance) dealings, remittance dealings, will be decided with the commercial bank. The commercial bank (11 banks) in Turkmenistan has no regulation from the government, and if the trader have no problem in terms of the credit, the trader can settle the payment terms with the bank.

As for the insurance for the cargo transport, State Insurance Organization is only one state-owned insurance company. When the trader exports or imports the goods, the registration of insurance is required at State Insurance Organization even though the trader doesn't use this organization for insurance.

The capital of this company is small as an insurance company, and the insurance is limited to the accidents in Turkmenistan. When the trader will use State Insurance Organization, this insurance company has to reinsure the cargo with the foreign insurance company. As this organization requires the approval of Ministry of Finance, the trader has to start the discussion with this company, at the latest, one month before export or import.

vi) Overall Flowchart from the Stage of Investment for Chemical Fertilizer Plant to the Stage of Construction and Export of Goods

For reference to the understanding of the flow from the stage of investment and registration to the stage of plant construction and the export of products, Figure 2.1.11 shows the case of fertilizer plant.

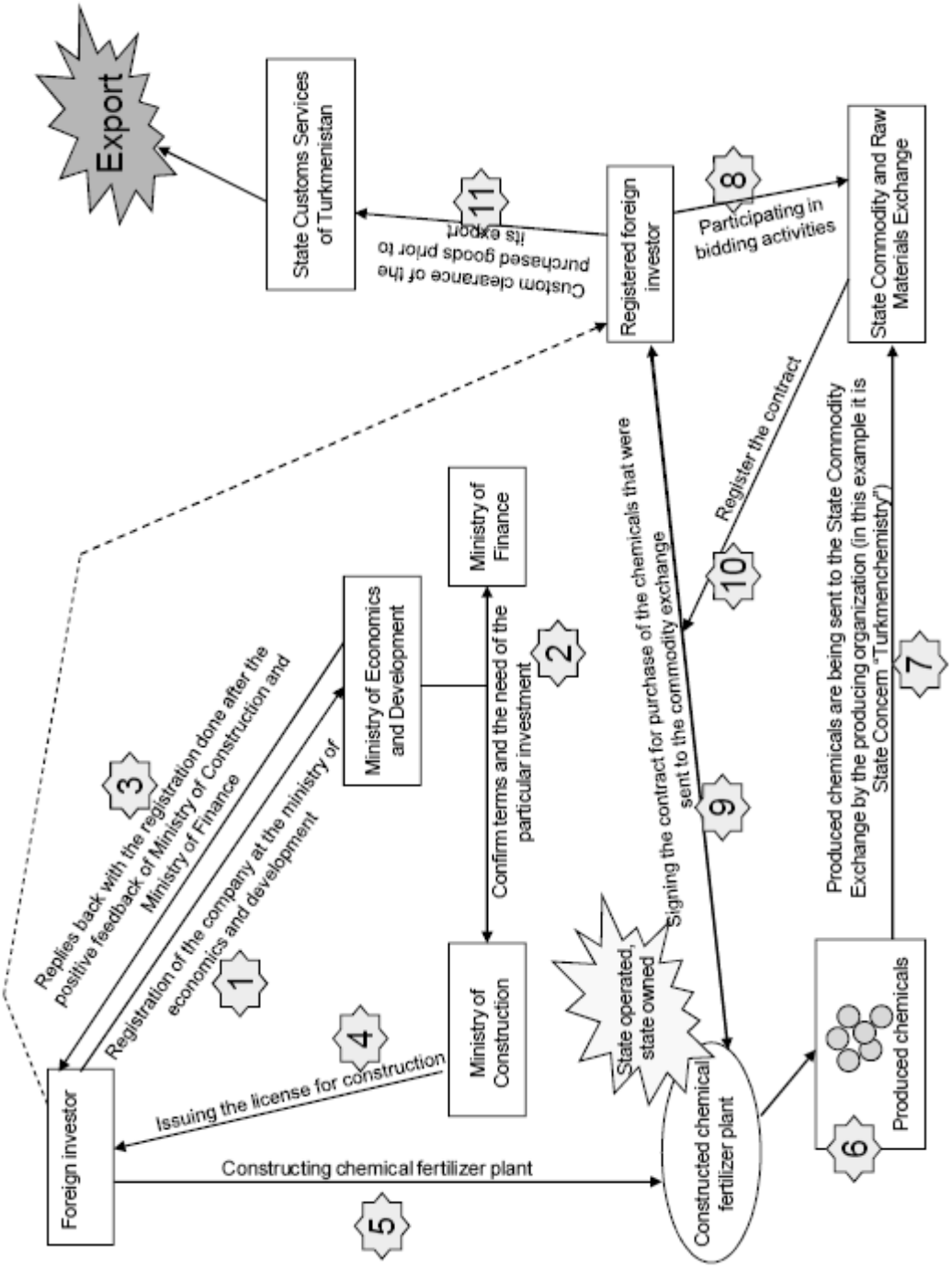


Figure 2.1.11 Overall Flowchart of Investment, Registration, Construction and Export of Products

(2) Customs Clearance for Import Goods

The customs clearance of import goods is gone through, in principle, placing the goods in the boded area. However, in case of the cargo in bulk or the cargo which requires the emergent custom clearance such as the perishable foods, it's possible to go through a custom clearance in the warehouse of porters or manufacturers, getting a permission of Customs office.

As the basic procedures for the import of goods are based on "INCOTERMS 2000" in Turkmenistan, there is nothing different from the international standard. However, as mentioned before, "Registration Document of Import Contract" at SCRME and "Certificate of Compliance" at TDS are required in addition to the ordinary documents for the custom clearance of import goods.

(Documents required for the custom clearance of import goods)

1. Import declaration form
2. Commercial invoice
3. Registration document of import contract at SCRME
4. Certificate of Compliance at TDS
5. Referential documents for the standard of assessment (Import contract, Detailed statement of freight charges〈B/L, etc.〉and insurance, Documents of dealings, Certificate of origin 〈in case the agreement tariff rate, the beneficial tariff and preferential tariff will be applied〉 and others)
6. Assessment statement of customs tariff
7. Application form for the customs tariff reductions or the exemption of customs tariff
8. Import license or permission document by other laws (In case the import goods are regulated)

The import permission will be provided under the following conditions. The payment of customs and VAT can be delayed if the trader owns a bank guarantee.

- The import declaration is properly made, and the identity between the actual article and the items described in the import declaration form is confirmed
- The customs and VAT are paid based on the assessment statement of customs tariff
- The license or the permission is attached, required for the prohibited cargo and the specific cargo prescribed in other laws and decrees
- There is no indication of false origin of products and no indication to cause the misconception

The period required for the custom clearance is different by the type of cargo but the custom clearance will finish for one day on average if the trader provides the exact documents based on the rules, and the quarantine procedure will finish for one or two days. In case of fresh foods such as vegetable and fish, the limit of custody in the bonded cold storage is one to 3 days, and the custom office lets the clearance finish during that period.

(3) Custom Clearance for Export Goods

The customs clearance of export goods is gone through, in principle, placing the goods in the boded area in the same way as import goods. The cargo in bulk or the cargo which requires the emergent custom clearance such as the perishable foods, it's also possible to go through a customs clearance in the warehouse of exporters or manufacturers, getting a permission of Customs office.

The necessitated documents for the export custom clearance are the following 4 documents (1.～4.). It must be careful that the registration document of the export contract at SCRME and "Certificate of Compliance" at TDS are always required for the custom clearance of Export goods.

(Documents required for the custom clearance of export goods)

1. Export declaration form
2. Commercial invoice
3. Registration document of export contract at SCRME
4. Certificate of Compliance at TDS

In compliance with the type of goods, the following documents are required to be attached.

1. Packing List
2. Export license or permission document by other laws and decrees (In case the export goods are regulated)
3. Document related to "Product Sharing Agreement (PSA)" (in case the export good is oil)
4. Assessment statement of customs tariff (in case the export good is oil)

In case the export good is oil, the custom clearance procedure can be simplified by attaching the document on "Production Sharing Agreement (PSA)", in which the simplification of custom procedure is specified as a part of agreement. This type of agreement can't be applied for other goods at this moment, but this type of agreement gives a good prospect to improve the custom procedure in future.

The export permission will be provided under the following conditions.

- The export declaration is properly made, and the identity between the actual article and the items described in the export declaration form is confirmed
- The customs and VAT are paid in case the export cargo is regulated by other laws and decrees
- The license or the permission is attached, required for the prohibited cargo and the specific cargo prescribed in other laws and decrees

The customs tariff for most of export goods are exempted but the several export goods are imposed the customs tariff such as medicines, precious metal, Karahul and Karahul Fur, animals / birds / fish in "Red Book of Turkmenistan", and cultural assets.

(4) Simplification of Customs Procedure

There is one case in which the custom procedure is so much simplified for the oil product in Turkmenistan. This simplification system is prescribed in the agreement called "Production Sharing Agreement (PSA)". This originally targets for the investor to ratify the production sharing agreement with the government and the simplified custom procedure of export and import goods is incorporated in this agreement. Ministry of Oil and Gas Industry & Mineral Resources is in charge of the agreement, and if the investor has only to submit the document on PSA to the customs office, the time required for the customs clearance is so much shorted.

JICA study team introduced several Japanese cases for the simplification of customs procedure such as;

(Import)

Prior instruction system, Import preliminary inspection system, postponement system of tax payment〈separation of custom clearance and tax payment〉, Simple declaration system、Comprehensive insurance handled application for FOB and FCA base import, and Introduction of electronic digital interchange system(EDI), etc.

(Export)

Comprehensive prior examination system, Specific export application system, and Introduction of electronic digital interchange System (EDI), etc. for the export.

At present, the new" Custom Code of Turkmenistan" is discussed in the parliament, which is reviewed for the international standardization of the present law, and State Custom Services wants to study the simplification methodology after the new law will be approved in the parliament..

State Custom Services is now promoting to introduce EDI system inside the organization and it will be scheduled to complete on Oct. 2010. The details of EDI system is not clear but the trial for the computerization is been promoted.

(5) Bonded Warehouse System

In the customs office, the bonded warehouse or bonded area is provided for storing the general cargo upon their arrival. The custom clearance has to be finished within one month and move out the cargo from the bonded warehouse or bonded area in principle, but it can be extended to 6 months. In case the storage period goes over 6 months, the trader is fined and the customs office disposes of the cargo or the trader must re-export the cargo to the export country.

In case of the bonded area of Turkmenbashi Port, the storage fee is free for 2 days, but when the storage period is over 3 days, the storage fee shown in Table 2.1.18 has to be paid. The fee for the case that the trader loads or unloads the cargo from the ship, and bring the cargo to the trader's bonded warehouse directly by truck without going through the bonded area, and the case that the trader loads or unloads the cargo from the ship, and bring the cargo to the trader's bonded warehouse by tuck via the bonded area, the fee is different as shown in Table 2.1.19.

Table 2.2.18 Storage Fee at the Bonded Area of Turkmenbashi Port

Days	Cost (US$)
Up to 2	Free
3 to 10	0.25/t
Over 1o	0.6/t

Table 2.1.19 Loading / Unloading Fee

Weight	Cost (US$)	Type of operation
Up to 250kg	18	Direct
	21.6	Full
251kg to 3,000kg	14.4	Direct
	18	Full
3001kg to 40,000	12	Direct
	14.4	Full

Note: Direct Operation – Vessel and truck
Full operation – Vessel, quay and truck

On the other hand, Ashgabat Airport has no bonded warehouse inside the airport area but has 12 bonded warehouses (the size is 18m (Length) x 6m (width) x 5m (Height) on average) within the area of several km from the airport. The fee system of the bonded warehouse is shown in Table 2.1.20.

As the large scale companies own the sufficient size of warehouses, they are allowed to use their own warehouses as a bonded warehouse. In that case, “Guarantee Letter” is required, in which Flight No., the contents of cargo, the quantity and the cost, etc. are descried, and it’ not allowed to open the bonded key until the inspection will finish. And they are requested to go through the customs procedure within one month.

The storage fee of the bonded warehouse in the inland customs office takes the similar fee system to the bonded warehouse of Ashgabat Airport.

Table 2.1.20 Storage Fee at the Bonded Area of Ashgabat Airport

Days	Cost per kg (US$)	Weight	Type of Cargo
1	Free	Less than 50kg	Transit
2 to 5	0.12	Less than 50kg	Transit
6 to 11	0.23	Less than 50kg	Transit
12 and more	0.46	Less than 50kg	Transit
1	Free	More than 50kg	Transit
2 to 5	0.17	More than 50kg	Transit
6 to 11	0.46	More than 50kg	Transit
12 and more	0.92	More than 50kg	Transit

(6) Customs Tariff

The customs tariff system is prescribed in “Presidential Decree No.9925”, which shows “Custom Tariff Schedules of Turkmenistan” and the customs tariff rate is decided, following the category of 49 items based on HS code.

The customs tariff rate for each commodity item with HS code is shown in Table 2.1.21. The Customs tariff system of Turkmenistan is formulated based on both the value and quantity, which is just the same as Japan and the tariff is levied for CIF price. The customs fee is 0.2% to 0.5%.

The custom clearance is not allowed unless VAT is paid in addition to the customs tariff. The standard of assessment for VAT is “CIF price + customs tariff”. In case the customs tariff will be exempted, VAT will be also exempted.

Table 2.1.21 Attachment No.1 to the Turkmenistan President's decree No.9925
Enumeration of certain goods that are imported to Turkmenistan and which should undergo customs duties

No.	Product Code	Name of the goods	Custom duty for each product unit in USD or in percentage to custom cost
1	0409	Natural honey	USD 1 for 1 kg
2	0511 99 801	Mulberry silkworm eggs (except import by the Ministry of textile industry of Turkmenistan and related to it organizations)	USD 0.5 for 1 gram
3	0805 50 Out of 0806	Lemons Fresh grapes	USD 0.5 for 1 gram
4	Out of 1512	Cottonseed oil	USD 1 for 1 kg
5	1601 00	Sausages and products of this kind, derived of blood and combined meat, food products that are cooked on their base	USD 0.5 for 1 kg
6	1704 10	Chewing gum, covered or not covered by sugar	USD 2 for 1 kg
7	20	Products of refined vegetables, fruits, nuts, or other plants, except tomato paste	USD 0.15 for 1 kg
8	Out of 2001 Out of 2002	Tomato paste	USD 0.3 for 1 kg
9	2105 00	Ice-cream and types of food ice that does not contain or contain cacao	USD 0.5 for 1 kg
10	Out of 2201 10	Mineral carbonated waters	USD 0.4 for 1 liter
11	2201 10 110 2202	Mineral carbonated waters Waters, including mineral not carbonated that contain sugar or sweeteners or other flavoring substances, other non-alcohol beverages, except fruit or vegetable juices of the product code 2009.	USD 0.2 for 1 liter
12	2501 00 310 2501 00 91	Technical salt (separation of sodium and chloride, used to produce other products) Common salt	USD 1 for 1 kg
13	Out of 2503 00 Out of 2530 20 000	Milled Sulfur Sulfurous natural magnesium (epsomite)	USD 1 for 1 kg
14	Out of 2712 90	Ozokerite (except the ones that are imported for the medical purposes by the organizations of Ministry of Healthcare and Medical Industry of Turkmenistan)	USD 1 for 1 kg

No.	Product Code	Name of the goods	Custom duty for each product unit in USD or in percentage to custom cost
15	Out of 2801 20 Out of 2803 00	Technical iodine of *grade A (Russian meaning)* and *Ч (Russian meaning)* (except the ones that are imported for the medical purposes by the organizations of Ministry of Healthcare and Medical Industry of Turkmenistan) Technical carbon *К-354 (Russian meaning)*	USD 1 for 1 kg
16	2804 40 000	Oxygen	100%
17	2807 00 100	Sulfuric acid (except the ones that are imported for the medical purposes by the organizations of Ministry of Healthcare and Medical Industry of Turkmenistan and imported by State Concern "Turkmenhimiya")	USD 1 for 1 kg
18	2811 21 000	Carbon dioxide	100%
19	2827 31 000 Out of 2827 60 000 Out of 2829 Out of 2833	Technical magnesium chloride (bischofite) Potassium iodide Iodic potassium Sodium sulfate *grade A (Russian meaning)* and *Б (Russian meaning)* (except the ones that are imported for the medical purposes by the organizations of Ministry of Healthcare and Medical Industry of Turkmenistan)	USD 1 for 1 kg
20	2849 10 000	Calcium carbide	USD 0.1 for 1 kg
21	Out of 3003	Medical Glauber's salt (except the ones that are imported for the medical purposes by the organizations of Ministry of Healthcare and Medical Industry of Turkmenistan)	USD 0.5 for 1 kg
22	Out of 3102	Urea (except the ones that are imported by State Concern "Turkmenhimiya")	USD 100 for 1 ton
23	Out of 4303	Karakul fur coats	USD 100 for 1 piece
24	4910 00 000 4911	Print calendars of all types, including tear-off Other printed production, including printed reproduction and photos	USD 2 for 1 kg
25	Out of 5001 Out of 5002	Cocoons of silkmoth (silkworm) (except silkworm eggs) Raw silk	USD 2 for 1 kg

No.	Product Code	Name of the goods	Custom duty for each product unit in USD or in percentage to custom cost
26	Out of 5208 Out of 5209 5209 42 000 5211 42 000	Severe coarse calico cotton Denim or jean cotton cloth	USD 4 for 1 kg
27	5205 5206 5207	Cotton yarn (except sewing threads) that contains cotton fiber of 85% mass or more, and not packaged for fleet (retail) sale Cotton yarn (except sewing threads) that contains cotton fiber less than 85% mass, and not packaged for fleet (retail) sale Cotton yarn (except sewing threads) packaged for fleet (retail) sale	USD 3 for 1 kg
28	3005 5601 21 Out of 5603	Cotton-wool and its products, impregnated or covered by pharmaceutical substances or packaged to the forms or the packages for fleet (retail) sale, aimed for use in the medicine, surgery, dentistry, and veterinary, hygienic cotton. Cotton-wool and other products of cotton-wool and cotton fiber Cotton sheet wadding	USD 1.5 for 1 kg
29	Out of 5701 Out of 5702	Nodular carpets and other floor covering textile, ready or not ready hand made Woven carpets and other floor covering textile not taffeta type or not flokite type, ready or not ready, including “sumach”, “kelim”, “kermani” and other analog carpets hand made	USD 5 for 1 square meter
30	Out of 5701 Out of 5702 5703, 5704, 5705	Nodular carpets and other floor covering textile, ready or not ready machine-made Woven carpets and other floor covering textile taffeta type or not taffeta type, ready or not ready, machine-made Carpets and other floor covering textile not taffeta type or not flokite type, ready or not ready including the ones that are made of thick felt	USD 2 for 1 square meter
31	6001 21 000, 6001 91, 6003 20 000	Knitted fabric machine knitted or hand knitted of cotton yarn	50%
32	61 62	Knitted parts of cloth and its materials machine or hand knitted Not knitted parts of cloth and its materials machine or hand knitted	30%

No.	Product Code	Name of the goods	Custom duty for each product unit in USD or in percentage to custom cost
33	6302 21 000, 6302 31 000	Furnishing made of cotton yarn	100%
34	6403, 6404, 6405	Footwear	5%
35	68 *Except:* Out of 6811 40	Products made of stone, gypsum, cement, asbestos, mica and other similar materials *Except:* Schist	5%
36	Out of 6811 40 0	Schist	USD 20 for 1 pack
37	Out of 7004 90 980	Window glass with thickness of 2.5 – 4 mm (except, tined and figured)	USD 0.5 for 1 square meter
38	7013 22, 7013 91	Crystal glass products	15%
39	Out of 71	precious metals, jewelry products, made of precious metals using or not using precious stones and its parts, products covered with precious metals	For each gram that is above 1 kg USD 0.2
40	Out of 7321 81 900	Heating and water boiling steam boilers	15%
41	Out of 7323 Out of 7615	Cauldrons in a capacity from 3 to 100 liters	50%
42	Out of 7615	Aluminum kettle	50%
43	Out of 8403 10 900	Heating and water boiling steam boilers with the power from 0.05 to 1.0 *Гккал (КО – 0.05, КО – 0.1, КО – 0.5, КО – 1.0,) (Russian power measuring system)*	20%
44	Out of 8413 19 Out of 8413	Centrifugal pumps without electric motors for oil Centrifugal pumps for water Oil line heaters (without motor)	20%

No.	Product Code	Name of the goods	Custom duty for each product unit in USD or in percentage to custom cost
45	8479 89 980 Out of 8414 59 900 Out of 8438 10 Out of 8438 20 000	Discharge and pouring in equipment Fans without motor, rotors Dough-mixing machine Cream beating machine	50%
46	Out of 9404 10 9404 90	Mattresses, blankets, pillows lined with wadding	50%
47	Out of 2523	Cement, except: lightened oil-well cement, Portland cement, heat-resistant lightened oil-well cement, heat-resistant weight oil-well cement	USD 200 for 1 ton
48	Out of 7213 Out of 7214 Out of 7215	reinforcement bars and reinforce products designed for construction, produced of metal scrap and waste	USD 200 for 1 ton
49		Hand luggage goods, except the ones that are indicated in the list of attachment 5	USD 10 for each kilogram that is above 60 kg

2.1.4 Present Activities Among Littoral Countries Under International Frameworks on Caspian Sea issues

The most important issue regarding the Caspian Sea is its legal status, however this issue is under negotiation among littoral nations and no legal framework exists so far as described in the following section. The only existing international convention ratified by all five Caspian littoral nations is the framework on environmental issues. In this section, therefore the environmental framework among littoral nations is analyzed paying attention to its effect on logistics planning such as ports and undersea pipelines.

"The Framework Convention for the Protection of the Marine Environment of the Caspian Sea" is a legally binding framework agreed among all littoral states, namely Turkmenistan, Kazakhstan, Russia, Azerbaijan and Iran. Following the ratification by all five Governments of the Caspian littoral states, the Convention entered into force on the 12th August 2006. Article 37 of the Convention provides that nothing in the Convention shall be interpreted as to prejudge the outcome of the negotiations on the final legal status of the Caspian Sea.

The objective of the Convention is the protection of the Caspian environment from all sources of pollution including the protection, preservation, restoration and sustainable and rational use of the biological resources of the Caspian Sea. The Convention provides that in their actions to achieve the objective, the Contracting Parties shall be guided by the following principles:

(a) the precautionary principle, by virtue of which, where there is a threat of serious or irreversible damage to the Caspian Sea environment, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent such damage;
(b) "the polluter pays" principle, by virtue of which the polluter bears the costs of pollution including its prevention, control and reduction;
(c) the principle of accessibility of information on the pollution of the marine environment of the Caspian Sea according to which the Contracting Parties provide each other with relevant information in the maximum possible amount.

The Framework Convention envisages a number of protocols dealing with the prevention, reduction and control of pollution as well as the protection, preservation and restoration of the marine environment. The Caspian littoral countries have agreed on the following four protocols:

- The Protocol on Land-Based Sources of Pollution;
- The Protocol Concerning Regional Cooperation in Case of Emergency;
- The Protocol on EIA in a Transboundary Context, and
- The Protocol on Protection of the Caspian Biodiversity.

The sentences below describe impacts of the Framework Convention upon the logistics sector.

Article 9 (Pollution from Vessels) provides that the Contracting Parties shall take all appropriate measures to prevent, reduce and control pollution of the Caspian Sea from vessels, and shall

co-operate in the development of protocols and agreements to the Convention prescribing agreed measures, procedures and standards to that effect, taking into account relevant international standards.

And Article 10 provides that:

1. The Contracting Parties shall take all appropriate measures to prevent, hindrance, reduce and control pollution of the Caspian Sea caused by dumping from vessels and aircraft registered in their territory or flying their flag.
2. The Contracting Parties shall co-operate in the development of protocols to the Convention prescribing agreed measures, procedures and standards to that effect.

Although above mentioned protocols have not been developed yet, there seems to be few practical problems caused by the absence of the protocols because all littoral nations are IMO members and have ratified the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL).

In the Framework Convention there is no explicit provision on port development along the Caspian coast, however it should be noted that Article 15 (Coastal Zone Management) requires the Contracting Parties to take necessary measures to develop and implement national strategies and plans for planning and management of the land affected by proximity to the sea.

The Government of Turkmenistan has established a specialized authority for environmental protection of Caspian Sea and its coastal zone (2km from the shore line) under the Ministry of Nature Protection. Although a comprehensive coastal environment protection plan has not been developed, due consideration on nature protection should be given in the establishment and implementation of Turkmenbashi Port development plan, respecting the basic concepts of the Framework Convention.

In the field of logistics, another issue to be confirmed in relation with the Framework Convention is its effects on the development of the international undersea pipeline. Although some of the third countries oppose the construction of the undersea pipeline between Turkmenistan and Azerbaijan for environmental reasons, the Government of Turkmenistan explained that this is a simple and pure bilateral issue and any third party can not oppose it by using the environment as a pretext because the pipeline will be constructed under the EEZ of only two countries and the Framework Convention doesn't endow the third party with any right on such properties.

2.1.5 Progress of Negotiation toward Establishment of Legal Status of Caspian Sea

(1) Outlines of the Issues on the Legal Status of the Caspian Sea and Negotiations toward Its Establishment

Existing treaties, of which the main one is the 1940 Treaty of Commerce and Navigation between the USSR and Iran, do not define seabed boundaries. In the Soviet era, the boundaries on the

seabed between republics of the USSR were not such important issues because the development of the undersea resources was managed solely by the central government in Moscow.

The unsettled legal status of the Caspian Sea makes it difficult to define the boundaries of its seabed. If the Caspian Sea is a "lake" as Iran insists, each of the five littoral nations possess one fifth of the Sea, and if the Caspian Sea is a "Sea" as the remaining four littoral nations claim, it would be reasonable to define the boundary to correspond with "the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured" as prescribed in the United Nations Convention on the Law of the Sea (UNCLS) although Turkmenistan, Azerbaijan and Kazakhstan have not ratified it.

Russia, Azerbaijan and Kazakhstan signed four treaties in 1998-2003 settling delimitation of the seabed and subsoil. Since 2007, the improvement in relations between Turkmenistan and Azerbaijan has led to renewed bilateral discussions on Caspian border issues (ref. Perspectives on Caspian Oil and Gas Development, IEA 2008). Figure 2.1.12 shows Caspian borders asserted by each littoral nation. This figure indicates that remaining major border issues are those between Iran and its neighbors. Although the sea-surface border line defined by the agreement between Soviet Union and Iran is a simple straight line connecting between two border posts on the east and west coast of the Caspian Sea, the Government of Turkmenistan explained that they would accept its modification to comply with the international convention.

Source: JOGMEC 2007

Figure 2.1.12 National Borders on Caspian Sea Asserted by Each Littoral Nation

The Government of Turkmenistan explained that the littoral nations adopted a step-by-step approach to settle the issue of the legal status of the Caspian Sea. Under the framework of Caspian Littoral Summit, a vice-minister level working group was established in 1996, and the working group continues its intensive activity to form a consensus among littoral nations focusing upon some specific sectors such as industry. Regarding the environment, the international convention agreed to by all five littoral nations has been concluded as mentioned in the previous section. According to the explanation by the Government of Turkmenistan, through the

step-by-step approach in each sector, the five littoral nations aim to accomplish a comprehensive agreement on the legal status of the Caspian Sea.

(2) Caspian Legal Status and Navigation

Negotiations toward the establishment of legal status of the Caspian Sea are still on-going and their prospect is not clear. Unresolved questions about the legal status of the Caspian Sea have affected the development of regional energy resources, however as for maritime transport, the Government of Turkmenistan explained that the legal issues cause no significant problems.

Although Turkmenistan, as well as Kazakhstan and Azerbaijan has not ratified UNCLS, Turkmenistan has accepted the basic concept of the convention and has established domestic law of the sea in which major provisions of UNCLS are reflected. For example, the domestic law allows the innocent passing of foreign flag vessels in its territorial sea, which is also prescribed in article 17 of UNCLS. Of course the domestic law is not completely equal to UNCLS. The Turkmen Government explained that the domestic law doesn't guarantee the right of access of land-locked countries to and from the sea and freedom of transit which are prescribed in article 124 of UNCLS, however Turkmenistan doesn't levy any customs duties on transit cargoes complying with article 127 of UNCLS and according to the explanation by the Turkmen Government, any transship cargo is allowed to enter its territory unless that cargo would be illegal or would violate its neutrality policy. Thus, the fact that freedom of transit is not clearly prescribed in the Turkmen law is not considered to be a practical legal barrier to transit cargo transportation in Turkmenistan.

The Government of Turkmenistan explains that the establishment of a multilateral agreement on Caspian maritime transport and navigation will be high on the agenda in a series of sectoral negotiations on Caspian legal issues. Since the Government of Turkmenistan has been reluctant to accede to UNCLS so far, it is important to accelerate such multilateral negotiations focusing upon navigation and maritime transport for which fewer conflicts among littoral nations are observed. As an impetus for reaching a multilateral agreement, bilateral negotiations on maritime transport should also be activated. Turkmenistan has concluded bilateral agreements on rail ferry transport with Russia and Azerbaijan but there is no bilateral agreement with Iran which is one of the important partners in the planned Ro-PAX network.

2.1.6 Analysis of Present Situation of Networks and Strategic Function of Turkmenbashi Port, Railway and Road

(1) Port and Maritime Sector

1) Caspian Maritime Network

i) Access to the Ocean

Two access routes from the Caspian Sea to the world's oceans are available through the Russian inland waterway system, i.e. Volga-Don Complex and Volga-Baltic Waterway (see Figure 2.1.13).

The main access from the Caspian Sea to the ocean is the Volga-Don Complex. TRACECA's report on "Motorway of the Sea" (TACIS, 2009) describes that it comprises:

- The lower part of the Volga river, from Astrakhan to Volgograd, over a distance of 540km. This free-flow stretch can accommodate river-sea vessels of relatively large scale, up to 290m long.
- The artificial canal linking the Volga to the Don river, over a length of 101km. This canal has 13 locks which can raise ships on 88m on the Volga slope and lower ships on 44m on the Don slope. Dimensions of canal locks limit vessels to 140m in length, 16m in beam and 3.5m in draught, equivalent to 5,000 DWT. Dimensions of these locks have governed tonnages of several new vessels operating on the Caspian Sea, produced in Mediterranean shipyards.
- The Don river down to the Sea of Azov which is adjacent to the Black Sea.

Types of cargoes transported via the Volga-Don mainly include coal, minerals construction material and grain. Recent cargo volumes stood at 12 Mt per year. The data on direct cargo volume between the Caspian Sea and the Black Sea are not available. The cargo volume transported from the Black Sea to Turkmen main port of Turkmenbashi via Volga-Don is estimated to be around 60,000 tons which is less than one percent of total throughput of the port. In the winter the Volga-Don is closed due to freezing.

Another access means to the ocean is Volga–Baltic Waterway which is a series of canals and rivers linking the Volga River with the Baltic Sea. The guaranteed channel depth is around 3.5 meters. This access is also closed between November and April/May because much of the system freezes. In addition, vessels may be delayed or prohibited passage in August due to sturgeon runs in these rivers.

Volga-Don and Volga–Baltic Water ways are a part of the Russian inland waterway system. Vessel flying foreign flags cannot freely sail through it. According to the information from the Ministry of Foreign Affairs of Turkmenistan, although a legally binding agreement regarding sailing of Turkmen vessels in Russian inland waterways does not exist (though negotiations are ongoing), there is a de facto agreement between the two countries and in fact Turkmen vessels can sail Volga-Don and Volga-Baltic without major problems.

Reportedly the Ministry of Transport of Russia addressed the transport ministries of the countries of the Near-Caspian basin with an invitation to take part in building and operating the second branch of the Volga-Don canal. Kazakhstan proposed an alternative "Eurasia Canal" connecting the Caspian and Black Seas, which is an almost straight canal utilizing Soviet-era navigable reservoirs across Russia's North Caucasus. The alternative Eurasia Canal could potentially carry up to 45 million tons annually. The canal would be 650km in length, 80m in width, 6.5m in depth. The canal is envisaged for the passage of the vessels of "river-sea" class with a capacity of 3,500-5,500 DWT with the future use of vessels of a new class with a capacity of up to 10,000 DWT.

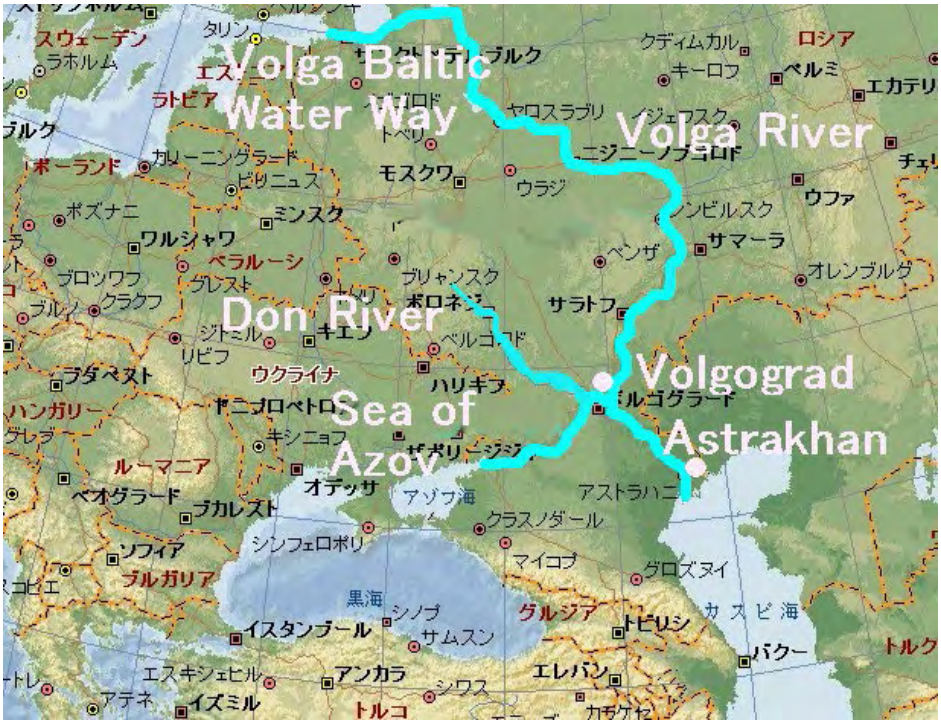


Figure 2.1.13 Ocean access from the Caspian Sea

ii) Caspian Ports

Major ports along the coast of the Caspian Sea are shown in Figure 2.1.14. In this subsection, outlines of principal trade partners and competitors to Turkmenistan's main port of Turkmenbashi are described.

Source: MLTM Korea 2009

Figure 2.1.14 Caspian Ports

a) Baku Port

Baku Port, Azerbaijan's main port, is located on the west coast of the Caspian Sea, 270 km to the west of Turkmenbashi. Baku International Sea Trade Port was founded in 1902 and it has always been the largest of Caspian Sea ports. The port is the most important trade partner to Turkmenbashi Port.

Baku Port is comprised of Main Cargo Terminal, Dubendy Oil Terminal, Ferry Terminal and Passenger Terminal. The port's throughput capacity is 15 million tons of liquid bulk and 10 million tons of dry cargoes.

The Main Cargo Terminal, located within Baku city limits is used for handling general, containerized as well as bulk export/import and transit cargoes. At the terminal it is possible to

handle up to 2 mln. tons of general and dry bulk cargo per annum. Terminal accommodates 6 berths of total length of 866 meters, one of which function as a RO-RO quay. Depths at the quayside are 7 meters. Berths are equipped with 16 quay cranes with lifting capacity from 5 to 40 tons. At the RO-RO quay, up to 150 wagons and 100 trucks can be handled simultaneously during a day. The terminal is equipped with railways of which total length is 8 kilometers. Maneuvering is carried out by 4 diesel locomotives. Total area of the open storage is about 24,000 square meters, and that of the sheltered warehouses is about 10 000 square meters.

Container Terminal is located on the territory of the Main Cargo Terminal area and is designed for handling of all kinds of containers, including 40-foot containers and the annual handling capacity is 15000 units. The area of the container freight station is 1600 sq. meters. The control of the Container Terminal operation is supported by the computerized system. The Terminal is equipped with a container forklift with lifting capacity of 42 t and a reach stacker with lifting capacity of 40 t. The railway branch line is linked to the Main Railway System, which provides the inter-modal transportation of containerized cargoes.

Ferry Terminal is used for the transshipment of wagons, trucks and cars as well as transport of passengers to/from ferries shuttling between Baku / Turkmenbashi / Aktau / Iranian ports. The shuttle service is carried out by Azerbaijan State Caspian Shipping Company. Each ferry can accommodate 28 wagons or 40 trailers, 202 passengers (currently the capacity is restricted to a very small quantity) and up to 50 cars. Although the website of the port explains that the terminal can handle 8 million tons of cargos per annum, the curved rail in the terminal seems to make its capacity much lower.

Oil Terminal in Dubendi is the largest oil terminal in the region. Terminal includes 2 piers at which 4 tankers from 5000 to 13000 DWT can berth. Up to 15 million tons of cargoes can be handled per annum at the terminal.

The Passenger Terminal with a total berth length of 340 m is used by foreign and local passenger vessels cruising among ports in Caspian countries. The Passenger Terminal is also used by passenger ships carrying oil workers to oil fields every day.

Development of the New Baku International Trade Sea Port is planned at Alyat (70 km south of Baku). The new port will be capable of accommodating 13,000 DWT vessels (i.e. largest vessels currently operating in the Caspian). Alyat will be a multipurpose terminal for bulk, general cargo and containers. The plan is to build the port in three phases, with the first phase scheduled to be completed by 2016. The Consultant was trying to acquire detailed information on Baku New Port by telephone interviews with officers of Baku Port however it could not obtain further information.

Source: Google

Figure 2.1.15 Baku Port

b) Aktau Port

Aktau Port is the principal seaport in Kazakhstan and virtually the only gateway for sea-borne freight to/from Kazakhstan. The port is potentially the toughest competitor to Turkmenbashi Port in terms of Eurasian East and West corridor.

The JICA study on the Integrated Logistics System and Marketing Action Plan for Container Transportation in Kazakhstan (2007) gives a detailed description of Aktau Port. An outline of the port is given as follows.

Aktau Port is owned and operated by the Aktau International Sea Commercial Port State Enterprise. The port had been used mostly for domestic oil shipments within the USSR. After independence in 1991, the Kazakhstan government planned to strengthen trade relations with Caspian coast countries by refurbishing the port with general cargo handling facilities in addition to its traditional oil loading facility. In 2001, rehabilitation work on the rail ferry terminal was carried out. Also in 2001, private investor AkBidai added a grain handling berth (berth No.6).

Current port facilities can be described as follows:

<u>General Cargo (Dry Cargo) Facilities</u>

- 3 berths for general cargo (berths No.1, 2 and 3), 1 berth for bulk grain (berth No. 6)
- Total length 550m; 4 vessels can work alongside simultaneously
- Open shed 50,000 ㎡ and roofed transit shed 6,000 ㎡
- Railway siding 3 lines (2 lines for G.C./steel cargo, 1 loop-line for grain)
- Dockside cranes (20 tons x 2, 32 tons x 1)
- Mobile dock cranes (36 tons x 2, 64 tons x 1, 80 tons x 1)
- Total Capacity: 1.5 million tons per year

Rail Ferry terminal

- 1 berth (berth No. 11)

Oil loading terminal

- 4 berths (berth No. 4, 5, 9 and 10)
- Total Capacity: 8.0 million tons/year
- Maximum water depth at jetty 7.0m

Access channel

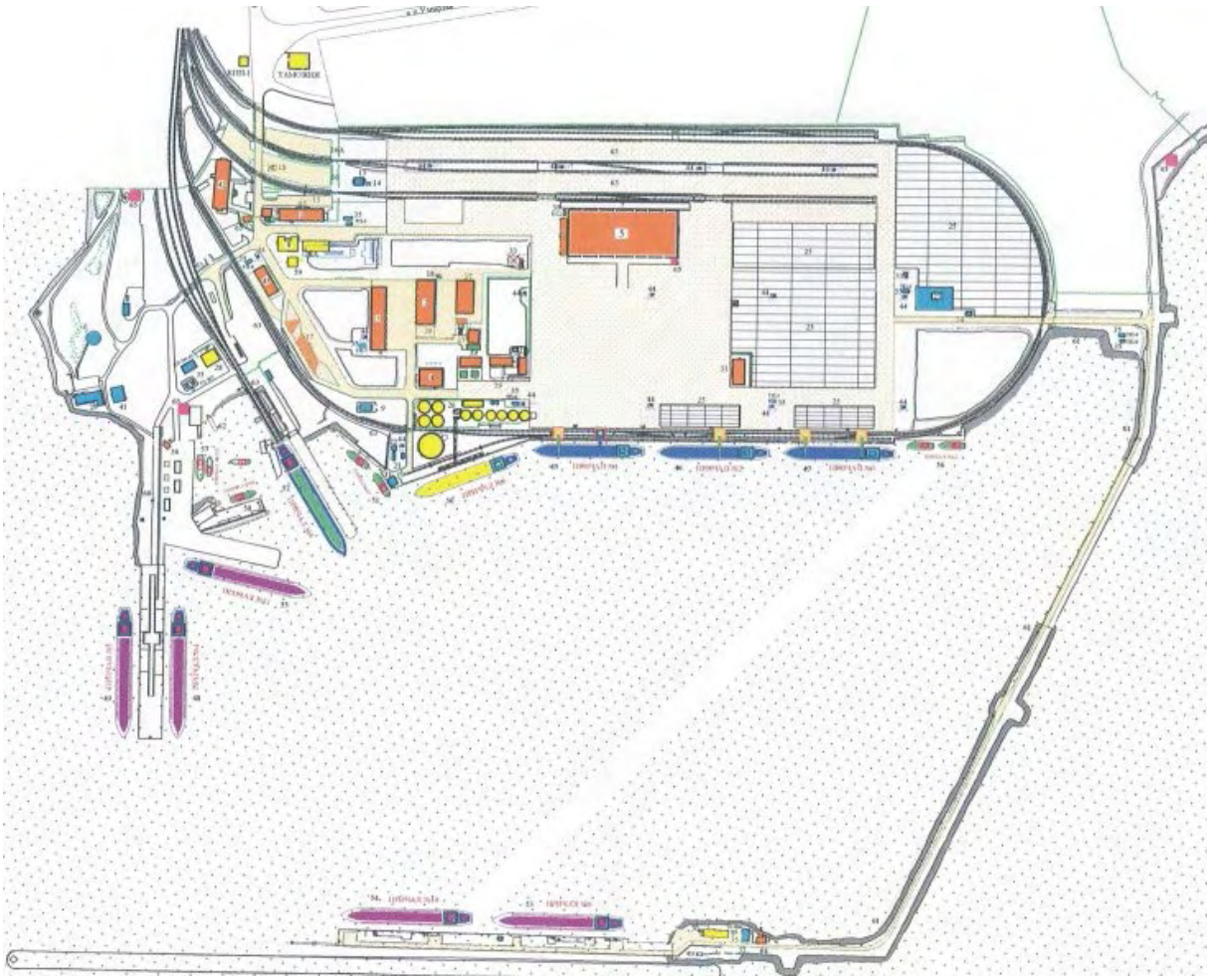
- Water depth 7.0 m

Oil is the principal commodity handled at the port and accounts for the overwhelming portion (more than 80%) of all cargo. Major Kazakhstan oil producers bring the oil from inland oil fields to the port by railway tank wagon. For general cargo, steel products are the major commodity (65%). Most of these products are shipped to Iran. Grain is another major export commodity of Kazakhstan and 3-5 million tons of grain (wheat and barley) are exported annually, however the quantity exported from Aktau Port is relatively small. Trading partners of Aktau Port are Baku (Azerbaijan), Bandar Anzali (Iran), Amirabad (Iran) and Astrakhan (Russia). The cargo flow of consumer goods coming from the western Chinese region and shipped to the Caucasus countries is growing.

In 2009 Aktau Port handled:

Total	13,951,000 tons
Oil and oil products	11,307,000 tons
Dry cargos	2,643,000 tons
Including:	
Metal	1,714,000 tons
Grain	559,600 tons
Ferry	221,600 tons
Vessel calls	2,077 vessels

Expansion of Aktau Port is planned. The port expansion project is to create a new basin to the north of the existing port, which provides four new oil berths, four berths for general cargo and containers and three support berths for smaller ships. The project is divided into five phases up to year 2020. The work has already started. The oil berths will have 9.0m in depth, and the dry cargo berths 6.0m. This expansion gives the port an additional 10-11 million tons handling capacity for oil exports and 1.5 million tons for general cargo. There is a further expansion plan in the southwestern part of the existing port facility. The plan includes five oil berths (12 million tons per year) and five general cargo berths (2 million tons per year). There is also a plan to build a new oil loading terminal at Kuryk Port which is located about 75 km south of the Aktau area.



Source: Aktau Port Authority

Figure 2.1.16 Aktau Port

c) Bandar Anzeli Port

Among four major ports along the Caspian coast in Iranian territory, Bandar Anzeli Port would be the most important trade partner for Turkmenbashi Port. Turkmenistan plans to connect Turkmenbashi and Bandar Anzeli by a Ro-PAX link. The link is expected to streamline the transport of passenger and goods from/to Iran and Armenia.

Bandar Anzali Port is managed by the Ports and Shipping Organization of Gilan province. The port is more or less an "inland" port with berths situated on the side of the river banks. There are eleven berths in the port where all types of cargos can be handled. The total length of the berths is 1657 meters. The maximum depth is 5.5 meters, which can accommodate 5000 DWT Caspian vessels. A special economic zone is developed adjacent to the port. The SEZ, port administration and the customs are connected by EDI system.

The Government of the Islamic Republic of Iran intends to make the port and SEZ a hub of Caspian North-South transport and plans further development of the port as follows:

10 general cargo berths

3 oil materials berth

1 passenger pier
Container terminal
Ro-Ro pier
Break water
Rail track
Shipyard for repairing and building of vessels and facility for vessels scrap

Besides Bandar Anzeli Port, Nourshahr Port, Neka Port and Amirabad Port are the major Caspian ports in Iran. The new port of Amirabad will be one of the biggest and best equipped ports in the Caspian Sea Area.

Source: Google

Figure 2.1.17 Bandar Anzeli Port (left) and Amirabad Port (right)

d) Astrakhan Port and Olya Port

Astrakhan and Olya Ports are key trade partners for Turkmenbashi Port connecting it with Russia and world ports via the Volga inland waterway system.

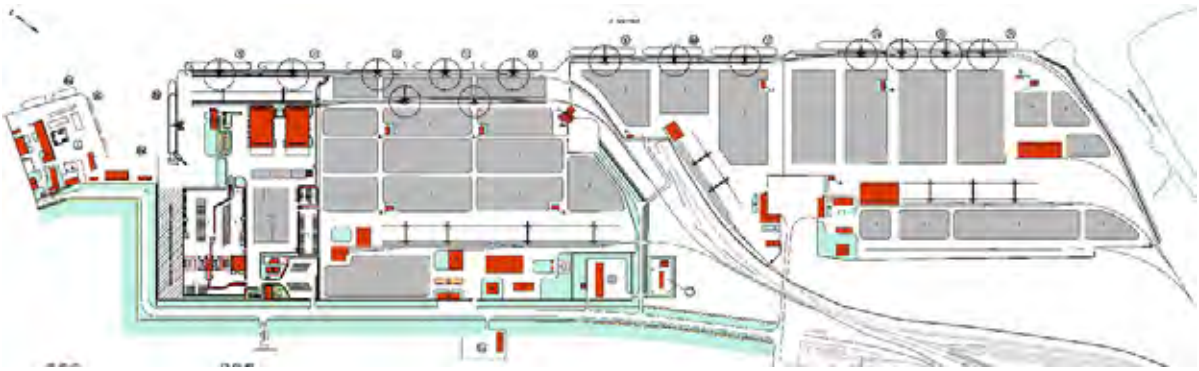
Astrakhan is situated on the banks of the River Volga, about 170km from the Caspian Sea. The port area stretches some 50km with facilities located on both sides of the river. Entry to Astrakhan from the Caspian Sea is through the Volga-Caspian Canal (45 nm river leg, 56 nm sea leg). Water depths in the canal are dredged and maintained to 5m, navigation width of 100-120 m. The entry channel freezes in winter but is navigable throughout the year, being kept open by ice-breakers from December to March.

The Port of Astrakhan has passenger, ferry, general and bulk cargo facilities, as well as tanker terminals for the transshipment of oil by rail cars. There are 17 terminals operating in Astrakhan and their cargo turnover amounted to 3.6 million tons within a 10-month period in 2009.

Building an international commercial port in Olya is one of the priority national projects for the modernization of transport infrastructure. Olya Commercial seaport is located 100 km to

the south from Astrakhan, at 67 km of Volga-Caspian canal, in Olya village. There are two construction stages envisaged in the concept of cargo terminal development in Olya Port. The port is expected to have an annual handling capacity of 8 million tons of dry bulk, conventional cargo and containers upon the completion of the first stage. However, this also requires the improvement of the hinterland connection of port facilities (e.g. the construction of a 46km-railway stretch to connect to the main railway line). A part of Astrakhan Port terminals is planned to be removed and its function will be moved to Olya Port by 2015. The Government plans to increase the capacity of the port up to 30 million tons.

At present, there are three berths working on a round-year basis in the port, their depth is 5 m. The port handles about 1 million tons of cargo annually.



Source: Astrakhan Port

Figure 2.1.18 Olya Port Development Plan

e) Makhachkala Port

Makhachkala is located on the western coast of the Caspian Sea, in Dagestan Republic. The port is connected with Turkmenbashi Port by rail ferry link. Currently major cargo of the link is transit oil products to Afghanistan.

There is year-round navigation in the port. The port handles oil products, construction materials, general cargos and lumber cargoes. The port transships cargo flows from Russia, Byelorussia, the Ukraine and Baltics to the ports along the eastern and southern coast of the Caspian Sea. The port is served by the North-Caucasian railway. Cargo turnover of the port amounted to 4.4 million tons within a 10-month period in 2009. Reportedly, Makhachkala Port can accommodate the current Caspian max tankers (8m draught) at the oil berths, while the dry cargo terminal only has a depth of 4.5m. The port offers some ship repair services.

The development of the port is planned to increase its capacity up to 15 million tons per year (mainly crude oil liquid cargo)

Source: Google

Figure 2.1.19 Makhachkala Port

iii) Sipping Lines

The number of vessel operators in the Caspian region is rather limited, partly due to historical reasons. Before the disintegration of the Soviet Union only two states bordered the Caspian Sea, the Soviet Union and Iran. Transportation across the Caspian Sea was monopolized by the state-owned Caspian Shipping Company (Caspar), which had its headquarters in Baku, where also almost all vessels were registered. The north-south traffic between the Soviet Union and Iran was operated by Soviet (Caspar, but also some river-sea shipping lines) and Iranian vessels. After the disintegration of the Soviet Union, Caspar and its assets have been almost completely transferred to the Republic of Azerbaijan, thus Caspar is now a state-owned Azeri shipping line. However, little has changed concerning the competitive situation in the Caspian shipping market.

The paragraphs below present briefly the major players in the shipping industry at the Caspian Sea. The description is mainly based on information provided by TRACECA's study on navigation channel in Turkmenbashi Port (TACIS 2007) whereas information on Kazakh operators is based on JICA's study on the integrated logistics in Kazakhstan (2007). Information on Turkmenistan and Azerbaijan are updated by the Consultant.

Russian Operators

Russia has a very large fleet of river-sea type ships of which the majority trades within the vast Russian system of rivers and other interior waterways. A total of 200 Russian ships have Caspian ports of register but that number includes many small vessels exclusively deployed in the domestic coastal and river trades.

North-Caspian Shipping Company of Astrakhan is engaged in the trade with Iran. Other Russian shipping companies active in the Caspian Sea dry cargo trades are Astrakhan-based Lakor and Morcenter-tek of Moscow, as also the Vagna Shipping/Volga-Astrakhan group.

Volgotanker, a Russian company based in Samara (located on the east bank of the Volga River) which is in the business of carrying liquid bulk commodities, mainly oil and derivatives. A rather limited numbers of suitably-sized river-sea tankers are operating in the Caspian Sea. Volgotanker is also very active on the rivers Kama, Don, Dnieper, Danube and their tributaries. At the time of TRACECA's field research Volgotanker ships served all Caspian oil ports except Baku, concentrating on transport of oil and its products from the Caspian east coast to Russian ports and to Iran.

Volga-Flot Shipping Company of Nizhny Novgorod is a mixed operation. It ranks among the biggest Russian shipping enterprises, owning a fleet of some 290 tankers and dry cargo ships, predominantly of the sea-river type. A small number of the ships are engaged in the Russia/Iran and v.v. trade.

Turkmen Operator

Turkmen operator the State Turkmen Maritime and River Lines (TMRL, based in Turkmenbashi) owns dry cargo vessels of about 3000 DWT and tankers (maximum size 7,000 DWT). TMRL has been operating a rather limited number of vessels, however currently it increases its fleet. In 2009 TMRL purchased two 7000 DWT tankers and it plans to purchase 7 oil tankers, an LPG tanker, 1 Ro-PAX ferry vessel, 5 supply boats and a dredger until 2015. Another Ro-PAX ferry vessel will be purchased 2 year after the procurement of the first one.

Iranian Operator

The Iranian shipping line, Khazar Shipping, the subsidiary of state-owned IRISL (Islamic Republic of Iran Shipping Lines) owns cargo vessels and operates between Aktau/Turkmenbashi/Astrakhan and Iran.

Azeri Operator

Caspian Shipping Company (Caspar, based in Baku), by far the most important player in the Caspian shipping market, owns 8 rail ferries, 41 tankers, 35 dry cargo vessels, and 2 Ro-Ro vessels. Some of these vessels are currently operating in the Black and/or Mediterranean Seas, others are laid up due to lack of employment or to outstanding repairs. The dead-weight capacity of the Caspian fleet amounts to 443,782 tons. CSC vessels serve all Caspian Sea ports. The company is active in the transportation of passenger, dry and liquid cargo, and operates all ferry services in Southern Caspian Sea (Baku – Aktau/Turkmenbashi). A large part of the Caspar fleet consists of relatively old vessels. Most dry cargo vessels are twenty years or older. Vessels older than 15 years are internationally considered overaged and are being penalised by higher H&M (hull and machinery), P&I (protection and indemnity) and transport insurance premium. Most tankers have been built in the eighties.

Kazakh Operator

Kazmortransflot (KMTF) is the national shipping company of Kazakhstan, jointly owned by the Ministry of Transport and Communications (50%) and Kazmunaigas (50%). The main maritime activity of KMTF is tanker operation in the Caspian Sea. KMTF owns three 12,000D/W tankers (length 150m, width 17.3m, draft 7m) and charters ships from the market depending on need. KMTF carried 4,620 thousand tons of oil in 2005, which is equivalent to over 50% of total Kazakhstan oil exports by ship. Destinations for 2005 cargos were Makhachkala (Russia) 2,400,000 tons, Neka (Iran) 1,200,000 tons and Baku (Azerbaijan) 1,020,000 tons. KMTF future plans include construction of a large-capacity tanker fleet and development of the Kuryk oil terminal.

2) Turkmenbashi Port

i) Outline of the port

In this report, "Turkmenbashi Port" denotes the commercial seaport located in Turkmenbashi bay. Therefore ports in Okaren (270km south of Turkmenbashi) and Alaja (70km south of Turkmenbashi) which comprise Turkmenbashi International Sea Port (TISP, a department of the State Turkmen Maritime and River Lines (TMRL)) are not included in "Turkmenbashi Port". Liquid bulk terminal in Turkmenbashi Bay, which also comprise TISP and sometimes called as Ufra Port or Kenar Port, is included in "Turkmenbashi Port".

Turkmenbashi Port, which is located on the eastern coast of Caspian Sea, is the largest port in Turkmenistan and virtually the sole commercial seaport in the country except specialized ports for oil and gas transport. Turkmenbashi Spit shelters the port from rough waves of open sea and this preferable natural condition has made the port a gateway of the country. Turkmenbashi Bay is very shallow and the port is connected to the open sea by a navigation channel of approximately 20 km through the spit. The port is linked with the railways network irrigating the landlocked countries of Central Asia. This explains the important role this port plays in the transport chain between Central Asia and Caucasian countries. Thus, the Port of Turkmenbashi serves both regional and international sea-borne trade.