



**TEBODIN**  
Consultants & Engineers

# **Unified Policy for Transit Fees and Tariffs**

**Draft report on Georgia**

**26 July 2002**

**Traceca**



## **Unified Policy for Transit Fees and Tariffs**

### **Draft report on Georgia**

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## **1 Georgia**

### **1.1 Introduction**

The information in the following sections is based on a visit to Georgia at the end of June 2002/beginning of July 2002. Visits were undertaken to the Maritime Administration (under which jurisdiction, the Georgian port sector falls), the ports of Batumi, Supsa and Poti as well as to a number of forwarding and shipping agents.

### **1.2 Georgian shipping sector**

During the former Soviet Union, the Georgian shipping sector was consisting of the one and only Georgian Shipping Cy., which operated mainly a tanker fleet, dry bulk vessels and a few general cargo vessels. The company had more than 50 (older) seagoing vessels under its management.

Today, the shipping industry is very small and consists actually only of a few vessels. The Georgian Shipping Cy. went bankrupt and many vessels disappeared or were scrapped; at present it owns 1 dry bulk vessel. A few smaller ship-owners exist in Georgia, but the majority of these ships have been registered elsewhere. The other company is Ocean Shipping Cy. (OSCO), which owns 13 tankers today. The result of these developments is, that a large number of Georgian seafarers are unemployed today.

The Georgian Shipping Register, located in Batumi, counts today some 204 seagoing vessels of which 150 foreign-owned vessels, which ships may not be considered as the most modern ones.

### **1.3 Georgian port sector**

The four major ports in Georgia are –in sequence of size- Batumi, Supsa, Poti and Suchumi. Batumi predominantly handles oil products, while Supsa is specialised in crude oil handling. The Port of Poti has a much wider variety in cargoes handled as e.g. containers, general cargoes and dry bulk. The fourth former major port of Georgia, Suchumi, is located in Abkhazia, which is currently controlled by non-Georgian forces. Port activities in Suchumi are more or less absent at the moment.

It should be noted, that the Port of Batumi is located in the Ajarian, which province has declared its own sovereignty. Although the relation between the central government in Tbilisi and the Ajarian Autonomous Republic's government in Batumi is slowly improving, the situation at the moment is still sensitive, illustrated by a/o the non-payment of any taxes by the Ajarians to the central government in Tbilisi.

The port sector is subordinate to the Georgian Maritime Transport Administration with head offices in Batumi and a branch office in Tbilisi. This Administration is subordinate to the Georgian Ministry of Transport with head offices in Tbilisi. At present the Maritime Administration consists of two major Directorates, which are:

- Regularity Directorate;
  - Safety Inspection Directorate.
-

The Regularity Directorate is a/o responsible for the setting of all tariffs in the four Georgian ports. A copy of the tariffs is enclosed in Annex A. The present port tariffs were fixed in 1999 with an amendment in 2000 to allow local port management to reduce stevedoring tariffs. As such, the tariffs in all four ports are more or else the same and as a consequence competition between ports is almost non-existent as far as port dues are concerned.

The Maritime Transport Administration is currently in the process of defining a new tariff setting methodology based on costs with the assistance of a Canadian maritime expert. The formats of this new methodology are enclosed in Annex B and the exercise refers to both ports dues as well as cargo handling tariffs. As was understood, this methodology will be shortly presented to the respective ports for discussion and possible changes. When agreements between the ports and the Administration will be reached it will be passed through the Ministry of Transport and the Ministry of Finance for ratification. When ratified, implementation is expected to start in early 2003 and will be guided (including training) by the Canadian expert. The new tariffs will then be compulsory for all 4 Georgian ports.

The split between private (stevedoring) and public services in the Georgian ports is not always clear. Privatisation of port facilities has been postponed year after year due to a number of reasons. Nevertheless, it was understood, that a tender process for giving out concessions to most of the terminals in Poti would be launched shortly.

Currently, in Poti there exists only one private stevedoring company (scrap). In Batumi, only a private company operates the oil loading facility. Further privatisation plans in Batumi are not expected shortly. Supsa is operated by a public Georgian entity, named Supsa Port Administration.

#### **1.4 Tariffs levied in Georgian ports**

The following tariffs are levied in all Georgian ports:

- Tonnage dues;
- Lighthouse service dues;
- Channel dues;
- Berth dues;
- Anchorage dues;
- Marine Administration dues;
- Marine Hospital dues;
- Sanitary dues;
- Pilotage dues;
- Mooring dues;
- Tugboat dues.

Slight differences occur in the cargo handling fees between the ports of Poti and Batumi.

Since only a small amount of activities in both ports have been privatised, the ports themselves generate most of the revenues. As was understood, only forwarding and shipping agencies have been privatised as well as surveying activities. Typical activities, which are mostly privatised pretty fast, (like pilotage and tugboat assistance) are still public in all Georgian ports.

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Official ports have to publish their possible discounts to major clients, but the practise is that no port is following this procedure. No measures are taken though to those port authorities, that violates this rule.

Port dues are collected by a wide variety of authorities (Ministry of Defence, Ministry of Transport, Georgian Maritime Transport Administration and others), while the ports themselves collect the stevedoring charges. There is no obligation for the port to provide the State with a certain percentage of these revenues, except for the regular taxes the State is levying.

#### **1.4.1 Port dues**

Port dues are the same in all 4 ports and discounts may not be given unless in line with the tariff book from the Maritime Administration. A copy of the tariffs as levied in Poti (but applicable to all ports) is enclosed in Annex C.

Port dues are further distinguished in 12 types of vessels calling at the port. In this respect, liner services may receive a discount of 20% on a number of dues (e.g. tonnage dues, Pilotage dues, tugboat services). National carriers may further see a substantial reduction in tonnage dues and some other fees (e.g. tugboat fees) as compared with other flagged vessels.

Port dues were set in 1999 with an amendment in 2000 allowing decreasing both ports dues as well as cargo handling dues. The Amendment gave substantial discounts to all tariffs by setting/prescribing maximum tariffs, that ports were allowed to invoice to their clients.

#### **1.4.2 Cargo handling dues**

Also the Georgian Maritime Transport Administration sets the cargo handling dues and the last update took place in 2000 when ports were allowed to provide discounts on their cargo handling services. A copy of these tariffs is enclosed in Annex D; they give the maximum allowable tariff levied by the ports.

It is expected when terminals will be given in concession to private companies, these fees will be based on their own competitive rates rather than by directives from the government as is the situation today.

#### **1.4.3 Proposal for change in tariff setting methodology**

As was stated earlier, the Georgian Maritime Transport Administration is currently preparing a change in tariff setting methodology with the assistance of a Canadian maritime expert. This proposal is quite detailed in terms of how to calculate the costs for each of the services accompanied with formulas. A precise planning is accompanied and indicates implementation at the beginning of 2003. Reportedly all ports are against the proposed changes and consequently this will generate quite some tough discussions to get it materialised.

## 2 Port of Batumi

### 2.1.1 A general impression

The Port of Batumi is considered as a municipal governed port within the Ajarian Autonomous Republic. The port is located in the middle of the centre with a boulevard alongside and consists of 11 berths and an SBM dedicated for the loading of crude onboard of vessels. The basic characteristics of the port are presented in the next table. The port grew to the largest Georgian port with in 2001 an annual throughput of 8,4 million tons.

It should be noted at this place, that the Port of Batumi is not extremely active in the provision of the requested information. As a result, not all tables could be filled at this moment.

**Table 2.1 Port characteristics Port of Batumi**

Facility	Dimensions
maximum port capacity	15.000.000 tons
- of which dry cargo	3.000.000 tons
- of which liquid cargo	12.000.000 tons
maximum depth	-12,0 meters
no. of berths	11
total berth length	2,095 meters
closed storage area	5,000 sqm.
open storage area	15,000 sqm. + 40,000
land area	9,1 ha.
aquatory	27 ha.

Source: Port of Batumi, June 2002.

### 2.1.2 Investments in the Port of Batumi

Over the past few years' investments have been made to improve loading of oil and oil products in the port by rehabilitating and slightly expanding existing facilities. The port itself has not made investments.

In addition to this, a joint venture by the Port of Batumi with a Turkish company is currently constructing a container terminal with in the first phase a quay length of 150 meter, a depth of -9,0 meters and a capacity of around 50,000 TEU. Operations are expected to start in January 2003. The second phase is expected to start as soon as the first phase is to the limits of its capacities and will have the same dimensions. Also the Port of Batumi is investing in this project, but amounts are not clear.

The Port of Batumi expressed, it has no short or long term debts.



### 2.1.3 Traffic flows

The traffic in Batumi port has increased considerably during the last few years, mainly due to increased crude throughput and oil products loading, illustrated by the following table.

**Table 2.2 Overview of cargo handled by the Port of Batumi, 1996-2001 (x 1,000 tons)**

	1996	1997	1998	1999	2000	2001
crude oil & oil products	748	2,119	3,781	5,364	6,019	7,644
- of which crude oil	n.a.	n.a.	(2,285)	(2,687)	(3,618)	(4,606)
dry bulk	221	515	310	156	255	205
general cargoes	382	473	473	402	649	515
Total	1,350	3,106	4,564	5,922	6,923	8,395

Due to rounding of totals, some differs may occur.

Source: Georgian Maritime Transport Administration.

While in 1996, the Batumi port had more or less a balance in loading and unloading activities, the port turned more and more into a loading port with only 7% of the activities related to unloading of vessels.

In 2001, the major other cargoes then liquid bulk were as presented in the following table.

**Table 2.3 Summary of main cargoes handled by the Port of Batumi, 1998-2001 (x 1,000 tons)**

	1998	1999	2000	2001
bauxite and other ores	0	0	152,3	146,6
sugar	191,6	234,7	241,8	253,7
grain	307,6	133,8	64,0	56,1
flour	174,4	21,9	44,3	12,4
metal/metal construction	4,8	16,4	184,8	24,2
dry chemicals	21,8	51,9	132,5	84,5
scrap	0	0	0	85,3

Source: Georgian Maritime Transport Administration.

In terms of vessel movements an overview is given below. It is without saying that the majority of the vessels calling are tankers.

**Table 2.4 Vessel movements in Port of Batumi, 1996-2001**

	1996	1997	1998	1999	2000	2001
no. of vessels calling	375	588	607	802	826	807
- of which liquid bulk	318	474	431	386	394	265

Source: Port of Batumi.

In terms of transit of cargoes (crude and oil products not included), the following table presents the figures for the Port of Batumi.

**Table 2.5 Transit volumes through the Port of Batumi, 1998-2001 (x 1,000 tons)**

Transit destination/origin	1998	1999	2000	2001	Direction of traffic
Georgia*	147	137	272	310	to Georgia (50%)
Armenia	118	109	63	65	to Armenia (100%)
Azerbaijan	274	186	496	277	to Azerbaijan (90%)
Turkmenistan	4	3	1	0	to Turkmenistan (100%)
Uzbekistan	204	97	61	73	to Uzbekistan (80%)
Kazakhstan	2	0	2	0	to Kazakhstan (100%)
Kyrgystan	8	0	1	0	to Kyrgystan (100%)
Tadjikistan	14	0	0	0	to Tadjikstan (100%)
Total (incl. Georgia)	783	532	897	724	
Total (excl. Georgia)	636	395	445	414	

\* Georgia is considered as another State then the Ajarian Autonomous Republic in the statistics.

\*\* Figures do NOT include crude and oil products' transit volumes.

Source: Port of Batumi.

As can be learned from this table, transit is primarily focussed on the Caucasian republics and to a lesser extent to Uzbekistan (cotton). It indicates that transit traffic to/from Central Asia is still small, which was confirmed by the interviewed persons.

#### 2.1.4 Shipping and ferry issues

There are no regular shipping services calling at Batumi port, except a ro/ro ferry service with Constantza and one rail wagon ferry service with Illichevsk. The service with Constantza is –on an average- one vessel call every 2/3 weeks, the ferry service to Illichevsk is weekly and also calls Poti, and Varna.

The ferry ramp for the Illichevsk railcar ferry has been donated by the EU and came into operation in 1999. It will receive further financial support to enable the (un-)loading of both European and Russian gauge railway cars.

Although the ro/ro service with Constantza was a little bit disappointing in 2001 with a carried volume of only 2,288 tons for the whole year. The first 5 months of 2002 though looks much more promising with a carried volume of 2,238 tons already. The capacity of the ferry is some 40 trucks per voyage.

The cargoes carried on the ferry service to Illichevsk are presented in the next table.

**Table 2.6 Carried volumes on ferry between Batumi and Illichesvk, 1999-2001**

	1999	2000	2001
no. of wagons unloaded	160	95	172
no. of wagons loaded	158	40	190
no. of trucks unloaded	179	142	70
no. of trucks loaded	106	177	152
total tons unloaded	16,821	9,588	20,530
total tons loaded	8,873	7,251	16,259

Source: Georgian Maritime Administration, June 2002

### 2.1.5 Tariffs in the Port of Batumi

As stated earlier, both port dues and stevedoring dues are in principal defined by the Georgian Maritime Transport Directorate. With regard to the stevedoring tariffs, the Port of Batumi itself can assess some discounts.

The Port of Batumi tries to compensate its disadvantageous position in terms of longer trucking and rail transport as compared with Poti in its tariffs. Both major rail tracks and roads run via Poti to Tbilisi, which gives an additional cost element of 70 kilometres of transport (indications are around 1 USD/ton).

### 2.1.6 Cost prices of tariffs

According to the brochure of the Port of Batumi, the following financial indicators are valid. The Port of Batumi currently employs 1,387 persons (figure 2001).

**Table 2.7 Financial indicators for the Port of Batumi in 2001, source A**

Financial indicator	Value
Total revenues	26,392,700 GEL*
Total expenses	9,858,900 GEL
Recorded gross profit	16,803,700 GEL
Net profit	810,600 GEL
Tax to State of Ajaria	8,245,000 GEL

1 USD equals about 2,18 Georgian Lari (GEL), exchange rate of June 2002.

Source: Port of Batumi Annual Report / Brochure.

Later on, other figures were received and are presented in the next table.

**Table 2.8 Financial indicators for the Port of Batumi in 2000 and 2001, source B (x 1,000 USD)**

Financial indicator	Value 2000	Value 2001
Total revenues	17,944	19,698
Total expenses	6,910	6,676
Profit	11,034	13,022
Transfer to State of Ajaria	4,859	6,283
Other transfer (a/o investments)	938	811
Total transfer	5,797	7,408

Source: Port of Batumi, Financial Dept.

### **2.1.7 Potential for Traceca**

At present, the Traceca corridor is perfectly working when oil and oil products are considered. In terms of other cargoes and containers, there is very limited traffic at the present time. The levels of the port tariffs are considered as only a relatively small element in the whole chain.

Nevertheless the Port of Batumi, like other Georgian ports, will play a crucial role in developing the Traceca corridor. It is for sure their level of tariffs and fees are important for developing traffic along the corridor, but generally it is expressed, that the Caucasian corridor as such needs upgrading in terms of customs procedures and lead times for rail transport. For Central Asian countries, the cross Caspian tariffs is considered as outrageous.

### **3 Port of Poti**

#### **3.1.1 A general impression**

Also the Port of Poti is located in residential area at the northern part of the city of Poti. The port played always a crucial role when other cargoes then liquid bulk were involved. It has the only container terminal at the Georgian seaside and the variation of cargoes is larger then in Batumi. The basic characteristics of the port are presented in the table below.

**Table 3.1 Port characteristics Port of Poti**

Facility	Dimensions
maximum port capacity	7,500,000 tons
- of which dry cargo	2,500,000 tons
- of which liquid cargo	3,000,000 tons
maximum depth	-12,5 meters
no. of berths	14
total berth length	2,650 meters
closed storage area	10,017 sqm.
open storage area	68,250 sqm.
land area	99,7 ha.
aquatory	77,1 ha.

The Port of Poti is a Public Law entity and still fulfils both private and public activities in the port.

#### **3.1.2 Investments in the Port of Poti**

Until recently, investments have been relatively modest in the Port of Poti. Major investments made were in a dredging vessel, tugboat and the reconstruction of 2 large warehouses.

In 2001, a joint venture between the Port of Poti and a Turkish oil terminal operator started and a new oil products' loading terminal will be commissioned in autumn 2002 with annual capacity in its first phase of around 2.0 million tons. Phase 2 will start immediately after phase 1 is finished and will add an additional 2 million tons throughput annually.

Privatisation has not taken place yet with the exception of a German-Georgian joint venture on berth 3 to 7 where scrap (export) is handled. It was reported that tender documents for the leasing out of the facilities in concessions have been prepared and that tenders will be launched shortly. When tenders are closed and the terminals will be operated by private stevedoring companies, this will undoubtedly increase cargo traffic along the Traceca corridor, since more aggressive marketing can be expected, especially when talks with other ports and the railways are considered. Reportedly, bids for the tenders should be accompanied with investments requirements to upgrade the facilities and improve cargo-handling performances.

### 3.1.3 Traffic flows

The Port of Poti showed a steady increase from the mid nineties to 2000, but saw a slight decrease in total throughput in 2001 although oil products' throughput increased substantially in this year. For 2002 a stabilisation of the traffic flow is expected.

**Table 3.2 Overview of cargo handled by the Port of Poti 1996-2001 (x 1,000 tons)**

	1996	1997	1998	1999	2000	2001
oil products	661	603	676	367	582	843
- of which petrol	n.a.	n.a.	(560)	(302)	(216)	(225)
- of which diesel fuel	n.a.	n.a.	(94)	(9)	(307)	(582)
dry bulk	452	513	670	929	1,826	1,327
general cargoes	640	1,206	1,141	1,002	1,212	1,270
Total	1,692	2,321	2,486	2,298	3,620	3,441

Due to rounding of totals, some differs may occur.

Source: Georgian Maritime Transport Administration.

Contrary to the Port of Batumi, is Poti a port with predominantly unloading handling activities in the range between 85% (in 1996) and 52% (in 2002) of total throughput. As the figures illustrate, a balance in loading and unloading activities will occur soon, especially taking into account the commissioning of a new oil products' loading terminal shortly.

More specified volumes of the major cargoes flows, others then liquid bulk, are presented in the following table. It is clear that the variety of the cargoes handled in the Port of Poti is much larger.

**Table 3.3 Summary of main cargoes handled by the Port of Poti, 1998-2001 (x 1,000 tons)**

	1998	1999	2000	2001
bauxite / alumina	0/0	0/0	470/0	0/186
copper concentrate	23	14	35	32
manganese ore & alloys	81	35	48	77
perlite	0	51	51	10
sugar	53	41	47	67
grain	318	364	536	348
flour	148	34	72	78
tubes / metal construction	138	34	31	46
dry chemicals	49	89	104	23
scrap	158	423	615	547
provision cargo (?)	67	74	115	104

Source: Georgian Maritime Transport Administration.

As stated earlier, Poti operates the only container terminal at the Georgian Black Sea. A serious dip in the container throughput occurred after the 'Russian Rouble crisis' in 1998, but slightly the number of containers handled is recovering (see also table below). Also for 2002 higher throughput figures are expected.

**Table 3.4 Container throughput development in Port of Poti, 1996– 2001**

	1996	1997	1998	1999	2000	2001
no. of 20'containers	n.a.	12,007	14,605	8,663	9,065	12,638
no. of 40'containers	n.a.	15,744	35,156	21,098	27,094	28,422
total in TEU	20,633	43,495	49,761	29,761	36,159	41,060
total in 1,000 tonnes*	n.a.	n.a.	456,159	312,365	391,298	421,777

\* including empties and tarra.

Source: Port of Poti.

In terms of vessel movements an overview is given below. It is without saying that the majority of the vessels calling are container vessels, followed by ferries.

**Table 3.5 Vessel movements in Port of Poti, 1996-2001**

	1996	1997	1998	1999	2000	2001
no. of vessels calling	443	718	1,110	964	1,220	895
- of which liquid bulk	n.a.	n.a.	173	94	89	72
- of which container	213	340	339	246	163	143
- of which ferry & ro/ro	5	47	268	268	186	61

Source: Port of Poti.

The volume of transit cargoes is predominantly focussed on Armenia and Azerbaijan as the following figure illustrates. Volumes are pretty high though, since traffic levelled around 2 million tons annually (including oil and oil products). From the Central Asian countries, Uzbekistan is the largest country of origin in terms of transit (in 2001 almost 100,000 tons), which mainly referred to cotton export.

**Table 3.6 Transit volumes (incl. oil products) for the Port of Poti, 1998 – 2001 (x 1,000 ton)**

Transit country	1998	1999	2000	2001
Azerbaijan	141	153	1,064	747
Armenia	1,049	667	807	801
Central Asia	51	31	72	317
Total transit	1,241	851	2,943	1,865

Source: Port of Poti, June 2002.

### 3.1.4 Shipping and ferry issues

Because of the presence of both a container terminal as well as a ferry terminal in the Port of Poti, there are more regular liner services calling in the port. The following table gives an overview.

**Table 3.7 Overview regular shipping lines calling at the Port of Poti**

Liner operator	Ports of calling	Frequency
Maersk Sealand	Gioia Tauro, Poti, Novorossiysk, Varna	1 x per week
Hapag Lloyd	n.a.	1 x per month
CMN / CMA I	Naples, Gioia Tauro, Pireaus, Thessaloniki, Istanbul, Novorossiysk, Poti, Naples	every 10 days
CMN / CMA II	Malta, Pireaus, Poti, Trabzon, Novorossiysk, Taranto, Gioia Tauro, Malta	every 10 days
Ukrferry/Navibulgar*	Batumi, Poti, Illichevsk, Varna	every week
SoMat/Willy Betz	Burgas, Novorossiysk, Poti	1 x per week
Cerçuk (Turkey)**	Trabzon, Poti	2 x per week

\* In total 4 vessels are in service; Ukrferry and Navibulgar both operate 2 vessels each in this service.

\*\* This service started only in June 2002, reportedly to avoid driving through Ajaria and to avoid the congested border crossing between Turkey and Ajaria/Georgia.

Source: Port of Poti, shipping agents, June 2002.

Ukrferry has railway gauges onboard of the vessel, but carries also trucks and trailers onboard of their vessels. It started the service in 1996, when only Illichevsk and Poti were called. Since 2002, also Batumi is included in the regular sailings of the service. Most of the voyages are now almost fully booked with the majority of the traffic carried between Illichevsk on the one hand and Poti/Batumi on the other hand (60/70% Poti, 40/30% Batumi). The capacities of the 4 vessels are all identical with 108 railway cars or 200 trucks/trailers. Typical voyages consist nowadays of some 80-railway cars and 12-15 trucks.

Batumi more and more develops as the hub for Armenian related transit, while Poti is more focussed on the Georgian and Azeri related cargoes. The majority of the traffic is more eastward oriented (more loaded wagons) rather than westward (much more empty wagons) with a reported balance of 7/8 to 1. From all cargoes carried, some 70% is transit to predominantly Armenia and Azerbaijan. Cargoes carried include metals (no scrap) and metal construction materials. The earlier high times of diesel traffic westward was a temporary situation, because the Ukrainian agricultural sector needed much diesel for harvesting purposes, they had not in storage.



Tariffs for the services by Ukrferry/Navibulgar are presented in the tables below. Only tariffs for containers, wagons and trucks are presented, since the transport of passengers (maximum 60) and cars are not motivated to save place for the wagons/trucks and their drivers.

**Table 3.8 Tariffs for trucks on ferry service Poti/Batumi-Illichevsk/Varna in USD**

Transport unit	tariff in USD/meter
loaded truck* / single	55,-
empty truck / single	45,-
loaded / empty truck (return)	70,-
loaded / loaded truck (retrun)	95,-
empty / loaded (return)	70,-
loaded 20' container	400,-
empty 20' container	200,-
loaded 40' container	800,-
empty 20' container	400,-

\* Maximum weight is 36 tons, max. W=2,50 m., max. H= 4,20 m. and max. L= 18,0 m.

Source: Instra (Tbilisi), June 2002.

**Table 3.9 Tariffs for wagons on ferry service Poti/Batumi-Illichevsk/Varna in USD.**

Quantity of wagons*	Tariff in USD/wagon**
Up to 100 wagons	1,300,-
100 – 200 wagons	1,250,-
200 – 300 wagong	1,200,-
300 – 400 wagons	1,150,-
400 – 500 wagons	1,100,-
more then 500 wagons	1,050,-

\* Number of wagons per Client per year.

\*\* Either from Batumi or Poti to Illichevsk ór Batumi or Poti to Varna (single trip) or the other way round.

\*\*\* These tariffs are excl. port charges (130 USD per wagon), agents services (200 USD per wagon) and transit declaration (100 USD per wagon).

Source: Instra (Tbilisi), June 2002.

SoMAT / Willy Betz only operates ferries carrying trucks and trailers with a reportedly capacity of some 40 trucks/trailers per voyage. Most of the trucks arriving in Poti are loaded contrary to the trucks leaving the port. Reportedly, the ferry runs pretty well. A single trip between Burgas and Poti costs around 850,- USD (incl. THC's in ports).

In terms of cargoes carried on these ferries, the following tables present summaries of the railway ferry to/from Illichevsk. For cargoes to/from Varna, no data are available at this moment (private company).

**Table 3.10 Carried volumes on ferry between Poti and Illichesk, 1999-2001**

Type of cargo	1999	2000	2001
no. of wagons unloaded	n.a.	n.a.	n.a.
no. of wagons loaded	1,839	1,084	2,462
no. of trucks unloaded	156	144	109
no. of trucks loaded	175	296	540
tons unloaded	1,259,900	2,046,622	1,778,840
tons loaded	1,038,823	1,573,099	1,661,701

  

	Trucks		Wagons	
	empty	full	empty	full
Import	110	923	881	1,318
Export	1,455	1,101	522	462
Transit	44	2,262	134	1,702

Source: Georgian Maritime Administration, June 2002

### 3.1.5 Tariffs in the Port of Poti

In the Port of Poti, tariffs do not differ substantially from the Port of Batumi, since the Georgian Maritime Transport Administration sets national tariffs. Port dues though are reportedly a little bit high as compared with other Black Sea ports. Further research is needed to underline this statement.

### 3.1.6 Cost prices of tariffs

A summary of the Profit & Loss Account was received from the Port of Poti for 2001 and is enclosed in Annex D. The table below gives a readable format of the total revenues and expenses made by the Port of Poti in 2001 (no responsibility for the correctness of the figures is given). For consideration matters, it is mentioned that the Port of Poti currently employs some 1,200 persons.

**Table 3.11 Summary of Profit & Loss Account for Port of Poti for 2001**

expense / revenue item	x 1,000 GEL
<b>EXPENSES</b>	
labour and salaries	8,044
administration	863
materials	2,876
fuels	2,193
depreciation	6,389
dredging entrance channel	0
repair	1,675
conversion of low-priced	282
taxation expenses	1,595
electr. energy & communication	1,066
other operational expenses	539
other expenses (by Tebodin)	1,138
<b>total operational expenses</b>	<b>26,660</b>
social and cultural buildings	924
charity and aids	450
taxation on account of income	364
scholarships	108
other non operational expenses	1,714
unexpected expenses	n.a.
loan losses and deductions	2,290
paid dividends	500
<b>total non-operational expenses</b>	<b>6,350</b>
<b>TOTAL EXPENSES</b>	<b>33,010</b>
<b>REVENUES</b>	
leasing	584
dividends	55
other received funds	109
other incomes	171
<b>total other revenues</b>	<b>919</b>
<b>profit from services realisation</b>	<b>34,605</b>
<b>TOTAL REVENUES</b>	<b>35,524</b>
<b>EXPENSES - REVENUES</b>	<b>2,514</b>
profit tax	1,315
retained earnings for 2001	1,199

Source: Port of Poti

The following Balance sheet for 31<sup>st</sup> December 2001 was received. It is impossible to assess the correctness of the figures mentioned, especially since summing of amounts already does not match in the papers received (see Annex E).

**Table 3.12 Balance Sheet for Port of Poti on 31<sup>st</sup> December 2001 (x 1,000 GEL)**

Liabilities	Value in 1,000 GEL	Assets	Value in 1,000 GEL
<b>accumul. depreciation</b>	<b>92,263</b>	<b>total current assets</b>	<b>20,098</b>
<b>total current liabilities</b>	<b>7,637</b>	cash in hand	0,1
short term liabilities	4,819	cash in bank	153
short term loans	618	receivables	5,621
taxes payable	951	pre-paid amount	5,325
long term debts	1,249	inventories	7,830
<b>total owner's equity*</b>	<b>84,499</b>	other current assets	1,169
common stock	n.a.	<b>long term assets</b>	<b>164,900</b>
preferred stock	n.a.	fixed assets	163,901
owners equity for non-JSC	69,310	long term investments	695
retained earnings	9,105	intangible assets	304
assets re-evaluation adj.	6,685		
<b>BALANCE</b>	<b>184,399</b>	<b>TOTAL ASSETS</b>	<b>184,999</b>

\* estimate by Tebodin.

Source: Port of Poti, June 2002.

### 3.1.7 Potential for Traceca

Because of the variety of cargo types that can be handled in the Port of Poti, the port will play a crucial role in the development of the Traceca corridor. At present, the transit is predominantly related to import and export from Caucasian republics rather than Central Asia.

In addition, the Port of Poti has a clear advantage in terms of location: the port is much better connected by both rail and road to Tbilisi and further eastward-located countries. Traffic to/fro Batumi has to pass Poti anyway and this makes Batumi 'some 70 kilometres' more expensive.

### 3.1.8 Other issues

The port planning of the Port of Poti is generally not very much appreciated, because also after privatisation of the container terminal, little space is left for expansion, which is so highly required.

## **4 Port of Supsa**

### **4.1.1 A general introduction**

The Port of Supsa basically consists of one SBM facility enabling the loading of tankers up to 120,000 Dwt with crude oil. The terminal is connected by pipeline to major storage tanks, which are connected with the Baku-Supsa pipeline carrying crude from Azeri oilfields to Supsa.

The Georgian Pipeline Cy operates the terminal and the pipeline. (GPC), which company is owned by the AIOC (or its 13 shareholders). GPC was given the right to operate the facilities in a special bilateral agreement between the State of Georgia and AIOC.

### **4.1.2 Traffic flows**

The Port of Supsa is operational since 1998, but showed a steady increase in its throughput figures as illustrated in the next table.

**Table 4.1 Throughput development in Port of Supsa, 1998 – 2001 (x 1,000 tons)**

	1999	2000	2001
Throughput of crude	3,200	4,900	5,900

Source: Maritime Administration Georgia, June 2002.

Maximum capacity of this terminal is, reportedly, close to 7 million tons annually.

### **4.1.3 Investments in the Port of Supsa**

There are rumours additional pipeline capacity will be developed to increase the capacity of the Supsa terminal, but these are already long lasting. It is expected though that with additional pump stations along the pipeline and additional tank storage, capacity can easily increase to 9 million tons on an annual basis. Reportedly, this is the most viable option to happen at the present time.

## **4.2 Concluding remarks**

Georgia is located at a focal point when the Traceca corridor is considered. In fact the Caucasian corridor is vital for the development of the Traceca transit routes. During the various meetings with the representatives of ports, authorities and private companies transit to Caucas countries is reasonably developing taking into account the slow economic development in the three countries. The simple fact is, that the regional economic development does not generate very fast growing cargo flows up to now.

From a tariff point of view, port tariffs are considered to be relatively fair although unfair competition occurs too often due to undesirable mixing of public and private interests generating clear conflicts of interests.

More competition between the ports of Poti and Batumi by privatising stevedoring activities would be desirable in terms of tariffs for cargo handling rather than a directive from the Georgian government.

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Transit to/from Central Asia through Georgian ports is still very seriously hampered by the rates for crossing the Caspian Sea. All persons interviewed emphasised this issue, next to the long customs procedures when crossing borders (including inside the Caucasian region) and rail tariffs. With regard to the latter aspect –rail tariffs- a clear homogeneous tariff for all countries was very much supported and suggested.

With regard to the transit to the Central Asian countries, an example explained by one of the interviewed persons was self-explanatory. Only due to the enormous input of a certain forwarding company, the transit of more than 100,000 tons of alumina (semi finished raw material for aluminium as dry bulk) to Turkmenistan through Georgian ports took place. This forwarding company travelled to all parties involved (ports and railways) and managed to get discounts because of the volumes involved. This example illustrates once again how important it is to discuss in a regional context possible transit of certain cargo types through the Traceca corridor by involving those parties that have influence to tariffs. It is without saying that the alumina example benefits all parties involved, which makes it more easy to develop all-in tariffs for transit of cargoes on the Traceca corridors.

A number of serious drawbacks for developing the Traceca corridor was received from the interviewed persons. This refers a/o to the following (and all cost money in terms of waiting time, bribe and corruption):

- Ridiculous rule to have escort by the customs for each container in Georgia;
- Driving containers during night times is forbidden;
- No harmonised documents;
- Overwhelming documents' control at random locations;
- 'Road tax' for trucks in Azerbaijan (200 USD);
- Lousy veterinary inspections;
- Documents' processing / getting permissions;
- For railway containers arriving in Baku, the (compulsory to use) Kishley terminal is reportedly totally under control of bad functioning and corrupt customs; so nobody want to carry boxes to Baku by train. In addition 2 terminal handlings are required;
- For railway containers arriving in Yerevan, the terminal is totally insufficiently equipped and managed, forcing to bring boxes elsewhere or to unpack them into trailers.

In order to have an idea of transit tariffs for containers, the following table is provided. These tariffs are including THC's in Poti, but excluding 2x THC's in either Baku or Yerevan.

**Table 4.2 Transit tariffs for containers to Baku and Yerevan in USD**

Size of container	Poti – Baku	Poti - Yerevan
20' by truck	1,700,-	1,150,-
20' by rail	800,-*	900,-
40' by truck	1,800,-	1,300,-
40' by rail	1,500,-	1,000,-

\* Only when 2 x 20' containers are transported on one 40' railway wagon.

Source: various agents, June 2002.

## Annexes

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**Annex A**

**Official tariffs for all Georgian ports (from Georgian Maritime Administration)**



Port tariffs for loading and unloading in USD

N	Kinds of cargo	Measurement	Tariffs
1	<b>Bulk cargo</b>	Metric ton	
	<b>a) Grain in bulk</b>		
	- by grab on berth		3,50
	- by grab on roadstead		5,00
	- by pneumomachine on berth		5,50
	- by pneumomachine on roadstead		7,00
	<b>b) Sugar in bulk</b>		6,00
	<b>c) Ores concentrate</b>	Metric ton	4,50
	<b>d) Other bulk cargo</b>	Metric ton	
	- by grab on berth		4,50
	- by grab on roadstead		5,00
	- by pneumomachine on berth		5,50
	- by pneumomachine on roadstead		7,00
	<b>e) Perlit in bulk</b>		
	- by grab on berth	Metric ton	2,50
2	<b>Cargo in bags</b>	Metric ton	
	- up to 25kg		6,50
	- between 26-50kg		6,00
3	<b>Cargo in big bags</b>	Metric ton	4,50
4	<b>Cargo on pallets</b>	Metric ton	
	- barrels		6,00
	- other cargo		5,00

**Cargo in bags**

- up to 50kg	ton	6,50
- from 51kg to 5,0 ton	unit	10,00
- from 5,1 ton to 20 ton	unit	65,00
- above 20,1 ton	unit	110,00

**Cargo in barrels**

ton 7,00

**Cargo in bundles**

Metric ton

vessel-truck		4,50
- truck -vessel		4,50

**Metal production**

ton

**a) In bundle or in PCs**

- L<8m W<10t		7,00
- L<8m W>10t		8,00
- 8m<L<25m W<10t		8,00
- 8m<L<25m W>10t		11,00

**b) In ruloeaus**

6,50

**Metal scrap iron**

ton

a) non standard black and colored metal		8,00
b) standard black and colored metal		7,00

**Meat**

ton

a) cattle in chunks		8,00
b) frozen meat in bags		7,50
c) fish filet and other fish product		7,50
d) frozen fish in bags		7,50

**Timber****a) logs**

ton 9,00

- pieces 8,00

- bundles 7,00

**b) Timber in bundle or in package****Motor-vehicle equipment (as a cargo)**

unit

**1) By vertical method**

- up to 3 ton 25,00

- up to 5 ton 30,00

- up to 30 ton 70,00

- up to 40 ton 90,00

- above 40 ton 180,00

**2) by horizontal method****a) automatically run**

- up to 3 ton 10,00

- above 3 ton 20,00

**b) with portal cranes**

- up to 3 ton 30,00

- above 3 ton 60,00

**Caterpillar equipment**

unit

**By vertical method**

- up to 10 ton 70,00

- from 10 ton to 40 ton 90,00

- above 40 ton 180,00

**By horizontal method**

with portal cranes 70,00

**Heavy and over size metal construction**

unit

above 20 ton and 8 meter 180,00

<p><b>15 Container (by vertical and horizontal method)</b></p> <p><b>1) load container</b></p> <p><b>a) vessel –truck (terminal) or contrary</b></p> <p>- by portal cranes</p> <p>  20' 50.00</p> <p>  40' 60.00</p> <p>- by vessel cranes</p> <p>  20' 25.00</p> <p>  40' 35.00</p> <p><b>b) Terminal-truck or contrary</b></p> <p>  20' 14.00</p> <p>  40' 18.00</p> <p><b>2) empty container</b></p> <p><b>a) vessel-truck (terminal) or contrary</b></p> <p>- by portal cranes</p> <p>  20' 20.00</p> <p>  40' 30.00</p> <p>- by vessel cranes</p> <p>  20' 10.00</p> <p>  40' 15.00</p> <p><b>b) Terminal-truck or contrary</b></p> <p>- 20' 11.00</p> <p>- 40' 16.00</p>	unit	
<p><b>16 Liquid cargo on tankers</b></p> <p>a) Vessel-tank-car 2.50</p> <p>b) Tank-car-vessel 2.50</p> <p>c) Vessel-tank-car or contrary with Vessel or forwarders might 2.50</p> <p><b>Ferry dues</b></p> <p>- Empty wagon 10.00</p> <p>- Load wagon 60.00</p>	ton	
	unit	

18	Storing general cargo	Metric ton
	-in open warehouse	\$ 0.12
	-in closed warehouse	\$ 0.20
	Storing Conditions:	
	a) first 3 days	Free of charge

19	Storing bulk cargo in open warehouses	
	Storing Conditions:	\$ 0.10
	a) first 3 days	Free of charge
	b) till 1 month	Initial day \$0.10
	c) more than 1 month	Increases by 25%
	d) more than 3 month	Increases by 50%

20	Storing containers in open warehouses	
	-20'	\$ 3.00
	-40'	\$ 4.00
	Storing Conditions:	
	a) first 3 day	Free of charge
	b) till 1 month	Initial day
	c) more than 1 month	Increases by 25%
	d) more than 2 month	Increases by 25%
	e) more than 3 month	Increases by 100%

21 Weighing wagons

a) mechanical

\$ 2.50

b) electrical

\$ 1.20

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22 Storing operations

a) cotton in packages

Metric ton

\$ 3.50

b) other cargo

on an agreement

## **Annex B**

### **Proposal for new methodology for tariffs setting in Georgian ports**

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## REPORT ON TARIFF CALCULATION METHODOLOGY PROPOSAL

### FOR GEORGIAN MARITIME TRANSPORT AUTHORITY

#### PROPOSAL

To calculate the full cost of the services and the facilities of the Georgian Ports in a consistent manner and apply the rates on a base that is related to the services provided. The tariffs should include all the elements of the cost of the activities and functions of the Ports, and should take into account the need for renewal and expansion of the Port facilities. The basis of application of Port services will be the gross tonnage of the vessel. The basis of application of cargo services will be a combination of the time taken to load or discharge the cargo and the size of the stevedoring crew required for the safe operation of cargo services. The tariffs will be calculated in USD or in Euros.

#### BACKGROUND

The current tariffs are applied to a range of Port services based on the cubic meters of the vessel. There is no recent record of how the rates have been calculated. There also appears to be a lack of cost relationship between the different tariffs and the services that they represent. In addition, there are a number of services that are now being provided, or are mandated by regulations, that are not being charged for.

A Committee has been formed within TEASC to propose a common approach and methodology for the calculation of tariffs in the Black Sea and surrounding Countries for sea ports and railways. This proposal is for a rational, cost based approach to tariff calculation that will ensure that the Ports fully cover their costs but will be fair in their charges to the vessel owners. The tariffs should be consistently calculated and applied, should be relatively easy to calculate and should be easily recalculated and updated for changes in costs or methods of operation.

#### CLASSIFICATION OF TARIFF SERVICES

The Port services will be classified under four main categories:

- Governmental infrastructure charges:
  - Navigation aids
  - Georgian Maritime Transport Administration
  - Maritime Search, Rescue and Salvage
  - Environmental monitoring
  - Maritime Hospital
- Service costs in Port:
  - Tonnage
  - Anchorage
  - Dredging and canal
  - Pilot fees
  - Environmental protection
  - Supply
  - Waste collection
  - Security in Port and vessels
- Berth services:
  - Towage
  - Mooring and unmooring
  - Berthing
  - Shifting
- Cargo services:
  - Loading and discharge
  - Terminal operations
  - Storage
  - Cargo lashing



Once the proposed rates are calculated, it may be considered practical to combine some of these tariffs where the operations are closely related. However, it is better to start with a more detailed analysis to ensure that all services and costs are fully covered.

### **BASIC COST ELEMENTS**

The methodology and the calculation formulae in this proposal are based on a set of consistent costs for each operation or function. Not all cost categories apply to each operation. The cost categories are:

- Direct labour
- Operating costs
- Capital costs (depreciation)
- Major, infrequent repair costs
- Expansion and renewal costs
- Return on investment in capital costs

The definition and contents of each basic cost element are set out in Appendix A.

### **BASIC RATE CALCULATION METHODOLOGY**

Three basic principles are followed in the calculation of the tariff rates:

- all costs are to be identified and included in the rate calculations, including some future oriented cost estimates
- Governmental infrastructure and Port services costs are best recovered from the vessel owners based on the gross tonnage since this represents the capacities for services required from the Ports. In other words, the Ports are "selling" tonnage capacity, and this provides the fairest means of collecting tariffs.
- Cargo services are best recovered based on the time required to load or discharge and the manpower (stevedoring) required for the operation. Additional services required for container terminals, storage and cargo lashing are based on the same basis. In other words, the Ports are selling time and labour. This will benefit shippers of cargo that is more easily handled and should encourage more efficient cargo handling methods.

For each of the tariff services, the basic cost elements will be calculated based on the accounting records for those costs that are available from the historic records, from Port statistical records for quantitative data, and from engineering and technological estimates for asset replacement costs and for planned expansion and renewal of Port facilities. The basic costs for a year for each of the categories of Governmental infrastructure, port services and berth services will be calculated or estimated and divided by the total annual gross tonnage handled by the Port. The calculation can be done in Laris or \$US, and the resultant rate per gross ton converted to \$US or Euro's. These will be the rates per gross tonnage that are charged to vessels using the specific services. Most of the vessels in Port will use all of the services except for items like anchorage, supply and waste collection.

The basic cost categories for cargo services will be calculated in the same manner. There will be two elements of cost for cargo services: the fixed costs of operating the equipment such as cranes and fork lifts, and the variable costs of stevedoring. The total of the annual fixed costs and variable costs will be combined and divided by the total stevedoring hours for the year. This will result in an annual rate per hour for each stevedoring hour. The rates will applied to the total time taken to load or discharge the cargo multiplied by the average stevedoring crew involved in the activity. In addition, the costs related to the container terminals and the refrigeration terminal will be calculated and be based on stevedoring hours.

The details and formula for each service tariff are contained in Appendices B and C. Appendix E contains suggestions for the calculation and collection of costs for the rate calculations. It will not be necessary to change any existing accounting structures, since the rate calculations will be done only once and will be future oriented. Accounting data will be used only to estimate the costs that will be included in the calculations.

## **APPLICATION AND COLLECTION OF TARIFFS**

The tariffs will be calculated and invoiced as follows:

- for any privatised services, the service provider will submit an invoice for their service
- all other services will be calculated and invoiced by the Port Authorities. These will be based on records of gross tonnage, range of services provided, and time sheets documenting the times for loading or discharge and the average stevedore crew size. Terminal use, storage and cargo lashing services will also be based on time sheets and crew sizes.

The Shipping Agent will collect the tariffs from the vessel owner based on the documents supplied by the private services and the Port Authorities. Tariffs collected will be paid directly by the Shipping Agents as follows:

- navigation aids tariffs to the Ministry of Defence (or to the Georgian Maritime Transport Administration)
- Georgian Maritime Transport Administration tariff directly to the Georgian Maritime Transport Administration
- Environmental monitoring tariff directly to BSERI
- Maritime search, rescue and salvage tariff directly to MRCC
- Pilot tariffs directly to the Harbour Master
- Mooring and unmooring tariffs directly to the Harbour Master at Poti
- Maritime Hospital tariffs directly to the Hospital
- Privatised services directly to the private company, as invoiced
- All other tariffs directly to the Port Administration

Tariffs will be shown on the Disbursement Account forms, with relevant vessel and cargo information and details of any rebates. A proposed format for the Disbursement Account form, and a suggested time sheet format for cargo services, are included in Appendix D.

## **TARIFF SETTING ISSUES**

There are a number of implementation issues connected with the calculation and finalization of tariff rates. These include issues of using standard rates, maintaining a competitive position with other ports, tariff reviews, possible rate modification methodology and tariffs for the users of the Supsa Terminal. These issues are discussed in detail in Appendix F. Other issues arising from this study related to the Tariff Regulations are discussed in Appendix G.

It is recommended that the methodology be followed consistently in the first tariff calculations. Only when the new tariffs are calculated can they be analysed and any modifications considered. Possible modifications are discussed in Appendix F.

## **IMPLEMENTATION TIMETABLE**

A proposed implementation timetable for the calculation and finalization of the tariffs has been developed and is shown in Appendix H. The timetable is based on implementation in time for the new tariffs to become effective in 2003. The schedule covers a six months period. If implementation is delayed due to delays in approvals, or the need to involve other Countries in the development of the methodology, the schedule times will still be applicable even though the commencement may be delayed.

Prepared at Batumi, Georgia  
June 20, 2002

By Peter Kemerer

Canadian Executive Service Organization (CESO)

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**Annex C**

**Tariff book for the Port of Poti**

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**TARIFFS FOR THE SERVICE  
OF FLOATING FACILITIES IN PORT POTI**

**VESSEL GROUPS**

- A. Liner cargo Vessels**
- B. long Voyage Cargo vessels, except A and C groups**
- C. "National Carrier" cargo-Passenger Ferries**
- D. Long Voyage Foreign Cargo- Passenger Ferries**
- E. "National Carrier" Passenger Vessels**
- F. "National Carrier" Tankers**
- G. "National carrier" Sailing Cargo vessels and Floating Units, except C and E vessels**
- H. Lighters in Lash Systems, Military Vessels, Hospital Vessels**
- I. Lighters, Tugs, self-propelled River, Fishing Vessels and Vessels up to 200t of Total Register Draught.**
- J. Vessels calling at the Port for Repairing, Water Supply, Urgent Circumstances or Emergency.**
- K. Service, Training, Scientific – Research Vessels**
- L. Sport, Salvage and Rescue, Draggers.**

## PORT TARIFFS

### 1. TONNAGE TARIFFS (GT)

NN	VESSEL GROUP	USUAL	FAVORABLE TARIFF	NATIONAL CARRIER	NOTE
1	A	0,2016	0,148	0,0144	20%Discount
2	B	0,252	0,185	0,018	At each call
3	C	0,252	0,185	0,018	At each call
4	D	0,252	0,185	0,018	Once a year
5	E	0,252	0,185	0,018	At each call
6	F	0,252	0,185	0,018	At each call
7	G	0,252	0,185	0,018	At each call
8	H	0	0	0	Do not pay Port Tariffs
9	I	40,50	40,50	20,25	Favorable Tariff for group 1
10	J	0	0	0	Do not pay Port Tariffs
11	K	0	0	0	Do not pay Port Tariffs
12	L	0	0	0	Do not pay Port Tariffs

### 2. LIGHTHOUSE SERVICE TARIFFS

NN	VESSEL GROUP	TARIFF	NOTE
1	A	0,02	At each call
2	B	0,02	At each call
3	C	0,0025	Only "National Carrier"
4	D	0,02	At each call
5	E	0,0025	Only "National Carrier"
6	F	0,0025	Only "National Carrier"
7	G	0,02	At each call
8	H	0	Do not pay lighthouse tariff
9	I	0	Do not pay lighthouse tariff
10	J	0	Do not pay lighthouse tariff
11	K	0	Do not pay lighthouse tariff
12	L	0	Do not pay lighthouse tariff

### 3. CHANNEL DUES

NO	VESSEL GROUP	TARIFF	NOTE
1	A	0,12	At each call
2	B	0,12	At each call
3	C	0,12	Only "National Carrier"
4	D	0,12	Once a year
5	E	0,12	Only "National Carrier"
6	F	0,12	Only "National Carrier"
7	G	0,12	Only "National Carrier"
8	H	0	Do not pay channel dues
9	I	0	Do not pay channel dues
10	J	0	Do not pay channel dues
11	K	0	Do not pay channel dues
12	L	0	Do not pay channel dues

### 4. WHARFAGE

NO	VESSEL GROUP	TARIFF	NOTE
1	A	0,02	
2	B	0,02	
3	C	0,006	Only "National Carrier"
4	D	0,02	
5	E	0,006	Only "National Carrier"
6	F	0,006	Only "National Carrier"
7	G	0,006	Only "National Carrier"
8-9	H-I-J-K-L	0	Do not pay wharfage

Note: 1. 50% Discount during berthing alongside the vessel, bow or stern

2. A, B, C, D, E, F, G, I group vessels which do not leave the port, and pay for berth occupation \$ 0,0104 for 1m<sup>3</sup> volume per hour and such calculation starts since finishing the work after 24 hours.

## 5. ANCHORAGE

NN	VESSEL GROUP	TARIFF	NOTE
1	A-B-D-H-K-L	0,001	All types of vessels
2	C-E-F-G-I-J	0	Do not pay for anchorage

## 6. MARINE ADMINISTRATION FEES

Vessels of 500t total register draught pay \$100 to bank account of Marine Administration.

## 7. MARINE HOSPITAL FEES

Vessels of 500t total register draught pay \$30 to bank account of Marine Hospital & 1 seamen are free from medical checking fees.

## 8. SANITARY SERVICE FEES

NN	Vessel Type	Up to 10 days	Above 10 days	Note
1	A-B-D-E-F-J-K	0,015	0,020	
2	H-I-L	0	0	Do not pay San. Tariff

Note: A-B-D-E-F-J-K group vessels are given 50% advantage in case if they have appropriate Sanitary Certificate.

## 9. PILOTAGE DUES

NN	Vessel group	Tariff	Note
1	A	0,0104	20 % discount
2	B	0,013	
3	C	0,013	
4	D	0,013	
5	E	0,0104	20 % discount
6	F	0,013	
7	G	0,013	
8	H	0	Do not pay Pilot Service Dues
9	I	0	Do not pay Pilot Service Dues
10	J	0	Do not pay Pilot Service Dues
11	K	0,013	
12	L	0	Do not pay Pilot Service Dues



## 10.MOORING TARIFFS

Vessel volume 1 m <sup>3</sup>	Tariff for one operation
Up-1000	18
1001-5000	36
5000-10000	54
10001-20000	72
20001-40000	108
40001-80000	144

## 11.TUGBOAT SERVICE TARIFFS

N	Vessel group	MOORING UNMOORING	Shifting	Note
1	A	0,044	0,072	20% discount
2	B	0,055	0,09	
3	C	0,044	0,072	20% discount
4	D	0,055	0,09	
5	E	0,044	0,072	20% discount
6	F	0,044	0,072	20% discount
7	G	0,044	0,072	20% discount
8	H	0,055	0,09	
9	I	0,055	0,09	
10	J	0,055	0,09	
11	K	0,055	0,09	
12	L	0,055	0,09	

Note: Liner Cargo Vessels having mooring line are given 25% discount, among them A, C, E, F, G group vessels except 20% discount.

Vessel Length in Meters	Number of Tugs
50-100	1
101-180	2
181-250	3
Above -250	4

### FOR ADDITIONAL TUGBOAT SERVICE

Port Floating Facilities	Tariff
Self-propelled barge or launch	\$90/h
Non Self-propelled floating facilities	\$35/h
Up to 1000hp engine tug	\$275/h
Above 1000 hp engine tug	\$390/h

**Annex D      Maximum cargo handling tariffs for Georgian ports**

## APPENDIX A

### DEFINITION OF BASIC COST ELEMENTS

The basic cost elements used in the tariff calculations will be the same for all of the tariff calculation formulas. In the formulas they will be identified by the capital letters bracketed after the following description headings. The formulas are shown in Appendices B and C.

- **DIRECT LABOUR (DL):** The cost of all direct labour connected with the activity or function. It includes the cost of direct supervision of the activity, that is the first level of supervision that is involved only with the particular activity. If there is a supervisor or manager that is involved with only two or three activities, it would be best to divide the costs among the activities. Managers and supervisors that have a wider range of responsibilities should be included in Port administration costs. Direct labour will include the cost of any overtime premiums paid to the direct staff. Direct labour will include the 31% payment to the Government for social services. Any other costs that are directly connected to wages should also be included. All paid time off should be included in the direct labour cost.

(Note: an employee may be assigned to more than one activity or function. In such a case, the employee cost will be apportioned to the activities involved. See Appendix E)

- **OPERATING COSTS (OC):** All operating costs associated with an activity or function. These would include fuel, utilities, communications, regular maintenance and repairs, spare parts, supplies, and the purchase of minor equipment and furniture. These are all the normal expenses of operations. Any estimates made for operating costs should be based on an acceptable level of operations and maintenance. Tariffs should not be based on costs that have been kept low because of economic limitations. Where an asset has been financed externally to the Port, any interest cost associated with the asset will be included in the operating costs of the facility or operation.

- **CAPITAL COSTS (CC):** The amortization, or depreciation of capital assets used in the activity. Capital costs of shared equipment would be pro-rated over the activities sharing the equipment. For this study, it was assumed that the original capital costs would not always be known because of different methods of record keeping over the years. In addition, the historic capital costs are probably far below current values. One of the accounting purposes of depreciation expense is to provide funds from operations for the replacement of the asset at the end of its life. If the depreciation expense used in calculating rates (tariffs) is unrealistically low compared to current values, then the rates will not collect the required replacement funding. It is therefore recommended in this study that estimated replacement costs be used as the basis for calculating depreciation expense (CC). This will provide a consistent asset cost base for all tariff calculations.

The estimated replacement asset costs will be calculated only for major equipment (values in excess of \$US 50,000) Minor equipment costs can be estimated in one total amount. The depreciation expense will be based on the expected service life of the asset, based on normal operations and maintenance practices. The service lives should be determined by engineering estimates, and should be conservative. The possibility of technological obsolescence should be considered in setting service lives.

If the equipment has been financed as a grant or forgivable loan by an International or external Agency, the replacement cost should be estimated and included in depreciation expense (CC). Users of the Port should not expect to benefit because of external funding arranged for specific projects.

- MAJOR REPAIRS (MR):** For some major equipment there are periodic large maintenance costs arranged for on a contract basis, with the contract covering a period of more than one year. Some equipment is known to require a major replacement or overhaul (such as an engine) every few years during the life of the equipment. Since these costs do not occur every year, they are not included in normal operating costs. However, they do represent a cost to the operations of the Ports. Such costs, or cost estimates should be included in the rate calculations. The cost to be included is the cost of the infrequent major repair, amortized over the period of the contract or the period between the replacement or overhaul. The costs are amortized over the number of years that will benefit from the repair.
- EXPANSION AND REHABILITATION (EC):** For some systems and facilities there may be plans for a major expansion or rehabilitation. These plans should have a reasonable likelihood of being implemented. Only major projects should be considered (expansion of facilities over \$US 500,000 and equipment \$US 100,000). The cost to be included would be the cost of the expansion divided by the number of years until the expected in-service date plus the service life of the asset. When the expansion or rehabilitation goes into service, the expansion cost (EC) would be taken out of the rate calculation and be replaced by normal depreciation. This cost is really a future cost., and would not normally be included in a cost calculation. In a private company, the profit factor included in the establishing of selling prices should create an "earned surplus" which can be used for expansion of the organization. Governmental rate regulated organizations are supposed to only cover costs and not earn a significant amount of profit. However, by including an expansion component in the costs, the Ports will be able to generate some funds for future expansion. This will enhance economic stability and improved facilities for the vessel owners.
- RETURN ON INVESTMENT (ROI):** As mentioned in the previous cost element, profit making organizations will include a profit element when calculating revenue requirements. This not only provides the owners with a return on their investment in the Company, but generates funds to make the company economically sound. The funds ensure that the company can maintain its assets and expand the operations to provide better service. For the Port Authorities, this would take the place of a profit component. The Return on Investment would be calculated as a % of the assets employed in each facility or operation. The % to be used could be obtained from Government economic studies, or published data from International financial models such as World Bank, IMF, EEC etc. If these are not available, a nominal rate such as 15% could be used. This is also a future oriented cost, but the users of port facilities will benefit if the Ports are kept up to date and efficiently operated. It will also supply a measure of comparability for any privatization studies in the future.

## APPENDIX B

### COST ELEMENTS AND FORMULAS FOR ALL PORT SERVICES

The following formulas and descriptions use the cost element codes identified in Appendix A.

#### GOVERNMENT INFRASTRUCTURE TARIFFS:

**Navigational aids:** includes all navigational aids such as lighthouses, channel markers, buoys, etc required for the safe navigation within the Port boundaries and required by law.

Costs include all direct costs required for the maintenance of the navigational aids, including costs of dedicated vessels.

$$\text{Calculation formula: } \frac{\text{DL} + \text{OC} + \text{CC} + \text{ROI}}{\text{Annual gross tonnage in Port}}$$

**Georgian Maritime Transport Administration costs:** includes the total budgeted costs of the Georgian Maritime Transport Administration. These costs are to be shared by all Ports.

$$\text{Calculation formula: } \frac{\text{Annual budget of GMTA}}{\text{Combined annual gross tonnage of Batumi, Poti and Supsa}}$$

(Each Port to recover the costs as a tariff on gross tonnage and remit directly to GMTA)

**Maritime Search, Rescue and salvage service:** includes all the costs of operating the search and rescue operational center for Georgia that is based at Batumi. Includes the costs of 24 hour service for operation center, search and rescue vessels, salvage tug and equipment for environmental clean up.

$$\text{Calculation formula: } \frac{\text{Annual budget of MRCC} - \text{DL} + \text{OC} + \text{CC} + \text{EC} + \text{ROI}}{\text{Combined annual gross tonnage of Batumi, Poti and Supsa}}$$

At present, only the Operational Centre is in operation and some clean up equipment is available. The costs of the rescue vessels and the salvage tug have been estimated, but purchase is awaiting financing arrangements. There is also a need for much more clean up equipment. The expansion cost component (EC) is therefore very important in calculating this tariff. When the equipment is obtained, the operating costs will include the costs of the standby crews and all vessel operating costs.

(Each Port to recover the costs as a tariff on gross tonnage and remit directly to MRCC)

**Environmental monitoring:** includes the costs of the Environmental Services in monitoring the environment of the Port area. Includes costs of inspections, policy development, publicity, investigations, prosecutions, documentation and administration. Includes costs of dedicated vessels and equipment.

$$\text{Calculation formula: } \frac{\text{DL} + \text{OC} + \text{CC} + \text{EC} + \text{ROI}}{\text{Annual gross tonnage handled by Port}}$$

**Maritime Hospital:** cost of diagnostic services supplied to vessel crews by the Maritime Hospital. The cost would be based on information supplied by the Hospital for the estimated annual cost of providing the services. The Hospital should recover full cost. The estimate could be an average of the number of visits over the last five years.

**Calculation formula:** 
$$\frac{\text{Estimated annual cost provided by Hospital}}{\text{Annual gross tonnage handled by Port}}$$

### SERVICE COSTS IN PORT TARIFFS

**Tonnage:** the costs of common facilities provided by the Port, including the costs of the Port administration staff and functions. Includes the cost of common Port equipment that is not dedicated to a particular function or operation. Facilities would include access roads, perimeter walls, grounds and lighting. Port administration includes management, accounting, engineering, planning, billing and communications and other administrative functions. Equipment would include pilot boats.

**Calculation formula:** 
$$\frac{\text{DL} + \text{OC} + \text{CC} + \text{ROI}}{\text{Annual gross tonnage handled by Port}}$$

**Anchorage:** the cost of anchorage of a vessel for staying at anchor in the inner roads

**Calculation formula:** since the actual costs of anchorage apart from other operations are minimal, the following tariff is proposed:

1. an additional towage fee for moving the vessel
2. a fee of 50% of mooring fee for each 24 hour period that the vessel is at anchorage

**Dredging and canal fee:** the cost of dredging in the port or the canal, and the maintenance of the canal and related facilities. The breakwater at Poti can be included either with common facilities in tonnage or with the canal. Includes costs of the dredger vessel.

**Calculation formula:** 
$$\frac{\text{DL} + \text{OC} + \text{CC} + \text{MR} + \text{EC} + \text{ROI}}{\text{Annual gross tonnage handled by Port}}$$

**Pilot fees:** the total costs of providing pilot services in the port. This is basically the cost of the Harbour Master's operation. At Poti, the Harbour Master costs would be split between Pilot fees and Mooring. The cost of the pilot boats are included in tonnage as part of common equipment.

**Calculation formula:** 
$$\frac{\text{DL} + \text{OC} + \text{CC} + \text{ROI}}{\text{Annual gross tonnage handled by Port}}$$

**Environmental protection fee:** the facilities and equipment required by international agreements for the reception, storage and treatment of wastes and environmental hazards. The cost of operating the facilities. Included are the facilities for the reception of garbage, oil and chemicals, and the incineration of waste. The

expansion cost element should provide for the required equipment that is not yet in place.

**Calculation formula:** 
$$\frac{DL + OC + CC + EC + ROI}{\text{Annual gross tonnage handled by Port}}$$

**Supply service fee:** the cost of supplying vessels with water etc, by barge or tug.

**Calculation formula:** 
$$\frac{DL + OC + CC + ROI}{\text{Annual gross tonnage handled by Port}}$$

**Waste collection:** the cost of collecting waste and bilge water from vessels. Includes the cost of safe disposal of wastes collected.

**Calculation formula:** 
$$\frac{DL + OC + CC + ROI}{\text{Annual gross tonnage handled by Port}}$$

An alternative method would be to charge for the waste or bilge water on the basis of a fee per kilogram. This fee would be calculated using the estimated volume handled to divide the costs by.

Current regulations provide a 50% rebate for green vessels.

**Security in Port and vessels:** the costs of providing security services in the port area and to the vessels. Includes costs of vehicles and security systems.

**Calculation formula:** 
$$\frac{DL + OC + CC + ROI}{\text{Annual gross tonnage handled by Port}}$$

### **BERTH SERVICES**

**Towage:** the costs of providing tug services in all mooring, berthing and anchorage operations. The costs would include major repair of tug boats and any planned expansion of the tug fleet.

**Calculation formula:** 
$$\frac{DL + OC + CC + MR + EC + ROI}{\text{Annual gross tonnage handled by Port}}$$

**Mooring and unmooring:** the cost of mooring and unmooring vessels at the berth. Includes the cost of short distance moving at the berth.

**Calculation formula:** 
$$\frac{DL + OC}{\text{Annual gross tonnage handled by Port}}$$

Current regulations provide for a rebate of 25% where a vessel is lying along side or bow or stern of another vessel.

**Berth fees:** the cost of the berth piers and the services of securing the vessel to the berth.

**Calculation formula:**  $DL + OC + CC + EC + ROI$

**Annual gross tonnage handled by Port**

Where a vessel, for their own reasons, does not leave a berth, there will be a charge of 50% of berth fees for every 24 hours the vessel remains at the berth. This charge will commence 12 hours after completion of loading or discharging cargo.

**Shifting fees:** the cost of shifting a vessel to another berth or to anchorage. It does not include moving a vessel at the same berth.

**Calculation formula:** shifting will be charged at the rates for towage and mooring if it is a move from one berth to another. If it is to or from anchorage, the towage charge will apply. When the vessel is berthed from anchorage, the normal mooring and berth fees will apply.

If the shifting is done at the request of the Port, a reduced fee should be applied.



## APPENDIX C

### COST ELEMENTS AND FORMULAS FOR CARGO OPERATION SERVICES

The tariffs for cargo operation services are made up of two elements, fixed costs of operating the cargo services equipment and terminals and the variable costs of stevedoring. These elements are combined and are divided by the total stevedoring hours to obtain a rate per stevedore per hour.

#### FIXED COSTS

All of the equipment is not used in every loading or discharging operation. However, for simplicity of calculation and application of tariffs, it is better to calculate the fixed costs based on the total fixed costs of all the equipment. This will include the costs of the repair shops and amounts paid for damaged goods. The fixed costs of individual equipment, such as fork lifts, are small enough that they would not represent a significant part of the total fixed cost per hour.

**Cranes:** the cost of operating the cranes, including capital costs, major repair costs, and future expansion plans. Operating costs include power, maintenance, spare parts and supplies.

**Calculation formula:**  $DL + OC + CC + MR + EC + ROI$

**Hoppers:** the cost of operating hoppers for bulk cargos

**Calculation formula:**  $DL + OC + CC + ROI$

**Fork lift trucks:** the cost of operating fork lift trucks in the holds and on the dock

**Calculation formula:**  $DL + OC + CC + ROI$

**Rail lines and ferry bridge:** the cost of operating rail lines and ferry bridge, including the rental cost of locomotives.

**Calculation formula:**  $DL + OC + CC + ROI$

**Repair shops:** the cost of operating the repair shops for damages done to vessels and cargo equipment. If the repair shops are used for other port activities, the portion applicable to cargo services should be estimated.

**Calculation formula:**  $DL + OC + CC + ROI$

**Losses for damaged goods:** the cost of losses paid to vessel owners for goods damaged during cargo operations.

**Calculation formula:** Average annual cost of losses paid to vessel owners.

This could be based on average of last three years.

#### **FIXED COST CALCULATION FORMULA:**

**fixed costs of cranes + hoppers + fork lifts + rail lines and ferry bridge + repair shops + losses for damaged goods**

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**total annual stevedoring hours**

This will be the fixed cost component of the calculation of the rate per hour for loading and discharging.

**STEVEDORING COST:** this is the variable cost of the stevedoring crews involved in all cargo operations. It includes supplies, protective clothing and pallet and sling costs.

**Calculation formula:** 
$$\frac{DL + OC}{\text{total annual stevedoring hours}}$$

**Total loading or discharging cost for each stevedoring hour:**

**Calculation formula:** fixed cost per hour + stevedoring cost per hour

#### **OTHER CARGO SERVICES TARIFFS**

**Container terminal:** the cost of operating the container terminal and the capital costs

**Calculation formula:** 
$$\frac{DL + OC + CC + EC + ROI}{\text{annual hours of cargo activity at the terminal}}$$

**Refrigeration terminal:** the operating and capital costs of the refrigeration terminal

**Calculation formula:** 
$$\frac{DL + OC + CC + ROI}{\text{annual hours of cargo activity at the terminal}}$$

Terminal fees will be charged in addition to loading and discharging tariffs for the period of time that the cargo uses the facilities of the terminal during cargo handling

**Storage fees:** the temporary storage of cargo either awaiting the arrival of the vessel or storage required until the cargo can be placed in the transport vehicle. Cargo may require restacking and lashing.

**Calculation formula:** storage will be charged at the same rate as loading or discharging. The fee will be based on the time taken to place the cargo in or out of storage and the stevedore crew required.

**Cargo lashing:** the cost of lashing cargo for the safe loading on the vessel or onto the transport after temporary storage. The cost of lashing materials will be included in stevedoring supplies.

**Calculation formula: cargo lashing will be charged at the same rate as loading or discharging. The fee will be based on the time taken to secure the cargo and the stevedore crew required.**

### **LIQUID CARGO:**

The liquid cargo facilities in the Port are owned and operated by a private consortium, and therefore do not incur any loading or discharging costs by the Port. However, the vessels do use the Port facilities and should pay the normal tariffs for governmental infrastructure, Port services and berth fees.

### **APPLICATION OF CARGO SERVICES TARIFFS**

For each cargo operation the following information is required:

**T** hours of loading or discharging, including any cleaning or loading on ferry

**C** average size of stevedoring crew used in the operation

**ST** hours of placing in and, or removal from storage

**SC** average size of stevedoring crew used in the storage operation

**LT** hours required for cargo lashing

**LC** average size of stevedoring crew used in the lashing operation

**CT** hours used in container terminal

**RT** hours used in refrigeration terminal

**Calculation of fees formula: (TSC total stevedoring cost per hour)**

**Regular cargo:**  $T \times C \times TSC$

**Cargo with storage:**  $(T \times C \times TSC) + (ST \times SC \times TSC)$

**Cargo with storage and lashing:**  
 $(T \times C \times TSC) + (ST \times SC \times TSC) + (LT \times LC \times TSC)$

**Cargo using container terminal:**  
 $(T \times C \times TSC) + (CT \times \text{container terminal hourly rate})$

**PROPOSED PUBLISHED REGULATIONS FOR CARGO SERVICES**

1. Loading and discharging time will be measured from the time that the stevedoring crew is requested and arrives at the vessel. Unlashing and opening hatches should be completed before the arrival of the crew. The completion time will be the time that the cargo is in its final destination in the hold, in transport or in storage, and any clean up by the stevedoring crew is completed.
2. The time will exclude meal times when the stevedoring crew is not working or time when the crew cannot work due to weather conditions.
3. Total times will be rounded up to the nearest one half hour.
4. Where storage or cargo lashing are required, the time and the stevedore crew will be charged as a separate operation.
5. The size of the stevedore crew assigned is at the option of the Port Authority, taking into account the requirement for a safe and efficient operation.
6. The decision to temporarily store and, or lash cargo is at the option of the Port Authority, taking into account the requirement for a safe and efficient operation.
7. The commencement of operations, and the stevedore crew size can be negotiated in advance of loading or discharging cargo.

**n APPENDIX D**

**PROPOSED FORMAT FOR DISBURSEMENT ACCOUNT**

**(insert the proposed format excell file)**

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**PROPOSED TIME SHEET FOR CARGO SERVICES****LOADING OR DISCHARGING TIME SHEET****VESSEL:****CARGO:****FROM OR TO VESSEL**

<u>Date</u>	<u>Start Time</u>	<u>Finish Time</u>	<u>Hours Deducted</u>	<u>Net Total Hours</u>	<u>Number of Crew</u>	<u>Hours x Crew</u>
June 12	9:00	6:00	1.00	8.00	10	80
June 13	8:00	8:00	2.00	10.00	8	80
June 14	8:00	8:00	2.00	10.00	12	120
June 15	8:00	4:00	1.00	7.00	12	84
Totals				35.00		364
	Average crew		364/35		10.4	

**FROM OR TO STORAGE**

<u>Date</u>	<u>Start Time</u>	<u>Finish Time</u>	<u>Hours Deducted</u>	<u>Net Total Hours</u>	<u>Number of Crew</u>	<u>Hours x Crew</u>
June 16	8:00	6:00	1.00	9.00	6	54
June 17	8:00	3:00	1.00	6.00	4	24
Totals				15.00		78
	Average crew		78/15		5.2	

**CARGO LASHING**

<u>Date</u>	<u>Start Time</u>	<u>Finish Time</u>	<u>Hours Deducted</u>	<u>Net Total Hours</u>	<u>Number of Crew</u>	<u>Hours x Crew</u>
June 16	8:00	6:00	1.00	9.00	2	18
June 17	8:00	3:00	1.00	6.00	2	12
Totals				15.00		30
	Average crew		30/15		2	

**CONTAINER TERMINAL**

<u>Date</u>	<u>Start Time</u>	<u>Finish Time</u>	<u>Hours Deducted</u>	<u>Net Total Hours</u>	<u>Number of Crew</u>	<u>Hours x Crew</u>
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## APPENDIX E

### CALCULATION OF COST ELEMENTS : SUGGESTED METHODOLOGIES

It will not be necessary to change the accounting structures or accounts for the calculation of tariffs. The calculation will be a one time calculation, but will be based on actual accounting balances and operating statistics. The existing accounting records will be used to provide totals of expense classifications that can then be analysed to provide estimates of cost allocations among the tariff activities. Detailed cost elements will not be required where a service is privatised or performed by an organization outside the Port Authority.

#### **Direct labour:**

The costs of direct labour and direct supervision for each of the tariff activities will be obtained from payroll records. The costs will include casual labour, overtime, and the 31% benefits payment to the Government where it is applicable. It is suggested that an excell file be prepared with the tariff activities listed in the left hand column. The total labour costs would be the balancing figure for the estimates column. For each activity, the labour costs will be filled in, based on payroll information, organization charts and the knowledge of supervisory personnel. Where an employee, or group of employees, work at more than one tariff activity, their estimated cost should be apportioned to the activities based on an estimate of their involvement in each activity. The costs of labour that are not directly applicable to a specific tariff activity will be included in Port administration labour that is included in tonnage fees.

The calculation and allocation of labour costs will be difficult because payroll and accounting records will not be organized in the same way as the tariff activities. It may be possible to identify the number of staff for each activity from personnel records and use an average rate for estimating the costs. This may be adequate for rate setting purposes. The element of labour may be small enough in some categories that any inaccuracies in estimates would not have a significant impact on the final rate.

#### **Operating costs:**

Presumably, the accounting records will segregate the major categories of operating costs (see Appendix A for definitions). However, there will possibly be no detailed identification with the tariff activities. It is suggested that an excell spreadsheet be set up to estimate the operating costs for each tariff activity. The activities would be listed in the left hand column and the operating cost categories across the top columns, based on the accounting records classifications. The cost estimates for each tariff activity could be based on an analysis of the larger costs in each category over a three or four month period (for example: any invoices over 100 lari). Estimates could be obtained or confirmed with supervisors of the various activities. The total of the estimated costs within a category should be approximately equal to the annual accounting costs,

For rate setting purposes, it may be advisable to increase the estimates of operating costs where the costs have been kept at a low level for economic reasons. This could apply particularly to levels of maintenance and repairs. The operating cost estimates

for rate setting purposes should represent a normal level of expenditure needed to maintain a good operation capability.

**Capital costs:**

Capital costs are to be based on replacement values of the equipment and facilities. For each tariff activity it will be necessary to list all the major equipment, that is all equipment with a value over \$US 100,000. Where there are a number of pieces of equipment whose individual value is below \$US 100,000, but in total they exceed \$100,000, then they can be grouped as one item. The list of equipment and facilities (such as piers, retaining walls, breakwaters etc.) should be given to the technical and planning staff to obtain estimates of the current replacement values for equipment of similar capacity. These values can be obtained from equipment catalogues, planning studies or requests for estimates from suppliers. An estimate can be made of the total replacement value of minor equipment in each tariff activity.

The technical staff should also provide an estimate of the average service life of each piece of equipment or facility. Normally, major facilities have a life of 50 years or more, vessels and cranes up to 30 years. Most minor equipment should be assigned a life of 20 years. The service lives should be based on the equipment receiving normal maintenance and periodic major component replacement where applicable. Office furniture, computers and communications equipment should be included in operating costs.

The annual capital cost for each tariff activity (depreciation) is obtained by dividing the replacement cost estimates by the service lives.

**Major repairs:**

The technical and planning staff should provide information of contracted major repairs. These will be contracts with a duration of more than one year for the servicing of major equipment. The contracts should have a value in excess of \$US25,000. In addition, the technical staff should identify the pieces of major equipment where a large component is replaced every x number of years during the life of the equipment. This could be something like an engine replacement in a vessel every 10 years or so many running hours. They should supply the estimated costs of the repairs and the time intervals involved. The costs should be in excess of \$US 25,000.

These cost estimates should be amortized over the period that the cost applies to. A three year contract would be amortized over three years. A replacement every ten years would be amortized over 10 years.

**Expansion costs:**

The planning and technological staff should be requested to provide information on planned major expansion of equipment or facilities for any of the tariff functions. These should be for projects that have a reasonable chance of implementation. The information should include the estimated cost, the estimated time before the equipment or facility is placed in service, and the estimated service life of the equipment or facility. (see Appendix A for \$ limits to be considered).



The expansion cost element will be calculated as the total cost of the project divided by the number of years to in service date plus the service life of the asset. When the equipment goes into service, the expansion cost element will be discontinued from rates and normal depreciation will be included.

### **Gross tonnage:**

The gross tonnage handled by the Port on an annual basis will be required for the tariff calculations. This should be available from Port statistical records. If the tonnage handled in recent months is showing a significant increase or decrease, then the annual gross tons handled should be modified to take the current trends into account, provided that the trends are expected to continue.

### **Stevedore hours:**

The annual stevedore hours are required for the calculation of cargo services rates. This is a very important statistic. It should be developed, if possible, from payroll records. If these are not available, estimates should be based on the annual estimated costs from the labour analysis, divided by the estimated hourly average rate paid to the stevedores. The hourly rate estimate should take into account any overtime included and the 31% benefit payment included.

The total hours used can be verified as being reasonable when calculating the stevedore rate per hour (see Appendix C). This rate should approximate the average rate paid to stevedores, including the added payments. For example, if the calculated stevedore rate is 15 lari per hour, there is some problem with the estimates used.

### **Effect of rebates on rates:**

Some classes of vessels are given rebates for some tariff services. This has the effect of reducing the revenue from the activity, and therefore the full costs will not be recovered. The rates will have to be increased to cover the rebates, as in the following example:

#### **Assumptions:**

tonnage rate calculated as \$US 0.90 per gross ton  
 costs to be recovered for tonnage \$450,000  
 gross tons subject to tonnage tariffs 5,000,000

#### **Billing assumptions:**

<b><u>vessel class</u></b>	<b><u>gross tons</u></b>	<b><u>gross tariff</u></b>	<b><u>rebate</u></b>	<b><u>net tariff</u></b>
<b>linear vessels</b>	<b>1,000,000</b>	<b>90,000</b>	<b>9,000</b>	<b>81,000</b>
<b>national vessels</b>	<b>100,000</b>	<b>9,000</b>	<b>4,500</b>	<b>4,500</b>
<b>international agree</b>	<b>3,000,000</b>	<b>270,000</b>	<b>54,000</b>	<b>216,000</b>
<b>all other</b>	<b>900,000</b>	<b>81,000</b>	<b>0</b>	<b>81,000</b>
<b>totals</b>	<b>5,000,000</b>	<b>450,000</b>	<b>67,500</b>	<b>382,500</b>

After rebates, we collected only \$382,500, but the revenue requirement is \$450,000

$$\text{average rebate: } \frac{67,500}{450,000} = 15\%$$

$$\text{reciprocal \%} = 1.00 - .15 = .85$$

$$\text{rate must be increased to: } \frac{0.090}{.85} = 0.1059$$

Proof:

$$5,000,000 \text{ tons at } 0.1059 = \$ 529,000$$

$$\text{rebate at average } 15\% \quad \frac{79,000}{\phantom{0.000}}$$

$$\text{net cost recovere} \quad \frac{450,000}{\phantom{0.000}}$$

## APPENDIX F

### RATE CALCULATION AND RATE SETTING ISSUES

#### **Preliminary calculations:**

All of the tariffs should be calculated using the proposed methodology in a consistent manner. The results should be reviewed to ensure that they are reasonable and represent the level of activity related to the tariff. They should also be compared with each other for relativity. For example, towage tariffs should be higher than those for mooring or berthing. Any tariffs that appear unreasonable should be checked to ensure that the cost components have been correctly calculated. After the preliminary review, the need for further reviews and possible modifications are discussed below.

#### **Standard tariffs:**

It is proposed that the tariffs set will be used in all the Ports in Georgia. This will ensure that all vessels using Georgian ports will be treated equitably and the published tariffs will be adhered to. This is important in establishing a consistent competitive position.

It is proposed that Batumi and Poti Ports both do the tariff calculations. When completed, the two can be compared and a decision made as to which calculation should be used as the Georgian standard. In these deliberations, consideration should be given to condition of equipment and idle or excess capacity. As a general rule, the most efficient operation should be considered to encourage a competitive tariff policy. These proposals have attempted to identify differences in facilities and services between the two Ports. However, some additional tariff classifications may be required to account for any differences.

#### **Competitive tariffs:**

It is important that the final tariffs be competitive with other Black Sea and European ports. Since this proposal only outlines the tariff calculation methodology, the actual rates will not be known until the calculations are complete. At this time, the new tariffs should be compared to tariffs under the existing rates. This comparison should be made for a wide sample of actual tariff calculations, including samples of different loading and discharging scenarios. When a sufficient number of comparisons have been made to obtain a clear picture of the effect of the new tariffs, the results should be examined to determine the effect on the ports competitive position.

If the competitive position is threatened, then a review of the new tariff structures should be undertaken. One way of reducing the tariffs would be to reduce the future oriented cost elements of expansion costs and return on investment. Another way would be to review the depreciation charges based on replacement costs. In some areas, such as the cost of piers, using replacement costs could inflate the tariff unreasonably. Finally, methods to cut costs or improve efficiency could be considered.

If the tariffs calculated are reduced, there should be documented reasons for the reductions. The basic methodologies should be retained, and all services should be

covered by tariffs. Arbitrary, across the board % reductions should be avoided. (see also "rate modifications" below)

### **Supsa Terminal:**

At present, no tariffs are collected by the Ports for the activity at the Supsa Terminal. However, a number of governmental infrastructure tariffs and port services provide benefit to the Supsa terminal. It is proposed that tariffs be negotiated for some or all of the following:

- tonnage (50%)
- navigation aids
- Georgian Maritime Transport Administration
- Maritime Search and Rescue service
- environmental monitoring
- supply
- Maritime Hospital

### **Tariff reviews:**

It is better if tariffs can be kept stable for a period of 3 to 5 years, to enhance the competitiveness of the Ports and their image of efficiency. Problems could arise through high inflation or currency devaluation that might require a review of tariffs. Extra revenues resulting from higher tonnage handles or improvements in operations should probably be retained and adjusted at the next review.

The tariff calculations should be reviewed on an annual basis to ensure that no great changes have taken place. This review should be done in September and October, and does not need to be as detailed as the original calculations. If there are circumstances that require a change in some of the tariffs, these can be approved in time for implementation in the new year.

### **Rate modification:**

In Batumi and Poti there are significant rentals received for the use of piers and facilities from private consortiums, such as the oil companies. These revenues are currently a contributing factor to the current profitability of the Ports. The revenues will probably continue for the foreseeable future. In order to maintain competitive tariffs, it is possible to take these revenues into account and modify the calculated tariffs. By doing this, the calculation methodology and principles could be maintained but the final results could be more competitive.

Staffing levels at the Ports are probably much higher than required. This is due to historic staffing practices, reduced tonnage and general economic conditions. To reduce staff to efficient levels is not possible because of high unemployment and the serious effect lay offs would have on the communities. Over a long period of recovery, it is hoped that increasing tonnage, improved economic conditions would allow the Ports to reduce excess staff through normal attrition and leaving vacancies unfilled. For rate modification purposes, it is necessary to estimate the cost of the

excess staff. This could be done by an assessment of the organization chart and present staff levels to determine an approximation of surplus people. This number would be costed at an average annual wage plus benefit percentage.

The excess costs could be identified with the tariffs they are included in, such as administrative costs (in tonnage tariff) or stevedoring. These costs could be deducted in the calculation of a modified tariff for the activity (if stevedoring costs were reduced, the applicable hours would also have to be removed in the rate per hour calculations).

The amount of these cost reductions would be deducted from the Port rental revenues. The balance of the port rent revenues could then be used to reduce all of the tariffs on a pro rata basis based on the tariff functions revenues. This would not apply to revenues that are paid to outside organizations, such as Georgian Maritime Transport Administration, Harbour Master and Maritime Search and Rescue.

This process should only be considered if all other attempts to modify tariffs to maintain a competitive structure are unsuccessful.

## **APPENDIX G**

### **OTHER TARIFF ISSUES**

There are a number of other issues connected with the existing tariff regulations that were reviewed during the study. They are discussed below.

#### **Classification of vessels:**

It is proposed that the existing classification of vessels be simplified as follows:

“A” vessels of registered shipping lines

“B” normal vessels

“C” vessels under international agreements for favourable tariffs and vessels under the  
Georgian flag

“D” generally exempt vessels, including lighters, tugs, naval vessels, hospital ships, dredgers, research ships, service vessels, rescue vessels, refugee vessels, sports craft and yachts

“E” vessels with emergencies or in need of repair

“F” vessels under 500 gross tons

#### **Rebates granted:**

The following rebate schedule is proposed:

- “A” 20% of tonnage tariffs
- “B” no rebates
- “C” 25% of tonnage tariffs
- “D” exempt from tariffs
- “E” exempt from tariffs
- “F” 75% of all tariffs

#### **Premium charges:**

Since the ports operate on a continuous basis, it is proposed that the current premiums for holidays and overtime be discontinued.

If the vessel owner requests that overtime be incurred to expedite loading or discharge, then there will be a premium of 25% applied to overtime, or a rate agreed to with the vessel owner.

**Vessels without gross tonnage:**

For those vessels without gross tonnage that are subject to some, or all, tariffs, the tariff charges should be applied to a gross tonnage figure for consistency of tariff application. A formula should be developed to establish a gross tonnage value for these vessels. It could be based on cubic meters, length of vessel, or other appropriate measurement.

**Lighter carrying vessels:**

Item 1.5 in the current tariff regulations deals with lighter carrying vessels. This was not reviewed during the study. It should be reconsidered and amended, if necessary, to comply with the proposed tariff structures.

## APPENDIX H

### IMPLEMENTATION TIMETABLE

The following time table for implementation of the study is based on having the new tariffs finalized and approved in time for the year 2003. While this may not be practical, the timings shown in the schedule should apply towards any implementation goal.

#### **Implementation steps and dates:**

- |   |                    |
|---|--------------------|
| 1. Final Ministry approval of proposed calculation methodology  | July 26            |
| 2. Collection and calculation of accounting and statistical data of costs, hours, tonnage, etc.   | July to August 16  |
| 3. Collection of estimates of major equipment and facilities replacement costs  | July to August 16  |
| 4. Collection or calculation of major repair costs, expansion plans and rate of return on investment (ROI)  | July to August 16  |
| 5. Calculation of rates for all tariffs   | Aug 19 to Sept. 6  |
| 6. Decision for which calculated tariffs to use as standard between Batumi, Poti or compromise rate   | Sept 9 to Sept. 13 |
| 7. Detailed comparison of new tariffs with existing tariffs over a wide range of tonnage and services. Based on examples of billings during last 6 months   | Sept 16 to Sept 27 |
| 8. Evaluation of results from the tariff comparisons from the standpoint of total revenues and competitive position with other ports. Recommendations for changes in methodology, cost elements or rate modifications. Recalculations and testing of recommendations. | October 1 to 11    |
| 9. Final decision on methodology, tariffs, and application rules.   | October 14 to 18   |
| 10. Drafting of regulations for vessel classifications, rebates, disbursement document, time sheets, tariff application responsibilities, payment procedures and other administrative considerations  | October 1 to 18    |
| 11. Preparation of regulations, tariffs, application rules, published schedules and notifications in their final format. Preparation of a report on the impact of the new tariffs and a financial evaluation for all Ports.   | Oct. 21 to Nov. 1  |
| 12. Presentation to the Ministry of final package of regulations and tariffs for approval.  | November 4 to 15   |
| 13. Publication of regulations and tariffs for year 2003  | Nov. 25 to 29      |
| 14. Establishment of procedures for accounting, clerical, billing, time sheet, and statistical reporting for implementation of new tariffs.   | Nov 4 to 29        |
| 15. Training of staff in new procedures. Seminars for management and supervisors. Information sessions with port workers. Test simulations.   | Month of Dec.      |



**Implementation Teams and Responsibilities:**

Teams should be established that can dedicate full time to the projects. Team members should be fully experienced and knowledgeable. There should be an executive committee from the Ports and Georgian Maritime Transport Association which is responsible to see that deadlines are met and problems are resolved.

The following are the teams and responsibilities for the implementation steps:

1. GMTA Regulatory Division
2. Port Authorities in Batumi and Poti accounting sections, GMTA for budget and MRCC budget
3. Port Authorities in Batumi and Poti technological sections
4. Port Authorities in Batumi and Poti technological and planning sections
5. Port Authorities in Batumi and Poti accounting sections
6. Financial Management Batumi and Poti, GMTA Regulatory Division
7. Port Authorities in Batumi and Poti accounting sections
8. Financial Management Batumi and Poti, GMTA Regulatory Division
9. GMTA Regulatory Division
10. Port Authority Directors in Batumi and Poti, GMTA Regulatory Division
11. GMTA Executive, GMTA Regulatory Division
12. Joint team from Port Authorities in Batumi and Poti accounting sections
13. Port Authority staff in each Port using common training materials

***INSERT FLOW CHART DIAGRAM  
INSERT TIME LINE SCHEDULE***

**Annex E**

**Summary of Profit & Loss account Port of Poti**

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Poli

## PROFIT AND LOSS ACCOUNT 2001

In thousand Lari

Realization	
Profit from service realization	34605,0
Operational incomes	
Operational expenses:	
Total and administrative	862,7
Labor	8043,6
Materials	2876,2
Depreciation	6388,7
Fuel	2193,0
Dredging of entrance channel	0
Repair	1675,0
Conversion of low-priced	281,5
Taxation expenses	1595,4
El energy and communication	1066,4
Other operational expenses	539,1
Total operational costs	26.660,2
Non operational Incomes and expenses:	
Incomes:	
Leasing	583,8
Dividends	54,8
Other received funds	108,5
Other incomes	170,9
Total Non operational Incomes	918,0
Non operational Expenses:	
Expenses on social and cultural buildings	923,7
Charity and aids	450,3
Taxation expenses on account of income	363,8
Scholarship	107,6
Other non-operational expenses	1714,1
Total non-operating expenses	3559,5
Unexpected expenses	
Loan loses deduction	2290,
Financial result profit	3013,2
Profit tax	1.314,5
Paid dividends	500,0
Result: Retained earnings from 2001	1198,7

Comment: 1) According to Georgian Tax Code non-operational expenses is not deducted for calculation of profit tax i.e. profit tax is always more than fixed profit before profit tax payment from the point of view of financial settlement, so profit tax is calculated from realization plus non operational incomes minus only operation expenses.

## LIABILITIES

In thousand Lari

#	Sources	31.12.01
<b><u>Current Liabilities</u></b>		
1.	Accumulated depreciation .....(2200)	.....92263,2.....
2.	Short term liabilities..... (3110)	.....4818,7
3.	Short term loans .....(3210)	.....618,0
4.	Taxes payable.....(3300)	.....950,9
	3500	
	<b>Total Current Liabilities</b>	.....5787,6.....
<b><u>Long Term Liabilities</u></b>		
5.	Long term debts.....(4100)	.....1249,6.....
<b><u>EQUITY</u></b>		
6.	Common stock.....(5110)	
8.	Preferred stock.....	
9.		
10.		
	<b>Total owners equity.....(5100)</b>	
11.	Owners Equity for non joint stock company...(5200)	.....69310,2.....
12.	Retained Earnings .....(5300)	.....9104,7...
13.	Assets revaluation adjustments .....(5400)	.....6684,5.....
	<b>Total Owners equity.....</b>	85099,4
	<b>Balance</b>	184399,3

**ASSETS**

In thousand Lari

№	ASSETS	31.12.01
	<b><u>Currents Assets.....(1000)</u></b>	
1.	Cash on hand.....(1100)	.....0,1.....
2.	Cash in Bank.....(1200)	.....153,3
3.	Receivables.....(1400)	.....5621,2.....
4.	Prepaid amount ..... (1420-1490)	.....5325,4
5.	Inventory.....(1600)	.....7829,6.....
6.	Other Current Assets.....(1700-1900)	.....1169,3
		.....
		.....
		.....
	<b>Total Currents Assets (1000)</b>	.....20098,9
	<b><u>Long Term Assets-2000</u></b>	
7.	Fixed assets .....(2100)	.....163901,5
8.	Long term investments.....(2400)	.....694,5
9.	Intangible assets.....(2500)	.....304,4
	<b>Total Long Term Assets.....2000</b>	.....164900,4
	<b>Total Assets</b>	.....184999,3

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