TRACECA: Unified Policy on Transit Fees and Tariffs

Unified Policy on Road Transit Fees

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1. Introduction

One of the aims of the UPTFT project is to determine a unified policy and equitable levels for the imposition of legitimate road transit fees. The project seeks clarification and, with the active participation of the TRACECA National Commissions, freight forwarding and carriers associations, exposes those that cannot be justified.

Initial work concentrated on the Contractor, Scott Wilson consultants, establishing with assistance from the TRACECA member governments, a draft Inventory of Road Transport Fees and Permits. The purpose of establishing this inventory was to improve transparency of the issues and to enable some priorities to be set in resolving the more important issues first. A road transport operator survey was also carried out in order to examine the problems from the users' point of view.

Based on this initial work two draft working papers were prepared:

- Priority Issues Concerning Road Transit Fees, October 2002, and
- Road Transit Fee Policy Options, October 2002.

These reports identified priority issues, including the main types of unjustifiable transit fees and the economic costs of current policies and practices, and proposed possible options in broad terms. These proposals were discussed in the first meeting of the Transit Fees and Tariffs Working Group (TFTWG) for roads on 27 and 28 November 2002 in Baku. The meeting was attended by representatives from all TRACECA countries except Armenia and Turkmenistan, and there was unanimous agreement that to meet the problems facing international road transport in the TRACECA region, solutions have to be developed through regional cooperation, in accordance with the TRACECA General Multilateral Agreement (MLA) and other relevant international agreements. During this meeting agreement was reached on the goals, objectives and form of a unified policy for road transit fees as described in:

- Protocol On Results of the First Transit Fee and Tariffs Working Group for Roads (referred to hereafter as Protocol TFTWG 1)

Following this meeting, at the request of the TFTWG members, the Contractor prepared draft policy proposals to enable further discussions to take place during the second meeting of the Transit Fees and Tariffs Working Group (TFTWG) for roads which took place on 2 and 3 July 2003 in Baku. The proposals are described in the draft working paper:

- Road Transit Fee Policy Proposals, May 2003

The meeting was again attended by representatives from all TRACECA countries except Armenia and Turkmenistan, and there was unanimous agreement on many aspects of road transit fee policy, including

- the framework for calculating transit fees, and
- the implementation strategy for a unified policy on transit fees, including the maximum level of transit fees to be set in the short term.

These agreements are described in:

- Protocol Second Transit Fee and Tariffs Working Group for Roads (referred to hereafter as Protocol TFTWG 2)

It was agreed that the Contractor should draft a unified policy based on the agreements reached during the first and second TFTWG meetings, for circulation before the third meeting in October 2003. It was also agreed that the TFTWG members would submit to the Contractor by 20 July any comments on the possible actions that could be taken by each country to implement the unified transit fee policy. This led to further analysis and proposals for excess vehicle size and weight charges in the draft working paper:

- Proposals for Road Vehicle Excess Size and Weight Charges, August, 2003

Based on the above work the draft unified policy was proposed in:

- Draft Unified Policy on Road Transit Fees, August, 2003

Almost all the text of this policy document quoted word-for-word the agreements reached in Protocols TFTWG 1 and TFTWG 2. Some additional text was added in order to improve the presentation and to include modifications suggested in Proposals for Road Vehicle Excess Size and Weight Charges, August 2003. The material in the annexes was mainly taken from draft working papers that had been discussed during the TFTWG meetings.

The present report describes the unified policy as finally agreed by the TFTWG members during the third TFTWG meeting (see Protocol TFTWG 3).

2. Goals

In accordance with the General Multilateral Agreement (MLA), the goals of the policy are to establish a fair transit system, without excessively high charges, which can promote trade and attract traffic along the TRACECA corridor.

The goals of transit fee policy are described in Protocol TFTWG 1 (4b) and Protocol TFTWG 2(2a).

Other paragraphs of Protocol TFTWG 1 (3 and 4) describe how there is a need to rationalise and increasingly harmonise charging policies for international road transport of goods. Current problems include:
(a)present transit charges in most TRACECA countries are effectively charges on access to the market rather than charges for use of the roads,
(b) permit and transit fees that are levied on foreign trucks in many TRACECA countries do not vary with distance or characteristics of truck,
(c) transit charges discriminate between operators from different countries, between permit holders and non-permit holders, and between domestic and foreign transporters,
(d) transit charges are often unclear due to untimely notification of tariffs and proposed changes
(e) TRACECA countries have failed to agree on policies for charging of overweight or oversized vehicles

3. Objectives of Transit Fee Policy

The short-term priority is to develop a unified policy which is based on reform of the existing national transit fee systems. To meet the above goals the unified policy should be based on the following principles and objectives

(i) **cost-relatedness**: basing transit fees on the costs of service provision (for example, the cost of road maintenance) without excessively high charges,

(ii) **levying at point of use**: so that the country imposing the charge is the one providing the service,

(iii) **non-discrimination**: charging all operators on a non-discriminatory basis, irrespective of country of registration of vehicle (for example, removing unjustifiable fees charged by local authorities targeted at particular operators), and

(iv) **transparency**: enabling liabilities for transit fees to be clearly understood by road users (for example, by simplifying the system of charges)

The principles of the unified policy were agreed in Protocol TFTWG 1(3a, 4b and 4c). As described in Protocol TFTWG 2(2c), many problems facing international road transport require fundamental reforms in the systems of road transport permits and road user charges in TRACECA countries. However fundamental reforms that involve new permit and charging systems take many years to implement and it was considered by the TFTWG that the short-term priority is to reform the existing transit fee system in order that future charges are increasingly related to costs of service provision, levied at point of use, fair and clear.

4. Basis for Calculating Fees

In terms of overall framework for calculating transit fees, the transit fees should

(i) take account of different costs of road use in each country,

(ii) make use of cost information from both local and international sources,

(iii) be based clearly on either the variable or total cost of normal road maintenance,

(iv) cover the costs of road rehabilitation and environmental impact provided that this does not increase discrimination between domestic and foreign transporters, and

(v) be based on the costs of using a clearly defined main road network.

The forms of transit fees imposed on transporters should

(i) take account of local geographic circumstances such as those which affect distribution of length of transit trip,

(ii) take account of differences in road use costs for different vehicle types (distinguishing trucks with two axles, three axles, more than three axles),

(iii) allow for differential charges between empty and loaded trucks except for vignettes and other network access charges.

In terms of the level at which transit fees should be imposed, transit fees should be based on the required road maintenance expenditure rather than the actual maintenance expenditure (and also, if justified, on actual rather than planned road rehabilitation expenditure).

A common framework should be adopted by TRACECA countries in order to show clearly the methodology used by each country for estimating the cost of normal road use by each

type of vehicle. A costing framework agreed by the TFTWG is outlined in Annex A in terms of the total annual fixed and variable costs of road network provision, the total annual traffic using the network (traffic flows and traffic loading measured in terms of Equivalent Standard Axles (ESALs), and the derived unit costs per vehicle km and ESAL km.

A common framework should also be adopted by TRACECA countries in calculating charges imposed on road vehicles permitted to carry loads which exceed the normal maximum allowed size and weight. The framework agreed by the TFTWG is outlined in Annex B.

To avoid double-charging, separate user charges shall not be imposed at the same time for the same road section. Transit charges shall be based on internationally recognised standard elements for the calculation of costs of road use, in either local currency or a freely convertible currency.

The agreed framework for calculating transit fees is described in Protocol TFTWG 2(3a, b, c, and d).Other specific agreements about imposing charges are described in Protocol TFTWG 1(4d and f). The costing framework described in Annex A is based on Tables 2.1 and 2.2 of the Draft Working Paper on Road Transit Fee Policy Proposals (May 2003).These tables were used to justify the maximum levels of transit fees agreed by TFTWG members for trucks with two, three, and more than three axles.

The agreed framework for calculating charges imposed on road vehicles that are permitted to carry loads which exceed the normal maximum size and weight limits, is described in Protocol TFTWG 3 (2c)

5. Implementation Strategy

5.1 Overall Strategy

In terms of overall strategy, coordinated action is required to tackle the issues of cost-relatedness, discrimination and transparency, through measures such as reducing, restructuring and simplifying transit fees. The implementation strategy described below is summarised in Annex C.

The overall strategy was agreed in Protocol TFTWG 2(4a) based on the proposal in Table 3.1 of Road Transit Fee Policy Proposals, May 2003, which is reproduced in Annex C

5.2 Short-term Priorities

The short-term priority is (i) to reduce or abolish those transit fees which have already been identified by the TFTWG to be excessively high, and (ii) where appropriate, to relate fees to type and size of vehicle and to distance travelled (or time spent) in the country. In particular, it is recommended to consider the possibility of reducing charges where overall charges for loaded trucks currently exceed (in equivalent terms) USD 0.20 per km for trucks with more than three axles, USD 0.10 per km for a three axle truck and USD 0.05 per km for a two axle truck. Charges for empty trucks should be no more than 50% of the above figures. In the

medium term, consideration should be given to further reductions and abolishing of unjustifiable transit fees.

TRACECA countries should also seek to abolish differences in bridge tolls and similar charges imposed on domestic and foreign transporters, and set transit fee rates for foreign transporters that apply irrespective of country of registration of vehicle.

TRACECA countries should improve the transparency of the procedures for setting transit fees by simplifying the system of setting rates and by making available updated information about transit fees (giving at least six months notice of any changes being proposed).

TRACECA countries should prepare, in the short-term, plans for abolishing those fees which were considered by the TFTWG to be unjustifiable – in particular

(i) fees charged by local authorities which are targeted at foreign vehicles,

(ii) environmental charges that are not related to environmental impacts and do not apply equally to domestic and foreign transporters, and

(iii) fuel adjustment charges imposed on foreign transporters designed to compensate for low fuel prices in the country.

TRACECA countries should work with transporters to improve the supply of permits on a fair basis and to improve the way that transit fee regulations are formulated, in order to abolish unjustifiable charges.

In the case of excess size and weight fees, the short-term priority is for all countries to implement agreements on harmonised vehicle size and weight limits and on the structure of fees for excess size and weight, and remove any differences in the way that domestic and foreign transporters are charged. To remove unjustifiably high excess axle weight charges, it is recommended that, when calculating these charges, a maximum value is adopted for the variable road use cost (per ESAL km).

The short-term implementation strategy was agreed in Protocol TFTWG 2(4b, c, d, e, f, and g). The strategy for excess size and weight was agreed in Protocol TFTWG 3 (2).

5.3 Other Priorities

TRACECA countries should also consider other important reforms of charges levied on transit traffic which could be introduced in the medium term such as

(i) increasing fuel tax and introducing daily network access charges in order to increase cost recovery from all transporters (domestic and foreign) and allow further reductions in discriminatory transit fees aimed at foreign transporters,

(ii) establishing international agreements to recognise, on a reciprocal basis, foreign motor insurance policies, in order to reduce additional insurance charges imposed on foreign vehicles,

(iii) reducing excessive transit charges due to immigration and Customs practices (especially by full implementation of the TIR convention and setting convoy charges so that they reflect the cost of the service provided), and

(iv) reducing unduly restrictive limits on length of stay of international vehicles to reduce penalty charges.

These other priorities were agreed in Protocol TFTWG 2(4h).

5.4 Institutional Arrangements

In further developing the unified policy and the identification of changes recommended by this project, full use should be made of the National Working Groups established in each TRACECA country under the supervision of the TRACECA National Secretaries, in order to ensure that any proposed draft policy has broad support from all stakeholders in each country.

IGC TRACECA should consider ways to assist its members in establishing a means of strengthening and coordinating the national mechanisms for implementing and enforcing the unified transit fee policy – for example through establishing within IGC TRACECA a coordinating organisation and managing the TRACECA users' guide to keep transit fee information up-to-date.

The TFTWG members would timely inform the IGC of any changes in transit fees, so that the users' guide can be updated. The International Road Transport Union (IRU) and other similar groups are invited to provide the information in the TRACECA Users' Guide to all interested users in whatever form they prefer.

These institutional arrangements were agreed in Protocol TFTWG 2(2d and 5d) and in Protocol TFTWG 1(4j and k).

Annex A Framework for Estimating the Cost of Normal Road Use

(A) Estimation of Road Provision Cost	**Defined Variable**
(A.1) Length of International and Other Main Roads (km)	
Incl: International	Li
Other Republic	Lo
(A.2) Average Annual Cost of Normal Maintenance (USD/km)	
International	Mi
Other Republic	Mo
(A.3) Proportion of Annual Cost of Normal Maintenance which is Variable or Fixed (%)	
Variable (number of vehicles)	Pv
Variable (number of ESALs)	Pa
Fixed	Pf
(A.4) Additional Annual Investment Cost for Rehabilitation (USD million)	
Actual Investment to be Incurred	It
Incl: Variable (number of vehicles)	Iv
Variable (number of ESALs)	Ia
(A.5) Total Annual Cost (USD million)	Ct
Incl: Variable (number of vehicles)	Cv
Variable (number of ESALs)	Ca
Fixed	Cf
(B) Estimation of Unit Road Use Costs	
(B.1) Annual Traffic on Main Roads	
Vehicle km (million)	Kv
ESAL km (million)	Ka
(B.2) Unit Cost	
Variable (USD/ vehicle km)	Uv
Variable (USD/ESAL km)	Ua
(C) Estimation of Road Use Costs per Vehicle km	
(C.1) Two-Axle Trucks	
ESAL/vehicle	E_2
Variable Road Use Cost (USD/km)	R_2
Total Road Use Cost (USD/km)	T_2
(C.2) Three-Axle Trucks	
ESAL/vehicle	E_3
Variable Road Use Cost (USD/km)	R_3
Total Road Use Cost (USD/km)	T_3
(C.3) Trucks with > 3 Axles	
ESAL/vehicle	E_4
Variable Road Use Cost (USD/km)	R_4
Total Road Use Cost (USD/km)	T_4

Estimating the cost of normal road use (that is by vehicles carrying loads within the normal maximum permitted size and weight limits) involves the following steps for each country[1].

[1] As estimated for most TRACECA countries in UPTFT Draft Working Paper: Road Transit Fee Proposals, May 2003 (Section 2.3).

(A) Estimating the Road Provision Cost for the Road Network

A.1 Obtain the length of the main road network (Li and Lo). This would normally include roads serving both international and republic functions. If local roads are to be included this should be made clear.

A.2 Obtain from local or international sources the average annual cost per road km required (which may be more than the actual amount spent) for normal maintenance for international roads (Mi) and other roads (Mo). Unless otherwise stated these values include all expenditure required to preserve the road over its design life, including routine work patching and periodic pavement renewals. The values vary with road standard, traffic flow (vehicle km) and traffic loading, or flow of Equivalent Standard Axles (ESAL km). Default values are given for many TRACECA countries in Table 2.1 of Road Transit Fee Policy Proposals, May 2003 based on international experience for roads meeting the road standards and traffic levels and loadings in each country.

A.3 Estimate the proportion of annual cost of road maintenance which varies with traffic flow (Pv), varies with axle loading (Pa) and is fixed (Pf). These proportions can only be estimated from detailed study, such as those used to calibrate the World Bank HDM model. Default values have been estimated for TRACECA countries as follows.

Country	Pv	Pa
Armenia	38	27
Azerbaijan	43	27
Georgia	31	23
Kazakstan	37	27
Kyrgyz Republic	35	27
Tajikistan	34	26
Ukraine	29	20
Uzbekistan	32	26

NOTE (a) Pf is estimated simply as (100– Pv – Pa)

SOURCE Table 2.1 of Road Transit Fee Policy Proposals, May 2003

A.4 Obtain the actual (not planned) additional annual investment expenditure (It) on the road network for road rehabilitation, including any backlog maintenance not already included in the figures included in A.2. Enter that part of the additional annual investment expenditure (It) which is considered as varying with traffic flow (Iv) and flow of Equivalent Standard Axles (Ia).

Choosing Iv and Ia is inevitably rather arbitrary and depends on government policy. In countries where cost recovery from domestic road users is low (as in most CIS countries) it would be appropriate to set Iv and Ia as zero, especially if there is a risk that high transit fees would deter transit traffic and discriminate against foreign hauliers.

Other external costs of road use such as congestion, accident and environmental costs would not normally be included. If such additional costs are to be included, the should be included as a separate entry with a clear justification.

A.5 Calculate the total annual network costs (Ct), including road maintenance and investment as follows:

Ct = Li * Mi + Lo * Mo + It

The breakdown into costs that vary with traffic flow (Cv), that vary with flow of ESAL (Ca), or that do not vary with traffic or loading (Cf), are calculated as follows:

Cv = (Li * Mi + Lo * Mo) * (Pv / 100) + Iv

Ca = (Li * Mi + Lo * Mo) * (Pa / 100) + Ia

Cf = (Li * Mi + Lo * Mo) * (Pf / 100) + It – Iv – Ia

(B) Estimation of Unit Road Use Costs

B.1 Obtain the annual total traffic flow for the road network defined in A.1 in terms of vehicle km (Kv) and ESAL km (Ka). The ESAL km can be estimated by multiplying, for each vehicle type (for example, cars, buses, light trucks, two axle heavy trucks, three axle heavy trucks, multiaxle trucks), the vehicle km (estimated from classified traffic counts) and typical ESAL per vehicle (obtained from axle load surveys). In the absence of such surveys Ka can be approximately estimated from Kv using default values for the ratio of Ka:Kv obtained from the most recent TRACECA surveys as shown below.

Country	Ka/Kv
Armenia	0.084
Azerbaijan	0.141
Georgia	0.190
Kazakstan	0.036
Kyrgyz Republic	0.056
Tajikistan	0.052
Ukraine	0.178
Uzbekistan	0.181

NOTE: (a) These values were measured in 1997. As the vehicle fleet is modernised with vehicles able to carry heavier axle loads, the value of Ka/Kv would be expected to increase.

SOURCE: Table 2.1 of Road Transit Fee Policy Proposals, May 2003

B.2 The unit variable costs can be estimated from:

Uv = Cv / Kv (USD per vehicle km)

Ua = Ca / Ka (USD per ESAL km)

Typical values for these unit costs are given in Table 2.1 of Road Transit Fee Policy Proposals, May 2003. The average value for Ua, the most critical cost in transit fee calculations, is USD 0.052, varying between USD 0.019 and 0.120 for the countries in this table. A value of USD 0.043 for Ua has been estimated recently for Turkey. For other TRACECA countries not included in this table, Bulgaria, Romania and Moldova, the same value as estimated for Turkey could be used as a rough guide to the expected figure.

(C) Estimation of Road Use Costs per Vehicle km

The average variable road use cost per vehicle km (R) is estimated for each vehicle type from the two unit costs defined above and the ESAL per vehicle estimated from axle load surveys. The average total road use cost per vehicle km (T) is the variable road use cost plus a margin

to allow for fixed costs. The margin added depends on the way that fixed costs are allocated. The following subsections give the estimation for heavy trucks with two, three and over three axles. The same principle can be applied to any vehicle type.

C.1 For two axle heavy trucks the formula for variable costs is:

$R_2 = Uv + E_2 * Ua$

where E_2 is the average ESAL per vehicle for two axle heavy trucks

Unless reliable, comprehensive and recent survey data are available, the value obtained from the most recent TRACECA surveys should be used:

Country	E_2	E_3	E_4
Armenia	0.16	0.41	0.36
Azerbaijan	0.13	0.18	0.34
Georgia	0.10	0.50	1.13
Kazakstan	0.05	0.18	0.21
Kyrgyz Republic	0.07	0.17	0.63
Tajikistan	0.07	0.17	0.63
Ukraine	0.18	0.49	1.34
Uzbekistan	0.19	0.19	1.01

SOURCE: Table 2.1 of Road Transit Fee Policy Proposals, May 2003

If total costs per vehicle km including fixed costs are to be estimated, a suitable formula would have to be defined which allocates the fixed costs in the desired way. For example:

$T_2 = R_2 * Ct / (Ct - Cf)$

assuming that fixed costs are allocated evenly in proportion to the variable costs for each vehicle type.

C.2 For three axle heavy trucks the formulae are:

$R_3 = Uv + E_3 * Ua$

where E_3 is the average ESAL per vehicle for three axle heavy trucks (see above table)

$T_3 = R_3 * Ct / (Ct - Cf)$

C.3 For multiaxle heavy trucks the formulae are:

$R_4 = Uv + E_4 * Ua$

where E_4 is the average ESAL per vehicle for multiaxle heavy trucks (see above table)

$T_4 = R_4 * Ct / (Ct - Cf)$

Annex B Framework for Calculating Road Vehicle Excess Size and Weight Charges

Following international practice, countries are required to charge for excess size and weight in accordance with three elements (a) Excess GVW, (b) Excess Axle Weight, and (c) Excess Physical Dimensions (length, width and height). The formula agreed is as follows:

$$P_l = [P_{ew} + (P_{eawl} + \ldots + P_{eawi})] \times S + (C_l + C_w + C_h) \times S + K$$

where

P_l = payment for **one** (valid for one occasion only) haul of freight by road vehicle;

P_{ew} = payment if gross weight of vehicle exceeds the maximum legally allowed weight;

P_{eawi} = payment (per axle) if an axle load (i = 1,2,3...) exceeds the maximum legally allowed weight;

S = length of haul (in km);

C_l, C_w, C_h are the payments if length, width and height of vehicle exceed the maximum legally allowed dimensions.

K is a payment made irrespective of the length of trip (per occasion)

When calculating the charge the following guidelines should be followed:

- P_{ew} should be based on the additional costs of strengthening, maintenance or repairing bridges and similar infrastructure which are explicitly related to the planned haul,
- P_{eaw} should be based on the pavement damage costs as measured by Equivalent Standard Axles (ESAL km), and
- C_l, C_w, C_h should be based on the additional costs of modifying overhanging infrastructure or providing alternative routes that avoid low bridges.

To ensure that charges for carrying loads with excess size or weight cover only the additional costs incurred, the charges should be based on variable road use costs which exclude fixed and other costs that would be incurred in carrying a normal load.

Annex C Implementation Strategy for the Unified Policy for Road Transit Fees

The following table summarises the implementation strategy that has been agreed to in Protocol TFTWG 2(4a). In Road Transit Fee Policy Proposals, May 2003, it has been applied to each country in order to identify the actions that would be necessary to implement a unified policy of road transit fees.

ISSUE	POSSIBLE ACTION
(A) COST RELATEDNESS	
A.1 Overall level of transit fees is higher than road use costs (or charges for domestic vehicles)	Reduce charge level to below the maximum justifiable levels
A.2 Transit fees do not vary with vehicle type and axle configuration	Set different charges for different types of vehicles
A.3 Transit fees do not vary with distance	Define charges on a per km (or possibly on a per day) basis
A.4 Transit fees do not distinguish between loaded and unloaded trucks	Set different charges for loaded and unloaded trucks
A.5 Charges for abnormal transport are not based on the three standard components - excess vehicle weight, excess axle load and excess size	Define charges for each level of excess size/weight for each of these three aspects
A.6 Road user charges are imposed that duplicate other charges imposed for the same purpose	Remove one of the duplicate charges
(B) NON-DISCRIMINATION	
B.1 Unauthorised fees are charged by local authorities	Abolish unauthorised fees. Improve enforcement
B.2 Transit fees vary with nationality of truck	Unify/reduce foreign transit fees
B.3 Road user charges vary for foreign and domestic vehicles	Unify rates so that the same rates are charged irrespective of nationality
B.4 Abnormal transport charges vary for foreign and domestic vehicles	Unify rates so that the same excess size and weight charges are imposed irrespective of nationality
(C) TRANSPARENCY	
C.1 Complicated system of charges	Abolish unnecessary charges
C.2 Complicated basis for charge	Simplify basis for charge calculation
C.3 Lack of clear information about charges	Publish up-to-date charge rates in users guide and advertise proposed changes well in advance