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GUIDELINES FOR FIXING TARIFFS FOR SHIPPING SUPPORT SERVICES
(Output ii(e) of programme element 2.1)

CHAPTER 1: INTRODUCTION AND GENERAL CONSIDERATIONS

I. INTRODUCTION

1. Shipping support activities are those subsidiary activities which are essential to smooth shipping operations.

2. They mainly include such activities as ship or freight brokerage, goods consignment, handling, such as shore cargo handling and stevedoring, forwarding, pilotage, towage, boatage, ships' supplies, marine insurance, goods packing, ticketing and marking, travel agencies and joint cargo services.

3. A systematic and efficient management of each of these activities mainly implies implementing an appropriate tariff policy aimed at securing sufficient financial profitability for investments made in these areas as well as an equitable sharing of the costs incurred by the support enterprise concerned with the various services, goods and traffic involved, so as not to jeopardize the promotion of such services and goods in their respective markets, or the development of shipping traffic in ports.

4. The guidelines for such a tariffication are also aimed at providing the Governments concerned with objective means of calculating tariffs, that is, the necessary indicators for measuring price trends, earnings and the productivity of each of the shipping support services.

5. We will be limiting the review of these guidelines to the following support services:

- (i) Pilotage and towage enterprises;
- (ii) Consigning enterprises;
- (iii) Ship or freight brokerage enterprises;
- (iv) Forwarding enterprises;
- (v) Shore cargo handling and stevedoring enterprises.

CHAPTER 2: PILOTAGE AND TOWAGE ENTERPRISES

6. The review of guidelines for an objective and efficient tariffing for shipping technical support activities, such as pilotage and towage will be carried out in accordance with the following plan:

- (a) Definition of these technical support activities;
- (b) Facilities set up by the support enterprises to fully accomplish their task;
- (c) The costs structure of each of these categories of support enterprises;

(d) Guidelines for fixing tariffs for shipping support activities.

A. Pilotage

1. Definition

7. The pilot is responsible for advising/guiding the captain on the entry and exit maneuvering and in the movement of the ship within a marine space, such as a port area, where navigation is strictly controlled. Such a guidance serves to avoid any obstacle that may appear in a normally navigable area within the piloting area, for example narrowness of the access channel, wastes deposits or wrecked ships.

2. Facilities required for action

8. In order to successfully carry out its task, the pilot enterprise must procure the following facilities:

- (a) The necessary pilot boats and aids to navigation;
- (b) Human resources;
- (c) Office and office supplies;
- (d) Fuel, vehicles and other materials.

3. Costs structure of piloting activities

9. The structure of the costs for carrying out this activity is given below:

(i) Fixed costs

- (a) Cost of purchase, maintenance and insurance of pilot boats;
- (b) General costs.

(ii) Variable costs

- (a) Salaries and social costs;
- (b) Costs of fuel and other costs.

4. Tariff structure, rate and base

10. Examination of many relevant port documents shows that the structure of tariffs for pilot services is based on the cubic capacities of ships^{1/} calling at the ports concerned. Class 1, for example, comprises ships whose capacities are less than 10,000 m³, whereas classes 2, 3 and 4, for example, comprise ships whose volumetric capacities range, respectively:

- (a) From 10,000 m³ to 20,000 m³

N.B: (1) Volume = Maximum length of the ship X beam of the ship X (maximum draught (0.14 X L x b)) where:
-L is the maximum length of the ship; and
-b is the beam i.e., the maximum width of the ship.

- (b) From 20,000 m³ to 30,000 m³ and
- (c) From 30,000 m³ to 40,000 m³

11. Given that the rate applicable to each class of ship's volumetric capacity generally derives from the base rate (expressed in a chosen currency) and that the tariff rate for a given class should be multiplied by the tariffing base which increases in accordance with the size of the ship, it is necessary to study these rates so as not to place the classes of voluminous ships at a disadvantage, thereby discouraging large ships from calling at the ports. This should, however, not mean sacrificing the financial profitability of pilot services. Such a precaution is all the important as various cumulative surcharges are to be added, if necessary, depending on whether the pilotage takes place in the evening of a working day, on a Sunday, on a holiday, on the night of a Sunday or a holiday, or under adverse weather conditions. The introduction of a surcharge may also be due to the non-immediate use of the pilot after he has already been engaged on board.

12. The tax base is obtained by multiplying the volume of the ship by the total number of piloting operations carried out during the ship's port-call, that is, during entry, departure and movement within the piloting area.

- 5. Proposing guidelines for a careful tariff fixing for piloting activities

13. With regard to the constraints described in paragraph 11 above, the guidelines given below should be flexible so as to reconcile the general interests of the competent national authorities and those of the enterprise or entity providing pilot services. But these principles should also be objective and clear so that their application can be feasible and successful.

14. Details of the guidelines are given below:

(a) The tariff rate

15. The tariff rate should be decreasing simultaneously as the class of volume of the ship increases. In this regard, it is recommended to establish a sliding-scale formula which should be compatible with both the financial success of the piloting enterprise and the trend in port-calls. To illustrate this, a sliding-scale formula could be used such that $T_n = T_0 \times (\alpha)^n$, where T_0 is the base rate of the tariff, T_n the tariff rate for class n and the sliding-scale coefficient for class 1; this coefficient should be less than 1.

16. The base rate T_0 should be fixed at a level that will allow the inflow of funds, including possible surcharges, to maintain at the end of the financial year, a significant mark rate for the piloting activity, such that at the term of the piloting investment period, there should be a sufficient and reasonable cumulative cashflow.

17. This specifically requires thorough knowledge of disbursements made or planned by the enterprise. It is, in fact, the base required

for estimating the necessary inflow for the purpose of securing a long-lasting financial success necessary for fixing a tariff for the activity.

18. Since the income will be known, it will be necessary to spread it among the class of ship volumes, taking specifically into account the elasticity of the tariff for port-call request made by each class of ships.

19. Then, through trial and error as well as assumptions concerning the coefficient level, the appropriate rate of tariff for each class could be calculated, including the base rate T_0 .

(b) The classes of volumes

20. The ships to be selected for defining classes of volumes are certainly those whose calls at the ports of the countries concerned, even if infrequent, are at least regular. This is, indeed, an important condition that would enable the enterprise to obtain a relatively stable income.

(c) The percentage applicable above the normal tariff rate

21. As already mentioned in paragraphs 11 and 17 of the present report, the scope of these percentages should be carefully studied so as to ensure that the surcharges on them adequately help to obtain the desired income.

22. The question of whether or not these surcharges should be imposed also depends on whether or not there is a constant need to reconcile the financial profitability of the pilotage with the need to prevent the port concerned from deviating maritime traffic to more competitive ports.

B. Towage

1. Definition

23. A Towage contract is that through which the enterprise concerned, under the direction of the captain of the ship benefitting from such a service, provides all the necessary manning resources and services for mooring and unmooring the ship. However, the required chains and ropes are supplied by the ship itself.

2. The required resources

24. The necessary resources for successfully carrying out the tasks specified in paragraph 23 are mainly:

- (a) A fleet of tugboats;
- (b) Human resources;
- (c) Offices and office supplies;
- (d) Road service vehicles, fuel etc.;

(e) Others.

3. Cost price structure

The cost price structure is as follows:

(a) Fixed costs

These mainly comprise the following:

(a) Cost of maintaining navigational and other necessary equipment;

(b) Appropriations in the annual budget for paying for equipment;

(c) General costs such as for rent and maintenance of premises, for office supplies and for insurance.

(b) Variable costs

27. These concern, inter alia, wages and wages bills, fuel costs and taxes and duties.

4. Fixing towage tariffs

28. The major price to pay for a towage service: (1) is proportionate to the volume (V) of the ship towed, moored and unmoored, where the ship belongs to an appropriate volume class. To

each volume class there is a tariff rate which is, itself, derived from the base rate of the chosen tugboat category, using a decreasing coefficient; (ii) depends on the horsepower of the tugboat used. This means that the tugboats are, themselves, divided into several categories; (iii) further depends on the number of operations (Y) carried out by each tugboat of the category under consideration, and this can be summarized by the following equation for a class n of the ship's volume, a tugboat's horsepower CV_i and a number, Y, of the tugboat's operations:

$$P = T \text{ cv}_i (\alpha)_n \times V.Y, \text{ where } X \text{ is less than } 1.$$

29. To this major price should be added possible surcharges which should depend on whether or not the services provided in accordance with the towage contract have taken place under one or the other or all of the following conditions and whose appropriate surcharge rate should be studied, bearing in mind the financial interest of the profession and national economy, on the one hand, and such conditions and types of services as nightshifts, Sunday work, free and paid holidays and the provision of life-boys, on the other.

30. The base rate for each category of tugboats is obtained by carefully distributing the towage company's total income among the classes of ships.

31. The total income should be calculated on the basis of a cost price that is sufficiently representative of the profession. To this cost price should be added a sufficient profit margin in order to

allow the enterprise concerned a sufficient cumulative cash flow. This should be without necessarily encouraging inefficient enterprises - that is, those with a low productivity - to increase their operations.

32. In order to establish a sufficiently representative level of cost price for the towing, mooring and unmooring profession, it is recommended:

- (i) To conduct an empirical study on the correlative coefficient of variable costs (v) for this profession;
- (ii) To conduct an empirical study on the correlative coefficient (f) of fixed costs in the profession;
- (iii) To conduct an empirical study on the correlative coefficient (t) of cost prices for the profession;
- (iv) That each of these coefficients should be multiplied by the category of observed and corresponding costs in order to obtain the resultant representative, cost among other things.

33. Throughout this report, the method described in paragraph 32 should be used to determine the representative cost price of the profession under consideration.

CHAPTER 3: THE FORWARDING AGENT

34. Following the approach used in the preceding lines, we shall first define the forwarding agent and then later address the issues of (i) types of resources required, (ii) cost structure and finally (iii) tariff fixing.

1. Definition

35. The forwarding agent is a commercial agent who carries out, on behalf of his principal (importers and exporters), the following tasks:

I. EXPORT

- (a) Reception or removal of goods at the departure point;
- (b) Placing them on a land or an inland-water mode;
- (c) Unloading them;
- (d) Loading them onto a lorry or trailer within the port by virtue of his quality as a chartered customs valuer;
- (e) Fully carrying out the necessary customs formalities;
- (f) Delivery of goods to the warf or on board;

(g) Seeing to the preparation of bills of lading;

(h) Ensuring compliance with the exporter's instructions for storage, placement of goods on board and making reservations in case of shortage;

(i) Signing of insurance contracts in accordance with the agent's instructions;

(j) Rule:

(i) Freight;

(ii) Costs of such activities as shore cargo handling.

II. IMPORT

(a) Taking delivery of goods, discharging them for the transporter and making reservations if necessary;

(b) Taking all other necessary measures for conserving goods, including repackaging of parcels, keeping them in a transit shed and drying them;

(c) Carrying out customs formalities;

(d) Redespating of parcels to their final destination;

(e) Paying for freight if necessary;

(f) Weighing of bulk parcels for the purpose of freight readjustment, when it is necessary to readjust it at the destination to conform to the given weight;

(g) Paying of maintenance costs;

(h) Paying of storage costs;

(i) Paying for the redespach of goods by land or water.

(iii) Assisting in goods transshipment

2. Required resources

36. The required resources are:

(a) Human resources;

(b) Offices and office supplies;

(c) Various service vehicles, fuel etc.

3. Fixing tariffs for the forwarding profession

37. Given the wide range of services provided by the forwarder, the price (tariff) paid for such services normally depends on the range as well as costs of services accepted by the forwarder, plus a

reasonable profit margin. It is also based on the most suitable tariffing method for the service concerned, that is: (1) various forms of flat rate contract or fixed amount for preparing trading documents (2), (ii) a remuneration normally made up of a minimum amount whose level varies either in accordance with the value or weight of the cargo, the gross weight of freight, the profit or, finally, the time spent by the forwarder providing this category of services, which include clearing of goods through customs, packing, marking, ticketing, haulage, brokerage services to the shipping line, agency service to a fellow forwarding enterprise, joint cargo service, maintenance and transport services, even though some such services may be farmed out; (iii) advising the shipper on how best to route goods, especially through comparative financial assessment. This last type of service is also provided by the forwarder himself. The payment for such a service may depend on the amount of time it takes to provide it.

N.B: (2) These are documents required for international trade and include:

(a) Forwarding documents and customs documents: air way and shipping bills, police insurance, forwarding agents certificate of receipt (FCR) and forwarding agents certificate of transportation (FCT), sanitary certificates, certificates of inspection, analysis, or of weight, certificate of origin, certificate of value, trade invoice, consular invoice, import or export licences etc.

(b) Bank documents: letters of credit, documentary letter of credit bank instructions, discount etc.

38. The total variable and fixed representative unit costs of the profession should be multiplied by the volume of activities, such as the number of documents processed and tonnage, to which should be added a sufficient but reasonable profit margin in order to obtain the total income flow (RT) commensurate with the activity's financial success.

39. This forecast earning (RT) should then be distributed among the various cost columns, that is the various services proposed in order to obtain the forecast earnings $R_1, R_2 \dots \dots \dots R_n$, obtained from each service. The various distribution ratios proposed which could be weighted, if necessary, mainly comprise the ratio between the total cost (fixed and variable) generated by each centre of activity and the total and aggregate representative cost of the profession. In order to guarantee representation, the various categories of posted unit costs of each of the enterprises of the profession should be correlated through appropriate observation factors.

40. On the basis of $R_1, R_2 \dots R_n$ thus calculated and the volume of activities $V_1, V_2 \dots V_n$ involved, the corresponding tariff of each service provided can be obtained, since this tariff could take the form of either a flat rate or a variable payment, (a percentage to be applied to a base) with a minimum of tax.

CHAPTER 4: PORT MANAGEMENT ACTIVITY

1. Definition

41. Below are the definitions of shore cargo handling and stevedoring or ship cargo handling.

(a) Shore cargo handling

42. Shore cargo handling enterprises are responsible for loading and unloading goods onto or from a ship and for tallying them. They are also responsible, depending on the case, for taking them from store houses or reservation platforms or for transferring them there.

Finally, they take charge of these goods before delivering them to their consignees.

(b) Stevedoring

43. Unlike shore cargo handling enterprises, stevedoring enterprises neither tally nor take charge of the goods they load onto or unload from ships after their transfer from or to the storage place in the port.

2. The resources required

44. The resources for these two types of handling are as follows:

(a) Shore cargo handling

45. The necessary resources for enterprises providing this service are mainly human and material.

46. The necessary human resources include dockers, foremen, office staff, especially management staff, maintenance staff, maintenance equipment and transport vehicle operators and storage staff.

47. The material resources include:

(a) Maintenance equipment and transport materials, namely: cranes, lift trucks, lifts, suction dredgers, tractors, trailers, semi-trailers, belt guide shifters, lorries, caterpillars and plates;

(b) Warehouses and storage areas;

(c) Maintenance workshops;

(d) Offices and office supplies;

(e) Fuel, electricity, water and food for night staff.

(b) Stevedoring

48. The resources required here are both human and material and include the following:

(a) Stevedores and their chiefs;

(b) Operators of maintenance equipment, jetty office managers, administrative and accounting staff, goods ticketers;

(c) Stevedoring equipment;

(d) Offices and office supplies;

(e) Food for nightshift staff, fuel and oil.

3. The costs structure

49. The costs are divided into variable costs comprising mainly direct staff costs and fuel and motor oil costs as well as fixed costs such as general costs and maintenance costs.

50. To the total representative unit cost of the profession, that is, for shore cargo handling and stevedoring activities, and which was based on the methodology elaborated in paragraph 12 above, should be added a reasonable profit margin. The result should then be multiplied by the total demand forecast for the profession. This gives the total forecast earning obtained from the profession under consideration. This income will, however, be distributed among the various classes of goods, using coefficients which establish the ratio between the total cost generated by each of the class of goods and the total cost generated by all the classes.

51. The tariff applicable to each class of goods is the quotient of the total earnings of a group of costs (class of goods) and the

provisional demand to be processed by the centre of activities or of costs.

CHAPTER 5: THE SHIP BROKER

1. Definition

52. The ship broker is a legal official whose duty is:

(a) To carry out (often to monopolize) the chartering of ships in the port where he works;

(b) To prepare chartering contracts for his agents. He keeps the records of and a register for these documents;

(c) To monopolize in the port:

(i) The translation of declarations, charter parties, bills of lading, contracts and all other writs;

(ii) The monitoring of freight rates;

(iii) The public sale by court order as well as voluntary sale of ships and other equipment;

(d) To conduct the affairs of ships by serving as the intermediary for the captain and his crew for the purpose of carrying out all the necessary formalities during entry and exit of ships into and from the port, concerning the customs the commercial tribunal (captain's sworn report) and possibly, the government authorities concerned;

(e) To conduct on behalf of ships all commercial operations required for the port-call of ships and for contracts for goods transport and freight tramping.

2. The necessary resources

53. The resources required for ship brokerage operations are summarized below:

(a) Offices and office supplies;

(b) Qualified staff to carry out the necessary research surveys such as maritime trade specialists, lawyers, translators and secretaries;

(c) Up-to-date documentation;

(d) Modes of communication: telex, facsimile, telegraphs, telephone etc;

(e) Vast network of correspondents throughout the world through whom regular information is obtained on the chartering market trend;

(f) Others, such as modes of transport and fuel.

3. Ship brokerage tariffs

54. The tariff structure mainly comprises, inter alia, variable staff costs, agency costs, correspondence costs and fixed costs such as for office, office supplies and documentation and general costs.

55. A reasonable mark-up rate should normally be added to the ship brokerage representative unit cost. The total should then be multiplied by the forecast number of annual ship brokerage operations in order to obtain the total rate (RT) for the forecast earnings. This total should in turn be distributed among the various centres of activities depending on the impact of the total cost of each of the cost centres on the total cost of the profession.

56. Each cost centre or centre of activity provides a particular type of activity among the services mentioned in sub-paragraphs a, b, c, d and e of paragraph 52 of the present report. It is, however,

not impossible to improve on this categorization of the centres of activity by establishing cost centres based on the subsidiary tasks contained in sub-paragraphs a, b, c and d of the mentioned paragraph. For example, the consignment operations of the ships (52d) could be divided into the following sub-tasks in order to better address the operating constraints to each of them:

- (i) Consignment of goods at a specific port by regular liners;
- (ii) Consignment of tramp ships on commercial and technical call;
- (iii) Consignment of tramp ships carrying out commercial operations;
- (iv) Consignment of derrick and other crafts.

57. Each of the partial earnings objectives R1, R2 Rn will in turn be achieved if appropriate payment plans are chosen and implemented. Some illustrations of such plans are given below:

(a) The R1 earning objective for providing chartering services could be achieved by applying a percentage or categories of percentages carefully studied in light of the monetary value of the charterings;

(b) There are two ways of fixing honoraria for legal documents:
(i) by basing the honoraria on the type of document (charter party, bill of lading etc.) and (ii) by basing it on standard page whatever the type of document concerned.

(c) Translation of documents could be paid for in accordance with international standards, that is, on the basis of a given price per 1000 words;

(d) Control of freight rates just like a court-ordered public sale, or a voluntary sale of ships, should be paid for on a flat rate basis;

(e) Ship consignment tariff should, for its part, be based on:

(i) A charge which should be levied after a careful study which should take into account the productivity and efficiency of the port concerned as well as the type of ship consigned, for example, identical or different percentages may be levied on the value of the respective imports, exports or ocean transshipment of regular lines depending on the particular case. As for tramping ships, part of the fees for their consignment may comprise a flat rate whose daily value may vary depending on the time the exercise takes place - first or second part of the day - the duration of stay of the ship at the port. It is possible to use any other appropriate formula, such

as the ad-valorem formula suggested for regular ships, for fixing the rate for irregular ships, but in this case, the amount charged will be higher for less efficient and less productive ports;

- (b) On the other hand, surcharges may have to be added to the first part of the fees given in the preceding sub-paragraph to offset specific constraints that may arise.

CHAPTER 6: CONCLUSIONS

58. From the foregoing facts, the following major conclusions may be drawn.

59. First of all, there exists a wide variety of shipping support services ranging from such technical support ones as pilotage and towage enterprises to such commercial ones as consignees, forwarders

shore cargo handlers and stevedores. Generally, the end-to-end movement of sea-borne trade has generally proved efficient.

60. But the efficiency of their end-on transport operations could be adversely affected if an appropriate tariff system is not set up and applied for each of the professions concerned. Such a system would, in fact condition the financial viability of the enterprises concerned, be they private or public enterprises, except if it is planned to massively subsidize each of these activities with a view to resolving any financial imbalance that may occur. However, such a tariff system should equally take account of the financial profitability of these support services and ensure that the sea-port concerned continues to be competitive, without which the support professions as well as the port-call of ships will simultaneously disappear.

61. This is why an efficient tariff policy for shipping support services must be sufficiently flexible so that it can be adjusted to the needs of the professions concerned, both in terms of types of

fees (flat rate for each level of activity, ad valorem tax etc.).

This should adequately help in the achievement of each of the set objectives as well as in terms of the services required (especially with uncertainty as to contributive capacity) by each of the categories of target markets.

62. Whatever the preferred tariff system, for example that based on the representative unit cost of the profession being reviewed and that based on the division of services provided by the profession into independent centres with specific activities, such as cost centres, including a proportionate distribution of general headquarters costs and, finally, that based on prospects for contribution to the earnings of the service concerned, it may be reasonably assumed that the periodical authorization of tariff adjustments will be based mainly, if not exclusively, on this type of general assessment. In this way, it will be possible to avoid hasty decisions on the base for the increase, however much, of only certain factors of the cost index.