

- 6 Is involvement of government(s) and authorities required concerning monitoring of compliance with regulations and enforcement? If yes, please briefly explain.**
- 7 Is involvement of government(s) and authorities required concerning financial and administrative matters? If yes, please briefly explain.**
- 8 Is involvement of government(s) and authorities required concerning operational matters (collecting and treating wastes)? If yes, please briefly explain.**
- 9 Which parties have been, or will be involved in the policy-making process regarding the current (or future) funding and charging scheme?**
- 10 Are any of the above schemes part of a regional scheme between other States? If yes, please specify.**
- 11 Please specify how information on the availability and charging arrangements with regard to port reception facilities is publicized.**
- 12 Other relevant information: (If you have any document or report that you consider relevant, please forward a copy)**

EXISTING FINANCING SCHEMES¹

13 Please indicate below by ticking the applicable block which financing scheme(s) for the establishment and operation of reception facilities is/are being used in your country:

- a. a fee system (ships pay on delivery of waste)
- b. a contract system (ships pay based on time period, ship type, etc., but not on delivery)
- c. costs of disposal included in port dues/charges
- d. a free-of-charge system
- e. an environmental fee (special fee not part of port dues/charges)
- f. other (please specify):

14 Below you will find a matrix containing six categories of waste. Please insert in the first column (Financing Scheme) the letter indicating the financing scheme(s) ticked off in question 2, and then tick off the applicable category of waste(s) in the corresponding row for that financing scheme. Please do this for each of the financing schemes ticked off in question 2.

FINANCING SCHEME	CARGO RELATED WASTES		SHIP-GENERATED WASTES			
	Dry waste	Liquid waste	Engine-room waste	Domestic waste	Other waste	Sewage

¹Descriptions of financing schemes can be found in chapter 11 of the Comprehensive Manual on Port Reception Facilities, at annex to this Reporting Form.

FINANCING SCHEMES UNDER DEVELOPMENT

15 Are other financing schemes under consideration with a view to implementation?

No

Yes

- a. a fee system (ships pay on delivery of waste)
- b. a contract system (ships pay based on time period, ship type, etc., but not on delivery)
- c. costs of disposal included in port dues/charges
- d. free of charge system
- e. an environmental fee (special fee not part of port dues/charges)
- f. other (please specify):

16 Below you will find a matrix containing six categories of waste. Please insert in the first column (Financing Scheme) the letter indicating the financing scheme(s) ticked off in question 4, and then tick off the applicable category of waste(s) in the corresponding row for that financing scheme. Please do this for each of the financing schemes ticked off in question 4.

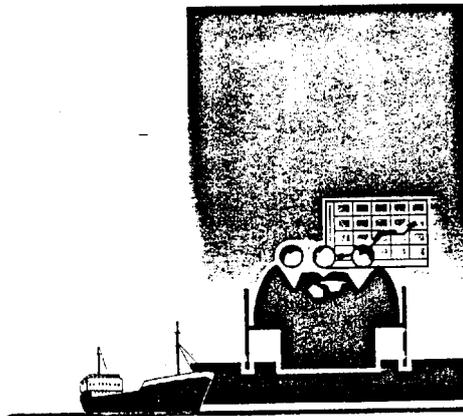
FINANCING SCHEME	CARGO RELATED WASTES		SHIP GENERATED WASTES			
	Dry waste	Liquid waste	Engine-room waste	Domestic waste	Other waste	Sewage

Annex

CHAPTER

11

Financing and
cost recovery



**COMPREHENSIVE MANUAL ON
PORT RECEPTION FACILITIES**

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Objectives of a cost recovery mechanism

The objective of a cost recovery mechanism is to generate revenue, which is used to cover the operating costs of port reception facilities. The operating costs include:

- initial investment and acquisition; labour, including operation of the facilities, supervision,
- maintenance and spare parts; other consumables such as power and chemicals;
- revenues of recyclable materials.

Investment for which sufficient funds should be available. A distinction can be made between *reception* facilities and *treatment* facilities. When preparing detailed costs estimates, it can be said that often the investments for *treatment* facilities will be higher than for *reception* facilities (see also paragraph 2.1.1.1 of the present report). Depending on the situation in each individual country, the investment costs may be of such a magnitude that governmental participation and/or subsidies may be required.

Once the initial investment has been made, the port should be able to recover the operating costs for the reception and treatment of wastes. A number of cost recovery mechanisms are possible, which will be mentioned in subsequent sections.

When making a decision on cost recovery mechanisms, the following criteria may be considered:

1. Does the cost recovery mechanism itself contribute to reduction of marine pollution, in other words, does it stimulate the delivery of wastes to a port:

2. does the mechanism stimulate waste-reducing measures on board;
3. does the mechanism interfere with inter-port competition;
4. is involvement of the government and authorities required concerning:
 - a. monitoring of compliance with regulations and enforcement;
 - b. financial and administrative matters;
 - c. operational matters (collecting and treating wastes).

Most of this criteria can be assessed in a qualitative manner only. Criterion No.3, interference with inter-port competition, addresses the effect of the operational costs of the reception and treatment facilities on the ships' expenses in the port. While being a very sensitive issue, especially when an increase in port dues is considered, it is at the same time relatively easy to quantify. Once the basic design of a reception facility has been completed, reliable estimates of investments and operating costs can be made (see chapter 5).

These estimates can be used to calculate "unit prices", i.e. costs per m³ or ton of waste treated, costs per ton of cargo, or costs per ship or ship category. Such calculations will ease the decision making process.

11.2

Description of cost recovery mechanisms

What principles should guide a cost recovery mechanism? Two extremes are:

- the "polluter-pays-principle";
- costs shared by society.

Application of the "polluter-pays-principle", which is generally accepted, implies that the waste generators have to pay for the waste they generate. Certain disposal options or treatment methods may be restricted or prohibited. The principle can be applied not only to ships, but also to land based generators of

n of the polluter-pays-principle implies sufficient
monitor
results in economic advantages to the polluter.

The shared-cost concept implies that
costs of waste treatment and disposal. Low interest loans or tax
on facilities can be used as an
to improve operations and stimulate waste minimization.

mechanisms will be found on a sliding scale
in these two extremes. The following alternatives will be
addressed:

the fee system;
costs of disposal included in port dues;
a free of charge system.

Application of this system means that the ship (or consignor) pays
charge per lot or per ton of waste delivered. Charges may be
further differentiated for specific categories
the treatment required.

companies should also have a duty to receive all the waste
delivered to collect and/or process wastes,

A fee system always provides some disincentive
to encourage illegal discharge. A positive aspect may be that waste
minimization practices on board are stimulated. A mechanism to
control the fees for waste reception and processing may be
necessary. For instance, in smaller ports lack of competition
between entrepreneurs may result in monopolies and therefore in
unacceptable prices for the services provided.

Involvement of (governmental) authorities in the operational phase
be restricted to extensive monitoring and
is
mechanism:

to prevent ships from discharging their wastes in open sea (not

- to ensure that reception facilities and treatment plants comply
- to ensure that prices are reasonable.

system on inter-port competition will depend on
the actual charges that are made and the efficiency of the services
recovery for ships to deliver all their
waste the control of charges becomes more critical. However
more important than the actual charges, may be the effect the

Theoretically, this cost recovery mechanism should stimulate waste
management
evidence that supports
mechanism may be an incentive to make illegal discharges.

Costs of disposal included in port dues

It could also be included in port dues. A surcharge
may be added to the existing port dues and tariffs, or alternatively
a new component of the tariff system may be introduced.
These charges could be differentiated for particular ship categories
for
depending on type of waste. In case of general cargo ships, it
fees may be cargo-related. The
system assures a
reception facilities.

The drawback of this system is that waste
boards are normally not directly rewarded by reduced fees (however,
rewarding waste minimalization may be set up in
combination with a traditional port due system). This cost

recovery mechanism can even result in more than average waste production on board; for example by neglected maintenance. The mechanism may also lead to import of wastes in a port that should have been disposed of elsewhere, because the ship has to pay the dues anyhow, regardless of the waste quantities.

As the charge is unavoidable, the costs of discharge will not be a disincentive for legal disposal and illegal discharges will be less likely to occur. As with any system, if the service is not adequate and discharge procedures long and troublesome, this will still encourage illegal disposal. Ships visiting the port at short intervals may pay relatively more than other ships for the disposal of their wastes. In many cases, a remedy is to exempt a ship from paying for the rest of a year once it has called at the port a specified number of times. Enforcement and control will be required, but less extensive than for the fee system, provided that procedures for disposing waste will not result in undue delay.

Whether the mechanism interferes with inter-port competition depends mainly on whether or not the system will substantially increase the port dues. Once an estimate of the annual operational costs of reception facilities is available, the impact on port dues can be assessed. As already stated in section 11.1, port dues are a sensitive issue, and until it has been demonstrated that the impact of waste disposal costs is not significant, ports may be reluctant to apply this cost recovery mechanism. Ports sometimes even refuse to accept specific types or quantities of wastes, preventing an increase in port dues.

11.2.3

Free of charge system

Obviously, this principle implies that ships are not charged directly for the disposal of wastes. However, operating facilities for waste collection, treatment and disposal results in operational costs have to be recovered one way or another.

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A free-of charge system in which *ships* do not have to pay for the services provided may sound attractive, but it implies that other resources must be allocated. A free-of-cost system does not exist.

Where cargo residues are concerned, preferably the consignor of the oil and the consignee of the chemical cargo could be made responsible for accepting dirty ballast and tank washings. Certain Annex I residues and tank-washings (asphalt, high density oils, etc.), which through their physical properties prohibit the cleaning of cargo tanks at sea may be taken care of by the cargo receiver. For other ship-generated waste, additional reception facilities have to be provided.

Indirect cost recovery can apply for example by:

- governmental subsidies, using for example general tax revenues paid by society;
- revenues of specific taxes.

Waste delivery in a port is likely to be stimulated by this cost recovery mechanism and illegal discharges at sea will be reduced, mainly because there are no reasons for not delivering the waste. This cost recovery mechanism does not necessarily stimulate waste minimization practices on board.

Although it is true that the *image* of a port benefits from free-of-charge reception facilities, there is as yet no indication that this factor influences the decision of ship operators to move to ports (provided that the port fits the trading pattern) providing free or less costly reception facilities. With better enforcement of the discharge standards, this would probably be different.

There are indications that this cost recovery mechanism may attract waste. But by developing a regional strategy, leading to the provision of similar services in other ports in a region this may be avoided.

This cost recovery mechanism does not require extensive control and enforcement measures to verify compliance of ships with disposal regulations, provided that the services do not cause undue delay.