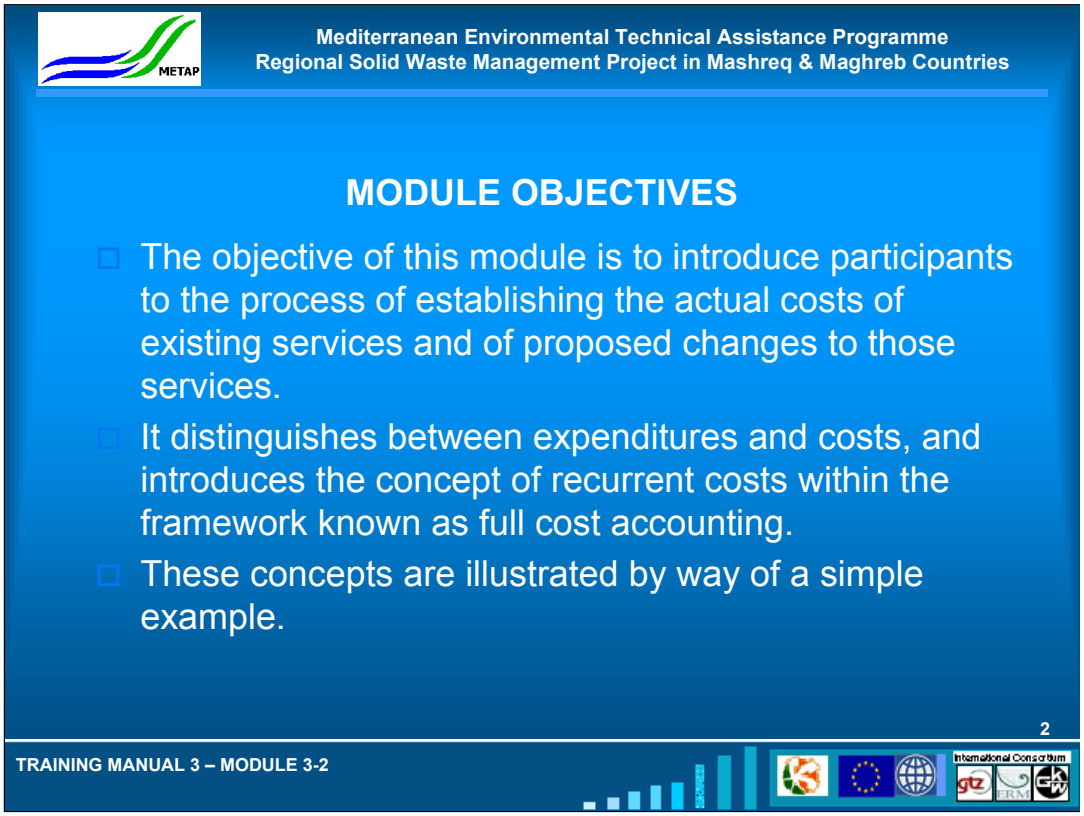
TRAINING MANUAL 3
FINANCE AND COST RECOVERY

MODULE 3-2: ANALYSIS OF EXISTING MSWM COSTS AND REVENUES

Prepared by the International Consortium
GTZ-ERM-GKW

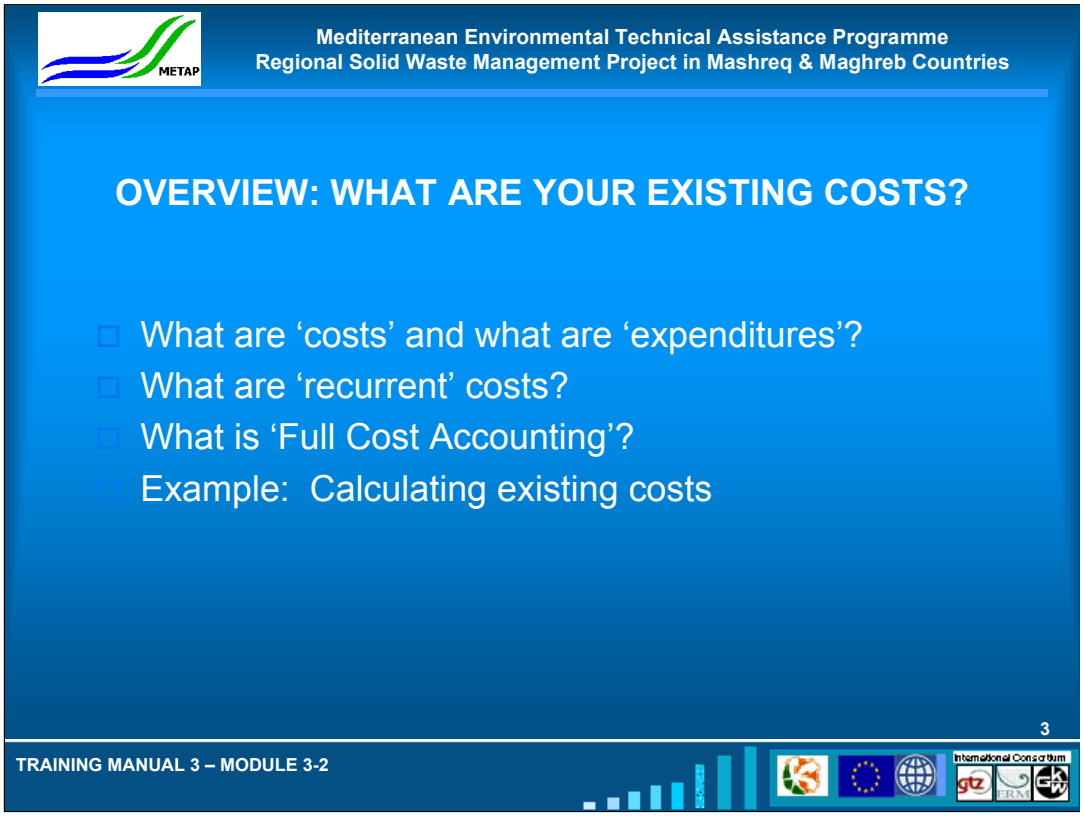


Experience shows that municipalities and waste management agencies rarely know the full costs of the services they provide. This is because the services are not run as separate financial areas but are often a department of the municipality, responsible for direct operating costs only. This means that key cost items, such as office overheads and maintenance costs are often excluded (maintenance being the function of another department). Also, little or no accounting is done regarding capital expenditures and annual capital costs.

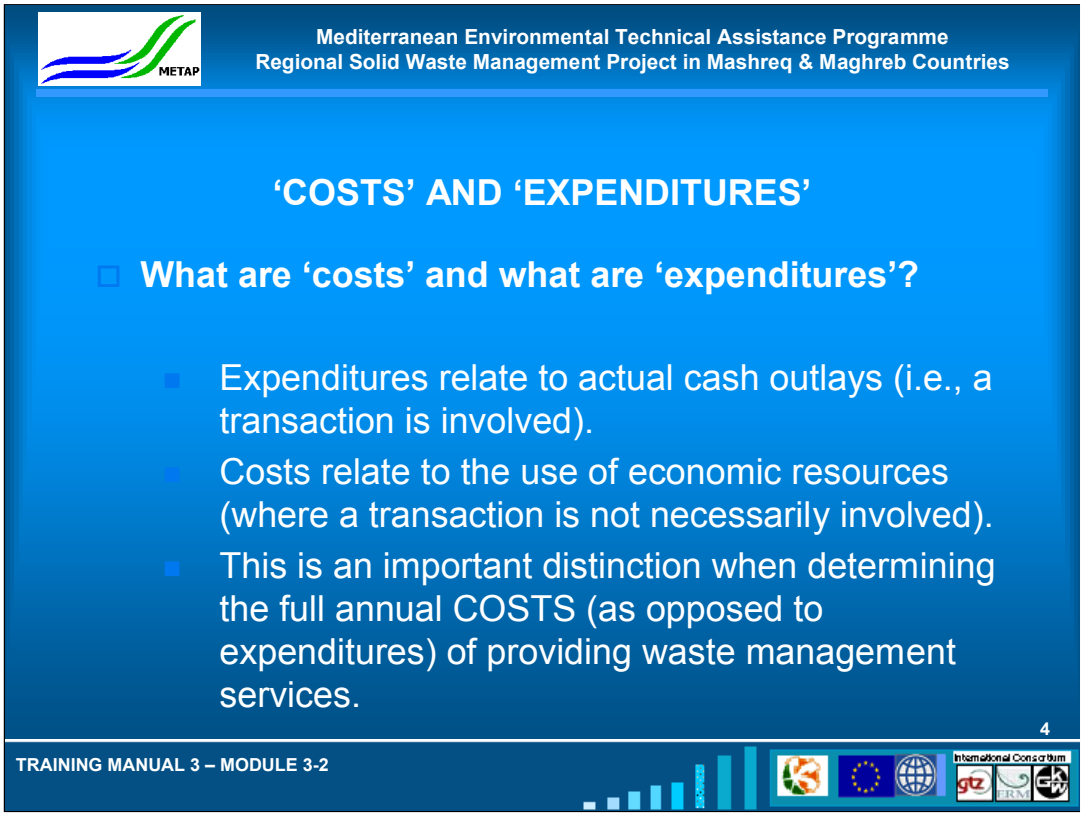
Cash basis accounting systems recognise expenditures on capital assets only at the time the transaction takes place. Concepts such as depreciation, where the value of the asset is spread across its useful life, are frequently not addressed. As a consequence, the costs reported by waste management agencies normally reflect only the direct expenditures for which they are directly responsible. Depreciation, debt service, office overheads and other 'central' expenditures often go unrecorded.

This module has the purpose of providing delegates with a simple, logical and systematic approach through which full service costs can be calculated.

Before doing this, some accounting terms are explained: costs, expenditures, recurrent costs and full cost accounting.



This chart provides an overview of the course contents.



The distinction between costs and expenditures is an important one.

Expenditures relate to actual cash outlays – transactions.

Costs relate to the utilisation of resources. Thus, part of the cost of using a refuse collection vehicle for one year is the value of the vehicle 'used up' in that period. This is generally referred to as 'depreciation'. The fuel and labour used to operate the vehicle are BOTH costs and expenditures (i.e., resources are used and cash transactions are involved).

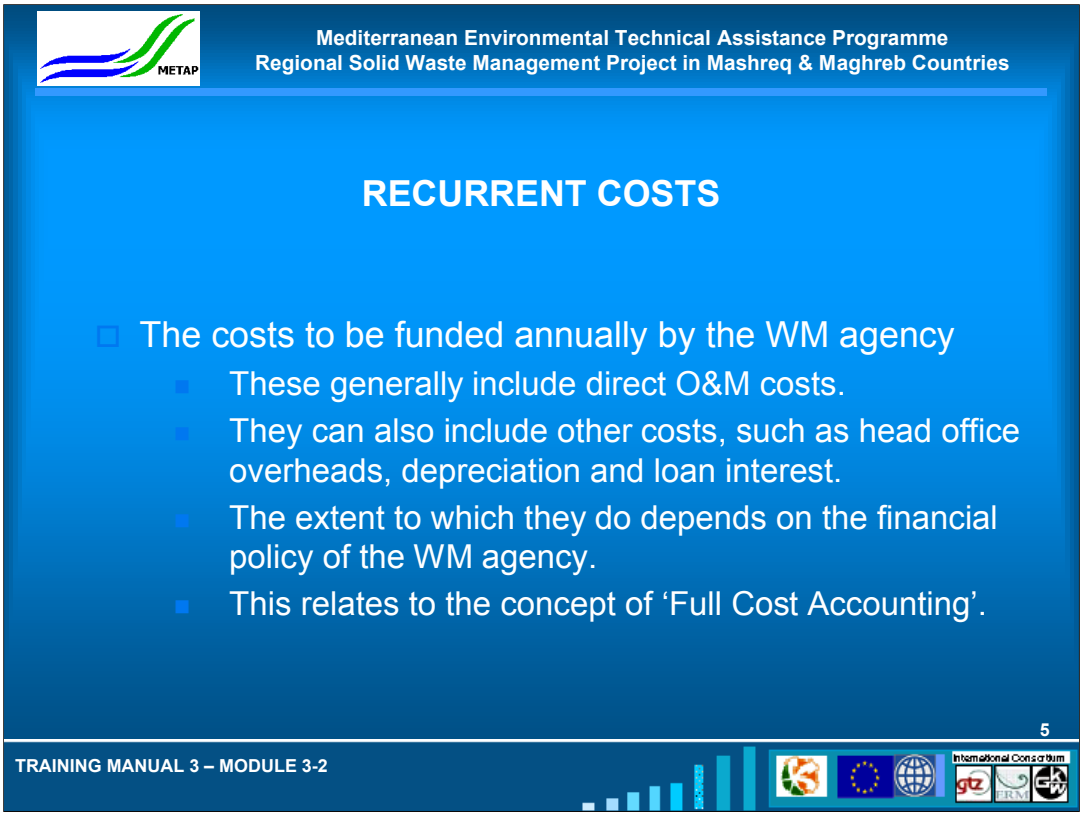
Note that EXPENDITURES made on capital items, such as on a new waste collection vehicle, are translated into annual COSTS through the depreciation process.

Examples of expenditures (or cash outlays) are

- Operation and maintenance (O&M) expenditures made as part of day-to-day operations (labour, fuel).
- The interest payments made on loans.

Examples of costs are

- Depreciation
- Provisions made (funds put aside) today to finance future expenditures resulting from today's activities (e.g., landfill closure – costs are incurred today, the expenditure is made in the future)
- Operation and maintenance (O&M) expenditures (because annual expenditures are also costs)
- The interest payments made on loans (as above).



Recurrent costs are discussed in greater detail in module 3-4 on financing.

Fundamentally, the recurrent costs of the service are all of the costs listed in the slide. i.e. O&M, depreciation, head office overheads, provisions for future liabilities, etc. These are costs that are actually incurred as a result of the waste management activities.

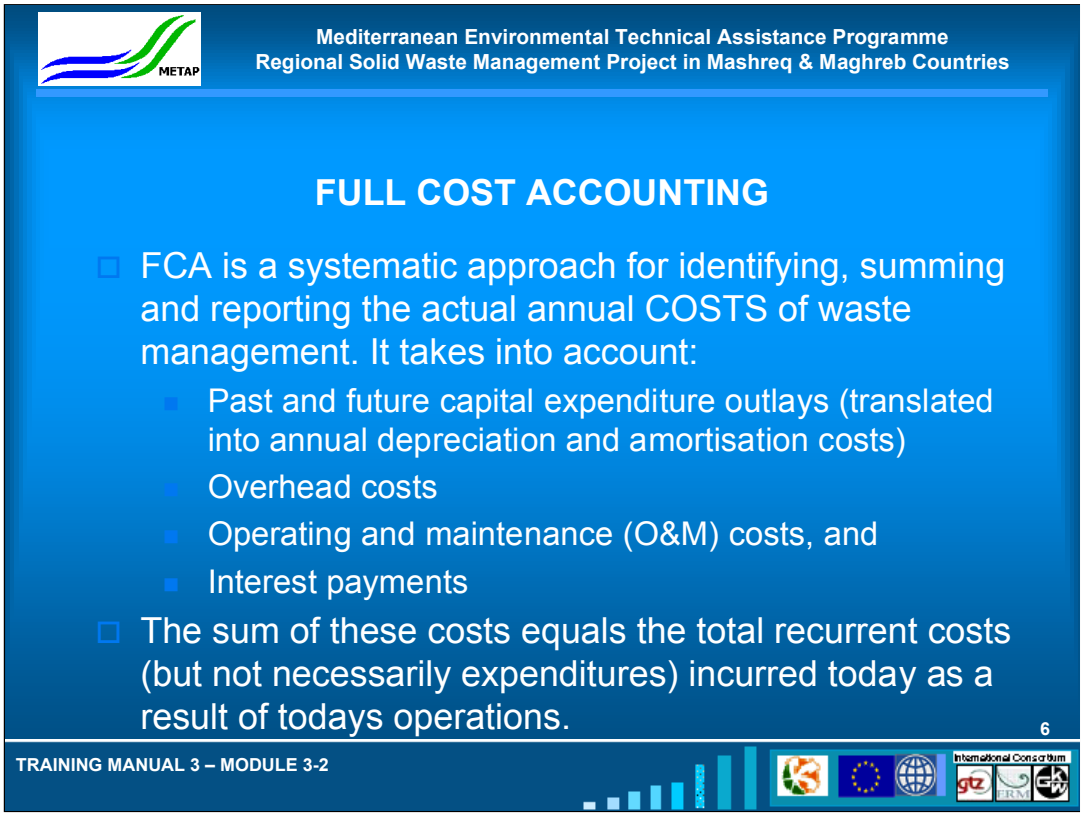
The distinction is made here, however, between those recurrent costs for which the waste management agency is directly responsible and those for which it is not. This relates to the level of financial autonomy enjoyed by the agency.

The remaining costs not funded by the waste management agency are funded either:

(1) by the municipality (for example, a vehicle maintenance depot may be responsible for maintaining all municipal vehicles under its own budget; these costs may or may not be passed on to the waste management agency and recorded against the costs of service). Head office overheads are another example of costs that are frequently not allocated to the service provider.

or

(2) they may be deferred until the future and left for others to fund (e.g., the replacement of waste collection vehicles or landfill closure).



This slide reinforces the earlier discussion.

This slide notes the distinction between 'cash basis' accounting and 'accruals' accounting. This is largely reflected in the discussion to this point on the differences between costs and expenditures. Note, however, that this applies also to incomes. In 'cash basis' accounting incomes are recognised at the time payments are received. Under a 'accruals' accounting they are recognised when they are earned.

FCA is effectively another way of describing accruals accounting.

The benefits of FCA are that:

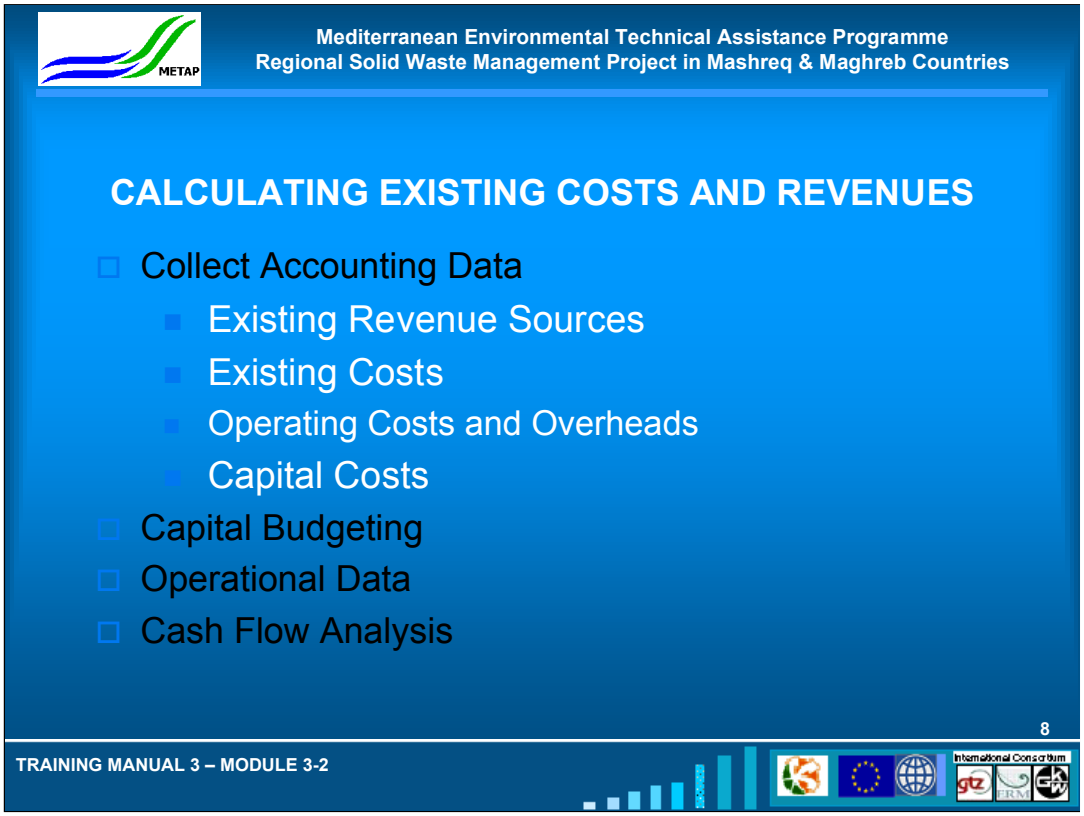
- It identifies actual service costs (including unit costs).
- It helps avoid 'peaks and troughs' in cash expenses (if budgeting is done on an FCA basis).
- When linked to cost recovery FCA ensures that money is available when it is needed.
- It is an invaluable aid when contracting services (because the full costs are known).
- It is an analytical tool, allowing WM agencies to account for and scrutinise each component of SWM services (e.g., for head office, collection, transport, disposal, recycling).
- It can be used as the basis for benchmarking – measuring performance and comparing it with benchmarks for similar activities elsewhere.

Depreciation is an accounting concept whereby the value of an asset – e.g, a waste collection vehicle – is recovered over its operational life and is treated as an annual cost.

i.e. part of the annual cost of providing WM services is the value of the assets used up each year as a result of providing the services.

The extent to which costs such as depreciation and loan interest payments are treated as part of the recurrent costs to be funded by the WM agency depends on the financial powers and policy of the municipality and the financial policy of the WM agency.

Financial policy is addressed further in Training Course TM3-5.



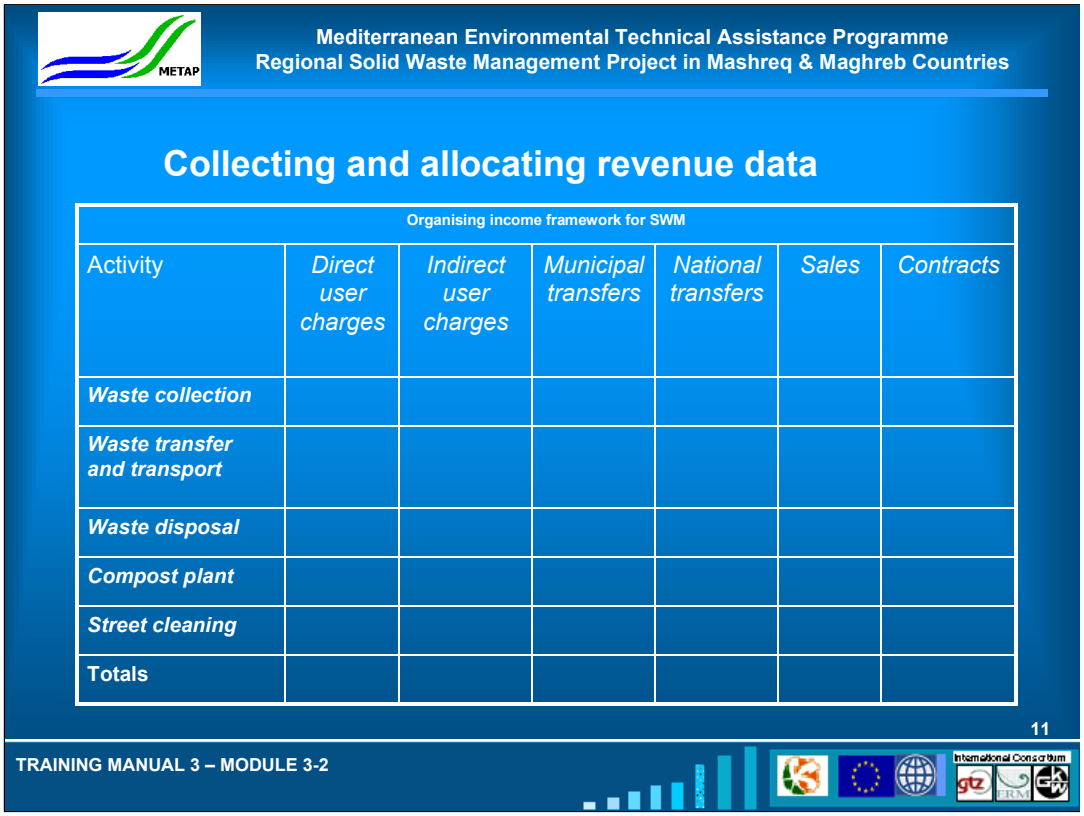
The source of the pro-forma tables and example used in the remainder of this module is the Preliminary Draft SWM Privatisation Procedural Manual, September 29, 2002, prepared as part of the Egypt SWM Project for the Egyptian Environmental Affairs Agency and USAID by About Associates Inc., SCS Engineers, The Institute of Public-Private Partnerships and Community and Institutional Development, Inc. Some modifications have been made to the materials for ease of presentation.

For further details of the methodology and example presented here, please refer to the source document – available as part of the online project materials.

This slide sets out the components of the cost assessment process and the structure used for developing the example.

Revenue sources, operating costs and capital costs are covered in the following slides.

The aim is to identify all existing sources of revenue and to allocate them – where feasible – to specific applications. Tables for organising this information follow.



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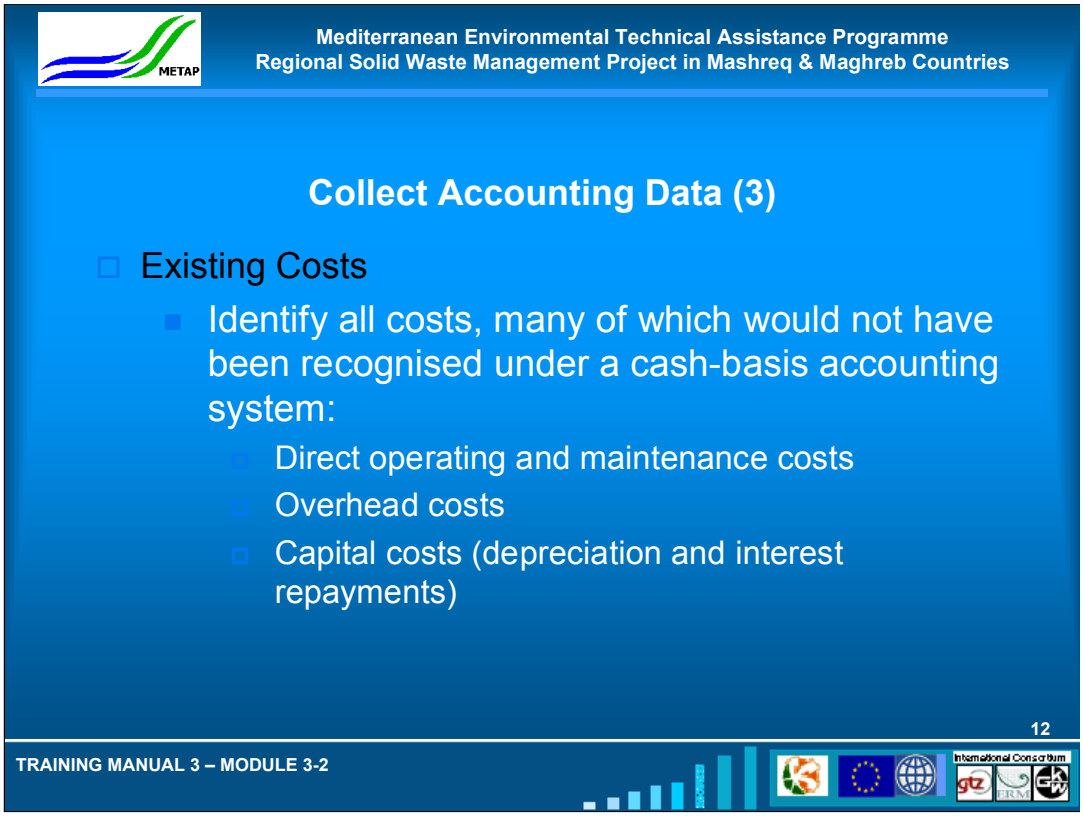
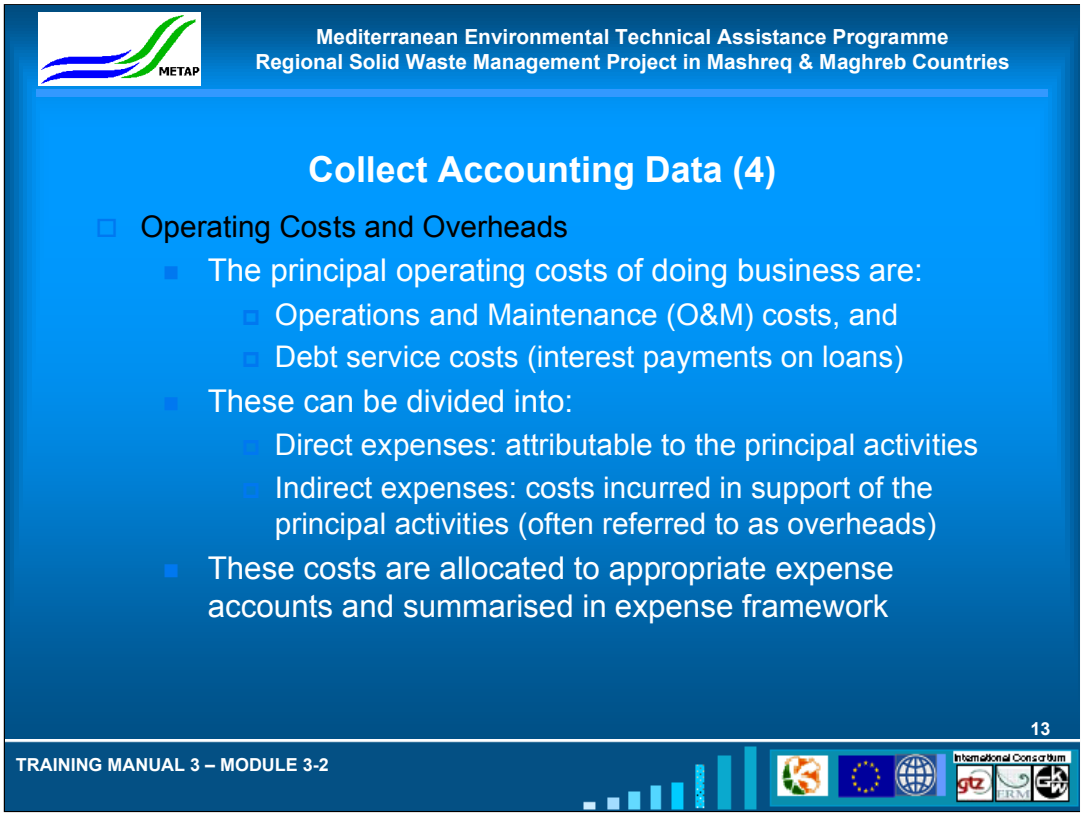
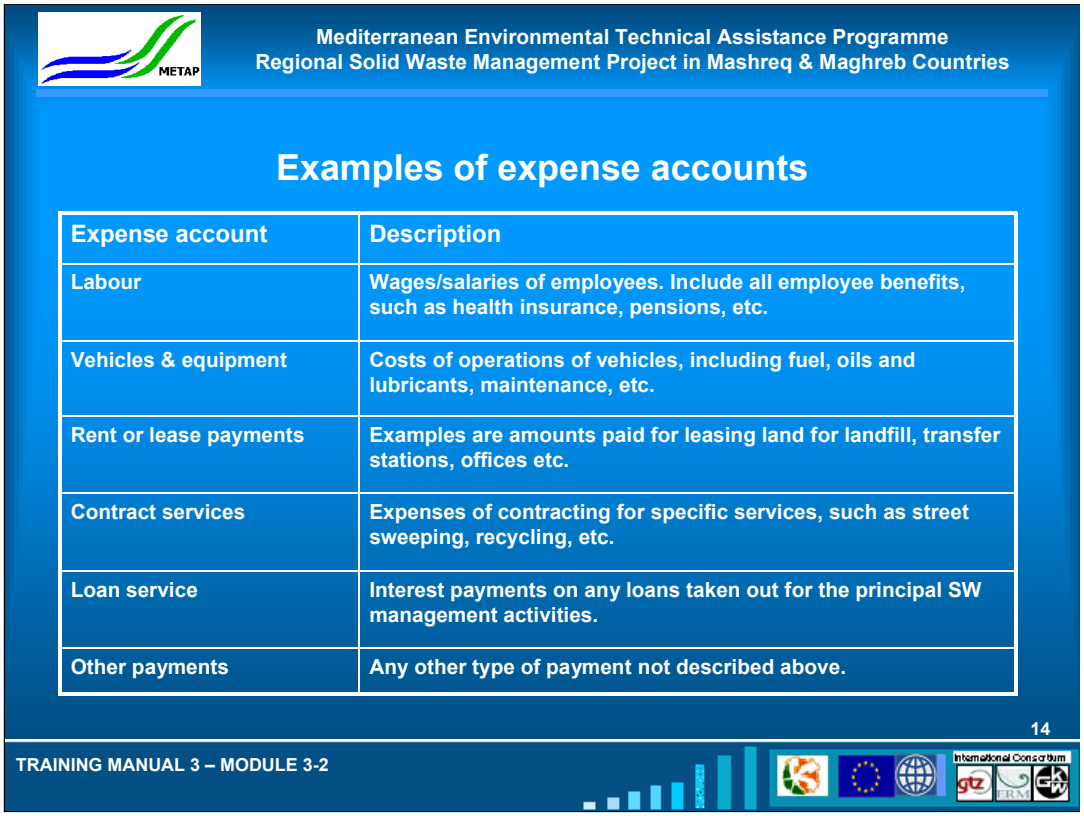


These three generic cost items are addressed in the following slides.



The following two charts give examples of expense account categories and an indicative expense framework for recording these expenses.



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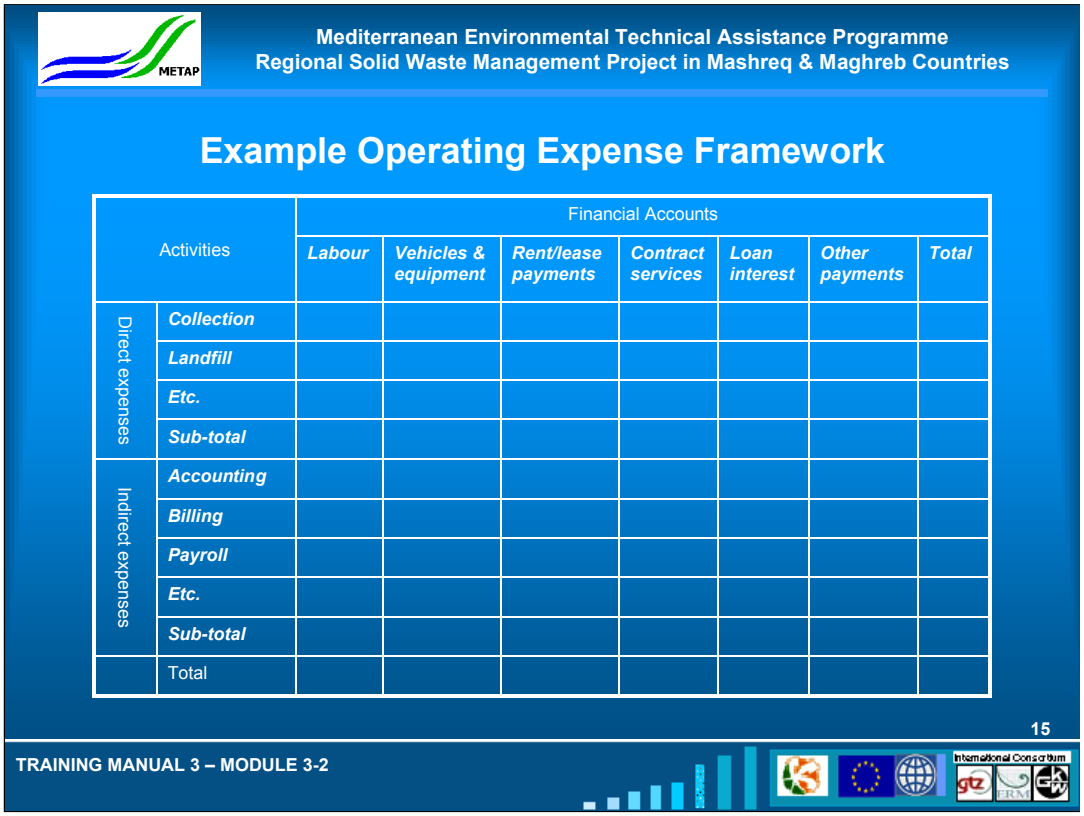

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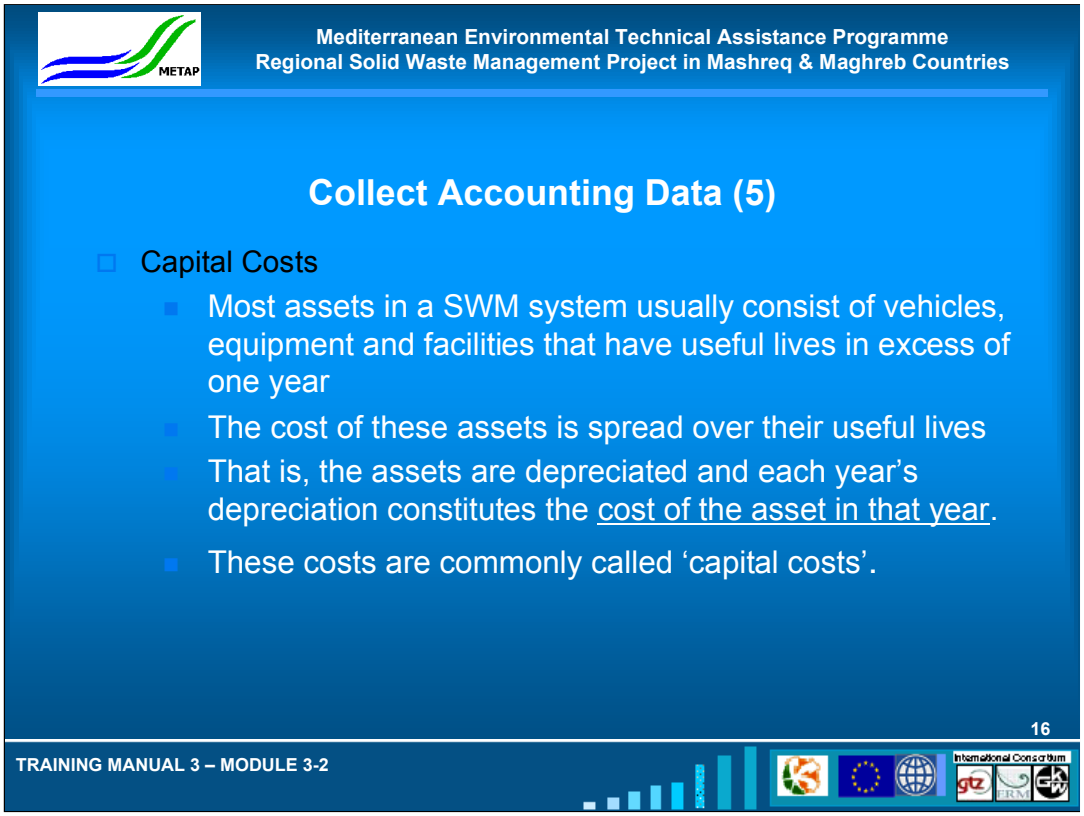
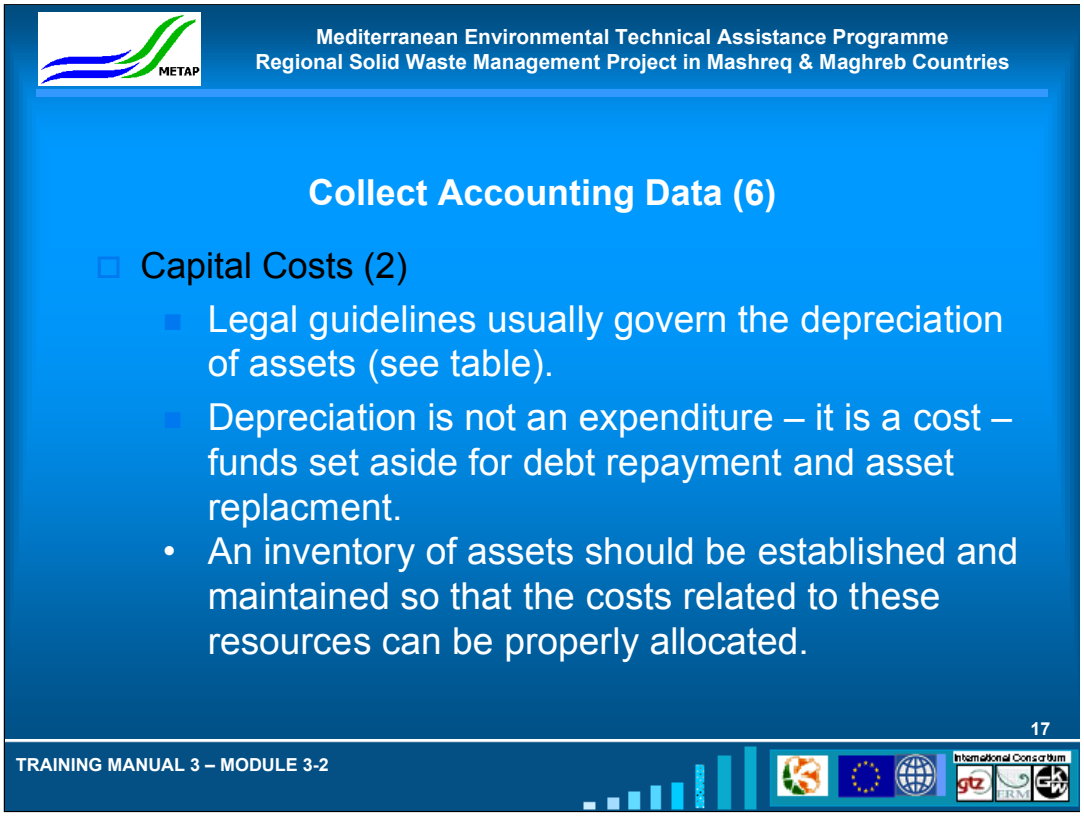


The slide is self-explanatory.



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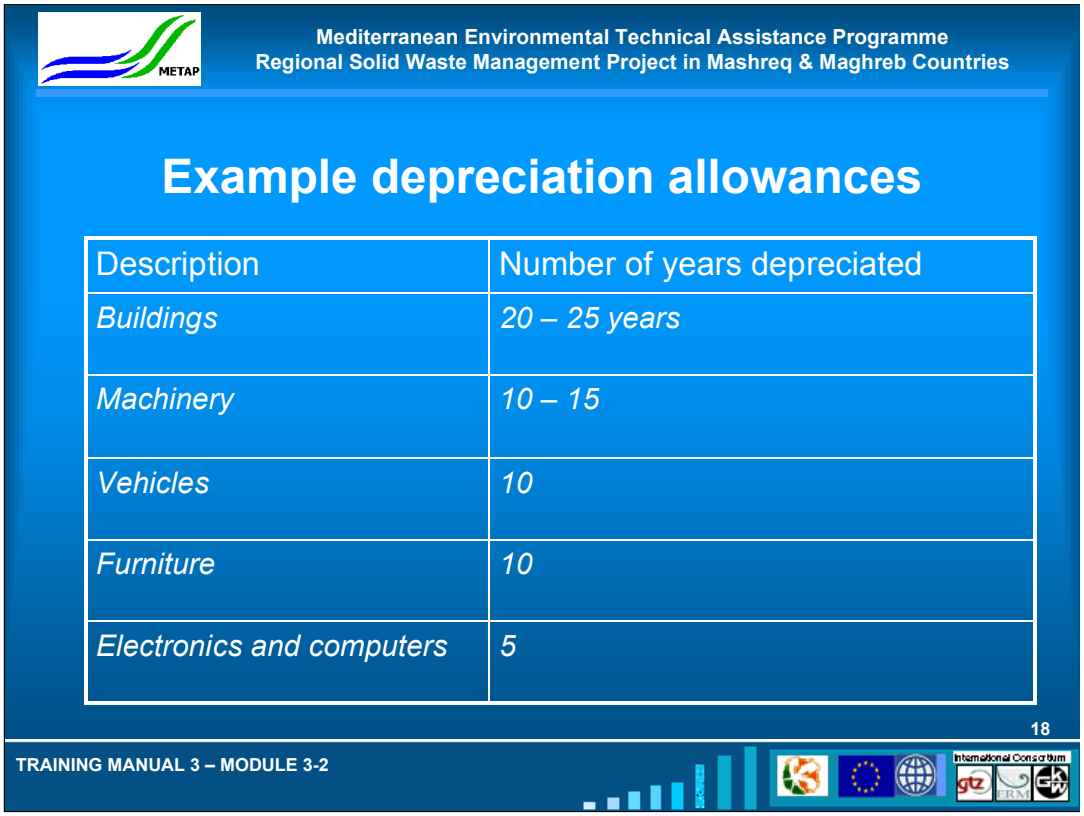

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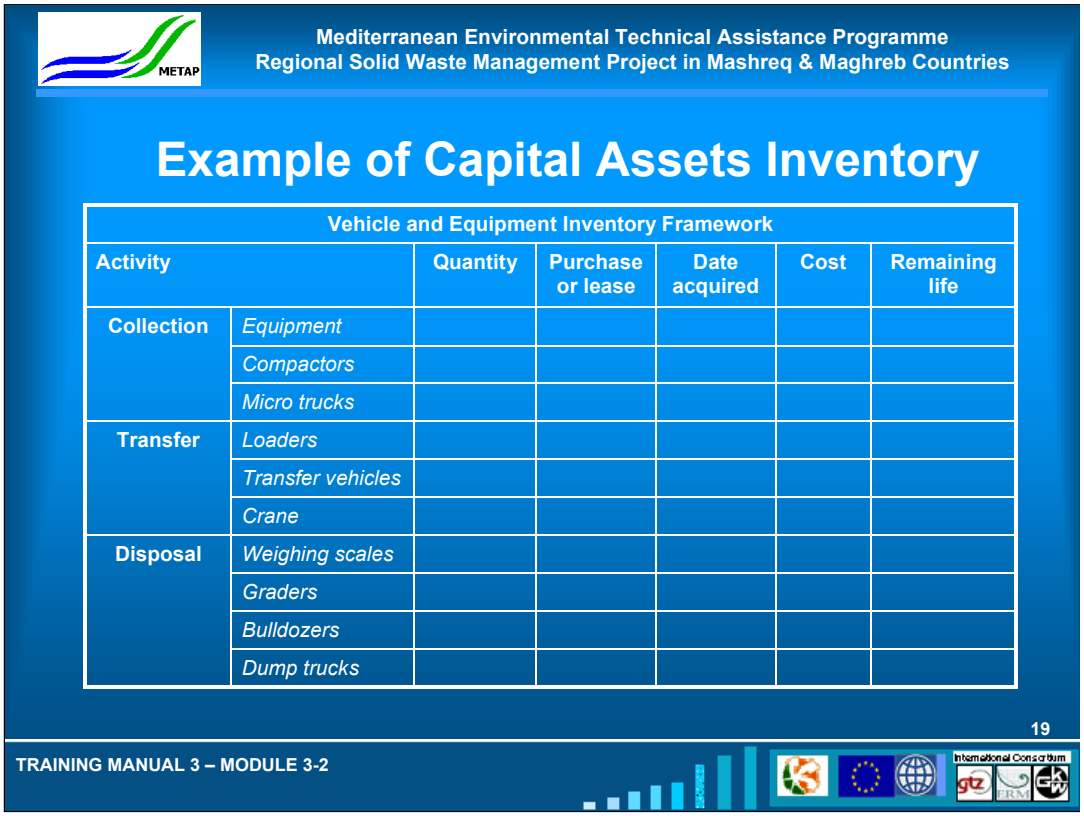

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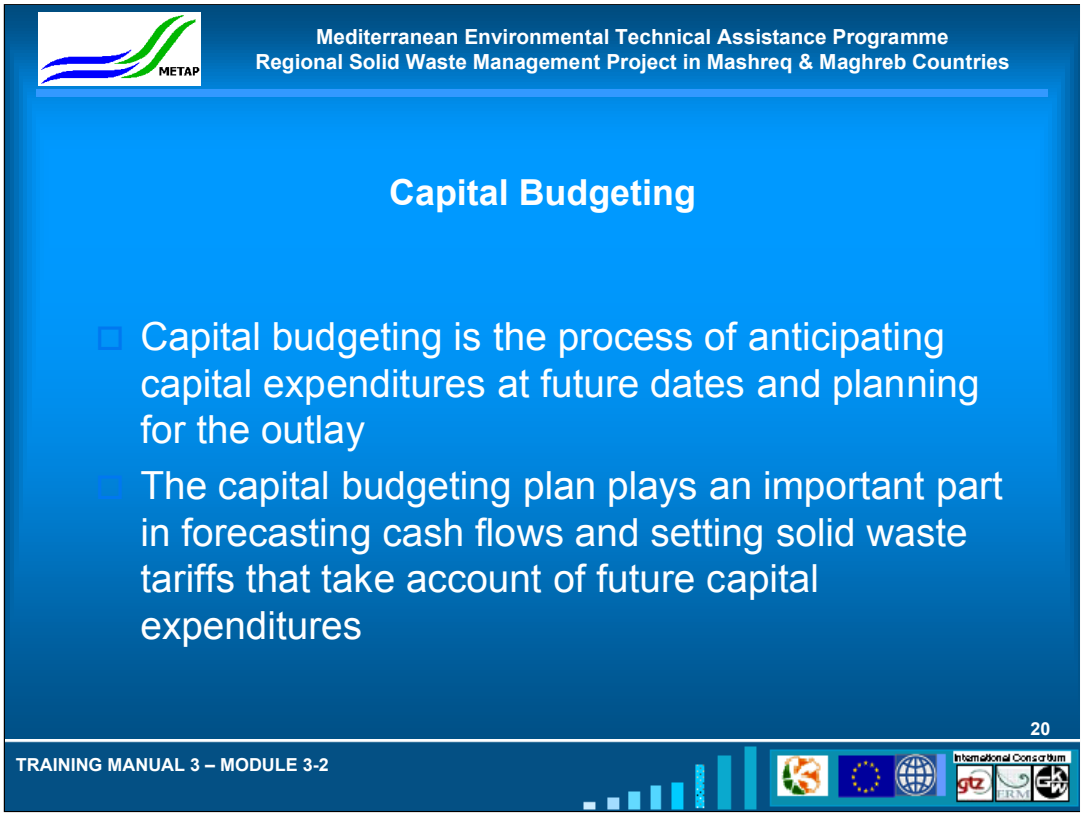
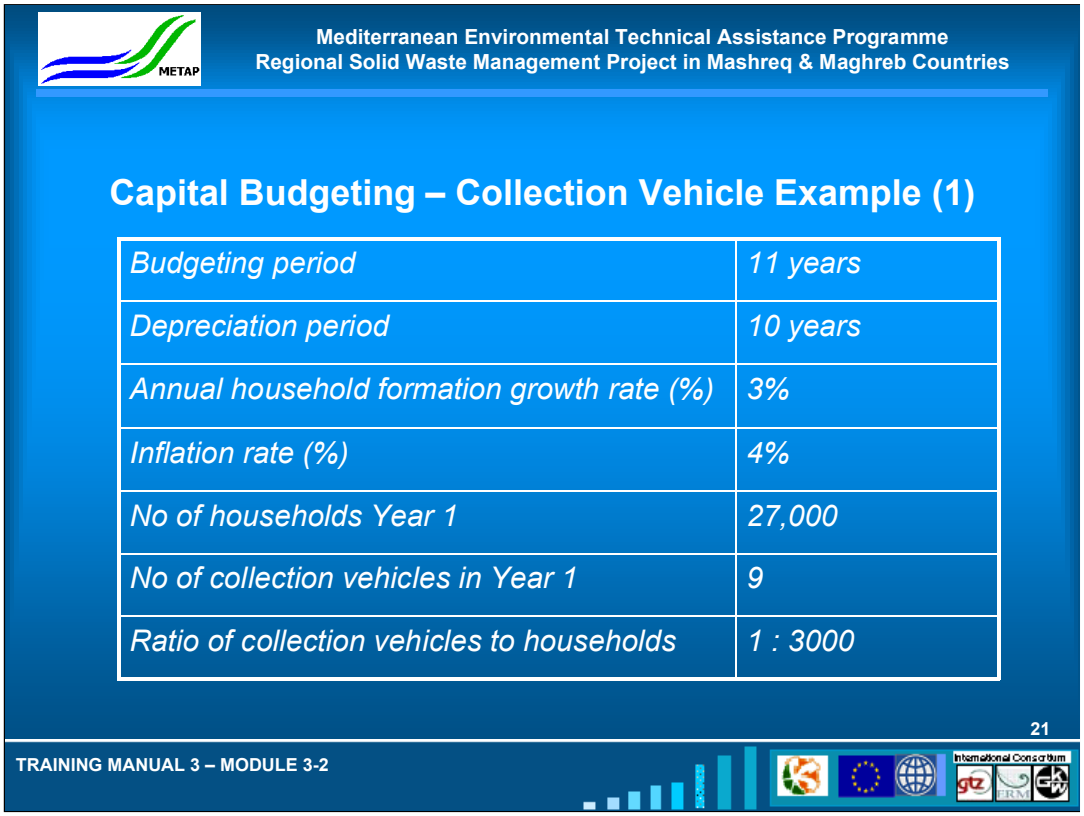


Note again the emphasis on anticipating future capital expenditures as an input to the process of calculating future tariffs.

The objective is to plan in advance future capital expenditures (resulting either from the replacement of plant that has reached the end of its nominal life or to provide additional assets in order to meet expanding service needs).

This information will be used to allocate the costs of using these assets (ie, depreciation provisions) to activity in each year.



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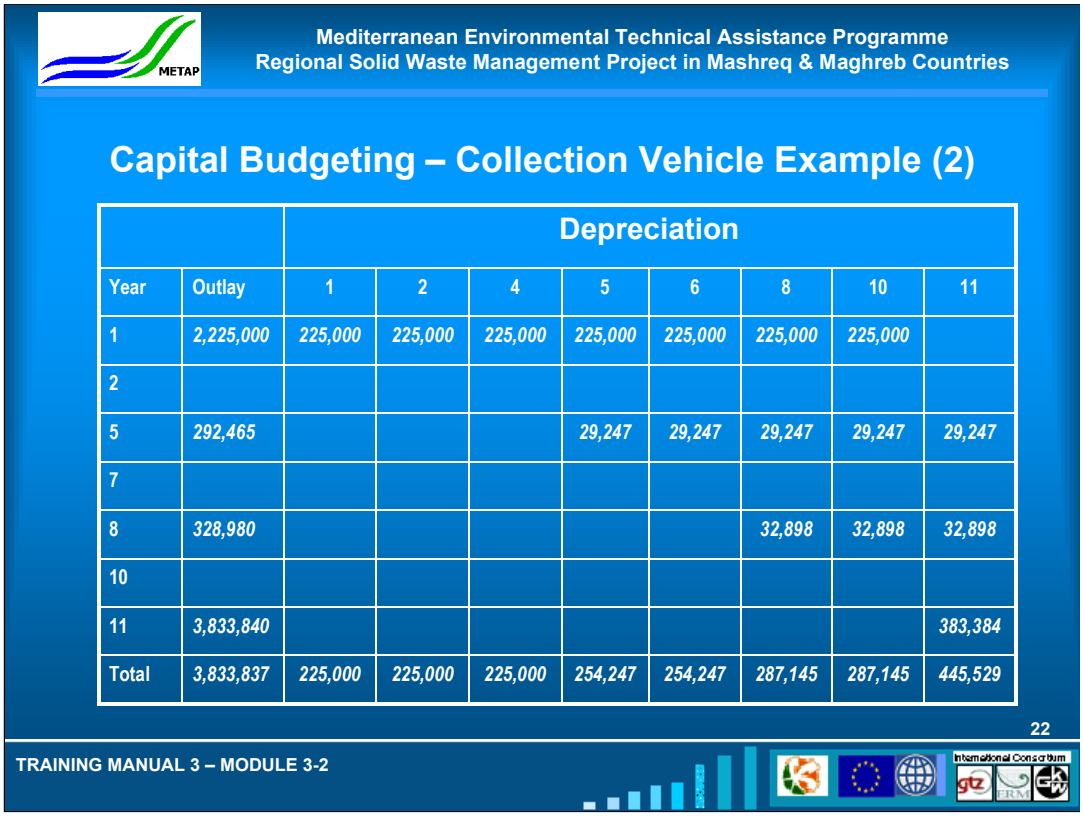

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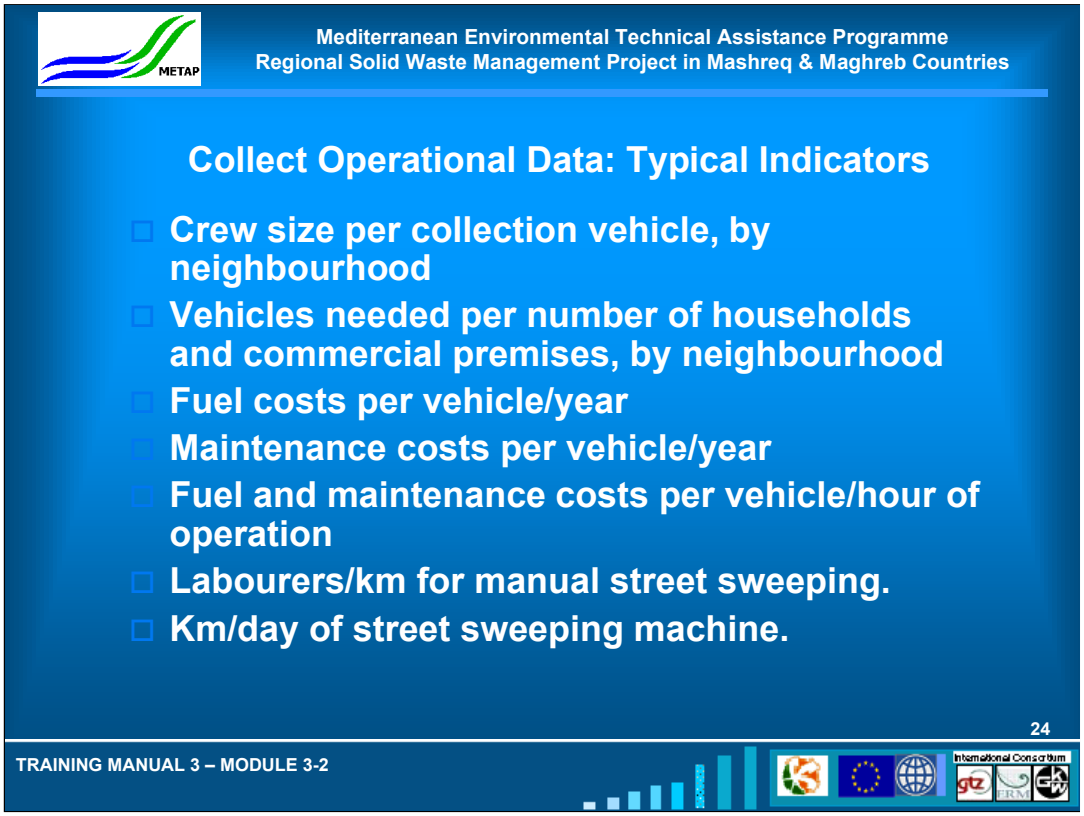

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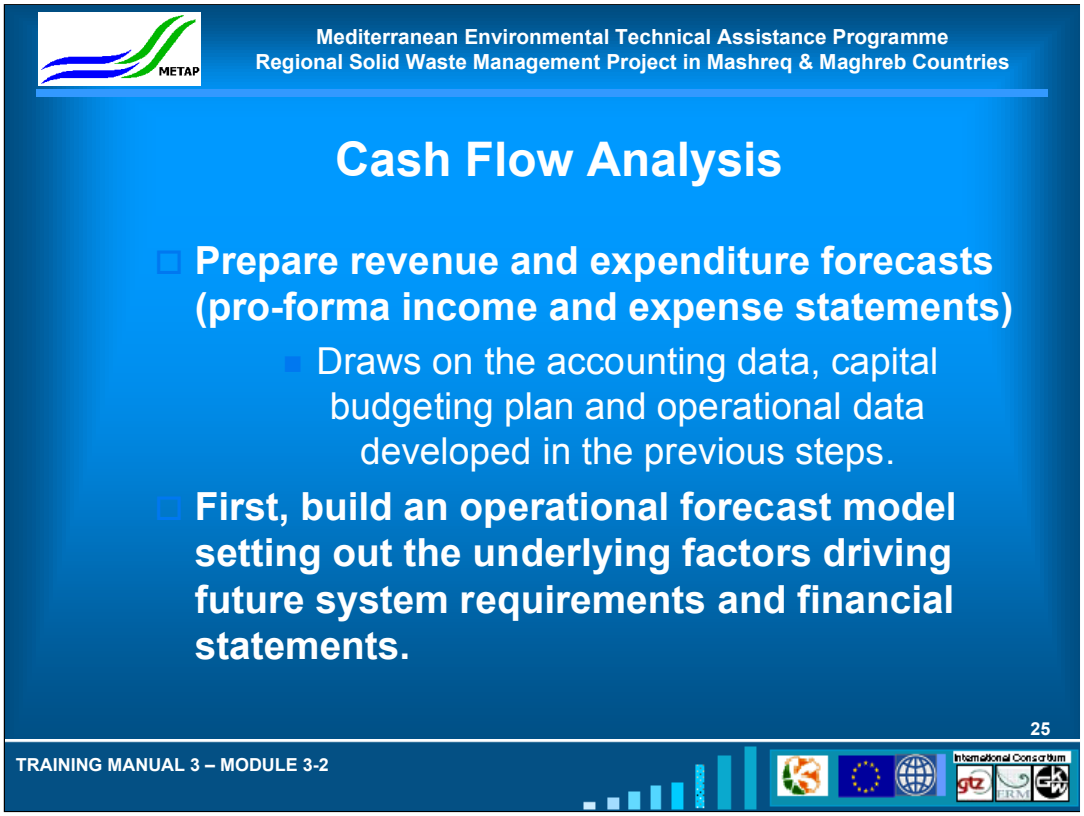

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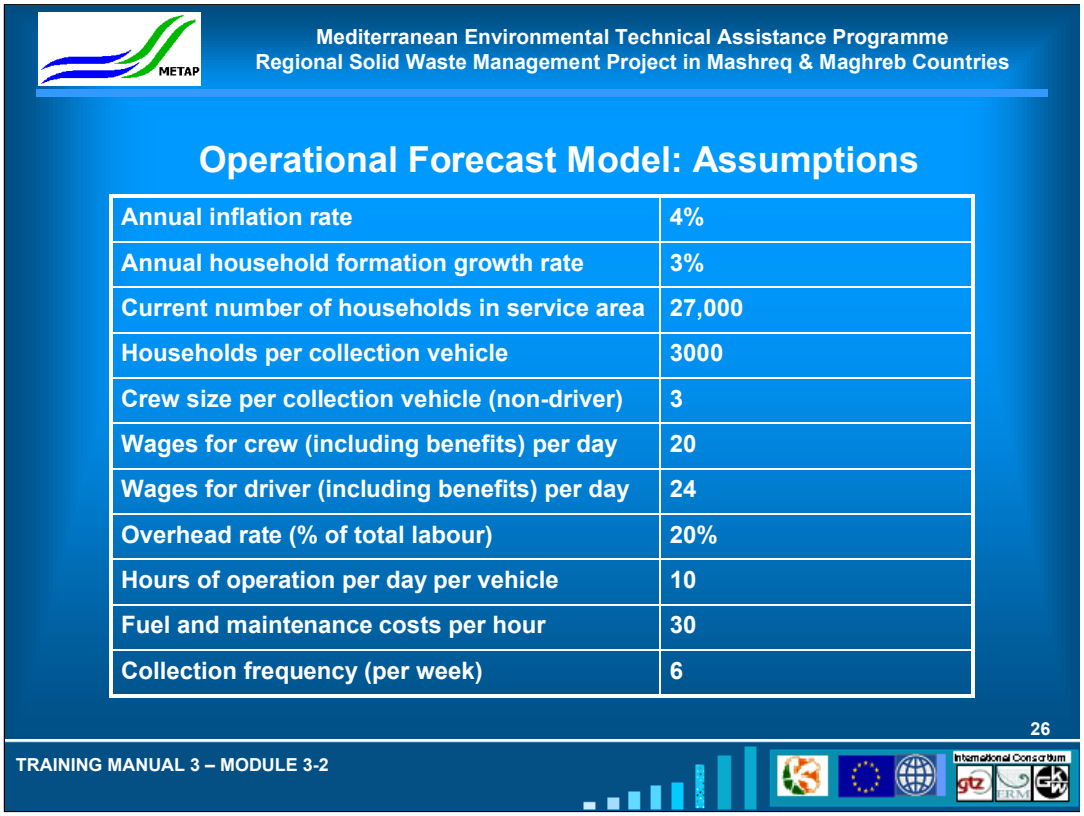

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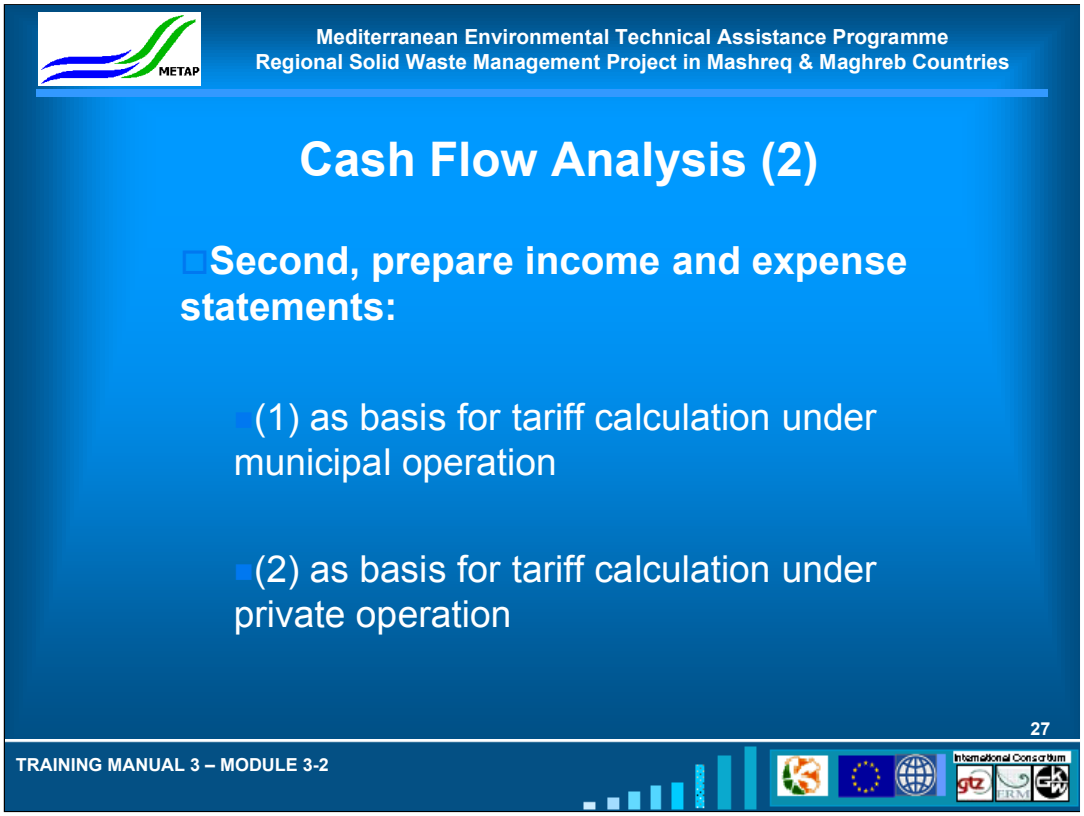

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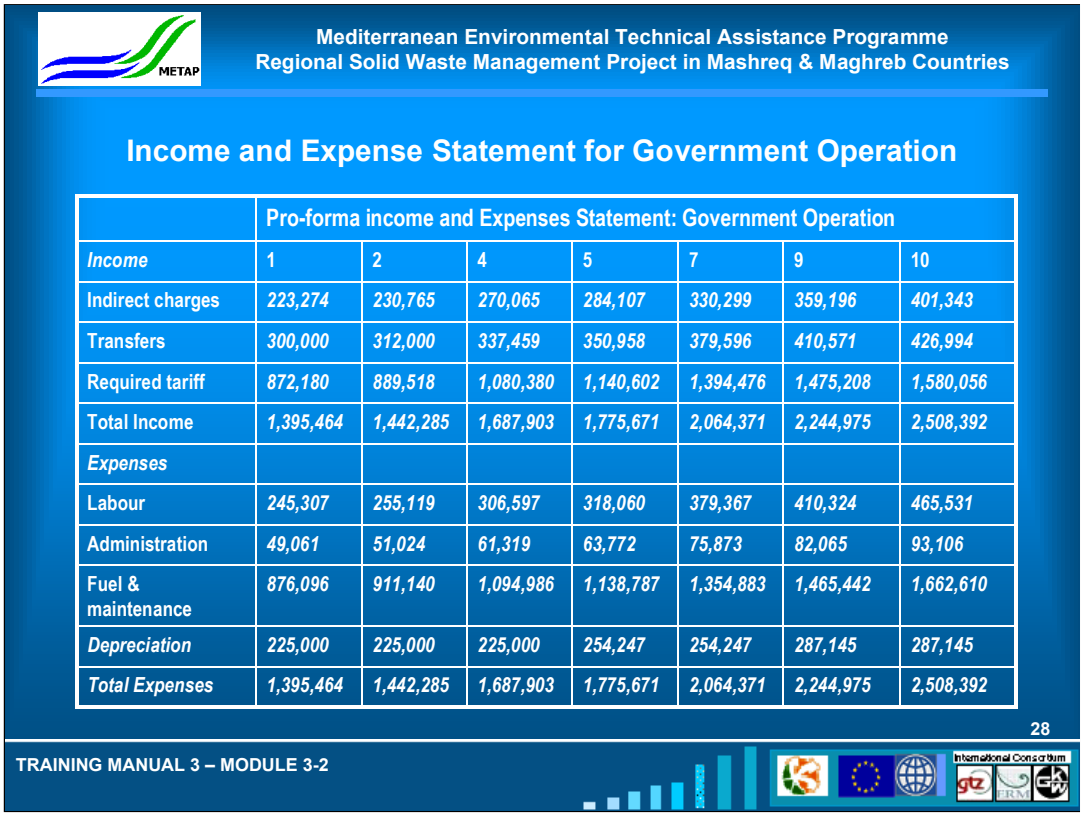

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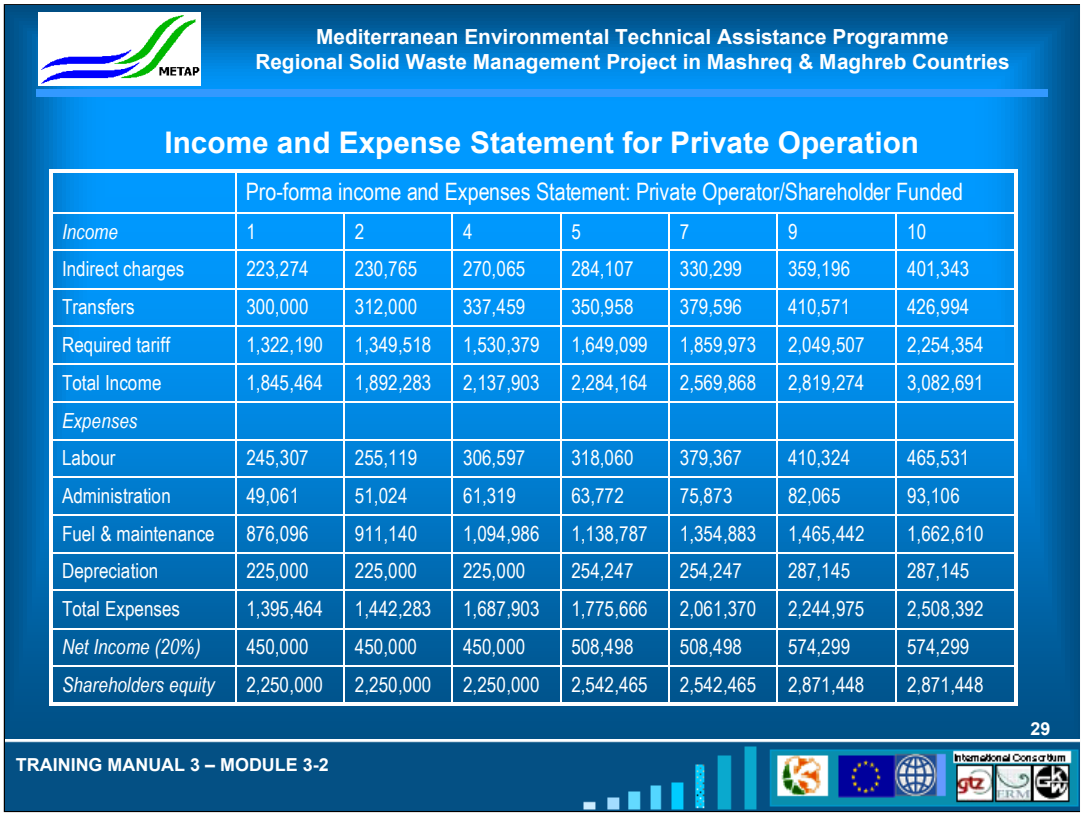

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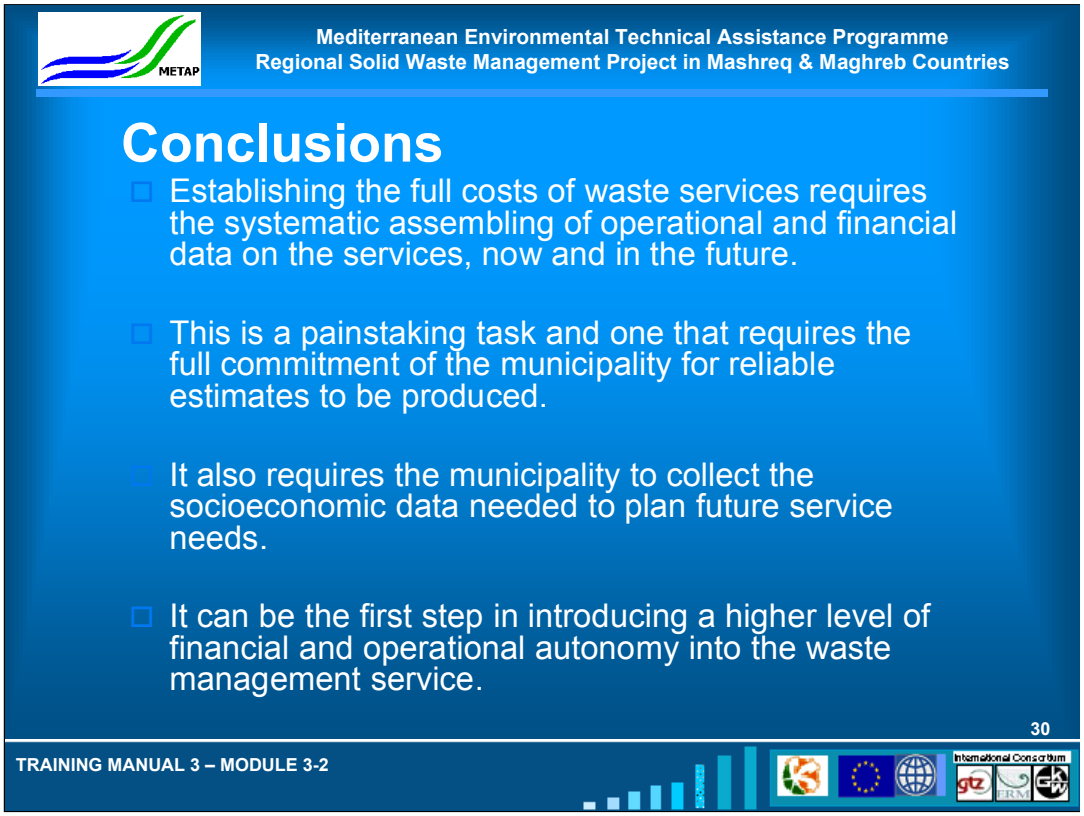

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