



THE ROLE OF ECONOMICS IN THE IMPLEMENTATION PROCESS

WFD "eco procedure" in practice



WP-EcoA

 16

 30'

COMMENTS

Note

This presentation intends to provide a general overview of the use of economics as part of the WFD process, i.e. the so-called "three-step approach", which covers the 2004-2008 period.

It may be considered as an introduction to the WP-EcoB section of the training session, which offers detailed presentations, including case studies, of each sub-step.

Key ideas

Economics play a specific role in the WFD process, both as part of the decision making process and as a tool for the implementation.

It is also essential to keep in mind that economic analyses will play a key-role in specific cases where non-compliance with the goal will be considered. Although other aspects will have to be considered (e.g. technical feasibility), economics are likely to be considered as the main factor. Therefore, specific efforts will be necessary to ensure full understanding of all parts of the information so provided, its meaning, the conditions in which it will be produced, the limits, etc.

Of course, general comments about the use of economics apply here: the decision remains in the hands of decision-makers and economics only provide elements for a well-informed decision. Therefore, economic analyses will not come out with the decision and all answers. This is particularly important in the WFD context, as in many cases, such analyses will only provide partial elements as data is lacking (e.g. as regards environmental costs).

Go further

Guidance document (main text + accompanying documents) "*Economics and the environment*" (working group 2.6)

PRELIMINARIES REGARDING ECONOMICS AND WFD

- A double role for economics in the WFD process
 - × provide information in the decision-making process
 - × play as a measure for the implementation
- The higher the risk of gap, the more intensive the use of economics
 - × potential non-compliance with the goal: HMWB, derogations

The WATECO Guidance: a detailed road-map on how to integrate and properly use economics in WFD process

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YOUR NOTES

COMMENTS

Key ideas

This flow chart gives a general view of the 3-step approach, even if at this stage, trainees will not know about all aspects to be covered. It intends to illustrate the process in order to help them understand where each step and sub-step takes place and how it is connected to the others.

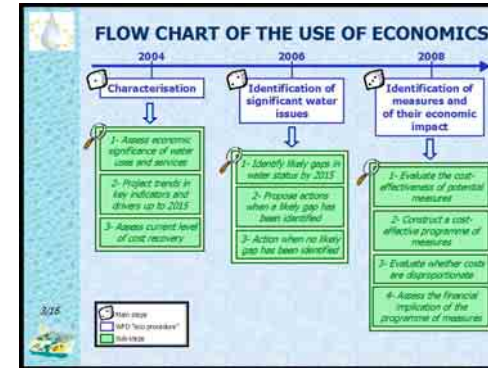
The presentation of this slide shall not be over-detailed (e.g. no need for a precise description of each sub-step, as examples will be provided in further slides). Focus shall be put on the logical path to be followed from one step to the other.

Three deadlines are mentioned on the flow chart, but only the first one is a "legal" one (2004: see article 5 of WFD). The other two (2007 and 2008) are suggested by the WATECO Guidance with regards to the general agenda of the directive.

Note

Dices used to identify each of the three steps on this flow chart will also be used on the next slides in order to ease the understanding of trainees.

Go further



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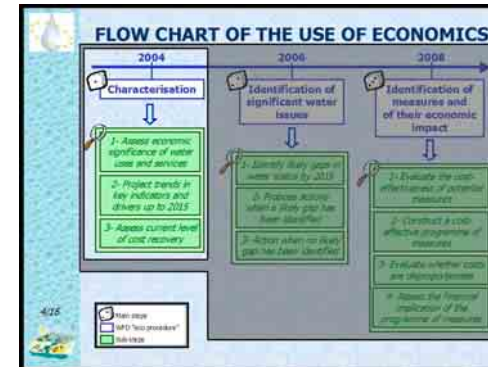
YOUR NOTES

COMMENTS

Key ideas

This slide introduces the first part on "Characterisation" which will provide explanations of the tasks to be carried out at each of the three sub-steps.

Go further



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YOUR NOTES

COMMENTS

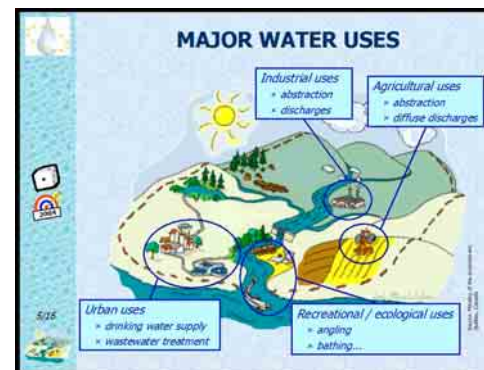
Key ideas

The first step of the characterisation is the identification of major uses and services existing in the district.

From one district to the other, the results of the identification may change. Indeed, although drinking water production and wastewater treatment will certainly be highly significant in all districts, this may not be the case for some other activities: recreational uses of water, economic activities based on water uses (types of industry, specific productions, etc.).

The identification is of course determinant for the next stages of the procedure.

Go further



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YOUR NOTES

COMMENTS

Key ideas

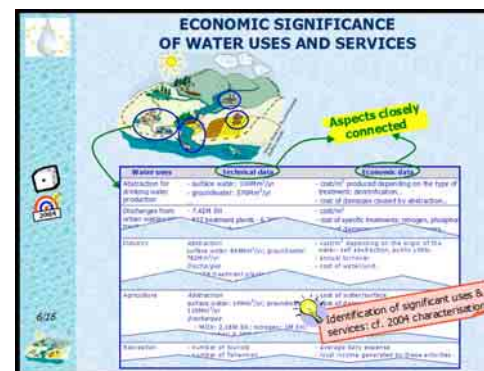
Despite this economic dimension of the characterisation (which aims at assessing the economic weight of water uses and services in the district), both technical and economic information will be necessary to properly carry out the characterisation. Indeed, as an example, data regarding the price of water only becomes meaningful once it is connected to related technical aspects such as the volume of water abstracted and/or distributed, the quality of the water considered, etc. In practice, this will require to use data coming from out of the water sector. It will then be necessary to involve "new" actors in the process and to make them understand the interest of the information they will provide.

The description achieved here will also have to cover economic valuation of environmental values. This will often require using estimates and proxies as data will often lack. However, this shall not be seen as an obstacle as it is absolutely necessary to integrate environmental values in the characterisation: the economic weight of water uses and services depends on the impacts such uses and services have on the environment. Environmental costs cannot be excluded from this assessment, as the view of the situation would then be biased.

Note

Several questions will be raised by data collection: uncertainty, reliability, etc. This aspect is addressed in the WP-EcoB01 presentation.

Go further



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YOUR NOTES

COMMENTS

Key ideas

The scenario intends to appraise the impact of 3 types of evolutions on the water status by 2015. In other words, the question is: what will have to be done as regards water status once all plans already decided/launched will be implemented? Three types of evolutions will be considered:

- × continuation of past trends
- × impact of water policies: don't forget that the very basic requirement of WFD is the implementation of water directives
- × critical uncertainties, that necessarily refer to estimates and appraisals.

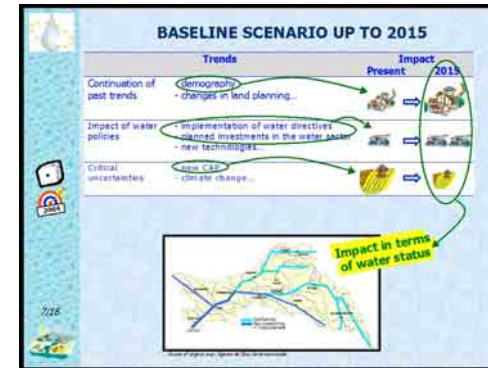
Some key elements to keep in mind as regards the scenario:

- it is a baseline scenario i.e. based on "business-as-usual" evolution, in connection with water status. WFD doesn't require to guess/imagine the future.
- some elements will come from well-informed sources (e.g. official statistics on demography, existing land-planning documents) but many others will be based on experts sayings (e.g. evolutions of agricultural patterns).

Note

Don't forget that the goal is not to draw precisely the situation in 2015 but to identify sectors in which the achievement of good water status will clearly be unlikely/difficult.

Go further



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YOUR NOTES

COMMENTS

Cost-recovery is a big issue, not only from an economic point of view: it will clearly raise more political ones.

First of all, it must be reminded that the goal in 2004 is the description of the current situation as regards recovery.

Secondly, the recovery issue addresses two aspects: the estimation of the costs of water services and the financial flows in the main sectors (see slide 9/16).

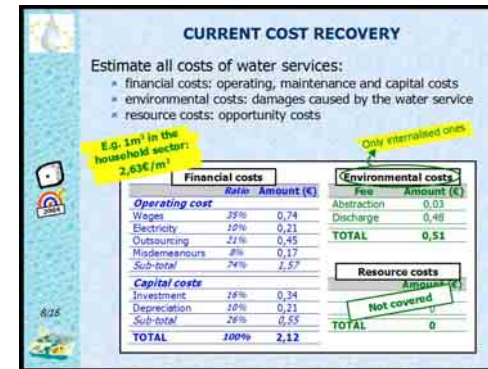
The present slide proposes an example applying to the price of water in the domestic sector. While financial costs can generally be properly identified and quantified, this will not be the case regarding environmental and resource costs in general. A first approach of environmental costs may be made if environmental taxes are implemented, but this will only provide a partial view as some costs are certainly not internalised.

Besides, financial costs certainly integrate compensation costs which are externalised by other actors (e.g. supplementary treatment of drinking water because of heavy pollution caused by high nitrogen concentrations in raw water). Once again, efforts shall be made to appraise such costs.

Resource costs, in most cases, will be unknown and estimates will be difficult. This issue can be raised by 2004 in order to increase the knowledge of these costs.

In all cases, uncertainty, partial information, etc. shall be clearly indicated so that all actors are equally informed and this situation can be taken into account when making decisions.

Go further



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3

YOUR NOTES

COMMENTS

Key ideas

The description of financial flows raises 2 key questions:

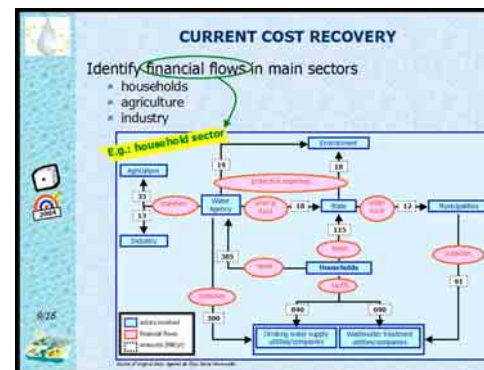
- × who pays what? The description will cover at least household, industry and agriculture sectors so that general balance may be drawn.
- × who pays for what? This will be based on the identification of the costs covered by each group of users:
 - some expenses aim at financing the service provided. E.g. the provision of drinking water
 - others are taxes. E.g. environmental ones, which may finance the water sector, as well as non-affected ones such as VAT which feed States' general budget.

The description of financial flows offers complementary information to the estimates of costs. Indeed costs externalised by one sector (e.g. pollution costs) may be identified when seen as a flow, even though the share of the price per cubic meter referring to this cost can't be appraised properly.

In all cases, the flows will integrate direct payments as well as subsidies and transfers from one sector to the other.

This aspect of the recovery of costs is fundamental as it offers transparency. As long as reality on financial flows is known, debates can be held and fair discussions can run on the present situation (justifications, explanations...) and on possible evolutions in the future. Recovery of costs is not a simple question of rates of recovery.

Go further



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YOUR NOTES

COMMENTS

Key ideas

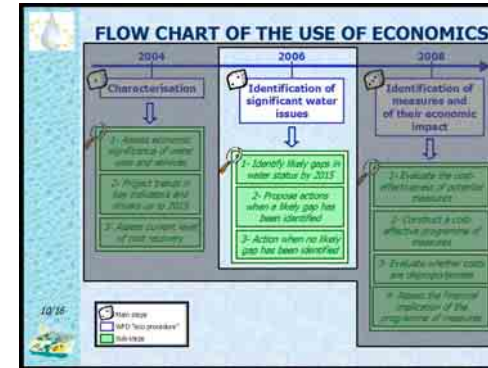
The second step of the "economic procedure" consists in the identification of significant water issues.

This is made possible by the use of all information collected and produced at the previous step:

- × the economic weight of water uses has been assessed;
- × the trends of evolutions until 2015 have been drawn and impacts in terms of water status have been appraised
- × the financial flows have been identified.

It is thus possible to properly consider the question of status (gaps or not with the "good status" goal?) and to start thinking about measures to ensure that the goal will be reached.

Go further



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YOUR NOTES

COMMENTS

Key ideas

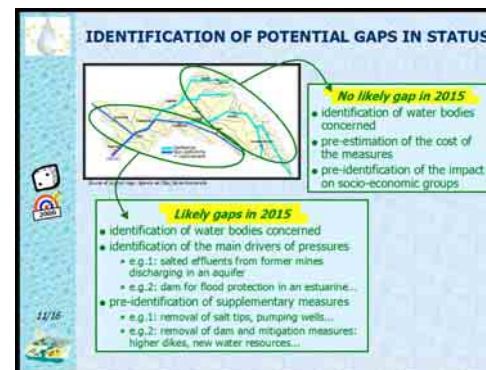
Given all the elements coming from the characterisation stage, it is now possible to estimate the likeliness that water bodies will reach the goal. Two types of situations will be met:

- × no likely gaps in water status by 2015: basic measures will suffice, i.e. namely the implementation of all water directives. Yet, discussions will be necessary in order to determine what actions will be implemented in order to fulfil with all these directives. Comparisons will then be made in terms of cost-effectiveness (see. slide 13/16);
- × likely gaps in water status by 2015: the question will then be to identify relevant supplementary measures that will ensure to reach the goal once combined with basic ones. At this stage, necessary actions will have to be determined. This will require to identify main drivers first (i.e. causes of non-compliance) in order to define proper actions.

Note

In some cases, gaps will appear so likely and potentially so important that specific actions may be necessary. This may path the way for HMWB designation or derogation procedures. Further investigations will be required to determine whether this is the case, particularly on an economic basis (disproportionate costs: see slide 14/16). Besides, some likely gaps, although not so important at first sight, may also reveal as potential cases for HMWB designation or derogation.

Go further



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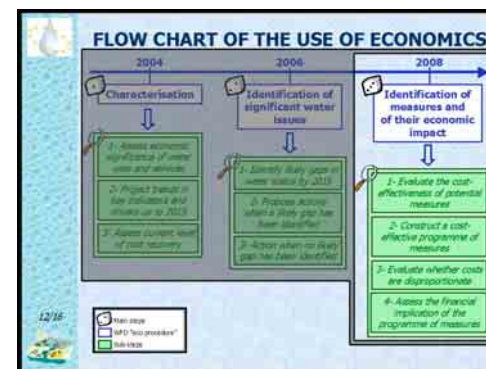
COMMENTS

Key ideas

The third step consists in determining the necessary measures to ensure the compliance with the goal (by 2015 in most cases). It will include the comparison of different potential measures on an economic basis and in the further investigations when specific context is met.

This step will end in the programme of measures.

Go further



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COMMENTS

Key ideas

All potential measures will have to be compared on the basis of cost-effectiveness analyses (CEA) in order to answer the following question: what measures allow to reach the goal at the lowest cost. This will require to use detailed information combining:

- * economic aspects i.e. all elements of costs, as precisely as possible: investment and operation costs, etc.
- * and technical ones i.e. estimates of the effectiveness of the possible measures with regards to water status in 2015.

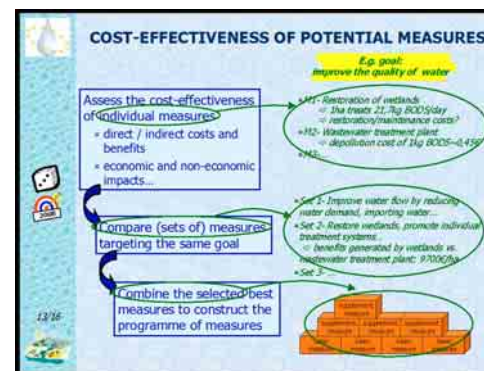
In some cases, lacks of data will appear. Given the importance of the data considered, proxies may be used or specific studies may be carried out in order to use as precise as possible data.

Note 1

Although the WATECO Guidance suggests to compare individual measures first before considering set of measures, such distinction will often be very theoretical as:

- * *full effectiveness of different measures will only be achieved when such measures will be combined*
- * *the design of a given measure will sometimes depend on the implementation of others. E.g.: measures applying to the upper stretch of a river will benefit to all stretches, thus measures necessary in lower stretches will be designed taking these benefits into account. Therefore, it would not be relevant to ignore this fact and to compare measures separately.*

To be continued...



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YOUR NOTES

COMMENTS (CONTINUED)

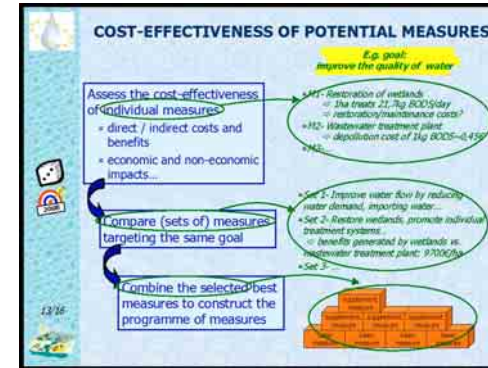
Note 2

Although "only" CEA is required here, the question of the benefits provided by different measures can't be ignored, and will certainly account in the decision-making. E.g.: wetlands and wastewater treatment plants shall only be compared with regards to their respective effectiveness i.e. what level of depollution does each of them ensure? However, the fact that wetlands also provide other types of environmental benefits (e.g. "cheap" water storage both for drinking water production and in case of floods) can't be ignored. Whenever possible (i.e. when not entailing excessive extra-costs), such aspects shall be considered.

Note 3

Figures suggested in this slide come from several studies. They are used as examples of the types of information that may be useful here.

Go further



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YOUR NOTES


COMMENTS

Key ideas

Once the programme of measures is constructed, WATECO Guidance requires its financial impact to be assessed.

Indeed, the implementation of all measures will generate costs. It is thus important to check who is going to bear these costs (households, industry, agriculture?) in order to determine the financial impact of the programme of measures. This may lead to adjustments if the programme. E.g. if water pricing policy in the agriculture sector is to be a measure in itself in order to play as an incentive for sustainable use of irrigation water. However, if the financial assessment of the programme of measures shows that the implementation of some measures will generate a heavy financial burden for this sector, the combination of measures will have to be discussed as direct implementation of the programme would not be affordable in reasonable conditions.

Go further



FINANCIAL IMPLICATIONS OF THE PROGRAMME OF MEASURES

- What are the socio-economic implications?
⇒ *impact on cost recovery*
- What are the financial implications for water users?
⇒ *impact on water prices may lead to re-assess cost-effectiveness of selected measures*
E.g. *pricing policies*
- Are accompanying measures needed for the implementation of the plan?
⇒ *institutional adjustments*
⇒ *legal changes...*

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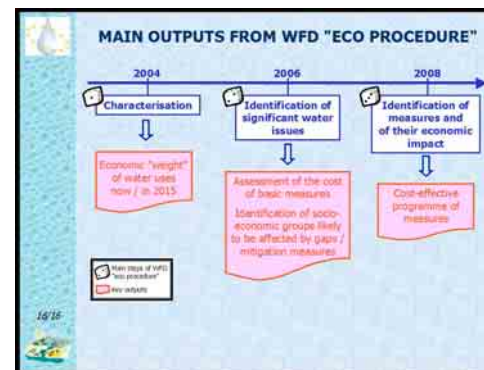
COMMENTS

Key ideas

This final slide is to be considered as a reminder which indicates the outputs of all this "3-step approach".

It gives the opportunity to remind trainees that all these outputs will feed the decision making process but will not be the decision.

Go further



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