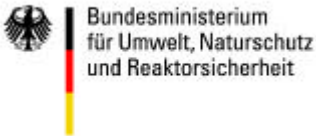


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Annex I: Submitted Questionnaires



Questionnaire on the National Status of Implementation of the Economic Analysis according to the WFD

Name		Address
Institution		
Department		Country
Telephone	Fax	Email

This questionnaire aims at compiling comparative information on the present status of implementation of the economic analysis according to the Water Framework Directive in your country. The information provided by the respondents will form the basis for a background paper to the conference

The Economic Analysis According to the WFD: Status of Implementation – an International Exchange of Experience

on 20 – 21 November 2003 in Berlin, organised by Ecologic on behalf of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. We address you with this questionnaire, as you have been named by the Water Director of your country as the national expert for the implementation of the economic analysis.

In case you cannot provide information on one of the questions, please indicate a person that we could address on this issue. We would also be very grateful, if you indicated relevant literature references whenever you deem it beneficial.

Please return the questionnaire as soon as possible by email to pielen@ecologic.de in order to allow us to integrate your valuable contribution in the background paper.

Thank you very much for taking the time to support our investigation. We are looking forward to your active participation at the conference on 20 – 21 November 2003 in Berlin.

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Belgium

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

At this moment, there is an administrative construction in the Flemish region, VIWC (Flemish Integrated Water management Committee) where all the administrations responsible for water management are represented. The VIWC is responsible for the implementation of the WFD. The VIWC has different Working Groups that are responsible for the different elements of the WFD, for example the working group 'pressure and impact', the working group economic analysis.

In the near future the implementation of the WFD in Flanders is assured by the 'law integrated water management'. It will be the Coordination Commission Integrated Water management, and the different administrative institutions that will be responsible for the implementation of the WFD.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

Until this moment there is no regional guidance document available but this can change in the future. It is possible that for different elements of the WFD a guidance document for the Flemish region will be elaborated.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

Cfr. Question 2

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

As already mentioned the organisation of the implementation of the economic analysis is done by the VIWC. A special working group of the VIWC, economic analysis, is responsible for the elaboration of the economics analysis in the different river basin districts.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

The investigation of the availability of the data, the quality of the data has been conducted by the persons responsible for the elaboration of the economic analysis. Major difficulties that were identified are the non-availability or very limited availability of data and the lack of links between the economic data and the environmental data, in this case the data from pressure and impact.

Until this moment no special actions have been taken but that is still possible in the future. The problem of availability of the data and the problem we are facing is linked to the federal structure of Belgium and the different institutional structures of inventory of the different data. Economic policy is still a federal issue and environmental policy is mostly a regional issue.

The impact on the collection of data is obvious. The economic data are collected at the national level, most of the economic data are at regional level available but... the aggregation level is not always sufficient for the economic analysis for the WFD. The inventory of pressure and impacts data is a regional issue but links to economic data or economic use of the environmental data are almost non-existent.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

- economic data at regional level; total for Belgium

I don't know if it was a real problem but now the 3 regions of Belgium agreed to start from the same data of the National Institute of Statistics and the produced regional economic data. At least we are sure that the economic data for Belgium (the 3 regions) in its totality are representative.

For conducting the economic analysis, the Flemish region used 2 methods of analysis in parallel. Method 1 starts from the economic data and the method 2 starts from the data from pressure and impact (dbase of levy on discharges of waste water into surface water and the levy on the abstraction of groundwater). It is not our aim to choose one of the methods used. The advantage to use both methods is to determinate the 'white spots' and 'gaps' in the available data.

The link between data is, at this moment, the NACE codes. In the PRB Scaldit we will link the different data as much as possible on the basis of the NACE code of the activities.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

As already mentioned is the way of inventory the different data completely different for economical and ecological data.
In the short run no activities are planned to remedy these gaps.

8. Which information will be reported and in which format (table, maps)?

Which information and the way of reporting has still to be discussed in the different international commission (for Flanders are that International Scheldt Commission and the International Meuse Commission). The River Basin District Management plan of the Scheldt and the Meuse will contain an international as well as different regional reports. It is clear that some data will be presented in maps (GIS) as well as in tables, namely Excel and Access.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

In the PRB Scaldit appointments have been about
- a common list of NACE –codes that has to be used for the aggregation of economic data and data from pressure and impacts
- the way of coordination of collecting the different data (the interdependency of the data), in the first place at regional level but as well as interregional level.
For the Flemish common methodologies between the data used for the impact and pressure analysis and the economic analyse have been worked out. Problems and different approaches have been listed up and if possible clarified and a solution has been proposed but this takes time.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

The biggest obstacles to a timely implementation are the collection of the data, the transparency of the collected data, find the data at a level of aggregation useful for the reporting to Europe.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

In the framework of the PRB Scaldit a first workshop on scenario's will be held at the beginning of November. At this moment I have no idea if elements have been worked out.

Concerning the development of economic indicators for the baseline scenario it has to be mentioned that 'scenario building with economic data' it is a federal issue, and belongs to the responsibility of the Federal Plan Bureau.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Until now I don't know very much of the scenario building in the other countries or regions. Until now in my region other persons are working on scenario building (maybe more information after the Scaldit workshop the 3th of November).

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

Cf above

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

The biggest challenge in working out scenario's is the realisation of transparency in the different data that are available, agreement on interpretation of the meaning of 'base line....

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

- How to define base line scenario's. What is meant by current or existing policy. Do we assume that the objectives in the existing directives will be realised or.... do we have to be realistic and quantify the possibility that the objectives won't be realised in time.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

This element will be worked out in the following weeks.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

The regional method will be as close as possible to the WATECO approach but this will be worked out;

20. How is the issue of subsidies (and cross-subsidies) dealt with?

We are aware of the issue of subsidies and cross subsidies but it is not so easy to identify, clarify make the cross subsidies transparent. For example for the public waste water treatment plants it is very difficult to design 'who is responsible' for which costs and pays for what. This is partly due to the construction of the purification plants. As well industry as households are connected to the plants. The transparency of 'who pollutes- what are the costs and who pays for what is not easy to realise i.e. because of the unavailability of data, of the lack of benchmarking ...

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

This analysis has not been started at this moment, although we have a discussion that, for example levies or taxes on discharges into surfaces water and levies or taxes on the abstraction of groundwater, are environmental costs and that they are included in the cost recovery. With regard to resource cost, we don't have enough data available.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

23. Where do you consider methodological exchange as most valuable?

The way of calculating the price, ...

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

No, at this moment we are working on an environmental cost model for the Flemish region and that model will be used in the future to elaborate cost effectiveness analyses for measures.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

The first part of the above mentioned environmental cost model focuses on the already implemented measures by the industry, the households and the agriculture. We are not focusing on the cost elements of the implemented measures. The second part of the study, starting at the end of this year, will focus on 'possible' measures, their costs and their effects on quality of the surface water.

27. In how far has the issue of derogations been addressed?

Not until now

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

Not at this moment

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

- baseline scenario : realistic or idealistic approach of the implementation of existing directives,
- baseline scenario : how do we handle with the eco-efficiency of the industry..
- cost recovery: how do other countries deal with it

31. What would you wish to be the outcome of the workshop?

Cyprus

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Please note: For Cyprus only the information on the general administrative set-up as well as for the presently planned next steps (Part 1) can be included in this analysis, as Cyprus will outsource the work for the economic analysis 2004 to an external consultant service (endorsement is expected for February 2004) so that no progress report could be provided at this stage as the practical work is only starting.

Part 1: General Issues

General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

The whole of Cyprus is to be considered as one River Basin District, made up of all the watersheds.

The appropriate competent authority for the application of the rules of the Directive will be the Minister of Agriculture, Natural Resources and Environment, acting through the Ministry. The two main “agencies” of the Ministry responsible for implementing the provisions of the WFD will be the Water Development Department and the Environment Service. The competent authority will be formally established by 22 December 2003 at the latest, as per Directive’s requirements.

32. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

No national guidance document has been prepared. The implementation of the WFD is expected to be wholly based on the CIS Guidance Documents.

2. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

No special guidance has been prepared for the national implementation of the economic analysis. The economic analysis is to be carried out according to the technical specifications set out in Annex III of the WFD and the Guidance Document developed by the WATECO working group.

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

The organisation responsible for the implementation of the economic analysis in Cyprus is the Water Development Department of the Ministry of Agriculture, Natural Resources and Environment. Cyprus has nominated focal points for the WATECO working group and the IRBM group established under the CIS. The focal points follow the activities of these groups and participate in relevant meetings and seminars, whenever possible.

Available Capacities

4. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

No feasibility study has been conducted. Information and data, including economic information, is collected and maintained for many years. The existing information is being reviewed to take into account the requirements of the WFD, and as necessary new information and data will be collected.

Specific attention has been given to the implementation of the tasks to be achieved by December 2004 (Articles 5 & 6), since their effective implementation is considered crucial to the whole implementation process.

Conformity with the requirements of Articles 5 and 6 of the WFD requires extensive research, expertise and manpower. However, due to the limited resources of the Water Development Department, which is the Department responsible to carry out these tasks, it is deemed necessary to contract this work out. A Specialised Consultancy Services contract aimed at meeting the requirements of Articles 5 and 6 of the WFD, including the economic analysis, is to be procured and signed by February 2004. The work is planned to be completed by 22 December 2004 at the latest, as per Directive's requirements.

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

We would like the workshop to address the issue of availability of economic information, including environmental and resource costs information. In general the issues to be addressed and discussed at the workshop, as set out in the provisional programme, seem fine to us.

31. What would you wish to be the outcome of the workshop?

To have a clear view of what the other countries are doing (approaches chosen, experiences etc.), and the application of these experiences in Cyprus.

Czech Republic

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

Ministry of the Agriculture
Ministry of the Environment
We have the Implementation plan of Water Framework Directive where are separate function include date for fulfilment.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

We have the national guidance document. This document was prepared in twinning project CZ 2001/IB-EN-01 – Implementing the Water Framework Directive in the Czech Republic. Now this document is in the approval phase.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

We have the proposal national guidance for economic analysis but now this document is in the approval phase.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

Ministry of the Environment. We have one working group for implementation of WFD. Peoples are from different administrative levels.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

Difficulties are quality and availability data. We have more institution which have data for economic analysis. For example Czech Hydrometeorological Institute, Water Research Institute, Czech Statistical Office, Ministry of the Agriculture, River Basin Boards - state enterprises.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

We have needs data in the level regional/administrative but we don't have data for areas of river basin. Now we negotiate with Czech Statistical Office about this problem.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

Negotiation between ministry and Czech Statistical Office. Comparison GIS map for regional segmentation and GIS map for river basin (we have 8 area of river basin and 3 international river basin).

8. Which information will be reported and in which format (table, maps)?

In the Ministry of the Environment is special unit for reporting – it's Unit of Statistics Environmental.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

In the Czech Republic exist Water Research Institute (www.vuv.cz). It's institution of Ministry of the Environment. This organisation co-ordinate implementation of WFD but under Ministry of the Environment – Department of Protection Water. This institution prepare scholarly documents.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

I think that for different analysis it's availability data and co-ordination between stakeholders.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

Methodological document prepared twinning team and currently this document is in the approval phase.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Implementation of WFD is important and global point for protection of water. I think that during implementation of WFD we will be different problems because it's international question.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

The Guidance WATECO is basis for implementation of economic analysis but there are limitations concerning availability and quality data.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

In the Czech Republic we have more scholarly institutions but I think that we need assessment of explicit direct for co-ordination of implementation of WFD.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

I think that it's part about measures concerning standard ecological conditions. No economic questions because economic is special for each of country.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

Only analysis currently in legislation and in private sector which operate the infrastructure in the water management. It 's of course with estimation some indicators.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

WATECO Guidance is basis for implementation of WFD in the Czech Republic.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

The monitoring subsidies from public sector is provided Ministry of the Finance. We have sufficiently data about support in the environmental field.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Ministry of the Environment works in the field of environmental accounting and we site for this problematic is <http://www.env.cz/env.nsf/ep?OpenFrameSet>.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

Members from Ministry of the Environment participate in international and European workshop or working group where their present results from the work of Ministry of the Environment in the field.

23. Where do you consider methodological exchange as most valuable?

I think that the important for exchange experiences is part of practical used of methodology national guideline.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

For each of project we do cost-benefit analysis. I think that 's basis for further work.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

(In the annex)

27. In how far has the issue of derogations been addressed?

We have more institutions for implementation of WFD and it's question of co-ordination between theirs.

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

- United methodological document for international river basin,
- special methodological document for cost – effectiveness analysis,
- we have to do economic analysis only for national level?,
- relation between availability data and economic analysis,
- position of institution EUROSTAT and availability data for area of river basin.

31. What would you wish to be the outcome of the workshop?

I'm sorry but it's first workshop in this field which I will participate.

Estonia

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

General responsibility: Ministry of the Environment. Water management issues are taken care of in the water department of the ministry. On regional level there are departments of ministry in each county. Departments arrange the implementation on a county level. The ministry is supported with technical information from the Information Centre, which the institution under the ministry.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

The national guidance document was prepared and adopted for use in 2001. Further revision of it is planned for 2005.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

NO

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

The responsibility is on the water department, which shall use consultant services for that. Special working group has been established. Involvement takes place in all levels.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

No, the main difficulty is the lack of relevant data.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

The problem was who and how it should be done. It was solved, we decided that we shall deliver most of the tasks to the consultant company.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

It is difficult to get the data on price of water (of what the price consists of, what does it cover). To remedy it there are two possibilities to do it. Either to put strengthen the requirements concerning the water services or organise a general questionnaire were all the details could be specified.

8. Which information will be reported and in which format (table, maps)?

The main information which is currently being reported is the data on water use, mostly on tables.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Yes, it is just coordinated, through ministry and its departments in each river basin.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

Exchange of relevant information and checking the reliability of submitted information.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

No

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Yes, the awareness of different problems in other countries exists.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

In principle we try to follow the Wateco approach, with adjustment to national conditions.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

Reliability of projections, since some big water users are undergoing rapid development which results are unknown.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

-

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

No national approach

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

In principle, we try to follow the wateco approach.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

We have not dealt with it specifically.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

-

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

-

23. Where do you consider methodological exchange as most valuable?

-

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

For some regions only

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Yes
Non-traditional –no

27. In how far has the issue of derogations been addressed?

No decisions have been taken yet on derogations

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

-

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

Mostly availability of data, and which data to consider, the reliability of data, etc

31. What would you wish to be the outcome of the workshop?

Intensive exchange of information, more practical recommendations.

Greece

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

According to the existing legislation, the coordination of the activities related to the water resources management is a responsibility of the Ministry of Development. The water quality supervision and the drinking water supply to the major cities of Athens and Thessaloniki is a responsibility of the Ministry for the Environment, Physical Planning and Public Works. The Ministry of Agriculture is responsible for the agricultural uses of water and the Ministry of Interior, Public Administration and Decentralization is in charge of the drinking water supply (except of the cities of Athens and Thessaloniki).

According to the new legislation – transposition of the Water Framework Directive that will be adopted soon by the Greek Parliament, the Regional Water Directories that will be established within each Water Region in the country, will have the responsibility of organizing and coordinating water policy activities within each river basin district. They will be supervised by a National Water Service, the governmental authority with the overall responsibility for establishing the water policy.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

A Greek Guidance Document for the implementation of the Water Framework Directive is foreseen to be available in the near future. This document will include guidelines for producing management plans and thematic working papers (e.g. for the national implementation of the economic analysis).

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

A specific Guidance Document for the national implementation of the economic analysis will not be prepared. The guidelines for this issue will be included in the national Guidance Document for the implementation of the WFD.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

At present, the Ministry of Development is responsible for the establishing of the water pricing policy and the implementation of the economic analysis at general. A special working group on this issue has not been formed.
The Municipal Enterprises for Water Supply and Sewage are, by this point, in charge of implementing the water pricing policy in the country.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

An economic analysis according to the WFD has been carried out in Corfu Island in the framework of the Corfu Pilot Project.

The main difficulty met, during the implementation of this Project, was the data collection and availability. It was also realised that considerable efforts are needed in the country in order to be able to report the results of the economic analysis in time, by the end of 2004. Although only a selected part of the requirements of the WATECO GD was tested, it was obvious that:

- Data availability is fragmented and not very reliable
- Methodologies and capacities needed for many parts of the economic analysis are not available
- Capacities and resources within the water administration are not sufficient

The following actions have been identified as necessary in order to solve the problems:

- Immediate beginning of a scheduled campaign to the target groups in all regions, in order to improve the data availability and quality
- Acceleration towards the establishment of the new regional and national water authorities, according to the new administrative framework, deleting existing overlapping of responsibilities
- Development of water resources management systems and tools.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

These problems include:

- Low and spatially uneven pricing within each sector, and differentiation in pricing among sectors.
- The recovery of operational costs only for water supply
- The existence of significant subsidies
- An overlap of responsibilities among the relevant authorities

These issues are all addressed in the new legislation on water resources currently being proposed, which will incorporate the WFD principles into the national legislation.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

The most important gaps in data and information are:

- The incomplete collection of available data
- The quality of available data, which are often unreliable or obtained from unreliable sources
- The dispersion of existing data and information among several relevant authorities

The new legislation is expected to bring about a general overhaul of the system and the relevant authorities, and improvements in administration; the quality and availability of data and its collection will also be improved within this framework.

8. Which information will be reported and in which format (table, maps)?

The precise information that will be reported has not yet been specified, however the data will follow the working group specifications and will be primarily in table format.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

The analysis has not yet been undertaken, and will be underway within 2004.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

The biggest obstacles to the timely implementations are the low data availability and quality, and the current transfer of authority due to the new legislation.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

There is not yet a documented methodology on the development of a Baseline scenario. Methodology development will be underway in 2004. A programme for the development of water resources management systems and tools, concerning all the country already exists. The programme is divided regionally in 4 projects, with respect to the existing water districts and aims to the development of Water Resources Management Plans.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Not Applicable - the methodology has not yet been developed.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

The approach that will be chosen will closely follow the WATECO approach.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

The biggest challenges in this task are the limited availability of projections and the quality of the available data. The necessary next step is the development of a methodology, based on the approach documented by WATECO.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

Exchange will be particularly useful on the development of a suitable methodology.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

A national approach has not yet been agreed on. The national cost recovery approach will be formulated under the specifications of the new legislation on water resources, when that becomes effective.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

The approach that will be formulated will be based on and is expected to follow the WATECO approach.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

The formulated approach will address the issue of subsidies, while at the same time maintaining all necessary support to the national agricultural production.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Under the current framework only operational costs are addressed and internalised in the existing economic instruments. The new legislation on water resources places considerable emphasis on the recovery of environmental and resource costs. The cost recovery approach that will be formulated is expected to include appropriate methods for the assessment of these costs.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

The methodology development has not yet been initiated. We are aware of the approaches used in other countries, but have not yet been involved in methodological exchange.

23. Where do you consider methodological exchange as most valuable?

Not Applicable – we cannot have an informed opinion at this time.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

The question is not clear and cannot be answered at this point. A cost benefit analysis of what procedures/actions?

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Availability of data on traditional measures is generally sufficient; there is somewhat less data available on non traditional measures.

27. In how far has the issue of derogations been addressed?

The issue has not been addressed at this point.

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

The developments in other countries regarding the cost effectiveness analysis will be taken into account in the development of the methodology that will be followed in Greece.

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

1. What is the status of implementation in all the EU countries and what are the realistic expectations with respect to a timely implementation?
2. What is the current status of Data Quality and Availability in all EU countries and how does that influence implementation?

31. What would you wish to be the outcome of the workshop?

A realistic assessment of the status of implementation of the WFD in all EU countries with respect to the economic analysis, and potential points of attention in the development of the relevant methodologies.

Hungary

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

In the administrative structure of the Hungarian Government Ministry of Environment and Water (MOEW) is responsible for implementation of Water Framework Directive. In 2001, an Inter-Ministerial Committee was set up for implementation of WFD. In the Committee, participate senior representatives of the interested ministries, and the interested departments of MOEW, holding responsibility for the different aspects of the WFD. The relevant Governmental Decision – presented in Annex – stipulates the responsibility of implementation for WFD. A general statement is that **MOEW with involvement** of Ministry of Agriculture and Regional Development, Ministry of Interior, Ministry of Economy and Transport and Ministry of Finance. For start of the work the relevant division of MOEW is nominated, the Department of River Basin Management.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

National guidance document has not been prepared yet.
Government Decree on river basin management plans (including requirement of economic analysis) will be accepted until 22, December, 2003

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

Economic guidance document has not been prepared yet.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

Carrying out economic analysis is a task #7 of the Governmental Decision. There is a economic analysis working group has been formed from representatives of the ministries of agriculture, interior, economy, finance, as well as representatives of regional water directorates, chaired by MOEW. This group is positively an appropriate forum for discussing, coordination. However, the unit that is going to be in charge of collecting relevant information for the economic analysis has not yet been specified.

The most probable organisation could be either the regional water directorates or the newly formed background institute of MOEW.
At present there is consultancy contract for collecting basic data and information on local/regional/national level for economic analysis.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

Prefeasibility study was made in 2002 (ÖKO Inc) that investigates the availability and quality of data, information, methods, knowledge and expertise. On the basis of this study working plan was accepted by the economic analysis working group. Another important study: UNDP/GEF Danube Regional Project: Applying EU Economic Guidelines for the Economic Analysis to the DRB. National Scoping Study Hungary 2003 Klara Tóth.

Hungary has rich experience in water management and always incorporated the most important international trends, scientific and technical outcomes. Water resource management has long tradition in Hungary. Observations and data collection on the quantity and quality of the water resources have been always considered as important activities to assist the water management efforts.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

Hungary's whole territory belongs to DRB – in this context, the data readily available at national level are suitable for conducting economic analysis. National sub-unit scale is the national data.

Hungary's administrative set up consists of seven statistical regions. Those regions divided for counties (3 or 2) and numbers of micro-regions. General indicators are available in national statistics for all referenced levels.

Disaggregate the national data according hydrological boundaries are possible, but very costly. Individually need to decide whether the processing is crucial, especially when the regional data don't differ significantly.

In Hungary, the water sector is broken up to 12 water districts according hydrological boundaries. Data collected by water authorities can be deemed readily available for a hydrological division.

In Hungary has not been decided upon at which scale the economic analysis will be conducted that carries significant uncertainty in assessment of available information in terms of scale issue.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

The following key areas (respectively indicators) are identified likely to be a gap in information availability and where difficulties were encountered in gathering the necessary information on the required parameters.

GAP: A standard list of water uses for Hungary is not yet elaborated. MEASURES: Now there is a preliminary list of typical water uses, based on Econ ESG list.

GAP: There is no complete statistics on self-supply; especially population's self-supply is unknown. Leisure fishing and windsurfing data can only be estimated; MEASURES: Gap of information could be eliminated with expert assessment, because it doesn't represent a significant volume.

GAP: In some cases there are more than one information source is identified, not clear which one is preferred in order to provide a unified approach. MEASURES: the responsible ministry for conducting economic analysis needs to decide about preferred information source.

GAP: General socio-economic indicators are the key areas, for which restructuring according to hydrological boundaries seems very costly. In the same time these indicators available national, regional, county and micro-regional level, which are appropriate basis for reliable estimation. MEASURES: Need to be set up a method for appropriate assessment of indicators on river basin/sub-basin/district, if the restructuring of statistical data starting from settlement statistics occurs disproportionately costly.

8. Which information will be reported and in which format (table, maps)?

It has not decided yet. The minimum requirement is the format of Econ WG of ICPDR. On the national level it can be fulfilled.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Preparing the basic study and coordinating with IMPRESS working group have to be carried out by a specialised institution. Recently due to the restructuring of water sector administration a firm proposal for who, which institution could be responsible for preparing the basic study for Economic analysis cannot be made. Probably new background institute will be responsible for the river basin management plans (including economic analysis). Now there is an informal contact between experts of IMPRESS and Economic Analysis.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

There are in general enough information on water management and economy, but these information are in different hands, owned and handled by different institutions. Therefore collecting data and establish new comprehensive database is very difficult task.
There is a contract between MOEW and an consultancy firm on collecting data and making database for economic analysis.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

There is not a methodology on preparing BS. There are some pilot project, which deal with BS of the specific river basin (e.g The Pilot River Basin project focuses on the Szamos/Somes international River Basin located in partly Hungary and partly in Romania.).

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

The following key areas were identified where is likely to be a gap in projection availability and quality and where difficulties were encountered in gathering the necessary information on the required parameters (NDP/GEF Danube Regional Project: Applying EU Economic Guidelines for the Economic Analysis to the DRB. National Scoping Study Hungary 2003 Klara Tóth).

In area of industrial policies were particularly hard to find information. The standpoint of MOET is that the sector practically fully privatised. Interference from side of government is not possible.

For individual industrial branches, tourism, service sector there are no particular institution is responsible for making projections.

The available sector programmes in agriculture and in water sector developed with different approach and methodology, therefore difficult to combine them.

There are high number of fragmented programmes in water sector with different period of projections and various starting date. Some of them with low programme value while others with high.

The existing programmes end latest at 2010, there is no projections by 2015. The development on the field of water services could be developed easily, but difficult to foresee the development in field of industry and agriculture.

The Government Programme is the only sufficiently consistent programme covering all areas of development of economy and society, but this projection is only for 4 years. General water pricing policy is missing.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

Hungary follow the WATECO approach.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

The biggest challenge is the availability of economic, social regional development projections. Next steps are:
Set responsible institution, who deals with preparation and carrying out economic analysis and as a sub-task to it development of BLS. (Possibly one of the recently forming background institutions)
Provide human and financial resource for carrying out the tasks.
Define the involved institutions (within the structure of nominated ministries)
Develop an overall baseline scenario for the water sector; define the major indicators that have to be assessed for an economic analysis.
Elaborate the (incentive) water pricing policy.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

Relation between economic, technological development and water use, water management.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

The operation and maintenance costs with the replacements will be covered by the service incomes taking into account the total period of operation. The main elements of incomes and costs are as follows:
Current water price (if necessary, a range of prices including minimum and maximum prices should be reported – furthermore the prices should be distinguished between water supply and wastewater)
Price level

- Agriculture/irrigation
- Industry
- Households

Price structure (the price structure should be discussed keeping in mind different water quality standards; i.e. this aspect of different quality standards has also to be considered when the price levels are studied)

- Agriculture/irrigation
- Industry
- Households

Costs

Financial costs of water services

- a) Investment costs
 - Historical costs
 - Replacement value
 - Future investment costs (which could be part of the current water bill)
- b) Operation and maintenance
- c) Administrative

Internalised environmental and resources costs of water services

- Charge on water abstraction
- Water load (emission) charge (after 2004)

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

Hungary follow the WATECO approach.
 The key areas (respectively indicators) where **gap in information** availability is identified during survey are the following:
 There are several sources of information on water prices, costs and subsidies. A good quality and sufficiently detailed water statistics are available on costs, but service providers below certain size are not covered.
 The national investment data are extremely fragmented, due to complicated multi-channel state subsidy system. There is no report on municipalities' investment in water statistics.
 In order to assess the cost recovery information on revenue also needed.
 There is no attempt has been made to evaluate environmental and resource costs in water sector as it is understood by Guidance document. But there are study or research on possible methods on monetizing environmental value of the water.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

Subsidies (information regarding subsidies should be distinguished between investment subsidies and O&M subsidies)

- Government
- EU
- Region

Cross-subsidies appear between the different economic sectors within a frame of a public service provider, who do services for industry and population. From accounting data, the sum of cross-subsidy could be defined. In other cases, the amount has to be assessed.
 In Hungary O&M subsidies decreased radically, with complete elimination of the automatic price subsidy in 1992. Since 1993 household charges are equal to the production charges in general. Further increase of household charges might generate grave social stress, the Government assures a system of subsidies in order to eliminate the impact of the extremely high prices on the population.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Internalised costs through economic instruments:

In Hungary there is water abstraction charge. The abstraction charge is levied on the permitted quantity in general and on the quantity of water extracted in the business sphere. Every user (industry, public works etc.) must pay it. The aim of the charge on water abstraction (water resources fee) - which exists from 1974 – is to promote the protection both the quantity and quality of water resources. This is an income for the Government (Water Fund) still recent times.

The bill of "environment load charges" is before the Hungarian Parliament. Water load (emission) charge will be introduced in 2004.

Abstraction charge and water load charge are (will be) separate cost element of the water service companies and other water users and polluters.

Assessment environmental and resource costs

1. Direct assessment
 - Changes in environmental quality
 - Economic value/willingness to pay
2. Costs of preventive and mitigation measures
 - Implemented in existing programmes
 - Required for restoring good quality

The water scarcity is not typical for Hungary. If we consider resource cost as the resource scarcity cost, it can be assumed that resource costs in Hungary less significant.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

There are some study or research on evaluating environmental value of water used economic value/willingness to pay method (e.g Balaton), but these studies imed different purposes. There is no study or research on possible methods on benefit transfer. There are no methods for assessing cross subsidies between economic sectors.

Need to develop and make operational methodologies for assessing environmental costs and benefits. There is a need to develop and make operational methodologies for benefit transfers. There is a need to develop and make operational methodologies for assessing cross subsidies between economic sectors. Need to collect and evaluate approaches used in other countries.

23. Where do you consider methodological exchange as most valuable?

The greatest gap in information availability is in the field of environmental and resource costs. Therefore methodological exchange most valuable in the field of assessment of environmental and resource. Need to find relatively cheep and quick methodology.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

Not yet.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

There is sufficient information for the traditional measures. There are several sources of information on cost of measures. The available normative for traditional measures often lead to overestimation the investment costs. Information is available in sufficient quantity and quality for the following group of indicators:

Costs of traditional measures

- Investment costs (distinguished between the different sectors, for example between water services and also investment costs by industry)
- Operation and maintenance costs (only water services)

There is no enough information available for non-traditional measures. It is a difficult task to assess the reliability and quality of the information gathered for non-traditional measures.

Methods of cost-effectiveness calculation are not tested in practice.

27. In how far has the issue of derogations been addressed?

Issue of derogations will be based on the preparation of the water basin management plans. There are some pilot projects only.

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

Need to strengthen international cooperation in this field.

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

Methodology of preparing and implementation of Baseline Scenario.
Treatment of partly internalised external costs and in general treatment of environmental and resource costs.

31. What would you wish to be the outcome of the workshop?

Practical suggestions and methodologies about BS and environmental costs issues.
Knowledge about useful international experiences.

Latvia

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

The "Law on Water Management" (in force from 15.10.2002.) specifies the responsibilities in the WFD's implementation process. There are 4 RBDs designated in Latvia.

The overall responsibility for the implementation lies on the Ministry of Environment.

Other institutions involved in the process are:

- River Basin Authorities (to be established under the State Geological Survey) – elaboration of the RBM Plans
- Latvian Environmental Agency - development of monitoring programme and WFD reporting to European Union
- State Environmental Inspectorate – supervision of implementation of programmes of measures and achievement of environmental quality objectives
- Cabinet of Ministers – approval of RBMPs (will become binding incl. environmental quality objectives) and adoption of relevant legal acts (typology, classification, reference conditions etc.)
- Minister of Environment – approval of Programmes of Measures for RB Districts

The River Basin Authorities were supposed to be formed on 1st January 2003, but the establishment was postponed due to limitations in state budget until the 1st January 2004.

While institutional structure is under development, practical work in the field of implementation is carried out by few projects:

- Demonstrational Latvian-Swedish Daugava River Basin Project (2000-2003) is working with WFD implementation in Daugava RBD (42% of Latvian territory). Its objective is to elaborate draft Daugava RBMP and to study the gaps and possibilities to implement WFD in Latvia. Important note – the project has started and worked before CIS guidance documents were adopted. So it is innovative, however, after guidance documents became available the coherence of project approaches with them was checked and it was more than satisfying - there are parts missing, but the chosen approaches appeared to be very much in line with guidance documents.
- Senter International financed project "Assistance in carrying out the Economic Analysis according to the EU WFD in the River Basin Districts of Latvia" (2003-2004) – focusing on economic requirements of WFD and development of manual

for economic analysis for Latvia by adopting WATECO guidance to state specific conditions

- Carl Bro Latvia Project elaborates drafts for Regulations of Cabinet of Ministers for surface and groundwater typology and status of water (ecological classification), monitoring system and programmes and integrated RB management information system.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

No, such official document has not been developed.
At the same time experience gained by Daugava Project in the field of practical implementation of WFD will be used for other RBDs.

2. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

Not yet, but it is under construction within the framework of Senter International financed project “Assistance in carrying out the Economic Analysis according to the EU WFD in the River Basin Districts of Latvia”. The project started in February 2003 and will go on until July 2004. It deals with economic elements only and it is based on WATECO guidance. One of the project’s tasks is to develop the manual for economic analysis, by adopting WATECO guidance to the Latvian situation.

Taking into account time frame, the project was supposed to help River Basin Authorities to comply with 2004 requirements – economic significance of water uses, cost recovery of water services and baseline scenario, assisting in real work. Thus focusing manual mainly on “after 2004” requirements (however still elaborating more on baseline scenario in order to improve it later on), otherwise tackling cost-effectiveness, cost-benefit analysis (new modifications), derogations, designation of heavily modified water bodies.

Due to delay in the establishment of River Basin Authorities the project itself will try to deliver partially the year 2004 products – the assessment of current water pricing policies and cost-recovery has been already carried out, economic significance of water uses and baseline scenario are under development.

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

The overall responsibility of WFD implementation is on Ministry of Environment.
In practice the following organizations/ parties are involved in the implementation of economic analysis:

- Ministry of Environment and State Geological Survey (supervisors and beneficiaries)
- Daugava Project
- SENTER project

Available Capacities

4. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

No official feasibility study has been carried out.

But partially these issues are covered by the work of Daugava project. While elaborating draft RBM plan for Daugava questions of required information, its availability, accessibility and quality were addressed, gaps and difficulties identified and presented to the Ministry of Environment.

The major difficulties regarding information are:

- incomplete datasets and lack of data (significant part of information doesn't exist at all – some information has never been gathered),
- poor communication between different institutions on the same datasets, exchange of information
- economic and financial information is often not accessible due to confidentiality reasons or hasn't been statistically gathered because there was no demand for such information in the past (for example – there is no list of water use tariffs per municipalities available at all, because tariffs are not an entry information in statistical reports)
- scale of information - information is stored not at RBD scale, but according to districts and municipalities

Human resources and expertise in the field of environmental economics are also difficult and important issues.

No prioritisation or planning of actions required is carried out by the Ministry.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

5. Which problems that were identified in the beginning could be resolved? How?

Senter project is working with economic significance of water uses. The solutions of problems faced will be known later.

The first attempt to assess economic significance of water uses in Daugava project was more general approach and was dealing with overall sectors and impacts in river basin – industry, households and agriculture, without distinguishing sub-sectors. Using Daugava project experience Senter project will go a step forward to deal with sub-sectors as well and acquire information at more disaggregated scale.

6. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

The most difficult is to acquire both pressures and impacts information and relevant socio-economic information at the same (compatible) disaggregation level. For some water uses it is less complicated providing correctly formulated request for information from different institutions (e.g. water abstraction, wastewater discharge), for some water uses it is more difficult (uses, benefiting from good water quality – socio-economic information on water related tourism is hardly distinguished from overall tourism statistics)

Another important obstacle is quality of information. Until now it was not really used for decision-making but mainly for official reporting. The more disaggregated information is required the more uncertain it is.

However there are also objective reasons for such situation and situation is and will be improving. That is why for the analysis of the economic significance of water uses the existing and available information is used and later on updated and improved.

7. Which information will be reported and in which format (table, maps)?

The approach chosen by Daugava project to describe Daugava River Basin: Information on pressures as far as possible on digital maps (e.g. wastewater discharges, water abstraction points) and written report format (information exists per sub-sectors as well)

Socio-economic data – population, Gross Domestic Product, sectors added value, employment, households income in the format of written report – tables, Excel, maps (information per economic sectors)

All abovementioned analysed per economic sectors in River Basin District – industry, agriculture and services.

Senter project will come a step forward and disaggregate information in economic sub-sectors – economic sub-sectors per river basin districts for both pressures and socio-economic information

8. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Practically in both Daugava and Senter projects joint teams (technical and economical specialists) do the work together. It ensures as much coherence between pressures and impacts and economic analysis as possible. For example preparing the requests for information for pressures and socio-economic indicators to different institutions the scale and disaggregation levels were coordinated in order to be able to correlate this information during the analysis.

9. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

10. What is in your opinion the biggest obstacle to a timely implementation?

It can be delayed because of the inertness at State level (still coming establishment of River Basin Authorities), lack of human resources deployed for the job, lack of finances to assist the State Geological Survey, lack of support during the information acquiring process.

Baseline Scenario

11. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

No, such official document has not been developed.
Practically – there is the experience of Daugava project assessing the risk of failure to meet environmental quality objectives
Baseline scenario will be addressed as part of SENTER-project and it will use WATECO guidance. The results (including method proposed) will be presented to the Ministry.

12. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

The topic (development of baseline scenario) will be more specifically addressed in Senter project.
As for Daugava project experience – the first attempt has resulted in the extrapolation of phosphorus and nitrogen loads tendencies (the main pressure) and taking into account future improvements due to investments. While studying available plans and strategies for the different sectors, the conclusion was that there is a lack of coherence between different levels and sectors planning. There is not yet national strategy for economic development, which could give the idea of future development and priority sectors and corresponding pressures.
Presuming, developing the baseline scenario the biggest problem seems to be uncertainty issue of the projections, use of different forecasts for different driving forces and then merging them together, disaggregation of forecasts to the RBDs scale.
Awareness of other experiences and case studies comes through WATECO guidance and conference materials (e.g. Lille conference proceedings).

13. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

SENER project will work on baseline scenario in line with WATECO guidance document
Daugava Project has used for now extrapolation approach and inclusion of limited factors (future investments) as first attempt to address baseline issues.

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

15. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

Biggest challenge: construct co-ordinated projection at RBDs and surface water body levels, include impact of EU-membership on projections. Availability and reliability of forecasts – all this connected to the capacities to do the work.

16. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

Construction of RBD scenario based on any or scattered projections of different driving forces. New candidate countries specific - impact of EU-membership

Cost-Recovery

17. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

No national approach has been agreed on.
Experience in assessing cost-recovery from Daugava Project and Senter project.

18. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

SENER project in principle is focused on WATECO guidance, so the approach chosen is linked as closely to WATECO as possible.
Possible divergences connected to the availability of information.

19. How is the issue of subsidies (and cross-subsidies) dealt with?

The issue analysed in the form of description of subsidies (investment grants in water infrastructure) and sector cross- subsidies (e.g. households tariff is less than industries), affordability at household level (social subsidies with regard to low affordability). Not significant quantifiable information on cross-subsidies is available.

20. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Natural Resources Tax is designed for internalising environmental and resource costs. The tax is part of the operational costs (and thus tariffs) charged to the inhabitants. The question is whether the NRT-rates represent real environmental and resource costs or

it has only financing function. Description and analysis of NRT is included in the assessment of cost-recovery.

21. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

It is complicated to assess if current rates of the Natural Resources Tax do correspond with real environmental and resource costs

22. Where do you consider methodological exchange as most valuable?

Most valuable: cost aspects not linked to urban water/sewerage services. Agricultural, fishery, tourism aspects

23. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

24. Has a cost-benefit analysis been conducted?

Not yet, but will be as part of the Senter project case study on new modifications

25. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Information with regard to traditional measures in urban sector (big water infrastructure projects) is available. Information on small WWTP is less known.
Information with regard to non-traditional measures: not local but perhaps adapted
foreign information sources can be used as a first estimate

26. In how far has the issue of derogations been addressed?

Not yet, but will be as part of the Senter project case study on new modifications (quality decrease from high to good)

27. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

Linked to what is described in the WATECO guidance document

28. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

29. Which issues would you like to see addressed and discussed at the workshop?

Generally the problematic points for Latvia a described above. Do other (candidate) EU Member States have similar problems? If YES how are they dealing with it? Possibility to stand more together and develop a communal strategy?

30. What would you wish to be the outcome of the workshop?

See point 31.

Luxembourg

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

The department of water management from the interior ministry is responsible for the WFD implementation in Luxembourg. The director of this department is the head of the persons involved in the national WFD implementation. Persons of other ministries or departments are obviously also involved!
For different jobs the department appeal however to external assistance.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

Due to the size of our country it is, until now, not foreseen to prepare any national guidance document. That's why, until now, no guidance document has been prepared. As part of the Rhine river basin our country aligns his studies normally with French or German national guidance documents.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

No special guidance has until now been prepared for the national implementation of the economic analysis.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

Our office has recently been declared responsible for the implementation of the economic analysis in Luxembourg.
Periodically a briefing with the department of water management will be undertaken to inform them about the state of the economic analysis.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

No feasibility study has been conducted until now, but will be done in the next months at the same time than the collection of data necessary to the economic analysis. No major difficulties were therefore identified.
Priority is given to know the prize of the water actually in application as well as the costs of the waste water treatment and the production of drinking water.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

The economic analysis is at its beginning. That's why, until now, only problems have been identified, but not resolved.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

At the beginning of data collection, the most important data and information gaps were not yet identified.

8. Which information will be reported and in which format (table, maps)?

Until now the superficial waterways and water bodies are defined: maps and also a table with the different water bodies are available.
For the quality of the superficial water, data collection is in work and first results are expected soon.
It is foreseen that the data could be integrated in a geographical information system.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

As part of the economic analysis the analysis of pressures and impacts will be directly integrated in this process and carried out by our office. Only the parameters of interest for the economic analysis will be collected.
First of all the analysis will be conducted at the level of the water bodies: it is possible that the scale of the analysis will later be changed.

Priority is given to know the prize and the costs of drinking water and waste waster. Afterwards the most important actors (industry, agriculture and population) will be analysed to know their impacts on the water quality and to define, according to the polluter-payer principle, their influences on the water-prize.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

The biggest obstacle is the huge amount of data to collect.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

There is no nationally accepted and documented methodology and no development of such a methodology is currently underway.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

No methodology has been developed until now! Our country is aware of approaches used in other countries and will, if they are adapted and feasible for Luxembourg, also choose these approaches. But no methodological exchange on this issue has until now been undertaken.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

Our approach must still be brought in accordance with the WATECO approach. Until now only data collection to know the prize and the costs of drinking water and waste waster is undertaken.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

The biggest challenge is to reduce the data to collect by foreseeing which parameters in the model are really necessary. It's not worth to collect data which is not needed!!! Anyway, the biggest challenge is neither the construction of this model nor the data collection: the biggest challenge will be to look that all the concerned actors accept a water-price different for each one, according to the polluter-payer principle!

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

A near collaboration is desirable in frontier projects.
Exchange is useful on the methodology to define the projects of the baseline scenario.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

The cost-recovery approach could be based on the formula: $P = F + a P_a Q_a + b P_b Q_b$, where the parameter a is defined by the use of the water and the parameter b is determined in function of the pollutant charge of the waste water.
But there is no definite decision taken.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

As for the baseline scenario, our approach must still be brought in accordance with the WATECO approach.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

The issue of subsidies is not yet dealt with.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Until now environmental and resource costs are ignored in the economic analysis, because they are so difficult to assess.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

As for the baseline scenario, no methodology has been developed until now! Our country is aware of approaches used in other countries and will, if they are adapted and feasible for Luxembourg, also choose these approaches. But no methodological exchange on this issue has until now been undertaken.

23. Where do you consider methodological exchange as most valuable?

Methodological exchange is important on how to integrate these costs in the water-prize.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

Until now no cost-benefit analysis has been conducted!

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Sufficient information for projects of interest is available! However, the little projects are unknown and must still be determined.

27. In how far has the issue of derogations been addressed?

The issue of derogations has not yet been addressed!

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

No developments in other countries linked to the cost-effectiveness analysis are until now taken into account.

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

I would like to see addressed and discussed following issues:

- criteria of the water-prize
- integration of the impact of the different actors on the water quality in the water-prize
- model calculating the water-prize
- definition of the projects of the baseline scenario

31. What would you wish to be the outcome of the workshop?

A model calculating the prize of the water is necessary and must be developed! By its definition the amount of data to collect could be reduced.

Poland

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

First level: Ministry of Environment,
Second level: National Water Board,
Third level: Seven Regional Boards of Water Management in Warszawa, Krakow,
Gliwice,
Wroclaw, Poznan, Szczecin and Gdansk.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

It has not been prepared yet, but first analysis and introductions are under preparation.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

Not yet, only the introduction has been elaborated.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

According to the Water Act – responsible is the National Water Board. Special Working Group is under preparation, national and regional levels are involved in the implementation process.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

A pilot project related to the pilot basins has been elaborated. It concerns economic analysis in the frame of Action Plan for the Pilot Narew River Basin executed by the Regional Board of Water Management in Warsaw.
A similar pilot project is being elaborated for the Brda River Basin.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

The major problems are the estimation of environmental costs and resource costs. In order to solve these issues it is necessary to implement methods for economic valuation of environmental resources in solving problems of ecological losses caused by pollution of water resources.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

Quality and quantity data related to the water resources utilisation.

8. Which information will be reported and in which format (table, maps)?

Tables, maps in the GIS format – data base with software related to the economic analysis will be the best solution.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Coordination is under preparation.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

There is lack of methodology for the estimation of environmental costs and resource costs as well as lack of methods for calculation of full recovery costs for water services.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

Not yet.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Twinning project financed by PHARE and related to the WFD (under realisation in Poland now) will be very useful.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

An estimation related to the above problems will be prepared.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

Gathering data and giving possible presentation of the scale of costs of the programs of measures does not apply within the scale of the great basins.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

Estimation of the costs of the program of measures.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

Not yet.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

The national approach has not been practically implemented but it exists in the national water pollution control strategy.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

There exist possibilities to obtain subsidies for water management projects from such ecological funds as: the National Fund for Environmental Protection and Water Management, 16 Voivodship Funds, county funds and community funds as well as from the ECO-FUND, operating on the basis of the "Debt for Nature Swap" principle.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Environmental and resource costs are currently partly internalized through wastewater effluent charges. They comprise a part of water and sewage services prices.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

Problems regarding the estimation of environmental and resource costs. They are being addressed by implementing approaches applied in other EU countries of which we are cognizant. We have not participated in exchanges on this issue.

23. Where do you consider methodological exchange as most valuable?

In the first stage of implementation of economic analysis according to the WFD.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

Yes, a cost-benefit analysis has been used in Poland as the main method of assessment of economic effectiveness in water management projects. In particular it

concerns municipal wastewater treatment plants investment projects which will be financed by pre-accession EU funds such as ISPA.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Yes

27. In how far has the issue of derogations been addressed?

It has not been addressed.

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

The cost effectiveness analysis is taken into account during the decision making process concerning the option of wastewater treatment plant construction which characterizes the best available economic effectiveness.

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

Methods of estimation of environmental and resource costs.

31. What would you wish to be the outcome of the workshop?

Some methodological clarifications.

Scotland

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Part 1: General Issues

National Responsibility for WFD Implementation

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

SEPA is the Responsible Authority in Scotland. It is the public environmental regulator.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

A scoping study was undertaken by Ecologic entitled "The Scope of the Economic Analysis in the Water Framework Directive: Preparing a Plan of Actions". We have been working to that document.

National Responsibility for the Economic Analysis

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group be formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

SEPA is responsible for implementing the economic analysis. The United Kingdom is the member state and SEPA is responsible to the Scottish Executive for the Scottish response, however the Department for Environment, Food and Rural Affairs (DEFRA) will coordinate the UK response. A UK Technical Advisory Group (UKTAG) meets regularly to oversee progress and the economics is discussed at this group. A separate economics group does not currently formally exist although a formal grouping is being considered. There exists a National Stakeholder Forum (for Scotland) which acts as a sounding board for the necessary actions and a smaller Economic Advisory Stakeholder Group has been formed by SEPA to refine the requirements of the Economic Analysis.

4. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

The Scoping study and the EASG have defined a research programme and course of action that we are following. Initially we have been concentrating on the Economic Analysis for the Annex 3 Economic Analysis part of the Article 5 reporting requirements; however our current research programme has been designed to lay a solid foundation for subsequent River Basin Planning.

5. Are there specific arrangements for integrating economics and other disciplines, especially with regard to the characterisation process?

There has been (and continues to be) close co-ordination with the other disciplines and this should be reflected in the overall characterisation report.

Available Capacities

6. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

Three projects are currently underway to bottom out on these and other questions. There exists considerable information and it is hoped that much can be accomplished within existing frameworks, however there is an obligation on behalf of each project to identify gaps and propose solutions.

7. Is reorganisation of the collection of data planned? Only in terms of new or revised indicator definitions, or also institutionally (e.g. change in the level at which data is collected (centralised, decentralised), change in responsible bodies, etc.)?

This aspect is currently being implemented and the intention is to have systems in place that will deliver all the necessary information in as efficient a manner as possible, with in the next few years. Data management systems are currently being implemented to this end.

8. Does restructuring according to hydrological boundaries pose difficulties in your country? How do you proceed technically with the conversion of existing data sets to the new requirements (e.g. break down existing data sets organised according to administrative boundaries to match the sub-basin scale)?

It is the intention to use existing administrative boundaries where possible and it is expected that they will be coterminous with hydrological boundaries in most cases. Scotland is not a large country and confidentiality of information will be a problem in some cases. Where this is the case we would hope to be able to produce estimates based on transferable information from other areas. Local information and expertise will play an important part in refining and validating this approach.

9. Where do you see the biggest obstacles in terms of data availability and quality?

Linking the economic effects with the environmental consequences as the 2003 SIC codes are still too wide to provide easily transferable relationships. Commercial confidentiality (perceived or actual) will also be a limiting factor; also the availability of information and willingness of businesses to cooperate.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

10. Which problems that were identified in the beginning could be resolved? How?

We did not fully know the true importance of water use and have let research projects to find out. They will examine who uses water and what value they receive from its use as well as examining the trends and drivers and describing who currently pays and for what.

11. What are the most important data and information gaps? What activities are planned to remedy these gaps?

We do not know the financial flows around the usage of water. Significant amounts of information exist but the complete picture has never been examined in terms of the relationships/ balances around water use and non-use. Our current research programme will satisfy these needs.

12. Which information will be reported and in which format (table, maps)?

We will have geographic information on the water use and non-use by Scottish based firms by industrial sector and it will be possible to show this information using maps and tables.

13. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Close linkages have been maintained and at present the intention is to keep as many options open as possible by attempting to ensure maximum compatibility of information. The main link is through activity and where possible the pressures and impacts have been associated with an SIC. The intention is to be able to produce indicators such as type of pollution per unit of output by SIC. Linking this type of information with the forecasted trends and drivers should provide an interesting picture of the future.

14. How do you assess the present status of implementation of this task?

✓ ~~Well~~ in time; Difficult to complete in time; Impossible to complete in time;

15. What is in your opinion the biggest obstacle to a timely implementation?

There may be unanticipated problems in obtaining accurate data or there may be slippage by the consultants (for other reasons) providing the research

Baseline Scenario

16. Is there a nationally accepted and documented methodology on how to develop the overall BLS (or sub-parts of it), and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

This project is currently being firmed up and will likely use modifications to existing forecasting models for Scotland. It will draw on and link with other ongoing research such as Scottish Water's supply and demand forecasts produced for ongoing business development and as part of the Quality and Standards III process and the structure plans of local authorities.

17. Who is involved in developing the BLS? Which institution has the co-ordinating (political) responsibility; the technical/ implementation responsibility? How many people are involved (on the technical + co-ordination side)?

SEPA will be responsible for delivering the BSL and Scottish Agricultural Colleges in partnership with the Fraser of Allander Institute and Pierre Strosser, have been commissioned to deliver this essential piece of research. SAC et al have a team of seven contributing to this project and others will be consulted as required.

18. Which aspects of the BLS will be compiled conjointly at the national level (e.g. projections on development in precipitation and its quantitative impact on groundwater, or projections on development in water collection and treatment), for which issues will projections be required at the individual sub-basin level (e.g. projections on changes in urban and rural planning at the sub-basin level) or at lower spatial scales (specify which scales)?

Information will be compiled at a River Basin level but will be built up from more localised sources.

19. Have new projections been initiated or is the work for the 2004 BLS only based on existing work? For which areas might this cause imprecise outcomes?

It is hoped that when completed this research will be as robust as possible, given the inexact nature of economic forecasting over such a timescale. To this end there will be sensitivity analysis.

20. Which methodological problems persist? How will they be addressed? Is the country aware of the approaches used in other countries? Has it been involved in methodological exchange on this issue?

Contact is maintained with the EA and other European economists. It is also anticipated that events such as the forthcoming Berlin Conference will enable thoughts to be exchanged.

21. If your country is part of an IRB, is co-ordination taking place at the IRB level? How are aspects that require common reporting dealt with (Projection for the whole RB)? Who organises/manages the concerted approach?

The cross border (Scotland/England) RB will be addressed by the consultants undertaking the research and they will build upon existing communication channels to ensure compatibility.

22. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

The WATECO approach has been followed as closely as possible. Our first step was to get the WATECO authors to produce a scoping study for us and this is what has been directing our efforts. There have been some aggregation of research projects to ease management and funding issues.

23. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

24. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

The nature of economic forecasting over such a time period means that it will be sensible to adjust the forecasts as knowledge improves and it is anticipated that the BLS will be revisited as it is seen to depart from reality.

25. On which parts of the BLS do you consider exchange as particularly useful?

Exchange would be useful around exogenous effects such as having an agreed notion of the effects of CAP reform, climate change and enlargement etc. which will have a significant effect over the timescale involved.

Cost-Recovery

26. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

A national approach has not been decided yet.

27. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

See 26

28. Which services are considered for the cost-recovery assessment?

The services as defined in the Directive

29. Which data problems will only be resolvable after 2004 and why?

Dependent on approach adopted

30. How is the issue of subsidies (and cross-subsidies) dealt with?

Not decided yet

31. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Again not decided yet

32. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

This is an area that we are currently seeking to improve our knowledge on.

33. Where do you consider methodological exchange as most valuable?

It is essential that initiatives like the CIS are agreed and implemented or the notion of a level playing field becomes problematic.

34. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

35. What is, according to your personal assessment, the biggest challenge regarding this task? What are the necessary next steps?

My personal view not necessarily that of SEPA is that this area will be difficult to communicate and investigate as many businesses are concerned as to where it is leading.
An agreed Europe wide approach to this would be helpful with all countries seeking to recover the same costs.

Preparing for the Cost-Effectiveness

36. Is there a nationally accepted and documented methodology, and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

This is another area where there is no agreed national approach

37. Has a cost-benefit analysis been conducted?

No

38. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

It is expected that much of the necessary information will be available.

39. In how far has the issue of derogations been addressed?

This is an area where we would seek to have a shared approach, we have begun to think about this but it requires more development.

40. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

They will be considered as this is an area where common implementation would be desirable

41. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

42. What do you consider as the biggest challenge regarding this task? What are the necessary next steps?

Defining disproportionate cost at the margin will be the biggest problem. This task will involve a substantial subjective element (economics only one of a number of decision making tools) and communication will be paramount.
The next step will be to develop a preferred national methodology and to compare this with the rest of the EC.

Part 3: The Workshop

43. Which issues would you like to see addressed and discussed at the workshop?

Cost recovery and cost effectiveness and the area around defining disproportionate cost

44. What would you wish to be the outcome of the workshop?

As a minimum I would want to have a clearer picture of what my opposite numbers are doing and to have made arrangements to share information on methodologies. Ideally to have reached some agreement around the main issues

Sweden

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

The final structure will be decided before the end of December 2003. In the present stage of the implementation, the Government/Ministry of Environment has the overall responsibility, and the Swedish Environmental Protection Agency (SEPA) is its executive arm. Water Authorities for the river basins are in the process of being nominated (in December 2003, the latest).

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

A national guidance document is under preparation, and will be completed in June 2004. The work is shared between three government agencies (SEPA, the Geological Survey of Sweden and the National Board of Housing, Building and Planning) and is co-ordinated by SEPA.

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

The guidance document takes an integrated approach and therefore comprises economics as well as other relevant disciplines. All economic elements will be included: the general economic analysis of the river basins, the cost recovery analysis, the trend analysis, the cost benefit analysis, and the cost effectiveness analysis.

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

At the present stage of the implementation, and on behalf of the Government/Ministry of Environment, SEPA is dealing with the economic elements although, from 2004 and onwards, the main analytical work will be carried out at the different Water Authorities.

The division of responsibilities has not yet been decided (but will be in December 2003, the latest).

A cross-discipline working group for the implementation of the WFD (including 1-2 economists) has been set up at SEPA.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

The following is a list of examples of studies that have been carried out or are underway:

The Emå river basin. The water use in the Emå river basin was studied in order to test and develop methods to assess monetary values (use and non-use) for water-related goods and services in within a catchment area. The study was carried out within the Swedish Water Management Research Water Programme (VASTRA), which is funded by the Swedish Foundation for Strategic Environmental Research (MISTRA).

The Motala Ström river basin. The main aim of the study was to test the applicability of the WATECO guidance, and to highlight bits where more work is needed. These are the main findings of the study:

Tools

- Need for improving the handling of large amounts of data at different levels: scientific data on water pollution are usually collected on a river basin or sub-basin level, whilst socio-economic data (population, water consumption etc.) are organised according to administrative units, e.g. municipalities or counties;
- Need for identifying measures that address the problems in agriculture and for improving models that can simulate the effects of different measures: projects are underway;
- Better methods are needed to enable estimates of the economic value (costs) of diffuse pollution: a first step is to improve the knowledge about transport, retention and sources: a project that addresses these issues is running until 2006;

Precision

- Need for using standard values for costs and benefits in the various analyses – it will be too costly to use first hand data in every case: guidance is required to inform the use of data transfer;
- Need for presenting detailed information at the small scale in order for stakeholders to be able to engage in the decision process;

Scenario building

- Need for central government agencies to provide parts of the trend analysis to the river basins (to complement the local trend projections).

The study was undertaken by Marianne Löwgren at the University of Linköping and was financed by the Swedish Environmental Protection Agency and the Swedish Water Management Research Water Program (VASTRA).

Combining environmental and economic data at the river basin district level. In order to develop the Water accounts according to the tables proposed by the Eurostat task force on water Satellite Accounting, to meet the WFD requirements of presenting data at the river basin district level, and to develop models for distributing physical and monetary data to river basin districts, Statistics Sweden carried out a study entitled

Water Accounts 2000 – with disaggregation to sea basins. The study presents combined economic and environmental data at the river basin district level. *The Rönne Å river basin*. The project is based on focus group discussions and aims to investigate:

- What conflicts may arise in the context of water use and what methods may be used to solve these;
- How different market agents react to different policy instruments;
- How cost-effective different alternatives of measures are; and
- How to evaluate which measures are most likely to be accepted by the water users and which are most practicable.

The study is still running and is carried out by the Swedish Water Management Research Water Program (VASTRA), which is funded by the Swedish Foundation for Strategic Environmental Research (MISTRA).

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

Finding an appropriate way of “valuing” different water uses. This issue is still being discussed, but it is possible that standards for environmental economic profiles will be used.

The large number of (ground- and surface) water bodies in Sweden... Extrapolation will be necessary.

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

One issue is that scientific data exist at the river basin district level, whereas much of existing socioeconomic data are normally presented at administrative levels.

Data on economic valuation of environmental and resource costs. All Swedish valuation studies are currently being put together in a database to facilitate the use of benefit transfer and, in the long run, it is likely that new studies will be initiated.

8. Which information will be reported and in which format (table, maps)?

Work in progress, but potentially as standard environmental economic profiles (see timeframe for the development of guidance document above).

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of

making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

A cross-discipline guidance document is currently being developed.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

Lack of resources.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

A methodology/tool for baseline scenarios is currently being developed. The main water-related environmental problems and related emissions are the basis of this tool. The tool will be generic and comprise a mapping out of the main groups of socio-economic drivers, each group containing individual drivers, and a qualitative and, where possible, a quantitative description of the links between the individual drivers and specific emissions as well as between the individual drivers themselves. This will provide a basis for the trend analysis (by ensuring consistency in the analysis of drivers, the assumptions made etc.)

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

A problem will be to develop and/or combine different models for analysing the effect of different drivers on the water status, as opposed to simply analysing the effect on the level of emissions.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

Although our approach follows that of the WATECO guidance in general, its approach in terms of scenario building is not detailed enough to "implement".

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

Availability of data and projections.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

Exchange on models that combine different sectors and drivers.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

No national approach has yet been agreed on (see timeframe for the development of guidance document above).

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

It will be close to that of WATECO.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

Work in progress (see timeframe for the development of guidance document above), but generally Sweden does not have many water-related subsidies and we do not regard this issue as particularly problematic.

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

Work in progress (see timeframe for the development of guidance document above). However, it seems likely that, for the 2005 reporting, recovered environmental costs will be measured in terms of cost-based methods (e.g. environmental expenditures, restoration costs, protection costs, environmental taxes etc.) = use values. Where possible, value transfer will be used to get an idea about non-use values. In the longer run, it may be possible to carry out specific studies to better specify the total economic value of water services and, hence, the level of cost recovery.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

Methodological exchange through Drafting Group ECO2 within the Common Implementation Strategy.

23. Where do you consider methodological exchange as most valuable?

On the issue of benefit transfer for valuation of environmental and resource costs.

24. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

Yes, both CBA and CEA and related to water, although not as case studies for the WFD.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Cost data exist, but more is probably needed for some measures.

27. In how far has the issue of derogations been addressed?

Work in progress (see timeframe for the development of guidance document above, although the issue may not have been entirely solved by then).

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

Moderately.

29. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

- Ways in which “the importance of economic uses” are being measured
- Methods/models used for baseline scenarios

- Valuation of environmental and resource costs for the various types of analyses

31. What would you wish to be the outcome of the workshop?

A review/exchange of how different member states deal with above (and other) issues, to bring ideas to the Swedish implementation process.

Annex II: Questionnaires emanating from interviews

Denmark

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Part 1: General Issues

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

- The general responsibility for WFD implementation lies with the Ministry of the Environment (e.g. regarding the legal transposition into Danish law);
- Most of the implementation work is, however, done by the Danish Environmental Protection Agency; the Forest and Nature Agency is also involved in the implementation process as well as some other institutions within the Ministry;
- At the river basin district level, the county councils are expected to be the competent authority for the implementation.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

- So far no national guidance document has been prepared, but a guidance document for the Article 5 analysis is under preparation (expected to be finished by end of 2003 / early 2004). The guidance document is prepared by the Ministry of Environment for the regional administrations.
- No translation of the (WATECO) guidance document or other CIS guidance document into Danish are available, as this was not considered necessary (due to high English language skills in Danish administrations).

3. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

- The national guidance document for the Article 5 analysis will include a section on the economic analysis as well;
- Guidance on how to approach the cost-effectiveness analysis will be provided at a later stage;

4. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

- The regional authorities (county councils) are responsible for the implementation of the economic analysis;
- Reporting to Brussels will be done collectively by the Ministry of Environment.

Available Capacities

5. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

- No feasibility study has been conducted;
- The Danish pilot project has however made a preliminary Article 5 analysis, through which a lot could be learned on data availability and quality.
- In general, it can be assumed that most of the required data is available (with small gaps); the economic analysis constitutes however an exception, as there is a lack of experience about data availability in this area.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

6. Which problems that were identified in the beginning could be resolved? How?

- Such a situation has not really occurred until now.
- Restructuring data according to river basin boundaries could pose some problems (although information is available).

7. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

- No measures are planned so far to fill data gaps.

8. Which information will be reported and in which format (table, maps)?

- It is not clear yet in which format information and data will be reported.

9. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

- No real linkage has so far been established. The need for establishing such a linkage will, however, be taken into account in some way in the guidance document that is currently being prepared.

10. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

11. What is in your opinion the biggest obstacle to a timely implementation?

▪ The political process of implementation could take more time than is allowed for by the tight time schedule.

Baseline Scenario

12. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

▪ Probably no such methodology has been agreed on, yet.

13. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

▪ No information provided.

14. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

▪ No information provided.

15. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

16. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

This question has not been addressed in the interview.

17. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

This question has not been addressed in the interview.

Cost-Recovery

18. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

- In Denmark, the principle of cost-recovery is already adopted as far as water supply and waste water treatment are concerned. This does not include, however, environmental and resource costs.

19. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

- This question has not been addressed in the interview.

20. How is the issue of subsidies (and cross-subsidies) dealt with?

- The issue of how to deal with subsidies in the assessment of cost recovery has not been entirely resolved;

21. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

- The issue of how to assess environmental and resource costs has so far not really been dealt with in Denmark.

22. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

- It has not been decided on, yet, how to tackle the internalisation of environmental and resource costs.

23. Where do you consider methodological exchange as most valuable?

- See question 22.

24. How do you evaluate the present status of implementation for this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

This question has not been addressed in the interview.

Preparing for the Cost-Effectiveness

25. Has a cost-benefit analysis been conducted?

- No cost-benefit analysis has been conducted so far, but it is considered to be an important issue.

26. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

- Since 1987, Denmark has a National Action on the Aquatic Environment, which also provides information on measures; it can be assumed, that the relevant information is already available.

27. In how far has the issue of derogations been addressed?

- The issue of derogations is currently under discussion, but no decision has so far been taken on possible procedures and approaches.

28. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

- Developments in other countries have not been taken into account so far, in particular, as the issue of cost-effectiveness analysis is not yet considered as a priority area;

29. How do you evaluate the present status of implementation?

- Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

30. Which issues would you like to see addressed and discussed at the workshop?

- Possible methodologies with which to address the issue of internalising environmental and resource costs.

31. What would you wish to be the outcome of the workshop?

- See question 30.

France

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Part 1: General Issues

32. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

At the national level: Ministry of Ecology and Sustainable Development – Water department;
At the Basin level: co-ordinator of the Basin (representative of the state - préfet); actual implementation of work is done by the basin committees (stakeholders are also involved in these basin committees) in collaboration with the water agencies and the regional departments for environment;

1. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

There is a national implementation (first version: February 2002, 2nd version: March 2003); Furthermore, “circulaires” or instructions are developed on

- pressures and impacts,
- water bodies,
- heavily modified water bodies, etc.

Besides, there are pilot projects that concentrate on:

- risk of non-compliance
- economics
- public participation

2. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

The national guidance document comprises, e.g. the principles for the development of the BLS,
3 documents are currently in preparation (It is aimed at publishing these 3 documents by the end of this year);

- Instructions on economics: water pricing, definition of water services and water use, assessment of cost recovery;
- Table of economic indicators for the characterisation, defining the sources of information (identification of data bases, national statistical surveys, etc.)
- Project (report/study) on the methodology for calculating environmental costs

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group been formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

Each basin implements the economic analysis; there is a national working group on economics; it consists of the economists of each water agency, project representatives, the ministry (see 1), as well as the statistical service of the ministry;

Available Capacities

4. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

In the framework of WATECO, feasibility studies have been conducted; These studies have directly been used as a preparation for the further work; (no additional feasibility studies have been initiated)

Major difficulties:

- Access to information
- Scale at which the information is available;

For 2004, the objective is to define the methods, define the required information / parameters, and to identify the gaps;

End of 2004, a work programme will be defined on this basis (for 2005-2006);

The methods, the results and the work programme will be presented to the national council for statistical information and to the commission for the environment account (national organism that publishes every year the expenses made for the environment); the objective of this presentation is to identify possible improvements and in how far they can be put into practice (in how far e.g. the compilation of statistical information can be adapted to better match the WFD requirements);

Aim: make the best possible use of the national statistical system; identify how to progress together;

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

5. Which problems that were identified in the beginning could be resolved? How?

The main problem are:

- to establish the link between the work on the economic analysis and on pressures and impacts; as this work is conducted in parallel, it is not always easy to make the appropriate links at the right time;
- understanding of the 2004 requirements;
- building methods and capacities.

6. What are currently the most important data and information gaps? What activities are planned to remedy these gaps?

Consolidation of the available information;

Particular problems relate to gathering information related to:

- water services companies (there are 30000 water service in France);
- information on costs of renewal of fixed capital,
- expenses in the area of water service provision;
- identification of mitigation costs

7. Which information will be reported and in which format (table, maps)?

- Cost recovery will be presented at a district scale;
- The instructions on economics will present the main tables of values;

8. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as a result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

The link between the economic analysis and the analysis of pressures and impacts is essential; It has been stressed in the national instruction, to not separate the economic characterisation from the physical characterisation;

9. How do you assess the present status of implementation of this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

10. What is in your opinion the biggest obstacle to a timely implementation?

Defining the pertinent data for each water use.

Baseline Scenario

11. Is there a nationally accepted and documented methodology on how to develop the overall Baseline Scenario (or sub-parts of it)? Is development of such a methodology currently underway?

The national guidance document establishes the general principles for conducting the baseline scenario; then, every basin has to apply these general guiding principles to its particular situation;

- Each basin is the "maître d'ouvrage" for its baseline scenario; there is an exchange between the different basins on this issue, but it is not done at the national level;
- no national Baseline is being developed, but one baseline scenario per basin;
- The baseline scenarios are then discussed at the basin committee level, where local government representatives, stakeholders, experts and users are represented; there is a debate on the hypotheses and the predictable impacts;

12. Which methodological problems persist? How will they be addressed? Are you aware of approaches used in other countries? Has there been methodological exchange on this issue?

Not treated;

13. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

Very close, as Yann Laurans has been involved in the development of the WATECO Guidance document on the baseline and is also occupied with the French implementation of this;

For 2004: trends and business as usual scenarios are being developed, only after 2004, alternative baseline scenarios will be made;

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

15. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

A main problem has been the synthesis of the required documents as well as the evaluation of impacts on water; → necessary to involve expert advise as well as modelling;

16. On which parts of the Baseline Scenario do you consider exchange as particularly useful?

At the moment, the French BLS have been completed, and will probably not be changed (this year); Problem: utilisation of the BLS for the definition of the programme of measures; the baseline is at the heart of the definition of the programme of measures as it is on the basis of the baseline that one can decide on possible actions;

Cost-Recovery

17. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

- Make maximum use of the available national statistical information;
 - Identify the gaps;
 - Difficulty is to break down the information to the basin level and to conduct a calculation per basin; national information is often only available according to administrative boundaries (region, etc.) but not according to the boundaries of the basin;
- necessary to make proxies in order to be able to compute the information per basin;
- Aim for 2004: having developed calculating methods in writing (a study is being conducted), assembling sources of information in order to be able to improve the available information devices;

18. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

WATECO is followed, but 2 products have been identified:

- Investment
- Variable costs and their financing;

For each of them subsidies are identified; what are the investment subsidies and what are the operating subsidies;

Expenses and subsidies are identified per economic sector, as this allows to identify cross-subsidies;

Application of Article 9:

- a) Description of the tariff system;
- b) Financing of investment;
- c) Financing of operating costs;

For b) and c), the origins of subsidies are evaluated along with the expenses of each user category (household, agriculture, industry);

It will not be possible to finish all of this until 2004, but the general framework has been established from which it is then possible to progress;

19. How is the issue of subsidies (and cross-subsidies) dealt with?

See above;

20. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

The Debate has not been closed on this subject; it is still in the stage of discussion and development;

The link to the group Eco 2 of IRBM WG has been established and their work is being followed;

2 main approaches are currently being developed to assess environmental costs:

1st approach:

- Propose to use the "unit value" method;
- Define for the end of 2004 a draft of national standards that allow the basins to make the first analyses; but it seems that these values are not well-adapted to assess cost recovery at the district scale (too large). Case studies will be conducted at the local level in order to further adapt this method to the local situation;

2nd approach:

- In order to hierarchise environmental costs at the sub-basin or basin level, it is being tried to establish a link between pressures and environmental costs (method: avoidance costs);

For 2004, the priority is to assess mitigation costs. The aim is to define a Table of values (treatment of NO₃, pesticides, etc. for drinking water).

21. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

- How to calculate global environmental costs at the basin level;
- What are resource costs at the basin level?

22. Where do you consider methodological exchange as most valuable?

See question 22, as a common European approach / understanding would be very desirable on these 2 issues;

23. How do you evaluate the present status of implementation for this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

Preparing for the Cost-Effectiveness

24. Has a cost-benefit analysis been conducted?

A cost benefit analysis has been prepared within the WATECO framework;

25. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Traditional measures: information is available

Non-traditional measures: the information base has to be improved; this needs to be developed for 2004 (because otherwise an advantage will be given to traditional measures);

26. In how far has the issue of derogations been addressed?

A first provisional identification of derogations is envisaged for the end of 2006;

27. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

This exchange is intended to take place in the group IRBM; But the co-ordination group is not going to get involved in this exchange before the end of 2004;

Actual current approach:

Aim: at the end of the year to have a "cahier de charges" (developed by the ministry (see 1); work on it is ongoing) for the development of the programme of measures; in order to be able to conduct tests (real life situation) in the first half of 2004 with local actors; How to proceed practically in order to define measures; to optimise the programme of measures; how to consult with stakeholders; etc.; it is being aimed at having defined a final procedure (mode d'emploi) by the end of 2004, in order to start at the beginning of 2005 with the definition of the programme of measures;

28. How do you evaluate the present status of implementation?

- Well in time; Difficult to complete in time; Impossible to complete in time;

Part 3: The Workshop

29. Which issues would you like to see addressed and discussed at the workshop?

Cost recovery,
Environmental and resource costs;

30. What would you wish to be the outcome of the workshop?

Germany

I. Questionnaire

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Part 1: General Issues

National Responsibility for WFD Implementation

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

In Germany, Water management is the responsibility of the Federal States level ("Länder"-level). At the same time, the federal level (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, BMU) does set the overall legislative framework through the Federal Water Act (*Wasserhaushaltsgesetz*). The Federal States cooperate through the LAWA ("Länderarbeitsgemeinschaft Wasser", the Working Group of the Federal States on water problems).

The authorities responsible for the respective river basin districts are the highest Federal State water authorities, i.e. the competent Land ministries. They co-ordinate the work of the subordinate authorities at Land level and provide technical and legal supervision.

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

Yes, a national guidance document exists; it has been developed by the LAWA. It is a "living document", so new revised versions continue to be elaborated (latest English version dated 30.4.2003).

National Responsibility for the Economic Analysis

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group be formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

As all elements of the WFD implementation, the LAWA provides the overall guidance for the implementation of the economic analysis, while the level of presentation for the economic analysis is the river basin district. At the same time, the source material/reporting elements

are generally compiled at the level of the sub-basin survey area (in line with the inventory under Annex II).

The LAWA-working group on "Environmental economics" concentrated (among other issues) on applying the WATECO requirements to the German situation.

4. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

One of the chapters of the overall guidance document (see above) deals explicitly with the economic analysis and is attached to this questionnaire. This practical guidance for the economic analysis represents the minimum data collection required. However, every Federal State is free to call up further data for use in the economic analysis. It should be noted that there is no legal obligation for the application of the national guidance. All components of the economic analysis due 2004 are dealt with in the German guidance document.

5. Are there specific arrangements for integrating economics and other disciplines, especially with regard to the characterisation process?

It is generally acknowledged that there is a need for integration between the disciplines. At the same time, attempts for bringing together the Environmental Economics working group with other disciplines were not very successful. The main reason is that the work load for the implementation of the WFD is heavy, so this integration is rather foreseen for after the characterisation for 2004. So, only the water bodies that are considered being at risk will be looked at in more detail with the aim to establish sets of measures in order to reach the environmental objectives of the WFD.

Available Capacities

6. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

No explicit feasibility study has been conducted. At the same time, the Environmental Economics working group started with a draft guidance document that was refined based on the results (data availability etc.) and experiences of a number of pilot projects conducted in Germany.

7. Is reorganisation of the collection of data planned? Only in terms of new or revised indicator definitions, or also institutionally (e.g. change in the level at which data is collected (centralised, decentralised), change in responsible bodies, etc.)?

For the first economic analysis 2004, sufficient data/information is available. At the same time, the reorganisation according to hydrological boundaries is going to take place for relevant categories.

In addition, a review of the federal environmental statistics regulation is planned, so changes will be proposed based on the results of the first economic analysis in order to facilitate the availability and use of information for later implementation steps of the WFD. This is also true for some statistical regulation at the Federal State level.

8. Does restructuring according to hydrological boundaries pose difficulties in your country? How do you proceed technically with the conversion of existing data sets to the new requirements (e.g. break down existing data sets organised according to administrative boundaries to match the sub-basin scale)?

- The statistical data referring to water management matters are assigned by the statistical offices of the Federal States to river basin districts by catchment keys known as "Leitbänder". These keys link the data of a municipality or (in the case of larger towns or communities) of a part of a municipality, depending on its focal location, to a river basin (at least up to 3-digit water catchment indicator). The non-water resource management data have not so far been assigned to the river basins, a task yet to be completed.
- These simple keys in the form of Leitbänder lead to a lack of precision because the focal location can be misleading in some areas (especially where large towns are situated on the boundary between water resource management areas).
- A more accurate alternative is offered by the qualified catchment keys, which distribute the municipality-based statistical data among the respective river basin districts by the percentage of settled area concerned. They are made by means of a geographical overlay of municipal areas, settlement areas and river basins.
- These qualified keys are to be used predominantly for the economic 2004 analysis. The overlays required here will be done by the Land Environment Office of North Rhine-Westphalia on behalf of all the other Federal States.

9. Where do you see the biggest obstacles in terms of data availability and quality?

A large amount of data is available for Germany.
The quality of data can in general be considered as good, since certain plausibility tests are performed at the institutions collecting the information. At the same time, some concerns have been voiced on the accuracy of certain indicators and are being currently investigated.

A potential problem in some cases is that for the description of water uses, a too detailed spatial description could lead to confidentiality problems (i.e. information concerning only one chemical plant being reported). In those cases, a stronger aggregation (either spatially or across branches) will be necessary.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

10. Which problems that were identified in the beginning could be resolved? How?

The distinction between water uses and water services has been unclear at the beginning of the implementation process. The interpretation that has been given by the WATECO guidance document solved the problem and has been adopted by the German guidance document.

11. What are the most important data and information gaps? What activities are planned to remedy these gaps?

Since a lot of information is available, the problem is rather to decide which information is useful and should be integrated into the analysis of water uses, taking into account the costs associated with collection of the relevant data.

12. Which information will be reported and in which format (table, maps)?

The information reported is along the lines of the WATECO document (for more details: see Table 5.1.2. of the LAWA Guidance Document to the Implementation of the WFD, latest English version dated 30.4.2003; **IMPORTANT**: this table is currently being revised)
The format in which the information will be reported has not been decided yet, but probably will be in table format (no map).

13. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

See question 5: the linkages will mainly be established after 2004. At the same time, certain general data (table 5.1.1. of the guidance document) will be collected in accordance with the Annex II of the WFD.

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

At the same time, this might not be valid for all Federal States.

15. What is in your opinion the biggest obstacle to a timely implementation?

The availability of data on district level

Baseline Scenario

16. Is there a nationally accepted and documented methodology on how to develop the overall BLS (or sub-parts of it), and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

The guidance document (see below) does present a national methodology for the development of a baseline scenario, mainly for the estimation of future water demand.

17. Who is involved in developing the BLS? Which institution has the co-ordinating (political) responsibility; the technical/ implementation responsibility? How many people are involved (on the technical + co-ordination side)?

- Estimates on different issues are currently being developed by a number of LAWA-working groups.
- These projections are the basis of the baseline scenarios of the Federal States which can, if they wish, take them further.

18. Which aspects of the BLS will be compiled conjointly at the national level (e.g. projections on development in precipitation and its quantitative impact on groundwater, or projections

on development in water collection and treatment), for which issues will projections be required at the individual sub-basin level (e.g. projections on changes in urban and rural planning at the sub-basin level) or at lower spatial scales (specify which scales)?

Please see the attached guidance document for more detailed information on the different aspects of baseline scenario development.

19. Have new projections been initiated or is the work for the 2004 BLS only based on existing work? For which areas might this cause imprecise outcomes?

Most of the work will be based on existing studies, i.e. spatial/regional development plans, etc. as well as a detailed study on the projected situation in Germany for 2020 (PROGNOS-report), dealing with projections for the household sector, different industrial branches, agriculture etc.

Some Federal States might conduct additional studies for the baseline development.

20. Which methodological problems persist? How will they be addressed? Is the country aware of the approaches used in other countries? Has it been involved in methodological exchange on this issue?

The big open question is how to estimate the chemical pollution and morphological pressures until the year 2015. For Germany, estimates on quality are much more difficult than on quantity issues.

International discussions are just beginning, for example a workshop on the baseline issue is planned for the Rhine. International co-operation is seen as crucial for baseline development.

21. If your country is part of an IRB, is co-ordination taking place at the IRB level? How are aspects that require common reporting dealt with (Projection for the whole RB)? Who organises/manages the concerted approach?

See above: a workshop on baseline is planned to take place in the Netherlands in early 2004.

22. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

The WATECO approach is mostly being followed; exemptions are certain developments that have high uncertainties like climate change etc. which are not considered.

23. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

At the same time, this might not be valid for all Federal States.

24. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

It will be a challenging task to develop baseline scenarios for whole river basins. Especially in international river basins, different methodologies for development of the scenarios have to be harmonised or at least have to be comparable.

25. On which parts of the BLS do you consider exchange as particularly useful?

It would be useful to agree on a common methodology on how the baseline scenario is developed: what are the similarities of the different approaches, can agreement be reached on a common core for the projections? This would be particularly important for international river basins since otherwise problems of consistency will appear.

Cost-Recovery

26. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

The national approach is based on three representative case studies (see attached guidance document)

27. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

The river basin approach has not been followed for the 2004 report but this seems not to be a major problem at this stage. The different cost categories that are considered in the case studies are close to the WATECO approach.

28. Which services are considered for the cost-recovery assessment?

See the guidance document below

29. Which data problems will only be resolvable after 2004 and why?

The issue of environmental and resource costs;
In addition, while trying to establish the current cost recovery rate (without environmental and resource costs), statistical problems appear since different accounting systems (cameralistic an business accountancy), depending on the water service company involved, are being mixed;
This leads to different cost definitions being combined; this reduces the accuracy of the calculation but is the pragmatic approach chosen.
After 2004, it is intended to treat the different accounting systems separately in the statistics. Currently, a working group of the statistical agencies is working in this issue.
The alternative would be to start a primary collection of data, but this is considered to be too costly.

30. How is the issue of subsidies (and cross-subsidies) dealt with?

One of the three case studies has proposed a possible way to treat subsidies; currently, the application of this approach is being considered. The value of the subsidies is considered in such a way as fictitious portion of the costs, as if in place of the subsidies, loans would have to be taken up.

31. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

For 2004, only the already internalised environmental and resource costs are going to be indicated (through waste-water charges; water abstraction payments and further payments where necessary (e.g. compensations for nature conservation). It should be noted here that waste-water charges and water abstraction payments – where regulated –also form part of the financial costs of water services and have therefore been considered within the calculation of the cost recovery levels.

32. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

The issue of different accounting systems of water service providers which will be solved after 2004.

33. Where do you consider methodological exchange as most valuable?

How to estimate environmental and resource costs?
How to estimate the contribution of the different water uses to cost recovery of the water services ?

34. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

At the same time, this might not be valid for all Federal States.

35. What is, according to your personal assessment, the biggest challenge regarding this task? What are the necessary next steps?

In the future, the calculation of cost recovery rates has to be clearly related to river basins (the current approach based the mentioned 3 pilot projects is only a solution for 2004).

Preparing for the Cost-Effectiveness

36. Is there a nationally accepted and documented methodology, and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

Currently, a national handbook on cost-efficient water resources protection is being prepared (entitled 'Kosteneffizienter Gewässerschutz', due for completion in November 2003). The handbook is intended to help make the strategic considerations required to select measures for a more careful examination leading up to the creation of a programme of measures. Decisions on the most cost-effective measures for the river basins can only be arrived at later.

This handbook is commissioned by the Federal Ministry of the Environment and developed by consultants in co-operation with LAWA-experts. Based on this, the LAWA will have to decide on the approach to be chosen for the selection of measures after 2004.

37. Has a cost-benefit analysis been conducted?

Cost-benefit analysis have been conducted in different situation for the selection of measures, but not yet based on the overall approach of the WFD.

38. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

The above mentioned handbook does compile cost information on a number of measures, both traditional and non-traditional. At the same time, information on traditional measures seems to be more readily available.

39. In how far has the issue of derogations been addressed?

The issue has not been addressed yet but is on the agenda of the LAWA-working group on environmental economics.

40. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

There has been exchange with the Netherlands and Austria on the issues covered by the handbook, especially on the proposed distinction between measures and instruments. The Netherlands are considering to use the German approach to selecting measures as a starting point for their national consultations.

41. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

42. What do you consider as the biggest challenge regarding this task? What are the necessary next steps?

The LAWA will need to agree on the overall approach chosen or develop an alternative one by the end of 2004.
It will be crucial to have discussions in the international river basins in order to have similar approaches to the selection of measures as soon as possible.
Some European guiding principles would be valuable.

Part 3: The Workshop

43. Which issues would you like to see addressed and discussed at the workshop?

What are possible methodologies for the development of baseline scenarios?
How to estimate environmental and resource costs? The water authorities need an easy-to-handle, not too academic or expensive approach for this estimations. What is a practicable approach?
How to assess the contribution of water uses to the cost recovery of water services?

44. What would you wish to be the outcome of the workshop?

II. Guidance Document to the Economic Analysis pursuant to Art. 5 WFD

1.4 ECONOMIC ANALYSIS OF WATER USE PURSUANT TO ART. 5 AND ANNEX III A

1) Reference to the Directive

Art. 5 (1), 9 and Annex III (as well as Art. 4, 11)

2) Technical background

The Water Framework Directive requires an economic analysis of water uses for each river basin district.

Water uses means water services and other actions that under Article 5 and Annex II have significant impacts on water status. Water services mean all services which provide the following for households, public institutions or economic activity:

- a) abstraction, impoundment, storage, treatment and distribution of surface or groundwater;
- b) waste water collection and treatment facilities which subsequently discharge into surface water

The functions of the economic analysis as given in Annex III of the WFD can be interpreted in different ways and therefore require specification. According to Annex III the economic analysis should contain enough information in sufficient detail to:

1. perform calculations necessary for taking into account under Article 9 the principle of recovery of the costs of water services giving consideration to long-term forecasts of supply and demand for water in the river basin district levels and, where necessary, the relevant investment;
2. make judgements about the most cost-effective combination of measures to be included in the programme of measures required by 2009.

Under Annex III of the WFD the costs of collecting the relevant data are to be considered. This point is reinforced by the explicit proposal in Annex III that estimates be made of the relevant information.

Building on the work of WATECO (“WATer ECOnomics”) working group, which has developed practical guidance for the WFD at EU level with regard to the economic analysis, the economic questions are to be dealt with in three steps:

1st step: to the end of 2004

2nd step: to the end of 2007

3rd step: to the end of 2009

Here, the decisions to be made by 2009 and 2010 at the latest shall be taken into account even during the first implementation step.

For the decisions required by 2009:

- In relation to the programme of measures decision must be taken as to what measures are needed. In this context the economic analysis has the task of showing in relation to water level forecasts until 2015 how economic factors influencing water status will develop.
- The type of measures also has to be decided. This means choosing the most cost-effective measures.

For decisions required by 2010:

- The Member States have to take into account the principle of covering the costs of water services, which include environmental and resource costs. Under Art. 9 of the WFD cost-recovery means inter alia that water charging policies give appropriate incentives for the efficient use of water resources and the users make an appropriate contribution to the costs of water services taking into account the polluter-pays principle. When deciding on implementation by 2010, the Member States have scope to take into account the consequences of cost-recovery and, in particular, special regional circumstances. For certain water uses they may deviate from the above roles as long as environmental objectives are not called into question.

In the initial economic analysis by 2004 (1st stage) the following material must be prepared for presentation:

- general description of the river basin district and the economic significance of water uses (chapter 5.1)
- a “baseline scenario” with a time horizon of 2015 (chapter 5.5)
- figures for the water services and the covering of their costs
- information for an estimation of cost-efficient combinations of measures
- information on the further work to be done (chapter 5.5)

In the 2nd stage, to be completed by 2007, the economic questions shall be further analysed and the analysis refined for the respective operational levels (river basin districts, sub-basin survey areas or even smaller). It is then possible to determine the economic contribution for the identification of the most important water management issues to be published by 2007 in accordance with Article 14 para. 1 sentence 2 letter b of the WFD.

In the 3rd stage (by 2009) the cost-effective measures are prepared. Here in particular, it is important to have close integration between technical and economic aspects. The implementation of the programme of measures takes place from 2009. Moreover, recourse to exceptional circumstances under Art. 4 when drawing up the programme of measures must be justified inter alia on the basis of economic considerations. The studies needed to set out these circumstances are not part of the pre-2004 economic analysis but must be undertaken later.

3) National provisions

The relevant substantive points in the Federal Water Act (Wasserhaushaltsgesetz - WHG) and the municipal laws on water charges are presented here with the following excerpts:

Section 42 WHG: adjustment of *Land* (state) law

- (2) The *Länder* shall ensure that the provisions of Article 9 of Directive 2000/60/EC be implemented in the statutory regulations of the *Land* by 21010 notwithstanding federal statutory regulations.

Section 93 Hesse Local Government Code (as an example for the *Länder*): Principles of revenue acquisition

- (2) The municipality has to raise the revenues necessary to perform its functions
 1. where justifiable and proper from payments for their services,
 2. or otherwise from taxes if the other revenues are not sufficient.

Section 10 Hesse Municipal Charges Act (as example for the *Länder*): use charges

- (1) The municipalities and districts may levy use charges in return for the use of their public facilities.
- (2) The rates charged shall generally be set to cover the costs of the facility provided. The costs include the expenditures for its ongoing administration and upkeep, payments for outside services, adequate depreciation costs and an appropriate yield on capital investment; in calculating the yield, those shares of capital raised from contributions and grants made by third parties shall not be considered. The validity of Section 127a of the Hesse Local Government Code remains unaffected.
- (3) The charge is to be set according to the type and scope of the use made of the facility. Minimum rates may be laid down in the statutes. The levying of a standing charge in addition to a charge set pursuant to subsections 1 or 2 is also permissible

4) Source material

To characterise water users and water services we can, with only a few exceptions, use the data of the statistical offices of the *Länder* and data from the inventory compiled under Annex II. Central sources are:

- the environmental statistics
- the local government finance statistics
- the statistics on publicly controlled facilities and undertakings.

The statistical data referring to water management matters are assigned by the statistical offices of the *Länder* to river basin districts by catchment keys known as *Leitbänder*. These keys link the data of a municipality or (in the case of larger towns

or communities) of a part of a municipality, depending on its focal location, to a river basin (at least up to 3-digit water catchment indicator). The non-water resource management data have not so far been assigned to the river basins, a task yet to be completed.

These simple keys in the form of *Leitbänder* lead to a lack of precision because the focal location can be misleading in some areas (especially where large towns are situated on the boundary between water resource management areas).

A more accurate alternative is offered by the qualified catchment keys, which distribute the municipality-based statistical data among the respective river basin districts by the percentage of settled area concerned. They are made by means of a geographical overlay of municipal areas, settlement areas and river basins.

These qualified keys are to be used for the economic 2004 analysis. The overlays required here will be done by the *Land* Environment Office of North Rhine-Westphalia on behalf of all the other *Länder*.

Further background material:

- European Commission 2000: Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee on "Pricing policy as a policy instrument for enhancing the sustainability of water resources", COM (2000) 447 final of 26 July 2000

For a more detailed interpretation of the economic aspects of the Water Framework Directive and the positions reached in discussions at EU level:

- background report on the economic provisions of the WFD: "*Ökonomische Anforderungen der EU-Wasserrahmenrichtlinie*", Ecologic, as of July 2001 (produced as part of the UFOPLAN project to develop criteria and instructions: "*Erarbeitung von inhaltlichen Kriterien sowie einer Handlungsanleitung für die Durchführung von wirtschaftlichen Analysen in Flussgebieten nach Artikel 5 und Anh. III der EU-Wasserrahmenrichtlinie*")
- "Guidance" document of the EU working group on the economics of the WFD (WATECO Group) contains specifications for the practical implementation of the economic analysis (English report of August 2002)
- provisional final report of the "Mittelrhein" pilot project on the implementation of the economic analysis in Germany, June 2002.

5) Necessary activities

The level of presentation for the economic analysis is always the river basin district, although the source material/reporting elements are generally compiled at the level of the sub-basin survey area² (in line with the inventory under Annex II).

The practical guidance for the economic analysis represents the minimum data collection required. However, every *Land* is free to call up further data for use in the economic analysis.

² A sub-basin area, or sub-basin survey area, refers here to a *Bearbeitungsgebiet* (some *Länder* use the term *Koordinierungsraum*), which is the next level below the river basin district (*Flussgebietseinheit*).

5.1 General characterisation of the river basin district and the economic significance of water uses

5.1.1 General characterisation of the river basin district:

As a general introduction, the first step is to describe the river basin district. The landscape features needed for this are already described in the inventory under Annex II. The most important landscape features are again listed here systematically in a table (cf. table 5.1.1)

➔ The following data are to be collected in the sub-basin survey areas:

Table 5.1.1: General data

Landscape features	Description	Source
rivers	length, of which navigable	inventory in accordance with Annex II WFD
climate	annual precipitation	
navigation canals	canals in km	
lakes	lakes > 20 km ² , size in km ²	
storage reservoirs	storage volume in million m ³	
land	land sites by type of actual use	
Population	Description	Source
population data	population density/ area and population	inventory in accordance with Annex II WFD
total gainfully employed	inhabitants and employment	LDS

➔ The data from the survey areas are to be aggregated and collated at the level of the river basin district.

5.1.2 General characterisation of the economic significance of water uses:

A description is required not only for the river basin district but also for the economic and social significance of water uses in the various parts of a river basin district. Since water uses by definition exert an influence on the status of waters, this description helps us to assess the socio-economic impacts of measures influencing water uses when we design the programme of measures.

In the presentation we have to show what importance individual economic sectors have in the river basin district to the extent that they constitute water uses within the meaning of the WFD (e.g. agriculture, industry, navigation). The selection of water uses must be made with reference to the description in Annex II. Moreover, those economic sectors are to be described that are heavily dependent on waters and their quality (e.g. fisheries). The aim here is to represent the relative socio-economic significance of these economic sectors associated with water uses.

The existing central data in the *Länder* statistical offices can be compiled for the description and analysis of water uses, where they are significant. This data to be used is set out in the following tables:

Table 5.1.2: data on water uses in the sub-district survey area

	Water uses		Socio-economic data						
	Water abstraction ¹	Waste-water introduction ²	Length	No. of employees Total	employment (thousands)	(e.g. sales, crop volumes, transport volumes energy production in the sector, the	gross value added ³	No. of farms, operating units	
Sectors of water uses									
Public waster supply	LDS	0	0	LDS ⁴	0	LDS ⁵	0	LDS	
Local water disposal	0	LDS	0	LDS ⁶	0	LDS ⁶	0	LDS ⁷	
Agricultural,	LDS	LDS	LDS ⁸	LDS	LDS	LDS ⁹	LDS	LDS ¹⁰	
of which with own extraction	LDS	0	0	0	0	0	0	0	
Forestry	0	0	0	LDS	LDS	0	LDS	0	
Fisheries (at B-level only deep sea fisheries)	0	0	0	0	0	Fed. Stats. Office ¹¹	0	0	
Manufacturing industry	LDS	LDS	0	LDS	LDS	LDS ¹²	LDS	LDS ¹⁰¹	
of which with own extraction	LDS	0	0	0	0	0	0	0	
of which direct discharge	0	LDS	0	0	0	0	0	0	
Inland navigation	0	0	0	0	0	LDS ¹³	0	LDS ¹⁴	
Energy	LDS	LDS	0	0	0	LDS	0	LDS ¹⁰¹	
Economy as a whole ¹⁵	0	0	0	LDS	LDS	0	LDS	0	

¹ water abstracted from nature in million m³

² waste-water discharge in million m³

³ total gross value added by: agriculture, forestry, fisheries, manufacturing industry, domestic trade, tourism, transport, energy, public and private services

⁴ number of connected residents

⁵ water charges for consumers, by households and commercial undertakings

⁶ annual waste-water volume in total

⁷ number of waste-water disposers and waste-water treatment plants

⁸ irrigated land in ha

⁹ harvest in tonnes or livestock in units

¹⁰ number of farms

¹¹ landings in tonnes

¹² sales in million euros

¹³ transport performance in tonne-kilometre

¹⁴ number and type of vessel

¹⁵ data on "economy as a whole" do not correspond with the addition of the various water uses.

Hydroelectric power	LDS	LDS	0	0	0	LDS	0	0
Transport	0	0	LDS ¹⁶	0	0	LDS ¹⁷	0	LDS ¹⁸
Private households	LDS	LDS	0	0	0	0	0	0

LDS = data available from the Statistical Offices of the *Länder*; 0 = no data available/ necessary.

➔ The data from the survey areas are to be aggregated and collated at the level of the river basin district.

These data are intended as a starting point and must be trimmed down to reflect the respective conditions in a river basin district or, in other cases, extended to account for water uses in a sub-basin survey area with significant impacts beyond those in mentioned above¹⁹.

In this connection the WFD also calls for the identification of “areas designated for the protection of economically significant aquatic species”.²⁰ This type of water use is not taken into account because only occasional protection areas for aquatic species exist in Germany and these are not generally of any economic significance. On this point the economic analysis shall therefore contain, for all river basin districts, the statement: “There are no economically significant aquatic species in the river basin district requiring the designation of protected areas.”

5.2 Baseline scenario

Under Annex III of the WFD the analysis reported must contain “enough information in sufficient detail” “in order to make the relevant calculations necessary for taking into account the principle of recovery of the costs of water services, taking into account long-term forecasts of supply and demand for water “ including, where necessary, reference to the relevant investment.

Furthermore, the WATECO document says that we need to identify all the economic factors by 2004 that have a relevant influence on the development of water status (“key economic drivers”) and integrate these factors in the description of the development of the waters (as a baseline scenario). Going beyond the wording of Annex III, the WATECO Working Group conceives the economic analysis as an instrument in the forecasting of water for 2015. This interpretation is supported by a reference made in Art. 5 to an analysis of water uses.

¹⁶ length in 1,000 km differentiated by motorways, national federal highways, state roads, district roads, rail network, waterways, oil pipes.

¹⁷ transport performance in tonne-kilometres on the road, rail, waterways and in oil pipes.

¹⁸ stock of means of transport on rail, road and waterway

¹⁹ Where there is uncertainty about classifying an impact as significant, it is recommended that the “Signifikanzpapier” be followed..

²⁰ Cf. Step 1.1., last point, WATECO Document p. 29; further information on this can be found on p. 41. According to Article 6 of the WFD a register of all protected areas must be compiled by 2004. Annex IV lists the various types of protected areas, this includes the aforementioned “type” of protected areas.

For the task of elaborating the programme of measures, i.e. by 2007, the “drivers” need to be identified for each area under review so we can answer the question of whether or not measures must be taken. In preparation for this work and in response to the demands of the European directions for activities, the key factors and their development will be described at the sub-basin level by 2004 and statements will be made on the components of water resources and water demand referred to in Annex III. In addition, reference will also be made where necessary to investments already planned.

The following approach is taken:

1. Development of water resources

Regarding the development of water resources, precipitation trends and impacts on groundwater play a quantitative role, on the one hand, and changing influences on the water balance play a qualitative role, on the other. The latter are a function of the water uses to be determined under point 2. A general statement is being prepared on this at LAWA level, possibly presenting different trends in different parts of the Federal Republic. Peculiarities in seepage conditions will be elaborated upon after the basic statement has been prepared at the sub-basin survey level.

2. Development of water demand and of water uses

The report should start from water uses that are also an object of the general characterisation of the economic significance of water uses (p. chapter 5.1). The following steps are taken in analysing the individual sectors:

a) Uses by private households

The *Land* authorities make a forecast for (regional) population trends. The data needed for this can be taken from the existing and published population projections of the competent *Land* ministries for regional development or extrapolated on this basis (regional plans, regional development plans etc.). At LAWA level general conclusions are drawn about the transformation in the fields of water supply and waste-water disposal. The *Länder* add to this presentation if they so require.

b) Uses by industry

Here, the water uses of significance in the river basin district (e.g. water uses of the manufacturing sector, the energy sector, where hydroelectric power may be especially relevant, the inland waterways, transport etc.) are to be addressed along with their consequences for the quality of the biological elements of waters and their morphology.

The underlying factors behind economic growth, the growth of individual economic activities, changes in spatial planning, changes in industrial policy, transport policy and energy policy, changes in water pricing policy, etc. will be presented by each *Land* for its part of the river catchment; the sub-basin survey areas must then integrate the contributions. Data on the development of the economy can be taken from the regional planning documents.

c) Uses by agriculture, forestry, fisheries

Water uses in the fields of agriculture, forestry and fisheries are to be addressed to the extent that they have developing effects on the quality of the biological elements of waters and their morphology.

The underlying factors, namely changes in agricultural, forestry and fisheries policy, changes in regional planning and changes in water pricing policy etc. are presented by each *Land* for its part of the river catchment; the sub-basin survey area must then be integrate the contributions. Data on the development of agriculture and forestry as well as fisheries can be taken from the regional and *Land* development plans.

d) Envisaged investment

The *Länder* have the task of presenting planned investment in the water industry (e.g. in water supply and waste-water disposal, in the recovery of wetlands, for programmes to replenish groundwater for drinking-water supplies) that will affect the water uses.

Uncertainty factors such as climate change can have effects on available water resources and water demand, although they are almost impossible to predict. The following wording is therefore to be included on this point in the economic analysis: "These forecasts must be predicated on several uncertainties. In particular, factors such as climate change, technological development, shifts in social values, globalisation etc. can influence the availability of water resources and the demand for water. The extent of this influence is not, however, predictable."

In connection with this point we must find out whether new activities are to be considered. It is not necessary to make statements on economic activities that have no relevant influence on the waters and will continue to have no influence. Wherever possible we should, given an affordable and justifiable effort, make use of existing studies and data.

In the case of the water industry contributions to the scenario, especially all contributions that provide an analytical prediction of water demand and supply trends, the relevant LAWA committee should formulate the position. The contributions to the scenario that do not concern water industry aspects should be dealt with by the relevant competent government departments. On each point we have to find out whether and to what extent general statements – for Germany as whole, certain parts or the respective *Land* – are necessary and possible, with a view to avoiding a duplication of efforts.

5.3 Data on water services and their cost-recovery level

Under the WFD and according to the specification provided by the WATECO document, the term water services includes:

- a) public water supply (recharge, abstraction, conditioning, storage and provision of pressure, distribution, operation of impoundments for water supply purposes),
- b) municipal water-disposal (collection, treatment, introduction of foul water and rainwater in combined and separation sewerage systems).

Services carried out by the users themselves are to be considered in those cases (i.e. qualify as water services) where they have a significant (considerable) influence on the water balance (if the overall water balance of a region requires their

consideration). The following services must therefore be examined to find out how far they are significant²¹:

- industrial-commercial water supply (own production),
- agricultural water supply (irrigation),
- industrial-commercial waste-water disposal (direct discharger).

Impoundments for the purpose of electricity generation and navigation and any measures for flood protection do not come within the definition of water services but may constitute water uses.

5.3.1 Structure data on water services

The first task is (similar to the water uses) is to compile general information on the water services. To avoid duplication of efforts, this description should be coordinated with the work on the inventory under Annex II.

The data are available from the Statistical Offices of the *Länder*. The following parameters are used here:

On public water supply:

- the population connected to the public water supply (inhabitants or m³/year) and industry (m³/year),
- number of water supply companies,
- water supplied (consumed) in m³/year (broken down by households and enterprises),
- water production in total (broken down by groundwater, spring water, bank-filtered water, surface water, own extraction and water purchase).

On public waste-water disposal:

- number of waste-water disposers,
- length of combined, storm-water and foul-water sewers (in km),
- inhabitants/industry/commerce connected to sewers (population equivalent),
- inhabitants/industry/commerce connected to sewage treatment plants (population equivalent),
- number of public sewage treatment plants,
- volume of purified waste-water (in m³/year) in total and broken down by mechanical treatment, mechanical-biological treatment; proportion of rainwater (sealed surface areas).

If further activities are required for the economic perspective (e.g. direct discharges, own abstractions), the data on this should also flow into the analysis. The following data from the respective Statistical Offices of the *Länder* is useful here:

On the industrial-commercial water supply (own production):

- water volume (in m³/year).

²¹ In connection with the inventory under Annex II

On agricultural irrigation:

- own extraction of water volumes (in m³/year) in total (and broken down by groundwater, spring water, bank-filtered water, surface water),
- water yield (in m³/year) in total (and broken down by own extraction and water purchase),
- water deployment (water volume) in m³/year and irrigated area in ha (broken down by agricultural crops, horticultural crops and permacultures).

On industrial-commercial waste-water disposal (direct dischargers):

- discharged water volumes (in m³/year) of manufacturing industry (total and only cooling water), also broken down by discharges into surface waters/underground, in own waste-water treatment plants, to other enterprises and into the public sewers,
- waste-water introduction from thermal-electric power stations (in m³/year) in total and broken down by cooling water and other waste-water, number of enterprises.

5.3.2 Costs of water services, cost recovery

The costs of water services and the extent of cost recovery are being surveyed in Germany in three pilot regions (sub-basin area of Mittelrhein, sub-catchment area of Lippe, administrative district of Leipzig). The results from the three pilot regions produce a representative picture for the whole of the Federal Republic of Germany that shows a range of cost-recovery levels. These are discussed in connection with the municipal law on water charges and the local government code presented in 3). A document dealing with this is provided by LAWA. The authorities in the sub-basin survey areas do not have to instigate any measures.

5.3.3 Environmental and resource costs

The EU sees the costs of water services not only as financial costs but also as environmental and resource costs, even if they are not met by the water provider.

Environmental costs can be defined as: “[...] costs of damage that water uses impose on the environment and ecosystems and those who use the environment (e.g. a reduction in the ecological quality of aquatic ecosystems or the salination and degradation of productive soils).”²²

Resource costs can be defined as “[...] the costs of foregone opportunities which other uses suffer due to the depletion of the resource beyond its natural rate of recharge or recovery (e.g. linked to the over-abstraction of groundwater).”²³ or abstraction for cooling water and reintroduction. Moreover, resource costs can also occur where shortages of water of sufficient quality are caused by pollution.

²² Commission Communication: “Pricing policies for enhancing the sustainability of water resources” p.10

²³ Commission Communication: “Pricing policies for enhancing the sustainability of water resources” p.10

A distinction between these two types of cost is not made. Environmental and resource costs can be used a dual term that covers all the externalities of water services.

A monetary estimate of these costs will not be possible by 2004. However, preparations should have been made in the sub-basin areas by 2004 so as to enable the compilation of environmental costs for all areas by 2009 (initial management plan, definition of combinations of measures). By 2004 we should therefore have completed an initial summarising qualitative survey of the negative environmental impacts of water services in concert with the status review under Annex II (e.g. by recording the pollution loads of waste-water dischargers), which provides a basis for a more precise study of environmental costs in the future.

A large part of the environmental and resources costs in Germany has, in varying degrees, already been internalised thanks to requirements laid down under water legislation in rulings on preventative and compensatory measures and on water charges. The rulings govern:

- waste-water charges;
- water abstraction payments;
- further payments where necessary (e.g. compensation for nature conservation).

Although waste-water charges and water abstraction payments – where regulated – also form part of the financial costs of water services and have therefore been considered within the pilot projects. Since it is possible to represent already internalised costs along with them, they must be determined additionally for all areas and listed separately. Here, it is desirable to produce a presentation of the payments for the different water uses (e.g. industry, agriculture etc.) including an account of water production/introduction by undertakings. The data are not available from the Statistical Office of the *Länder* but must be specially collected and presented in each *Land* for the respective sub-district survey areas.

Other payments – where they occur – should also be presented. Here, too, details are not available from the Statistical Offices of the *Länder*, so each *Land* must present them on the basis of any relevant data that may exist. These findings are being made/compiled at *Länder* level and adopted in the sub-basin survey areas.

5.3.4 Contribution of water uses to covering the costs of water services

The WFD requires an overview of the contribution to recovering the costs of water services by the various water uses, with a minimum breakdown by private households, agriculture and industry. For water supply/waste-water disposal, this contribution is for the most part to be described in qualitative terms (and complemented in individual cases by quantitative statements). Consideration must be given, for instance, to those financial costs associated with water supply that arise from other water uses (discharges from point sources by industry, diffuse immissions from agriculture) to establish whether and how these costs are covered (in the case of point sources: waste-water charges). This means presenting payment flows by relating them to water abstraction payments and waste-water charges.

These statements will be made/compiled at *Länder* level and adopted by the sub-basin survey areas.

5.4 Information on cost-effectiveness of measures / combinations of measures

It will not be possible for the initial economic analysis (2004) to contain enough information for a complete assessment of the cost efficiency of combinations of measures designed to achieve the objectives of the Water Framework Directive. To help develop the underlying data resources, a national handbook on cost-efficient water resources protection is currently being prepared (entitled "Kosteneffizienter Gewässerschutz", due for completion in autumn 2003). The handbook is intended to help make the strategic considerations required to select measures for a more careful examination leading up to the creation of a programme of measures. Decisions on the most cost-effective measures for the river basins can only be arrived at later. No separate presentation needs to be undertaken for the river basin district.

5.5 Further future activities

It is expected that some of the work envisaged for 2004 cannot be completed on time due to insufficient data. In such cases the WATECO guidance document explicitly calls for the outstanding work to be listed in a separate chapter along with the plans for its completion. The remaining work and future activities will be specified in the course of the operations to undertake the economic analysis in the river basin district. In this presentation, attention should be given above all to the following areas of work:

- reviewing the data collected by 2004 and the existing data to find out whether further data must be collected for a more precise economic analysis after 2004.
- stating which data are still required and preparing for the post-2004 survey
- drawing up national standards for the key factors and the underlying methodology in order to develop and improve the "baseline scenario"
- developing a practical methodology for determining environmental and resource costs and the resulting level of cost recovery;
- specifying the contribution of individual waster users towards covering the costs of water services so as to establish a sound basis from which to integrate the principle of covering costs by 2009
- examining the data collected so far to see whether it provides a sufficient basis for selecting the most cost-effective measures when designing the programme of measures.

The necessary presentation is being prepared at the LAWA level. Having completed and evaluated the initial economic analyses, LAWA will develop proposals for the implementation of the measures recognised as necessary.

The Netherlands

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Part 1: General Issues

National Responsibility for WFD Implementation

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

- Ministry of Transport, Public Works and Water Management;
- A Working Group (WG) on the national level has been established (see also question 3);

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

- A general national guidance document has been prepared; it also contains a general section on the economic analysis; it was developed by the national Working Group;

National Responsibility for the Economic Analysis

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group be formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

- A Working Group (WG) on the national level co-ordinates the activities for the economic analysis within the WFD implementation process (see question 1) and works out the economic analysis for all the four river basins in the Netherlands;
- This WG has members from other ministries (e.g. Ministry for the Environment, Ministry for Agriculture), but also members from the provinces, the local authorities and water boards; furthermore, other actors (e.g. municipalities) that do not take part in the meetings of this WG are kept informed;
- At the moment, experts are also (actively) involved in this WG;

4. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

- The guidance document on the economic analysis is still in the process of development; it will be developed by the WG that also implements the economic analysis (see question 3);

- It is intended to develop a document, which contains all the national methods that are used for the 2004 obligations; However, this has not a priority at this moment;
- However, there is a basic document, which constitutes more or less a translation of the WATECO steps adapted to the Dutch situation; it is not finalised yet (and has no priority);

5. Are there specific arrangements for integrating economics and other disciplines, especially with regard to the characterisation process?

- Exchange between the economics WG and other WG is taking place, but this is not yet entirely formalised;
- It is intended to strengthen these links in the upcoming year and to establish a formalised way of working together;
- In light of the tight implementation time-schedule, integrated aspects have the tendency to disappear a bit into the background;
- With the IMPRESS Working Group, exchange is taking place in the form of reciprocal presentations at the WG meetings on the progress of work;
- While exchange is taking place, one problem for co-ordination is, however, that at this stage, the work on the economic analysis is mostly taking place at the national level, while IMPRESS work is done more locally; Ways have to be found on how to make the work of these two groups meet: This problem will be approached in the upcoming year;

Available Capacities

6. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

- No feasibility study in itself has been conducted: It is more that while doing the job, attention is paid to the topic of data and information availability;
- In the early WFD implementation phase, a project has been initiated, which intended to link information on water accounts (e.g. how much water is used, which substances are polluted in which region, etc.) to the national accounting matrix (which contains the economic information);

7. Is reorganisation of the collection of data planned? Only in terms of new or revised indicator definitions, or also institutionally (e.g. change in the level at which data is collected (centralised, decentralised), change in responsible bodies, etc.)?

- The available data and information base is considered to be sufficient for 2004;
- But as some data are still missing, the Dutch data collection system will probably be adapted in the future (post 2004); this issue will probably be tackled next year;

8. Does restructuring according to hydrological boundaries pose difficulties in your country? How do you proceed technically with the conversion of existing data sets to the new requirements (e.g. break down existing data sets organised according to administrative boundaries to match the sub-basin scale)?

- The economic analysis for 2004 will be based on existing data; There are some difficulties involved in trying to match economic data, which are based on the administrative division of the area, with hydrological divisions;
- A method has been developed, with which data can be regionalised to a sufficient level of detail and accuracy for the present stage (2004);

- Once analyses at the water body level need to be made, (e.g. with respect to measures) the level of accuracy and detail will be more decisive so that a more sophisticated approach will have to be employed then.

9. Where do you see the biggest obstacles in terms of data availability and quality?

This question has not been treated in the interview.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

10. Which problems that were identified in the beginning could be resolved? How?

- Extensive discussions have existed on:
 - What are water uses?
 - The distinction between water uses and water services;
 - The distinction between water uses and activities;
- What needs to be taken into account and what is not relevant for the economic analysis?
- The issue of which information/ data needs to be compiled in order to have a good view on the economic importance of water uses has not entirely been resolved so far;

11. What are the most important data and information gaps? What activities are planned to remedy these gaps?

The most important data and information gaps relate to:

- Fishery;
- Gravel extraction;
- Leisure activities (e.g. leisure fishing, boating & wind-surfing);
- Shipping (professional).

12. Which information will be reported and in which format (table, maps)?

- Information will be reported partly in tables, but use will also be made of maps;

13. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

See question 5;

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

- Given the fact that existing data are used, it is a lot of work, but it can be done;
- It needs to be planned well in advance in light of the tight implementation schedule and the high amount of work to be done;

- In some countries, particular difficulties may relate to the fact, that the implementation process is depending on a small group of people that are knowledgeable in this field (i.e. that are working at the intersection of water and economics and are simultaneously specialists with regard to the WFD), which may constitute an important bottleneck;

15. What is in your opinion the biggest obstacle to a timely implementation?

This question has not been addressed in the interview.

Baseline Scenario

16. Is there a nationally accepted and documented methodology on how to develop the overall BLS (or sub-parts of it), and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

- A methodology on how to develop the baseline scenario is still under development; it is expected that in a few weeks a document is available and accepted at the national level;
- The present discussions (based on the first concept of this paper) revolve more on which kind of scenario will actually be used; this decision will have important consequences at later stages (e.g. with regard to the risk analysis);

17. Who is involved in developing the BLS? Which institution has the co-ordinating (political) responsibility; the technical/ implementation responsibility? How many people are involved (on the technical + co-ordination side)?

- The national Working Group is responsible for developing the baseline scenario;
- A focus is on forecasts of economic development and present policies;
- The work on the baseline scenario is linked to the Impact and Pressures Working Group, by extending the analysis to see how activities in certain sectors turn into influences in certain substances and to determine then what the effects are; → “from driving force to pressure”;
- The Impact and Pressures Working Group provides information on which sectors are likely to cause significant problems and which not;

18. Which aspects of the BLS will be compiled conjointly at the national level (e.g. projections on development in precipitation and its quantitative impact on groundwater, or projections on development in water collection and treatment), for which issues will projections be required at the individual sub-basin level (e.g. projections on changes in urban and rural planning at the sub-basin level) or at lower spatial scales (specify which scales)?

- National projections constitute the starting point for the development of baseline scenarios; from these, the development in the four Dutch river basins is to be deduced and also for the Rhine (if possible), which has due to its size been divided into four separate parts;
- Accordingly, 8 separate scenarios will be developed, one for each part;

19. Have new projections been initiated or is the work for the 2004 BLS only based on existing work? For which areas might this cause imprecise outcomes?

This question has not been treated in the interview.

20. Which methodological problems persist? How will they be addressed? Is the country aware of the approaches used in other countries? Has it been involved in methodological exchange on this issue?

Practical issues:

- The outcomes of the baseline scenarios have to be accepted by the people in the region that have to work with them and not be perceived as unlikely developments (e.g. growth percentages higher than expected by the practitioners in the region);
- It should be discussed, what will be considered in the BLS: should e.g. technical developments be considered; how to judge present existing policies and the effect of these policies;

Methodological issues:

- The available statistics and the available projections must contain (sufficient) information on the critical sectors, which will not always be the case;

21. If your country is part of an IRB, is co-ordination taking place at the IRB level? How are aspects that require common reporting dealt with (Projection for the whole RB)? Who organises/manages the concerted approach?

- It is now accepted that a baseline scenario is needed, as well as that work related to the risk analysis needs to be conducted (e.g. for the Rhine);
- As an input to this discussion, a paper is being prepared (by the Netherlands) focusing on the risk analysis and the role of economics in this process; it will be discussed in the group "Integrated Economics" of the International Commission for the Protection of the Rhine.
- For the Netherlands, it is relevant to know the activities upstream, because these influence their activities downstream;

22. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

This question has not been discussed during the interview.

23. How do you assess the present status of implementation of this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

This question has not been discussed during the interview.

24. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

- Convincing people from other disciplines that the development of a baseline scenario is important.
- On the international level it is important to convince your partners that work on the baseline scenario is important, as the developments in one part of the international river basin influence the developments in other parts (inherent interdependence);
- These interdependencies need to be identified and addressed;

25. On which parts of the BLS do you consider exchange as particularly useful?

- What are the other partners doing on this field; exchange on the way we work, is our approach comparable to others?
- In how far is attention paid to the interdependence (at the international river basin level)?

- Are the national scenarios which are being built comparable?
- For which substances can it be relevant?
- Do the countries use a bottom-up or a top-down approach?

Cost-Recovery

26. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

- A national approach still has to be formalised, which will be done within this year;

27. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

- Yes, the national approach will be close to the WATECO approach, due to the application of its interpretations and definitions;

28. Which services are considered for the cost-recovery assessment?

The following services are considered:

- self-services
- production and distribution of water
- irrigation
- cooling water
- collection and discharge of rainwater
- treatment of wastewater
- discharge of waste water;
- drainage (agriculture & urban)
- surface water quantity
- quality of surface water
- hydropower (consider 2 plants)

29. Which data problems will only be resolvable after 2004 and why?

This question has not been addressed during the interview.

30. How is the issue of subsidies (and cross-subsidies) dealt with?

- Subsidies have to be deduced in the calculation, as they are not part of cost recovery;
- For the Netherlands, data is available at a sufficient level of detail for 2004;
- It is important to be pragmatic now, but to note which issues will have to be addressed after 2004;

31. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

- A document will be provided as an answer to this question;

32. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

This question has not been addressed during the interview.

33. Where do you consider methodological exchange as most valuable?

- At the international level, it is inevitable that exchange and co-operation will be needed, but the question is when and how;
- Exchange is important in order to guarantee a minimum of comparability (and mutual acceptance) of the obtained results;

34. How do you evaluate the present status of implementation for this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

35. What is, according to your personal assessment, the biggest challenge regarding this task? What are the necessary next steps?

See question 33;

Preparing for the Cost-Effectiveness

36. Is there a nationally accepted and documented methodology, and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

- A document on the methodological problems that need to be addressed is currently under preparation (based on the work from the pilot projects);
- The question remains whether such a document will already be practical enough;
- For the actual implementation, at least two levels are of relevance, namely the RB level and the local level;

37. Has a cost-benefit analysis been conducted?

This question has not been addressed during the interview.

38. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

- Sufficient information will be available, in particular on traditional measures;

39. In how far has the issue of derogations been addressed?

- The issue has already been addressed;
- It is foreseen that next year a project on derogations will start;
- For now, existing information will be made use of;

40. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

- Yes, exchange has taken place of the cost-effectiveness analysis, in particular with Germany;

41. How do you evaluate the present status of implementation?

- Well in time; Difficult to complete in time; Impossible to complete in time;

42. What do you consider as the biggest challenge regarding this task? What are the necessary next steps?

- The question of how to effectively deal with up-stream and down-stream issues;

Part 3: The Workshop

43. Which issues would you like to see addressed and discussed at the workshop?

One issue that is also discussed in the working group ECO 1: are these things pragmatic and practical enough?

Enough detail \leftrightarrow too much detail; do not overdo the things...

At a certain stage, you have to realise that you have some questions which can be addressed now, while others have to be left for later; how do other people deal with this??

Latvia: E&R costs; had the impression that they would have to do everything perfectly by now...while D,F,NL say, ok we take what we have and see how far we get;

In how far is in other countries a risk-assessment worked out for 2004?

What are the water services that the different countries are taking into account and want to report on to Brussels?

How do they deal with E&R?

How is the co-operation in other transboundary RB?

44. What would you wish to be the outcome of the workshop?

Have not talked about it!

→ Will send me document on environmental costs, Dutch methods! + the document on sectors.

Spain

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Part 1: General Issues

National Responsibility for WFD Implementation

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

The main responsibility lies with the Ministry of Environment;

- Spain has a decentralised Water management system, with 9 RB authorities (which have been set up in 1920's) + 4 RB which are managed by the regional government;
- The RB authorities are responsible for preparing the 2004 reports; [but the Ministry is responsible for reporting to Brussels]
- The Ministry of Environment has set up a working group with the Ministry of Agriculture; → the institutional set-up (for WFD implementation) is still evolving;
- The role of the water council in the river basins is also important (also at the national level, where it is an advisory body to the parliament); the technical secretariat of the water council is located in the Ministry of Environment;
- At river basin level there are also RB water councils (they represent the users; and the administrations (regional, local, national level), industry, etc.).

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

- No general national guidance document has been developed, but the pilot studies are taken very seriously;
- The Impress guidance document has been translated into Spanish; the WATECO document has been translated in parts;
- Furthermore, a "how to guide" guide is prepared (by the Ministry of the Environment in co-operation with the two agencies mentioned under 1), which contains concrete examples on the basis of the pilot studies;

National Responsibility for the Economic Analysis

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group be formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

The overall responsibility lies with the Ministry of the Environment;

- The RB authorities have traditionally done the RBMP for Spain and are also responsible for the implementation of the economic analysis;
- A working group of focal points (from the RB, which send delegates) has been established under the lead of the Ministry of the Environment; this group meets about once a month;
- Another working group has been established with the Ministry of Agriculture for the economic analysis (animal farming, fishing, etc.)

4. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

- Instead of a national guide for the implementation of the economic analysis, a series of methodological notes and test cases will be prepared in order to offer very practical and detailed implementation assistance;
- Example for the level of the methodological notes: Analysis of the baseline scenario related to tourism in the Jucar river basin;
- Methodological notes will be prepared on: financial costs; baseline scenario, economic and resource costs, economic analysis of water use, households, hydroelectricity, recreation, price of water services; integration (of the economic analysis with other elements of WFD implementation);

5. Are there specific arrangements for integrating economics and other disciplines, especially with regard to the characterisation process?

See Q4

- Working group with the Ministry of Agriculture; pilot river basins; support organisations → all work on pilot river basins; meet and exchange;

Available Capacities

6. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

- The methodological notes aim at doing this;
- Necessary actions: it is aimed at having a preliminary report on in December 2003 (on the quality of information, available expertise, methods) with emphasis on the analysis of necessary steps;
- The objective is to see what will be included in the 2004 report; to identify how data collection should be changed (but not to change it for 2004!);

7. Is reorganisation of the collection of data planned? Only in terms of new or revised indicator definitions, or also institutionally (e.g. change in the level at which data is collected (centralised, decentralised), change in responsible bodies, etc.)?

- The National Institute of Statistics does a national costs of water services report based on a sample;
 - The National Institute of Statistics will conduct a specific exploitation of their data (for WFD purposes) at the sub-basin level in order to be able to compare these results with the information that RB authorities are collecting;
- reorganisation of data collection and analysis has already started;

8. Does restructuring according to hydrological boundaries pose difficulties in your country? How do you proceed technically with the conversion of existing data sets to the new requirements (e.g. break down existing data sets organised according to administrative boundaries to match the sub-basin scale)?

- Restructuring according to hydrological boundaries is not problematic in Spain, because RB already existed;
- However, problems may be related to reporting on distribution services for the cost recovery report in those cases where municipalities "buy" services from more than one river basin area;
- One possible way of dealing with this problem is to identify each municipality with the RB where the majority of the population is located;

9. Where do you see the biggest obstacles in terms of data availability and quality?

- Problems relate to time series of economic data; (very good time series are available for technical and physical data but not on the associated economic data, which constitutes a problem if extrapolation of the existing trends on economic aspects is aimed at);
- level of aggregation;
- multiplicity of sources;

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

10. Which problems that were identified in the beginning could be resolved? How?

- Internal: competent personnel was taking WFD implementation to a technically high level; there still is more political commitment needed.

11. What are the most important data and information gaps? What activities are planned to remedy these gaps?

s. No. 9

12. Which information will be reported and in which format (table, maps)?

- A comprehensive database is being built up.
- Data are analysed with regard to important sectors (e.g. agriculture) in the treated river basins. The attempt is to depict the key problems with regard to the river basin plan.

13. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

Formal co-ordination needs to improve:

- Formal co-ordination with river basin authorities is taking place
- Informal co-ordination is functioning very well;
- There also is co-ordination work performed at the level of the water council;

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

15. What is in your opinion the biggest obstacle to a timely implementation?

- Need to communicate better the political importance of the WFD.
- Moreover, the implementation started late.

Baseline Scenario

16. Is there a nationally accepted and documented methodology on how to develop the overall BLS (or sub-parts of it), and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

- Forecasts on the evolution of the agricultural sector is being prepared by the Ministry of Agriculture
 - Ministry of Economics is providing forecasts on macro-economic variables
- BLS strictly related to water issues will be assembled from:
- Expectations of the regional governments (spatial plans)
 - Extrapolations (e.g. from the Ministry of Agriculture)
 - Scenarios and extrapolations on the evolution of special factors that affect water demand
 - National irrigation plan has forecasted some changes as the result of political decisions.

17. Who is involved in developing the BLS? Which institution has the co-ordinating (political) responsibility; the technical/ implementation responsibility? How many people are involved (on the technical + co-ordination side)?

- Involved are the River Basin Authorities and the Ministry of Environment which provides part of the information.

18. Which aspects of the BLS will be compiled conjointly at the national level (e.g. projections on development in precipitation and its quantitative impact on groundwater, or projections on development in water collection and treatment), for which issues will projections be required at the individual sub-basin level (e.g. projections on changes in urban and rural planning at the sub-basin level) or at lower spatial scales (specify which scales)?

- Data on agriculture, animal farms and fishing are compiled at national level.
- All other aspects are compiled at basin and sub-basin level (e.g. hydro-electricity);
- The regional governments have policies on structural developments in industry which can be drawn upon in the development process of the baseline scenario.

19. Have new projections been initiated or is the work for the 2004 BLS only based on existing work? For which areas might this cause imprecise outcomes?

See above.

20. Which methodological problems persist? How will they be addressed? Is the country aware of the approaches used in other countries? Has it been involved in methodological exchange on this issue?

- Forecasts on supply and demand of water are difficult to develop, mainly because of missing information (not because of deficient models available);

- Authorities are aware of the different approaches used by other countries, but there exists a language problem as well as a problem of unclear definitions;

21. If your country is part of an IRB, is co-ordination taking place at the IRB level? How are aspects that require common reporting dealt with (Projection for the whole RB)? Who organises/manages the concerted approach?

- IRB shared with Portugal.
- There is an international convention signed with Portugal for the management of the shared river basins. There is a working group related to the WFD. In this context, it also is planned to establish preliminary contact in order to conduct the economic analysis in concordance with Portugal.

22. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

The competent bodies follow the WATECO approach.

23. How do you assess the present status of implementation of this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

24. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

- The statements need to be very precise.
- Data need to be proofed thoroughly.

25. On which parts of the BLS do you consider exchange as particularly useful?

- On the variables to consider
- On the information sources

Cost-Recovery

26. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

- A Census approach was chosen. Data have already been collected and are updated annually.

27. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

- In general: the smaller the governmental unit gets, the more difficult it is to get data on cost-recovery. The assessment of cost-recovery for smaller municipalities will have to be based on examples only.
- Probably only 40 % of all irrigation co-operations will respond to the census. The competent authority will make an effort to fill the information gaps.

28. Which services are considered for the cost-recovery assessment?

- The services are those described in the Directive.
- Analysis of them is easy because the services as described in the Directive reflect the organisation of the water management sector in Spain.

29. Which data problems will only be resolvable after 2004 and why?

- Prices are not always explicitly mentioned in the annual reports of the companies;
- Different information sources need to be contrasted and differences have to be explained.
- The levels of costs and cost recovery also need to be explained.

30. How is the issue of subsidies (and cross-subsidies) dealt with?

- Enough information is available about subsidies at the RB level (from the Ministry of Environment).
- A report is being prepared on how costs of multifunctional infrastructure is being subsidised with regard to the different uses.
- An analysis of financial flows is being conducted, detailing, which money goes where (national or regional level) and how much is absorbed by the different uses. This analysis is performed by the Ministry of Environment and the RB-Authorities.

31. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

- The approach to the assessment of environmental costs is to look at the costs of remediation according to the existing legal framework before the WFD. This includes for example the costs for modifications of projects following the EIA or the costs related to water quality.
- Resource costs are assessed by documenting the activities of water markets.

32. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

- Methodological exchange at the European level is limited.

33. Where do you consider methodological exchange as most valuable?

- Defining how to extract information from existing information sources (annual reports of the companies).
- For example: how to extract the relevant information for cost-recovery from the documented accounting of a company.

34. How do you evaluate the present status of implementation for this task?

- Well in time; Difficult to complete in time; Impossible to complete in time;

35. What is, according to your personal assessment, the biggest challenge regarding this task? What are the necessary next steps?

- It is very difficult to overview all the institutions which hold relevant information. A map of institutions and contacts needs to be built up which differs from RB to RB.

Preparing for the Cost-Effectiveness

36. Is there a nationally accepted and documented methodology, and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

No.

37. Has a cost-benefit analysis been conducted?

Yes for:

- projects
- national hydrological plan
- special cases

38. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

Yes, information is available, which needs to be systematised.

39. In how far has the issue of derogations been addressed?

-

40. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

Not known

41. How do you evaluate the present status of implementation?

- Well in time; Difficult to complete in time; Impossible to complete in time;

42. What do you consider as the biggest challenge regarding this task? What are the necessary next steps?

- Difficult to say at this point in time, but e.g. that there is a large number of measures that need of to be looked at per sector;

Part 3: The Workshop

43. Which issues would you like to see addressed and discussed at the workshop?

Steps of the analysis of the BL:

- Integration of economic analysis into existing hydrological and quality models
- How to improve commitment at the political level
- How to develop the key analysis
- Out of all the collected data what key messages are to be put in the report and which representation form would be best.

44. What would you wish to be the outcome of the workshop?

United Kingdom

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Part 1: General Issues

National Responsibility for WFD Implementation

1. Which ministries or administrative bodies are responsible for the WFD implementation in your country? What is the overall organisational set-up?

Defra has the overall co-ordination responsibility for the UK, but there is a devolved responsibility:

- England: Defra (Department for Environment, Food and Rural Affairs)
- Scotland: SEPA (Scottish Environment Protection Agency)
- Wales: Environment Agency
- Northern Ireland: NI Department of Environment through it's agency the Environment Heritage Service

2. Has a national guidance document been prepared in your country? When has it been finalised? By whom was it developed?

No specific national guidance document has been prepared, but several documents that support the implementation of the WFD have been developed for the UK:

- The most important documents are the second and third consultation documents on the WFD. They set out the next implementation steps for England and Wales until 2015 as well as identifying the responsible bodies.
- Scotland has prepared separate documents containing a plan of action for Scotland. The most important one is the Ecologic study 'The Scope of the Economic Analysis in the Water Framework Directive: Preparing a Plan of Actions'. Northern Ireland probably has no guidance document of its own but is involved in the development of UK technical guidance on the WFD.

National Responsibility for the Economic Analysis

3. Which organisation is responsible for the implementation of the economic analysis in your country? Has a special working group be formed that concentrates on this issue? At which administrative levels are people involved in the implementation process?

- Defra is responsible for the implementation in England and Wales and for the *co-ordination* of the economic analysis in Scotland, England, Wales and Northern Ireland.
- Responsible for implementation in Scotland is SEPA.

- In general, there is a common approach for all matters that are similar across the UK. So, for example, since Scotland's water service sector is institutionally totally different from that of England, a different approach to the calculation of cost-recovery is possible.
- A UK Technical Advisory Group (UKTAG) meets regularly to oversee progress and the economics is discussed at this group. A separate economics group does not currently exist although a formal group is being set up.
- Scotland have a National Stakeholder Forum which acts as a sounding board for the necessary actions and a smaller Economic Advisory Stakeholder Group has been formed by SEPA to refine the requirements of the Economic Analysis.
- The NI Department of the Environment as competent authority will be responsible for ensuring that appropriate economic analysis are undertaken. No specific working group has been set up in Northern Ireland.

4. Has a special guidance been prepared for the national implementation of the economic analysis? If yes – on which specific components of the economic analysis is it focused?

- There is no special guidance document currently available specifically for the implementation of the economic analysis in the UK. In Scotland, the scoping study and the EASG have defined a research programme and course of action. NI will use UK guidance on this and other technical aspects of WFD implementation.

5. Are there specific arrangements for integrating economics and other disciplines, especially with regard to the characterisation process?

- The Environment Agency (EA) considers that it is essential that the economics work is well integrated with its scientific and technical analyses for River Basin Characterisation and River Basin Management planning.
- The EA carried out a virtual , (the "Ribble" study) = prior to the actual characterisation work. It was an attempt to develop an integrated approach to all matters that are mentioned by the WFD. The study provided important insights.
- The Environment Agency's Economics unit works closely on the WFD with the Environment Agency's technical and science experts and experts on consultation, for example, the Economics unit have integrated with the Agency's technical experts responsible for assessing risks of failing to achieve good status in the RBC process focussing on the specification of pressures and analysis of their effects on good status.
- The EA have developed a proposed programme of research on economic appraisal for RBMP which focuses on research on assessing cost-effectiveness and environmental benefits. This integrates focus group analyses (as part of consultation processes) to scope the concerns of the affected parties regarding impacts, costs and benefits with follow up economic assessment of the costs and benefits of options.
- In Scotland - there has been (and continues to be) close co-ordination with the other disciplines and this should be reflected in the overall characterisation report.
- In NI A decision as whether economic analysis should be integrated with other elements of the characterisation report , be a stand alone report, or be a blend of both of these approaches has yet to be made. NI will be working to whatever model is agreed for the UK in general.

Available Capacities

6. Has a feasibility study been conducted that investigates the availability and quality of data, information, methods, knowledge and expertise? Which major difficulties were identified? Which necessary actions have been prioritised and planned?

- In early summer 2003 Defra conducted a feasibility study especially for the economic analysis focusing on the cost effectiveness analysis and cost-recovery aspects. This document also investigated the issues of data availability and who needed to be involved (public participation issues).
- In 2002, the EA carried out a virtual study to explore how to carry out integrated appraisals for RBMP. This reviewed the available data, information and expertise and identified a number of priority gaps.
- In Scotland, three projects are currently underway to explore these and other questions. There exists considerable information and it is hoped that much can be accomplished within existing frameworks, however there is an obligation on behalf of each project to identify gaps and propose solutions.
- In NI No specific feasibility study has been undertaken in NI although DOE has fed into UK scoping study. In addition, NI is currently involved in a project being undertaken jointly with SEPA on the economic analysis of water use and non-use for WFD purposes which it is anticipated will identify such gaps. This project is due to report separately for Scotland and Northern Ireland in February 2004.

7. Is reorganisation of the collection of data planned? Only in terms of new or revised indicator definitions, or also institutionally (e.g. change in the level at which data is collected (centralised, decentralised), change in responsible bodies, etc.)?

- In England and Wales, there are no plans at the moment to change data collection etc. with respect to the work done for 2004 (emphasis is on seeing what can be done on the basis of the existing data sources). After 2004, certain data gaps and deficiencies will need to be tackled (e.g. in the agriculture sector). This reflects the WATECO principle of gradual adaptation – we will first (by 2004) see what needs to change and then determine how to do it. We intend to focus on intelligent use of economic analysis to determine first what data are needed and how they can aid the appraisal and decision-making process **before** setting in train expensive (reorganisation of) data collection.
- In Scotland, this aspect is currently being implemented and the intention is to have systems in place that will deliver all the necessary information in as efficient a manner as possible, with in the next few years. Data management systems are currently being implemented to this end.
- In NI none is planned at present.

8. Does restructuring according to hydrological boundaries pose difficulties in your country? How do you proceed technically with the conversion of existing data sets to the new requirements (e.g. break down existing data sets organised according to administrative boundaries to match the sub-basin scale)?

- In England and Wales, the vast majority of information relating to water is collected on water service boundaries. There is little concordance to the river basin boundaries in terms of the available data.

- The Environment Agency, however, has a lot of its data geo-referenced and is able to provide break-downs of those data according to RB boundaries quite easily with the use of standard computer packages.
-
- In Scotland, it is the intention to use existing administrative boundaries where possible. It is expected that they will be coterminous with hydrological boundaries in most cases. Scotland is not a large country and confidentiality of information will be a problem in some cases. Where this is the case we would hope to be able to produce estimates based on transferable information from other areas. Local information and expertise will play an important part in refining and validating this approach.
- In NI It is currently anticipated that problems in analysis of data may arise as hydrological boundaries do not coincide with administrative and political boundaries. Advice as to how such difficulties will be addressed is being sought as part of the project outlined in Answer 6 above.

9. Where do you see the biggest obstacles in terms of data availability and quality?

- In England and Wales there may be obstacles with data related to the importance of water to specific economic sectors and linking the specification of the technical data (eg on pressures) with the economic data on pressure sectors.
- There may also be difficulties in ensuring that GIS based economic data (eg on pressure sectors) can be sufficiently disaggregated at RBD level and, even if they are, that the local economic data actually relates to the pressures present on the ground.
- [There may also be difficulties in how to specify costs, economic impacts and cost-effectiveness of options across very different pressure sectors, most notably the monopoly water industry compared with agriculture that is subject to strong competition and difficult economic conditions].
- Also there may be difficulties in specifying and collating quantitative info and qualitative expert judgements on good status.
- In Scotland, there may be obstacles in linking the economic effects with the environmental consequences, as the 2003 SIC codes are still too wide to provide easily transferable relationships.
- Commercial confidentiality (perceived or actual) will also be a limiting factor; also the availability of information and willingness of businesses to cooperate.
- In NI In Northern Ireland, the current lack of a transparent cost recovery system for domestic water use and the current lack of an abstraction licensing system, may limit the amount of information which is available e.g. about agricultural water use in NI in comparison with other parts of the UK.

Part 2: The Present Status of Implementation

The Economic Importance of Water Uses

10. Which problems that were identified in the beginning could be resolved? How?

- In England and Wales, already at a very early stage, it become apparent, that most of the required information could be compiled by focusing efforts on those two areas which were critical, namely agriculture and water services. With reasonably little effort, questions about the importance of these sectors could then be answered.
- The next stage will then concentrate on the other, "smaller" water uses, which are more numerous and less well understood.

- In Scotland, research projects have been let in order to find the true importance of water use, examining who uses water and what value they receive from it's use as well as examining the trends and drivers and describing who currently pays and for what.
- In NI, the joint Scotland/NI project outlined above is just getting underway and no report on these matters has been received as yet.

11. What are the most important data and information gaps? What activities are planned to remedy these gaps?

- In England and Wales, efforts are being made to understand what existing administrative data sets can be used. Activities planned to remedy this include the data scoping study outlined above.
- In Scotland the financial flows around the usage of water are not known. Significant amounts of information exist but the complete picture has never been examined in terms of the relationships/ balances around water use and non-use. The current research programme will satisfy these needs.

12. Which information will be reported and in which format (table, maps)?

That is difficult to say, yet, because data are still being assembled and the choice of displaying will be decided at a later stage.

- However in England and Wales, it is likely that a variety of information on both use and non use will be reported, mainly in a qualitative way, with some maps.
- In Scotland, geographic information on water use and non use by Scottish based firms by industrial sector will be reported, using both maps and tables.
- NI will be working to UK reporting formats and protocols once these are agreed.

13. How is the linkage between the economic analysis and the analysis of pressures and impacts ensured as part of the overall characterisation of the river basin? Does co-ordination take place? What have been the main results/decisions taken as result of making these linkages operational? (e.g. agreeing on specific indicators, scales of analysis, priorities for the analysis, methodologies, etc)

In England and Wales, the starting point for this work is the list of pressures from the characterisation work. Coordination will take place in the studies described above.

The Environment Agency's economists are working closely with technical experts responsible for assessing risks of failing to achieve good status in the RBC process. focussing on their specification of pressures and analysis of their effects on good status. This utilises outputs of the pressures in terms of activity indicators such as tonnes of outputs or numbers of livestock or hectares of crops. The focus has been on the most important problems (water industry demand/abstractions and discharges and agriculture) on 80/20 rule of focusing on most important problems.

Analysis has been done using GIS based data as essentially a series of scoping exercises to let the analysis specify the spatial scale of the problem, rather than trying to guess the spatial scales and embarking on major collection and analysis of data for these pre-ordained spatial scales.

In Scotland, close linkages have been maintained and at present the intention is to keep as many options open as possible by attempting to ensure maximum compatibility of information. The main link is through activity and where possible the pressures and impacts have been associated with an SIC. The intention is to be able to produce indicators such as type of pollution per unit of output by SIC. Linking this type of information with the forecasted trends and drivers should provide an interesting picture of the future.

In NI, it is planned that the work of the economic analysis project, outlined in Answer 6 above will take into account information which is currently being gathered in terms of pressures and impacts. Within EHS, the economic analysis is integral to the WFD characterisation report work programme but no specific decisions have yet been taken beyond commissioning the research referred to in Answer 6. This requires the analysis to take into account links with pressures and impacts, identified areas at risk of failure, etc.

14. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

Substantial risk exists that it will not be possible to complete everything within the deadline of 2004;

15. What is in your opinion the biggest obstacle to a timely implementation?

- Facing the near deadline much work has to be done in parallel which should better be done successively. Therefore, there is limited scope for feedback from the different work streams, so, the exchange of experience between related tasks is very limited.
- In Scotland, there may be unanticipated problems in obtaining accurate data or there may be slippage by the consultants (for other reasons) providing the research

Baseline Scenario

16. Is there a nationally accepted and documented methodology on how to develop the overall BLS (or sub-parts of it), and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

There is no agreed methodology for developing the baseline scenario for the entire UK.

- England and Wales: The focus is on developing methodologies for the BLS for the two most problematic areas (agriculture and water services). The EA have developed tailored methodologies for different pressures that are appropriate with respect to the available data, and the way the findings can be used in tandem with the technical data to assess likely risks of failures to achieve good status. In particular, the EA have developed a tailored system for assessing water demand and supply and have developed national guidelines for forecasting water demand and supply up to 2027.
- Scotland has a rich history of input-output modelling for their economy and have access to a regional macro-model, which they use in terms of technical-economic forecasts for the Scottish economy; they have been making progress in linking economic sectors by standard industrial classification to pressures; Work will draw on and link with other ongoing research such as Scottish Water's supply and demand forecasts produced for ongoing business development and as part of the Quality and Standards III process and the structure plans of local authorities.
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17. Who is involved in developing the BLS? Which institution has the co-ordinating (political) responsibility; the technical/ implementation responsibility? How many people are involved (on the technical + co-ordination side)?

- In England and Wales the Environment Agency (lead) along with Defra and OFWAT (for the water services sector) are involved. DEFRA has the co-ordination function, but is also feeding in information on the agricultural development. It is not possible to estimate numbers of persons involved.

- In Scotland, SEPA will be responsible for delivering the BSL and Scottish Agricultural Colleges in partnership with the Fraser of Allander Institute and Pierre Strosser, have been commissioned to deliver this essential piece of research. SAC et al have a team of seven contributing to this project and others will be consulted as required.

18. Which aspects of the BLS will be compiled conjointly at the national level (e.g. projections on development in precipitation and its quantitative impact on groundwater, or projections on development in water collection and treatment), for which issues will projections be required at the individual sub-basin level (e.g. projections on changes in urban and rural planning at the sub-basin level) or at lower spatial scales (specify which scales)?

In terms of the two areas of agriculture and water services, the situation concerning main elements of baseline development is different in Scotland, England and Wales.

- Water Services and Water Demand forecasts are largely done at the very micro scale since the developments differ regionally;
- These forecasts are aggregated to the national level. It would be possible to aggregate them across the UK, which is not really necessary from a water supply and demand perspective;

At the moment, without a European perspective on CAP (Common Agricultural Policy), BLS for the agricultural sector needs to be done at the national level (maybe even sectoral level) and will be separately done for Scotland, England and Wales.

19. Have new projections been initiated or is the work for the 2004 BLS only based on existing work? For which areas might this cause imprecise outcomes?

- In England and Wales, the 2004 BLS will be using existing information as far as possible, but new forecasts for water demand and supply in water companies' water resource plans will also be utilised.
- Analysis of recent trends in agricultural outputs and indicative default baseline projections of likely BAU developments will be used. There may be difficulties with specifying CAP reforms and their likely effects.
- In Scotland It is hoped that when completed this research will be as robust as possible, given the inexact nature of economic forecasting over such a timescale. To this end there will be sensitivity analysis.

20. Which methodological problems persist? How will they be addressed? Is the country aware of the approaches used in other countries? Has it been involved in methodological exchange on this issue?

- There has been exchange between Defra in the UK and an Agence de l'Eau in France. Moreover the UK is engaged in the relevant EU drafting groups. But there are no specific methodological exchanges on baseline development.
- In England and Wales, the EA is aware of good methodologies being employed in some Agences de Bassins in France. There is no time to do such analysis in time for RBC for all RBDs in all of England and Wales for 2004, however, the EA will continue exchanges to improve our processes for next round of RBC.
- In Scotland, contact is maintained with the EA and other European economists. It is also anticipated that events such as the forthcoming Berlin Conference will enable thoughts to be exchanged.

21. If your country is part of an IRB, is co-ordination taking place at the IRB level? How are aspects that require common reporting dealt with (Projection for the whole RB)? Who organises/manages the concerted approach?

- For Scotland, the cross border (Scotland/England) RB will be addressed by the consultants undertaking the research and they will build upon existing communication channels to ensure compatibility.
- Northern Ireland is involved in 3 IRBDs with the Republic of Ireland and co-ordination of activities takes place at a number of administrative levels. Draft transposing regulations aim to achieve full co-operation between competent authorities in both jurisdictions.
- Linkages are in place to ensure coordination of technical issues for example between the UK Technical Advisory Group (UKTAG) and its counterpart in Ireland, the North/South TAG.

22. How close to the WATECO approach is the approach chosen in your country? Where has a different approach been followed? Why? Is the divergence only planned for 2004 reporting (based on e.g. insufficient information / projection availability, etc.)

In general terms, the UK authorities are following what is suggested in WATECO in terms of the different stages to be considered, but are doing it in a way that takes account of the available data for 2004;

In England and Wales:

- It has not been attempted to gather data on the developments of the different sectors (unclear so far how to incorporate this into the pressures analysis);
- Some work on this may be done within the next year, but as it is not going to feed into the pressures analysis, it is less of a concern at this stage;

In Scotland:

- They look comprehensively at all sectors and on how they are likely to develop;
- It is possible to link pressures and economic sectors to SIC codes (partly because of the smaller size of the country);

Overall, the WATECO approach is quite closely followed.

23. How do you assess the present status of implementation of this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

For the areas discussed, it can be accomplished well in time;

For the other areas, it is difficult to complete in time, but this is not perceived as a problem, since reporting early on, on some aspects is not necessary for the 2004 analysis;

24. What do you consider as the biggest challenge regarding this task (e.g. availability of projections, capacities, reliability of available projections, etc.)? What are the necessary next steps?

- There is much uncertainty regarding the agricultural baseline.
- In Scotland, the nature of economic forecasting over such a time period means that it will be sensible to adjust the forecasts as knowledge improves and it is anticipated that the BLS will be revisited as it is seen to depart from reality.

25. On which parts of the BLS do you consider exchange as particularly useful?

- On some of the factors that lead to the definition of baseline, which have an important European dimension (e.g. CAP, fisheries policies, global economic forecasts at the European level, etc.);
- Overall, on forecasts for the European level, with the aim of presenting a coherent approach, thus assuring that those issues will be worked on consistently in the different Member States.

Cost-Recovery

26. In case a national approach has been agreed on for assessing cost-recovery, what does it involve (e.g. are extrapolation techniques used, etc.)?

- England & Wales and Scotland follow a different approach

3. Is the national approach chosen close to the WATECO approach? If not - what are possible comparative drawbacks of the national approach?

This question has not been specifically addressed in the interview.

27. Which services are considered for the cost-recovery assessment?

This is still subject to debate in the UK. All water services mentioned in the WATECO guidance are considered. But there are uses that perhaps feature in the pressures analysis as having significant impacts that might also need to be considered, but which are much more difficult to consider at this stage (e.g. land drainage and floods prevention).

28. Which data problems will only be resolvable after 2004 and why?

- Data gathering at river basin level is difficult because the hydrological boundaries and the water services boundaries are incoherent.
- This means that a principle of restructuring information has to be found.
- There is the possibility that this restructuring will produce misleading results depending on the technical solution found, but this possibility may not be great enough to justify data gathering at RBD level.

29. How is the issue of subsidies (and cross-subsidies) dealt with?

- No national approach exists on how to deal with subsidies.
- In the UK there are no investment subsidies for water supply (only soft discounting loans).

30. Which approach has been chosen for assessing environmental and resource costs? Are environmental and resource costs currently partly internalised through economic instruments (such as sewerage charges)? How are these instruments addressed in the assessment of cost-recovery?

For 2004 this analysis will be highly curtailed:

- In England and Wales, there is a process of setting prices for water services at the moment, where environmental costs are being investigated;
- There are no specific economic instruments at the moment for recovering any of the external costs.
- In Scotland, this is an area that we are currently seeking to improve our knowledge on.

31. Which methodological problems persist? How will they be addressed? Are you aware of the approaches used in other countries? Have you been involved in methodological exchange on this issue?

This question has not been specifically addressed in the interview.

32. Where do you consider methodological exchange as most valuable?

- It would be interesting to find out how reporting of cost-recovery differs according to the different ownership situation in the Member States.
- In the UK there are some specific issues about the institutional setting for the cost-recovery assessment given that all assets for public water supply are in private ownership. The guidance from WATECO takes it as a presumption that these assets are in public ownership. Therefore the British competent authorities had some difficulties in following the guidance, since the answers given would in this case be quite misleading.
- The Scottish view is that it is essential that the initiatives like the CIS are agreed and implemented or the notion of a level playing field becomes problematic.

33. How do you evaluate the present status of implementation for this task?

Well in time; Difficult to complete in time; Impossible to complete in time;

This question has not been specifically addressed in the interview.

34. What is, according to your personal assessment, the biggest challenge regarding this task? What are the necessary next steps?

- Communication with businesses and with the people who pay charges on what the meaning of investigations into cost-recovery actually is, constitutes one of the biggest challenges. It is important to get businesses involved but, up to this moment, it is not possible to communicate clearly what this information is being used for.
- An agreed Europe wide approach may be helpful with all countries seeking to recover the same costs.

Preparing for the Cost-Effectiveness

35. Is there a nationally accepted and documented methodology, and if so, does the national guidance document refer to this methodology? Is development of such a methodology currently underway?

The feasibility study deals with aspects of cost-effectiveness. This study, as well as the virtual Ribble study, will be quite useful for identifying an approach that could be adopted.

36. Has a cost-benefit analysis been conducted?

This question has not been specifically addressed in the interview

37. Is sufficient information on traditional measures (e.g. the construction of wastewater treatment plants) available? Also on non-traditional (preventive) measures (e.g. restoration of wetlands)??

In England and Wales, there is very good information available on traditional measures, for example from the current review of the water industry. .
On non-traditional measures, the available information is much more case specific and difficult to generalise. An important part of these non-traditional solutions has multiple

impacts and understanding those and integrating them into the cost-effectiveness analysis is quite challenging.
In Scotland, it is anticipated that much of the necessary information will be available.

38. In how far has the issue of derogations been addressed?

It has only been addressed to a very limited degree at this stage. It is not being considered as a specific work-stream at the moment. The cost-effectiveness analysis should be aiming to help to justify derogation; it is considered as being more appropriately dealt with in the framework of heavily modified water bodies (post 2004).

39. In how far are developments in other countries linked to the cost-effectiveness analysis taken into account?

- The UK had exchange with other countries through drafting the groups at EU level. There was, in particular, an information exchange with Denmark and Spain.
- Further exchange of information, especially concerning methodologies for assessing costs, economic impacts and uncertainties would be useful.
- The Scottish view is that this is an area where common implementation would be desirable.

40. How do you evaluate the present status of implementation?

Well in time; Difficult to complete in time; Impossible to complete in time;

This question has not been specifically addressed in the interview

41. What do you consider as the biggest challenge regarding this task? What are the necessary next steps?

It is not possible to proceed on other areas, while we still have not entirely resolved the issue of methodologies. Until 2004, no cost-effectiveness analysis needs to be conducted. The biggest challenge in the long run will be how to define disproportionate costs within the cost-effectiveness analysis since a lot of information needed for this assessment will be subjective.
Redistribution between different groups will not be an issue to be tackled easily.

Part 3: The Workshop

42. Which issues would you like to see addressed and discussed at the workshop?

- Cost-effectiveness and cost-recovery;
- Preparing for the analysis of disproportionate costs.

43. What would you wish to be the outcome of the workshop?

- A report on the current position and progress in each MS regarding the application of the various bits of economic analyses.
- Details of the problems encountered and how they have been overcome.

- Details of good approaches and methodologies and handy hints, short cuts and lessons learnt for their easy application in practice.
- Agreement on the main issues.

Annex III: List of contacted Experts

Country	Contact Person	Institution	Questionnaire
Belgium	Ann Beckers	Environmental Agency	Submitted
Cyprus	Charis Omorphos	Ministry of Agriculture, Natural Resources and Environment; Water Development Department	Submitted
Czech	Svetlana Svitakova	Ministry of the Environment; Department for Environmental Economics	Submitted
Estonia	Rene Reisner	Ministry of the Environment, Water Department	Submitted
Greece	Lazarou Anastasia	Hellenic Ministry for the Environment, Physical Planning and Public Works; Water Section	Submitted
Hungary	Judit Rákosi	Ministry of Environment and Water; Department of Environmental Policy and Strategy	Submitted
Latvia	Maris Seglins	State Geological Survey of Latvia	Submitted
Luxembourg	Thierry Flies	SCHROEDER & ASSOCIES; Hydraulics	Submitted
Poland	1) Rafal Milaszewski 2) Tomasz Walczykiewicz	1) Bialystok Technical University 2) Institute of Meteorology and Water Management	Submitted
Scotland (UK)	Eric McRory	Scottish Environment Protection Agency; Sustainable Development Team	Submitted
Sweden	Oskar Larsson	Swedish Environmental Protection Agency; Section for Evaluation and Environmental Economics	Submitted
Country	Contact Person	Institution	Questionnaire
Denmark	Steen Pedersen	Danish Environmental Protection Agency	Interviewed
France	Jean Pierre Rideau	Ministry of Ecology and Sustainable Development	Interviewed
Germany	Britta Rathje	Ministry of Environment of Hesse	Interviewed
The Netherlands	Niels Vlaanderen	Ministry of Transport, Public Works and Water Management; RIZA	Interviewed
Spain	Josefina Maestu	Ministry for the Environment	Interviewed
United Kingdom	Kevin Andrews	Department for Food, Environment and Rural Affairs.	Interviewed