Linking Estonia and Latvia
Part-financed by the European Regional Development Fund

Assessing cost-recovery and pricing policy according the Art.9 for the WFD river basin management planning

STUDY REPORT

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December 2013

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Introduction

The aim of this report is to describe the methodology use for evaluation of cost recovery levels in Koiva River Basin District.

Report consists of following chapters.

- Description of methodology;
- Overview of Cost Recovery levels in Koiva RBD;
- Evaluation of the CR assessments and water pricing policies in the Koiva RBD;
- Recommendations for the RBMP of 2016-2021.

The overall structure is coherent with similar report prepared for Latvian part of Koiva/Gauja RBD.

1. Methodologies for assessing the CR of 'water services' and significant 'water uses' in the 1st RBMPs

This chapter provides overview on the methodologies used in Estonia for analysis of the CR and water pricing policies.

1.1. Methodology in Estonia (for the Koiva RBD)

The overall methodology in the 1st Estonian RBMPs is mainly discussed here. It is due to the fact that the analysis was less detailed and quantitative for the Koiva RBD than for other RBDs in Estonia – due to limitations of the available data (and small size of the RBD). But it is planned to overcome this shortcoming in the next RBMP for the Koiva RBD and the analysis would follow the same methodology as used for other RBDs.

Aim of the analysis

The aim of the analysis was to estimate the costs of 'water services' (including 'financial', 'environmental' and 'resource costs') and the price/tariffs currently paid by the users as well as to assess extent of the CR of 'water services' and the contribution of the key water uses to this CR.

The main elements/steps of the analysis

- Collection of information on the costs, prices, subsidies (for water services, combined services, regional areas, etc);
- Description of the institutional & pricing mechanisms in place for the CR;
- Analysis of information and assessment of extent of the ('financial', 'environmental' and 'resource') CR;
- Analysis of the extent the key water uses contribute to the CR of the costs of 'water services' (linking with information on pressures and impacts).

Specific methodological issues

In Estonia the definition of 'water services' included in RBMPs for the purpose of Art.9 analysis includes only water supply and sewage services – both centralised and self-supply, and is analysed by the main users' groups – households, industry and agriculture.

In addition, the conducted analysis for estimating the 'environmental costs' due to nutrients' pollution from animal breeding activities in agriculture (based on costs of manure storage facilities) allows concluding that the agricultural water use in terms of nutrients' pollution to water bodies is partially considered in the Art.9 analysis.

The CR results are provided by the following consumer groups – households, industrial water users and agricultural water users. This analysis provide overview of the 'financial costs' of water services in the mentioned groups (including water abstraction fees and pollution charges), and the CR levels. However the CR level is not estimated for each service but only for each main user's group – households, industry, agriculture (without distinguishing their use of various, e.g. centralised and self-supply, 'water services').

For Estonian RBMPs overall the CR assessments were developed for the RBD scale. Concerning the services provided to households, the assessments for both centralised and self-supply water services were developed on the settlements scale first of all and then were estimated for the RBD.

The CR analysis covers the **'financial costs'**, including the internalised 'environmental costs', **and certain assessments on the (non-internalised) 'environmental costs'.**

It should be noted that the 'financial costs' of centralised 'water services' concerning their investment costs have been estimated taking into account costs of new wastewater treatment plants in the current prices. This approach was used due to the problem of low historical value of assets purchased decades ago and the fact that the current prices are considerable higher. This may explain why the calculated CR rate in Estonia is rather low comparing to the estimated CR level in Latvia (where the "historical value" of assets has been used – based on depreciation costs from accounting data).

Concerning the 'financial costs' of self-supply 'water services', it is assumed that the users cover fully their 'financial costs'.

Non-internalised 'environmental costs' have been estimated according to a specially developed national methodology. In 2008 a methodological document was committed on how to estimate the 'environmental costs' in relation to the most important pressures. The methodology takes into account the following pressures: point source pollution concerning wastewater treatment plants, agricultural pollution concerning animal breeding, land reclamation systems as source of the agricultural diffuse pollution, impact of water impoundments (for energy production).

According to this methodology the 'environmental costs' due to pollution from wastewaters are estimated based on construction costs of new wastewater treatment

plants. In relation to the animal breeding they are estimated based on construction costs of environmentally safe manure storage facilities. In relation to the diffuse pollution from agriculture they are calculated based on estimate of the costs of improving drainage ditches to good ecological conditions (with no negative pollution impact on water bodies), estimated to be 5.4 EUR per 1 m of a ditch, which is multiplied then by the total length of such ditches. In relation to the water impoundment the 'environmental costs' are estimated based on damage to fish resources as foregone fish value due to impoundment.

It is not clear to what extent these estimates have been developed and used in the CR analysis for the RBMPs. According to information provided by the Estonian partners of the project, only the 'environmental costs' in relation to animal breeding by agriculture have been considered in the RBMPs. According to this information the costs of installation of environmentally safe manure storage facilities were estimated and they were equalised with the non-internalised 'environmental costs' due to this pressure. In this way, the analysis does not take into account the costs of other non-internalised 'environmental and resource costs' (of agricultural activities and other significant 'water service'/uses causing WBs to be "at risk" of meeting GES). In any case it should be noted that the proposed approach does not take into account the most cost-effective measures for reducing the given pressure. When using the 'restoration costs method' as basis for estimating the 'environmental costs' it is necessary to assume the most cost-effective restoration measures for achieving GES (otherwise the calculated 'environmental costs' might be seen as overestimated). The cost-effectiveness analysis in Latvia shows that the manure storage facilities might not be the most (only) cost-effective measure for reducing the given pressure. This may apply also to the proposed approach concerning the diffuse pollution from agriculture where various (cost-effective) measures exist for reducing this pollution besides improving the "ecology" of drainage systems. The principle of assuming the most cost-effective measures can be taken into account for applying the 'restoration costs method' in the future, since the program of measures should provide information about the cost-effective measures for reaching the environmental objectives (in relation to various pressures) and their costs.

It was assumed in Estonia that there are no '**resource costs'** related to the 'water services', nor the 'water uses'.

The current water pricing mechanisms/instruments for the CR are analysed. They are (i) pollution charge and Water Resource Tax and (ii) payments (tariffs) for the centralised water services (covering pollution charges and WRT). Incentive character of water pricing

policies is not discussed. But it has been noted that there is not enough knowledge if the tax/charge rates provides sufficient incentives for efficient water use.

The main data sources

- Cases studies and database on the costs of 'water services'. Case studies were used to estimate the costs of 'water services' to households and industries. Each case study included calculation of the total costs for an industrial company/individual household. In 2004-2005 a database was compiled based on the case studies covering 62 % of the Estonian population (the database didn't include data from the settlements of Koiva RBD). Based on these data costs for other households in Estonia (38 %) were extrapolated. Concerning the industrial water users' the database included industrial water users in relation to both – using centralised water services and companies holding own water permits – around 15 case studies of different industries were included analysing information from their water use permits.
- The 'financial costs' of the centralised water services (incl. payments on water resource and pollution taxes) were estimated based on financial data of water companies operating in a RBD. Such data were collected by questionnaire, which is sent to water companies (regularly). As noted, the investment costs in the 'financial costs' of centralised 'water services' were estimated based on investment costs of new wastewater treatment plants (using estimates on new investments with the current prices). Although there are similar data collected regularly from water companies in Estonia like in Latvia, their provided data on investment costs have not been used for the CR assessment.
- A national methodology and estimates for the assessment of the 'environmental costs'.
- Various public information sources for characterising the 'water services'.

The main outcomes

As noted, the 1st RBMP for the Koiva RBD includes only qualitative analysis (unlike for other Estonian RBDs). It is planned to carry our quantitative assessments for the Koiva RBD for the next RBMP. For the 1st RBMP of the Koiva RBD the limitations of available data did not allow the full analysis of the costs of 'water services'. But considering the CR rate of 'water services' in small settlements in Estonia, the average estimated level of CR of 'water services' (including both centralized and self-supply services) was according to 60-70 %.

For other RBD the provided estimates include assessments on the 'financial costs' of use of 'water services' (incl., internalised 'environmental costs'), revenues of 'water services' (they are estimated for the centralised water supply and sewage services based on actual tariffs and services' consumption volumes), revenues from existing pricing instruments, analysis of cross-subsidies[1] and subsidies for covering the costs of 'water services' (the subsidies by taxpayers, including the public funds, are estimated for all RBD except the Koiva RBD).

2. Overview on the CR assessment for the Koiva RBD (from the 1st RBMP)

This overview covers cost recovery analysis used in preparation of Koiva RBD . The analysis was prepared during the preparation of economic analysis for RBMP in 2005. The analysis did not had any specific CR assessment, only general assumptions regarding estimated CR level of 60-70 per cent was made.

2.1. CR of centralized water supply and sewage services

Cost recovery levels for centralized water supply was calculated based on actual operating cost of water companies, asset depreciation levels were calculated based on replacement values of assets. As replacement values of assets tend to be considerably higher compared to historic values assets based on what depreciation is calculated revenues of water companies do not cover all operational and depreciation costs of water services.

For more accurate assumptions case-studies for different size of water utilities were prepared.

[1] It could be noted that in Estonia the most water companies have different tariffs for separate users' groups (households/businesses), although according to Estonian laws they should equalize these tariffs during the next 15 years. This is indication of the cross-subsidies among various users of the centralised 'water services'.

Therefore actual cost recovery levels in collective systems are considered to be well below full cost recovery levels. As in Koiva region is only marginal portion of collective water services, the overall cost recovery levels are estimated based on assumptions.

Revenues of the services' providers are estimated based on the water tariffs and services' consumption volumes (m^3). There is no large collective systems in Koiva RB and only small private systems.

Cross-subsidies: as majority of consumption in Koiva river basin is from private households and agriculture there is no significant cross-subsidisation.

The main sources of the subsidies for water services are the EU funds, the state and municipal budgets for investments in the water supply and sewage infrastructure.

According to Koiva River Basin Management Plan estimated cost recovery ration in the river basin is around 70 % what is well below countries average (ca 90%)

2.2. CR of individual water supply and sewage services

All private household systems are considered to be full cost recovery level as there are no subsidies for investments into household water and wastewater systems. Cost recovery level is calculated based only investment values of fixed assets and no environmental costs have been considered.

2.3 CR of water use for hydro-energy production

CR levels for hydro-energy production in Koiva river basin are below full cost recovery based on two facts:

a) There are subsidies for renovation of old hydro-power power plants ;

b) Dams of plants are renovated with subsidies.

On other hand power plants pay water usage charge therefore here is no clear cost-recovery ratio calculated for hydro-energy production in Koiva (nor in entire Estonia).

2.4 Adequate contribution of significant 'water uses' to the costs of water use ('environmental costs')

The environmental costs associated with hydro-morphological pressures are covered mostly with transfers from state (i.e. investment programs aimed to reduce environmental impact on water bodies). There is no direct charges in agriculture or forestry related for covering environmental costs, except if activity is directly water-related (fish farms, for example) where water usage charge is collected.

2.5 Assessment and recovery of the 'environmental costs'

Quantitative estimates of the (non-internalised) 'environmental costs' are not provided in the RBMP. However they are discussed generally for each 'water service' (as described in the previous chapters) and general principles for addressing their recovery are proposed.

Ensuring recovery of the 'environmental costs' is proposed by:

- Implementing 'supplementary measures' according to the program of measures of the RBMP (and funding their costs). The 'supplementary measures' are proposed overall for each relevant 'water service' and significant 'water use'. However, not all of them are sufficiently addressed in the 1st program of measures (e.g. environmental damage from hydro-morphological alterations due to drainage in agriculture and forestry, small HPP, coastal harbours);
- Implementing activities for public awareness rising and involvement in the water protection and management.

2.6 Summary on the CR assessment

In general costs are fully covered only in households with self-supply, largely covered in small collective systems and industrial consumers, there is no reliable data regarding hydro-power and other water-related activities

3. Evaluation of the CR assessments and water pricing policies in the Koiva RBD

Evaluation of the CR assessments and water pricing policies was conducted for the Koiva RBD in order to develop recommendations for coordination of the approaches and improving them for the next planning cycle. The evaluation was based on:

1. discussing relevant issues of the Art.9 assessments during the project's expert meetings (in December of 2012 and May of 2013);
2. comparative analysis of results in both countries' RBMPs on the key issues of the Art.9 assessments;
3. Reviewing assessment of the Estonian RBMPs by the Commission in 2012.

The main results concerning the points 2 and 3 above are discussed further.

3.1. Approach for assessing the revenues, cross-subsidies, subsidies of 'water services'

Revenues of centralised water supply and sewage services are estimated in both countries based on tariffs and services' consumption volumes. In Estonia most water companies have different tariffs for separate users' groups (households/businesses), although according to Estonian laws they should equalize these tariffs during the next 15 years. In Latvia there has been decreasing trend for applying different tariffs – only around 15 % of the services' providers applied different tariffs for the three main users' groups (households, industries, other) in 2007. For other 'water services' only the cost assessment is relevant (since these are self-supply services).

Types of cross-subsidies and subsidies (and their main funding sources) are discussed in both countries in a similar way for each analysed 'water service'/use where relevant. Their amount is not estimated. Concerning subsidies the results show similar situation in general in both countries.

It has been noted concerning Latvia that the actual situation with the subsidies to small HPP should be checked for the next RBMP (since the "double" tariffs for purchasing electricity from small HPP might not be in force anymore).

3.2. Approach and data sources for assessing the financial costs of 'water services'

There is difference between the countries on how investment costs as part of the 'financial costs' of the centralised 'water services' have been estimated – in Latvia based on the past investments (accounted as yearly depreciation costs), in Estonia based on estimates of the costs of new wastewater treatment plants in the current prices. Such approaches, in principle, give different results – the estimated costs are lower in the case of Latvian approach and higher with the Estonian approach, which leads to better CR rate in Latvia comparing to Estonia. Possible way of harmonising the approaches could be that similar input data are used in Estonia like in Latvia – the data collected from water companies on past investments (as yearly depreciation from accounting data). Data from water companies are collected regularly in Estonia, although have not been used for the assessment of investments costs so far.

For other 'water services' the financial costs are seen similarly in both countries. The provided information differs mainly in terms of the 'water services' included in the analysis and quantitative/qualitative analysis of these costs for the various services (e.g. qualitative analysis in Latvia while quantitative in Estonia for some self-supply services). It is generally stated in both countries that the users of self-supply services cover 100 % of their financial costs (although the issue of subsidies is indicated in some cases).

3.3. Assessment of the CR level, including the 'environmental and resource costs'

The CR level for centralised 'water services' was calculated in a similar way overall in both countries. Concerning other included 'water services, in Estonia the CR level was

calculated quantitatively for the self-supply 'water services' by households, industry and agriculture,[2] while in Latvia the self-supply services are discussed mainly qualitatively.

It should be noted concerning Estonia that the CR level was reported together for both centralised and self-supply 'water services' by the main users groups (the results were not reported service by service but only using division in households/industry/agriculture). The CR assessment for each service separately is planned in the next RBMP.

In both countries only the 'financial costs' and internalised 'environmental costs' are considered when calculating the CR level for the (analysed) 'water services'. The CR of non-internalised 'environmental costs' is discussed separately in both countries. The conducted analysis shows that the assessment of the non-covered 'environmental costs' should be improved in both countries in the future. It can be done, for instance, based on the costs of ('supplementary') measures to restore WBs to GES (since such costs are estimated for the program of measures). In Latvia, the non-covered 'environmental costs' are discussed generally for each included 'water service' and significant 'water use' and ways for addressing their recovery are proposed. However more specific/detailed information on the 'environmental costs' should be provided.

It is overall assumed in both countries that there are no 'resource costs' due to the 'water services' nor the 'water uses'. However, there might be specific local cases in Latvia where this general statement should be re-examined with more detailed analysis.

It can be concluded that the current pricing instruments/mechanisms are not sufficient in both countries to ensure implementation of the CR and the adequate contribution of significant 'water uses' into the costs of water use (according to the PPP). It can be said, in particular, concerning the water use for energy production and all significant 'water uses' (that are not 'water services').

In Latvia the proposals are made in the 1st RBMP for improving this in the future. Possible application of the NRT to HPP and funding implementation of the 'supplementary' measures proposed in the program of measures are seen as the main mechanisms to ensure implementation of the requirements. However, the 'supplementary measures' included in the 1st program of measures might not be enough to cope with the actual damage caused by these uses. Thus it can be suggested:

- to update the pressures & impact analysis (as part of the updating the Art.5 report) and

[2] It should be noted that there were no quantitative CR assessments for the Koiva RBD, which was due to limitations of the available information. The quantitative estimates were developed for other (two) RBDs.

- based on these results, where necessary to included sufficient 'supplementary measures' in the program of measures of the next cycle.

3.4. Water pricing policies providing adequate incentives for efficient water use

In Latvia this is analysed by reviewing the current instruments that provide incentives for efficient water use. The NRT (paid accordingly to actual water abstraction/pollution amounts) and the payment for centralised water services (when paid accordingly to the consumption amount based on metering) are analysed. The assessments show that the latter stimulates efficient water use.

In Estonia only the pollutions charges and water resource tax are discussed in light of the incentives for efficient water use.

In both countries, it is concluded concerning the latter (the charges/taxes) that there is not enough knowledge on whether the rates stimulate efficient water use.

4 Recommendations for the RBMP of 2016-2021

The recommendations have been developed with an aim of coordination and improvement of the approaches for the CR and pricing policy for the RBMP of 2016-2021.

4.1 Approach for assessing the CR of 'water services' and significant water uses

The recommendations are discussed further by relevant issues of the CR assessment.

Definition of 'water services' and significant 'water uses' to be included in the Art.9 assessments

(1) There is adequate inclusion of 'water services' and significant 'waters uses' overall. They are justified by the pressures & impacts' analysis – all significant 'water services' and 'waters uses' are included. The only water use that corresponds to the definition of 'water service' but was not included is water use for flood protection services. This service should

be analysed to determine whether it should be included in the Art.9 analysis. It can be decided after analysing impacts on WBs due this service/activities (e.g. from operating various infrastructures in relation to flood protection).

(2) Improving transparency of presenting what 'water services' and 'water uses' and why are included in the analysis. Evaluation by the Commission indicates that some of existing information was not noticed/understood.

(3) Since identification of 'water services' and significant 'water uses' builds on the pressures & impacts' analysis both parts of the RBMP needs to be consistent. In light of this it is recommended:

- To include data on water abstraction amounts by sectors in the pressures' analysis part of the RBMP (e.g. by agriculture, mining, manufacturing, centralised water supply, energy production). Since water abstraction is not seen as significant pressure overall, such information is not included in the RBMP (there is only information about the wastewater amounts and pollution discharged by them). However brief summary (table) on abstracted water amounts by each sector would help to understand better the approach for analysing specific 'water services' (for instance, why individual water abstraction, e.g. for agriculture, is not seen as significant to be analysed in very details).
- To review the included 'water services' and 'water uses' according to updated results from the state, pressures & impacts' analysis (for the updated Art.5 report).

Assessment of the CR

(4) More detailed and quantitative analysis should be conducted for the included services and uses (besides the centralised 'water services'). This not necessarily always means fully quantitative estimation of the costs and CR of 'water service'/use, but, for instance, more quantitative information on relevant characteristics of 'water service' should be provided. In particular, it applies to the self-supply 'water services' (e.g. by households). More detailed analysis of the self-supply 'water services' would require a special study (incl. special data collection).

(5) Conducting again the survey of centralised water supply and sewage services' providers. The survey was conducted last time in 2007. Repeated survey would allow:

- Obtain recent data on the costs of these services. This is relevant since many investment projects have been implemented in the last 5 years. This leads to increase of accounting value of assets. The recent data would reflect better the

actual investment costs' level since they are calculated for the CR based on accounting data of yearly depreciation.

- To obtain data on the actual situation with water prices (tariffs), e.g. equalising tariffs for all users' groups, the price level to cover the costs, and other relevant issues of the CR assessments (e.g. metering). This would allow comparing the recent data with previous periods and to assess and demonstrate trends towards implementing the Art.9 requirements. This information could also be used for more detailed analysis of incentive function of pricing policy/instruments.

(6) The actual situation with subsidies to small HPP should be checked since the "double" tariffs for purchasing electricity from small HPP might not be in force anymore.

(7) More detailed analysis of the socioeconomic effects of the CR is needed for the 'water services'/uses where the implementation of the CR and PPP is not fully ensured. The proposals for improving the implementation of both principles are discussed in the next chapter. The analysis can largely be done based on information from assessment of the socioeconomic significance of water users, if it is done properly (see the project results on this economic analysis issue, including the recommendations for the RBMP of 2016-2021).

How the 'environmental and resource costs' are estimated and included

(8) More profound and quantitative estimation of the 'environmental costs' for each relevant 'water service'/use should be conducted and included in the RBMP. The 'environmental costs' can be estimated by 'restoration costs method' based on the costs of 'supplementary measures' proposed in the program of measures to reach GES. This can be seen as pragmatic approach in the absence of data for applying other methods (e.g. estimating foregone benefits from reduced provision of 'ecosystem goods and services'), since such estimates are prepared for the RBMPs. To apply this method:

- it needs to be ensured that these are cost-effective measures that are considered in the cost estimation;
- Additional analysis would be needed to evaluate whether the 'environmental costs' are fully accounted and to allocated properly these costs by 'water services'/uses.[3]

[3] There might be not full correspondence between the contribution of each 'water service'/use into the failing GES (the caused 'environmental costs) on the one hand and the measures proposed for each on the other hand. The main reason could be no current CR/adequate contribution level due to socioeconomic concerns (not enough 'supplementary measures' proposed in the program of measures to ensure reaching GES in all WBs).

(9) There is a need to integrate the estimates of 'environmental costs' in the total CR assessment for each service/use (currently the 'financial' and 'environmental costs' for each service/use are reviewed separately).

(10) Re-examining in more details whether there are no 'resource costs' for specific local cases of water abstraction/use.

At the end it should be noted that the CR analysis shows the actual costs of water use and how much different users contribute to the costs of water use. It can be help in discussions with sectors (e.g. agriculture) to explain the need for adequate contribution into the covering the environmental damage and thus also justifying need for implementing the measures for each sector proposed in the RBMPs. Good synthesis of well-developed CR analysis can provide valuable input for communications with stakeholders and policy decision makers.

4.2 Approach for water pricing policy according to the Art.9 requirements

According to the WFD Art.9 the water pricing policies shall:

1. support implementation of the CR principle including the 'environmental and resource' costs and adequate contribution of the significant 'water uses' into the costs of water use (the 'environmental costs') according to the PPP; [4]
2. provide adequate incentives for efficient water use.

To improve the CR of 'water services' and water use the following issues are important:

(1) Equal tariffs for all users' groups of the centralised water services. The current situation could be assessed from the repeated survey (the recommendation 5 in the previous chapter).

(2) Taking into account the CR principle, incl. all types of the costs, when setting and approving tariffs for the centralised water services. It might require further increase of

[4] It should be kept in mind that the directive allows taking into account the socioeconomic concerns when implementing the CR requirement (*„Member States may in so doing have regard to the social, environmental and economic effects of the recovery (…)"*).

tariffs in some areas, which can be ensured in the medium term according to income increase of inhabitants (the largest users' group of the centralised water services). This should be asked in particular in cases of investment projects funded by the public funds. It would be in line with the new EU Strategy for water resources ("Blueprint", 2012), which tries to introduce the Art.9 requirements as ex ante conditions to obtain financing under the Rural Development and Cohesion funds.

(3) To ensure that the 'supplementary measure' on evaluation of the NRT with an aim of potential extension of its application (as well as possible revision of tax rates) is properly implemented and that the necessary adaptations based on the evaluation results are implemented in practice.

(4) To re-evaluate and complement where necessary the 'supplementary measures' in the 1st programs of measures that they ensure adequate contribution of each 'water use'/sector into the costs of water use. This should take into account improved information of the status, pressures & impacts' assessment for the update Art.5 report.

(5) Opportunities of introducing new economic instruments in the water pricing policy should be explored. No new mechanisms/instruments are considered in the 1st RBMPs. The positive development is the consideration of potential extension of application of the NRT (e.g. to uses not covered so far). But there has been too little thinking overall in Latvia so far on opportunities of introducing new economic instruments. The economic instruments, if designed properly, are commonly recognised as cost-effective measures for reaching environmental policy objectives and ensure incentives for efficient water use. It is recommended to conduct a study for exploring potential economic instruments to close significant gaps in the implementation of the CR and PPP (incl., reviewing experiences from other countries).

To ensure adequate contribution into the costs of water use – the implementation of the PPP

The first step was to evaluate for each significant 'water service'/use – if there are non-internalised environmental costs and how they could be covered, incl. by what pricing mechanisms/instruments. It is important to ensure that the contribution of each significant water use is adequate to the caused pressures & impacts on water environment.

The 'water services'/uses where the adequate contribution seems to be not sufficiently ensured in the 1st RBMP are small HPP, nutrients pollution and hydro-morphological

pressures from agriculture and forestry and pressures from harbours' activities. The current pricing mechanisms/instruments are not sufficient and the proposed ways for improving implementation of the CR and PPP are included in the 1st RBMP.

(6) The NRT applied in Latvia is so-called 'water usage charge', which represents well approbated pricing instruments. Such instruments serve both incentive and financing function (e.g. for mitigating negative impacts on water bodies). The possible application of the NRT to HPP can be indeed seen as potential instrument to address negative impacts from this 'water service'.

(7) Concerning the hydro-morphological pressures from agriculture, forestry and harbours – the 'technical measures' for reducing these pressures need to be considered on sufficient extent in the next cycle (or lack of such measures needs to be sufficiently justified with the socioeconomic concerns).

(8) In relation to nutrients' pollution – the 'supplementary measures' of the 1st program of measures address relatively well this pressure however their implementation is seen as problematic mainly due to lack of funding. For agriculture the agri-environmental payments are commonly seen as important instrument for improving implementation of the PPP in agriculture. Such "ecological payments" require clearly defined base line and should be granted only for ecological accomplishments beyond the defined basic requirements. It is not fully clear from the proposal of "National Rural Development Plan" (for the next CAP period) if this principle would be fully considered.[5]

To ensure that the water pricing policy provides adequate incentives for efficient water use

Two general issues should be noted:

1. The incentive for water use should address the questions (i) how water is being paid and (ii) how the water price affects the behaviour of water users. The first is relatively well analysed in the 1st RBMPs (although the transparency of presenting the results could be improved), but the analysis on the second point is rather weak.

[5] For instance the payment for buffer zones is proposed with the following conditions: if implemented (i) in the Nitrate Vulnerable Zone, (ii) along the water courses/bodies (not along the drainage ditches), (iii) on 3 m width. These conditions largely address the requirements of the Nitrate Directive, which are seen as "basic requirements" (part of the baseline).

2. The most commonly used mechanisms/instruments to ensure the incentives for efficient water use are (i) applying quantity-dependant water prices (volumetric pricing) and (ii) water metering for water use. These are the key current mechanisms in Latvia also. The first is taken into account in all existing pricing instruments – the NRT, the payment for damage to fish resources and the tariffs for centralised water services. The second is implemented via metering for centralised water supply and sewage services.

It can be concluded overall that the information in the 1st RBMP concerning the two issues above is incomplete (not for all 'water services'/uses) and/or too general thus doesn't present the situation in appropriate analytical details.

(9) It is recommended for each significant analysed 'water service'/use and for each of the issues/mechanisms above to ensure:

- systematic evaluation – that it is evaluated for each relevant 'water service'/use;
- more detailed analysis, including demonstrating evolution trends (e.g. for increasing water tariffs and NRT rates and for introduction metering on the one hand and changes in water consumption on the other hand);
- to find ways of transparent presentation of these important results (that they can be understood by stakeholders, and also external evaluators).

(10) The knowledge on whether the NRT rates stimulate efficient water use should be improved by appropriate analysis, which might require a study on this issue.