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FACILITATING THE REFORM OF ECONOMIC INSTRUMENTS FOR WATER MANAGEMENT IN KYRGYZSTAN

Assessment and Action Plan

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National Policy Dialogue Meeting – Bishkek, 20th of March 2014

Today



- **Why this project?**
- **Methodology and approach**
- **5 Economic instruments and Action Plan:**
 - Reform of environmental pollution fees;
 - Introduction of surface water abstraction charges (including non-consumptive uses) for enterprises;
 - Reform of irrigation tariffs;
 - Reform of user charges for urban water supply and sanitation;
 - Introduction of a special land tax for Issyk-Kul Biosphere reserve;

(Product tax on selected water polluting products complemented by a deposit-refund system - *To be finalised*).

1. Why this project?



The OECD project:

- Support to further reform in the implementation of economic instruments for water management in Armenia and Kyrgyzstan

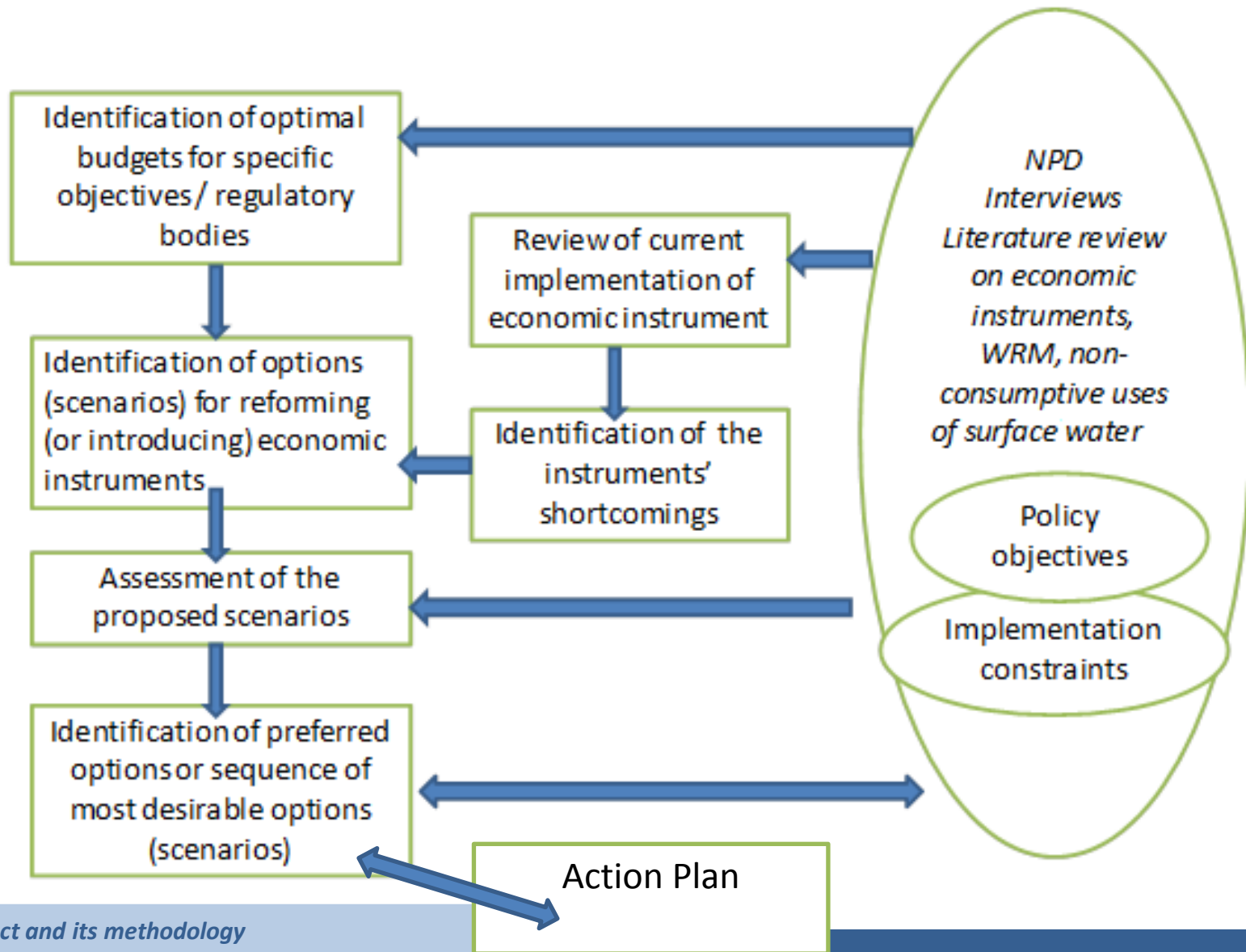
The context:

Ongoing EUWI National Policy Dialogues on integrated water management

Project objectives

- Clarification of **key water management objectives**;
- Development of a **set of options** for the reform of economic instruments;
- Assessment of the **environmental, fiscal and socio-economic impacts** of the proposed options;
- Identify the **requisites for reform** (in terms of regulatory and institutional frameworks, governance...).

2. Methodology and approach (1/4)



2. Methodology and approach (2/4)



The principles for the reforms proposed 1

- **Fairness:** all user groups must be charged in a fair and balanced way (charge rates closer to actual environmental and resource cost of abstracting water.);
- The full application of the **polluters pay and beneficiary pay principle.**
- Harness **source of revenue** for water management and **free public resources** for other purposes;
- Introduce a **more direct link** between revenues from water related instruments and water management expenditure, thus **extending financial autonomy** of responsible institutions

2. Methodology and approach (3/4)



The principles for the reforms proposed 2

- Ensure **policy coherence within the water sector AND with other sectoral policies**, including international agreements.
- **Gradual approach**;
- Start by **improving performance of existing settings** (e.g. collection rates);
- When introducing instruments, **first engage with sectors with low water cost/total cost ratio** and then addressing other sectors;
- **Focus on medium-term** (1-5years) scenarios as steps toward more ambitious long-term options;
- Propose a first set of **supporting and accompanying measures** through the Action Plan

2. Methodology and approach (4/4)



Action Plan:

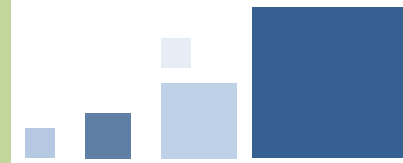
- Measures/actions;
- Stakeholders and responsible institutions;
- Time frame;
- Resource implications (qualitative);
- Performance indicators;
- Monitoring;
- Completion date.

Reform of Environmental Pollution fees (1/4)



Timeline	Today	Short term	Medium term	Long term
	Current situation	Scenario I – Review of current situation	Scenario IIb – Intermediate scenario	Scenario IIa – A fuller application of the Polluter Pays Principle
Objective	<p>Water pollution fees are based on the “polluter pays” principle (PPP).</p> <p>However they are: 1) too low and do not support cost recovery AND 2) do not provide a real incentive for polluters to change (=no “dynamic efficiency”).</p> <p>The current system exempts the water utilities.</p>	<p>The permit system is maintained but water utilities are included</p> <p>A cost-recovery budget (O&M and Capital) for reference is the indexed version of the 280 KGS base fee in 2003 reform proposal to ensure water protection.</p>	<p>It includes a modest increase of the base fee rate, and the elimination of exemptions (mainly the water utilities).</p> <p>Covers part of the projected expenditures for water management, while accounting for potential affordability and political acceptability issues which might arise.)</p>	<p>As updated version of Scenario I but revokes all exceptions.</p> <p>The objective of this scenario is to cover more expenditures related to water management (ideally, all O&M and sector governance costs)</p>

Reform of Environmental Pollution fees (3/4)



“Optimal” water management budget (in mln. KGS)

Function	Budget in 2011	Optimal budget (estimate)
Water protection measures	4,41	2500
SAEPF on water quality	4,16	2500

Timeline	Today	Short term	Medium	Long-term
Expected additional revenues (in mln. KGS)	Current situation	Scenario I	Scenario IIb	Scenario IIa
Source	Revenues in 2011	Expected revenues	Expected revenues	Expected revenues
Industry	3.21	4,2	252	1961,74
Water utilities	0	0,8	40	444,19
Other polluters	0	0	?	?
Total	3.21	5	Approx. 392	Approx. 2500



→ **Action plan:** Gradual implementation.

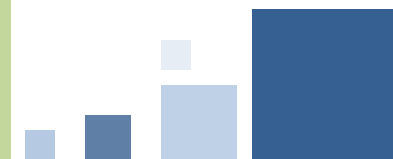
Medium term:

1. Re-instatement water use permits by making amendments to existing legislation
2. Launch a diagnostic of the needs of the industry in terms of improving its pollution and resource efficiency (*this should not be limited to water but also to energy and other key resource inputs*)
3. Explore the possibility of extending environmental fund to private enterprises

Long term:

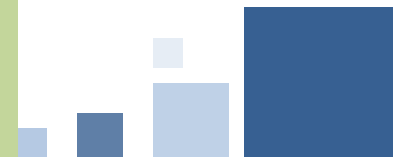
1. Targeted support programme (financing and guidance) for the improvement of processes so to support innovation in pollution abatement and resource intensity reduction

Introduction of surface water abstraction charges (including non-consumptive uses) for enterprises 1/5



Timeline	Today	Short term	Medium term	Long term
	Current situation	Scenario I – Introduction of abstraction charges	Scenario IIb – Partial implementation of abstraction charges	Scenario IIa – Full introduction of abstraction charges, including irrigation
Objective	Abstraction charges do not exist.	Abstraction fees are created for: industry, utilities and hydropower plants	As Scenario IIa (-) irrigation. Covers part of water management, while accounting for potential affordability and political acceptability issues which might arise.	As Scenario I (+) irrigation. The objective of this scenario is to cover more expenditures related to water management (ideally, all O&M and sector governance costs)
<i>Introduction of water abstraction and reform of environmental fees</i>				

Introduction of surface water abstraction charges (including non-consumptive uses) for enterprises 3/4



Expected additional revenues (in mln. KGS)		Current situation	Scenario I	Scenario IIb	Scenario IIa
Source	Revenues in 2011	Expected revenues	Expected revenues	Expected revenues	
Industry and fisheries	0	50	500	500	
Water utilities	0	22	220	220	
Hydropower	0	290	290	1450	
Irrigation	0	0	0	7447	
Total	0	372	1010	9617	

→ **Action plan:** Gradual implementation.



Medium term:

1. Prepare draft sub-law regulation on surface water abstraction charges and submit it for approval to the (the regulation should set rules, procedures and responsibilities for calculating and paying the charges, as well as establish sanctions for violations)
2. Prepare and submit to the Parliament draft law on amendments to the Water Code and other water related legislation (irrigation services and WSS)
3. Re-instatement water use permits by making amendments to existing legislation
4. Launch a diagnostic of the needs of the industry in terms of improving its pollution and resource efficiency (*this should not be limited to water but also to energy and other key resource inputs*)
5. Submit a proposal for earmarking mechanism;

Long term:

1. Targeted support programme (financing and guidance) for the improvement of processes so to support innovation in pollution abatement and resource intensity reduction

Land tax in Issyk-Kul (1/4)

Timeline	Today	Medium term	Long term
			
Objective	<p>The current land tax system differentiate between land uses and even between irrigated and rainfed agriculture.</p> <p>Different coefficients in the formula of the land tax make this differentiation operational</p> <p>However the Issyk-Kul environmental value is not accounted for in the current system</p>	<p>Scenario II – Focused increase on tourism operators</p> <p>As the high natural and recreational value of Lake Issyk Kul benefits land users in its surroundings tourism related land users should contribute to water management and aquatic ecosystem protection measures in the area.</p> <p>This option targets tourism related land owners.</p>	<p>Scenario I – Increase of land tax revenues by 30%</p> <p>As the high natural and recreational value of Lake Issyk-Kul benefits land users in its surroundings (i.e. local land- and property owners and tourism operators), land users should contribute to water management and aquatic ecosystem protection measures in the area.</p> <p>This option targets all land owners.</p>

Revenues (mln KGS)	Agricultural land	Gardens	Residential	Total
2010	32,9	16,4	76,9	126,2
After reform	32,9	16,4	>79,9	>126,2
Additional revenues available for water	0	0	(+)	(+)

→ **Action plan:** Gradual implementation.

Medium term:

1. Amendments to the legislation on revising the land tax basic rates for the use of land (settlements – with a specific rate for tourism/recreational infrastructure) and differentiating the rates depending on availability of water infrastructure (WSS; storm water; flood and ground water flooding protection) on the territory of Issyk-Kul Biosphere reserve area

Long term:

1. Amendments to the legislation on revising the land tax basic rates for the use of land (agri, gardens and settlements) and differentiating the rates depending on availability of water infrastructure (WSS; storm water; flood and ground water flooding protection) in Kyrgyzstan

WSS tariff: an example (1/4)

Timeline	Today	Medium term	Medium to long term
	Current situation	Scenario I – A gradual increase in tariff rates, keeping current tariff structure	Scenario II – A structural change of the tariff system so to substantially improve service level by 2025
Objective	The municipal budget effectively subsidising more than 30 % of costs of providing water supply. The total deficit is of 15%, when including sewerage services.	<p>Vodokanal does not depend on subsidies + free about 5% of the city budget to other purposes.</p> <p>Covers current O&M costs but not for expanded services</p>	<p>This option assumes that:</p> <ul style="list-style-type: none"> -The connection of up to 90% of the population to water supply (from 83%) and to the sewerage network (from 35%) -Reduced leaks to 20% (from 82.9%) -Systematic installation of meters. <p>Investments needed to achieve these changes still needs support from the State or donor agencies in the form of viability gap fund (VGF) but full O&M, debt servicing and interests would be covered.</p>

WSS tariff: an example (3/4)

Full WSS management budget (in mln. KGS)				
Function	CURRENT Budget in 2010	SCENARIO Ia O&M covering budget	SCENARIO Ib 2025 Improved budget (O&M) (in current prices)	
Total	12.406	14.406	28.658	

Expected additional revenues (in mln. KGS)					
Source	Revenues in 2010	Expected revenues in 5 years	Fixed / Connection fees	Variable part of tariff	Expected revenues in 2025 (nominal) (excluding VGF)
Revised tariff structure, raised tariffs by 4-5%/year (Supply/Ground water)	4.522	5.996	2.34	7.61	9.948
Revised tariff structure, raised tariffs by 4-5%/year (Supply/Surface water)	1.339	1.775	0.73	2.21	2.946
Current tariff structure, year raised tariffs (Waste water)	4.634	4.634	0.28	19.01	19.296
Total	10.495	12.406			32.189

→ **Action plan:** Gradual implementation.

Medium term:

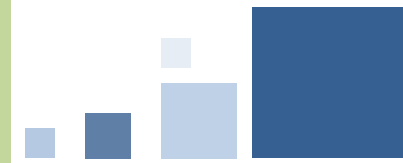
1. Draft proposal for tariff changes up to 2025 from Vodokanals
2. Strengthen the HR capacity of financial officers and accountants of Vodokanals
3. If affordability of water supply services remains a barrier to the more vulnerable groups, an additional support could be provided by limiting the tariff to be paid for both water supply and sanitation services to the fixed part up to a given level of consumption, adequately monitored through metering. This measure requires the installation of meters.
4. Subsidise the installation /connection to the network for all households. User cost can then be transferred to households, given the existence of willingness to pay for water supply.
5. Give priority to the installation of meters all over the country;

Reform irrigation tariffs (1/4)



Time line	Today	Medium term	Medium term	Medium/Long term	Long term
	Current situation	Scenario I – Gradual increase in tariff rates	Scenario Ib – Introduction of a two part tariff for irrigation water	Scenario IIb – Independence from public subsidies for O&M	Scenario IIa – Strong management possibilities
Objective	Irrigation tariffs only represented 10% of the funds required to cover the current O&M costs =budget effectively subsidising of 90% of financial costs of providing irrigation services.	Reducing and eventually removing the subsidy to irrigation service provision. Partially cover current O&M costs but falls short of optimal budget for managing the	Introduction of two-part tariff system . Covers more expenditures related to water management without state subsidies (optimal budget for rehabilitation estimated at	Two part tariff as in Scenario IIa The objective of this scenario is to cover all O&M costs and partial rehabilitation (750KGs/ha/yr) Increase of tariff rates compared to Scenario Ia , but lower than in	Two part tariff as in Scenario Ib. The objective of this scenario is to cover all O&M costs and partial rehabilitation (1972KGs/ha/yr) Increase of tariff rates compared to Scenario Ib

Reform irrigation tariffs (3/4)



“Optimal” water management budget (in mln. KGS)

Function	Budget in 2010	Optimal budget O& M only
Routine repairs	59.1	
Other Op. costs	67.7	
Total budget of DWM&M	681.6	1064

Expected additional revenues (in mln. KGS)	Current	Scenario Ia	Scenario Ib	Scenario IIb	Scenario IIa
Source	Revenues in 2010	Expected revenues in 10 yrs	Expected revenues	Expected revenues	Expected revenues
Fixed costs of tariff	n/a	n/a	164	822	2162
Variable costs of tariff	n/a	n/a	206	824	2060
Irrigation tariffs	68.4	68.4	n/a	n/a	n/a
Total	68.4	68.4	370	1646	4222

→ **Action plan:** Gradual implementation.

Medium term:

1. Introduce legislative proposal to the introduction of two part tariff
2. Link agriculture improvement programmes focusing on more efficient practices (i.e. energy, water, inputs in general) to the introduction of irrigation tariff
3. Link to rural vulnerable household social support programmes

Long term:

1. Develop regulatory mechanism which would orientate any water savings from agriculture to the aquifers or environment in general. Ensure minimum flows.
2. Continue to support the uptake of water efficient technology in coordination with larger rural development programmes

Questions



- ✓ Do you agree with the level of ambition of the scenarios in the medium term?
- ✓ Do you foresee specific opposition, in addition to those issues to be addressed by accompanying measures?
- ✓ In the Action Plan, would you suggest additional practical steps which could be made towards implementation?



**For additional information or clarification,
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**Thank you for your
attention!**