



## Financial Planning Tool for Water Utilities (FPTWU) in the EECCA Region

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Joint Meeting of the EAP Task Force's Group of Senior Officials on the Reforms of the  
Water Supply and Sanitation Sector in EECCA, the EAP Task Force's Environmental  
Finance Network, and the EU Water Initiative's EECCA Working Group  
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### BISHKEKVODOKANAL – Background Information

- Founded in 1930 as an operator for Frunze City Waterworks
- In late 1950, first sanitation line launched and 'Vodokanal' Water Supply and Sanitation Department with a staff of 150 people setup based on the city water supply office
- Mechanical treatment of wastewater introduced for the first time in 1976; complete biological treatment, in 1981

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## BISHKEKVODOKANAL – Core Activities

- Supply drinking water to the population, enterprises, and entities of Bishkek and collect in the sanitation network and treat wastewater;
- Perform customer functions related to design, construction, reconstruction, and retooling of the water supply and sanitation networks and structures;
- Operate external and intra-building water supply and sanitation networks.

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## BISHKEKVODOKANAL – Consumers

Consumers of services are:

- Population – 425,460 persons, of which in:
  - Apartment blocks – 245,897 persons
  - Individual houses – 179,563 persons
- Enterprises and business entities – 3,531 subscribers
- Budget organizations – 536 subscribers

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## BISHKEK VODOKANAL – Tariff Policy

- Local government of the City of Bishkek approves water supply and sanitation tariffs
- Service tariffs are also coordinated with Bishkek Department of the State Commission for Anti-Monopoly Policy within the Government of the Kyrgyz Republic
- As of end-2004, tariff for the population made up 44 percent of the cost price
- The remainder of 56 percent of the cost of services for the population is covered by cross-subsidies through tariffs for enterprises and entities not funded from the budget

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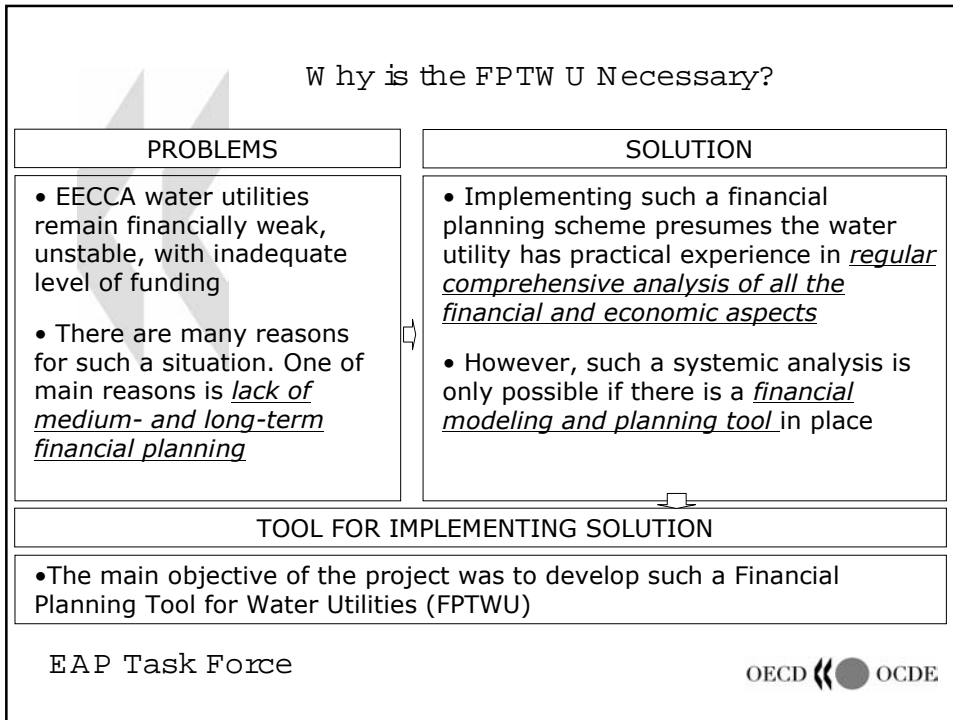
## BISHKEK VODOKANAL – Financial and Economic Planning

- There is financial and economic planning in the utility
- However, the planning period is mostly limited to one year
- Multi-year computer based financial planning tools were not available
- Short-term financial tools were carried out with in-house developed software
- In this context, design of the FPTW U Tool started

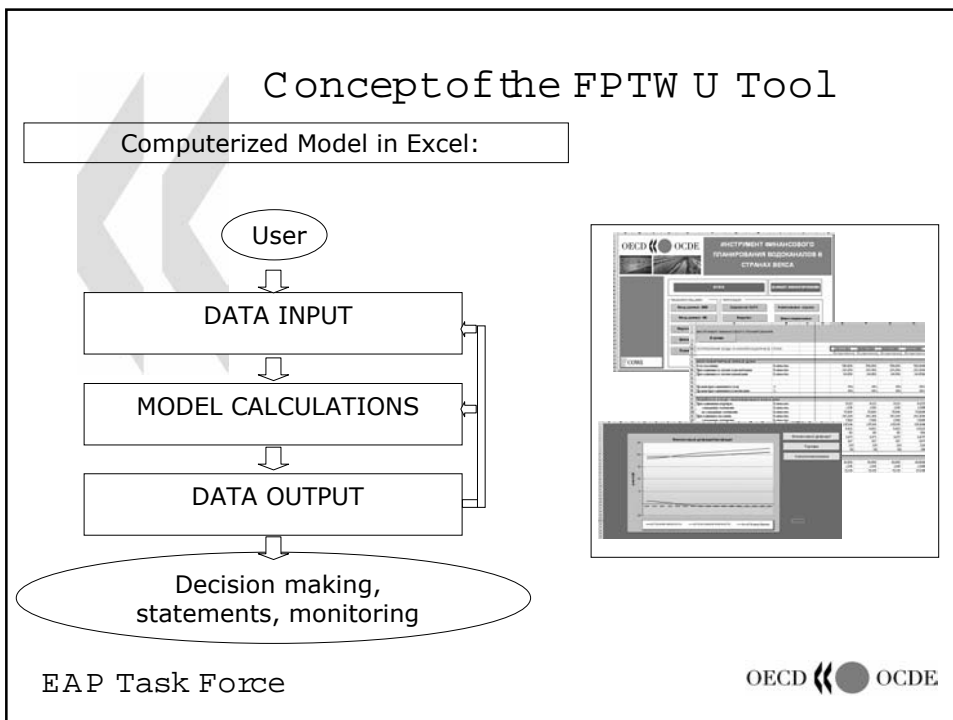
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## Why is the FPTW U Necessary?



## Concept of the FPTW U Tool



## FPTW U Tool Features

### SIMPLE

It is enough to have basic computer skills.  
User-friendly and includes user manual

### EXPANDABLE

Can be expanded by adding additional  
modules/tables

### MULTI-PURPOSE

Adaptable to the EECCA country contexts (e.g.  
various tax regimes)

### VISIBLE

Graphical presentation of key operational and  
financial parameters possible

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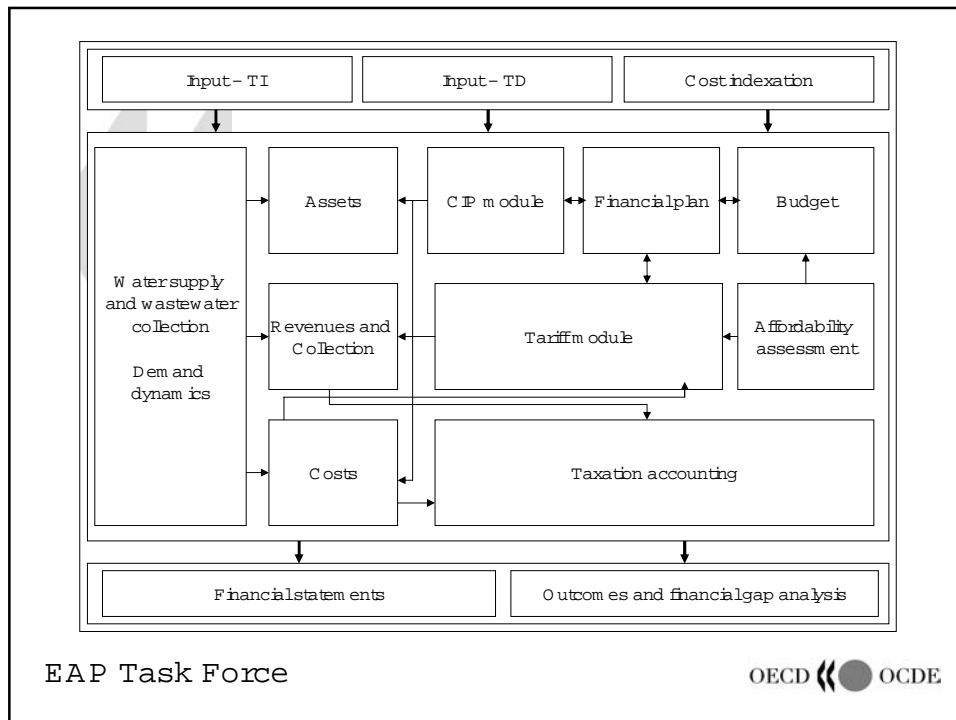
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## General Features of the FPTW U Tool

- Consists of 34 linked spreadsheets (Excel)
- Model navigation is done through the menu
- Planning period – quarterly model for three years (with a possibility to extend the forecast period of the model to twenty years)
- Calculations can be done either in nominal prices or in reference year prices
- Information presented separately by water supply and wastewater collection
- Allows entering 'historical/actual' data
- 'Historical/actual' data period can be modified
- Data entry is concentrated mostly in two spreadsheets (facilitates the entry process and reduces room for error)

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## Modules Built in the FPTW U Tool

- Built-in modules do detailed calculations for specific parameters, and calculation results are used as input data or interim input data for the FPTW U
- Built-in modules are used mostly where calculating a specific parameter is quite difficult and depends on many other input data
- The following modules are built in the FPTW U Tool:

|   |
|---|
| Module for analysis of demand for water supply and wastewater collection services |
| Cost analysis module (as function of demand for services)                         |
| Tariff calculation and analysis module  |
| Tax and charge item selection and calculation module                              |
| Capital expenditure planning module (CIP)   |

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## Hardware and Software Requirements

In order to run the FPTW U Tool, the following minimum hardware and software characteristics are recommended:

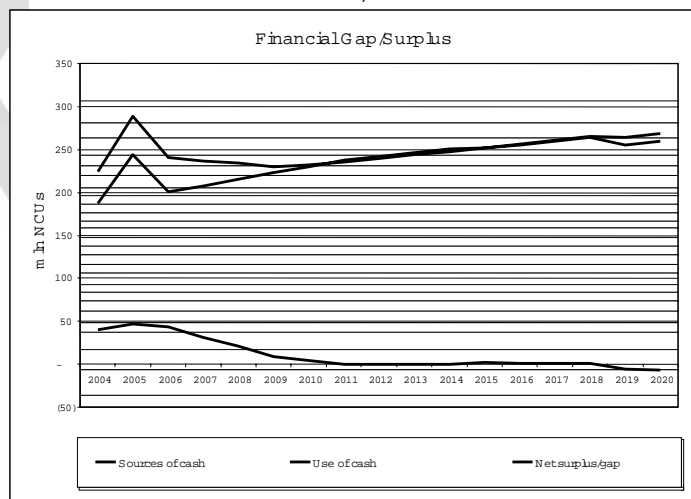
- Pentium processor, 200Mhz
- 128 Mb RAM
- 10-20 Mb hard-disk space (depending on input data amount)
- Screen resolution 1024x768
- Operating system Microsoft Windows 95/98/ME/2000/XP
- Excel 197/2000
- Russian and English fonts for Windows



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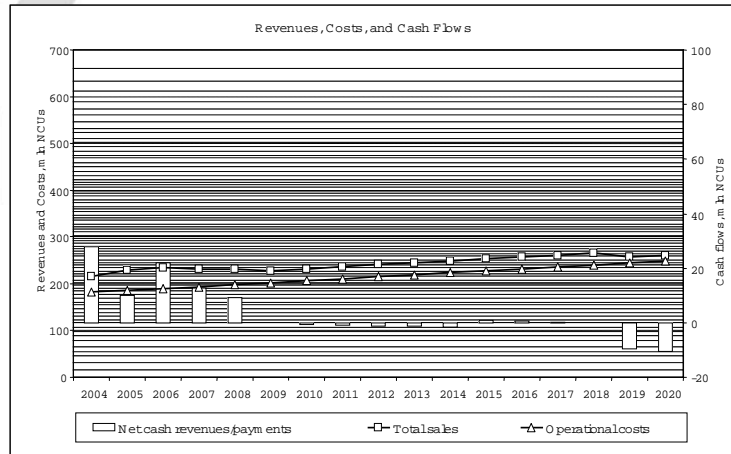
## Graphical Presentation of Calculations - Financial Gap Analysis (based on the Bishkekvodokanal data)



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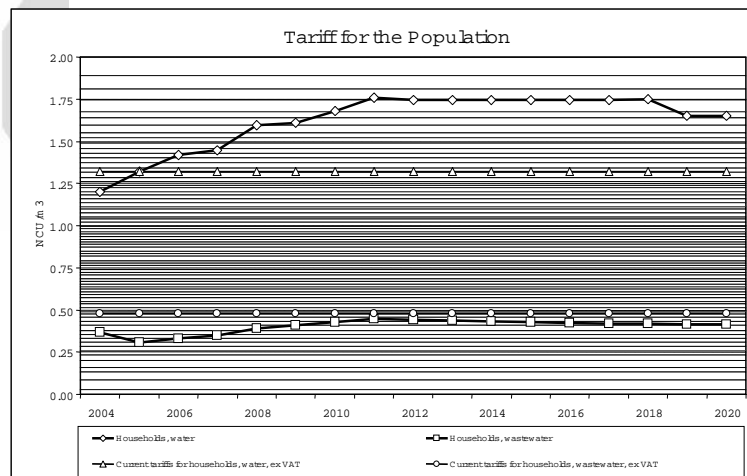
Graphical Presentation of Calculations - Costs, Revenues, and Cash Flows (based on the Bishkekvodokanal data)



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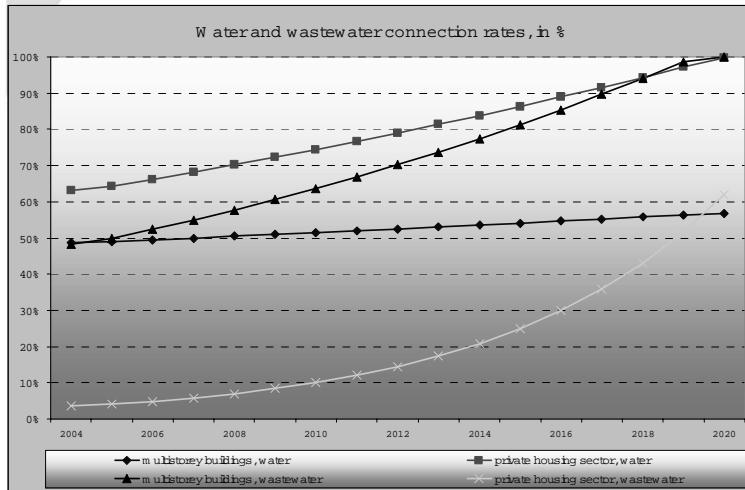
Graphical Presentation of Calculations - Estimated and Current Tariffs (based on the Bishkekvodokanal data)



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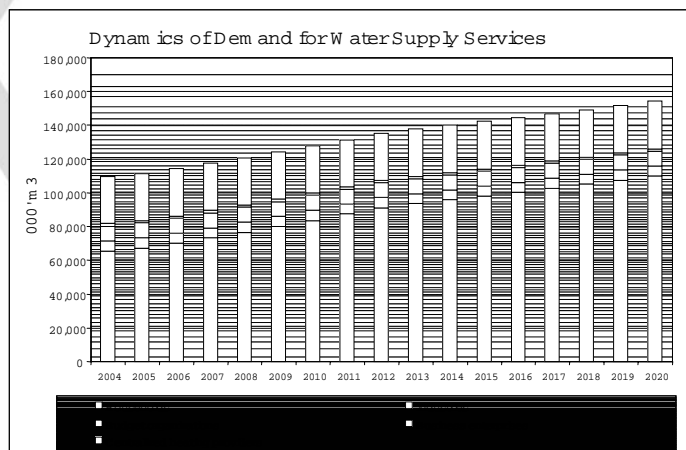
Graphical Presentation of Calculations - Service Coverage (based on the Bishkekvodokanal data)



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Graphical Presentation of Calculations - Dynamics of Demand and for Water Supply Services (based on the Bishkekvodokanal data)



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## Advantages of the FPTW U

- Presentation of broad and detailed information for making a decision in a systematized and easy-to-process form
- Capacity to develop realistic capital expenditure programme consistent with the financial capacities of the utility
- Analysis and calculation of various tariff scenarios and their impact on medium-term financial condition of the utility
- Detailed analysis of the userbase (dem and for services)
- Convenient output of base information on the water utility in the form of graphs and summary tables

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## How We Worked on the FPTW U

- General concept was presented by the Consultant
- Then the Consultant developed the first version of the tool (so-called skeleton of the tool)
- Then the water utility engaged in active discussions with the Consultant about technical, financial, and operational aspects of the tool
- At the same time, data on Bishkekvodokanal was collected to be entered in the tool and tested
- The tool was further developed based on the testing results
- Two water utility representatives were trained to use the tool

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## General Comments

- It should be pointed out that the FPTW U does not replace regular accounting software - it is a tool for more general strategic planning for development of a water utility
- In our view, the tool is quite comprehensive, and, although we have been operating with it for a year already and it has been undoubtedly useful, it will take some time before it becomes an integral part of regular planning of the water utility's activities
- The FPTW U is undoubtedly a very useful and even irreplaceable tool for utilities introducing medium-term and long-term financial planning practices

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## Future Perspectives

- Bishkekvodokanal is seeking external financing, liaising with IFIs and donors
- In this context the FPTW U can be useful creating necessary transparency
- EBRD is planning a mission in May, 2006 to explore possible future ways for cooperation with Bishkekvodokanal

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THANK YOU !

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