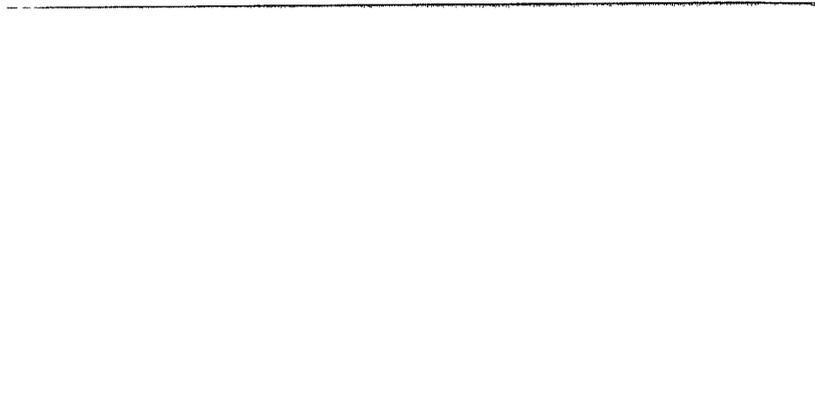


PN-AED-721



Environmental Policy and Technology Project

For the New Independent States
of the former Soviet Union



Prepared for
Bureau for Europe and the New Independent States
U.S. Agency for International Development

By
A USAID Project Consortium-Led by CH2M HILL

PN-ACD-721

Environmental Policy and Technology Project

Contract No CCN-0003-Q-09-3165

UKRAINE

Manual - Methodology for Strategic Policy & Institutional Strengthening of Lviv Vodokanal

September 1997
Delivery Order 9 - Task U2

Prepared for
Regional Mission to Ukraine, Belarus & Moldova
U S Agency for International Development

Prepared by
Ukraine, Belarus & Moldova Regional Office
Environmental Policy and Technology Project
A USAID Project Consortium Led by CH2M HILL

PREFACE

Under the 1992 Freedom Support Act the United States Congress initiated a program to provide various forms of assistance to new independent states (NIS) of the former Soviet Union. Cooperative Agreements were signed between representatives of the U S government and each country in which assistance was to be undertaken. The U S Agency for International Development (USAID) was given the responsibility to coordinate all U S government assistance to the NIS under the Act.

Through competitive bidding, USAID awarded a multi-year contract to a team managed by CH2M HILL International Services Inc (CH2M HILL) to support implementation of an environmental assistance program to republics of the former Soviet Union. Under this contract, termed the Environmental Policy & Technology (EPT) Project, CH2M HILL is to assist USAID's missions in Moscow, Kyiv, and Almaty undertake a program to promote environmental improvements in the NIS. The USAID mission in Kyiv supports environmental, and other assistance programs to Ukraine, Belarus, and Moldova. CH2M HILL established an office in Kyiv from which to perform services in these countries under the EPT Project.

This report was prepared as a contractually required deliverable under a contract between USAID and CH2M HILL. Although work on this report was conducted in cooperation with the assisted governments and USAID, the findings and recommendations are those of the CH2M HILL team. They do not necessarily represent official positions of the governments of the assisted countries nor of the United States of America.

The CH2M HILL team includes the following organizations:

- Center for International Environmental Law
- Clark Atlanta University/HBCUMI Environmental Consortium
- Consortium for International Development
- Ecojuris
- Environmental Compliance, Inc
- Harvard Institute for International Development
- Hughes Technical Services Company
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NOTIFICATIONS

NOTE ON TRANSLITERATION

Ukrainian personal, institutional and place names used in EPT documents are transliterated into English from Ukrainian (not Russian), according to the modified U S Library of Congress standard for Ukrainian-to-English transliteration that has been adopted by many Western organizations and publications, including the *Encyclopedia of Ukraine* (University of Toronto Press, 5 vols, 1984-1993) and O Subtelny's authoritative *Ukraine A History* (University of Toronto Press, 1988, 2nd edition 1994), as well as by the Ukrainian Commission on Legal Terminology (Resolution No 9 dated 19 April, 1996)

NOTE ON COST ESTIMATES

The opinions of cost shown, and any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation and implementation from the information available at the time the opinion was prepared. The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. As a result, the final project costs may vary from the opinions of cost presented herein.

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ABBREVIATIONS, ACRONYMS & GLOSSARY

BAH	Booz, Allen and Hamilton
CH2M HILL	CH2M HILL International Services, Inc A U S -based international environmental engineering consulting firm under contract to USAID to implement a large component of the EPT Project
COWI	COWI Consultants (Denmark)
DO	Delivery Order
e g	for example
EPT	Environmental Policy & Technology (Project) A USAID-funded program to provide environmental assistance to New Independent States of the former Soviet Union
Ibid	previously cited
kbv	karbovanets
konto	Vodokanal customer account based on a water supply connection
LVK	Lviv Vodokanal (municipal public water utility)
NIS	New Independent States (of the former Soviet Union)
No	number
Nos	numbers
oblast	A government territorial-administrative unit in the former Soviet Union that is still in use following Ukraine's independence A U S analogue would be something between a state and a county
op cit	in the work cited
PADCO	Planning & Development Collaborative, Inc A U S -based consulting firm under contract to USAID to implement part of the U S government's assistance program to Ukraine's housing and communal services sector
US \$ or USD	United States dollar
USD/h	dollars per hour
USD/d	dollars per day
USAID	U S Agency for International Development
vodokanal	A quasi-government agency responsible for municipal water supply and wastewater collection and treatment A U S analogue would be a water utility
WB	World Bank (International Bank for Reconstruction & Development)
ZhEK	A municipal entity responsible for operation and maintenance of houses and multi-apartment buildings owned by city administrations, as well as water, sewerage, gas, electricity, and heating systems within them

Section 1 INTRODUCTION

As part of a United States government bilateral assistance program, the U S Agency for International Development (USAID) is supporting environmental management in Ukraine Under direction from USAID, a consortium led by CH2M HILL International Services, Inc (CH2M HILL), is implementing part of USAID's Environmental Policy & Technology (EPT) Project by undertaking various tasks that have been agreed to by representatives of the governments of both countries

Under Delivery Order 9, Task U2, the EPT Project is providing technical assistance and equipment to the city and vodokanal of Lviv in order to develop technical and management model methodologies that will serve as a model for nationwide implementation of municipal water and wastewater sector economic reforms

Subtask 4 1 requires CH2M HILL to

draft a proposed methodology on developing a strategic policy for the consideration by a vodokanal, the purpose of which shall be to define the type of organization the vodokanal wants the utility to become, including its capabilities, financial self-sufficiency and its relationships with other entities, particularly its associated cities

Subtask 4 2 requires CH2M HILL to

work closely with PADCO in reviewing the present legal status and institutional performance (Organization and Management, Administration) of the Lviv Vodokanal [and] establish a general methodology for Vodokanals to strengthen their institutions

Subtask 4 3 requires CH2M HILL to

to develop a program for institutional strengthening, define an appropriate legal and regulatory framework, recommend suggested objectives and policies, recommend strengthening in specific areas [and] recommend the preparation of a specific plan for the establishment and strengthening of the utility

Information collected under these subtasks are to be compiled into a manual that presents a methodology for strategic policy and institutional strengthening This document is the manual required by USAID

Section 2 STRATEGIC POLICY

In the post-war years in Ukraine, housing and utilities, especially the water supply and wastewater facilities, under the responsibility of local councils, were largely constructed using state budget funds plus funds generated from shared participation of ministries and agencies. Enormous state resources were used to create the existing infrastructure. Over the years this infrastructure has become old and worn as much of it has reached the end of its service life. Therefore, in addition to capital repairs, much of the system requires reconstruction as well as the construction of new facilities. In the centralized economy these issues, although quickly undertaken, were almost always resolved using state funds.

Under existing conditions in Ukraine, the ability to obtain funds from central government essentially does not exist. Nevertheless, the housing and communal sector exists and operates, as before, according to the centralized economy principles. In order to survive in this new situation, the housing and communal sector must be restructured so as to obtain the needed funds to exist. Restructuring needs to be carried out thoughtfully so that the good parts of the old system are retained and new changes added carefully so as to introduce needed improvements to the institutional framework.

The start of making any strategic policy is to agree upon a strategic objective. It is suggested that the strategic corporate objective should be to have

A vodokanal that is organized so that it can

- Provide proper water and wastewater service to its customers
- Operate on a financially self-sustaining basis

Since almost every vodokanal is physically worn-out and undercapitalized it will mean that considerable funds will need to be invested in order to provide proper service.

Only by being financially self-sustaining can a vodokanal be assured of operating while providing suitable service for its customers in the long term.

The most important policy should be that the vodokanal is organized and operated to be financially self-sufficient. This can be done in any of the methods of institutional strengthening that are mentioned in this report. The key is the will to operate in this fashion and the leadership to carry it out.

Institutional strengthening should be an evolutionary process that develops as the system improves internally to meet the new conditions in the community. In the end, the strength of a vodokanal will be dependent on the strength of the economy of the community it is associated with, as this will be the ultimate source of funding to keep it in business.

Section 3
INSTITUTIONAL FRAMEWORK OF VODOKANALS

3 1 EXISTING REPORTING STRUCTURE, MANAGEMENT, AND INSTITUTIONAL FRAMEWORK OF WATER UTILITIES

3 1 1 Legal Status of Water and Wastewater Utilities

The institutional framework of water and wastewater utilities (hereinafter termed "water utilities") depends on adopted laws, resolutions, instructions and other legislative acts that in the final count determine their legal status. A Law of Ukraine¹ delegates a number of the central government's powers to local (municipal or oblast) authorities. This law² reads that the financial and economic basis of the local self-government includes the following:

- natural resources, including water resources, under the jurisdiction of local authorities
- communal property, which is a source of income for local authorities and meets the social and economic needs of the population

By Decree of the President³ it was decided to transfer the assets of utilities used for providing housing and communal services which meet overall municipal social and economic needs of the population to the municipalities of Ukraine.

Another Law of Ukraine⁴ specifies the legal types of enterprises in Ukraine according to their form of ownership. Among them is a "state public utility owned by administrative-territorial entities." This category includes enterprises based on government ownership at various levels (central, oblast, or municipal), depending on the reporting structure of the enterprise. Assets of a city water utility (vodokanal), being a public utility, are under the communal ownership of the City Council. At the same time, water utilities are independent statutory enterprises, exercising rights of legal entities and subject in their activities to the laws of Ukraine. The legal underpinnings of these relations are drawn up in the charters of the vodokanals.

3 1 2 Who Owns Water Utilities and Who Controls Their Activities

In accordance with current legislation, assets have been transferred to vodokanals with the right of "full economic management", that is, the rights of "possession, use, and disposal of the assets, at their discretion." The ownership of the assets of water utilities, however, lies with the city councils, namely their departments of municipal communal assets. During the performance of their functions, vodokanals have the right to make, on their own initiative,

¹ Law of Ukraine *On Local Councils of People's Deputies and Local and Regional Self-Government* No 2234-XII of 26 March 1992

² *Ibid*, Article 5

³ Decree of the President *On Strengthening Economic Underpinnings of Self-Government of Cities of Ukraine* No 84/94 of 12 March 1994

⁴ Law of Ukraine *On Enterprises in Ukraine* No 887-XII of 27 March 1991, Article 2

any decisions which do not contradict the legislation of Ukraine. Any interference into their economic and other activities on the part of government, public, or cooperative bodies, political parties, or movements is not allowed, except for cases provided for by legislation. Any losses inflicted on the enterprises as a result of carrying out instructions issued by government or other authorities or their officials that violated the rules of the enterprise, or as a result of poor performance of duties pertaining to the enterprise placed on these authorities or their officials and provided for by legislation, should be reimbursed.

Regardless, vodokanals can dispose of their basic assets only upon prior approval of the legal owner — the departments of municipal communal assets⁵

As an asset, the land within city limits on which water utility facilities are located is transferred to vodokanals for perpetual usage. Land usage matters concerning vodokanal facilities located beyond city limits are regulated by local councils or executive committees of the relevant administrative-territorial entity. In each separate case the water utility must obtain a *State Act for the Right to Land Usage* of the appropriate local administration⁶

According to the law⁷ executive committees of city councils are in charge of

- financing of expenses for the development of housing and communal services
- organization of the operation of water supply and wastewater networks and facilities
- control over the construction and operation of water supply and wastewater facilities

City budgets are formed from two types of taxes — fixed (when the state allows cities to retain a portion of specific taxes) and adjustable (when oblasts are empowered to determine the portion from other taxes to be retained in city budgets). Thus, oblasts indirectly participate in assigning capital investments into city infrastructures, including water utilities.

The procedure for assigning capital investments to water utility development and improvement is the following:

- vodokanals make proposals to the departments of communal assets of municipal executive committees
- the executive committees prepare draft plans for the socioeconomic development of their city and submit them to the city councils
- the city councils approve annual budgets that include expenses for capital investments into their infrastructure

⁵ Many of the assets transferred to vodokanals for their usage are not actually used.

⁶ Sometimes, it is not easy to receive this permission when the construction of water and wastewater facilities beyond city limits is being planned. Many local authorities, in their own interests, try to impede the construction of well fields and pipelines on their territory, meant to supply water to inhabited areas located beyond their boundaries. Current legislation does not provide for the responsibility of these executives to the state.

⁷ Law of Ukraine *On Local Councils* op cit

- the executive committees of the city councils ensure financing of expenditures for water utility development
- the clients are the departments of capital construction of the executive committees

Cities can also finance the ongoing operational needs of vodokanals

Besides funding from city budgets, capital investments are provided for within the framework of the state program for socioeconomic development, approved by the Cabinet of Ministers of Ukraine, whose executor is the State Committee for Construction, Architecture, and Housing Policy of Ukraine⁸ Nevertheless, water utilities, as state communal utilities, are currently not receiving the investments from the government that are critical to maintaining their infrastructure at a proper operational level

Water utilities may carry out capital construction at their own expense, by concluding contracts directly with design & construction organizations However, only a portion of their net profit can be used for this funding⁹ Moreover, under current legislation, it is not allowed to include capital investment costs for reconstruction, equipment upgrading, expansion, or new construction into production costs of goods or services

3 1.3 Reporting Structure of Water Utilities

Water utilities are part of city assets However, as communal services they are subject to dual subordination Vodokanals of large cities are report to city councils and their executive committees, and at the same time to a higher authority — the State Committee for Construction, Architecture, and Housing Policy of Ukraine

In addition to the abovementioned two authorities, vodokanals in cities under oblast jurisdiction report directly to the respective oblast councils and their executive committees It is fairly common for rural water supply systems to belong to combined public utilities (which render all types of communal services in the area) In this case, the systems are operated as a committee The combined public utility reports to the Village Council and also directly to the Oblast Council and its Executive Committee, as well as the State Committee for Construction, Architecture, and Housing Policy of Ukraine The reporting structure for water utilities in Ukraine is shown in Figure 3-1

Water supply systems operated exclusively to meet the water needs of specific industrial enterprises are subordinated directly to them This does not exclude the situation where the enterprises do supply some water to residents In this case, payments for water consumed are collected by water utilities, which later settle accounts with the enterprises

⁸ The State Committee for Construction, Architecture, and Housing Policy of Ukraine was created by Decree of the President of Ukraine No 773/97 of 11 August 1997 on the basis of the former State Committee for Urban Planning and Architecture of Ukraine and the former State Committee for Housing and Communal Services of Ukraine This Committee has inherited all rights and responsibilities of the eliminated committees

⁹ *Rules for Applying the Law of Ukraine On Taxation of the Profit of Enterprises*, by Resolution of the Verkhovna Rada of Ukraine, No 247/95-BP on 27 June 1995

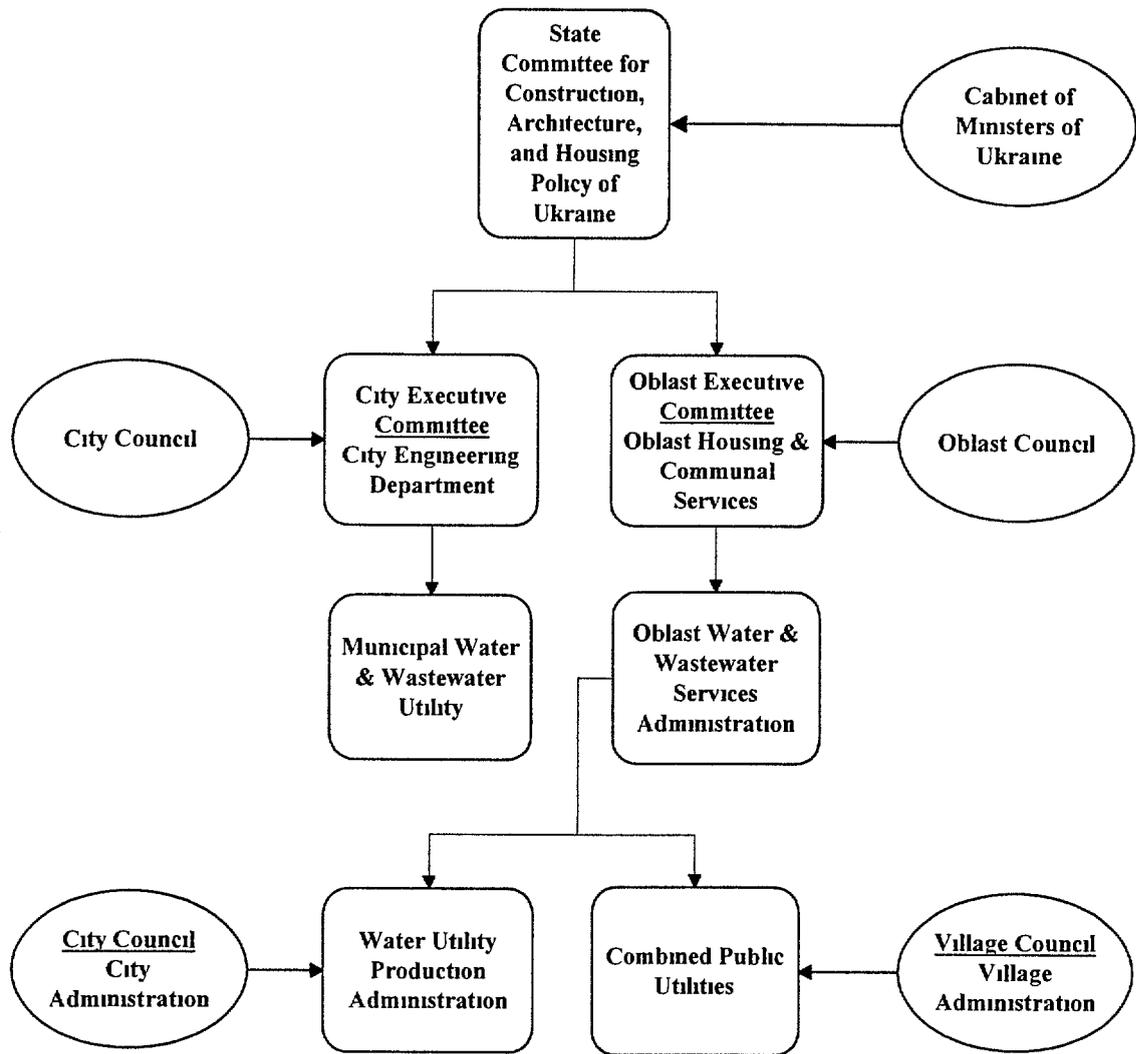


Figure 3-1 Reporting Structure for Water Utilities in Ukraine

3 1 3 1 Relations Between Vodokanals and Central Governing Authorities

The Water Code of Ukraine specifies the competence of the Cabinet of Ministers of Ukraine in the sphere of management and control over water usage and protection, and replenishment of water resources. The Cabinet of Ministers of Ukraine adopts government policy towards the integrated development of housing and communal services. The State Committee for Construction, Architecture, and Housing Policy of Ukraine is the highest authority for vodokanals. It implements government policy for housing and communal services, including water supply and wastewater disposal services, and fulfills the following relevant tasks:

- development and implementation of state strategy for housing and communal services
- introduction of new methods of labor and overall sector management

- preparation of proposals for extending economic reform concerning adaptation of housing and communal services to market conditions, as well as proposals for lease, denationalization, and privatization of property
- facilitating the privatization process of communal facilities

The regulatory acts drawn up and adopted by the Committee are binding for central and local state executive authorities, and also for enterprises, institutions, organizations, and citizens

Permits for special water usage are official documents on the basis of which vodokanals use state property (i.e., water resources), keeping to set limits. A Resolution of the Cabinet of Ministers¹⁰ establishes the procedure of issuing permits for special water usage and for setting limits on groundwater usage. Permits for special water usage are issued by state administrations on environmental protection. According to the Resolution and the Water Code¹¹, in order to receive these permits vodokanals should also obtain the consent of the State Committee on Water Husbandry and the State Committee on Geology, and they should additionally be endorsed by the state sanitary inspectorate, fish protection, and veterinary service. Also according to the Water Code¹², state administrations on environmental protection determine the period of validity for these permits. With respect to limits on groundwater usage, the Cabinet of Ministers Resolution¹³ stipulates that they are issued by the Ministry of Environmental Protection.

3 1 3 2 Relations Between Vodokanals and Oblast Councils

The authority of oblast councils in the sphere of water relations management is specified by the Water Code¹⁴ as follows:

- ensuring the implementation of state policy in the sphere of water usage and protection, and replenishment of water resources
- management of water bodies of local importance
- sanction of state, international, and regional programs of water usage and protection, and replenishment of water resources, as well as participation their implementation
- issuing permits for special water usage for water bodies of local importance
- setting, in accordance with established procedure, norms and payment amounts for special water usage for water bodies of local importance

¹⁰ Cabinet of Ministers Resolution No. 459 of 10 August 1992 *On the Procedure of Issuing Permits for Special Usage of Natural Resources and Setting Limits on the Usage of Resources of National Importance*

¹¹ *Water Code of Ukraine* adopted by Verkhovna Rada Resolution No. 213/95-BP on 6 June 1995, Article 49

¹² *Ibid*, Article 50

¹³ Cabinet of Ministers Resolution *On the Procedure of Issuing Permits for Special Usage* *op cit*, Article 6

¹⁴ *Water Code*, *op cit*, Article 8

- sanction of the location of enterprises and other facilities whose activity is connected with the usage of water resources, and may have harmful impact on them
- coordination of raion and city council activities in the sphere of water usage and protection, and replenishment of water resources
- approving sanitary protection zone designs for well fields
- imposing restrictions, temporary banning (halting), or termination of operation of enterprises, institutions, and organizations, in cases of violation of water legislation
- organization of relief activities after breakdowns and natural disasters
- informing the population about the condition of water bodies

In addition, approval of water supply and sewerage tariffs is delegated¹⁵ to oblast executive committees, subsequently resulting in a directive of the head of the Oblast Council

3 1 3 3 Relations Between Vodokanals and Municipal Governments

The law on local self-government is the main legislative act that regulates relations between vodokanals and municipal governments, dividing powers between city councils, their executive and management bodies, the state, and housing & public utilities

In accordance with the law on local self-government, "keeping a list of local enterprises and approving a list of communal property and their status" is within the competence of city councils. The authority of city councils in the sphere of water relations management is specified by the Water Code as follows¹⁶

- carrying out activities aimed at efficient water usage and protection, and replenishment of water resources
- control over water usage and protection, and replenishment of water resources
- setting rules for general usage of water bodies, in accordance with the procedure established in the Water Code (Article 47)
- imposing restrictions, temporary banning (halting), or terminating the operation of enterprises or other facilities in case they violate water legislation, within the competence of the Council

¹⁵ Cabinet of Ministers Resolution *On Pricing under Conditions of Reforming the Economy*, No 733 dated 21 October 1994, Appendix 3, Item 7

¹⁶ *Water Code* op cit, Article 10

- organization of relief activities after breakdowns and natural disasters, worsening of water quality, or its adverse effect
- informing the population about the condition of water bodies

Authorizations of city councils to set taxes¹⁷ include

- stipulating the proportion of profit of enterprises under communal ownership of appropriate territorial entities that is subject to deduction into the local budget
- approval of lawfully appropriate taxes on land and fees for usage of natural resources owned by appropriate territorial entities

Authorizations of executive bodies pertaining to the budget, finances, and prices¹⁸ include stipulating tariffs, according to lawful procedure and limits, for the payment of communal services supplied by enterprises under communal ownership of appropriate territorial entities Powers of city executive committees to manage communal property and develop local economies are also specified by the law on local self-government¹⁹ as follows

- managing assets under communal ownership, asset funds of housing & communal enterprises, and other assets in order to meet the needs and demands of the population
- resolving the questions of creation, acquisition, usage, lease, or free transfer of assets under communal ownership
- ensuring fulfilment of communal property privatization plans approved by city councils
- if they have funds, city executive committees have the right to create enterprises (associations), organizations and institutions, to approve their charters or regulations on them, to allocate their statutory funds, and to appoint and dismiss their management or determine other lawful procedures of their appointment and dismissal
- organization of operation of water supply and wastewater networks and facilities
- control over construction and operation of treatment plants and equipment

By Resolution of the Cabinet of Ministers²⁰, local state executive bodies are recommended to follow the procedure stipulated by the provisions of that Resolution while setting up contracts with communal enterprise management The parties signing the contracts should be the

¹⁷ Law of Ukraine *On Local Self-Government in the Country*, No 280/97-BP of 21 May 1997, Article 25, Article 38, Items 29, 39

¹⁸ *Ibid*, Article 28, Item 2

¹⁹ Law of Ukraine *On Local Councils* op cit, Article 35, Article 38 Item 4

²⁰ Cabinet of Ministers Resolution *On Applying the Contract Form of Labor Agreement with Management of Enterprises Under General State Ownership* No 203 of 19 March 1993, Article 5

director and the Department of Communal Services under the Engineering Department of the City Executive Committee

3.1.4 Management Structure of Water Utilities

Management structure of water utilities depends on the scale of the enterprises and on their subordination. In large cities (e.g., Kyiv, Kharkiv, Dnipropetrovsk, Luhansk), water utilities are united into self-financing branch production associations. In Kyiv and Kharkiv, however, there are separate production entities for the water supply and wastewater services, while in other cities municipal water supply and wastewater services together, as a rule, form the vodokanals.

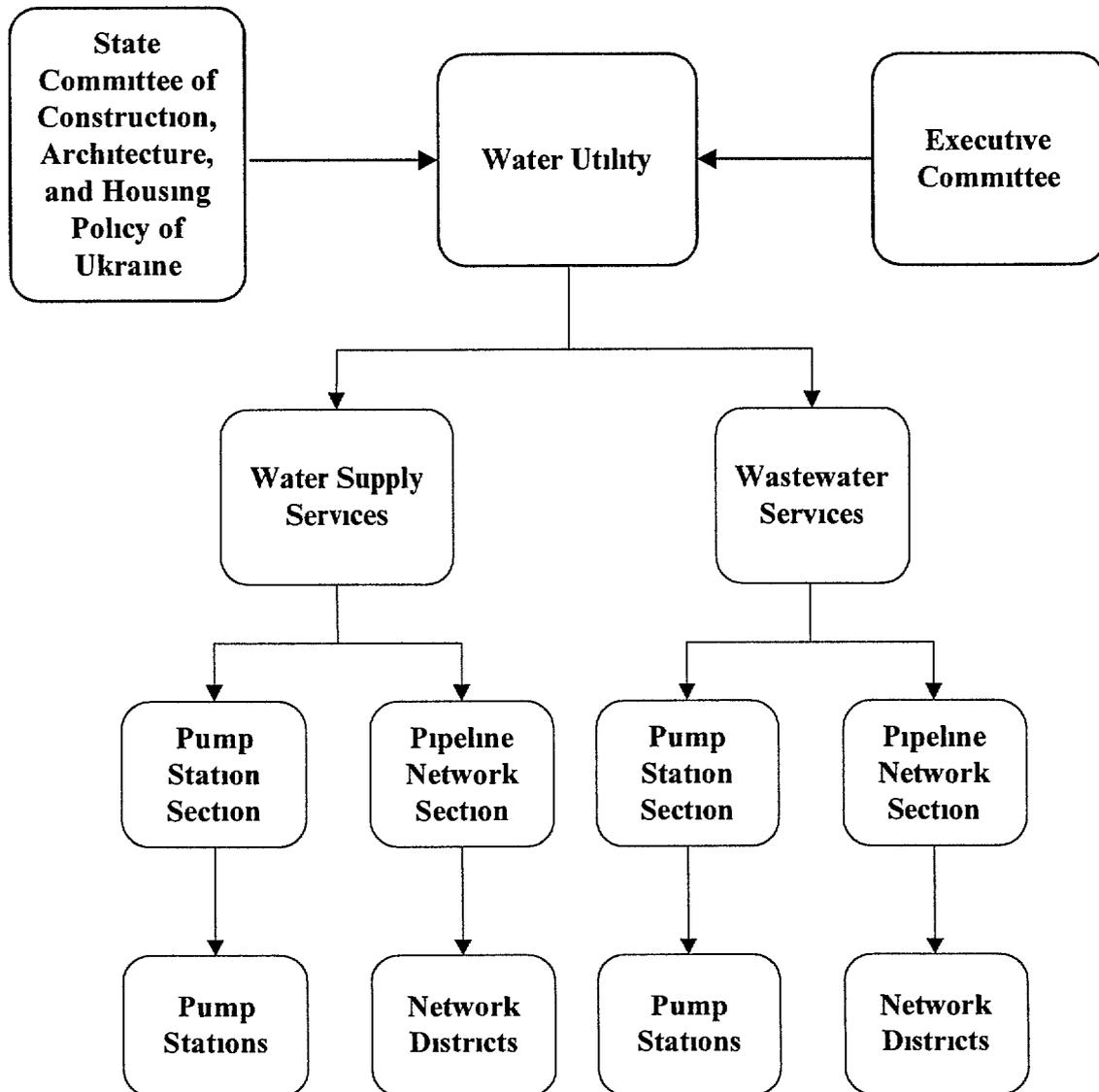


Figure 3-2 Water Utility Management

In large cities water utility enterprises are subordinated directly to the executive committees of the city councils. These enterprises are self-financing, operating according to approved charters, and carry out their own planning, financing, organizational, and operational management, in self-financing units (water supply and wastewater pump stations, water supply and wastewater network maintenance units, etc.) Figure 3-2 presents a management diagram of water utilities and shows the principle of their dual subordination to the State Committee of Construction, Architecture, and Housing Policy of Ukraine, and to the Executive Committee (oblast or city)

3.1.5 Institutional Framework of Vodokanals

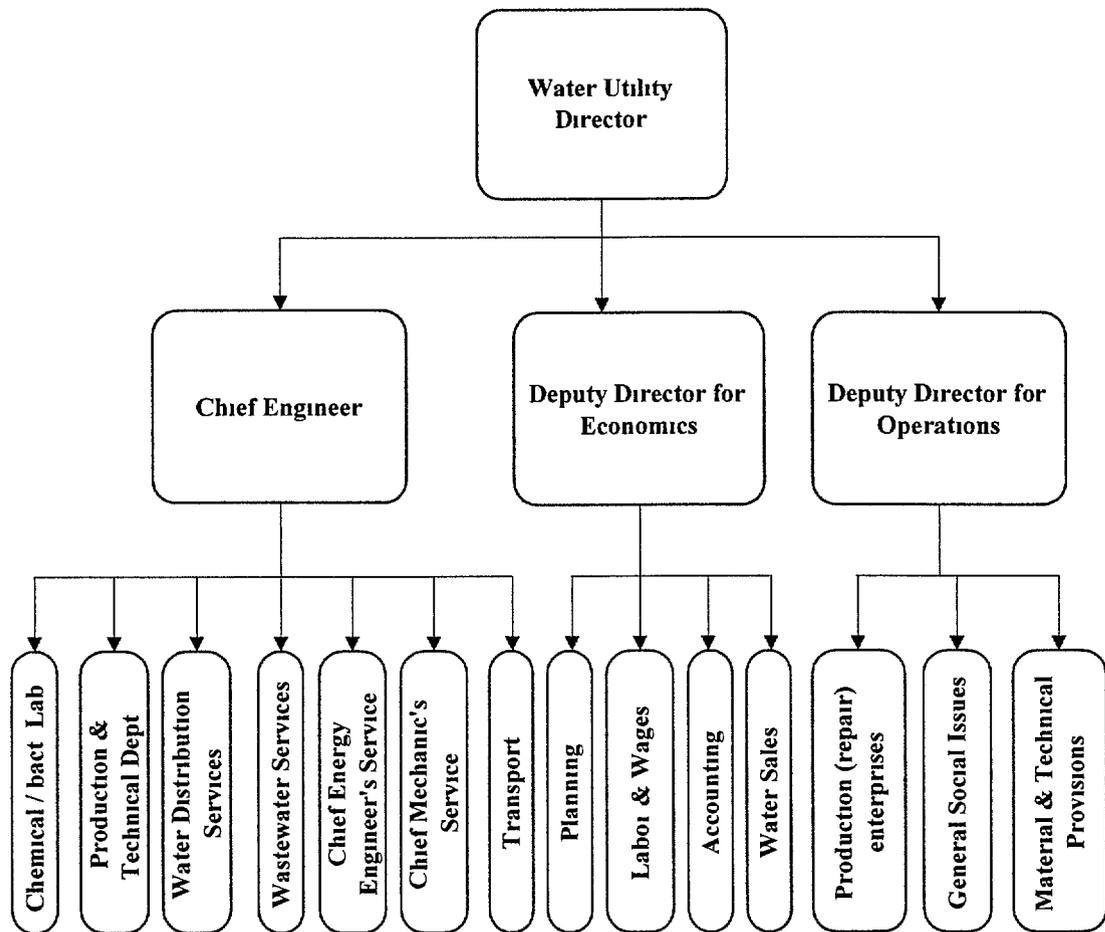


Figure 3-3 Institutional Framework of Water and Wastewater Utility

Vodokanal institutional framework depends on the dimensions of the enterprises, their capacity, and also on the production technology. A general list of vodokanal production components is as follows:

- 1 For water supply
- water abstraction

- pumping water with Stage I well pumps
 - receiving raw water from other sources²¹
 - delivering raw water to customers for non-drinking purposes through special networks
 - water treatment at water-treatment plants
 - receiving potable water from other sources and conveying it to pure water tanks
 - pumping water into the network by own booster pump stations
 - receiving potable water from other sources directly into the network
 - delivery of water to customers
- 2 For wastewater disposal
- receiving wastewater from customers
 - pumping wastewater to treatment plants
 - mechanical treatment settling basins, methane tanks, and sludge drying beds
 - natural biological treatment farming fields and filtration fields
 - artificial biological treatment biofilters, aeration tanks, and secondary settling basins

3 2 ASSESSMENT OF INSTITUTIONAL FRAMEWORK OF WATER UTILITIES

The existing reporting structure, management, and institutional framework of water utilities depends primarily on the legal and economic relations between the state and the enterprises

3 2 1 Assessment of Legal Relations

At this time, water utilities belong to municipalities Relations between vodokanals and the city councils and their executive committees, as far as possession and control of basic assets, are stipulated by legislation²² By law²³, "the legal executor of communal ownership (including of communal enterprises) is the City Council, which through its authority has the right

- to transfer communally-owned facilities for temporary usage
- to lease communally-owned facilities
- to sell communally-owned facilities to enterprises, organizations, or citizens

Thus, city councils have given over communally-owned facilities — in particular, water utilities assets — to vodokanals for temporary usage However, the terms of usage are not specified, and this means that at any time the city councils may decide to charge for the lease of these facilities, or to sell them to anyone else

²¹ From other cities or enterprises that abstract water

²² Laws of Ukraine *On Property*, No 697-XII of 7 February 1991, and *On Enterprises*, op cit

²³ Law of Ukraine *On Local Councils* op cit

The legal formulation of relations between city councils and vodokanals is stipulated in the charters of the latter. The Charter²⁴ stipulates that "the City Council transfers assets (of the water utility) to the balance sheets of the Vodokanal, with rights of full economic management. Exercising these rights, the enterprise possesses, uses, and disposes of said assets at its discretion, taking any actions pertaining to them that do not contradict active legislation or the enterprise's charter". Schematically, these relations appear in Figure 3-4.

Thus, at first sight it may appear that vodokanals have extensive freedom as to the possession and disposal of basic assets. But the city councils, as owners, reserve the right to control these assets, and the vodokanals can sell or exchange them only subject to a decision of the executive committees of the city councils. If vodokanals wish to lease or write off basic assets, they must obtain the approval of the municipal engineering department. Furthermore, while the city councils should invest in the infrastructure of the water utilities from their budgets, according to the law, and likewise the vodokanals should allocate part of their net profit to water utility infrastructure, any assets created through these investments automatically come under the ownership of the councils.

On the positive side, vodokanals are independent economic entities, with their own planning, financial, organizational, and operational management, and outside interference in their economic or other activities is not allowed. This means they can

- engage in other activities not proscribed by law, and collect revenue from them
- independently govern the salary pool, and wages and other income of employees
- open settlement, hard currency, and other bank accounts
- receive credits from foreign partners

3.2.2 Assessment of Economic Conditions

Economic conditions in the country have affected the economic conditions of water utilities, manifest in the following:

- crisis of non-payments
- budget financial crisis
- investment crisis

3.2.3.1 Crisis of Non-payments

In the early stages of price increases in the country and towards their orientation to world prices, water utility fees (and fuel & energy, as well) were regulated and kept down by the state. The state regulation of these utility fees made the transition period easier. But this was achieved at the cost of financial exhaustion of these nationally-important utilities, and in the end this hardly had a positive influence on the Ukrainian economy as a whole. The rate of

²⁴ Typical Vodokanal Charter (1996), based on the Laws of Ukraine *On Property On Enterprises* and *On Local Councils* all op cit

inflation increased, and both water and fuel & energy utilities became de facto interest-free creditors for other branches of industry and the residential sector

Today, the income of water utilities for the sale of their services does not cover production costs. The gradual price increase for services that was carried out during recent years has done little for the effective functioning of vodokanals. Continuing and significant lags in service tariffs, and also the continuing subsidization of customers, is leading water (and electrical) utilities to the brink of bankruptcy. A large part of vodokanal service production costs is comprised of electricity expenses. Permanent and protracted indebtedness for electricity will result in decreases in the supply. This in turn will lead to reduction in the amount of services produced by both utilities. Thus, the pricing policy crisis appears as an energy crisis, leading to an economic crisis, which then again turns into a pricing crisis. There is no end to this circle.

If water utilities accept payments for their services and pay off their debts in barter form or apply mutual clearance of debts, they themselves risk financial crisis. Moreover, even these measures do not ensure full payment for services (collection rate is 60 to 70 percent). Customer indebtedness for water services dates back to 1994, and its amount increases with each year. Today, under conditions of increasing non-payment, a critical lack of circulating assets, and aging fixed assets, the problem for water utilities is one of their very survival.

On the other hand, the price/payment crisis jeopardizes reliable, uninterrupted, and quality water utility services. Lack of investment disturbs normal operations, endangers social and health conditions, and hinders development of the communal infrastructure. The major reasons for this situation are stipulated by macroeconomics and fiscal policy, and lie outside the water utilities themselves. These problems need to be resolved by the state.

3 2 2 2 Budget Financial Crisis

At the current state of market transformation of Ukraine's economy, the main hindrance to structural reform of branches of the economy is a critical budget deficit. Realistically, this means that the state has thrown off its obligation to fully support the state sector with necessary investments. This is being achieved through decentralization of economic management, and increasing power to the regions. State investment is continuing only for the development of priority branches of the economy and non-profit branches (health care, education, social security, etc.). Meanwhile, the regions are also going through their own deficit crises, and vodokanals, as well as other enterprises, cannot count on the necessary support from local budgets, either.

In short, the Ukrainian economy is going through a serious crisis nationwide, manifested above all by the absence of investments needed for the development of its industries. Overcoming this crisis will be possible only with the inflow of domestic and foreign investment to Ukraine, and the amount and rate of this inflow will impact on the time it takes to achieve results. In order to attract foreign investors to Ukraine it is necessary to create favorable conditions. The main barriers to foreign investment are the following:

- instability of laws and imperfect taxation policy

- unclarity in the field of property rights, mainly concerning natural resources
- contradiction and partial duplication of normative acts issued by different state bodies
- inconvertibility of currency, collapse of the bank system, default on payments, and lack of information

3 2 2 3 Investment Crisis

Water utilities are among the most capital-intensive and slow-moving branches of the national economy. The basic production assets of Ukrainian water utilities are today mostly spent and/or out of date. The still active part of the basic assets urgently requires not only modernization and rehabilitation but in many cases complete replacement. The depreciation period is expired for one-fourth (in terms of cost) of the assets of wastewater treatment plants and distribution networks. Of the distribution networks, 22.1 percent is in a broken-down state²⁵. The financial equivalent of every fifth pump station is financially written off — that is, one-half of the pump units are wholly depreciated and about 40 percent of them require replacement. One-quarter of the wells need rehabilitation. The breakdown rate for Ukrainian water supply networks is 10 times higher than in European countries, averaging two breakdowns per kilometer of network per year.

Moreover, construction and installation of new production capacities has practically halted²⁶. During the 1980s and at the beginning of the 1990s, the annual total capacity of facilities put into operation represented 200,000 to 250,000 m³/d of water supply and 350,000 to 500,000 m³/d for wastewater removal and treatment. While this tended to reduce the disproportion between water supply and wastewater disposal facilities, last year's figures were only 30,200 m³/d of water supply and 5,900 m³/d of wastewater disposal.

Today, the great intensity of water utility capital consumption demands huge investments, not only to increase production capacities but just to maintain basic production assets at their current levels. Moreover, because of the considerable inertia of water utilities, due to long investment cycles and payback periods, these enterprises require timely and continuous investing. Currently, however, there is a noticeable reduction trend in investment in water utilities of Ukraine. Exacerbated by the fact that basic assets are worn out, this can lead to serious reductions in water utility production capacities, whose rehabilitation will require much more time and investment.

²⁵ Report *On the Current Technical Condition of Urban Water Supply and Wastewater Disposal Systems in Ukraine*, Urban Water and Wastewater Work Group, *Program to Promote Sustainable Development in Ukraine*. EPT Project (WestNIS Regional Office, Kyiv)

²⁶ *Current Condition of the Water and Wastewater Sector in Ukraine*, presentation by H. Semchuk, First Deputy Head of the State Committee for Housing and Communal Services of Ukraine, at the International Congress on Ecology, Technology, and Economy of the Water and Wastewater Sector, Yalta, 15-19 April 1997

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The lack of investments is already having an adverse effect, shown in incomplete planned and preventive repairs, using depreciation deductions for capital and maintenance repairs, and continuing use of spent and outdated equipment. Among the leading causes are

- reduced financing from the state budget, which is not being compensated from other sources, due to the difficult economic situation
- deficit of own and borrowed internal and external financial resources, due to the unfavorable investment climate
- lack of effective economic instruments for the development of enterprises and production based on own finances, as a result of poor price, taxation, financial policy

A protracted famine of investment will lead to an investment crisis for water utilities that could result in endangered public health and hampered social development of cities and inhabited areas, because it would be extremely difficult to carry out one-time and short-term measures for maintaining or increasing lost potential. Again, the major reasons for the water utility investment crisis are stipulated by state macroeconomic and fiscal policy, and lie outside the purview of vodokanals.

Section 4

PADCO REPORT ON REFORMING WATER UTILITIES²⁷

The PADCO (Planning and Development Collaborative International) office in Lviv developed a package of recommendations aimed at improvement of operation of vodokanal enterprises, and included a scheme for vodokanal restructuring which was supported by the World Bank as a long-term model (see Figure 4-1) To support this scheme, company charters, model lease agreements, and performance agreements were also developed

This scheme presents different relations from the typical ones between communal enterprises and their owners -- the local authorities The first difference is that there are no agreements between both parties A regulatory body and customer representation are also absent Relations between vodokanals and authorities are today quite rigid and of an administrative nature, and it would be to the advantage of both cities and vodokanals, and also customers, to reform those relations The above chart includes new aspects of the relations proposed by PADCO, that were supported by the World Bank as a long-term goal

In the center there is a joint-stock company, which is a water and wastewater enterprise of non-communal form of ownership PADCO suggests the type of this company to be a closed joint-stock company, in which all shares are distributed among its founders and cannot be sold or bought In this way it is possible to ensure greater stability in shared ownership by the founders, and avoid undesirable outside impact on the operation of the enterprise In this case, founders will have maximum interest in the profitable operation of the enterprise These conditions could be understandable and desirable not only to Ukrainian investors, but to foreign ones If necessary, the closed joint-stock company could be converted into an open joint-stock company

The most important issue in the process of transforming the state communal enterprise into a joint-stock company is the problem of seeking possible shareholders among the working collective or individual employees of the existing enterprise, top management of the existing enterprise, outside investors (domestic and foreign), private operators, and customers of the new company Each has advantages and disadvantages The most important thing when looking for shareholders is to involve additional outside investors willing to contribute toward first-priority capital needs And it is the joint-stock form of the enterprise which will allow to do this in the most efficient way

About formation of a consumers' association of as one of the possible shareholders of the company, PADCO suggests establishing it in the form of a public association, where every customer of water/wastewater services will be able to influence its operation²⁸

²⁷ This section consists of a slightly abridged version of the USAID contractor PADCO's *Options of Reforming the Housing and Municipal Sector and Water Supply System in Odessa* (unpubl) Authorized and with permission

²⁸ The process of restructuring the Odessa Vodokanal started with the signing of a lease agreement in 1990, and establishment and registration in 1992 of a shareholders' association As a result the enterprise ceased to be state owned and the shareholders' association bought the fixed assets out of its profits However, at the time of the study the shareholders' association was not yet converted into a business entity, as required by the existing law on leasing A performance agreement was not signed, either, and outside investor funds were not incoming

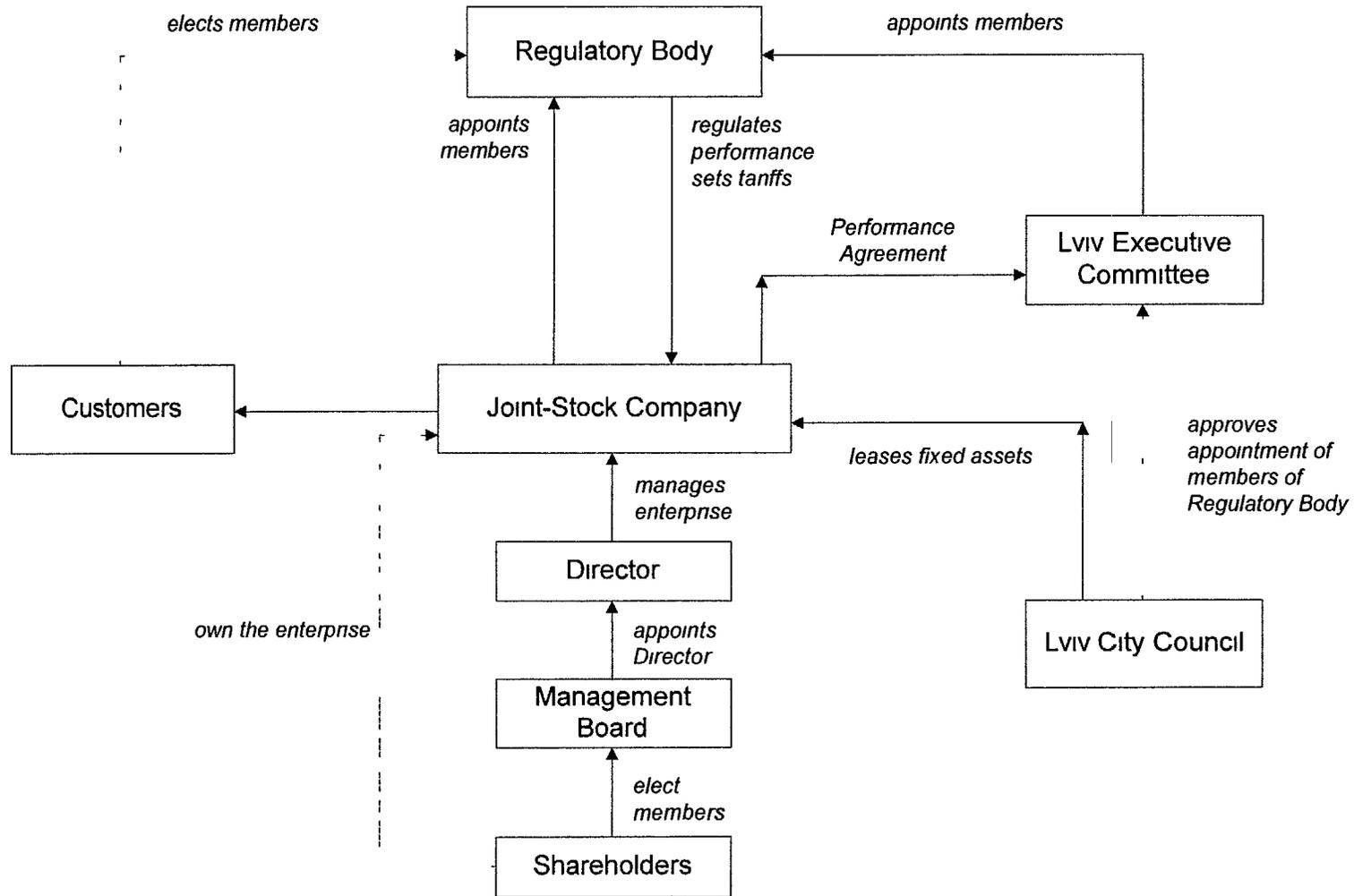


Figure 4-1 PADCO Proposed Scheme for Vodokanal Institutional Restructuring

According to the proposed scheme, the new joint-stock enterprise would operate the fixed assets (according to existing legislation, local authorities would remain the owner) under a lease agreement, and a performance agreement would be signed between the enterprise and the city government. With the purpose of controlling compliance with the requirements of both agreements, and resolving disputes between the parties concerning their obligations, formation of a regulatory body is suggested. Its members should represent the interests of major participants in the water supply and wastewater sector: the city, the new enterprise, and customers. All parties must agree that any decision of the regulatory body is binding for them. Besides, the function of water and wastewater tariff setting and approval could be delegated to this body.

This scheme does not aim to remove the city from monitoring the vodokanal operations. The relations between the city and the vodokanal are proposed to be of a different nature. As already mentioned, a lease agreement and a performance agreement are concluded between the owner of the fixed assets and the new company, and these agreements will regulate relations.

The performance agreement for provision of water and wastewater services can also be used to clarify relations between the city and the new communal enterprise. The goal of this agreement is to define rights and obligations of parties with regard to the operation of water and wastewater systems, and improved quality and increased volume of services. The agreement also provides for customer relations, and recognizes the importance of educational campaigns. While the parties decide for what term the agreement is signed, understandably it may provide both for short- and long-term measures.

Lastly, changes in Ukrainian legislation might influence the scheme. For example, the Constitution adopted last year stipulates that oblast councils cannot be owners of enterprises. This means that oblast vodokanals must be transferred to cities, which, in their turn, may transfer them to oblast councils for management. In June of this year, a new law on local self-government was adopted. This Law established stricter relations between local governments and enterprises which belong to them. Also, according to this Law, the cities will set tariffs for the services of communal enterprises, and must approve these tariffs for enterprises of other forms of ownership. The laws on state local administration, on communal property, and on the management of assets by right of attorney currently under review will influence the future work of the water and wastewater sector.

International experience verifies the principles fundamental to the success of these types of enterprises:

- clear separation between ownership and administration
- regulative function of state authorities
- customer influence on operations and service quality

Section 5

METHODOLOGY FOR VODOKANAL INSTITUTIONAL STRENGTHENING

Institutional strengthening of city water and wastewater utilities (vodokanals) entails, first of all, regulating the legal and economic relations between state structures and the vodokanal

5 1 VODOKANAL INSTITUTIONAL STRENGTHENING PROSPECTS

5 1 1 Prospects for Vodokanal Privatizing (Denationalization)

Among the most complicated entities for privatization are municipal communal property, including engineering networks related to gas, energy, heating stations, and water and wastewater utilities. Under current Ukrainian legislation²⁹, most of these objects may not be privatized (components of engineering infrastructure, including networks, buildings, and equipment involved with the production or transportation of water, wastewater, gas, or energy for the central heating network), or they can be partly privatized.

5 1 1 1 World Experience in Privatization

World experience in privatization of municipal property includes two of the most widespread models, used in Great Britain and France³⁰

The model of privatization used in Great Britain anticipates the full transfer of all property to a private entity. Then, primary customers purchase from the owner a licence to get connected to water and wastewater distribution systems. In addition, the customers pay the owner for the amount of water consumed and wastewater discharged, based on set tariffs. In this case, the owner of the utility establishes tariffs, taking into account his own expenditures. The amount of payments to the city budget depends on the owner's profit.

The French model of utility privatization is less radical, and more acceptable for Ukrainian conditions. In accordance with the model, all components of water and wastewater utilities, except engineering infrastructure (communications), may be transferred to the ownership of a private entity, while the engineering infrastructure is handed over for "usage" (operation, maintenance, and depreciation). The private utility owner enters into an agreement with the City Administration on providing customers with water and wastewater services. In their turn, customers purchase licenses from the city administration for water and wastewater services.

²⁹ Law of Ukraine *On Privatization of Assets of State Enterprises*, No. 2136-XII dated 4 March 1992.

³⁰ *Project of Reforming State Property of Housing and Communal Services of Ukraine* devised by the Institute of Economy of Industry (National Academy of Sciences of Ukraine) for the Khvyliya Water Utility, an open joint-stock company in the town of Horlivka (Donetsk oblast), 1996.

5 1 1 2 Three Phases of the Privatization Process

During Ukraine's transition period towards shareholding relations, the privatization process should be viewed primarily as a transfer of direct management functions from the state to shareholding companies, while the state remains the owner of principal production assets (technical components)

Privatization consists of three phases. The first and second phases are carried out simultaneously, while the third phase is implemented only after the first two

First, an open shareholding company is set up on the basis of the water and wastewater utility. The statutory fund consists of fixed and circulating assets of the utility. The maximum possible number of shares is sold to the utility's employees, under current legislation, and the remaining shares are sold to legal and physical entities.

During the second phase, which takes place in parallel with the first, the shareholding companies enter into an agreement with the City Council that stipulates (1) the amount, cost, and quality of services and (2) the rights and responsibilities of the parties.

After the first two phases are completed, during phase 3 an additional issuance of shares takes place. The amount of issue depends on the amount of funds necessary for the construction of new facilities and introducing new technologies, allowing to effectively increase the amount and quality of services. The shares are sold to legal and physical entities.

5 1 2 Prospects for Receiving Investments by Water Utilities

5 1 2 1 Definition of Investments

Investments may include all kinds of property and intellectual values. Examples of property values are the following:

- movable and immovable property and the rights related to it
- financial funds including target bank deposits and related rights
- securities (shares, obligations, etc.) and corporation rights (e.g., ownership rights related to shares in a statutory fund)
- the right to utilize natural resources

Examples of intellectual values are the following:

- know-how technology, technological, commercial, and other technology presented as technical documents, skills and experience
- copyrights, inventor's rights, models, industrial designs (provided they are legalized in Ukraine)

- industrial and service trademarks (provided they are legalized in Ukraine)

5 1 2 2 Sources of Investments

Sources of investments can be the following

- funds of state budgets (central, oblast, and local)
- own funds of enterprises
- internal extra-budgetary funds
- foreign funds
- general state extra-budgetary funds
- international financial assistance, and voluntary donations of Ukrainian and foreign legal entities
- international commercial loans from international financial structures, under international agreements
- other sources, in accordance with Ukrainian legislation

5 1 2 3 Forms of Implementing Foreign Investments

Under current legislation³¹, foreign investors are allowed to make the following kinds of investments

- individual shares in set-up joint ventures
- purchasing shares in set-up joint ventures
- setting up companies, branches, and other subdivisions under overall ownership of foreign investors
- independent or joint (with another entity) purchasing of rights for land and natural resources utilization
- purchasing of other property rights

Investments can be made into shares (portfolio and direct) and non-securities. Direct foreign investments are capital investments into securities (shares and obligations) of the local partner with the purpose of controlling a block of shares. Under the present economic conditions, setting up joint ventures with foreign investors is a big risk for the investor, thus with a low inflow of direct investments. The undeveloped fund market and beginning phase of the securities secondary market in Ukraine are reasons for the negligible inflow of portfolio investments.

In order to reduce risk, foreign investors prefer to make investments into non-tangible assets (instead of direct investments) under contract, or non-securities investments. The most widespread forms of foreign non-securities investments are the following

- license contracts
- management contracts

³¹ Law of Ukraine *On Conditions for Foreign Investment*, No 93/96-BP dated 19 March 1996, Article 6

- engineering and consulting contracts

Under license contracts, foreign companies give local partners a license for using technology, with reserved rights for perpetual usage or for a certain period of time. Management and consulting contracts specify providing managing and consulting services to local companies by foreign partners in various spheres of production and services (e.g., management and organization of production, accounting and reporting, development of various projects, etc.)

Engineering projects anticipate, in general, two kinds of services: engineering-construction (during preparation of construction) and construction (accomplishing the whole cycle of work, sometimes including procurement and assembling of equipment).

Foreign investing in shares may run in parallel to other forms of investing. Quite often non-securities investing takes place before investing in shares.

5.1.2.4 Reasons for Attraction of Foreign Investments

To improve water and wastewater services, as well as management of the infrastructure under the current situation is possible only after considerable investments. The reasons for the necessity of attracting foreign investments into water utilities of Ukraine are the following:

- shortage of state funding for infrastructure rehabilitation
- lack of the latest engineering technologies for practical application
- operational problems resulting from lack of funds
- inefficient management and organization of production for providing services

5.1.2.5 Why the Privatization of State Property is Unpopular

The uncertain progress of the Ukrainian government in the area of state property privatization started with issuing a number of laws — *On Property* (1991), *On Privatization of Assets of State Enterprises* (1992), *On Enterprises* (1991), and others. However, these laws prohibited more than they allowed.

Finally, with an economic crisis on its hands, the government made an attempt to overcome it by carrying out an active campaign for privatizing the property of state enterprises³² “in order to create a multi-structural, social-oriented economy of Ukraine, increasing socioeconomic effectiveness of production and structural reconstruction of the Ukrainian economy”

However, directors of enterprises and their employees are not interested in privatizing outdated and worn-out assets. In addition, the current conditions include

- non-payment crisis
- mutual debts of enterprises

³² Law of Ukraine *On Introducing Changes to the Law of Ukraine 'On Privatization of Assets of State Enterprises'* dated 19 February 1997

- destructive effects of the existing taxation system³³
- lack of favorable pricing policy
- lack of capital investments
- lack of favorable legislation³⁴, etc

Water utilities belong to those branches of industry that have a big share of fixed assets. The stagnation of water utilities is accounted for by the long duration of investment cycles and pay-back periods for capital investments. Stagnation and a large number of fixed assets do not permit carrying out maintenance measures or increasing the exhausted potential of this sector.

Under the law on privatization, but saddled with outdated assets, the state cannot expect that privatization will be popular, unless favorable conditions are created.

On the one hand, to leave water utilities as they are now will mean to destroy them. This is accounted for by lack of funds (1) for providing services (crisis of non-payments and investments³⁵) and (2) for maintaining the infrastructure even at existing levels. Water utilities cannot overcome the non-payment crisis on their own³⁶.

On the other hand, management of water utilities should approach the privatization process giving it good thought, seriously considering the economic situation in the country, their financial responsibilities before the state, their economic and financial potential, and their technical condition. This approach is necessary, as it will ensure the effective carrying out of production activities.

5.2 POSSIBLE OPTIONS FOR INSTITUTIONAL STRENGTHENING

Water utility structure requires a timely and continuous inflow of capital investments. Presently, for water utilities the most important thing is devising long-term policy for institutional strengthening, including legislative and economic foundations for their effective activity. This policy should be:

- long-term, since it requires considerable investments, with long payback periods
- well-coordinated and stable, because only this will attract serious investors

5.2.1 Preliminary Actions

The process of working out policy for institutional strengthening of water utilities requires the following actions:

³³ See Appendix B

³⁴ The Verkhovna Rada of Ukraine is considering a draft Law *On Assets of Enterprises* which could have an even worse effect on the financial condition of businesses.

³⁵ See Sections 3.2.2.1, 3.3.3, and 3.2.2.3

³⁶ Current legislation does not stipulate enforced suspending of water supply to budget organizations and residential sector for non-payment.

- overall review of the technical condition of water utilities, surface and underground equipment, and accessory servicing departments, as well as their cost evaluation
- working out a long-term plan for rehabilitation and development of water utility infrastructure, taking into account the priority of projects, their cost estimate, and possibilities for obtaining investments and their repayment

5 2.2 Preconditions for Institutional Strengthening

Consistency and stability of long-term economic and legislative policy for water utilities will assist in creating the necessary preconditions for privatization. This policy needs to be considered at the highest levels of government.

Stability in long-term economic policy can be achieved through the following measures:

- establishing tariffs for water utility services that ensure profitability of the enterprise
- elimination of customer indebtedness
- applying a differentiated approach in setting norms and tariffs, increasing the efficiency of water consumption
- introducing a market of promissory notes, with the legal right of the owner to turn the nominal value of the notes into a block of shares of the enterprise-debtor
- applying sanctions for violating rules of water usage

Stability in long-term legislation policy can be achieved through the following actions:

- introducing conditions allowing to apply enforcement measures to non-payers
- suspending services to non-payers
- introducing a law on bankruptcy

5 2 3 Legal Basis for Institutional Strengthening

Possible alternatives for institutional strengthening of water utilities are based on current legislation³⁷ which states that “the City Council is the rightful owner of communal property (including communal enterprises), with the right to transfer communal facilities for temporary usage or lease, and to sell them to enterprises, organizations, institutions, or individual citizens”. Related issues are discussed in Sections 5 1 and 5 2.

Both investors and water utilities themselves require considerable funds and favorable legal and economic conditions for accomplishing any institutional strengthening. The main objective of state investment policy must be:

- creating a favorable environment for investing in water utilities, regardless of the form of ownership

³⁷ Law of Ukraine *On Local Councils* op cit

- creating favorable economic conditions for attracting Ukrainian and foreign investments into water utilities
- setting up an effective control over capital investments presented as grants or loans, that are designated for water utilities
- updating mechanisms for resolving conflicts
- guaranteeing projected and adequate compensation of losses in case of possible expropriation

5.3 OPTION 1 — TEMPORARY USAGE

5.3.1 Initial Conditions

As mentioned above, city councils, as owners of communal property in Ukraine (including public utilities) are empowered to transfer communal facilities for temporary usage. City councils, for the most part, have transferred water utility facilities for temporary usage by vodokanals, working with the vodokanals on a contractual basis.

The contractual relationship between vodokanals and local bodies of self-government (city councils) is typically of a bureaucratic character. The parties do not seem to feel much interest and responsibility for the contract as a whole, or its fulfilment. The contract set between the City Administration and the vodokanal director does not oblige the former to treat its assets with appropriate responsibility of an owner. Nevertheless, the administration (council) retains the status of highest ruling body, which allows it unilateral control over the actions of the vodokanal director.

The Executive Committee of the City Council³⁸ should finance the development of housing and communal services, and the water utility in particular, and in this way influence the fixed asset development of the latter. But even as the owner, the local body of self-government cannot guarantee necessary levels of funding. Thus, the vodokanal — as a service provider — cannot guarantee reliable, uninterrupted, or environmentally safe service. And since it does not make any substantial capital investments of its own in fixed asset development, the vodokanal cannot have any impact on it.

The roles and responsibilities of water utility property owners — city councils — have also been unclear. The nature of ownership implies if not improvement of one's well-being, at least sustaining it at the same level. Therefore, in order to upgrade the technical and financial status of water utilities on the one side, and to increase the responsibility for their assets and increase the council prestige as that of owner, on the other side, the possibility of improving the status of local councils as clients should be considered.

³⁸ Law of Ukraine *On Local Councils* op cit

5.3 2 Improvement of Legal Relations

The municipality, as owner, would perform the functions of a client, and vodokanal would have the duties of a contractor (see Figure 5-1) The client, as owner, is directly responsible for the condition and development of the water utility infrastructure. It manages the fixed assets of technical facilities belonging to this infrastructure. The client also transfers all non-technical economic units³⁹ of the water utility to the vodokanal, along with the right of economic management (buildings, production facilities, workshops, garages, warehouses, transportation means, equipment for maintenance and repair, etc.) The client sets an agreement on operation and maintenance of the water utility infrastructure with the vodokanal director, to whom operation and maintenance are subordinated.

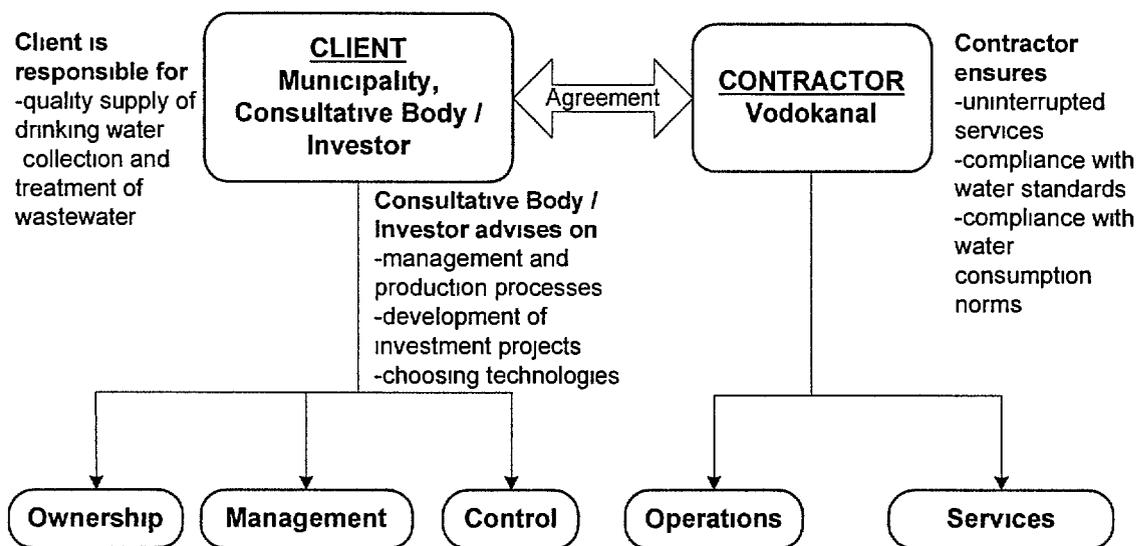


Figure 5-1 Option 1 Legal Relations

At this stage, lacking own funds and with an absence of skills in effective management and organization of service production under new economic conditions, it may be necessary to involve foreign investment in the form of capital investment as well as in the form of non-material assets. The client sets a (non-securities) agreement with a foreign investor that becomes a consultative body on economic-financial activity management and technical issues.

5 3 3 Improvement of Economic Relations

The client takes responsibility to reimburse the contractor's expenses on time and in full, while the contractor takes over certain responsibilities concerning lowering production costs and financial reporting (see Figure 5-2)

³⁹ Facilities that can exist as independent enterprises with their own complete set of assets

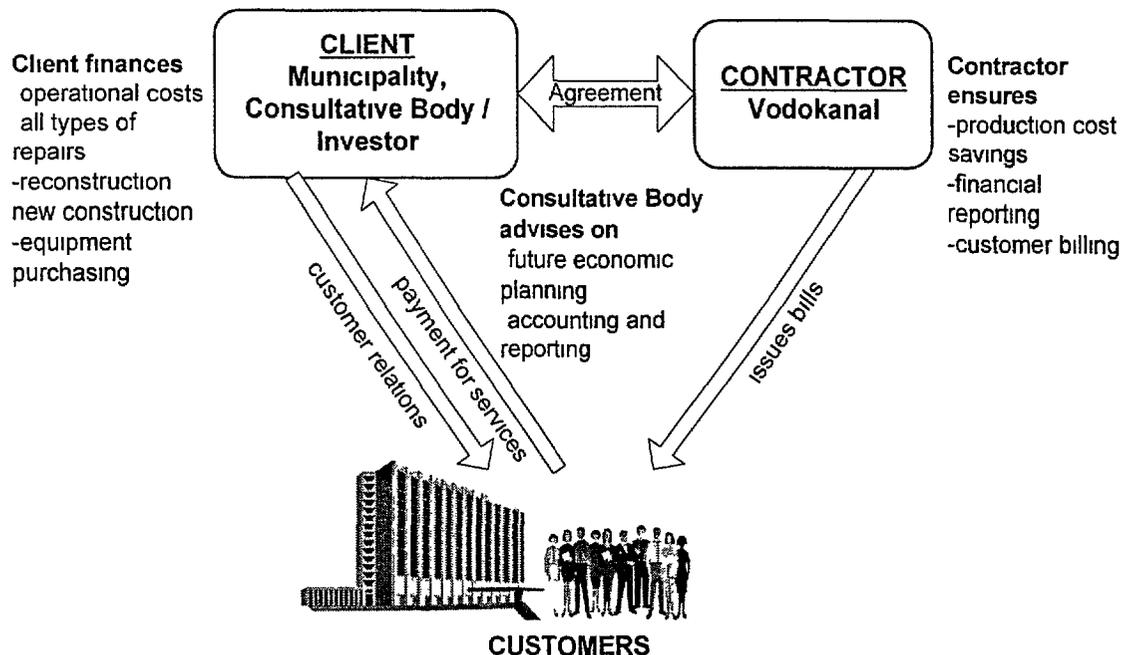


Figure 5-2 Option 1 Economic Relations

Billing for water supply and wastewater services is done entirely by the vodokanal, but the payments are received by banks and transferred to the client's account. Tariffs for water supply and wastewater services should reimburse

- current operation expenses
- current and capital repairs
- taxes and obligatory payments
- investments (as set up by agreement between a foreign investor and the municipality)

Tariffs should ensure making a profit, and should not depend on the consumer group. Mutual clearing of debts procedures should be agreed between the city and oblast councils. In particular, mutual clearing of debts should be permitted when the former has a liable tax payment to the oblast budget, and the latter has not paid in time for water supply and wastewater services.

To overcome the crisis of non-payments, the client should apply the following administrative measures:

- introduce enforced payment collection
- suspend services to debtor customers
- impose fines for inefficient water usage
- rehabilitate the existing new water utility infrastructures, and construct new ones

Sources and destinations of financing are described in Figure 5-3. The municipality, being in charge, takes over all responsibilities concerning investment loans. Foreign investments,

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funds from the local budget, and part of net profit, after suppliers are paid, are spent on rehabilitation and new construction of water utility infrastructure

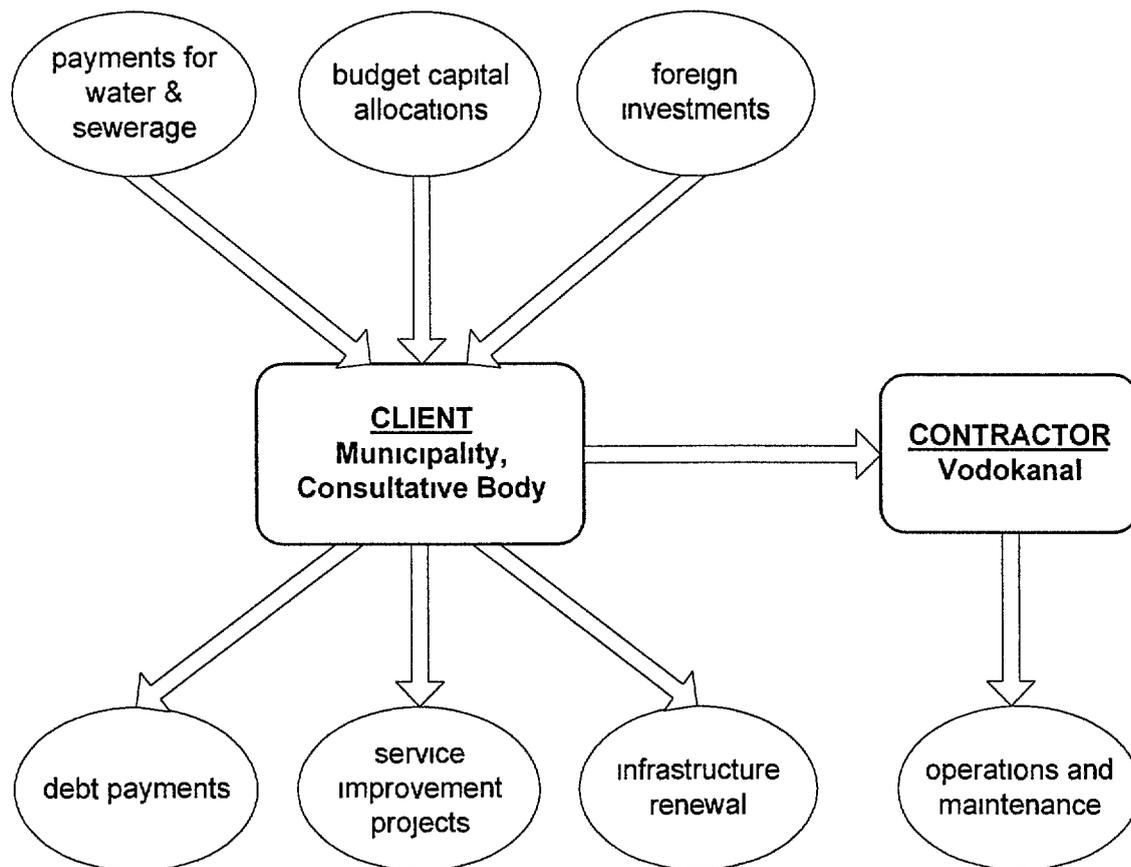


Figure 5-3 Option 1 Financing Sources and Destinations

In the proposed option it is possible to allow employee buy-out of all non-technical economic units of the water utility, while the principal client-contractor relationship remains the same

5.3.4 Advantages

The proposed improvement in relationship between the municipality (client) as the owner of fixed assets, and the vodokanal (contractor) as temporary user of communal property has the following advantages

- each party of the agreement corresponds to its description the municipality — the property owner — guarantees the desired level of services and payments, and vodokanal guarantees reliable, uninterrupted, and environmentally safe services
- increased responsibility of the municipality taking charge, and not just a higher ruling body
- distinct division of rights and duties between the owner and the contracting enterprise, on each area of work

- both parties are materially interested in efficient production and economic activity of the water utility
- the municipality (owner) is able to solve many more water utility problems at its own level (e g , on taxing⁴⁰, investments⁴¹, service payments⁴²) than the vodokanal director
- simplified procedure for investments, reducing the risk for foreign investors, and possibility for them to be given guarantees⁴³
- this kind of institutional strengthening does not require considerable funding

The proposed option of institutional strengthening can be applied during the present period of overcoming the economic crisis in the country. Particularly since during this period the state is involved in solving problems connected with the following

- crisis of non-payments
- mutual liability of enterprises
- establishing favorable laws and tax systems
- setting preferable conditions for water utilities of any form of ownership

This option can be of a temporary nature. It may allow to create the underpinnings for a water utility to transition to more progressive and advanced types of economic management.

5 3 5 Disadvantages

The proposed improvement in relationship between the municipality (client) as the owner of fixed assets, and the vodokanal (contractor) as temporary user of communal property has the following disadvantages

- may be undesirable and burdening for the municipality
- necessity of timely repayment of loans throughout a number of years
- a step back for the vodokanal from comparative independence in its economic activities, being a self-sustaining legal entity, to becoming a contracting enterprise, operating and maintaining the client's assets and being totally controlled
- being legally and financially dependent

⁴⁰ The city council, within its budget, can cancel or reduce local taxes

⁴¹ The city council should invest in water utility infrastructure, besides it can allocate money for current operational needs

⁴² Applying administrative measures

⁴³ Law of Ukraine *On Local Self-Government in Ukraine* (op cit) reads that "financial expenses of local self-government bodies incurred as a result of carrying out instructions issued by government and not supported by appropriate financial resources should be reimbursed by the state" (Article 67)

- total control over the financial activity for every economic unit
- regulation over the enterprise's operations
- being of a temporary nature

5.4 OPTION 2 — LEASING

5.4.1 Initial Conditions

In accordance with the Law⁴⁴, city councils, as owners of communal property in Ukraine (including public utilities) are empowered to transfer communal facilities for lease

5.4.2 Establishing Legal Relations

In this option, vodokanals would be leasing the infrastructure of the water utility from the city authority. The municipality would engage a foreign investor (as a shareholder) for cooperation with the vodokanal, aiming to receive investments for improving water utility management and operation of production means, as well as for rehabilitation of infrastructure. Co-owners of the joint-stock company (joint venture) would be the municipality and the foreign investor⁴⁵. The agreement should stipulate the rights and responsibilities of the joint venture as a management company, and ways of its control by the municipality as owner (see Figure 5-4)

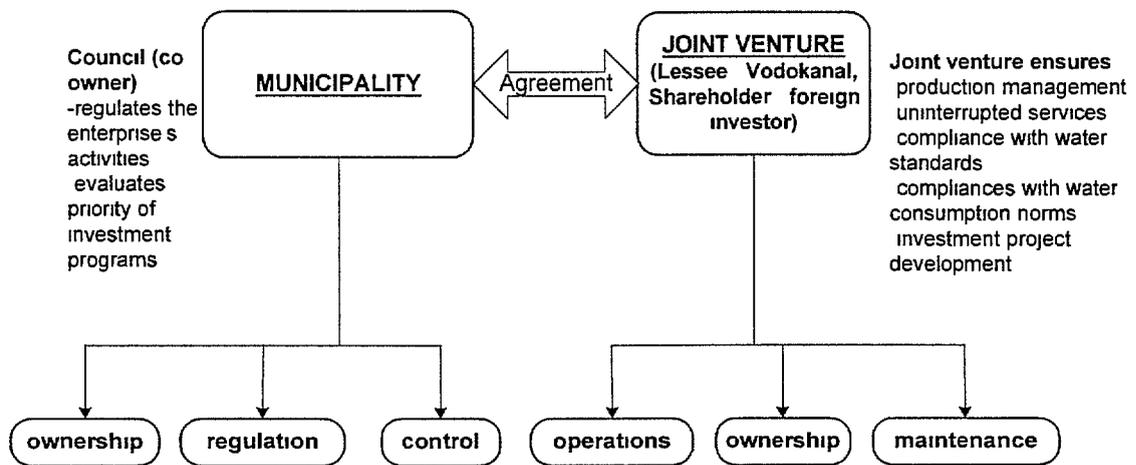


Figure 5-4 Option 2 Legal Relations

⁴⁴ Law of Ukraine *On Local Councils* op cit

⁴⁵ Based on the example of transforming a state-owned enterprise into a joint venture report of the Chief Engineer of SAUR NEPTUN company from Gdansk, at the PADCO workshop on 19 October 1996

The agreement should be signed for a long term, and should foresee the possibility of reviewing the provisions as a result of changing laws and norms. The success of reforms and improvement of services to a desirable level in such a cost-consuming and stagnant business as a water utility are possible only on conditions of long-term relations, a sufficient amount of cash, application of modern technologies, and the best management experience. Experience and high qualifications in the area of management, organization, operation, and knowledge of new technologies by a foreign partner could assist in effective production and economic operation of the water utility.

Institutional framework reforms should also be carried out within the joint venture. As a result of such reforms, responsibilities and subordination should be clearly defined and arranged by the principle of minimum hierarchy, delegation of authority, and effective work by the staff.

5.4.3 Establishing Economic Relations

The municipality makes its contribution to the joint venture in kind — with the water utility infrastructure, and the foreign investor contributes its share in stock. Correlation of contributions into the total capital of the joint venture is determined together by the co-owners and stipulated in the agreement (see Figure 5-5). Involvement of a foreign investor can be implemented by transformation of a non-stock share of foreign capital (e.g., foreign consulting body) into stocks.

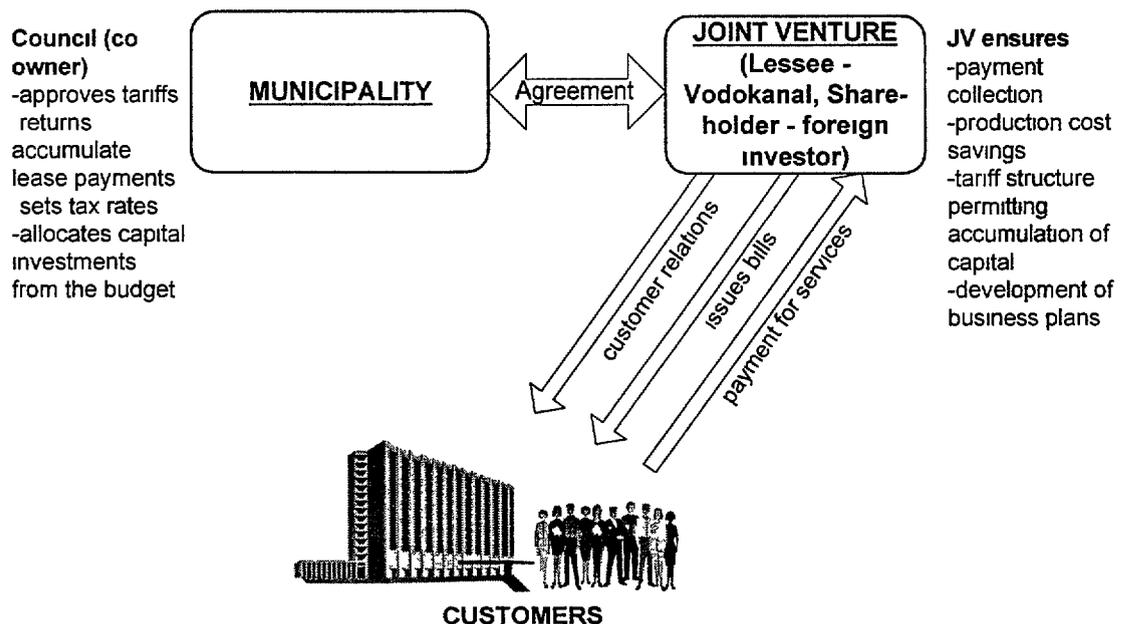


Figure 5-5 Option 2 Economic Relations

Every significant investment aimed at infrastructure rehabilitation would require economic evaluation. Joint venture activities would be done according to the strategic business plan.

drawn up by the co-owners (municipality and foreign shareholder) This plan would consist of several parts, two of which would be directly connected with tariffs

- operations budget (production expenses)
- rehabilitation and development plan

Sources and destinations of financing for this option are shown in Figure 5-6 Tariffs for services provided by the vodokanal joint venture should do the following

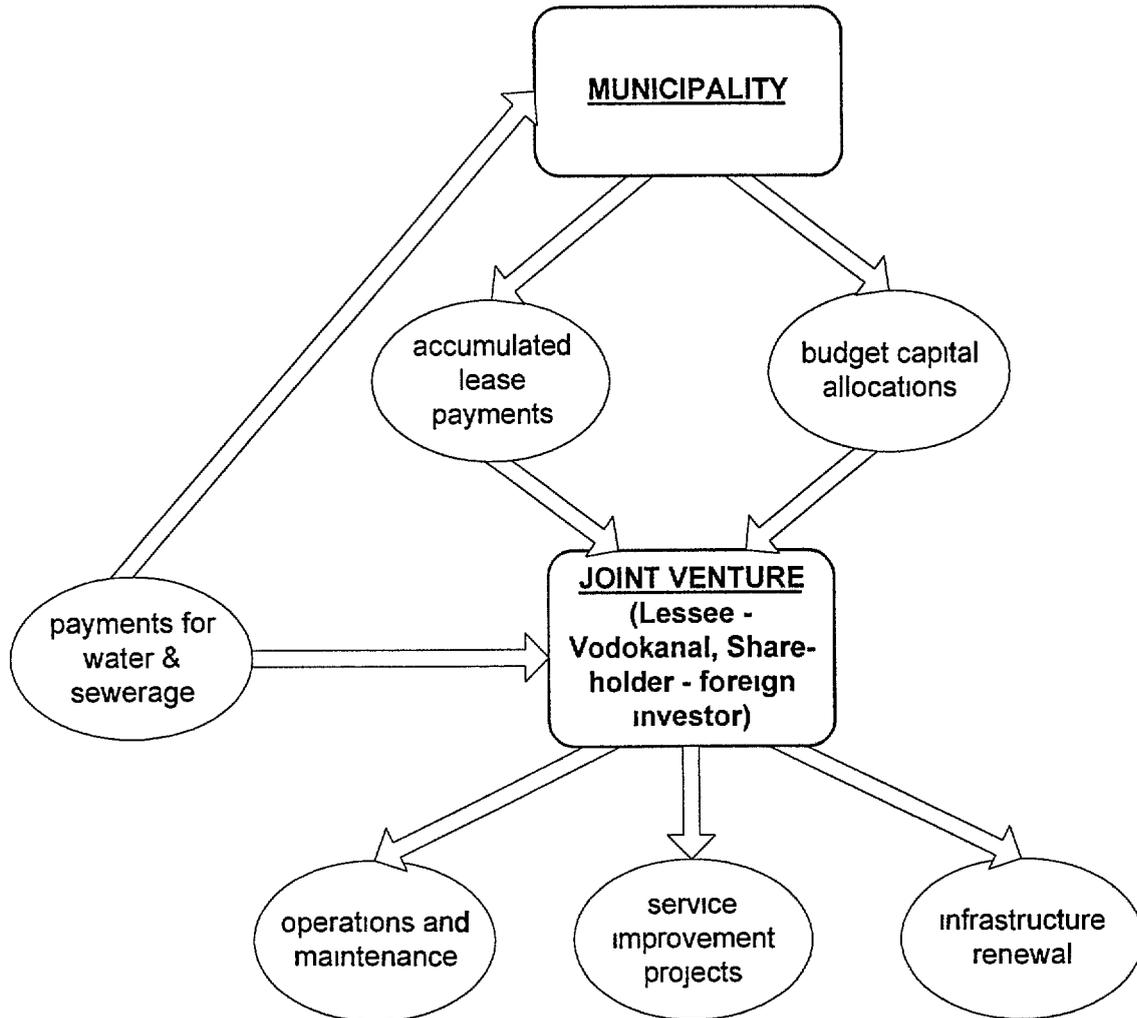


Figure 5-6 Option 2 Financing Sources and Destinations

- cover all current expenditures for operation of facilities
- cover expenditures on maintenance and capital repairs
- cover lease payments
- provide for payment of taxes and obligatory payments
- create the possibility for forming consumption and accumulation funds
- ensure the joint venture's profit

A portion of the revenue from providing services would be allocated for sustaining production. The joint venture would receive its profit from recovering production expenditures. The maximum limit of profitability would be set by the City Council, while the budget of the joint venture would be approved by shareholders. The rehabilitation and development plan would determine the portion of expenditures which goes for lease payment, this plan, prepared by the joint venture, should be confirmed by the City. Tariffs for every year are also confirmed by the municipality.

For lease relations to be normal, a new structure of tariff setting should be created. Two main components which influence the cost of services are

- production expenditures
- lease payment

Lease payments would go to a municipal earmarked fund, to be used only for financing projects aimed at rehabilitation and development of the water utility. The contract could also stipulate other sources of financing these projects (loans, credits, subsidies, etc.)

5.4.4 Advantages

The joint venture option has the following potential

- to draw foreign investments at a time when enterprise's own funds are not sufficient
- to accumulate funds in the form of lease payments, and use these funds for rehabilitation and development of the water utility
- to apply experience and knowledge of foreign specialists in the area of management and organizing production, new technologies, accounting and reporting, investment project development, etc. for improving the enterprise's activities
- to improve technical conditions of the water utility via investments by co-owners
- to improve service

Another advantage is that there is no need to pay back loan principal and interest regularly over a period of many years.

5.4.5 Disadvantages

The joint stock company (joint venture) in many areas of its production and economic activities will depend on the decisions of its co-owner, the municipality. These areas are

- approval of annual budget
- development of plans for water utility rehabilitation and development
- financing of projects for utility rehabilitation and development
- setting tariffs for services
- setting the maximum profitability norm for the joint venture

5 5 OPTION 3 — PRIVATIZED WATER UTILITY (JOINT-STOCK COMPANY)

5 5 1 Initial Conditions

In accordance with the Law⁴⁶ city councils, as owners of communal property in Ukraine (including public utilities), are empowered to sell communal facilities

5.5 2 Establishing Legal Relations

In this option, the municipality would transfer infrastructure facilities of the water utility for usage by the joint-stock company created out of the vodokanal (see Figure 5-7)

Transformation of the water utility into a joint-stock company, which is based on removing it from state ownership⁴⁷, would be done in the following way

- all technical facilities⁴⁸ of the water utility would remain in the ownership of the city
- all remaining assets (non-technical facilities and current assets) would be used for creating the vodokanal joint-stock company

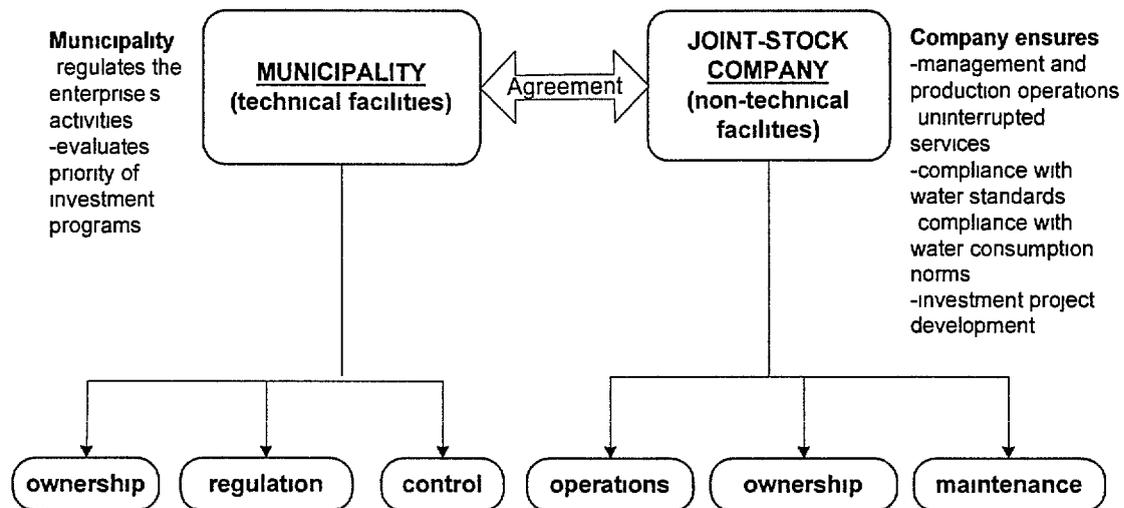


Figure 5-7 Option 3 Legal Relations

The maximum possible share of stocks would be sold to the employees of the enterprise, in accordance with existing legislation. The rest of the stocks would be sold to legal and physical entities. Those who purchase non-technological facilities (asset complexes) would be given the right to own, use, and manage these facilities starting from the date of privatization (order issued by the state privatization agency). These asset complexes are independent

⁴⁶ Law of Ukraine *On Local Councils* op cit

⁴⁷ Principles of the French model were used

⁴⁸ Fixed assets directly used in production

production units capable of performing a clearly defined production function. As a result of the reform, production functions would be divided and clearly defined between asset complexes, improving the effectiveness of their operations.

5.5.3 Establishing Economic Relations

Economic relations for this option are described in Figure 5-8.

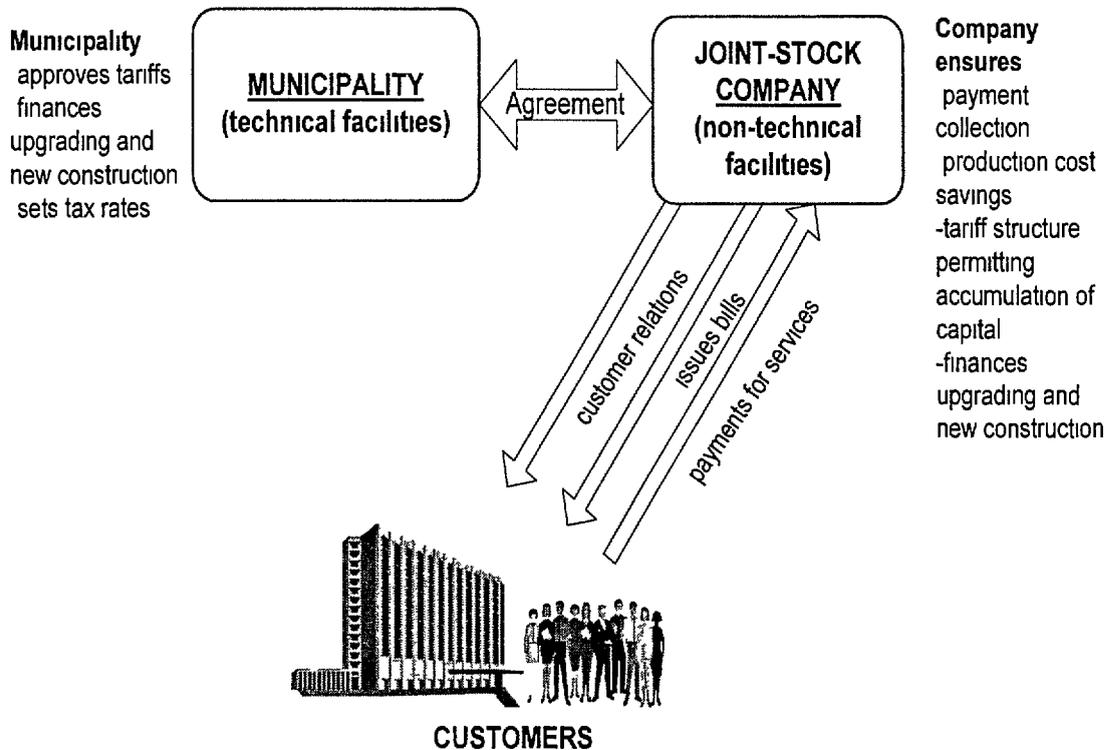


Figure 5-8 Option 3 Economic Relations

In order to increase the amount and quality of services, additional stocks could be issued. This way, local investment funds would be attracted by distributing stocks among legal and physical entities in the city, and used for constructing new facilities or introducing new technologies. The value of stocks to be issued would be determined by the size of required financial resources for construction of new facilities or introduction of new technologies which will allow to quickly improve services.

Tariffs for services provided by the vodokanal joint-stock company should do the following:

- cover all current expenditures for operation of facilities
- cover expenditures on maintenance and capital repairs
- partly cover the need in capital investments (the amount is determined based on the agreement with the municipality)
- provide for payment of taxes and obligatory payments
- create the possibility for forming consumption and accumulation funds

- bring profit for the vodokanal joint-stock company

Responsibilities concerning funding would be divided between the municipality and the joint-stock company (see Figure 5-9) The municipality finances construction of new technological facilities and infrastructure of the water utility, and provides equipment for these facilities (transferred to the joint-stock company), using budget and non-budget funds, as well as funds received from investors and municipal loans The municipality would also finance reconstruction of operating facilities for expanding production capacity, and cost-consuming water quality improvement projects

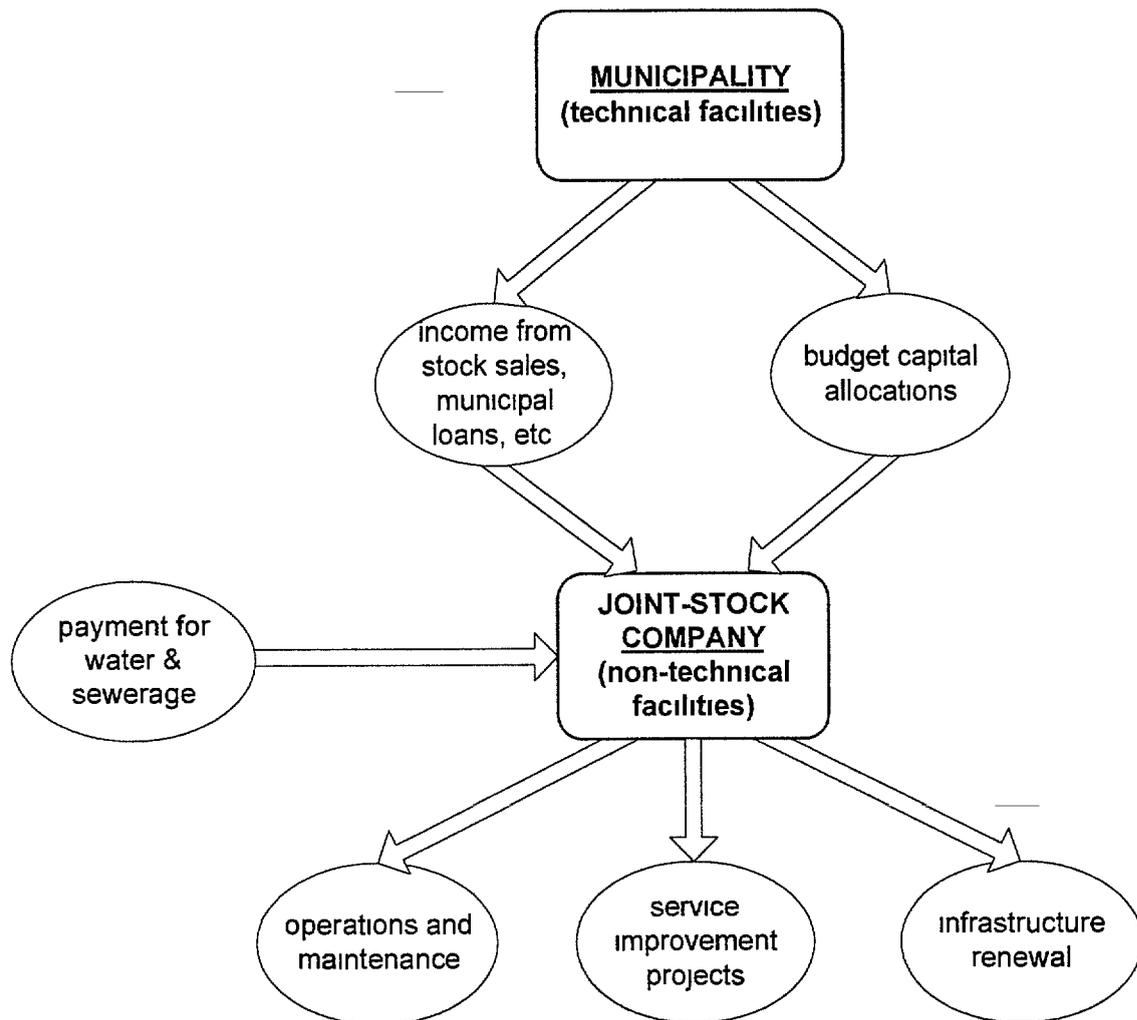


Figure 5-9 Option 3 Financing Sources and Destinations

Out of its profit, the joint-stock company would finance all operational expenses, provide for the creation of current funds, purchase equipment for maintenance and capital repairs, and cover expenditures on repairing of all kinds of structures which belong to the water utility infrastructure A portion of profit equal to depreciation of fixed assets which remain in the ownership of municipality, and part of the joint-stock company's net profit, are allocated for funding of reconstruction and capital construction of municipal equipment

5.5.4 Advantages

The method of creating a joint-stock company, based on taking fixed non-technology assets and current assets out of state ownership, can be applied at the present time of development of the economy and stabilizing legal, financial, pricing, taxing, and investment policies

A privatized vodokanal joint-stock company would have the following advantages

- capability of drawing funds of local investors with the purpose of considerable improvement in services
- ability to own, use, and manage its share of property
- clearly defined division of functions and responsibilities between co-owners
- clearly defined division of financial responsibilities between co-owners
- capability to develop new areas of activities based on managing its own share of fixed assets, and generate additional profit from these activities
- improved financial security, stability, and freedom
- ability of long-term planning of water utility development as a result of achieved financial stability

5 5 5 Disadvantages

A privatized vodokanal joint-stock company would have the following disadvantages

- municipality still controls enterprise activities
- municipality still regulates enterprise activities
- municipality still sets cost of services
- impossible to make facilities located above ground level (pump stations, water tanks, wastewater treatment facilities) a part of the joint-stock company
- quite a strong financial dependency on the municipality remains

Section 6 CONCLUSIONS

In the post-war years in Ukraine, housing and utilities, especially the water supply and wastewater facilities, under the responsibility of local radas, were largely constructed using state budget funds plus funds generated from shared participation of ministries and agencies. Enormous state resources were used to create the existing infrastructure. Over the years this infrastructure has become old and worn as much of it has reached the end of its service life. Therefore, in addition to capital repairs, much of the system requires reconstruction as well as the construction of new facilities. In the centralized economy these issues, although quickly undertaken, were almost always resolved using state funds.

Under existing conditions in Ukraine, the ability to obtain funds from central government essentially does not exist. Nevertheless the housing and communal sector exists and operates, as before, according to the centralized economy principles. In order to survive in this new situation, the housing and communal sector must be restructured so as to obtain the needed funds to exist.

At this time, when the Ukrainian economy is transforming itself into a mixed-type economy based on transferring state-owned property and privatizing industrial enterprises, the issues of methodological grounding for structural changes in regional industrial complexes, and determining economically efficient balance of ownership of different types of production means, have gained particular importance. Not the least important in terms of institutional change is the issue of partial transferring of state-owned municipal utilities, including those involved in water supply and wastewater collection. They are among the most complex when it comes to transferring municipal communal property. Finding the proper institutional framework to do this will be an important task for the future.

6.1 STRATEGIC POLICY

The most strategic objective that the State can have for its vodokanals is that they be self supporting for both operating and general capital expenses related to the provision of suitable water and wastewater service for the population.

Since central government capital funding is not readily available, the vodokanals should essentially be self supporting for this also. The exception could be in the funding of system expansions to meet new needs created by actions of the State.

To fulfill this policy the vodokanals must rely almost entirely on their customers to pay the costs associated with the operation, maintenance and renewal of the water system. Even with a loan from outside sources it will be necessary that the vodokanal consumers pay to service the loan.

6.2 INSTITUTIONAL STRENGTHENING

Several options for institutional strengthening were set forth in this manual. These included

- Temporary usage
- Leasing
- Privatized water utility (joint-stock company)

All of these involve different relationships between the vodokanal and municipality. The implementation of any of these will require some financial stability before they can occur. In any of these relationships there is a place for outside investors and assistance to the municipality or vodokanal. However, an outside investor will not be attracted unless there is financial stability and it is equally important that there be an advantage to both the outside parties (like a foreign investor or management group) and the municipality. Some of the advantages of an outside, or foreign, management and/or technical group assisting the vodokanal is that the group will bring in new ideas and technologies that can be used by the municipality and vodokanal to help them to adapt to outside changes.

It is suggested that changes in the institutional framework of the organization be done carefully with long term goals of service and financing in mind. None of these structures will be an improvement over the existing structure if there isn't a dependable flow of cash into the system from the consumers.

Institutional strengthening should be an evolutionary process that develops as the system improves internally to meet the new conditions in the community. In the end, the strength of a vodokanal will be dependent on the strength of the economy of the community it is associated with, as this will be the ultimate source of funding to keep it in business.

REFERENCE

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Report *On the Current Technical Condition of Urban Water Supply and Wastewater Disposal Systems in Ukraine*, Urban Water and Wastewater Work Group, *Program to Promote Sustainable Development in Ukraine*, EPT Project (WestNIS Regional Office, Kyiv)

Presentation *Current Condition of the Water and Wastewater Sector in Ukraine*, by Hryhor M Semchuk, First Deputy Head of the State Committee for Housing and Communal Services of Ukraine, collection of papers of the International Congress on Ecology, Technology, and Economy of the Water and Wastewater Sector, Yalta, 15-19 April 1997

Project of Reforming State Property of Housing and Communal Services of Ukraine devised by the Institute of Economy of Industry (National Academy of Sciences of Ukraine) for the Khvyliia Water Utility, an open joint stock company in the town of Horlivka (Donetsk oblast), 1996

Economy of Water and Wastewater Construction and Utilities, Stroyizdat, Leningrad, 1982

Appendix A
LEGISLATIVE ACTS RELEVANT TO VODOKANALS

- Law of Ukraine *On Prices and Pricing*, No 507-XII of 3 December 1990
- Law of Ukraine *On Property*, No 697-XII of 7 February 1991
- Law of Ukraine *On Private Enterprises*, No 698-XII of 7 February 1991
- Law of Ukraine *On Enterprises in Ukraine*, No 887-XII of 27 March 1991
- Law of Ukraine *On Securities and Stock Exchange*, No 1201-XII of 18 June 1991
- Law of Ukraine *On Investment Activities* of 18 September 1991
- Law of Ukraine *On Economic Associations*, No 1576-XII of 19 September 1991
- Law of Ukraine *On Privatization of Assets of State Enterprises*, No 2163-XII of 4 March 1992
- Law of Ukraine *On Local Councils of People's Deputies and Local and Regional Self-Government*, No 2234-XII of 26 March 1992
- Law of Ukraine *On the Lease of State Property*, No 2269-XII of 10 April 1992
- Law of Ukraine *On Land Lease* of 3 July 1992
- Cabinet of Ministers Resolution *On the Procedure of Issuing Permits for Special Usage of Natural Resources and Setting Limits on the Usage of Resources of National Importance*, No 459 of 10 August 1992
- Cabinet of Ministers Resolution *On Applying the Contract Form of Labor Agreement with Management of Enterprises under General State Ownership*, No 203 of 19 March 1993
- Temporary Rules for Water Usage in Lviv* of 9 April 1993
- Cabinet of Ministers Decree *On Privatization of Integrated Property Complexes of State Enterprises or their Structural Subdivisions*, No 57-93 of 20 May 1993
- Decree of the President *On Corporatization of Enterprises*, No 210-93 of 15 June 1993
- Decree of the President *On Strengthening Economic Underpinnings of Self-Government of Cities of Ukraine* No 84/94 of 12 March 1994
- Cabinet of Ministers Resolution *On Pricing under Conditions of Reforming the Economy*,

No 733 of 21 October 1994

Cabinet of Ministers Resolution *On Approving Basic Statements of Production Costs at the Enterprises and Organizations*, No 759 of 10 November 1994

Order of the State Property Fund and the Ministry of Economy of Ukraine *On Approving the Typical Charter of the Open Joint Stock Company*, No 787/177 of 12 December 1994

Typical Charter of the Open Joint Stock Company approved by the Order of the State Property Fund and the Ministry of Economy of Ukraine, No 787/177 of 12 December 1994

Law of Ukraine *On Taxation of the Profit of Enterprises*, No 334/94-BP of 28 December 1994

Cabinet of Ministers Resolution *Methodology for the Valuation of Assets which are Subject to Privatization*, No 36 (36-95-n) of 18 January 1995

Law of Ukraine *On Amendments to the Law of Ukraine 'On the Lease of State Property'*, No 98/95-BP of 14 March 1995

Water Code of Ukraine, by Verkhovna Rada Resolution, No 213/95-BP of 6 June 1995

Rules for Applying the Law of Ukraine 'On Taxation of the Profit of Enterprises', by Verkhovna Rada Resolution, No 247/95-BP of 27 June 1995

Rules for Operation of Communal Water Supply and Sewage Systems in Cities and Villages in Ukraine, issued by State Committee for Housing and Communal Services of Ukraine 1 July 1995

Regulations on the Purchase of Circulating Assets by Lessee, approved by Cabinet of Ministers Decree No 629 of 10 August 1995

Law of Ukraine *On Conditions for Foreign Investments*, No 93/96-BP of 19 March 1996

Law of Ukraine *On Introducing Changes to the Law of Ukraine 'On Privatization of Assets of State Enterprises'*, of 19 February 1997

Law of Ukraine *On Local Self-Government in Ukraine*, No 280/97-BP of 21 May 1997

Law of Ukraine *On Amendments to the Law of Ukraine 'On Taxation of the Profit of Enterprises'*, No 283/97-BP of 22 May 1997

Cabinet of Ministers Resolution *On Inventorying State Owned Assets not Included into Statutory Funds of Joint Stock Companies Established in the Course of Corporatization and Privatization*, No 757 of 15 July 1997

Decree of the President *On Establishing the State Committee for Construction, Architecture,
and Housing Policy of Ukraine*, No 773/97 of 11 August 1997

Law of Ukraine *On Foreign Investments*

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Appendix B
TAXES AND OBLIGATORY PAYMENTS

- 1 An enterprise is to pay 30 percent of the profit to the budget. The profit equals the total gross proceeds of the enterprise less VAT, total production costs, depreciation deductions estimated according to data of the taxation records.
- 2 The enterprise is to make obligatory payments to the Social Insurance Fund. The payments to this fund equal 5.5 percent of actual labor costs (including 1.5 percent to the Employment Fund).
- 3 The enterprise is to make obligatory payments to the Pension Fund which are set at 32 percent of actual labor costs.
- 4 The enterprise's payments to Chernobyl Fund are set at 10 percent of actual labor costs. The purpose of the fund is to eliminate after-effects of Chernobyl catastrophe and ensure social maintenance of population.
- 5 The enterprise is to pay a tax for usage of water resources. The tax is set at 0.03 UAH for one cubic meter of water used by the enterprise for its production needs.
- 6 Geological Exploration Tax equals the amount of water abstracted at well fields multiplied by the cost of one cubic meter (1.16 UAH per 1000 m³).
- 7 The enterprise pays Road Tax for construction, reconstruction and maintenance of roads of general usage. The tax equals 1.2 percent of the revenue. —
- 8 Transportation Tax is calculated on the basis of established tax rates taking into account the number of vehicles assigned to an enterprise as of January 1 of the current year, cylinders' volume or motor capacity of each type and make of motor vehicles.
- 9 The Land Tax is estimated on the basis of the area of a land parcel transferred to the enterprise into termless usage, and land tax rates.
- 10 Value Added Tax. The amount of the tax equals 20 percent of the revenue received from the sales of goods, and services. The VAT is included into goods or service's price or tariffs.
- 11 The Innovation Tax equals one percent of sales revenue less VAT. Then 30 percent of this amount goes to the Oblast innovation fund and the remainder is retained by the enterprise.
- 12 The enterprise is to pay a tax for overdrawing from the salary fund. The amount to be taxed is the amount actually paid under the salary fund items less the estimated salary fund. The tax equals 30 percent of the difference between the two amounts.

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- 13 Income tax on residents The total taxed income includes an income received for fulfilling working responsibilities, other cash and in-kind payments received as a result of providing by the enterprise of material and social benefits to its employees at the expense of the enterprise Employees' income is taxed under differentiated scale of tax rates
- 14 Communal Tax is set at 10 percent of a minimum non-taxed salary (17 UAH) for each employee of an average registered number of personnel

Table
Distribution of Taxes and Obligatory Payments between LVK and Budgets of Different Levels

No	Tax or Payment Name	State Budget	Oblast Budget	City Budget	Extra-budget Funds	LVK
1	VAT ¹	100 %				
2	Profit Tax ²		60%	40%		
3	Land Tax ²		10%	90%		
4	Transportation Tax ³			100%		
5	Communal Tax ⁴			100%		
6	Geological-Exploration Tax ⁵	100%				
7	Water Resources Tax ⁶	80%	20%			
8	Road Tax ⁷	100%				
9	Chornobyl Tax ⁸	100%				
10	Employment Tax ⁹	100%				
11	Social Insurance Fund Payment ⁹	100%				
12	Pension Fund Payment ¹⁰				100%	
13	Innovation Fund Payment ¹¹	30%				70%
14	Payment for Overdrawing from Salary & Bonus Fund ¹²	30%	70%			
15	Income Tax on Citizens ²		50%	50%		

Notes

- 1 Article 5 of Law of Ukraine On 1997 State Budget of Ukraine, No 404/97-BP (Halytski Kontrakty, No 33, 1997)
- 2 Ibid , item 5 of Resolution of Lviv Council No 3199 dated 31 July 1997 (Vysoky Zamok, 1997, No 142 dated 10 September 1997)
- 3 Article 3 of Law of Ukraine On Transportation Tax (Halytski Kontrakty), 1997 No 17)
- 4 Article 15 of Law of Ukraine On Taxation System No 77/97-BP (Halytski Kontrakty), 1997 No 13)
- 5 Article 3 of Law of Ukraine On 1997 State Budget of Ukraine , op cit
- 6 Article 32 of Water Law of Ukraine (Holos Ukrainy, 1995 No 133 dated 20 July 1995)
- 7 Article 3 of Law of Ukraine On 1997 State Budget of Ukraine , op cit
- 8 Ibid , Article 1 of Law of Ukraine On Formation of Chornobyl Fund and Social Insurance of Population (Dilo, 1997 No 54)
- 9 Article 3 of Law of Ukraine On 1997 State Budget of Ukraine , op cit , Article 3 of Law of Ukraine On Obligatory Payments to Social Insurance Fund No 402-97-BP (Dilo, 1997 No 53)
- 10 Article 3 of Law of Ukraine On Obligatory Payments to State Pension Fund No 402-97-BP (Dilo, 1997 No 53)
- 11 Article 3 of Law of Ukraine On 1997 State Budget of Ukraine , op cit , Item 6 of the Letter of Ministry of Finances of Ukraine, Economy Ministry of Ukraine, State Committee on Science and Technology On Amendments and Changes in Procedure of Formation and Application of Special Fund of Extra budget Target Funds, No 12-204 dated 12 November 1992 (Halytski Kontrakty, 1996, No 26)
- 12 Item 1 of Procedure for Estimation of Payments to be paid to Budget for Overdrawing from Salary & Bonus Fund (Cabinet of Ministers of Ukraine No 725 dated 11 September 1995 (Halytski Kontrakty, 1996 No 1)

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