



Conference on Scaling Up Poverty Reduction

Shanghai, China

May 25-27, 2004

Reducingpoverty@worldbank.org

Case Study on

Albania

**Reforming the Irrigation and Domestic Water Supply
and Sanitation Services to Benefit the Poor**

Region: Eastern Europe

Country: Albania

Type: Thematic Case/Country Case

Author: Andreas Rohde, Toru Konishi and Subramaniam Janakiram

Contact: arodhe@worldbank.org, tkonishi@worldbank.org, and sjanakiram@worldbank.org

Table of Contents

EXECUTIVE SUMMARY	I
(a) The Context for Reform.....	i
(b) A Distribution Problem, Not a Water Problem.....	ii
(c) Evolution of the Water Supply Sector	iii
(d) The Reform Strategy.....	iii
(e) The Factors Driving Institutional Change	v
(f) Some Lessons from Albania’s Experience	v
1. PROGRAM DESCRIPTION.....	1
(a) The Context	1
(b) Demand for Drinking Water.....	2
(c) Water for Irrigation	3
(b) Sanitation.....	4
(c) Water Infrastructure.....	5
(f) Water Service Providers	5
(g) Water Service Consumers	6
(h) Evolution of the water supply sector	7
(i) Reform Strategy.....	8
(j) Irrigation and Drainage Rehabilitation Program.....	10
(k) External Catalysts.....	10
2. IMPLEMENTATION PROCESS.....	11
(a) Empowering of Local Governments	11
(b) Private Sector Involvement	11
(c) Serving the Poor with the Help of the Private Sector	12
(d) Water Tariffs and Piloting of a Free Water Policy.....	12
(e) Use of Demand Responsive Approach	12
(f) Irrigation and drainage works.....	13
(g) Participation process.....	13
(h) Creation of Association of Water Supply and Sewerage Enterprises.....	14
(i) Learning and Experimentation During Implementation of the Irrigation Project.....	16
3. MAIN DRIVING FACTOR.....	17
(a) Enabling Institutional and Legal Framework.....	17
(b) Creation of Enabling Environment for Farmer Participation	18
4. RESULTS ACHIEVED	18
(a) Water Supply and Sewerage Services.....	18
(b) Irrigation and Drainage	19
5. LESSONS LEARNED.....	20
REFERENCES.....	22

Executive Summary

With one in four of its 3.2 million people living in poverty, Albania is one of the poorest countries in Europe. Even today, 40 percent of Albanian households lack basic education, heat, and sanitation; fewer than 50 percent in both rural and urban areas have access to safe and clean drinking water. Yet Albania is blessed with an abundant supply of water resources. Precipitation throughout the country is high. Groundwater is plentiful and of excellent quality, requiring little or no treatment beyond for chlorination. Except in Tirana, where about half of the water supply is treated surface water, the country relies entirely on groundwater for drinking.

Over the last decade Albania has dramatically improved its dilapidated water supply, irrigation, and sanitation facilities through an approach that focuses on the empowerment of local governments; involvement of the private sector in delivering urban services; and use of community-centered approaches for sustainable rural services. The World Bank initiated long-term support for Albania's water projects in 1994. The challenges were to reform, repair, and rebuild the water supply sector; to extend access to good water to the poor in urban and rural areas; and to begin to treat wastewater and sewage. Preliminary results show steady progress.

(a) The Context for Reform

Albania's water supply infrastructure and services had been deteriorating since the late 1970s. Water supply institutions were weak and unsustainable because of a combination of politically driven low water tariffs, widespread waste by customers, lack of maintenance of equipment and facilities, and poor incentives for performance. These trends were exacerbated by Albania's political isolation and the cessation of Chinese assistance. Over the past decade, most of the water and sanitation infrastructure reached the end of its life, with some being well beyond cost-effective repairs.

At independence in 1990, the country's urban and rural water distribution network was utterly dilapidated. Poor management and lack of planning meant that the urban water network had been poorly maintained and its coverage had not kept pace with rapid urbanization. In rural areas the irrigation system had deteriorated for lack of maintenance and become a bottleneck for agriculture. Sanitation was very poor, where it existed at all.

Meanwhile, Albania's political and economic transformation has brought about increasing demand for water. Urban areas are growing rapidly, and more drinking water is needed. Most industries that were large water consumers before 1990 no longer operate, but new

industries and businesses are being established. Advancement of tourism in coastal areas—an important element of Albania’s strategy for economic growth and poverty reduction—requires larger amounts of drinking water, but water shortages and the absence of sewage treatment hampers tourist development. In rural areas, the creation of private family farms as a result of restructuring of state and collective farms has altered and complicated the use of water for irrigation by adding many discrete users.

(b) A Distribution Problem, Not a Water Problem

Albania faces a water distribution problem, not a water production problem. Studies indicate that available sources of supply could provide more than enough to satisfy the country’s overall water demand. In many cities, water availability at the source is about 500 to 700 liters per capita per day, but leaks and waste mean that only a small fraction of the water produced is consumed. (According to official data, about 60 percent of all water produced cannot be accounted for.) Almost everywhere problems of water scarcity can be considerably mitigated through metering, leakage detection and reduction, network improvements, disconnection of illegal connections, and optimization of storage and supply patterns. The distribution problem also has a seasonal aspect: much more water is needed during the summer growing season; when rainfall is scarce, rural drinking water is often misused for irrigation; and the tourist resort areas use large amounts of water. On average, water is available only 3-4 hours per day, with certain areas receiving water only once in three days.

Sanitation presents even more problems than drinking water. Sanitation coverage in urban areas is almost the same as drinking water coverage. Urban areas have mostly combined sewage and storm water collection networks that discharge into nearby surface water bodies. About 40 percent of the urban population has a sewer connection. In rural areas, only a small portion of the areas with piped water supply is equipped with sewer networks. Most rural areas have individual household wastewater collection systems, principally simple pit-latrines with no drainage pipes. Upgrading of sewer networks has not kept pace with the general development of infrastructure, and the materials and technology used have not been improved. Presently, there is no treatment of wastewater in Albania; its discharge in water bodies, especially in coastal tourist areas and delicate ecosystems, is a major environmental concern for the government, the business community, and the public.

(c) Evolution of the Water Supply Sector

The development, decay, and rejuvenation of the water supply sector in Albania over the last few decades can be divided into four phases. The first phase dates back to the 1930s, when Italian companies built the first aqueducts, followed by limited network extensions in the main towns of Albania. Some of these systems are still functioning today, despite their age and inadequate maintenance. The second phase (1950–78) was characterized by a rapid expansion of services, predominantly in urban areas. The third phase (1978–91) saw the gradual deterioration of water supply services, compounded by the central government's management problems and the loss of foreign aid. Water was considered an entitlement, and tariffs were too low to pay for the cost of supplying it. Because it was cheap it was wasted; system maintenance was deferred or ignored, and there were no incentives to improve services. During the fourth phase (1992–2003), most of the water and sanitation infrastructure had reached the end of its useful life, with some of it well beyond the point of cost-effective repairs.

Addressing this cumulative set of political, capital, technical, management, and usage problems required a well-designed, long-term, water supply reform program complemented by supporting investments. This has been the main thrust of the World Bank's program in this sector.

(d) The Reform Strategy

The government's long-term objective in water supply and sanitation is to achieve sustainable water supply and sanitation services corresponding to EU standards in urban and rural areas. In irrigation, the strategic objectives are to maintain irrigation networks, develop new and sustainable water distribution and maintenance systems, and establish incentives for efficient water use.

These objectives are being pursued through a combination of selective investments supported by reforms in strategic areas in the short and medium term. The current outdated water law is being modified. The reform strategy builds on the entrepreneurship of the Albanian people, with the involvement of the private sector in the delivery of water services (especially in rural areas); on strong vocational skills left over from the socialist system; and on a social structure in the rural areas that assists people who are less fortunate.

For the urban areas, the National Water Supply and Sanitation Strategy is based on the following principles:

- Transfer of responsibilities for water supply and sanitation services from the central government to local governments, but continuing the support from the central government, especially targeted at the poor
- Involvement of the national and international private sector in service delivery, with contractual arrangements to provide adequate service to the poor
- Creation of financially sustainable water utilities supported by a variety of sectoral reform initiatives and assistance from the government, with the objective in the medium term of recovering full operation and maintenance costs, and in the long term of recovering all costs, including a substantial portion of investment costs
- Introduction of wastewater treatment in locations of exceptional ecological value and locations where wastewater treatment is instrumental for economic growth, such as tourist areas.

For the rural areas, the Rural Water Supply and Sanitation Reform Strategy is based on three principles:

- Grassroots participation and empowerment. The decision-making process should involve beneficiary groups (community water associations and communes) so as to ensure that services are demand-driven.
- New institutions to facilitate the community-driven approach to rural water supply. The Rural Water and Sanitation Agency (RWSA) will be governed by an independent board composed of government and civil society representatives with affiliates at the central and regional level. Its main purpose is to assist communities and commune authorities in building and managing their water supply systems.
- Cost recovery and sustainability: Beneficiaries provide up to 25 percent of the capital cost of the investment in infrastructure, with the remainder provided as a loan or grant by the commune through the RWSA.

The Irrigation and Drainage Rehabilitation Program is building a well-functioning irrigation and drainage system, something recognized as vital by international donors, since agricultural growth would have the largest impact on poverty alleviation for at least half of the population. The World Bank and other donors used a two-pronged approach to the irrigation and

drainage sector. The first prong emphasized the rehabilitation of critical irrigation and drainage infrastructure; the second, ensuring sustainability of irrigation investments through farmer participation.

(e) The Factors Driving Institutional Change

The main driving factors for improving the delivery of water supply and sewerage services to both urban and rural consumers were an enabling institutional and legal framework and political support for institutional change. At the end of July 2000, the government of Albania approved a new law that transferred responsibility for water supply to the communes and municipalities. A major step forward, the law permits private ownership and places the incentive to improve services at the local level. Based on this enabling legislation, the focus has been on empowering local government and involving the private sector in service delivery.

Within the new legal framework, responsibilities for urban water and sanitation have been decentralized to local government, although with some continuing support from the center to benefit poor consumers. Local governments contract with private operators that deliver services; incentives are provided for the latter to serve low-income areas. Responsibility for rural water, for both drinking and irrigation, is being transferred to community groups, with decision-making based on grassroots participation and empowerment. The emphasis is on cost recovery and sustainability, and on creation of an enabling institutional framework.

(f) Some Lessons from Albania's Experience

Efficient water use requires systematic water resources planning, allocation, and management at the national level to meet competing demands for water for household consumption, irrigation, industry, hydropower, and tourism.

Political support for institutional change and implementation of a legal framework that enables local governments to take full responsibility for water service delivery are both essential. Water consumer associations should be formed to voice consumer demand for service improvements. The creation of sustainable associations is a long-term process requiring intensive support and supervision, especially in the early stages. An effort should be made at the national and local levels to involve the private sector in the management and operations of water utilities. Consensus should be reached at the local level before major investment decisions are made. Customers' willingness to pay should be assessed using appropriate mechanisms. Tariff

adjustments to make water utilities financially viable should be accompanied by affordable provision of a minimum level of water service to the poor, which may require targeted subsidies.

1. Program Description

(a) The Context

Abundant source of water: Albania is blessed with abundant supply of water resources. Precipitation throughout the country is high. Albania's groundwater resources are plentiful and of excellent quality – with the raw water quality parameters within WHO and national guidelines. Spring and groundwater water, which are the predominant sources of water, require little or no treatment, except for safety chlorination. Albania relies entirely on groundwater for drinking purposes with the exception of Tirana, where about half of the water supply provided is treated surface water.

Urban and rural water consumers: The changing pattern of urban and rural water consumers is reflected by the changes in population growth in urban and rural areas. During the totalitarian period (1945–1990) Albania experienced several waves of internal migration, while external migration was prohibited by law. Internal migration was an orderly process carried out for political and socio-economic reasons, and constituted an integral part of the state planning process. Practically no consideration was given to individual preferences. The period between 1945 and 1960 was characterized by the development of some industries and infrastructure, which led to considerable movement of population from villages to the main towns. Substantial Chinese aid in 1964-1978 provided some relief to the economy. Following the political isolation of 1978-1990 and lack of any external assistance the state was unable to generate new jobs and provide housing for the urban population. resulting in decreased levels of migration.

The rural population grew at a much faster rate than urban population placing increasing pressure on land use. Removal of restrictions in the movement of population, after 1990, resulted in an accelerated increase in rural to urban migration – becoming uncontrollable – which came to be known as ‘wild urbanization’. Rural population accounts for about 60 percent of the total population. Agriculture is the main economic activity. Albania's agriculture potential is focused on the large coastal plains and flatter valleys of the major rivers. However, despite annual rainfall of 600 to 900 mm, the hot dry summers limit agricultural production without irrigation.

(b) Demand for Drinking Water

Last decade's developments in Albania have brought many changes in the water demand pattern. As shown in the above table, the urban areas are growing rapidly and more drinking water is needed, while most industries – large water consumers before 1990 – are not working anymore. New industries and businesses are being established demand for water not only is growing steadily, but also its distribution over certain areas and its time pattern have changed. Water demand studies do not provide an accurate picture since the water produced is not metered and there are no measurements in distribution networks. Water meter coverage was substantial a few decades ago, especially in urban areas. Meters were Albanian made and relatively accurate for a limited number of years, but lack of maintenance led to their total dysfunction.

Development of tourism in coastal areas, which is an important element of Albania's strategy for economic growth and poverty reduction, requires larger amounts of drinking water availability, especially in summer when demand is also increasing from other customers, but the insufficiency of the water provision infrastructure hampers tourist development. An example is the coastal city of Durres (second-biggest city in Albania with the biggest accommodation capacity for tourists in Albania) where water is available only for about two hours per day. The situation is similar in other cities which have a lot of tourism e.g., Saranda, Vlora, and Pogradec.

If the availability of water at the source is expressed in liters per capita in urban areas, the available sources of water supply is more than enough to satisfy water demand. In many cities, water availability at the source is around 500 to 700 liters per capita per day and in some cases even more. Because of leakage and considerable wastage, only a small part of the water produced goes into necessary consumption. Merely improving water production facilities would not bring about sustainable improvements as experience has shown in many countries in transition. Moreover, increasing exploitation rates would seriously affect the fragile water resource balances with future adverse impacts and increase the cost of water supply. In summary, therefore, Albania has a distribution problem and not a production problem. In fact, almost everywhere problems of water scarcity can be considerably mitigated through metering, leakage detection and reduction, network improvements, disconnection of illegal connections and optimization of storage and supply patterns.

Coverage of drinking water in rural areas has not received sufficient attention. This is reflected in the very poor level of service provided. A political campaign 'drinking water

action.’ highlighted the state of the rural water supply in the early 1980’s, which called for a rapid expansion of piped water supply in rural areas. However, this was poorly planned, insufficiently funded, and not organized. and brought only marginal results in terms of coverage and quality of service. In areas where the piped systems are not available, population in rural areas rely on natural springs and domestic wells to satisfy their needs. The rural household spends enormous time and effort in fetching and transporting water to their households from far away places and not every family has a well or access to it. Water in plastic containers are transported by women and children with the help of animals, Although detailed data on this process is not readily available, two international NGOs have done basic surveys in rural areas where piped systems were absent . As can be observed from table 2 below, on an average, about 80 percent of the rural families spend about 4 hours per day to fetch water – time which could be used for other productive purposes.

Table 2 : Surveys in Some Rural Areas on Time and Efforts Spent in Fetching Water

Item	Plan Intl.	Solidarités
Families fetching water outdoors (in summer)	84%	80%
Families fetching water outdoors (rest of the year)	-	25%
Average distance traveled per day	3.6 km	3 km ^(*)
Number of trips per day	4.4 trips	3.38 trips
Time spent daily for fetching water (incl. queue)	3-4 hours	4-5 hours ^(*)
Average water quantity transported per trip	45 lit ^(*)	48 lit
Average daily consumption per family	198 lit ^(*)	162 lit
Liters/capita a day	39.6 l/c/d ^(*)	32.4 l/c/d

Source: NGO's fieldwork data

In rural areas, water demand depends largely on agricultural activities and crop production cycles. Household consumption is much smaller. In rural areas most of the water requirements are during summer months. Often, drinking water is misused for irrigation purposes.

(c) Water for Irrigation

Agriculture in Albania is dependent on irrigation. Less than 20 percent of annual rainfall occurs in the six-month period April-September – with hardly any precipitation during the three months of summer. Crop deficit during June, July and August range between 400 and 500 mm, which cannot be met from soil moisture alone – making irrigation essential. Irrigation requirement varies between 800 and 7000 cum per hectare a the water source depending upon location and crop. Nationwide, irrigation uses about 1 billion cum of water out of the 15 billion

^(*) Figures showing a (*) mark were extrapolated from other data, thus, should be cautiously considered.

cum of water available. Restructuring of state farms and creation of private family farms with an average irrigated area of about 0.9 ha has resulted in increased and changing demands for water for irrigation, and led to significant changes in institutional mechanisms for the management and organization of water supply and use for irrigation. A large number of irrigation structures, such as pumping stations, canals, etc. have been destroyed during this transition process. (WB, EU, 1992). Maintenance of irrigation infrastructure and drainage systems was also reduced considerably. Moreover, the resources of the Land and Water Department were not sufficient to rehabilitate the damaged systems and for operation and maintenance of existing irrigation systems. Although the overall water use efficiency – from water source to crop – for gravity irrigation systems were designed for 70 percent, only less than half was actually being achieved.

(b) Sanitation

Sanitation is confronted with more problems than drinking water. Sanitation coverage in urban areas is almost the same as drinking water coverage, while in rural areas, only a small portion of the areas with piped water supply are also equipped with sewer networks. Historically, sanitation has been overlooked in terms of funding, human resources, maintenance, etc. Upgrading of sewer networks has not kept pace with the general development of infrastructure and materials and technology used has not seen any improvement. Urban areas have mostly combined sewage and storm water collection networks that discharge into nearby surface water bodies. Sewers, generally under-dimensioned, are clogged in many parts causing wastewater seepage out of the networks, thus, resulting in cross-contamination with drinking water¹. Many manhole covers are missing and this has resulted in filling of these shafts with refuse material.

Rural areas have mostly individual household wastewater collection systems, principally simple pit-latrines with no drainage pipes. Villagers themselves are responsible for the construction of latrines and they do it without following appropriate technical criteria, thus, their problematic functioning is quite common.

¹ In urban areas, there has often been negligence in the building of water and sanitation infrastructure, where sewage and drinking water pipes are placed closer together than specified in technical norms. In many cases sewers have been built on top of drinking water pipes, thus, facilitating sewage intrusion in water supply systems during periods when the water supply system is not pressurized.

Presently, there is no wastewater treatment plant in Albania and discharge in water bodies, especially in the proximity of coastal tourist areas and delicate eco-systems is becoming a reason of concern for the Government, the business community and environmentalist.

(c) Water Infrastructure

Despite more than half of the population having access to piped water supply, the quality of service remains very poor. On an average, water is available only 3-4 hours per day, with certain areas receiving water only once in three days. Industries and businesses are also subject to unreliable water supply. Many systems which are more than three decades old are rapidly approaching the end of their lifespan and are largely beyond cost-effective repairs. A survey of the World Bank shows that the investment requirements are estimated at 170 million US\$ per year, every year for the next decade (approximately 4.6 percent of the 1999 GDP).

Coverage in urban areas seems to have been higher during the 1980s than today. This is uncertain because, recently, the boundaries of urban areas have been expanded in many cities with the inclusion of newly emerging peri-urban areas, which are much less covered by water networks. This process has resulted in a decrease of urban coverage expressed either in terms of percentage of population served, or in terms of area covered. Unfortunately, there is no reliable data to quantify coverage. There is an urgent need to cope with this urban expansion by building/upgrading water infrastructure in poorly served peri-urban areas and reduce the gap of service provision between them and central urban areas.

The rural water supply systems are need of improvement, even though many of them are well beyond cost-effective repairs.

(f) Water Service Providers

With regard to water service providers, there are currently 54 water supply enterprises in Albania. Water consumption is divided between 75 percent for domestic users and for 25 percent for non-domestic uses. Unaccounted-for-water, according to official data is about 60 percent of all water produced. About 30 percent of water production is billed and of this about 62 percent is paid for – resulting in about 18 percent of total water production being actually paid for. Water losses are due to the deteriorated state of water infrastructure, lack of adequate metering, illegal connections, etc. Moreover, water companies are not in a situation to reduce unaccounted-for-water mainly because of poor revenue collection, or lack of funding. According to the Ministry of

Territorial Adjustment and Tourism, only 8 out of 54 water enterprises are able to show a positive financial balance.

(g) Water Service Consumers

Albanian households are relatively small and consists of 4.4 people on an average. Most households consist of a nuclear family with two children. Many families are multi-generational extended ones where grandparents reside with the nuclear family members. Most of the sampled households in the social assessment carried out for the Municipal Water and Wastewater Project have an electricity connection, central sewerage system (in urban areas) or have septic tanks. Most of the families have indoor taps, toilets, and showers/baths as well as adequate sanitation services. The two most important problems which the households faced in their daily lives are “insufficient drinking water supply” and “low quality of drinking water”. The two most important improvements desired by the households were improved safety of drinking water” and “increased hours of water availability”. (de Soto, Egamberdi, CESS, 2001).

INSTAT Statistical Yearbook of 2003, the average household income for urban areas is 39,318 Lek/month (≈330 USD/month). The National Strategy for Socio-Economic Development (NSSSED) of May 2003, stated that “According to the absolute line of poverty, one fourth of the Albanian population is poor. Extreme poverty- as defined by the food line of poverty, is low. Less than five percent of the population do not meet the basic needs for food. Poverty is higher in the rural zones, with 66 per cent more poor people than in Tirana and 50 percent more than in the other urban areas”. The NSSSED provides the poverty coefficient for poor, which is 20.1 percent in urban and 29.6 percent in rural areas. (NSSSED, pg.1, May 2003)

One of the main issues regarding non-income poverty in Albania is the inequality towards basic infrastructure services. “The availability of basic infrastructure services is almost universal in the urban zones, yet much less so in rural areas. This does not mean that urban areas do not experience severe infrastructure deficiencies. The quality of infrastructure services in rural areas largely is a question of access” (NSSSED, May 2003).

(h) Evolution of the water supply sector

The development of the water supply sector in Albania could be divided into four phases. These are described below:

First phase: The first phase, is dated back in the 30s, during which Italian companies constructed the first aqueducts followed by network extensions of limited coverage in the main towns of Albania. The systems availed of mountainous springs and were simple in construction. Some of these supply systems are still functioning today despite their age and insufficient maintenance.

Second phase: The second phase (1950-1978) was characterized by a rapid expansion of services, although predominantly in the urban areas. This period with a central planning system was characterized by some economic and industrial growth boosted by the East-European socialist countries' aid, followed later by substantial Chinese aid. Public infrastructure and the quality of services improved. The development of industry created employment opportunities in urban areas and the urban population grew in response to this situation.

Third phase: The third phase (1978-1991) was subjective to the political 'freeze' in the relations between China and Albania. This brought to an immediate halt Chinese aid and marked the beginning of the complete self-isolation of Albania in terms of foreign investments. Lack of equipment and spare parts led progressively to massive deterioration of the supply facilities and service quality all over the country. Budget cuts at the national level were reflected to a decline in maintenance activities. With water systems deteriorating, leakage in the distribution network grew progressively. Important results achieved through a good coverage of consumers with water meters in many urban areas were compromised as meters stopped functioning because of a lack of maintenance. Revenue collection decreased and inappropriate technical interventions were driven by political reasons rather than functional upgrading of systems. Consequently, water was supplied intermittently instead of continuously. The few new water and sewage systems built were poorly designed, constructed, and maintained. This increased the risk for drinking water contamination and for spread of waterborne diseases. A combination of politically driven low water tariffs, widespread wastage by customers, insufficient allowances for operations, and deteriorating equipment had created a situation of unmotivated staff in charge of water supply systems.

Fourth phase: During the fourth phase (1992 – 2003) most of the water and sanitation infrastructure had reached the end of their lifetime with some well beyond cost-effective repairs. Although support from the Government and aid from the international donor community has stabilized or improved the situation in some areas, in general the situation is continuing to deteriorate. This creates the immediate need for the sector wide reform to be initiated.

(i) Reform Strategy

The long term objective of the Government's strategy for the water supply and sanitation sector is to achieve sustainable water supply and sanitation services corresponding to EU Standards in urban and rural areas. In the irrigation sector, the strategic objectives are to maintain and irrigation networks, develop new and sustainable water distribution and maintenance systems, and establish incentives for efficient water use. (World Bank, 1998). Achievement of these objectives is being carried out through the design and implementation of a combination of selective investments supported by reforms in strategic areas in the short and medium term. The reform strategy builds on the entrepreneurship of the Albanian people – with the involvement of the private sector in the delivery of water services (especially in the rural sector); strong vocational skills left over from the socialist system; and a social structure in the rural areas which assists people who are less fortunate.

For the urban areas, the National Water Supply and Sanitation Strategy is based on the following principles:

- Transfer of responsibilities for water supply and sanitation services from the Central Government to local Governments, but continuing the support from the Central Government, especially targeted at the poor.
- Involvement of the national and international private sector in service delivery, with contractual arrangement to provide adequate service to the poor.
- Creation of financially sustainable water utilities supported by a variety of sector reform initiatives and assistance from the Government - with the medium term objective of recovering full operation and maintenance costs; and in the long term, recovery of all costs, including a substantial portion of the investment costs.

- Introduce wastewater treatment in locations of exceptional ecological value and/or locations where wastewater treatment is instrumental for economic growth, e.g. tourist areas.

For the rural areas the Rural Water Supply and Sanitation Reform Strategy is based on three principles:

- Grassroots participation and empowerment: It emphasizes that the decision making process should involve beneficiary groups in order to ensure that the services are demand-driven. The following two approaches are being tried out in support of this principle:
 - Community Water Association Model – the community shall be responsible for rehabilitation, construction, management and maintenance of the system; and
 - Commune Model – this is a slight variation of the above model – in which the responsibility of the commune is to facilitate the beneficiaries’ involvement in planning, design, and financing of the system. Once the system is completed, the commune authorities shall be responsible for the operation and maintenance
- Cost recovery and sustainability: The beneficiaries would provide upto 25 percent of the capital cost of the investment in infrastructure, with the remaining portion provided as a loan or grant by the commune through the Rural Water and Sanitation Agency (RWSA).
- Creation of enabling institutions that facilitate the community-driven approach to rural water supply: This involves the creation of the RWSA, which would be governed by an independent board composed of government and civil society representatives with affiliates at the central and regional level. The main purpose is to assist communities and commune authorities in building and managing their own water supply systems.

(j) Irrigation and Drainage Rehabilitation Program

Agriculture is dependent on a well-functioning irrigation and drainage system. This was recognized by international donors, since agricultural growth would have the largest impact on poverty alleviation - for at least 50 percent of the population. The Bank and other donors used a two pronged approach to the irrigation and drainage sector. First, to rehabilitate the critical irrigation and drainage infrastructure, and second ensuring sustainability of irrigation investments through farmer participation. This was supported by the Irrigation and Drainage projects of the World Bank.

Although the reform program in the water sector has begun, much remains to be done – especially in water resource planning, management and allocation at the national level. In this regard, the National Water Council – which reports to the Prime Minister - has an important role to play, but has been unable to execute its functions. Further, the current Water Law is out of date and needs to be modified which is under way. Reform of the water resources should, therefore, be viewed as a long term process requiring continued political commitment and international support to achieve improvements in water use efficiency and ensure sustainability of investments made in the water sector.

(k) External Catalysts

Some of the external catalysts that provided the desire as well as support for effective reforms were:

- Prospects of accession to the European Union meant that the water distribution system has to conform to base EU requirements.
- Financial and technical support from the World Bank and other institutions provided the government with resources and support for devising an effective reform program.

2. Implementation Process

The overall implementation process focused on establishing an overall legal and institutional framework that would foster public-private partnership where local governments would take effective responsibility for service delivery and users would pay for those services on a timely fashion. Some of the key areas of general strategy focus were:

(a) Empowering of Local Governments

The empowering of local Governments is seems to be the single most important component of the sector reform the Government is currently undertaking. In the past the lack of local ownership has lead to an inactivity at the local level where decisive action would be needed. Because the local Governments were not in charge of important investment and even management decisions in the water utilities, not even had they final responsibility for tariff setting, the local Governments did not feel responsible for the insufficient services. Nor were they made responsible by their local electorate. Therefore the water utilities were missing the day-to-day pressure to improve services, and even more important, they were lacking much needed local support to e.g. collect tariffs from local public customers (hospitals, schools, municipalities etc.), receiving of support from the local police to disconnect non-paying customers, identifying illegal connections etc.

(b) Private Sector Involvement

One of the aims of the Municipal Water and Wastewater Project (MWWP) is to support the long-term involvement of the private sector. The process of this involvement has been successfully begun in the MWWP through the award of a five year incentive based, multi-city management contract to a private contractor to manage and operate the water supply and sewerage services. (World Bank, 2002). In addition, transformation of 40 out of 52 water utilities (including all the four utilities participating in MWWP) into commercial entities has also been carried out. The expected outcome is an improved water supply and sanitation services and progressive achievement of financial viability of participating water utilities. From the private sector perspective, engagement in the water sector is attractive not only by the prospects of generating profits to its share-holders – made possible by long term involvement in what essentially is a monopolistic, vital supply area – but provides the multi-utility private sector

companies a leverage for providing or taking over other potentially attractive municipal services. (Hoering, 2002).

(c) Serving the Poor with the Help of the Private Sector

To ensure that private sector participation in the sector is also *benefiting the poor*, the private operator under the management contract receives an incentive based payment, depending on the number of people served, including the poor, with a minimum of water. This ensures that the private operator is not only improving services in areas with high to medium income, but also in areas where the poor are living.

(d) Water Tariffs and Piloting of a Free Water Policy

Tariffs were increased by 40 to 100 percent in most utilities and a wastewater tariff which was not in existence before, was introduced to ensure the operational sustainability of the water utilities. The Government is also supporting four municipalities which have decided to pilot a “free water” policy in their service area to benefit the poor. Low income metered households in Durres, Lezhe, Fier and Saranda would be provided 20 liters per capita per day (WHO minimum) free of charge. This policy takes effect on January 1, 2004. This is accompanied by the provision that if a metered household consumes higher than 20 lpcd and fails to pay the dues, they would be subject to disconnection.

(e) Use of Demand Responsive Approach

(i) Rural water supply and sanitation

Experience worldwide has demonstrated that providing water supply and sanitation services in rural areas is best achieved when it is tailored to meets the demands of the community – necessitating a Demand Responsive Approach. It consists of enabling the community to plan, implement, manage and help to finance their water and sanitation services. It is based on the following principles: (i) Community participation at all stages of a water supply project is essential for its sustainability; (ii) Non-governmental organizations and the private sector are providers of services to help the community implement, run, operate and maintain rural water and sanitation schemes effectively and efficiently; (iii) the Government’s role is a facilitating one – involving the creation of an enabling institutional framework and providing grant / loan facilities to the communities for investment in their water supply systems; (iv) flexible design

parameters and a wide range of cost-effective technology options and adequate financial policies are essential to the success; and (v) training in management, operations and maintenance are crucial to the sustainability of the water supply schemes.

This approach is not entirely new to Albania, as between 1994 and 2001, the non-governmental organization (Plan International) has successfully used the approach in 57 Albanian villages benefiting about 30,000 persons.

(f) Irrigation and drainage works

Demand driven principles were adapted in the rehabilitation of irrigation and drainage works. These are summarized below:

<i>Works requested</i>	<i>“Demand-driven” requirement</i>
River head works, main canal or main drain and drainage pumping stations	Formation of WUA, and federation where appropriate, with at least 50% membership; and transfer of system
Secondary irrigation and drainage systems, gravity supply	Contribution of Lek 3000 (\$20) per ha
Pump stations and improvements	Contribution of 10% to cost

One of the consequences of using the “demand-driven” approach are inevitable delays and a degree of uncertainty, which must be taken into account. Sufficient lead time was provided in the first irrigation project for the formation of WUAs and federations for the first cycle subprojects, and similarly with the second cycle subprojects. Therefore, no significant time was lost in formation of WUAs and in meeting the requirements for rehabilitation of main canals and drains. Rehabilitation of secondary irrigation and drainage systems were delayed and are lagging behind that of the main system. A step-by-step approach has been introduced for the farmer contribution of about \$20 per hectare towards the cost of rehabilitation of secondary irrigation and drainage works. (WB Supervision Mission, 2002).

(g) Participation process

Water supply services

Intensive public consultation meetings for decision making in the water sector are now widespread. This applies to decision making about investments (where public consultations are now mandatory according to the new law on Environmental Assessments) and to decision making

about sector reform. Example of public consultation process was in the determination of the locations for three wastewater treatment facilities, which the Government plans to construct with donor support in tourist areas. Public consultation meetings were also held to discuss sector issues within the framework of the NSSED and the National Water Supply and Sanitation Strategy. Acceptance of intensive public consultation meetings for decision making for investments in the water sector is becoming an important factor in making investment decisions with steps being taken to institutionalize this process, such as through the development of a public communication program for the sector, establishment of a permanent public relations department in the MoTAT, and creation of consumer panels for water supply and sanitation at the local level.

Irrigation

The project beneficiaries are fully integrated into the rehabilitation process, with involvement in planning, preparation of the rehabilitation proposals and designs, and participation in acceptance of the civil works executed by contractors. Planning and rehabilitation design were implemented in three cycles. In the first two cycles, planning for 15 large sub-projects was done by teams of national engineers supported by international specialists, and the tasks included feasibility and environmental studies as required in the project implementation plan (PIP). For the third cycle subprojects, for which demand developed spontaneously, and which were generally smaller, planning was entrusted to local engineers. In all cases, the detailed designs were prepared by local engineers. The process has been very satisfactory, involving a high proportion of beneficiary participation

(h) Creation of Association of Water Supply and Sewerage Enterprises

The Association of water supply and sewerage enterprises was created to represent the interests of the water utilities and is today the most influential Albanian NGO in the sector. One of the Association's first tasks was to contribute to the preparation of the Water Strategy Framework for Albania, which was submitted to the Ministry of Territorial Adjustment and Tourism. It laid the groundwork for the Albanian National Water Supply and Sanitation Strategy. The Strategy Framework was developed by the Board of the Association and finalized through a process of workshops held at four regional locations with members participating from the regions. The Association supports the transformation of the water and sewerage enterprises into financially self sustaining commercial entities, promotes modern business management practices, business planning and methods of cost recovery. It contributes to the development of the sector

through participation in sector strategy and policy discussions. The Association provides a Forum for discussions of many water sector problems such as reducing water losses and illegal use of water resources by private persons; increase collection ratio; assist in the implementation of legislation that provides protection of easements and rights-of-way for buried pipelines on private property, legal remedies for the calculation of amortization rates, etc.

The Association continues to play a very instrumental role by bringing to the attention of the Government important institutional issues which need to be addressed, such as clarifying the role of the Water Utility Regulatory Commission to serve as an independent body, which can ensure that the rights of the consumers are protected, create partnerships with external donors, conduct a baseline survey for benchmarking the company's performance and use the results for deeper understanding of the problems and analysis. It holds annual meetings to discuss ways to meet the challenges facing water companies during the process of commercialization and decentralization.

Successful creation of Water User's Associations (WUA's) and Federation in the Irrigation Projects

The first and second irrigation rehabilitation projects established about 427 WUA's in 21 districts, of which about 300 are operational. The WUA's are established as non-profit, private, tax-exempt organizations registered under the civil code. The members have equal voting rights and are not dominated by large farmers. The 127 WUAs that are not operational are mostly outside the rehabilitated area. Under the second project, 163 WUAs were established—87 in the pre-identified first and second cycle schemes, and 76 were spontaneous. The total area covered by WUAs is about 150,000 ha, 83,874 of which were developed under the second project. Under the second project, irrigation management transfer has been completed on 73% of WUAs. Overall, nearly 50% the total area provided with irrigation infrastructure in Albania is transferred to and managed by WUAs established under the two Bank financed projects. The second project has already met and exceeded its targets for establishment of WUAs. In 20 of the 21 large schemes rehabilitated by the first and second projects, WUAs have been federated, and management of the primary systems has been transferred to the federations.² Of these 20, some 17 federations are operational; water supply deficiencies are limiting irrigation in the other three.

² The remaining scheme is located in Shkodra District and is under the second project, but the WUA movement there is weak, delaying transfer.

(i) Learning and Experimentation During Implementation of the Irrigation Project

During the implementation of the first and second irrigation projects, following were some of the factors specific to Albania which led to the modification and adaptation of the project's approach:

- The first was the layout of Albania's irrigation infrastructure. Initially, the project envisaged that the transfer of only the tertiary infrastructure to users. However, the schemes in the tertiary units were about 15 ha, - which were too small to form a viable unit for transfer. The solution adopted was to make the WUAs responsible for whole secondary canal units, of about 250 ha each.
- The second related to the structure of Water User Associations. Villages and communes were used as initial contact points for the establishment of WUAs, and these were village based. However, these were not sustainable as villages did not correspond to hydraulic boundaries making the irrigation management ineffective. The solution adopted was to restructure WUAs along the lines of hydraulic boundaries.
- The third related to the deteriorating performance of the government district water enterprises who were responsible for the management and maintenance of primary systems, which prevented the WUA's to operate satisfactorily. The solution adopted was to create federations of water users associations and to transfer the management and operations of primary canal systems, and in some cases even control of the water sources. This resulted in timely availability of water supply in adequate quantities required for crop production, especially during the dry seasons.
- The fourth related to procedures for execution of rehabilitation, and was in reaction to under-utilization of some of the first project's rehabilitation due to a lack of commitment on the part of farmers. The solution adopted in the second irrigation project was as to make the rehabilitation demand-driven, and respond to the requests from WUAs only after the criteria were met, including a cash contribution.
- The fifth relates to the role of the old water enterprises in management of drainage systems, which is not satisfactory and have an adverse impact on farmers and irrigation users. The solution being adopted is to establish Boards of beneficiaries who will given the responsibility to supervise and manage drainage and

- The sixth relates to the current Water Law, which does not offer adequate protection to the water users for irrigation. This would be addressed in the third irrigation project currently under preparation – proposed interventions include strengthening the Water Law so that it could provide for the proper management of national water resources, in particular licensing of abstraction, with rights for users in order to reinforce discipline within irrigation schemes, as well as protecting their source.

3. Main Driving Factor

(a) Enabling Institutional and Legal Framework

In the water supply and sewerage sector, the main driving factor which is expected to contribute to the rapid improvement in the delivery of water supply and sewerage services to both the urban and rural consumers is the creation of an enabling institutional and legal framework. This has substantially changed over the past decade.

Since 1992, the provision of water supply and sanitation services in Albania's urban and rural areas has been the responsibility of 52 state owned regional water enterprises. These state owned water enterprises are governed by a management council nominated by the local authorities. However, the management council is only responsible for the day-to-day operation, the responsibilities for investments, important human resources management and strategic planning remains with the Central Government. This arrangement has created a lack of ownership at the local level. In most cases the water enterprises cover a district capital and the surrounding rural areas.

Although the law³ that regulates these water enterprises states that they have to operate on a break-even (or profit basis), in most cases this has never been achieved; budget shortfalls are often covered through non-payment of outstanding debts (e.g. electricity bills and social charges) or by subsidies from the central government. Lack of resources has caused most water enterprises to virtually abandon the rural areas and concentrate on the district capital they are responsible for. In order to better position Albania's water and sewage sector for private sector participation in the delivery of services, the Ministry of Public Economy and Privatization (MoPEP) instructed 18 water enterprises in mid '98 to transform themselves into commercial companies. After the

³ The juridical status of the Water enterprises is defined by the Law Nr. 7582 of 13/07/1992: "On state owned companies"

transformation process⁴, the water enterprises became joint stock companies with all of the shares held by the Ministry of Territorial Adjustment and Tourism (MoTAT). The joint stock companies are governed by a Supervisory board of which 2/3 of the members are nominated by the MoPEP and 1/3 of the members are nominated by the MoTAT. More than 10 water enterprises have completed the transformation to a joint stock company.

At the end of July 2000, the Government of Albania approved a new law⁵ on the local government; this law amongst other things, transfer the responsibility for water supply as an “exclusive function” to the communes/municipalities on January 1st, 2002. Although many by-laws are still required⁶ to enforce it, this law is a major step forward since it will create ownership and place the incentive to improve services at the local level.

(b) Creation of Enabling Environment for Farmer Participation

The main factor contributing to the success of the irrigation and drainage project was the pro-reform attitude of the Government as well as those who were responsible for implementation of the project. An environment where people could take their own initiative and not rely on Government was created – which helped accelerate farmer participation and the creation of water user’s associations.

4. Results Achieved

(a) Water Supply and Sewerage Services

Some of the main results achieved in the water and sewerage services sector are:

- Issuance of a water code that regulates customer-utility relationships and allows for the disconnection of illegal and non-paying customers; transferring the tariff setting authority to local governments; etc.
- Commercialization of water utilities: Transformation of 40 out of 52 water utilities (including all the four utilities participating in MWWP) into commercial entities.

⁴ The transformation process is regulated by the Law on Transformation of State-Owned Companies into Commercial Companies, No 7926, dated 20/04/1993

⁵ Law on Organization and Functioning of Local Governments, No. 8652, dated 31.07.2000

⁶ The Government of Albania is currently preparing those by laws.

Increase in tariffs. Tariffs were increased by 40 to 100 percent in most utilities and the introduction of a wastewater tariff – not in existence before was introduced.

- Wastewater Treatment: The implementation of the first wastewater treatment facilities is currently under way in five locations. Four of these locations are in tourist areas with the potential of economic growth (which hopefully will benefit the poor)

(b) Irrigation and Drainage

Some of the main results achieved in the irrigation and drainage sector are:

- The first irrigation project was successfully completed in 1999, and exceeded both its physical and institutional targets within budget and more than a year ahead of schedule. About 85,000 hectares irrigation systems and 100,000 hectares drainage systems were rehabilitated, 250 WUAs were established, serving almost 100,000 farming families.
- About 50 percent of the total area provided with irrigation infrastructure in Albania has been transferred and managed by WUA's established under the first and second Bank financed irrigation and drainage projects – with the responsibility for the secondary irrigation canals transferred to WUAs in 1996, and transfer of 21 large schemes – comprising the main canals and head works to federations of WUAs served by the irrigation scheme. WUAs are fully responsible for planning, managing, operating, and maintaining their own systems. WUAs collect water charges from their own members, and manage their irrigation system without any financial support from the state budget.
- In the drainage sector, the water enterprises are being restructured. The management has been decentralized, involving mainly beneficiaries of drainage and flood protection, and includes representatives of local governments and WUAs

- Crop diversification to higher value crops and increase in agricultural productivity have led to an increase in household incomes.

5. Lessons Learned

The main lessons learned to ensure success of reforms and investments to improve the quality of water supply services and benefit the poor are the following:

- (i) importance of creation of an enabling environment;
- (ii) develop and put in place a clear legal and institutional framework which enables the local government to take full responsibility of water service delivery; and mechanisms to ensure their participation in project preparation and implementation;
- (iii) importance of a consultative process and creating institutional mechanisms;
- (iv) obtain broad consensus at the local level before major investment decisions are taken; and at the central and local level to involve the private sector in the management and operations of water utilities;
- (v) create water consumer associations to represent the interests of consumers to ensure service delivery improvements and to articulate consumer demand;
- (vi) creation of sustainable water user associations is a long term process and requires a step by step approach requiring intensive support and supervision, especially in the early stages of development;
- (vii) importance of water resources planning, allocation and management;
- (viii) competing uses of water resources, however abundant the water supply in Albania maybe, requires systematic and effective planning and resource allocation strategies and plan of action to meet competing demands of water for domestic, irrigation, industrial, hydropower, and tourism purposes;
- (ix) tariff adjustments should take into account the affordability of the poor; and

- (x) required tariff adjustments to make water utilities financially viable need to be accompanied by affordable provision of a minimum level of water service to the poor which may require the provision of gradually decreasing and targeted subsidies;

REFERENCES

- Albania - Rural Water Supply and Sanitation Strategy 2003
- De Soto, Hermine; Egamberdi, Nilufar; Center for Economic and Social Studies (CESS), 2001. Albania: Municipal Water and Sanitation Project – Social Assessment. Washington DC.
- Government of Albania. 2003. The National Strategy for Socio-Economic Development (NSSED).
- Hoering, Uwe. 2002. Public Private Partnerships in the Water Sector – no panacea to solve all problems. Deutsche Stiftung für internationale Entwicklung. D+C Development and Cooperation, Issue Number 4, July/August 2002, pages 5-17). Also in <http://www.dse.de/zeitschr/de402-6.htm>
- Impact Evaluation of First Irrigation Rehabilitation Project, August 2001, Halcrow Water in association with Flynn and Partners & Hidromont for Project Management Unit, Ministry of Agriculture and Food
- Impact Evaluation of Second Irrigation and Drainage Rehabilitation Project March 2002, Halcrow Water in association with Flynn and Partners & Hidromont for Project Management Unit, Ministry of Agriculture and Food
- Project Appraisal Document, Second Irrigation and Drainage Rehabilitation Project, Country Department II, Europe and Central Asia Region, The World Bank, January 5, 1999.
- Water Users Association Survey Report for 2002 Irrigation Season, January 2003, Halcrow Water in association with Flynn and Partners & Hidromont for Project Management Unit, Ministry of Agriculture and Food
- World Bank. 1998. Albania. Country Assistance Strategy. Washington DC.

- World Bank. 2002. Municipal Water and Wastewater Project. Project Appraisal Document. Infrastructure and Energy Sector Unit. Europe and Central Asia Region, World Bank.
- World Bank. 2002. Mid-term review supervision mission – aide memoire. Second Irrigation and Drainage Rehabilitation Project. May 2002. Washington DC.
- World Bank. 2003. Albania: Water Supply and Sanitation Sector Strategy. Final Draft
- World Bank, European Union. 1992. An Agricultural Strategy for Albania. A Report prepared by a Joint Team from the World Bank and the European Community. World Bank. Washington DC.
- WUA Impact Survey, summary of selected interviews, Genc Myftiu, Albania, September 2003