UNDP Human Rights Based Approach (HRBA) to Improving Water Governance in Europe & CIS Programme.

KOSOVO SECTOR ASSESSMENT

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A.1. MDG OUTLOOK AND GENERAL SITUATION IN KOSOVO

Kosovo declared unilateral[1] independence on 17th February 2008, and is today in transition under UNMIK administration, aiming for EU integration. The economy is heavily dependent on remittances, and the poverty rate stands at 45%, with 15% living in extreme poverty. 47% of the population are unemployed, one of the highest rates in the Balkans and Europe. Administratively, Kosovo is split into 7 districts and 35 municipalities.

In 2004, the United Nations prepared a baseline Millennium Development Goals (MDG) Report entitled 'Where will we be in 2015?' to help the Kosovo Government use the MDGs as a tool for development. The Second MDG report, launched on 17 November 2007, analyzed the probability of achieving the MDG's by 2015 in Kosovo. On 17 October 2008, the Assembly of Kosovo endorsed the Millennium Declaration which affirms institutional commitment to meeting MDGs by 2015, and calls on governing institutions, civil society, and the business community to contribute towards mainstreaming these goals into Kosovo's development agenda. Target 10 of MDG 7, to ensure environmental sustainability, aims to halve by 2015 the proportion of people without sustainable access to safe drinking water and sanitation. If human capacity building and investments in the water sector continue at the same pace in Kosovo, it will be difficult to achieve such goals.

To understand the water sector development needs in Kosovo and make meaningful water demand estimations, understanding the current population estimates is necessary. Kosovo's population is estimated at 2.1million, comprising 88% Kosovo Albanians, 7% Kosovo Serbs, and 5% non-Serb minorities (Bosniaks and Gorans 2%, Turks 1%, Roma 1%). Whilst, detailed population data in Kosovo is unreliable, with figures frequently massaged to reflect vested interests and political aims, and not based on a recent census, Table 1 below and the following discussion highlight the numbers currently supplied with drinking water and those that remain to be connected. Data in Table 1 is based on a report of the Statistical Office of Kosovo commissioned by the Ministry of Public Service in 2004. The 55,000 residents that live in municipalities not currently included in the service areas of the 7 regional water companies (RWC) in Kosovo are not represented in the figures.

The data provided by the RWCs and that taken from the Ministry of Public report does not match. Data provided by the RWC's is a rough estimate, not grounded in any research or analysis. By comparison, the 2004 Statistical Office report is based on an analysis of available data related to births, deaths, school enrolment and property tax. As such, their estimate of population may be more meaningful and a more reliable tool for assessing the percentage of the population who receive drinking water from the public supply.

RWC Name	Municipality	Ministry of Public Service estimate of population (2004)	RWC total (2004)	Public Service estimate corrected by 1.0% growth for 5 yrs to 2009	RWC estimates
Pristina	Pristina Fushe Kosova	242,397 48,519	579,812	609,388	650,000

[1] [1] UN Administered territory under Security Council Resolution 1244.

	Obiliq Podujeva Lipjan Shtime Drenas	28,616 96,366 64,875 31,442 67,597			
Hidroregjioni Jugor	Prizren Dragash Suhareka Malisheva	222,560 37,486 70,297 59,243	389,586	409,458	421,656
Hidrodrini	Peja Klina Istog Decan (inc. Junik)	112,653 42,938 45,679 42,571	243,841	256,279	258,000
Mitrovica	Mitrovica Skenderaj Vushtrri	60,812 56,405 94,680	211,897	222,705	300,000
Hidrosistemi Radoniqi	Gjakova Rahovec	97,931 68,698	166,629	175,128	235,580
Bifurkacioni	Ferizaj Kacanik	147,279 44,355	191,634	201,409	180,000
Hidromorava	Gjilan Kamenica Viti	163,365 44,020 55,479	262,864	276,273	107,000
Total			**2,046,263**	**2,150,640**	**2,152,236**

Table 1: Population estimates for Regional Water Company supply areas
Source: Statistical Office of Kosovo (2004)

A.2. Water Supply Services in Kosovo

A.2.1. Water Supply Coverage

With a population of approximately 2.1million, it is estimated only 1.23 million inhabitants in Kosovo's 35 municipalities receive water from the 7 Regional Water Companies (RWCs) (licensed by the WWRO), based on the number of household customers billed for water services by the RWCs. Despite having sufficient water resources, securing water has become a challenge for companies and very few municipalities are supplied with water 24hrs a day.

Using the 2004 Statistical Office report, population data (corrected to 2009) with coefficients for household occupancy and the RWCs' data as supplied to the WWRO for the number of household connections, Table 2 gives service coverage data for each water supply region. Average supply coverage for Kosovo is 60% in the 25 municipalities covered by the 7 RWCs. Of the total quantity of water produced, only 50% is sold, the other 50% is either lost from the system through leakages (technical losses) or not billed (commercial losses). Thus, at present the average net consumption of the 1.23 million consumers connected to the supply system is 141l/c/d. In the case of Pristina Water Company, technical losses are estimated at 36-38% and commercial losses at 12-14% resulting in water supplies to consumers being intermittent and subject to frequent outages. Pristina Water Company has a target to reduce technical losses to 20 - 25% and overall losses to 30% by 2012.

RWC Name	Population in Service Area	No. of customer connections – residential only	Coefficient population/ household	Population supplied with water	Service coverage %	Gross daily per capita consumption (l/c/d)
Pristina	609,368	70,655	6.89	486,812	80%	250
Hidroregjioni Jugor	409,458	23,190	8.04	186,448	46%	188
Hidrodrini	256,279	24,166	6.78	163,844	64%	523
Mitrovica	222,705	18,174	6.58	119,583	54%	400
HS Radoniqi	175,178	22,830	6.84	156,160	89%	295
Bifurkacioni	201,409	11,963	7.01	83,860	42%	137
Hidromorava	276,273	13,537	6.32	85,554	31%	191

Table 2: Water Supply Coverage in the 7 regions of Kosovo
Source: ECLO (2009)

A significant proportion of Kosovo's population are therefore not supplied with drinking water by a RWC and, thus not supplied to a safe quality standard. Approximately, 860,000 persons, or 40% of the population, who do not have access to safe disinfected drinking water at their normal place of residence. This number amounts to the population that live in approximately 200 villages that do not have any piped water system. In such cases, water largely comes from household wells (World Bank, 2009). It is believed that none of these small community systems are equipped with chlorine dosing installations to provide disinfected water. In addition they suffer from poor engineering, low quality construction materials and construction works, lack of water meters and poor, if any, maintenance. Communities not receiving water supply services from a RWC fall into four broad categories:

1) Water supply from municipal water enterprises (25-28% of total water supply),
2) Managed village systems (generally community run but some municipality run) (4%),
3) Unmanaged village piped water systems (3%),
4) No piped water supply (water taken from relatively shallow household wells) (3%).

In Table 2, low figures of water supply service coverage generally illustrate that the ability of RWCs to invest and expand their service areas is rather limited. Besides the low rate of coverage in 2008 compared to 2007, the number of new customers has increased in six out of seven regional water companies, which makes 4% increase as the sector average (WWRO, 2008).

81% of Kosovo's public drinking water supplies come from either the five major storage reservoirs (Gazivoda, Radoniqi, Batlava, Badovac and Perilepnica), or from the Karst natural springs; the latter providing a major source of high quality raw water. Several systems supplying drinking water to an estimated 35,000 population are managed directly by the municipalities. These systems should be brought under the regulatory control of WWRO and the National Institute of Public Health of Kosovo (KNIPH), if not within the RWC mandate

to manage and operate, if improvements and water quality compliance are to be achieved (ECLO, 2009).

Increasing the percentage of the population connected will obviously increase water demand, as will population increases as a whole and rises in per capita consumption as the level of prosperity rises. Set against this there are considerable savings in water that could be made by reducing non revenue water from 50% to 30% or less. These factors will work differently for each RWC: Pristina Water Company, for instance, forecast a 50% growth in water production over the next 10 years to meet demand growth. If this increase were to apply to each RWC, the overall production by 2020 would increase from its current level of 127Mm³ to nearly 200Mm³, with the result that the net consumption would increase from the present level of 141 l/c/d to 200 l/c/d.

A.2.2 Sources and Treatment of Drinking Water Supply

There are seven licensed RWCs in Kosovo that cover around 96% of Kosovo's territory and supply water to 62-65% of the population that live in those areas. Continued development in Kosovo, particularly unplanned development, is almost certainly placing a greater stress on the water eco-system with consequent risks to the quality of raw water used for the public supply. RWCs report that of the 71 water sources in Kosovo used for drinking water supply, 33 are at significant risk of some form of contamination. These at-risk sources provide around 65% of the drinking water that is put into supply. In particular many of the aquifer water sources are at-risk from contamination. This situation is made worse by the lack of defined and established water protection zones (WPZs), a situation that leaves the drinking water sources vulnerable to continued adverse development and potential pollution. The definition, establishment and enforcement of WPZs in Kosovo is seen as one of the highest priorities to safeguard drinking water quality; particularly for the five large surface water reservoirs, for which the WPZs could be easily defined.

Approximately 57% of Kosovo's drinking water is treated at the 12 water treatment plants (WTPs) that supply filtered and disinfected drinking water to most of the main population centres. There is no consistent standard applicable to Kosovo's WTPs; some are modern and in good condition; others date from the 1960s and require extensive rehabilitation. There is a need to invest in and upgrade at least 8 out of these 12 WTPs, particularly the two largest WTPs at Albanik, which serves the Pristina region, and Radoniqi, which serves the Gjakova region. These two WTPs have not been modernised since they were built in the early 1980s and significant improvements in automation and water quality monitoring are required. Investment to modernise Kosovo's older WTPs is essential if compliance with the Drinking Water Directive 98/83/EC is to be achieved.

A.2.3. Condition of the Distribution Network

Much of the water transmission and supply networks in Kosovo are deteriorating, resulting in frequent breakages and undetected leakages. Prior to 1999 the standard and quality of pipe materials used in Kosovo was very poor, comprising mainly galvanised mild-steel (GMS) and asbestos cement (AC). The former can be corroded by both ground water and drinking water, depending on the water quality, and the latter is brittle and easily damaged by undue traffic loading and ground disturbances. Additionally, both pipe materials have deteriorated due to the common practice of making illegal connections onto the pipes without necessarily ensuring a water-tight joint, damaging the main pipe in the process.

Since 1999 heavy-duty polyethylene pipes (HDPE) have been introduced in Kosovo and it is now the pipe of choice for most RWCs and has been used on most donor funded mains rehabilitation projects since 1999. If installed correctly, HDPE pipes can have a 100-year useful lifespan. 73% of Kosovo's water supply network is GMS and AC pipes that date from before 1999, are in poor condition and need replacing over the next 20 years.

A.2.4. Affordability and Standards of Water Supply Services

Tariffs are set up by the WWRO following a consultation process with the main stakeholders (see section B.1.5). WWRO has set the following tariffs for the 2009-2011 period:

Category of customers		Basic tariff (€/month)	Volumetric tariff for water (€/m3)	Volumetric tariff for wastewater (€/m3)
Domestic	2009	1.0	0.30	0.03
	2010	1.0	0.32	0.04
	2011	1.0	0.34	0.04
Institutional, industrial, commercial	2009	3.0	0.72	0.07
	2010	3.0	0.75	0.09
	2011	3.0	0.81	0.10

Table 3: Tariffs for water supply and wastewater services 2009-2011
Source: WWRO (2008)

Water and wastewater tariffs are affordable for most Kosovars. Expenses related to such services represent less than 4% of people's income. People with disabilities and low income are exempted to pay for their water bill as long as they are registered with the Ministry of Social Affairs. According to the Director of Pristina RWC, an average family of five pays around €5-7 per month for water and wastewater services. Only 10% of Pristina customers cannot afford to pay and are social cases. Customers of some ethnic Serbian municipalities do not recognise Kosovo institutions and do not want to pay despite the fact they receive the service. Bills are delivered monthly and customers can pay their bills either to the RWC service centres, or in four banks, or cash to the RWC collectors.

Water and Waste Service providers (RWCs) have to meet certain standards of service, set out in the "Rule on Minimal Water and Wastewater Service Standards". Each year WWRO publishes a report on the performance of providers in meeting these standards (the first report published in 2007, reported on performance in 2006). All licensed water and wastewater (sewerage) suppliers must prepare a Customer Charter, a general statement of the rights and obligations of the supplier and the rights and obligations of customers. Suppliers must be able to provide customers with a free copy of its Customer Charter on request, in the official language of their choice.

According to the WWRO rules, customers have the right to submit complaint to their Service Provider if they deem that conditions of Service Contracts, Customer Charter or Rules issued by WWRO have not been respected. The Service Provider (either for water and wastewater services or waste services) is obliged to respond in a reasonable manner:

- Within 10 working days for commercial complaints regarding billing, change of address etc;

- Within 6 hours for technical complaints, such as water shortfalls, low pressure, pipe bursts, water quality etc;
- Within 6 hours for technical complaints regarding provision of waste collection services.

In case a Service Provider does not comply with these terms or a customer is not satisfied with the response, then he/she can address the complaint to Customer Consultative Committees (CCC) in his/her region in writing. CCC will review the complaint and recommend a solution of the issue. In 2008, there were only 7.5 complaints per 1000 customers, of which 89% were reviewed and solved. The two most frequent reasons for complaint were i) water interruptions and ii) to verify whether tariffs and consumption were correctly applied to their bills. The WWRO has established seven CCCs to represent the interests of customers and to deal with their complaints against licensed water and sewerage suppliers. Committee membership is approved by the regulator.

A.2.5. Factors affecting Drinking Water Quality in the Distribution Network

The main causes of chemical and bacteriological contamination of drinking water after it leaves the WTP and in the transmission and distribution system are as a result of:

- Back-siphonage of contamination in the pipes due to pressure loss from planned supply interruptions or as a result of burst pipes;
- Cross connection of sewage pipes to water pipes; and
- Chemical contamination from corrosion of GMS pipes.

Planned supply interruptions

Several supply zones in various regions of Kosovo suffer from planned supply interruptions. These supply interruptions are more frequent in summer than winter. Supply interruptions usually result in large sections of the distribution pipe system being depressurised and emptied. This has major implications for water quality. The RWC in Bifurkacioni, reported a noticeable improvement in water quality test results in 2008 when supply interruptions were dramatically reduced, due to the renovated WTP at Pleshnica being put into service and providing a greater quantity of drinking water. It can be expected that similar results would be obtained in other population centres if water demand and leakage is brought under control and planned supply interruptions ceased. Table 4 shows the planned interruptions of RWCs in 2008 and gives details of how often, in which zones and the major reasons why planned supply outages are necessary.

RWC Name	Supply zone	Average hours/day planned outage	Summer Only (SO)	Reason for shortage of water or high demand
Pristina	Pristina – Albanik zone, Pristina – Badovc zone Fushe Kosova - Kroni, Obiliq, Lipjan, Podujeva, Shtime, Drenas	6.5 11 11 5 1.5 8 0 8	- - - - SO - - -	Mainly due to high level of water losses (NRW) but exacerbated by recent dry years causing low reservoir levels.
Hidroregjioni	Prizren,	6.5	-	The restrictions

Jugor	Suhareka, Malisheva, Dragash	6.5 6.5 6.5	- - SO	allow the RWC to recharge service reservoirs in the night to allow adequate supply during the day.
Hidrodrini		none	none	
Mitrovica	Mitrovica, Mitrovica north/Zvecan Vushtrri, Skenderaj	7.5 9 13 3	- - - SO	Combination of high water losses (NRW) and lack of water treatment capacity. Exacerbated by lack of control by RWC in Mitrovica north and Zvecan.
HS Radoniqi	Gjakova, Rahovec	8 8	SO SO	High water demand attributed to excessive water use in rural areas – irrigation with drinking water.
Bifurkacioni	Ferizaj, Kacanik*	7 3	- SO	High water losses and excessive water misuse in summer
Hidromorava	Gjilan, Kamenica, Viti	0 5 5	- SO SO	High water losses and excessive water misuse in summer

Table 4: Planned water supply interruptions *Source: World Bank, 2009*

Water losses

Although calculated water losses, or non-revenue water (NRW), include commercial losses (largely resulting from illegal connections to the distribution system) it can be assumed that technical losses, from leakages and burst pipes due to the age and type of pipe material, are also high. Table 5 shows the level of NRW for each of the seven RWCs, together with the percentage of each region's system that is in poor condition and requires frequent repair, according to each RWC's technical management.

RWC Name	Reported level of nonrevenue water (2008)	RWC reported % of the transmission and distribution system in very poor condition
Pristina	46%	54%
Hidroregjioni Jugor	44%	66%
Hidrodrini	75%	53%
Mitrovica	50%	31%
HS Radoniqi	62%	33%
Bifurkacioni	47%	62%
Hidromorava	49%	42%

Table 5: Water losses and condition of the distribution system
Source: WWRO, 2008

A high level of technical water loss from the system coupled with illegal connections has serious implications for achieving a continuous water supply with zero bacteriological contamination. All leaks at pipes and valves, poorly sealed service reservoirs, burst pipes and poorly made illegal house connections are potential entry points for contamination. Such factors combined with poor control over the chlorine residual, means RWCs' compliance with the EC Water Directive is likely to be difficult; especially if a more frequent and tougher sampling and testing regime is put in place at the consumers' taps (see B.1.4).

A.3. Sewerage Services in Kosovo

As with most countries in transition, sewerage system development lags far behind water supply systems. There is no wastewater treatment system; sewerage is dispersed into open areas. The first urban wastewater treatment plant constructed in Skenderaj is not yet fully operational. Sewerage services are under the direct jurisdiction of the seven RWCs. The present wastewater management in Kosovo covers the collection of the wastewater and storm water out of the settlement area and the discharge of these flows untreated into the nearest river. Only approximately 30% of Kosovo's population have access to a sanitation system, including less than 10% of the rural population; the rest have, at best, septic holes. In the absence of a sewage network, the population tend to be self-providers, limited to simple cesspools, latrines or septic tanks. Access to sewerage disposal appears unrelated to ethnicity; 71% of Kosovo Albanians, 69% of Kosovo Serbs and 80% of other minorities reportedly have access (UNDP and USAID, 2009).

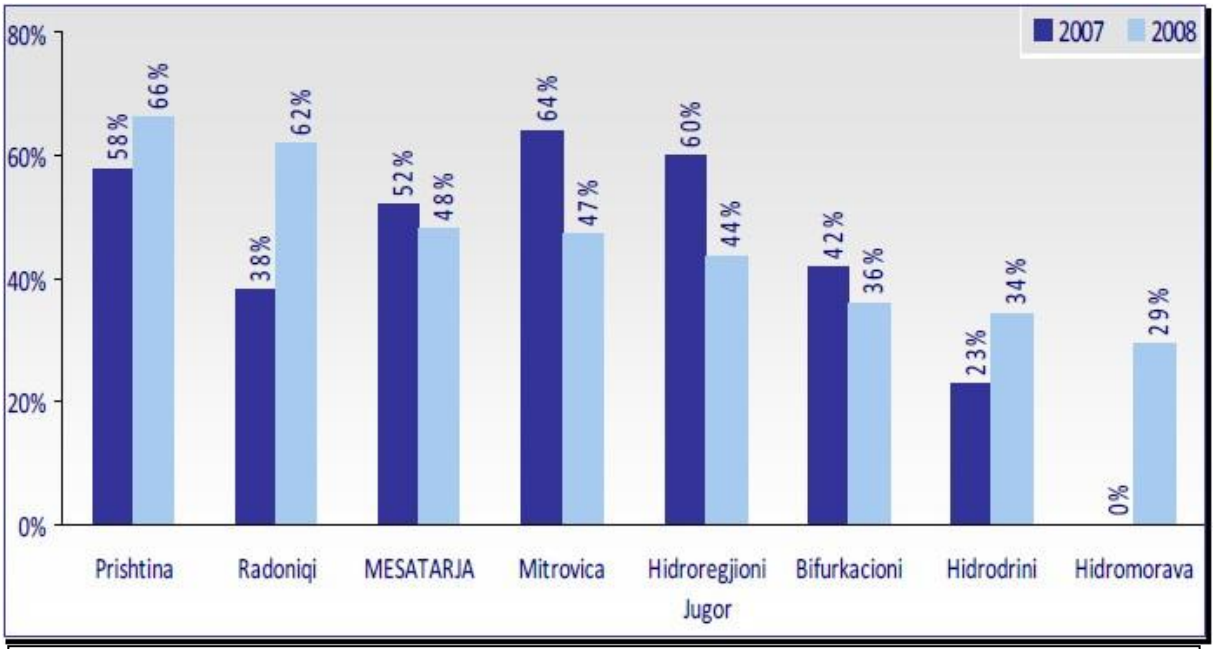

Figure 1: Sanitation coverage for the population served by the 7 RWCs.
Source: WWRO (2008)

There is no system for monitoring sewage discharge and treatment of municipal wastewater is virtually non-existent, with the exception of some septic tanks for restricted housing areas or natural ponds, which have been formed at the discharge points of wastewater collection systems. A few Kosovo Force (KFOR) camps and the hospital complex of Pristina have biological treatment plants.

Untreated sewage discharge represents a major source of pollution of natural waters, affecting dissolved oxygen, phosphorous and nitrogen content, and pathogenic bacteria and viruses. The main surface water polluters are municipalities and industries. Municipalities and communities discharge wastewater without any treatment, reducing water quality. Industrial activities decreased dramatically during the Kosovo war (1998-1999), but the existing industrial plants do not have any kind of wastewater treatment. Mining and metallurgical industries are the biggest culprits, emitting heavy metals into the water. Data on wastewater discharges from each municipality are summarised in Annex 1.

The absolute absence of any experience, tradition and basic knowledge on biological treatment processes (knowledge about wastewater treatment technology is restricted to septic tanks with preceding disinfection by chlorination) is the base situation from which the introduction of wastewater treatment has to start. Based on best available data, the total wastewater discharge in 2004 in Kosovo is about 1,200 l/s or 110,000 m3/d. The BOD and solids loads are 8,500 kg/d and 29,000 kg/d, respectively.

Due to water contamination and unsafe hygiene (hand washing at critical times, unsafe handling, transportation and storing of drinking water), waterborne diseases are widespread among rural populations. Improvements have been made in urban areas; water contamination has reduced to 10% on average, but remains a big issue in Shtërpcë and Klina. Klina had 28 cases of typhoid in 2008 and 42 of Hepatitis A. No reliable scientific data portrays the level of infection of children and adults by waterborne diseases.

A.4. The situation regarding the 'Right to Water'

The Mar del Plata UN declaration (1977) asserted that all people have the right to safe water and sanitation. The Human Rights Based Approach (HRBA) to development identifies rights-holders and their entitlements, and duty-bearers and their corresponding obligations and analyses the relationship between them. In Kosovo's water sector, duty-bearers comprise municipalities, the 7 RWCs, and relevant ministries (see B.1.4.). Rights-holders comprise every individual whatever their gender, race and ethnicity; each person has a right to reliable access to clean and affordable potable water. The 'right to water' does not mean free water, or allow for unlimited use of water, nor entitle everyone to a household connection or to water resources in other countries. Rather, a 'right to water' means an affordable water supply providing sufficient water for personal and domestic uses, and of drinking water quality, located within or in close proximity to the household.

Weak water governance in Kosovo is largely responsible for the scarcity of drinkable water. Poor management and ill-defined roles and responsibilities between institutions, are preventing duty-bearers from fulfilling their water service delivery obligations to rights-holders in a satisfactory manner. Confusion with regards to who is responsible for managing the water sector stems from two contradictory provisions in national law. Article 17.1 of The Law on Local Self Government (2008) states municipalities are responsible for providing water services; 'Municipalities shall have full and exclusive powers [in the] provision and maintenance of public services and utilities, including water supply, sewers and drains, sewage treatment, waste management...'. Comparatively, The Law on Public Enterprises (2008) provides that all public enterprises will be transformed into stock companies, and that the Kosovo Government will be the owner of shares in all these companies.

The ‘right to water’ is furthest from being met in rural areas unconnected to the centralised water supply system. Here, inhabitants (64% of the national population) are using unprotected, shallow hand-dug wells, of which 74% show faecal contamination. As a result, Kosovo has the highest morbidity and mortality incidence rate from water-related diseases of any country in Europe. Schools in rural areas commonly offer miserable hygienic conditions and no drinking water. The situation is also grave in urban areas where although connected to the centralised system, there is not a 24hour supply. Urban residents have access to water according to a schedule, typically starting at 6am and ending at 10pm, which the KNIPH argue threatens human health. Water quality is a big problem in Dragash, which used to have a sound system but this has deteriorated in recent years, and Gračanica municipalities. There is no relevant data for the latter as it houses a Serb majority who do report to the KNIPH. Territory-wide, fewer than 50% of citizens deem their water quality to be good. The least satisfied reside in small cities including Rahovec/Orahovac and Novoberde/Novo Brdo (UNDP and USAID, 2009).

A.4.1. Vulnerable and Marginalised Groups

Indirect discrimination towards members of minority communities is still significant in Kosovo and aggravates their access to key services, including employment, education, health, social protection and municipal services (including water supply and sanitation). The most vulnerable and marginalised groups include Roma, Ashkali and Egyptian (RAE) (1% of the population), Turks (1%), Bosniaks and Goran (2%) and Serbs (4%) (see Figure 2).

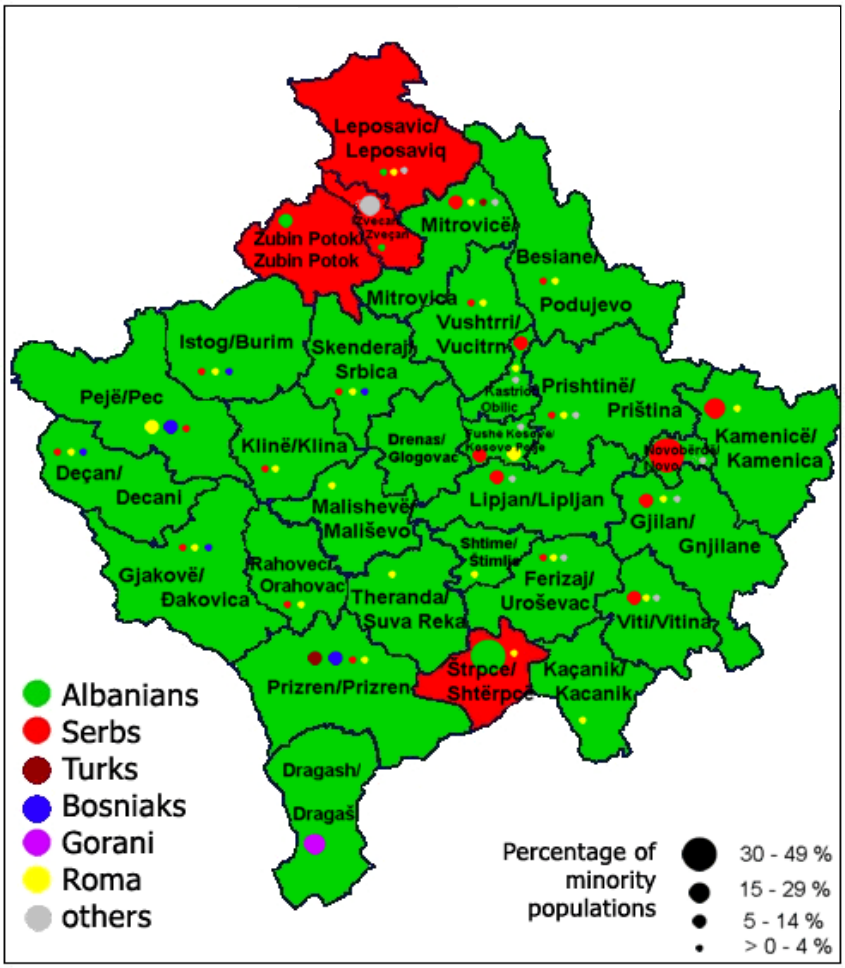

Figure 2: Kosovo Ethnic Composition Source: *OSCE*

RAE families live in dwellings/camps with non-existent or very basic sanitation facilities and a lack of running water, which is increasing their risk of disease and infections. It is estimated 74.77% of RAE families have a safe source of drinking water, whilst 25.24% do not have access to piped water (UNDP, 2004). 72% of RAE communities do not have access to a toilet or bathroom in their house, compared to 45% of the majority population, with concomitant risks to human health (UNDP, 2005). Competent authorities have so far taken no sufficient measures to improve the situation, and so the RAE typically live in extreme poverty, highly dependent on humanitarian aid. In rural areas, water issues mainly impact women, who are the primary water users and water providers.

Serbs represent an ethnic minority, but are in fact positively discriminated against in terms of their right to water. Serbian minorities through their institutions (municipalities and organizations) in many parts of Kosovo have refused to recognize Kosovo institutions as legitimate partners, and Serbian majority municipalities have refused to register as Kosovo municipalities. In refusing to acknowledge the new political situation, the Serbian (and partly Roma) community are strengthening their support and consolidating their ties and dependence towards the parallel institutions administrated by the Republic of Serbia in Kosovo, especially in the northern part of Kosovo. Nevertheless, the Serbian minorities receive government support (social assistance and other specific allowances) and public services (utilities, roads among others). In municipalities already connected to a water supply system under the jurisdiction of a regional water company, Serb non-cooperation represents a major issue. The company provides water but does not receive payments to reinvest in the network, and since they do not pay, Serbs overuse water for domestic and productive needs (gardening and small agriculture), especially during the summer season, placing a stress on water availability. Serbian minorities abuse of the water system is doing little to ameliorate tensions with Albanians (who more frequently pay their water bills), who perceive there to be a double standard in water service provision, with Serbs benefiting most.

A.4.2. The Inadequacy of Human Rights Protection Mechanisms in Kosovo

Human rights protection in Kosovo has generally improved with the entry into force of the Constitution (June 15 2008), which promises to 'provide for the protection of human rights and communities according to international and European standards'. Additionally, the growing obligation of UNMIK and the Kosovo Government to report on the human rights situation, the implementation of international human rights instruments, the set up of the Human Rights Advisory Panel and the creation of human rights units at the municipal level have helped. However, it is still questionable whether human rights protection mechanisms are effective. If mechanisms exist, but are not effective, or a large part of the population are not aware of both what their human rights are and how to protect them, the whole idea of human rights protection loses its pertinence. Presently, the Ombudsperson and the Human Rights Advisory Panel are the only specialized human rights protection mechanisms in Kosovo, and both have inherent weaknesses in their mandate.

- **Ombudsperson**

The Ombudsperson Institution of Kosovo (OIK) became an established Kosovan institution by UNMIK Regulation No. 2006/6, and has a built a good reputation from replying to and investigating complaints efficiently. It is the only independent human rights protection mechanism in Kosovo that holds the Kosovo Government accountable by law and that is specifically mandated to investigate human rights complaints and to monitor general situations from a human rights perspective. OIK has its headquarters in Pristina and 4

regional offices and consists of an Ombudsperson, a Principal Deputy Ombudsperson and three Deputy Ombudspersons. Complaints are accepted from anyone who considers himself to have been the victim of a human rights violation or an abuse of authority by Kosovo institutions. OIK's competencies also involve advising the Government, the Assembly of Kosovo and any other competent Kosovo institution in any matters concerning the promotion and protection of human rights, including the monitoring of policies, programmes and laws for compliance with human rights standards. However, its mandate, does not allow it to initiate or take part in disciplinary or court proceedings in cases where it finds that respondent public authorities have violated an individual's human rights.

As of December 2009, the OIK had received no water related complaints, and only one in relation to the sewerage system. It attributes these low figures to the fact that most of civil society views the lack of water supply to be a natural problem, not one of poor governance. Moreover, they argue other issues such as access to justice and implementation of court's decisions are more paramount to the population. However, at the recent municipal elections, water supply featured as one of the most important issues, and it was evident some citizens are pushing their local authorities to improve the service, albeit not in the form of legal complaints. The Ombudsperson believes people have adapted to the 6am-10pm water supply schedule, and are generally unaware of what their human rights are, let alone the 'right to water', which poses an obstacle to them taking further action and bringing duty-bearers to account.

- **Human Rights Advisory Panel**

The Human Rights Advisory Panel is mandated to examine complaints from any person or group of persons claiming to be victims of human rights violations by UNMIK. It however can only deal with complaints related to alleged violations of human rights that occurred since 23 April 2005 or arising from facts that occurred prior to this date where these facts give rise to a continuing violation of human rights. The Panel is composed of three impartial members who have been appointed after their nomination by the President of the European Court of Human Rights. The Panel has received over thirty cases to date, including several claiming violations of the procedural and substantive aspects of the right to life.

- **The Judiciary**

Despite some efforts to improve the judicial system of Kosovo, little progress has been achieved and the judiciary continues to be plagued by shortcomings that concretely affect the life of citizens and trust in the rule of law in Kosovo. Deeply rooted problems include the lack of independence and proper functioning of the judicial system, rampant corruption, a lack of coherence in the administration of justice, and lack of execution of many decisions issued by these courts. Moreover, the judiciary is understaffed, translated documents and oral interpretations during court hearings are of poor quality, the case backlog continues to grow and there is a lack of case management, as it often takes courts years to appoint a panel to deal with a certain claim.

Parallel courts located in Serbian enclaves in Kosovo, in the northern part of Mitrovicë/Mitrovica region continue to apply the law applicable in Serbia and to be remunerated by the Government of Serbia. The courts in Kosovo do not recognise their judgements. Their existence continues to cause great confusion and has a direct impact on the rights of individuals and the rule of law.

- **Human Rights Units**

In some ministries, these units have begun to receive the necessary support and have started to advise and monitor the ministries' work from a human rights perspective. However, others still have limited to no office space, are not functioning properly and are not involved in the everyday work of the ministries. The lack of support devoted by the permanent secretary to the human rights unit in some ministries, together with the often limited capacity of the members of the human rights unit themselves to deal with human rights protection and related issues, pose major hurdles to the effective protection of individuals' human rights.

As such, the mechanisms for legal redress that would help ensure and enforce the right to water are severely deficient. The OIK continues to receive complaints in relation to corruption and severe delays within the judiciary. There is an urgent need to establish effectively functioning and sustainable structures at the investigative and enforcement level, for the administration of justice and right to water for all to be achieved in Kosovo.

A.4.3. The Legislative Framework

Kosovo is in transition under UNMIK administration, and as a result the passing and implementation of national legislation related to water and sanitation is ongoing. All legal authority is derived from resolution 1244 (1999) which established UNMIK, and the proper implementation of domestic human rights protection laws continues to be monitored by the OSCE Mission in Kosovo and various international and local NGOs. A complex and rapidly evolving mix of human rights and water law is applicable in Kosovo, of which the following is relevant to the implementation of a project improving water governance from a HRBA:

- **The Law on Water 2004/24 -** promulgated by UNMIK Regulation No.2004/41 was approved by the Assembly of Kosovo in 2004. It stipulates the competent authorities for water management and regulates the allocation, protection, management and institutional responsibilities of water and water resources. Article 5(j) makes explicit reference to the right to water in terms of *'equality in regard to water use: meaning that all persons have equal and proportional rights to Water Use according to this law'* regardless of their age, race, sex, background etc. This is extremely promising as this right can only translate into legal entitlements when embodied in national legislation. Only then it can actually be claimed effectively by individuals.

However, the law is not perfect. It does not identify who is responsible for ensuring equality with respect to water usage, and there is no reference to drinking water quality monitoring (a responsibility of KNIPH). The division of roles and responsibilities ('derived obligations') between the Ministry of Environment and Spatial Planning (MESP), municipalities and public utilities providing water services is not clear. Moreover, competent authorities have been inefficient in its implementation (OIK, 2008). Cases that the Ombudsperson Institution investigated during the reporting period (2007-2008) found certain industrial activities continued to use water resources or discharged substances produced by their activities, without obtaining a Water Permit or a Water Concession.

- **The Law on Environmental Protection 2009 -** has superseded the 2003 version. Certain provisions of the 2003 law remained unimplemented, even after the adoption of the secondary legislation necessary for its implementation. During the reporting period (2007-2008) and following investigations of certain cases, the OIK sent recommendations to the MESP in an attempt to draw the attention of the Ministry and the Inspectorate of Environment (established by Administrative Instruction No. 2/2004 on the Establishment of the Inspectorate for Environmental Protection) with regard the correct implementation of the

Law on Environmental Protection, and the need to fulfil their obligations to ensure that the rights of people in Kosovo are guaranteed and effectively protected. The 2009 law is better aligned with the EU Water Directive, and protection measures and classification of water classes are clearer.

- **Constitution of the Republic of Kosovo** – a new constitution for the Republic of Kosovo came into force on June 15 2008. Chapters 2 and 3 refer explicitly to human rights protection. Article 25 entitled 'The Right to Life' stipulates 'every individual enjoys the right to life from birth', and it goes without saying that the right to water is crucial to achieving this. Chapter 3.1 additionally guarantees that all persons in Kosovo shall enjoy, without discrimination on any ground and in full equality, human rights and fundamental freedoms.

- **International Agreements and Instruments -** Article 22 of the Constitution provides that human rights guaranteed by the following international agreements and instruments are guaranteed by the Constitution and directly applicable in the territory of the Republic of Kosovo and, in the case of conflict, have priority over provisions of laws and other acts of public institutions:
    - **Universal Declaration of Human Rights (1948);**
    - **European Convention for the Protection of Human Rights and Fundamental Freedoms and its Protocols (1970);**
    - **International Covenant on Civil and Political Rights and its Protocols (1966);**
    - **Council of Europe Framework Convention for the Protection of National Minorities (1995);**
    - **Convention on the Elimination of All Forms of Racial Discrimination (1962);**
    - **Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (1979);**
    - **Convention on the Rights of the Child (1989);**
    - **Convention against Torture and Other Cruel, Inhumane or Degrading Treatment or Punishment (1984).**

However, the majority of the Kosovan population, including the public administration, and many judges and lawyers, are not aware of these instruments and are unfamiliar with the rights that they guarantee. This poses a great obstacle to their effective implementation and enforcement.

Moreover, the International Covenant on Economic, Social and Cultural Rights (ICECSR) has still not been integrated in Article 22 of the Constitution of Kosovo as an international human rights treaty that is directly applicable in Kosovo. This means that the rights contained in the ICESCR lack proper legal protection, which is a continuing cause of concern of the OIK.

As the UN does not recognise the Republic of Kosovo, it has to date been unable to become a signatory or ratify water-related UN international conventions and protocols including:

- UNECE Convention of the Protection and Use of Transboundary Waters and International Lakes (1992);
- Convention on the Transboundary Effects of Industrial Accidents (1992); or
- UNECE Protocol on Water and Health (1992)

A.5. Gender and access to water and sanitation

According to the Kosovo Gender Profile 2009, Kosovo scores 0.76 on the Gender Development Index, the lowest in the Balkan region. The territory's Gender Empowerment

Indicator is considerably higher at 0.464, due to its allocated seats in Parliament, placing it approximately 52nd globally. The main issues surrounding gender equality in Kosovo's water and sanitation sector are as follows:

- ***Women in informal settlements***

In Kosovo, women are particularly suffering from a lack of appropriate basic infrastructures in informal settlements erected after the war (UN-Habitat, 2009). The vacuum in the urban planning and implementation processes and the rejection of earlier planning practices attributed to the Serbian regime, which were regarded discriminatory vis-à-vis the Albanian population, led to the emergence of new informal settlements on the outskirts of the "official" city. Although informal settlements in Kosovo are not exclusively the settlements of the poor or of ethnic minorities, their inhabitants are excluded from the access to urban technical and social infrastructure. In many, this means the lack of access to roads, water and sewage systems, health centres, education outlets, and often a hazardous natural environment close to landfill sites. Already poor living conditions in physical terms are further aggravated by insecurity of tenure and shelter, and the threat of demolition, which puts a considerable strain on women as primary care givers and workers. The numbers residing in such informal settlements is not known and therefore it is difficult to estimate the proportion of women affected.

- ***Women and access to water and sanitation in unserved rural areas***

No exact data are available on gender disparity in access to water and sanitation in the rural areas of Kosovo, yet women are likely to bear the major burden of carrying and managing water and sanitation in the household. Such a burden comprises not only water for drinking and cooking purposes, but also for gardening and taking care of the sick suffering from waterborne diseases; a consequence of contaminated wells and poor hygiene.

- ***Women from Roma, Ashkali and Egyptian (RAE) communities***

Exact data on the precise number of RAE living in Kosovo is not available; statistics are unclear and often inaccurate or contradictory. However, the Government of Kosovo (2008) estimates around 35,000 to 40,000 RAE currently reside in Kosovo, and a larger number live outside. RAE women suffer the triple discriminatory burden of being the least healthy, educated and employed in Kosovo; living in permanent insecurity and extreme poverty (for most communities) with unsafe housing and poor services, including water and sanitation and health care; and yet in charge of all domestic duties including the provision of water and sanitation. However, no available data underlines the discrimination of RAE women; gender related policy documents such as the Kosovo Programme for Gender Equality (2008/2013) or the National Strategy on Gender as part of the Kosovo Development Planning Strategy (KDSP) (2007) do not contain any reference to the situation of Roma, Ashkali and Egyptian women.

- ***Low level participation of women in decision-making processes related to water and sanitation infrastructure improvement***

To date, few donors and government agencies have set up a gender-sensitive participatory consultation process of potential beneficiaries of water and sanitation investments: women are often not heard in consultations. Yet, previous experiences highlight that people will not use facilities unsuited to their needs. Gender-balanced consultation and communication processes can indicate a commitment to transparency, which can help to prevent corruption and conflict over water resources. However, women may feel unable to speak out in public consultations and/or may have no experience of doing so. Moreover, it is questionable

whether participation in consultations reflects participation in the design, management and continued implementation of water services. Policies which pay 'lip service' to the inclusion of women often do not integrate women's opinions or indeed their physical presence at a more fundamental level of management. Since the Government of Kosovo is considering the privatisation of water and sanitation services in the future it should make sure, along with funding agencies, that the processes induced by the privatization of the water sector contribute to policy commitments to gender equality, poverty reduction and democratic governance.

A.6. Key Measures to be Addressed

A.6.1. Financial Constraints

Leaking pipes, illegal connections, and non-payment of water bills form the main reasons for water loss throughout Kosovo, in both material and financial terms. Only 65% of consumers pay their water bills (WWRO, 2008). Out of a total water production of 127.3million m^3 for the 7 water companies in 2008, 55.7 million m^3 were billed to the customers; the remaining 71.6 million m^3 (or 56 %) was not. These lost earnings mean little revenue is available for, inter alia:

- Maintaining the existing water pipe system and connecting new users;
- Maintaining and partly renewing the water treatment plants;
- Engaging in trans-regional projects to find long term solutions for sustainable water supply for all regions in Kosovo (e.g. dam building to save water and pipe laying to transport this water from water-rich regions to water-poor regions);
- Engaging in environmental awareness raising campaigns; or
- Developing projects to process wastewater to avoid river and well contamination.

A.6.2. Inadequate Sector Capacity

The institutional setting of the water sector (see section B.1.4) in Kosovo is subject to fairly regular updating, but still exhibits considerable lack of clarity. The framework functions less effectively than desired, as highlighted by its weak enforcement of applicable laws. Enforcement of water legislation and policies depends on the relevance of the regulations and on institutions adequate to ensure compliance. River basin organizations, which are mentioned by the Kosovo Water Law but not yet organized, could be an effective means for coordination if they will be provided with adequate authority and financial autonomy. It is important that regulatory functions are be separated from operations; the same agency should not implement a program and regulate it (for instance at the municipal level). However, it must be acknowledged that practical implementation of such principles is not an easy task in Kosovo where human resources in the water sector are limited. Moreover, organizational arrangements such as coordination mechanisms at the national, municipal, and river basin level should specify the responsibility, authority and accountability for planning, regulation, and operations. Such arrangements should also include a system of human resource development incorporating education, training and incentives for improved service.

The overall conclusions of studies[2] on capacity development in the water sector are that:

- Human resources have been recruited in the water sector at a sensible level, considering the priorities and the size of the territory; however the lack of experience

[2] World Bank (2009); SIDA (2009); ECLO (2009)

of most staff is noticeable. Furthermore, initial education of several officers is not adapted to their new responsibility. More on-the-job training is required.

- The organizations working to conserve the environment (including MESP) suffer from several weaknesses. Civil servants continue to be vulnerable to political interference, corruption and nepotism, and public administration reform still needs to be implemented. Environment-related public organizations are no exception. Salaries are so low that experienced individuals often leave for the private sector, and staff turnover is high.
- Kosovo institutions with environmental responsibilities and RWCs are well aware of the deficiencies of environmental protection and water management in the territory. However, these institutions do not have sufficient skilled resources and competencies to address the formidable problems without external support.
- The main institutions (MESP, WWRO, ombudsperson, and RWCs) are eager to improve the situation and are ready to carry out projects financed through the state budget and/or with donor support.

The need to pay more attention to capacity and human resources development in the management of the water sector was further signalled in many interviews during the HBRA mission. Education and training of personnel at all levels are important issues which should be given special attention in the context of the forthcoming work on the National Water Strategy.

A.6.3. Water Quality and Treatment

Raw water quality at the intake varies significantly between RWCs, which reflects the local environmental conditions of water abstraction. In 2008, the worst condition in terms of bacteriological and chemical contamination was evidenced in RWC Bifurkacioni with 72% test failures and RWC Mitrovica with 71% test failures, which obliged these two RWCs to adopt additional measures during the water treatment process. The best quality is shown in RWC Radoniqi, with zero test failures in fulfilling water quality standards. It should be noted that some 43% of water supplied by RWCs is treated by chlorination only (it does not pass through a water treatment plant). In water with a high organic loading, chlorination carries a well known carcinogenic risk for humans due to its content with triholmethane (THM).

Another major water quality issue relates to water protection zones around drinking water sources. Currently no reservoir is protected by such measure. MESP has asked RWCs to define WPZs before the next round of permit issuance on water resources in 2012. The reason for this long period appears to be the need for the RWCs to carry out extensive investigation, particularly in relation to permeability criteria for ground water sources, prior to application to the MESP for their decision to declare a WPZ. This may take too long and be too late. In particular the definition of WPZs for surface water, which is urgently needed, is relatively straightforward and could be done on a much shorter time scale. Furthermore, no attempt has yet been made to involve the municipal planning authorities in the process. In many instances planning permits continue to be given by municipalities for inappropriate development in areas that must eventually be defined as WPZs. The need to protect Kosovo's water resources is long overdue, and should now be given the highest priority. Experience in other countries suggests that protection zones need full cooperation amongst all stakeholders to be effective.

Five specific areas where the WWRO believes that RWCs can significantly improve bacteriological and chemical compliance by:

1. Establishing and maintaining effective protection zones for surface and ground waters;

2. Installing secondary chlorination equipment at the major service reservoirs;
3. Reducing/eliminating planned interruptions to water supply;
4. Reducing physical water losses that can cause pollution, by carrying out rehabilitation and active leakage control of the networks; and
5. Continued, planned expansion of the piped network by the RWCs.

A.6.4. Sewerage Systems and Wastewater Treatment Plants

Kosovo's Law on Environmental Protection (UNMIK Regulation No 2003/9) lays down two fundamental objectives: i) to promote an increasingly healthy environment for the people of Kosovo through the gradual introduction of EU Environmental Standards, and ii) to ensure that the creation of such an environment is accomplished in a manner that is affordable and consistent with sustainable economic development. The following vision was agreed by the MESP and the main stakeholders in the course of the Study of Wastewater Treatment Strategy (2004): *All wastewaters in Kosovo are treated to meet all wastewater collection and treatment related EU and local standards.*

The 2004 Study suggests the solution for centralised wastewater treatment is to have one wastewater treatment plant in each of the 7 regional water utilities, which, in the course of time, may also treat wastewaters from surrounding rural villages and urban centres. Centralised wastewater treatment is recommended as more feasible than a separate system for each city in the future, because:

- Investment, operation and maintenance costs are lower in all future scenarios;
- The most likely socio-economic development (migration to bigger towns) supports the centralised wastewater treatment option;
- Regional collection and treatment systems facilitate the connection of smaller villages and rural areas to public water and sewerage systems;
- Environmental impacts (effluent and recipient quality, reuse potential for treated wastewater, sludge disposal) are less harmful;
- Ease of operation and better treatment results;
- Higher capacity to tolerate shock loads; and
- Higher institutional capacity to respond to changes in the operational environment.

The proposed wastewater treatment system should be implemented step-by-step. First, the existing water and sewerage networks should be expanded, to increase the connection rates of the water and sewerage systems, and substantially increase the revenues of water utilities. This is imperative for the sustainable development of wastewater management. The extension of wastewater collection systems is also necessary to ensure sufficient wastewater influents to treatment plants for their efficient and economical operation.

A.6.5. Ensuring each individual's Right to Water

An ideal human rights protection cycle starts out with laws guaranteeing human rights and freedoms. These laws and the individuals benefiting from such rights are then protected by a human rights protection mechanism based on the law. Ideally, individuals may thereby approach a designated body and complain about human rights violations. This body, be it an independent institution or a court, will then ensure that the violation stops or that the affected individual is compensated for damages incurred.

In Kosovo, most of the rights and freedoms of individuals, including their right to water, are set out in the law; either in domestic laws or in directly applicable international instruments. However, the legal basis for the two human rights protection mechanisms, the Ombudsperson

and the Human Rights Advisory Panel, already have inherent weaknesses that prevent either body from ensuring that a violation stops. These weaknesses are not balanced out by the courts in Kosovo, since the regular courts suffer from alleged corruption, mismanagement and a huge backlog and there is no specialized court for human rights complaints.

It is clear that the mechanisms in place still do not have the power to actually prevent or remedy human rights violations. At the same time, the majority of the population is not fully aware of their right to water and thus generally do not complain, because they have become accustomed to the situation as it is or believe that nobody can help them. Under such circumstances, the actual protection of human rights depends more on fate than it normally should. Ensuring equal protection for all people in Kosovo should be the top priority of all powers in Kosovo (legislative, executive and judiciary). The Ombudsperson Institution has no mandate to act as a substitute of these powers as it only intervenes once there is an alleged breach of human rights.

Recommendations

- The capacity of the Human Rights Units and the Judiciary needs to be improved;
- More awareness raising surrounding individual's water rights and responsibilities of the type the National Institute for Public Health (KNIPH) previously undertook with CARE International should be undertaken;
- Strict law enforcement against illegal tapping and unpaid water bills needs to be implemented; and
- Water and human rights law needs to be better enforced – the laws appear good on paper, but this means nothing until they are effectively implemented.

A.6.6. Ensuring gender equality in access to water and sanitation

Understanding gender roles and relations and how these affect and are affected by water and sanitation interventions can ensure greater sustainability and resource efficiency, potentially increasing the number of beneficiaries. Water is not "gender neutral". Improving gender equality in Kosovo's water and sanitation sector should entail:

- Incorporating gender into the design of any development intervention in the water and sanitation sector (policy, strategy, plan and project), starting from a gender analysis and gender impact assessment to planning, implementation, monitoring and evaluation. Understanding gender roles will help to plan water interventions and policies which are based on the knowledge of how and why people make the choices they do in water use in order to meet their needs.
- Involving women in water and sanitation management or decision-making at the national and municipal levels and in water companies. Men are often in control of budgets and planning and this may result in women's uses of water being given less importance than those of men. If women do not participate in management, they lose rights and privileges that they had before the project or programme began and might therefore become more dependent on men.
- Kosovo's public authorities supported by UN agencies and other donors need to put into practice positive obligations with respect to housing, land and property rights of persons living in inadequate conditions and/or without legal security of tenure, especially ethnic minorities and women of those communities. In consultation with the affected communities, public authorities should take immediate steps towards providing security of tenure and access to safe water and sanitation to women and men living in informal settlements. Women from RAE communities and RAE women

groups' network specifically, should be supported to participate in decision-making processes to improve the living conditions of their communities, including access to basic services such as water and sanitation.

B.1. SECTOR PREPAREDNESS OVERVIEW

B.1.1. Relevant Policy and Strategic Documents

The Republic of Kosovo has developed the following strategic documents for the water sector:

- **Environmental Protection Strategy (EPS) (2004) –** The strategy determines the main priorities for the ten years between 2004-2014 including:
  - Gradual increase of the population's access to clean potable water, sewage systems, waste treatment systems, and support to programs for recycling sewage water and waste";
  - Development of environmental protection legislation in harmony with the current conditions in Kosovo; gradual fulfilment of EU standards and efficient implementation of existing standards;
  - Creation of competent institutions with sufficient human capacities and instruments to implement environmental policies, including decision-making, monitoring and inspective institutions;
  - Provision of sufficient financial means and economically efficient instruments (including establishing an EcoFund) for environmental protection, in harmony with economic development;
  - Creation of a functioning nation-wide monitoring network, with priority given to the biggest subjects of industrial pollution and 'hot spots' in Kosovo; and
  - Rational utilization of natural resources (land, water, minerals, forests etc).

The second chapter of the EPS, paragraph 1.2.2b highlights as a strategy orientation, *"ensuring the right to drinkable water for all citizens*". However, the EPS does not have clear mechanisms on how the right to drinkable water for all can be achieved. Nevertheless, paragraph 1.2.2b is at least one step towards its implementation.

- **Kosovo Environmental Action Plan (KEAP) 2006-2010** - is based on the principles of partnership and division of responsibilities, deriving from laws and international agreements. The overall threats identified in the KEAP include:
  - A low number of public water supply connections, particularly in rural areas;
  - A low rate of construction of, and connection to, wastewater sewage networks;
  - The lack of infrastructure for treating waste water;
  - Insufficient protection of surface and ground waters from dangerous activities and effluents;
  - Poor maintenance of water infrastructure;
  - A lack of water monitoring systems;
  - Absence of any plan for protecting water reserves;
  - Improper allocation of responsibilities;
  - Lack of strategy and financial means for maintaining water infrastructure.

According to the KEAP, superficial and underground waters are not protected from pollution, and sanitary zones are not respected.

- **Strategic Plan for Waters** – This plan has not yet been developed, but according to Article 22, point 1(e) of the Kosovo Water Law, should set out policies that ensure:
- Sustainable water use, in terms of fulfilling the needs of all users with good quality and a sufficient quantity of water;
- Protecting waters from pollution and other damaging effects; and
- Protection and improvement of ecosystems.

Following the Government's proposal, the Assembly will approve the Strategic Plan for Waters. It is likely to contain, inter alia:

- Objectives and instructions related to protection, adjustment and sustainable water use;
- Priorities for achieving water management objectives;
- A prediction of the budget needed for fulfilling the plan and deadline for achieving the objectives; and
- Instructions for implementing international agreements with regard to water management.

- **Kosovo Development and Strategy Plan (KDSP) (2007-2013) -** The draft KDSP adopts a strategic approach to improve the environment, and includes sector objectives for 2007-2013, in accordance with the KEAP. In it, the water sector define a vision and strategy for improving the management of water in Kosovo, with the aim is to make progress in water resources administration, management, and planning. The following objectives have been set for transforming, reforming, and developing the water sector:

- Development of integrated mechanisms for the sustainable usage of water resources;
- Increasing the connection rate to the water supply network by up to 80% and up to 50% to the sewage network, and reducing technical loses from the drinking water supply network by 50%;
- Increasing the collection rate from water consumers from the current 60% to 80% by the end of 2010;
- Preventing and reducing the negative effects of floods and erosion in the main rivers and managing dam safety; and
- Promoting private sector participation in the administration of water supply and sewage system.

- **Human Rights Strategy** - Coordinated by the Advisory Office for Good Governance and developed with the support of the Council of Europe, the Office of the High Commissioner for Human Rights (OHCHR) and the OSCE Mission in Kosovo, this strategy has been ongoing for more than three years but has still not been finalized.

Key Measures to Improve Policy and Strategic Documents

The national strategies and policy framework are of an acceptable standard, but many of their elements have not been implemented and there are large gaps between theory and practice. Furthermore, whilst entity Water Laws are harmonized with the EU Water Framework Directive and present an essential foundation for synchronized water management across entities, the laws are not supplemented with implementing regulations or by-laws, which

would provide the operational and technical guidelines necessary for their effective application and enforcement. Moreover, approximately 65% of KEAP's suggested activities have so far been implemented, but there is a need to review the KEAP and develop a new NEAP for Kosovo

Progress in the water sector to date has mainly been in the form of horizontal legislation, new institutions and enterprises. Further efforts are still required to effectively implement and enforce legislation. The lack of human and financial resources at both central and local levels also needs to be addressed. Additionally, appropriate coordination mechanisms between all institutions dealing with environmental protection need to be put in place.

B.1.2. Transboundary Cooperation

Kosovo's independence is recognised by 64 countries but is not member of the UN and thus cannot sign international agreements. To date, UNMIK has been the signatory on behalf of Kosovo, enabling its participation in a number of international organizations and agreements. The constitution of Kosovo envisages the Kosovo authorities ensuring its regional and international representation, but Kosovo authorities are not accepted as successors of UNMIK by some parties to these agreements. The ongoing reconfiguration of UNMIK foresees it facilitating, where necessary and possible, arrangements for Kosovo's continued engagement in international agreements. For Kosovo's representation and participation in multilateral forums to be ensured, it is essential that all parties constructively work towards this aim.

Kosovo's rivers flow into the Aegean, Adriatic and Black seas. The transnational aspects of rivers usually lead to come degree of regional cooperation mechanism in order to avoid potential conflicts arising from the use and management of downstream water. But no regional arbitration or compliance mechanisms for transnational water exist in Kosovo. As soon as possible, Kosovo will need to consider adopting international conventions and commissions involved with water and environment in its region. Kosovo should aim to join, inter alia, the Adriatic Sea Partnership, the Adriatic-Ionian Initiative and the Barcelona Convention for Protection against Pollution in the Mediterranean Sea.

With regards bilateral relations, agreements could be signed with neighbouring member states that have recognized Kosovo's independence; Albania, Montenegro and the Former Yugoslav Republic of Macedonia. However, given the ongoing political tensions, agreements with Serbia might prove difficult.

B.1.3. Aid Cooperation in the Water Sector

Donor assistance has been a vital source of funds in Kosovo for public investment and supporting budget expenditures through designated grants. Since 1999, approximately €156 million has been invested in the water sector from donor sources and much improvement has been made. The major donors comprise the EU, KfW (German Bank), EC, USAID, SDC and the World Bank. Donor activities are well divided throughout Kosovo, with the EU focused in central and northern regions, SDC in the southeast and KfW in the west. USAID has water and other programmes in areas throughout Kosovo. Donor coordination meetings held every 2 months mean donors are well aware of each other's activities, avoiding duplication of efforts. To date the EU has been the largest multilateral donor, contributing on average 37% of the ODA. The Government of Kosovo is funding projects in all regions of Kosovo, both rural and urban. Over the last 5 years, more has been invested in rural villages as their water

supply situation has deteriorated. Most aid is spent on the construction of small independent water supply systems, and only a very small amount on sanitation services.

- **European Commission (EC)**

The EC, through the European Commission Liaison Office (ECLO), is involved in several major environmental projects, some of which are a continuation of projects initiated by the European Agency for Reconstruction (EAR). ECLO is providing support for a wide range of activities, from infrastructure investments to technical assistance in the MESP. Environmental infrastructure includes investments in new drinking water treatment plants, storage reservoirs, pumping stations, water transmission lines and distribution networks in urban areas. ECLO has also supported investments to extend clean drinking water to villages. These programmes have been complemented with technical assistance and institution building at the RWC level.

- **KfW Bankengruppe (Germany)**

Since 1999, KfW has invested around €40 million in Kosovo's water sector, supporting 7 programmes with 2 overall objectives of i) reducing water losses and ii) improving collection efficiency. 4 programmes have so far been completed, the remaining 3 are ongoing. KfW is looking for co-operation with other donors and to be present for instance in the Gjakova region that has thus far not received substantial support.

- **Swiss Development Cooperation (SDC)**

SDC has worked in the water sector since 1999 during which it has invested approximately €31million, largely in the south east of Kosovo. SDC activities have included water infrastructure investment in urban and rural areas, capacity building and training, including support to WWRO and improving both technical and financial monitoring of the 7 RWCs, and recently institutional support to the RWCs, MESP and MEF. SDC is the lead donor in the water sector in terms of policy dialogue, and have played a key role in initiating the Water Task Force. Whilst the WTF does not explicitly adopt a HRBA, a policy for improved water coverage in rural areas and incorporation of minorities into the centralised service systems are foreseen.

- **The World Bank (WB)**

Most of the World Bank's support to Kosovo's environment has been directed towards water supplies. The Bank considers involvement in water resource planning and the creation of an overall water sector strategy to be high priorities for which they are seeking to cooperate with other donors. Consequently, it is preparing an assessment of the water situation in Kosovo, entitled 'Kosovo –Towards a Water Strategic Action Plan: Assessment of water demand and supply', which is currently in draft form for discussion.

- **United Nations Development Programme (UNDP**)

UNDP is in the preparatory phase of a project for sustainable development to create a nature reserve in the Dragash municipality in southern Kosovo. The chosen HRBA to improving water governance project could be integrated into this project, which is due to begin implementation in spring 2010.

Key Measures to Improve Aid Cooperation

Donor coordination is presently of a good standard. It could be enhanced further by participating in the new Water Task Force to raise the profile of the numerous water issues

Kosovo is facing inside the Government of Kosovo, in the hope of extending the drinking water network to additional villages.

B.1.4. Institutional Framework of the Water Sector

According to the 2004 Water Law, the competent authorities for managing water resources in Kosovo are the Government, the Water Authority of Kosovo, relevant Ministries, the River Basin District Authorities (RBDA), and Municipalities. Although decentralization of water management is an official policy of the Government, the Water Authority of Kosovo and the River Basin District Authorities do not exist so far. Still, the 2004 Water Law contains a provision for establishment of the two RBDAs: one for the Drini i Bardhe basin, and the second one for Ibri, Morava e Binces and Lepenc basins. The water law also defines the tasks, duties and responsibilities of the RBDAs, that include among others collecting water quantity and quality data, protecting groundwater resources, compiling water resources assessments and water management planning, maintaining protected water areas, gathering financial means, compensations and grants, allocating financial means for specific tasks, etc.

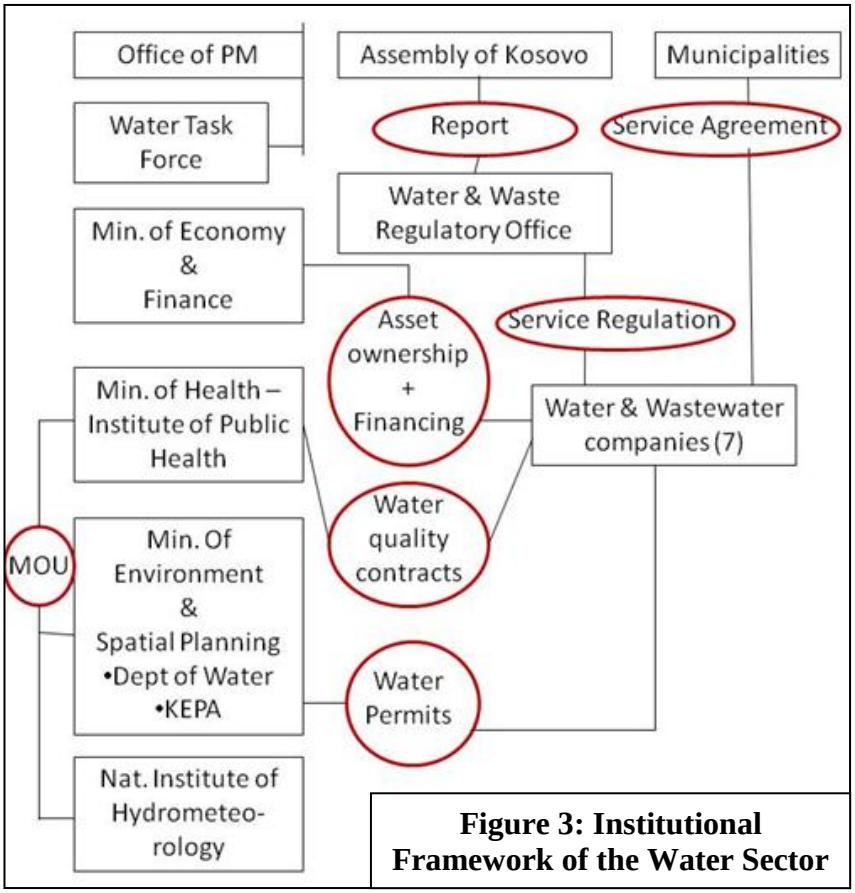

Figure 3: Institutional Framework of the Water Sector

Whilst progress is evidently slow, Kosovo is moving forward towards decentralization of water resources management, through the preparation of an administrative system to manage water resources by river basins, and the creation of river basin management plans, in line with the EU Water Framework Directive.

❖ **The Government of Kosovo**

In 2008 the Government of Kosovo assumed responsibility for the water sector and established a **Water Task Force (WTF),** with the support of the Swiss Government (budget for October 2008 – April 2012). The WTF is mandated "to develop and establish long term water sector management structures and relationships between corporate entities, municipalities and the central government, including the sustainable takeover of water utilities by local institutions to provide cost-effective, high-quality services to all sectors of the population".

❖ **The Ministry of Economy and Finance (MEF)**

Under the Law on Publicly Owned Enterprises (Law No. 03/L-087), through the Policy and Monitoring Unit, MEF monitors publicly owned enterprises (RWCs and Irrigation Providers) that are property of the Republic of Kosovo in order to ensure accountability and transparency in their operations (prior to 2008, the former Kosovo Trust Agency undertook this work). The law establishes the legal framework governing the exercise of ownership rights in publicly owned enterprises and regulates the corporate governance of these enterprises. In addition, MEF is responsible for financing water infrastructure projects, including rehabilitation works.

❖ **The Ministry of Environment and Spatial Planning (MESP)**

MESP was established in March 2002 and is the Kosovo Government Ministry responsible for a wide variety of environmental and planning issues including water resources (i.e. raw water), solid waste, forestry, air quality, soil management and development planning. MESP is responsible for management and long-term planning of water resources as well as developing the water strategy for Kosovo. MESP is currently revising the Water Law 2004/24, to reflect changes since 2004.

The Ministry departments involved in water management issues include:

- **The Department of Water** - overviews implementation of the Water Law and formation of the River Basin District Authorities (RBDAs). It develops the plans as prescribed by the Water Law and issues water permits necessary for all abstractions of surface and groundwater and wastewater disposal. However, it lacks resources and experience to properly carry out these functions (see Figure 4).
- **The Department of Environment** - oversees implementation of the Law on Nature Conservation and the Law of Environmental Protection, and others concerned with the protection of water resources.
- **The Department of Construction** - oversees implementation of the Law of Construction, issuing construction permits for hydro-technical structures (dams, weirs, etc.).
- **The Department of Spatial Planning** - responsible for implementation of the Law on Spatial Planning, issuing urban permits required for any new construction or significant alteration of the existing one. The urban permits must be agreed with urban development plans being prepared by each municipality

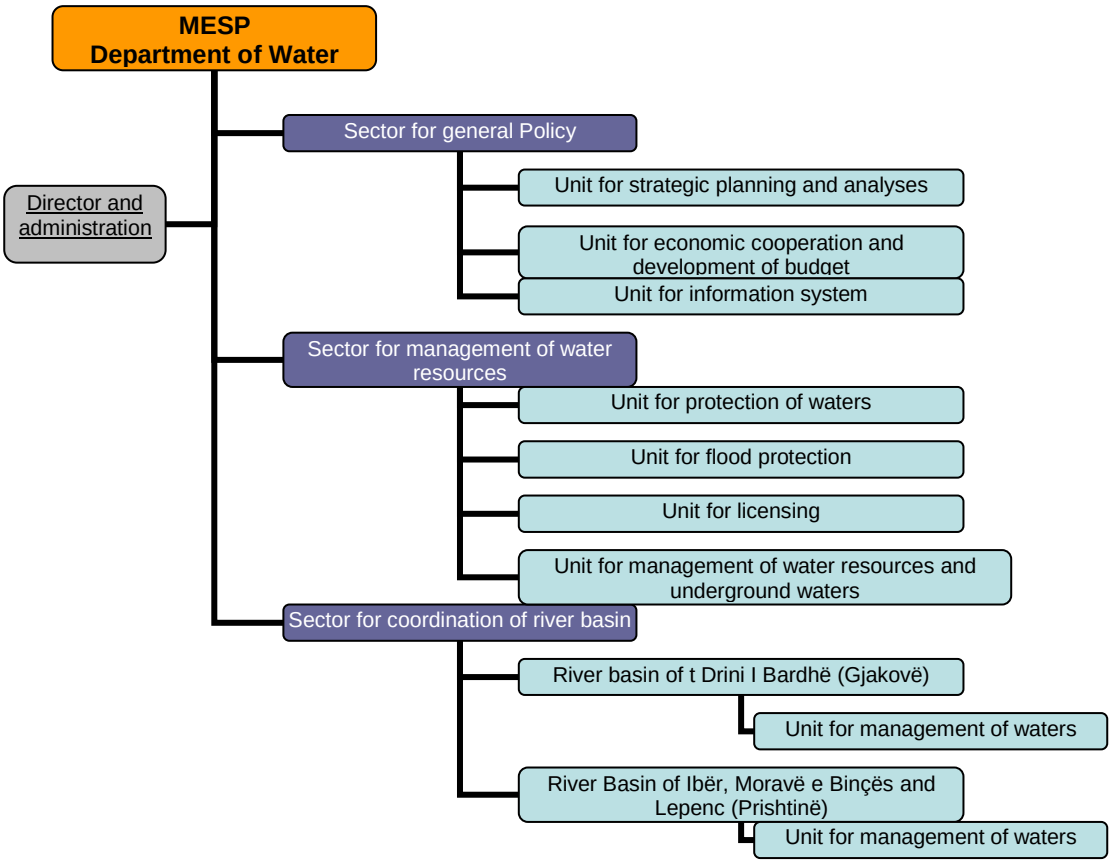

Figure 4: Structure of the Water Department
Source: SIDA (2009)

❖ **The Kosovo Environmental Protection Agency (KEPA)**

KEPA was established according to the Law on Environmental Protection in 2003 as an institution within MESP for carrying out administrative, professional, scientific supportive and investigative tasks in the field of environmental protection. Regarding water resources, KEPA prepares regular 'State of the Environment' reports that highlight the state of water supply, water pollution, untreated sewage disposal, eutrophication and surface water monitoring.

KEPA has no regulatory functions over water users. It is preparing a Kosovo Water Strategy but the slow response of donors with regard their activities has delayed its finalisation. KEPA has also been active in lobbying for a new Law on Water that will add river basin management and introduce new provisions to comply with the EC Water Directive, such as protected zones around water sources and classification of rivers and surface waters.

❖ **The Kosovo Institute of Hydrometeorology (KIHM)**

The KIHM was established in June 2006 by the Law No. 02/L-79 on "Hydro-meteorological activities" passed by the Assembly of Kosovo. Its main purpose according to Article 1 of the Law is "to regulate the hydro-meteorological works and the manner of their accomplishment". It is mainly concerned with monitoring river flows and the state of ground waters i.e. raw water. At present the Institute has 10 permanent employees, but there are plans to organize the local operations of the Institute based on the territory division of four river basins in the future. The water-related work of the Institute is organized around

hydrology, meteorology and physical and chemical analysis of the environment (water – air – soil).

- **The National Institute of Public Health in Kosovo (KNIPH)**

The KNIPH is a Government-owned research and public health surveillance body under the control of the Ministry of Health in Kosovo. It is the Government body responsible for all public health-related issues in Kosovo including "monitoring and enforcing" drinking water standards for all providers of drinking water in accordance with the requirements of Article 7 of the Law on Public Health 2007/02 L78. The detailed activities of KNIPH in relation to monitoring drinking water quality are given in section 5 of UNMIK Administrative Instruction (Health) 2/ 1999: "Testing and Enforcing Minimum Standards of Drinking Water Quality". KNIPH has signed contracts with each of the seven RWCs in 2000/2001 which set out a framework and unit costs for the sampling and analysis of raw and treated water samples in accordance with the frequencies and parameters defined in UNMIK AI 2/1999. KNIPH undertakes the physical sampling of drinking water for all the RWCs except Pristina RWC which undertakes most of the sampling with their own staff on behalf of KNIPH.

Only limited formal cooperation exists between KNIPH and the other institutions (MESP/ KEPA/ KIHM) responsible for other aspects of drinking water quality, although cooperation does continue on an informal basis. KNIPH does not currently monitor drinking water quality in the four Serbian majority municipalities, due to their lack of cooperation with the Kosovo administration.

Key areas for improvement:

Institution strengthening and new legislation transposing the main requirements of the EU Water Directive into the proposed new Kosovo drinking water legislation is recommended, to replace the current drinking water quality standards. It is further suggested that the KNIPH's Human Ecology department, which is responsible for monitoring drinking water quality, is re-structured and expanded to become a semi-autonomous "Drinking Water Quality Regulatory Department" ("DWRD"). The structure and role of the proposed new department has been fully endorsed by the Director of KNIPH in writing. A dedicated semi-autonomous department for monitoring drinking water quality reflects good European practice and will not create any overlap with other Kosovo government bodies. It will be complimentary to other water sector regulators e.g. WWRO (with whom KNIPH already has a protocol setting out responsibilities) and MESP (with whom a separate Protocol should be developed by KNIPH) (ECLO, 2009). The Department would be within the KNIPH structure, with a clear regulatory identity and additional dedicated medical and non-medical regulatory staff from other professional disciplines.

In accordance with WWRO Service Standards Rules, Section 17.1, it is the responsibility of the water and wastewater service provider (i.e. the regional water company) to *"follow instructions issued by IPH35 for informing customers if for any reason drinking water quality standards fall below minimum"*. However, until recently, there were no documented KNIPH instructions setting out the requirements. A detailed draft "Information Notice" for informing customers if for any reason drinking water quality standards fall below the minimum, was prepared as background material for stakeholders and presented at the Emergency Planning Workshop held as part of the EU funded (ECLO managed) "Feasibility Study on Drinking Water Quality in Kosovo" in June 2009. The Notice was prepared within the wider context of Water Safety Plans (WSPs) in accordance with good WHO practice. The scope of the Notice is limited to water services provided by licensed water and wastewater service providers in

Kosovo (i.e. the RWCs and a few municipalities operating water enterprises), and provides a framework for issuing formal instructions to water and wastewater service providers. The Notice is expected to be issued shortly to the Regional Water Companies as a formal Information Notice in accordance with the legislative procedures in force in Kosovo and is a sub-legal document forming part of Administrative Instruction (Health) 2/1999: Testing and Enforcing Minimum Standards of Drinking Water Quality.

- **The Water and Waste Regulatory Office (WWRO)**

The WWRO was established by UNMIK regulation 2004/2009 and was replaced with Kosovo Law No 03/L-086 in 2008. WWRO's role is to ensure non-discrimination and provision of qualitative, efficient, and reliable services at a fair and reasonable price for customers with respect to environment and public health. WWRO is responsible for regulating the activities of all water, wastewater and waste disposal service providers in Kosovo in accordance with the present Law. According to law 03/L-086, WWRO is accountable to the Kosovo Assembly that appoints WWRO's Director and Deputy Directors upon recommendation of the Government, and is the competent authority for setting service tariffs for Water and Wastewater Services, Bulk Water Supply, Waste Collection Services and Waste Disposal Services in accordance with Regulation 2004/49 and secondary legislation (WWRO Tariff Rules). The general principles and criteria for tariff setting are set out in the Regulation 2004/49. WWRO aims to ensure that the tariffs provide an optimum balance between the customer interest in low tariffs and investor interests in financial sustainability. WWRO has historically set tariffs for a 1 year duration (2006/2007 and 2007/2008), but from 2008 began tariff setting for a 3 year duration.

UNMIK Regulation 2004/49 (subsequently replaced by a new Kosovo law No 03/L-086 in 2008) gave WWRO the responsibility to monitor and enforce compliance with service standards for the licensed service providers as well as powers to impose penalties up to €50,000 on service providers which supply water "unfit for human consumption". These shared regulatory responsibilities between KNIPH and WWRO concerning treated water were formalised though a Protocol between KNIPH and WWRO signed in March 2007.

KNIPH and WWRO's collaboration over drinking water quality issues is a good example of continuing cooperation between stakeholders in Kosovo's water sector. WWRO produces an Annual Performance Report which benchmarks the performance of the seven regional water companies against each other and against the previous year's performance by each company, using a number of indicators including drinking water compliance failures per 1000 samples, based on data provided by KNIPH. The latest WWRO Annual Performance Report for the regional water companies published in July 2009, covering the year 2008, demonstrates a continuing if small year-on-year overall improvement across the sector in drinking water quality compliance.

- **Regional Water Companies (RWCs)**

The 7 RWCs in Kosovo were formed between 2002 and 2006 by the former Kosovo Trust Agency; an organisation responsible for public utilities that was established under the mandate of UNMIK. Before this period, water was supplied from a diverse collection of approximately 30 municipal water supply operations, which were consolidated through a process of merger and legal incorporation into the 7 RWC in operation today. The 5 municipalities with Serbian majorities and the northern part of Mitrovica are not under the managing authority of RWCs.

The RWCs remain state-owned under the control of the Government of Kosovo through the MEF (with the exception of Bifurkacioni, which is owned jointly by the municipalities due to its smaller supply region). Each RWC is registered as a publicly owned joint stock company at the business registry of the Ministry of Trade and Industry. They are each licensed as suppliers of drinking water by the WWRO, which amongst other duties sets tariffs and minimum standards of water quality compliance as terms of the licence. The RWCs also have contractual agreements with each municipality in their region, in the form of signed Service Agreements which give the RWC the sole franchise for drinking water supply within the relevant municipality and outlines the duties and responsibilities of each party.

Each RWC is run by a Board of Directors appointed by the MEF and managed on a day-to-day basis by a Managing Director. Company organisational structures vary but typically each company has a Finance Directorate and a Technical Directorate, the latter being the department in the company that deals with water production and quality control. Most RWC's currently function well (OSCE, 2008).

2008 Regional Water Company	Non-Revenue Water (%)	Collection Rate (%)	Water Quality (% of failures)	Metered Consumption (%)	Staff Efficiency (Staff/1000 cust.)	Cost Coverage (coef)	Unit Operating Costs (€/m3)	Custom. Complaints (No/`000 cust.)
Pristina	46	66	1.2	89	5.99	1.09	0.14	8.04
Hidroregjioni Jugor	44	64	4.8	92	6.36	0.86	0.15	-
Hidrodrini	75	66	6.8	93	6.14	1.27	0.04	5.25
Mitrovica	54	53	2.6	66	10.39	0.95	0.11	-
Radoniqi	62	71	0.3	87	8.06	1.07	0.10	5.09
Hidromorava	50	77	1.2	90	8.74	0.94	0.18	11.56
Bifurkacioni	48	57	8.3	65	6.82	0.89	0.18	-
Sector	**56**	**65**	**3.0**	**86**	**6.99**	**1.04**	**0.11**	**5**

Table 6: Performance of Regional Water Companies
Source: WWRO, 2008

- **Municipalities**

According to the Law on Local Self-Government of Kosovo (Law No. 03/L-040) and Article 20 of the Kosovo Water Law, municipalities are responsible for providing water and waste services. This responsibility is implemented through the service agreements signed by the municipality with the relevant RWC that provides service to the municipality. However, in reality most municipalities (except five municipal water enterprises, managed and operated at municipal level) have handed over their responsibilities for water supply to RWCs through signed contracts, and service agreements cover a wide range of rights and obligations. The advantage of such agreements is that the regional water companies have better know-how and equipment to ensure sustainability and maintenance. Municipalities are not adequately prepared to tackle acute water shortages (based on the experience of the 2007 drought), and seem not to be sufficiently aware of their responsibilities, or risks/dangers they might face in the future. Additionally, the aforementioned overlap of legal responsibilities between municipalities and RWCs has yet not been solved.

Key Measures to Improve the Institutional Framework

With regards to institutional strengthening for planning, policy making and law enforcement of the water sector, the following are recommended:

- Devise ways to bring clarity on institutional arrangements and to enforce applicable laws;
- Conduct an institutional appraisal of the capacities of individual institutions at the national, regional (RWCs) and municipal levels. Funding of these institutions should be appraised, taking into account all available funding sources, international assistance and state budget. Such appraisal should focus on the level and economic efficiency of public expenditure in drinking water supply and wastewater treatment sub-sectors;
- Support the Ministry of Economy and Finance to establish clear and transparent criteria for the distribution of public funds to be sure they are allocated to economically efficient investments;
- Support the Department of Water of MESP to update the National Water Master Plan (NWMP) which expired in 2003 and to adopt a national water demand management program. This need is acknowledged by the MESP and all other actors as a priority of the highest order, given the long-term development needs of Kosovo;
- Support RWCs to define, implement and enforce water protection zones, update existing water networks aiming at reducing water losses, rehabilitation of water plants and other infrastructure, as well as capacity building in the managerial and operational fields;
- Support municipalities to plan and implement Local Environmental Action Plans (LEAPs) tackling waste management, wastewater treatment and water supplies as highest priorities;
- Increase co-operation and information sharing between municipal administration, regional and central levels of government and regional water companies;
- Raise the awareness of municipalities, the government and citizens of the perils of the water supply and poor quality. This lack of awareness is the main reason why measures tackling water shortages have not been effectively implemented and enforced;
- Ensure law enforcement against illegal tapping and consumer debts; and
- Prevent possible discrimination (e.g. limiting water usage) of communities.

Regarding strengthening of water quality institutions:

- Support in preparing transposing the main requirements of the Drinking Water Directive 98/86/EC including detailed Guidance Notes into Kosovo Law, following consultation with all major Kosovo stakeholders;
- Support the restructuring of the NIPHK Human Ecology department to create a semi-autonomous 'Drinking Water Quality Regulatory Department' (DWRD) with adequate experienced medical and non medical regulatory staff;
- Support the preparation of monthly reports for RWCs covering check and audit statutory monitoring by NIPHK;
- Support the production of a detailed, publicly available Annual Report on drinking water quality covering the activities of DWRD, a summary of the drinking water quality in the five municipality supply zones, the drinking water quality provided in the numerous (untreated/ un-chlorinated) community supplies in Kosovo and the quality of bottled spring water available in Kosovo from the twelve Kosovo suppliers;

- Support in raising the accreditation of the main NIPHK laboratory in Pristina to ISO 17025;
- Support the preparation of Formal Protocols with the seven RWCs covering sampling, reporting and actions to be taken in the event of a non compliance;
- Support the preparation of a Formal Protocol with the Environmental Regulator (MESP), covering key responsibilities for sampling and reporting raw water quality, sharing of information etc, including agreement on main raw water surface and underground sources and bacteriological and chemical parameters to be monitored by both regulators;
- Support in the designation of supply zones with RWCs and municipal water enterprises;
- Support in the development of a monitoring policy/ regime for community supplies (depends on Government policy);
- Support in the development of a monitoring policy/ regime for bottled spring water supplies.

B.1.5. Economic Framework of the Sector

- **Tariff setting for licensed water supply operators**

WWRO is responsible for setting and approving water supply tariffs for the 7 licensed RWCs according to Section 38 of the WWRO Regulation. Bulk water provided to other users is an unregulated commercial activity and prices are subject to the mutual agreement of the parties concerned. Section 10 of the WWRO Regulation prescribes certain tariff obligations, which permit a degree of regulatory discretion based upon professional judgement, understanding of the regulated entities (and their specific circumstances) and other socio-economic criteria. In general tariffs are affordable (fixed rate €1.0 per month plus volumetric cost of €0.3 m^3), and meet international standards that state less than 5% of domestic income should be spent on water and sewerage services.

- **Overall economic performance of the RWCs**

The WWRO has to date issued 3 reports on the performance of water and waste service providers in Kosovo. The 2008 report reveals that RWCs have continued to further improve their operational, financial, and customer service performance but this improvement is modest compared to 2007. Two criteria have shown a negative trend: (i) the increase of unit operating cost, and (ii) the increase in the number of customer complaints, likely the result of better quality reporting by RWCs and increased customer awareness that their complaints will be dealt with by RWCs. RWCs low performance regarding non revenue water (water losses, illegal connections), bill collection and metered consumption remain major hindrances to the overall economic performance of RWCs.

Non water revenues (NRW)

In 2008, NRW for the 7 RWCs amounted to €7,878,793 (WWRO, 2008). Reduction of NRW in terms of physical and administrative water losses has a direct impact on tariffs and water resource availability. WWRO (2008) recommends reducing NRW should be RWCs' top priority, which includes (i) reduction of physical losses from the water network (leakages); (ii) identification and elimination of illegal connections; (iii) reduction of losses resulting from un-metered consumption. While the reduction of the physical losses through leakage detection activities, and pipeline repair and replacement are costly, the reduction of

administrative losses through improved metering is a measure that most companies can afford to do with their own resources.

Water collection efficiency

Almost all RWCs face continued problems of revenue collection from customers (65% on average in 2008 but only 53% for domestic customers, compared with 77% collection from businesses). The low collection rate may be an indicator that: (i) the RWC has no effective collection system, (ii) customers are not satisfied with the level of service and refuse to pay, (iii) customers know that nothing will happen if they do not pay, or (iv) customers have real difficulties to pay the bills. In Kosovo's case, the low collection rate is mostly a result of the first three factors. The WWRO urges companies to be more insistent on the application of the disconnection policy in the case of non-payment, in addition to improving their collection practices. Support from the Government is also necessary in this area, especially in (i) ensuring that the court system is dealing with non-payment and illegal connection cases (by setting up administrative courts dealing only with public utilities, thus relieving civil courts from that duty); (ii) ensuring the payment from social cases (only electric utilities are reimbursed by the state budget for unpaid electricity bills from social cases); (iii) ensuring that all governmental institutions (schools, hospitals, etc.) pay their water bills regularly; and (iv) ensuring ethnic minorities are paying their bills based on their water consumption. Currently, ethnic Serbian customers in predominantly Serbian municipalities do not pay their bills, and the problem is worsening with increasing population. Making new arrivals pay is difficult, as many have not registered their address and/or have problems with their property they need to resolve first.

Investment needs for water supply network rehabilitation

The integrity of the water network pipes, for both transmission and distribution of drinking water, is crucial to RWCs continuously being able to provide water of a quality compliant with the EC Water Directive. Investments in this area need to be prioritised, which will reduce technical water losses and, increase the quantity of water available to customers. It is estimated €148 million would be needed to replace all of the old pipes, with more suitable pipe materials. A further €70 is needed to replace the 47% of the water supply network that is in a very poor condition (ECLO, 2009). These figures reflect the sheer scale and magnitude of the problem. The cost could perhaps be reduced by considering such techniques as pipe lining as opposed to full excavation and replacement. However, given that the pipes requiring replacement are generally between 15 to 30 years old, a programme of phased replacement is recommended over the next 25 years, to ensure all the older pipes are replaced before they reach the end of their useful lifespan.

Based on past investment rates and with careful planning it is feasible that Kosovo's RWCs could meet the requirements of the EC Water Directive with a 5 – 10 year programme of targeted and specific investments. The estimated investment cost for the construction of seven regional wastewater treatment plants with tertiary treatment is €558.81million (Finland-UNMIK-MESP, 2004). Sewerage collectors will cost an additional €75.75 million and the extension of existing networks another €138.10 million. Consequently, the total investment to meet the EC Water Directive requirements is estimated to be in the range of €650-800 million.

Key Measures to Improve Sector Financing

Such measures include:

- Reduction of non revenue water by RWCs through: (i) reduction of physical losses from the water network (leakages), (ii) identification and elimination of illegal connections, and (iii) installation and monthly reading of meters;
- Improvement of revenue collection by RWCs by monthly billing and collection and application of the disconnection policy in the case of non-payment;
- Governmental institutions should ensure the court system is dealing with non-payment and illegal connection cases, and ensure payment from social cases, all governmental institutions (schools, hospitals, etc.) and from ethnic minorities are based on water they consume.
- The Kosovo government and RWCS should present a strong case to donors about the huge infrastructure investment needs in the water and sanitation sector estimated at €650-800 million. This will require the adoption of the new Water Law, a national strategy and plan for drinking water and sanitation, a coordinated and collaborative approach between Kosovo institutions dealing with water and sanitation, an investment coordination body with donors, and strengthened transparency and accountability of Kosovo institutions recipient of such investments with public scrutiny.

B.1.6. Sector Capacity

Sector capacity building at national, municipal and RWC level is much-needed for sustained improvement in the water sector. Municipal authorities' capacity is especially weak as a consequence of the war and historical local governance weaknesses.

The Department of Water (DoW) in the MESP is hard pressed to deal with the environmental water challenges that Kosovo faces. It suffers from the same shortcomings as the civil service at large, including low salaries and high staff turnover. It can fill vacancies with young graduates, but they often leave for the private sector when they have gained some experience. There is a proposal to increase the number of staff by 13 to 45 in the 2010 budget, but it is not clear whether this will be approved. At the same time, the DoW is responsible for implementation of a number of new laws related to the environment aligned with EU standards. Kosovo also has the ambition to comply with international conventions to which it is not yet a signatory. The DoW therefore needs support to develop new methodologies and work routines in a number of key areas of integrated water management.

The new Kosovo National Water Master Plan (NWMP) should provide a framework for making future investments in a variety of sub-sectors related to water, including monitoring of water resources, data storage and modelling, erosion control, flood mitigation, water storage infrastructure, water supply systems, and municipal and industrial wastewater treatment. The key actor would also be the Department of Water of the MESP, supported by the Water Task Force and other institutions. The preparation of a NWMP will be a large undertaking, and joint funding arrangements should be considered. A case in point is the water resources assessment for the four river basins of Kosovo, which could be divided among different donors. However, any division of work must be based on a joint strategy and common understanding between donors and the MESP on guidelines for the implementation of the project.

In line with the proposed new, semi-autonomous 'Drinking Water Quality Regulation Department' (DWRD) to be established within the NIPHK main offices in Pristina, new detailed job descriptions need to be set out. The new DWRD will need to develop a

regulatory ethos which embraces not only medical and educational issues but also compliance, annual reporting and if needed, enforcement issues. The DWRD, led by a newly appointed Director of Drinking Water Quality Regulation, should be pro-active in promoting improvements in drinking water quality and should cooperate closely with his/her economic and environmental regulatory counterparts in WWRO/MESP and participate in the water sector as a key stakeholder.

SHUKOS, the water and wastewater association of Kosovo is a key actor already working to build the capacity of Kosovo's water sector. SHUKOS works to create awareness among citizens and facilitate dialogue between regional water companies and ministries. Supporting SHUKOS would thus be a meaningful way to both improve civil society participation and multi-stakeholder dialogue. Assisting SHUKOS in the development of training materials for water and wastewater technicians for example, establishing norms and standards, and reinforcing its cooperation with water and wastewater professional associations in other countries would contribute to strengthening the water sector in Kosovo. During this transition period, Kosovo needs a multi-stakeholder platform with representatives from ministries, municipalities, regional water companies and civil society to discuss water-related issues. SHUKOS could provide strategic advice on the creation and coordination of such a platform.

Key Measures to Improve Sector Capacity

Improving sector capacity for water supply and wastewater management and policy making should encompass:

- On the job training and coaching for current and new staff at MESP, municipal and RWC levels, in accordance with the proposed new Kosovo drinking water quality legislation (potentially undertaken by KNIPH in collaboration with other stakeholders);
- Strengthening the capacity of civil society actors to engage in the sector and claim their right to water;
- Capacity building of municipalities and the judicial system to tackle institutional problems related to supply, demand and customer service (integrating ethnic minorities, offering service options to vulnerable customers, bill collection, illegal connection, property and customers etc);
- Promoting multi-stakeholder dialogue;
- Train SWRD staff in database use, advanced spreadsheet use etc as well as specific technical competences e.g. water treatment chemistry, advanced analytical instrument operation and maintenance and other relevant subjects will be necessary;
- Engage in awareness raising campaigns and educate people to be more responsible with water resources, e.g. through media campaigns and information leaflets;
- Undertake an educational programme on Integrated Water Resources Management (IWRM) for local experts who will participate in development of the Water Strategy. At the same time short introductory courses on IWRM for stakeholders (water users, water providers, and those with an interest in water-related issues) would be most beneficial.

Annex 1. Wastewater discharges in Kosovo

These data have been collected by extensive queries from three sources: municipalities, utilities and industries. The summarised data indicate the best understanding of the present municipal and industrial wastewater loads. The wastewater discharges of the population unconnected to public sewers are excluded from the discharge summary.

Municipality		**Flow (l/s**	**BOD (mg/l)**	**Solids (mg/l)**
Viti	Municipal	4	130	190
Vushtrri	Municipal	25	130	190
Gllogovc	Municipal	2	130	190
Gjilal	Municipal	29	130	190
Decan	Municipal	37	130	190
Dragash	Municipal	19	130	190
Gjakova	Municipal/metallurgy	30 17	130 15	240 250
Istog	Municipal	8	130	190
Kacanik	Municipal /construction material	5 18	130 10 190 150	190 150
Klina	Municipal	10	130	190
Kamenica	Municipal/non-metals	4 16	130 15	190 1,000
Mitrovica	Municipal/metallurgy	65 363	120 15	290 275
Leposaviq	Municipal/metallurgy	1 44	130 15	240 410
Lipjan	Municipal/non-metals	4 48	130 20	190 1,000
Rahovec	Municipal	11	130	190
Peja	Municipal	116	170	190
Podujevo	Municipal	16	130	190
Prizren	Municipal /powerplant	106 27	140 20	190 250
Pristina	Municipal/power plant, metallurgy	186	140 20	190 275
Skenderaj	Municipal	3	130	190
Suhareka	Municipal	11	130	240
Total		**110,000 m3/d**	**8,500 kg/d**	**29,000 kg/d**

Annex 2. Acronyms

ATRC	Advocacy Training and Resource Centre (NGO)
DoW	Department of Water
DWRD	Drinking Water Quality Regulatory Department
ECLO	European Commission Liaison Office to Kosovo
KEPA	Kosovo Environment Protection Agency
KfW	German Development Bank
KIHM	Kosovo Institute of Hydrometeorology
KNIPH	Kosovo National Institute for Public Health
MEF	Ministry of Economy and Finance
MESP	Ministry of Environment and Spatial Planning
OIK	Ombudsperson Institution of Kosovo
PRWC	Pristina Regional Water Company J.S.C.
RAE	Roma, Ashkali and Egyptian
SDC	Swiss Cooperation Office
WWRO	Water and Wastewater Regulatory Office

Annex 3. List of persons met

ATRC	Kushtrin Kaloshi
ECLO	Besime Kajtazi, Task manager Infrastructure/Operations Section
KEPA	Dr. Illir Morina, Chief Executive Officer
KfW	Premtim Islami, Project Officer
KNIPH	Professor Selvete Hoxha-Krasniqi, Deputy Director
Ombudsperson	Sami Kurteshi, Ombudsperson
PRWC	Skender Bublaku, Director
SDC	Dr. Guido Beltrani, Deputy Director
SHUKOS	Nadire Bejtullahu Vitija, Managing Director
UNDP	Tetsuo Kondo, Deputy Director
	Jocelyne Talbot, Senior Gender Adviser
	Marta Gazideda, Capacity Development Facility for Kosovo Project Manager
	Rreze Duli, Support to Decentralisation in Kosovo Project Manager
Water Task Force	Baton Begolli, Water Policy Advisor
WWRO	Afrim Lajci, Director

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