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POSITION PAPER

A Young Water Professionals Perspective on Key Challenges and Recommendations for Sustainable Water Management in the Balkan Region

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Executive summary

Securing the Future of Water: Investing in Young Water Professionals

The Crisis We Cannot Ignore. The water sector in the Western Balkans—and globally—is facing a workforce crisis. Aging professionals are retiring, while a new generation is not stepping in at the necessary pace. This growing gap threatens the sector's ability to ensure water security, sustainability, and innovation. The underrepresentation of Young Water Professionals (YWPs) in decision-making exacerbates the problem, stifling fresh ideas and long-term sector resilience.

Our Position: Young Water Professionals as the Key to a Sustainable Water Future. We must act now to invest in YWPs by integrating them into governance structures, improving career opportunities, and tackling systemic barriers like nepotism and low remuneration. Without bold action, the sector will struggle to meet increasing water challenges, adapt to new technologies, and drive sustainable development.

Why This Matters

- **Aging Workforce:** An urgent need to replace retiring experts with skilled professionals.
- **Lack of Opportunities:** YWPs face limited career pathways, low salaries, and exclusion from decision-making.
- **Barriers to Entry:** Nepotism, inadequate education-to-employment pipelines, and gender disparities hinder workforce growth.

Missed Innovation Potential: Without YWPs, the sector risks stagnation in digital transformation and sustainability efforts.

Recommendations for Action:

1. Empower YWPs in Leadership & Decision-Making:
    - Provide observer seats on boards and advisory councils.
    - Develop leadership programs tailored for YWPs.
    - Integrate youth into strategic planning processes.
2. Enhance Education & Career Pathways:
    - Strengthen university-industry collaborations (internships, scholarships, and research programs).
    - Expand mentorship and peer-to-peer exchange programs (e.g., IAWD initiatives in the Balkans).
    - Integrate water management topics into education curricula.
3. Tackle Nepotism & Improve Recruitment Practices:
    - Enforce merit-based hiring and transparent recruitment processes.
    - Implement independent oversight committees and whistleblower protections.
4. Improve Remuneration & Professionalization:
    - Align salaries with EU standards and conduct regular salary reviews.
    - Establish certification programs to formalize expertise and justify wage increases.
    - Provide career growth opportunities and non-monetary incentives.

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5. Promote Gender Inclusion & Workforce Diversity:
    - Support gender-focused scholarships and leadership training.
    - Ensure equal pay and flexible work arrangements.
    - Encourage women's participation in technical and leadership roles.

Conclusion: Act Now to Secure the Future of Water. The time for action is now. By investing in YWPs, fostering fair and transparent career pathways, and embracing inclusive workforce strategies, we can secure a sustainable and innovative future for the water sector. Decision-makers must prioritize these initiatives to ensure that the next generation of water leaders is equipped to tackle the challenges of today—and tomorrow.

1. Introduction

The water sector constitutes one of the key components for sustainable development of the Balkan region, providing essential services to millions of people. However, it faces numerous challenges that threaten its ability to meet growing demands and support long-term environmental and economic sustainability. These challenges arise from deficiencies in water management, exacerbated by human resource limitations, environmental degradation, financial constraints, and fragmented legal frameworks. A shortage of skilled professionals, an aging workforce, and the migration of young talent have left the sector struggling to keep its pace with the growing need for sustainable solutions. Additionally, outdated infrastructure, weak regulatory enforcement, and insufficient investments in modern technologies further complicate the situation.

Without proactive measures, these challenges will persist, worsen and hinder the sustainable management of water resources. Addressing the shortage in skilled staff requires targeted strategies to improve workforce capacity, promote leadership diversity, and create attractive career pathways. Beyond that, embracing innovative technologies, securing increased financial investment, and strengthening regulatory frameworks are essential for long-term success. Public awareness campaigns and educational initiatives are also needed to improve the public awareness of water's fundamental value and encourage community involvement in its preservation.

This position paper first presents and analyses the shared and country-specific workforce issues impacting the water sector across the Balkans outlining practical recommendations for improvement. Secondly, it calls for a stronger focus on attracting, involving, and retaining passionate Young Water Professionals. Their innovative solutions, advanced skills, and future-oriented leadership in addressing complex water challenges make their engagement essential not only for bridging the workforce gap but also for driving progress and fostering sustainable practices across the sector. Strengthening their engagement is crucial for overcoming today's challenges and for laying the foundations for a more resilient and sustainable future.

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2. Background Information

The water sector in the Balkans is at a critical crossroads. An aging workforce, a lack of skilled professionals, and the migration of young talent abroad, commonly known as "brain drain", have created a significant workforce gap (Bartlett *et al*., 2022). These challenges represent real barriers to ensuring access to clean, sustainable water in a region already grappling with complex environmental and social issues. Without urgent action, it will become increasingly difficult to address emerging water challenges and plan for the future.

Water is an indispensable resource that supports human life, economic development, and environmental health. Beyond its role in sustaining daily life, water is integral to food production, energy generation, industrial activities, and ecosystem balance. Despite its significance, water remains underappreciated in many societies, often taken for granted due to its widespread availability in developed regions. One of the key indicators of how much people value water is the price they are willing to pay for it. Water tariffs not only determine the cost of access but also play a crucial role in funding the infrastructure, maintenance, and workforce required to ensure safe and sustainable water services. If water is undervalued and underpriced, utilities struggle to invest in improvements, and wages for water professionals remain low, making it difficult to attract and retain skilled workers. A well-structured tariff system—one that balances affordability with cost recovery—can ensure that water services are financially sustainable while also reflecting its true worth. Raising public awareness about the connection between water pricing, service quality, and workforce compensation is essential for fostering a greater appreciation of water's value. By implementing fair pricing mechanisms and promoting responsible consumption, societies can secure long-term water sustainability while ensuring that those who work in the sector receive adequate recognition and compensation (State of Green, 2016; Wen et al., 2023; American Water Works Association, 2024)

Historically, the (water) workforce was very dependent on parent to child transmission of job positions. This resulted in continuity, and rejuvenation of the water workforce, but certainly was not always based on merit. Whilst this is no longer the typical practice, it seems like nepotism and politicization have always been constant variables: getting a job in the water sector has often been conditional to political affiliation and sometimes even depended more on endorsement rather than eligibility based on actual qualifications. Politics played an influential role, especially within public utilities. In some of the countries, when a new government comes into office (every four years), it is followed by an expectation for managerial staff to resign, creating a vacancy open for new (and politically aligned) appointments. While some may choose to step down voluntarily, others may be pressured to demonstrate alignment with the incoming administration to keep their positions. This dynamic contributes to frequent leadership changes, which impacts the continuity and long-term strategic planning of public water service provision. Beyond that, it can mean that people are put in place without the adequate qualifications, and skills to deliver on the role, and reduce the opportunities for those who are unconnected. This affects young water professionals disproportionately. This situation, that continues to exist to this day, may allow more mobility, it fosters concerns about fairness and competency. A sustainable solution would involve transparent hiring based on merit while ensuring knowledge transfer between generations.

On top of that, in many parts of the Balkans, traditional societal norms have long placed

young people and women in subordinate roles, where they were expected to follow rather than lead. In the past, women in the water sector have frequently encountered structural barriers to leadership, often being underrepresented in technical and managerial roles due to societal norms and institutional biases. This historical exclusion has contributed to the current workforce shortages, as many capable professionals have been overlooked or discouraged from entering the field (Bartlett *et al., 2022*).

In the last 30 years, the workforce gap has been widening in the Balkans. By this term, we refer to the lack of skilled professionals needed to keep any sector running smoothly and sustainably. Some authors such Connor (2015) and Bieber (2018) argue that this also refers to the water sector. In the Balkans, this gap is widening as many current employees are nearing retirement, with a significant percentage of the workforce aged 50 or older (WAREG, 2021; Table 2 & 5 Annex A). Without fresh talent stepping in to fill these roles, the sector faces the risk of losing vital expertise and the ability to respond to future challenges effectively.

The workforce gap is strongly interconnected with the phenomenon of brain drain. Brain Drain is a process of large-scale emigration of skilled and educated individuals from one country, region, or sector to another, it leads to talent shortages and slow development in the place they leave (Esch et al., 2020).

Brain drain remains a pressing issue in the Balkans, with many highly skilled young professionals migrating abroad due to limited career prospects in the region. According to data collected by the German Marshall Fund of the United States (Icoski, 2022), this phenomenon has particularly affected the Western Balkans (WB6), where in the last three decades, as a result of massive emigration, Serbia has lost 9.00 %, North Macedonia 10.00 %, Bosnia and Herzegovina 24.00 %, and Albania 37.00 % of its citizens. Many of those leaving are exactly the skilled, ambitious individuals that the water sector desperately needs. For these young people, the promise of a more stable, rewarding career abroad often outweighs staying in their home country, where opportunities are scarce.

Efforts to address these challenges have included capacity-building initiatives and regional collaborations. For example, the establishment of Young Water Professionals Chapters in several Balkan countries is providing a platform for networking, mentorship, and professional development. These chapters, supported by organizations like the International Association of Water Service Companies in the Danube Region (IAWD), the International Water Association (IWA), the RCDN+ project supported by GIZ, as well as local associations have showcased and will continue to highlight the potential of YWPs to drive innovation and leadership in the water sector. However, the impact of these initiatives has been limited due to inadequate funding, inconsistent implementation, and a lack of integration into national water policies. Moreover, while these efforts have raised awareness, they have not yet addressed systemic barriers such as low salaries, fragmented legal frameworks, and weak links between universities and the water sector.

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3. The Position

While the challenges in the water sector persist, the limited involvement of Young Water Professionals (YWPs) is a missed opportunity to transform the sector. Driven by their awareness of the pressing challenges in the field, YWPS bring fresh perspectives and innovative ideas for overcoming obstacles in water management and conservation. However, according to Figuères et al. (2003), young people in the water sector are not receiving the type of support and encouragement they need to be able to successfully become water leaders. Therefore, this raises a key question: Can YWPs fully realize their potential if in practice, they are discouraged from taking on leadership roles? Fortunately, targeted initiatives have been launched to mentor young professionals, equipping them with essential leadership and managerial skills to shape them into future water leaders and lifelong learners (Maheshwari, 2023). Their energy and forward-thinking mindset can inject new momentum into the sector, fostering interdisciplinary approaches and modernizing outdated practices. To harness its potential, larger investments in young water professionals in the Balkan region are needed. This means investing in their career choices, professional development, and inclusivity within the sector. This can be enhanced by creating inclusive platforms, mentorship, and collaborative networks in which young professionals are offered the opportunity to engage, provide input, and learn with their peers (both seniors and young). By engaging with this passionate demographic, the sector not only ensures a pipeline of skilled and committed individuals but also secures a sustainable future for water resources. Investing in these changemakers today will yield long-term benefits for both ecosystems and communities.

4. YWPs Can Fill the Workforce Gap

The Balkan water sector struggles to attract young talent due to limited career awareness and weak industry promotion. The sector does not clearly present career pathways or actively engage young professionals. Additionally, collaboration between industry and universities is lagging behind in more than half of the region, leaving many young graduates (from engineering faculties) to either shift to other industries or emigrate in search of better prospects. Therefore, aside from an alarmingly high youth unemployment, the regional water sectors struggle to retain qualified graduates in the sector.

By mid-2024, the general youth unemployment rate in the WB6 had climbed to 25.60%—a 2.70% increase from the previous year. This means over 147,000 young people aged 15–24 are struggling to find jobs in the region (World Bank, 2024), further highlighting the urgent need for better scholarship opportunities to support a university-to-profession pipeline in the water sector. Limited access to specialized education further exacerbates the issue. Many universities and technical colleges lack programs tailored to water management careers, creating a gap between industry needs and graduate skills. Strengthening university-industry collaboration and expanding specialized educational offerings are essential to bridging this gap.

In many Balkan countries, the number of trained young professionals in the water sector is alarmingly low. The data we collected (Table 1, 3, 5 Annex A) on the presence of young water professionals (below 35 years old) in water utilities of the region turned out to be very limited. For example, in Gradiska UC (Bosnia and Herzegovina), only 22.36% of employees fall within this group (Table 5 Annex A). In the utilities JKP Komunalec, JKP Mavrovo and Eremija Vevcani of North Macedonia, out of 123 employees only 7,38% are below 35 years of age (Table 1 & 2 Annex A). In Vodovod Bar (Montenegro) only 16.28% of employees are under the age of 35 (Table 5 of Annex A). Additionally, the number of students that graduate from study programmes related to water science is (when publicly available) not significant in terms of the number of overall graduates. As presented in Table 6 from Annex A, on top of the low interest in young people towards choosing water-related studies, there is a lack of specialized educational programs focused on water management and hydro-technical engineering in the region. It is true that water-related topics are often part of non-water degree programs, but a set of water-specific courses is essential for stepping into the sector as a young leader. However, with the limited amount of dedicated study programmes, the number of professionals entering the sector with either a specialised or bird-eye-view set of skills and knowledge for the water sector remains limited. Furthermore, many of the skilled students leave the Balkans for better study opportunities abroad, further depleting the local talent in the water sector.

This shortage hampers effective water management and service delivery, leading to increased workload pressures on staff and to shortages in available resources.

Another key issue is that the water sector often suffers from insufficient funding and investment, which limits job creation and professional development opportunities. Without proper financial support, it becomes increasingly difficult to attract and retain talent. In Montenegro, for example, it is a broadly known fact that many field-based vacancies in the water sector remain open for extended periods of time, often due to unappealing salary packages and limited career advancement opportunities. Numerous water companies across the region face challenges with filling positions, with vacancies remaining open for over a year, indicating a systemic issue in attracting professionals (TV Subotica, 2017;

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Noviglas, 2023). On the other hand, high-level positions in the sector are more susceptible to be occupied with profiles that lack sector-specific training but have strong political endorsement.

In addition, gender inequality within the sector additionally highlights a critical issue: women remain underrepresented in both technical and leadership roles. Although international policies advocate for gender equality in water resources management, women participate in the labor force at lower rates than men. According to a study from Oluwasanya et al. (2024), addressing this gap requires closing a gap in data about gender, starting with a quantitative assessment of women's representation in the sector to foster sustainable and equitable water governance. As presented in the 2019 report "Women in Water Utilities" (World Bank, 2019), only 17.70% of workers in water and sanitation utilities globally are women. The findings revealed that women lack female role models and mentors, experience poor workplace culture, and are subject to negative gender stereotypes during the hiring process and while on the job (World Bank, 2019). This underrepresentation is particularly evident in the Western Balkan countries where women face low labor force participation, wage gaps, and a broad-based support for patriarchal approaches (Haider, 2017).

According to 2023 newIBNET data from 23 Balkan utilities, there are 23.60% women employees in the sample from Bosnia and Herzegovina. The percentage for the Albanian sample is 23.12%, for Kosovo 15.27%, for North Macedonia 21.42%, and for Serbia 32.44% (IBNET, 2023). No data is available for Montenegro.

The results from a recent survey collected in North Macedonia by the Association of the Public Utility Service Providers of North Macedonia (ADKOM, 2022) go alongside these figures. In the water utilities across the country only 17.40% of the employed staff are women. A 2024 survey (Table 1 ANNEX A) from the World Bank´s Water Supply and Sanitation (WSS) project gathered data from 35 utilities in Republika Srpska (Bosnia and Herzegovina), pointing out that only 24.00% of employees were women (Palandzic, 2025).

In Albania, according to data from a yet-to-be published 2024 report assembled by AKUK (National Agency of Water Supply and Wastewater), in the 14 Regional Companies of Water Supply and Sewerage, only 20.25% of utility employees are women (Table 1, 2, ANNEX A). In Kosovo, data available on governmental websites data collected in four out of seven utilities in 2024 shows that only 13,92% of utility employees are women (RWC "Gjakova" JSC; RWC "Hidrodrini" JSC; RWC "Mitrovica" JSC; RWC "Prishtina" JSC; Table 1, ANNEX A). We were not able to locate reliable data referring to Montenegro or Serbia. While gender inequality in the water sector remains a challenge, particularly in the region, it is undoubtedly an issue that can be progressively addressed and overcome across generations. At the same time, there are several examples of female leaders in the water sector, both in the region and in other countries (Ollsson *per. comm*.).

The aging workforce in the Balkan water sector is another pressing issue that will increase the workforce gap in the near future. Namely, a significant portion of the current water workforce is nearing retirement age.

In R. North Macedonia, for example, a survey by ADKOM reveals that 39.34% of water professionals are over the age of 56 (ADKOM, 2022). Data collected in this study (See Table 3 ANNEX A) further highlights that some utilities are doing worse: in the 2 utilities of Eremija Vevcani and Jkp Mavrovo, respectively 75.00 % and 51.00% of personnel are above 51 years of age. In Gradiska UC (Bosnia and Herzegovina), the data we collected shows that 45.00% of employees are aged 51 or older, whilst only 3.50 % is under 30 years of age (Table 5 from Annex A). In Vodovod Bar in Montenegro, 38.00 % is above 55

years of age, and expectations are that 10.46 % will retire in the next 5 years (Table 5 from Annex A). This demographic shift is alarming, as it suggests that the sector will lose a wealth of experience and knowledge within the next 10 years.

To mitigate the gap in the water workforce in the Balkans, as well as the aging workforce, it is essential to act now to attract younger professionals. Acting fast will ensure that a transfer of knowledge, experience and skills will still be feasible.

Having said that, the sector often struggles to offer competitive salaries and attractive working conditions, further deterring potential candidates. As a result, the workforce is not only aging but also shrinking, leading to a skills gap that could hinder the ability to maintain and improve water infrastructure.

To address the challenges posed by an aging and shrinking workforce, it is essential for governments and organizations in the Balkans to invest in young water professionals. This means investing in raising awareness about the importance of water management, promoting and showcasing the various roles that may help attract younger individuals. It means investing in education and training programs dedicated to the water sector, and creating clear pathways for graduates from colleges and universities into jobs in the sector. Furthermore, it means investing in jobs (creating jobs), improving the working conditions, offering competitive salaries, investing in creating an inclusive environment for women to join a male-dominated sector, to engage and have access to equal opportunities for equal pay. By taking proactive measures, Balkan countries can ensure that the water sector remains robust and capable of meeting the needs of their inhabitants in the years to come.

The evidence clearly points to a pressing need for Young Water Professionals to fill the workforce gap in the Balkans. By addressing the limited numbers of professionals, the challenges in attracting qualified talent, the impending retirement of the senior workforce, as well as gender disparities, it becomes evident that investing in the next generation of water professionals is crucial for the sustainability and effectiveness of the water sector in the region.

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5. YWPs complement the existing workforce - Bring New Thinking, Skills, and Leadership

The synergy between technology and the workforce is essential, as water management relies on a balance of expertise and innovation. Addressing operational crises, already frequent and set to intensify with changing circumstances such as increasing pollution and climate change, requires modernized water supply technologies, stronger collaboration with scientific institutions, and strategic financing. It also alludes to the need for new competencies (skills, knowledge and attitudes) in the sector. More precisely, there is an urgent need for new skills in data analysis, integrated resource management, and innovative problem-solving. Equipping professionals with these competencies is essential for building resilient and sustainable water systems**.** Luckily, Young Water Professionals (YWPs) bring fresh perspectives, multidisciplinary and cross-sectoral thinking, data-driven solutions, and collaborative approaches to optimize processes and challenge outdated methods. Their ability to assess the suitability of technologies for specific contexts ensures that innovation is both practical and effective.

5.1 Digital and technology skills

YWPs have grown up in an era where digital tools and technological advancements are integral to everyday life. They are not only comfortable with using these tools but are also adept at developing and implementing technology-driven solutions. For instance, the YWP chapter in Kosovo created a web application, SISHU (Informative System of Water Services), designed to assist water utilities and the regulatory authority in monitoring water resources. Initially, the application received little attention. However, once stakeholders realized its potential to simplify and enhance their work, it gained widespread acceptance. Today, driven by stakeholder requests, the application is being expanded with additional modules, including human resources (HR) management functionalities.

An example of how Young Water Professionals (YWPs) are engaging with innovative water management practices can be seen in the "Digital Transformation in Water Utilities" project in R. North Macedonia. As part of this initiative, YWPs visited the water treatment plant in Dobrevo, where they explored how automation and digital tools streamline operations, reduce workforce demands, and improve efficiency.

By witnessing firsthand the use of ultrafiltration methods, remote monitoring, and advanced software for leak detection and asset management, YWPs learned how digitalization can transform water utilities. This exposure equips them with essential skills for the future, as such technologies are expected to expand across the country. Their involvement fosters a new generation of professionals who understand and can implement smart water management solutions, ensuring sustainable and efficient practices in the years to come.

5.2 YWPs bring multi-disciplinary approaches and collaboration

Promoting equity across age and gender in the water sector is not just a matter of social justice, it is also a strategic imperative. Experience of the authors has consistently shown that diverse teams are more innovative and effective in problem-solving (Majdanac, *pers. comm*.). In water management, where challenges are multi-faceted and solutions require a blend of tech-

nical, environmental, and social considerations, including women and young people's perspectives is critical. Diverse teams often bring unique insights, which are essential for designing efficient, inclusive and sustainable solutions.

Also, YWPs are more likely to adopt interdisciplinary and transboundary approaches in their work. This adaptability stems from their exposure to international education, cross-border collaborations, and the growing acceptance of globalized problem-solving. There are numerous examples in the region that demonstrate how young water professionals are very capable to think across disciplines, and across borders, that could stimulate the sector's advancement in tackling the challenges that require multiple skills, across multiple disciplines, and really benefits from learning from across the borders. In Kosovo, a group of diverse young water professionals successfully built a strong steering committee and grew the network to up to 50 members within a year. The members are both water management professionals, people working in utilities, but also those working in private sector companies providing advice/input into water (and other sectors like energy) at the same time. The group established connections with numerous organizations, enabling participation in regional and international activities. These efforts also created employment opportunities for many members in various organizations and institutions.

In the region, there are multiple efforts to collaborate across these young water professional chapters. Some examples are the collaborative workshop between YWP Kosovo and YWP Macedonia back in 2023 supported by GIZ Macedonia, and the AquaInnovate conference in Pristina at the beginning of 2024 in the framework of the IWRM program in Kosovo. On top of exchanging experiences in establishing their YWP networks, YWPs shared their ongoing activities and plans for future chapter development. Furthermore, the well-constructed collaboration between the University in Skopje and University in Pristina plays a crucial role in the efforts towards connecting YWPs from both countries. Namely, thanks to the student exchange opportunities over the the last two years some YWPs enrolled on a PhD study on both universities and had the opportunity to work side by side on transboundary projects (Buçinca *et al*., 2024) and other scientific investigations (Hinić-Jordanovska *et al*., 2024). Collaboration and involvement of YWPs into such important research studies provides them with the opportunity to employ their expertise within a multidisciplinary approach and directly contribute to bringing valuable insights for water conservation tactics and schemes applied in water resources management.

Another notable example of collaboration between chapters is the annual Young Water Professionals Forum, co-organized by YWP Kosovo and YWP Albania. Each year, they select a pressing challenge as the forum's theme to shed light on important issues.

In R. North Macedonia, a peer exchange between ADKOM (Association of the utility providers of North Macedonia) and VSA (Association of Swiss wastewater and water protection experts) took place in Skopje in September 2024, with the support of RCDN. Among other activities, the peer exchange was focused on sharing with young professionals affiliated to ADKOM how VSA young professionals are organized and how to potentially apply some of their methods in R. North Macedonia.

6. Current Barriers Preventing YWPs' Involvement

As indicated before, there is a shortage in workforce, an ageing workforce, and limited numbers of young water professionals entering the field. As the demand for sustainable water management solutions continues to rise due to climate change, population growth, and urbanization, the water sector needs to attract and retain qualified young talent. However, the sector is facing several barriers that prevent young professionals from joining, including the low numbers of water-related educational programs, high rates of youth migration, a lack of sector engagement with educational institutions, and relatively low salaries.

The value of water is often underestimated, yet it is one of the most critical resources for human survival, economic stability, and environmental sustainability. Water pricing plays a crucial role in ensuring efficient resource allocation, infrastructure maintenance, and equitable access. However, increasing water prices is often infeasible due to socio-economic constraints, especially in regions where affordability is a major concern. Excessively high prices can disproportionately affect low-income communities, leading to public resistance and political challenges. Instead of simply raising prices, water utilities and policymakers must focus on improving efficiency, reducing water losses, and investing in sustainable infrastructure to ensure long-term water security.

Water tariffs not only reflect the cost of water provision but also determine the financial sustainability of the sector and the wages of those who ensure clean and safe water services. If water is undervalued, wages in the sector remain low, making it difficult to attract and retain skilled professionals. Transparent and fair pricing mechanisms, combined with public awareness campaigns, can help bridge this gap by ensuring that people recognize the true worth of water and the expertise required to manage it. The public must become aware of the value of water. Only if the public becomes aware of the value of water will there be a significant change in the water industry. In other countries, water is recognized as a human right, and they make the first 20 liters affordable to all, but then increase the price above this usage, reinforcing the idea that water has value. Such a tiered pricing model not only ensures basic access for all but also promotes responsible water use, helping to sustain water resources in the long term. In Albania (as in much of the Western Balkan region), the lack of value given to water is visible in the low tariffs, and in the lack of general support for tariff increases. There, as much as in many other countries, including those in the Western Balkans, a general lack of understanding regarding the water supply system contributes to undervaluing the importance of water. Many people perceive water as a divine gift, assuming it should be free of charge. This misconception leads to the belief that they are not paying for the service, but rather for the water resource itself. In reality, individuals are paying for the infrastructure, treatment, and distribution services that deliver clean water to their homes.

In Albania, each Regional Water Supply and Sewerage Company proposes its own tariffs for water supply and wastewater services, which are often low. The Water Regulatory Entity (ERRU) approves the water and wastewater tariffs for each utility, these rates are not standardized across the country. For example, the approved tariff for the utility of Shkodra is, on average, 49 Albanian Lek (ALL) per cubic meter of water, while for the Pogradec utility it is 51 ALL (Enti Rregullator i Sektorit të Furnizimit me Ujë dhe Largimit e Përpunimit të Ujërave të Ndotura, 2024).

Education and awareness-raising about the water sector must begin as early as high school to help young people develop a fundamental understanding of the importance of water resource management and career opportunities in this field. Integrating topics such as water conservation, sustainable management, and technological innovations into school curricula can inspire students to pursue further studies in hydrotechnics, environmental protection, and water management. YWPs play a crucial role in this process, as they can serve as mentors and ambassadors for the sector, sharing their knowledge and experiences with younger generations. If awareness about the importance of water is raised early on, young people will be more likely to consider careers in this field, helping to address the long-term shortage of skilled professionals in the water sector (Djundić and Ileš, 2013)

Moreover, collaboration between educational institutions, government bodies, and water sector organizations is essential to creating clear pathways for students interested in water-related careers. High school programs could include interactive workshops, field visits to water treatment plants, hydropower plants, mountain streams, springs and rivers, and guest lectures from industry professionals and university professors to provide students with hands-on experiences and real-world insights. Universities should further build on this foundation by offering interdisciplinary programs that integrate engineering, environmental science, and policy-making, ensuring that students gain a holistic understanding of water management. By fostering early engagement and providing structured learning opportunities, the water sector can attract and nurture a new generation of skilled professionals, ensuring the sustainable management of water resources for future generations. Several universities in the Western Balkans offer interdisciplinary programs that integrate engineering, environmental science, and policy-making to provide students with a holistic understanding of water management. For example, the University of Belgrade's Master's in Water Resources Engineering and Management combines technical expertise with knowledge in sustainable water practices and policy frameworks. Similarly, programs at the University of Sarajevo and the University of Skopje emphasize environmental engineering and policy development for sustainable water management. These programs equip students with the skills needed to address complex water challenges in the region, promoting a balanced approach to engineering, environmental science, and governance.

6.1 Low numbers in water related education

One of the primary factors contributing to the low number of young professionals in the water sector is the limited availability of water-related educational programs in some countries in the region. Although in R. North Macedonia, Serbia, Bosnia and Herzegovina and Montenegro some universities offer courses on hydrology and water management (Table 6, Annex A), complete study programmes that detailly cover these topics and produce water professionals are still not available. On the other hand, in Albania there are two universities and two technical colleges that offer specialized water-related education, such as study programs in water resources management, environmental engineering, and hydrology. Furthermore, in Kosovo, there is a Master program that propagates synergy between study courses related to hydrology, hydrobiology and water management (Integrated Water Resources Management in University of Pristina) (Table 6, Annex A). Despite the fact that these two countries made significant progress in terms of water related education, obviously the whole region still requires a lot of effort on this matter, since the limited number of institutions and programs directly impacts the number of graduates entering the sector.

A critical factor to consider is the specificity of the courses offered. While programs in civil en-

gineering or environmental science may include components related to water systems, these courses often focus on broader topics and do not provide the in-depth, specialized knowledge needed for water management. For example, in Albania, a program in hydrotechnical engineering does not provide sufficient education in water treatment, wastewater management, integrated water resources management or water supply and wastewater treatment plants. As a result, graduates from these programs not completely prepared for the unique challenges facing the water sector.

Further compounding the issue is the low enrolment in water-related courses, even when they are available. Universities often report fewer applications for water-related programs compared to other engineering or environmental disciplines. For instance, at the University of Tirana in Albania, even though they do not provide specific public data, the number of applications for a Bachelor's program in environmental engineering or water management often falls significantly short of the number of applications for more general engineering programs, such as civil or mechanical engineering. A similar situation can be observed in R. North Macedonia, where only three students applied for the Bachelor's program in Ecology and Environment for the 2024/2025 academic year (Table 6, Annex A). This pattern reflects a broader lack of awareness among young people about the importance of water management and the career opportunities available in the sector. In many cases, low enrolment is also linked to the perceived lack of career progression and job stability within the water sector compared to more dynamic fields like technology or finance. Moreover, few young people are aware of the essential role that water plays in global sustainability and economic development, leading them to overlook careers in water management entirely. A study on youth employment in the Western Balkans found that many students perceive technical fields as offering better career opportunities compared to water-related sciences (Ramhorst, 2021).

6.2 Brain Drain of Young People overall

In many Balkan countries, there is a significant outflow of young people seeking better career opportunities, higher salaries, and improved living conditions abroad. This phenomenon, commonly referred to as “brain drain,” has profound implications for the water sector, as the departure of young talent exacerbates the shortage of qualified professionals in the field. According to a recent study that studies brain drain in Montenegro and mentions similarities across West Balkan countries, factors such as economic instability, corruption and nepotism to gain job opportunities, lack of career prospects, low wages, and limited professional growth opportunities in home countries are driving young professionals to migrate, particularly to countries with more developed economies (Rakočević, 2022). Rakočević, (2022) indicated that 26.00% of young Montenegrin expressed a strong desire to leave the country. In Albania, for example, a 2019 survey indicated that over 30.00% of young graduates were planning to leave the country within the next five years in search of better job prospects (*Albanian National Youth Network - ANYN*), with many expressing dissatisfaction with the low salaries and limited career opportunities in the local water sector. The situation is similar to other countries on the Balkan Peninsula and is particularly alarming in Kosovo, where aspirations to migrate were widespread in 2020, when 53.00% of the young people interviewed during the data collection for one study conducted by the UNDP (2021) declared that they are “definitely going to“ or “likely to” consider emigration. The brain drain issue is particularly concerning for the water sector, as it depends on a steady influx of skilled professionals to address critical challenges such as infrastructure

maintenance, water conservation, and the treatment of wastewater.

Some initiatives have been undertaken to mitigate the brain drain. For example, the Albanian Government has introduced programs aimed at incentivizing youth to stay in the country, including scholarships for water-related education and projects designed to enhance water infrastructure projects. However, these efforts are often inadequate, and young people remain unconvinced that they will find stable, well-paying jobs in the water sector. In R. North Macedonia the government has introduced grants and co-financing programs for young professionals in engineering and environmental sciences, including scholarships for water management studies. Programs like "Returning Point" aim to reconnect the Serbian diaspora with local job opportunities, including in infrastructure and environmental projects.

6.3 Lack of sector's engagement with the universities/ tech schools

Another challenge preventing the involvement of young professionals in the water sector is the lack of effective communication and coordination between key stakeholders including government agencies, utilities and industry organizations as well as educational institutions. While some sectors, such as technology and engineering, have close ties with universities and technical schools, the water sector often operates in silos, with limited engagement with educational institutions regarding curriculum development and the identification of skills gaps.

The water sector lacks formal platforms for dialogue with universities to ensure academic programs align industry needs. This lack of engagement means that water-related education may not address emerging challenges or provide students with the necessary practical skills and hands-on experience required to succeed in the sector. In R. North Macedonia the collaboration between universities and the Association of the Public Utility Service Providers of North Macedonia is only at its beginning. Luckily, the country has the opportunity to follow the region's best practices as in Albania, where the universities collaborate with SHUKALB and AKUK - RCWSS to help graduated students land a job in utilities.

6.4 Relative low salaries compared to other sectors

A significant factor contributing to the lack of interest in the water sector is the relatively low salaries offered, particularly for entry-level positions. In many countries, water utilities and government agencies responsible for water management tend to offer lower salaries compared to other sectors such as technology, finance, and engineering. For instance, entry-level positions in the water sector, such as water treatment operators, may have salaries ranging from €5,000 to €10,000 per year, whereas similar roles in the tech sector may offer salaries upwards of €20,000 per year (*General Directorate of Taxation, social insurance contributors*).

In Bosnia and Herzegovina the salary for a graduated student is €650 per month, while in Albania entry-level professionals earn around €500 per month. Those with some experience may see salaries rise to €700, while senior-level roles, such as managers or department heads, can earn up to €1,300 per month.

This significant salary gap in the water sector makes it less attractive to young professionals, who prioritize financial stability and career growth. Low wages not only discourage new talent from entering the field but also contribute to brain drain, as skilled individuals seek better-paying opportunities abroad. In the Western Balkans (WB6), incomes fall far below global prosperity standards-more than twice the amount needed to reach the benchmark of $25 per person per day (World Bank, 2024). Compared to Western Europe, this income disparity is stark, making it even harder to retain young talent. The combination of financial insecurity

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and the absence of clear career advancement opportunities makes the water sector an unappealing choice for many young professionals. Without competitive salaries and structured career paths, the sector risks losing its future workforce, exacerbating existing challenges in water management and sustainability.

7. Recommendations

To start properly addressing regional water challenges, it is essential **to invest in Young Water Professionals (YWPs) by integrating them into the decision making within the governance structures of water organizations, raising awareness of water issues, and creating robust career opportunities**. Empowering YWPs begins with embedding them in decision-making processes. Offering observer seats on boards or advisory councils can provide young professionals with leadership experience and an opportunity to contribute their perspectives. Longer-term strategies should include creating dedicated leadership roles for YWPs and integrating youth into strategic planning. This approach will foster inclusive, innovative governance and ensure the sector remains adaptable to future challenges. A perfect example of this is the inclusion of YWPs in R. North Macedonia in the development of future strategic actions. Specifically, the knowledge and skills gained through the above mentioned "Digital Transformation in Water Utilities" project in R. North Macedonia, were utilized in a major decision-making process over the choices for drinking water technologies.

Raising awareness of career opportunities and the critical role of the water sector, particularly among youth, is essential for attracting young talent to the industry, tackling nepotism, as well as for improving efforts to address remuneration. Targeted educational campaigns, workshops, and social media initiatives can engage young people and raise awareness about water conservation and sustainable management. Additionally, integrating water issues into school curricula and supporting youth-led initiatives will help build a strong foundation for future careers in water management. Educational institutions should collaborate with water organizations to offer internships, scholarships, and research opportunities, while YWP Chapters can provide mentorship and networking platforms to guide young professionals in their careers. Such initiatives are already being implemented in the region. For example, the Peer-to-Peer exchange program, created and supported by the International Association of Water Service Companies in the Danube Region (IAWD), has proven to be an effective networking tool for the professional development of young water professionals across the Balkans. This program equips participants with valuable knowledge and skills, enabling them to contribute to water sector reforms in their home countries. The program which ends in March 2025, resulted in the formation of a regional group of young water professionals that have the intention of this to raise awareness to the water sector and water sector careers across the region, initially in the form of online meetings. In addition, there are national level initiatives that are taking form. In North Macedonia the “Ss. Cyril and Methodius” University in Skopje entered the process signing an agreement for collaboration with the Association of Utility Providers of the Republic of North Macedonia with the intention to offer students practical experiences and internships. In Albania, whilst the collaboration should be strengthened, some efforts are already happening: in 2005 the Ministry of Education, the Faculty of Civil engineering of the University of Tirana and SHUKALB signed an agreement over an Internship Program. This program is meant for the students in Hydrotechnical and Environmental Engineering, who have priority access to internship positions in utilities. After the internship period, they were all employed in the utilities. Today, more than 100 students have benefited from this program and are still employed in the water sector, including institution such as the Albanian Water Regulatory Entity (ERRU), the Tirana Utility, Gjirokastra Utility, Lezha Utility, Korca Utility, Durres Utility, etc.

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To combat nepotism and ensure a fair hiring process, establishing transparent recruitment practices with standardized criteria and creating independent oversight committees to monitor hiring procedures are crucial. Implementing strong whistleblower protections, enforcing merit-based evaluations, and raising public awareness about the negative effects of nepotism can further promote fairness. Encouraging diversity in hiring, leveraging technology to minimize bias, and conducting regular audits can enhance workplace integrity and professionalism.

Improving remuneration in the Western Balkans' water sector requires policy reforms, increased investment, and workforce development. Governments should establish transparent salary structures and align wages with regional and EU standards, while public-private partnerships (PPPs) can provide financial resources for better compensation. Professionalizing the sector through certification programs and specialized training can justify higher wages, while non-monetary benefits, career growth opportunities, and gender pay equity initiatives can enhance job satisfaction. Strengthening collective bargaining, conducting regular salary reviews, and promoting transparency will help ensure fair remuneration, ultimately attracting and retaining skilled professionals in the sector.

To attract young people to careers in the water sector, it is essential to **develop clear and structured career pathways that provide opportunities for learning, professional growth, and leadership development**. These pathways should include internships, mentorship programs, skill-building workshops, and international exchange opportunities. In the short term, water organizations and universities should engage students through hands-on internships, career fairs, and industry-led training programs that connect them with experienced professionals. For example, in Montenegro an internship program organized by the government encompasses various forms of training and education aimed at acquiring the practical knowledge and skills necessary for performing specific occupations. This program is often aligned with the needs of the labor market and aims to increase employment opportunities for young people. The 9-month program is geared toward young individuals, particularly recent graduates seeking opportunities to gain work experience. Upon completion of the program, participants receive certificates or confirmations of their internship, which can enhance their employment prospects. In the longer term, establishing global job exchange programs and formal mentorship structures will not only help retain young talent but also cultivate the next generation of water leaders. Additionally, governments and educational institutions should integrate water-related subjects into the curricula, fostering early interest in the field and equipping future professionals with the necessary technical and problem-solving skills. Collaboration between academia, industry, and policymakers is crucial in ensuring that young professionals are prepared to address emerging challenges in water management while driving innovation and sustainability in the sector.

Empowering women and investing in them contributes to overcoming the workforce gap in the water sector. Several initiatives have successfully increased women's participation in the water sector, such as mentorship networks, gender-focused scholarships, and leadership training programs. For instance, the IWA Sustainability Specialist Group formed a project on women in water. They published a book on barriers preventing women from bringing in all their knowledge, skills and capabilities to the water sector, and provided platforms (e.g. workshops, and webinars) for women to share experiences, gain visibility, and access professional development opportunities. However, to create lasting change, these efforts must be expanded and integrated into broader workforce development strategies. Governments, educa-

tional institutions, and water organizations in the Balkans should prioritize gender equity through gender-sensitive recruitment practices, flexible work arrangements, and supportive professional environments. Addressing these issues is not only a matter of fairness but also a practical solution to workforce shortages in the region. With an aging workforce and a growing need for skilled professionals, encouraging women's participation will help strengthen the pool of human resources and ensure a more resilient water sector.

Women have always had an important role and a say in Aquatim, the utility company of Timisoara (Romania). There have always been women on the company's board, at least one director, or more. Currently, Aquatim has 2 women directors (the Financial Manager and the Legal Manager), and at the level of the company's departments, out of a total of 70 departments, 22 have women in management. Remuneration in the company has always been based on performance criteria and a grid depending on the position held, so gender-based discrimination is reduced to a minimum.

Vodovod JSC Gradiška (Bosnia and Herzegovina) constitutes a positive example of gender representation in leadership, with women holding 33% of managerial positions. However, despite the 20 female employees, their employment in technical roles remains low, with only two women in the technical sector. Additionally, while 45% of employees with a bachelor's or master's degree are women, their representation in higher-skilled and vocational technical positions is limited. Age distribution data also reveals that there are no women under 30 in the workforce, which highlights the need to attract and retain young female professionals in the water sector. To ensure long-term sustainability and inclusivity, it is crucial to implement strategies that empower women to take on leadership and technical careers through targeted education, mentorship, and professional development programs.

In conclusion, investing in Young Water Professionals (YWPs) through leadership opportunities, educational programs, and career development initiatives is essential to securing the future of the water sector. Programs such as internships, mentorship opportunities, and specialized training equip young professionals with the technical skills, practical experience, and leadership capabilities needed to address the sector's complex challenges. By fostering collaboration among key stakeholders—governments, universities, and water organizations—the sector can create pathways for YWPs to thrive. Governments can prioritize water education in national curricula, ensuring that students gain a solid foundation in water management, sustainability, and innovation from an early age. Water organizations, in turn, can offer hands-on internships and international job exchange programs to provide YWPs with valuable experience and exposure to diverse water management practices. The IAWD's YWP Peer-to-Peer Exchange Program is an excellent example of how knowledge-sharing and cross-border collaboration among young professionals can strengthen the water sector in the region, and foster a collective commitment to sustainability. But also, the Young Water Professional chapters at country level, for example in Kosovo, Serbia and North Macedonia organize a variety of activities that have tangibly created an improved and recognized position for young water professionals. They have shown to be able to make powerful contributions to the water sector also at national level (e.g. web application SISHU in Kosovo).

Through these concerted efforts, the sector can cultivate a skilled and motivated workforce capable of tackling water challenges with innovation, inclusivity, and sustainability. By empowering the next generation of water professionals, we can ensure the water sector remains resilient and well-equipped to meet the pressing global water challenges of the future.

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8. Conclusion

The water sector in the Balkans is at an important moment, facing complex challenges that require urgent and strategic intervention. Workforce shortages, brain drain, outdated infrastructure, and fragmented policies continue to hinder the sector's ability to ensure sustainable water management. While these issues present significant obstacles, they also offer a unique opportunity for transformation by harnessing the potential of Young Water Professionals (YWPs). The engagement of YWPs is crucial for revitalizing the sector, as they bring fresh ideas, technological adaptability, and a strong commitment to sustainability. However, systemic barriers such as low salaries, limited career growth, and cultural biases continue to impede their full participation. To overcome these barriers, targeted investments in mentorship, professional development, and leadership opportunities are necessary.

Efforts such as the establishment of YWP networks and peer-to-peer exchange programs have demonstrated the potential of young professionals to drive innovation and reform in the water sector. However, these initiatives need to be more robustly integrated into national policies and supported with adequate funding. The region must also prioritize financial investment in modernizing water infrastructure, digitalization and strengthening regulatory frameworks to create a more resilient and efficient sector and workforce.

The time for action is now, and investing in young professionals will clear the way for long-term stability in the region because holistic reform in the Balkan water sector is not just an environmental imperative but a necessity for the region's sustainable socio-economic development.

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Annexes:
Data collected by the YWP Peer to Peer Exchange program

Method:

The YWPs in the peer-to-peer exchange program decided to collect data to strengthen the evidence. They developed an excel sheet with the following components to search data on:

Data component	Sources
Numbers of workers (in the full sector)	• Yearly Business Plan 2024 (Kosovo) • WSS Project survey on 35 utilities (Bosnia Herzegovina) • Periodic collection in utilities by Department of Economic and Support Services (Albania) collected by our participant at her job and approved by her boss (Albania)
Board of utilities	Only Kosovo was able to find this information in Yearly Business plan 2024
Universities offering water-related education in the Balkans (and graduates)	• Websites of all key universities accessed 2025 • Exchanges between the group members of the Peer to Peer Exchange.
Data from employers of	Collected from HR departments in each of the YWP organizations (Kosovo not employed, and Albania her organization has oversight over the utilities).
Young Water Leader Example	From YWP chapters in each country an example was requested, but only Serbia, North Macedonia, and Kosovo provided one

Table 1: Water Sector Overall: Age and Gender Analysis Water Sector Overall in Bosnia and Herzegovina, Albania, Kosovo and North Macedonia.

	Number of workers in water sector	Percentage Female workers	Percentage Male workers	Young - 18-35 Years	35-50 Years	51-Retirement	Comment (on which organizations did you get these numbers, how many organizations, etc.)
Bosnia and Herzegovina	2247	24.03% (540)	75.97% (1707)	27.77% (624)*	43.66% (981)*	28.62% (643)*	Data collected in a survey with 35 utility companies in Republika Srpska, conducted by a WSS project consultant
Albania	5727	20.25% (1159)	79.75% (4565)	NA	NA	NA	Data collected from all 14 utilities in Albania. Through yearly collection by Department of economic and support services from National Agency of Water Supply and Wastewater.
Kosovo	2158	13.92% (300)	86.08% (1858)	18.56% (400)	32.22% (695)	47.66% (1028)	Data collected from Yearly Business plan of all seven water utilities in Kosovo. However, the gender and age distribution percentages represent an average of only four utilities, as the remaining three did not provide this data. Water utilities constitute the largest and most significant segment of Kosovo's water sector.
North Macedonia (only 4 utilities)	407	62 (15.23%)	345 (84.77%)	7.28%	25.84%	66.89%	Data collected in 4 utilities out of 82 utilities. The data percentages on age are based on 3 utilities only.

* Bosnia Herzegovina data collected had slightly different age ranges: up to 40, 40-55, over 55

Table 2: HR Data from all 14 utilities in Albania

Organization	Country	Number of workers	Number of female workers	Number of male workers
SHRUK Berat Sh.a	Albania	356	44	312
SHRUK Dibër Sh.a	Albania	248	53	195
SHRUK Durrës Sh.a	Albania	1137	239	898
SHRUK Elbasan Sh.a	Albania	726	163	563
SHRUK Fier Sh.a	Albania	568	98	470
SHRUK Gjirokastër Sh.a	Albania	314	76	238
SHRUK Korçë Sh.a	Albania	246	52	194
SHRUK Kukës Sh.a	Albania	169	34	135
SHRUK Lezhë Sh.a	Albania	305	80	225
SHRUK Lushnjë Sh.a	Albania	216	34	182
SHRUK Pogradec Sh.a	Albania	205	40	165
SHRUK Sarandë Sh.a	Albania	279	51	228
SHRUK Shkodër Sh.a	Albania	449	91	358
SHRUK Vlorë Sh.a	Albania	506	104	402

Table 3: HR Data from 4 utilities in North Macedonia (out of 82 utilities)

Organization	Country	Number of workers	Number of female workers	Number of male workers	Young 18-35 years	35-50 years	51-Retire-ment
Jkp Komunalec	North Macedonia	84	17	67	2	20	62
Isar Stip	North Macedonia	284	39	245	—	—	—
Eremija Vevcani	North Macedonia	12	2	10	1	2	9
Jkp Mavrovo	North Macedonia	27	4	23	3	10	14

Table 4: Board Composition in utilities in Kosovo from Yearly Business Plan

Organization	Country	Board members (total)	Female board members	Male board members	High management members (total)	Female management members	Male management members
RWC "Prishtina" JSC	Kosovo	6	3	3	11	1	10
RWC "Hidroregjioni Jugor" JSC	Kosovo	5	2	3	11	0	11
RWC "Mitrovica" JSC	Kosovo	4	2	2	8	2	6
RWC "Gjakova" JSC	Kosovo	6	3	3	—	—	—
RWC "Hidromorava" JSC	Kosovo	5	3	2	—	—	—
RWC "Hidrodrini" JSC	Kosovo	5	3	2	—	—	—
RWC "Bifurkacioni" JSC	Kosovo	4	2	2	11	2	9
"IBËR - LEPENC" JSC	Kosovo	6	2	4	8	1	7

Comments:

It is important to note that, according to Kosovo's legal framework, equal gender representation in legislative, executive, and judicial bodies, as well as other public institutions, is ensured when each gender holds at least 50% of positions. While the data presented in the table reflects gender balance in boards, the situation is drastically different when it comes to the management of water utilities.

(Data presented in the table is sourced from the official webpages of each utility in Kosovo.)

Table 5: HR in YWP's organizations

Name	Nina	Leon	Sanja	Tanja	Jelena
Organization	Gradiška UC	Vodovod Bar me	Department of chemistry, biochemistry and environmental protection, Faculty of Sciences, Novi Sad	Jkp Komunalec	Institute of Biology (Faculty of Natural Sciences and Mathematics)
Country	Bosnia and Herzegovina	Montenegro	Serbia	North Macedonia	North Macedonia
Number of workers	86	172	118	84	39
Number of female workers	20	47	89	17	24
Number of Male workers	66	125	29	67	15
Young - 18-35 years	26 (a)	28 (b)	38	2	12
35-50 years	21 (a)	106 (b)	73	20	20
51-Retirement	39 (a)	38 (b)	7	62	7
Percentage of females in manager positions	33.33%	4.56.% (c)	—	33%	—
Percentage of males in manager positions	66.67%	8.14% (c)	—	66%	—
Percentage of 18-35 in manager position	26.00%	7% (c)	—	—	—
Percentage of 35-50 in manager positions	40.00%	—	—	—	—
Percentage of 51 retirement in management positions	34.00%	—	—	—	—

(a) age ranges differ: 20-30 (3staff), 30-40 (23 staff) so grouped under 35.

(b) age range differs: The age range 30-40 in this instance includes people with age ranges 36-55 (37.21% - 36-45 years; 24.41 % - 46-55 years of all staff); The age range 51 + includes those above 55 (10.46% are retiring in next 5 years)

(c) Refers to percentage of all workers

Table 6: Universities and water(related) courses across the Balkan

Name of university	Department (or faculty)	Study program (including Bachelor / Master)	Country
University of Prishtina	Faculty of Civil Engineering	Hydrotechnics	Kosovo
University of Prishtina	Faculty of Civil Engineering	Integrated Water Resources Management (study programme on Master studies)	Kosovo
University "Ss. Cyril and Methodius", Skopje	Faculty of Natural Sciences and Mathematics	Ecology and environment (study programme on Bachelor studies)	North Macedonia
University "Ss. Cyril and Methodius", Skopje	Faculty of Civil Engineering	Construction - Hydrotechnics (study programme on Master studies)	North Macedonia
University "Goce Delcev", Stip	Faculty of Natural and Technical Sciences	Environmental Engineering (study programme on Bachelor studies)	North Macedonia
University "Goce Delcev", Stip	Faculty of Natural and Technical Sciences	Hydrogeology (study programme on Master studies)	North Macedonia
University of Montenegro	Faculty of Natural Sciences and Mathematics	Biology (study programme on Bachelor studies)	Montenegro
University "St.Kliment Ohridski"	Faculty of Biotechnology	Environmental Engineering (Bachelor studies)	Macedonia
University of Sarajevo	Faculty of Natural Sciences and Mathematics	Ecology (study programme on Bachelor studies)	Bosnia and Herzegovina
University of Sarajevo	Faculty of Natural Sciences and Mathematics	Ecology (study programme on Master studies)	Bosnia and Herzegovina
University of Banja Luka	Faculty of Sciences	Ecology and environment (study programme on Bachelor studies)	Bosnia and Herzegovina
University Džemal Bijedić of Mostar	Faculty of Civil Engineering	Environmental infrastructure management (study programme on Master Studies)	Bosnia and Herzegovina
University of Bihac	Faculty of Biotechnology	Environmental Engineering (study programme on Master studies)	Bosnia and Herzegovina

University of Novi Sad	Faculty of Sciences, DCBEP	14 courses in bachelor studies and 16 courses for master studies	Serbia
University of Tirana	Polytechnic Faculty	Hydrotechnical engineering (BSc, MSc)	Albania
University of Tirana	Faculty of Geology and Mining	MSc Geological engineering and Hydrogeology	Albania
University of Tirana	Faculty of Natural Sciences	Natural and Environmental Sciences (study programme on Bachelor studies)	Albania
University of Tirana	Faculty of Natural Sciences	Environmental Biology (study programme on Master studies)	Albania
University of Tirana	Faculty of Natural Sciences	Natural and Environmental Sciences (study programme on Bachelor studies)	Albania
University of Tirana	Faculty of Natural Sciences	Environmental Biology (study programme on Master studies)	Albania