ASSESSING THE WATER MEGA TRENDS AND IMPLICATIONS IN KOSOVA

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Abstract

Megatrends can be defined as broad, long-term global patterns affecting management practices and processes, ranging from demographic shifts and urbanization to technological advancements, climate change, and geopolitical changes. This paper aims to address the science-policy interface and bring together evidence that develops systemic co-created knowledge while supporting policymaking and decision-making at the Kosovo level to solve environmental issues. A literature review and focus group-based methodology were used first to identify key global megatrends and then reflect on the streamlined process needed to help Kosovo consider the implications of global megatrends (GMTs) and prepare outlook information related to water management. For the case of Kosovo, two global megatrends have been chosen for assessment: GMT 7 (Intensified global competition for resources) and GMT 9 (Increasingly severe consequences of climate change). Our analysis suggests important implications that address the water-related problems in a coordinated manner and the need for societal responses that may be appropriate for the future. Both selected GMTs are participatory in focus and use a systematic approach that needs evidence to prioritize potential impacts on natural resources and climate change in Kosovo. Further, the implications and relevance of the GMT showed the need to strengthen policy measures following national priorities and circumstances.

Keywords: global megatrends, environmental foresight, science-policy interface, water management.

Introduction

The European Environment Agency (EEA) has been working for years to enhance the science-policy interface and bring together evidence that supports policymaking and decision-making at the European level to solve environmental and water-tackling issues. At this time, it's essential to have an adaptable, sustainable application solution that global megatrends brink to support the change and future of our society. To understand how the identified eleven GMTs will impact the environment in each European country and Europe as a region, the EEA took this initiative to search for the systemic knowledge required and identify the barriers that exist to the creation and use of such knowledge. In this regard, the EEA published a method toolkit, *Mapping Europe's Environmental Future: Understanding the impacts of global megatrends at the national level* (Eionet, 2017).

Overall, the term "Mega Trends" encapsulates broad, long-term global patterns affecting or are expected to affect all sectors of society, ranging from demographic shifts and urbanization to technological advancements, climate change, and geopolitical changes. Understanding Mega Trends is pivotal in grasping the future landscape of various sectors, including water management. Water, a critical resource that underpins public health, economic development, and environmental sustainability, is being redefined by these large-scale trends. This paper summarizes key contributions to the discourse on Mega Trends and their implications for assessing the water landscape. Water resource management is a key challenge facing countries globally, especially in changing climate conditions and increasing demands due to population growth and industrialization. Like many other countries, Kosovo has adopted a legal framework for environmental conservation but is facing numerous challenges in effectively implementing water management policies. Kosovo has made efforts to adopt laws that align with European Union (EU) standards, but the lack of enforcement and compliance

remains a primary issue. This phenomenon is not unique to Kosovo; the disconnect between policy adoption and implementation is a global problem.

Global Mega Trends (GMTs)

Understanding Global Mega Trends (GMTs) is crucial for many reasons across different sectors and levels of decision-making of businesses and organizations, as well as comprehension of trends that would allow for informed long-term strategic planning. Policies that reflect the trajectory of these long-term shifts are more likely to be effective and sustainable, addressing the core challenges and opportunities that will come with future transformations. Global Mega Trends (GMTs) (Figure 1) influence worldwide environmental governance. Two Mega Trends are particularly relevant to Kosovo: GMT 7 (Intensified global competition for resources) and GMT 9 (Increasingly severe consequences of climate change) (EEA, 2015).

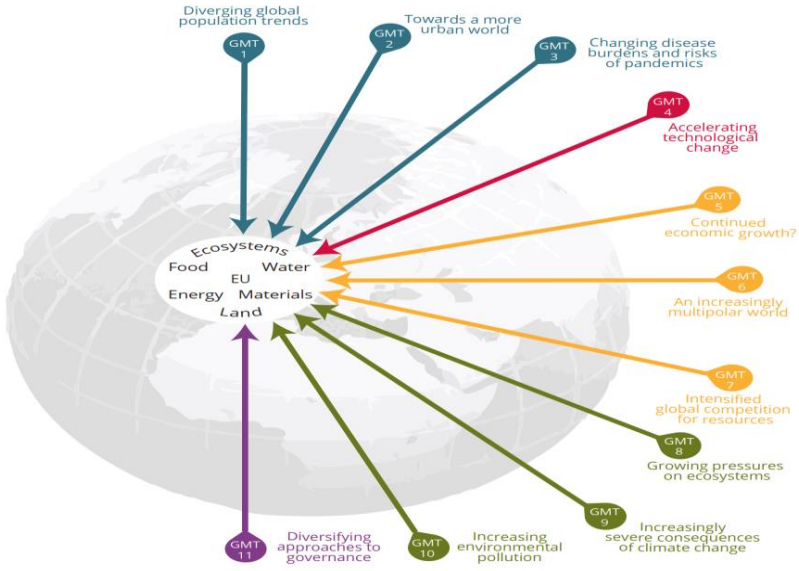


Figure 1. Global Megatrends (**Source: EEA, 2015a).**

GMT 7: Intensified global competition for resources

The global demand for water resources is increasing exponentially, which exacerbates competition (Brown & Matlock, 2011). Kosovar policymakers need to factor in how international demand for water affects domestic supplies (Homer-Dixon, 1994). While the literature establishes the global nature of this trend, there is a limited focus on Kosovo's specific circumstances.

The competition is not merely among countries; it also occurs between sectors within a nation (agriculture, industry, etc.) and even among different social and economic groups. For instance, the trend has spawned market mechanisms such as "virtual water trade," where nations with water scarcity import water-intensive goods instead of producing them domestically (Hoekstra & Chapagain, 2008). While such mechanisms are innovative, they can also lead to vulnerabilities, especially for developing economies dependent on external resources. For Kosovo, this Mega Trend is significant for a variety of reasons. First, Kosovo is a relatively new and small state with a developing infrastructure, making it vulnerable to external market pressures. Its water resources, shared with neighboring countries, become a potential flashpoint for conflict (Zeitoun & Warner, 2006). Kosovo's political scenario, including its relationship with neighboring countries, exacerbates the competition. Regional geopolitics significantly influences water-sharing agreements and management strategies. In such a context, the intensified global competition adds another layer of complexity, potentially inviting external actors who might seek to exploit Kosovo's resources (Krampe, 2011). As global competition intensifies, Kosovo may find its capacity to manage its water resources strained unless preemptive steps are taken. Adaptability failure could result in economic losses, social strife, and potential geopolitical conflicts (Carius et al., 2004). While studies are exploring the implications of global resource competition, they often adopt a macro perspective and do not sufficiently delve into how smaller states like Kosovo are uniquely affected (Deudney & Matthews, 1999). Therefore, there is a need for empirical, Kosovo-specific studies that can offer insights into how this global mega trend is impacting the

country's water resources and what strategies can be developed to mitigate adverse effects.

GMT 9: Increasingly Severe Consequences of Climate Change

The literature shows climate change impacts water resources through increased evaporation rates, altered precipitation patterns, and more frequent extreme weather events. These trends raise questions about Kosovo's adaptive capacities (Adger, 2006) and how these could be bolstered through policy interventions. In the realm of water management, the impact is incredibly profound. Climate variables like temperature and precipitation significantly influence the water cycle. Climate change can exacerbate water scarcity through altered hydrological cycles that result in less predictable and more intense rainfall events (Vörösmarty et al., 2000). Due to its geographical location, limited water resources, and burgeoning industrial and consumer demands, Kosovo faces particular challenges. Changes in precipitation patterns and rising evaporation rates due to higher temperatures, could lead to reduced water availability (Blöschl et al., 2019). In addition, the higher incidence of extreme weather events like floods and droughts further strains Kosovo's already limited adaptive capacities (Reid et al., 2009).

The ramifications of this Mega Trend will likely have a more pronounced impact on vulnerable populations, including rural communities, the elderly, and the economically disadvantaged (O'Brien & Leichenko, 2000).

Current climate models offer broad-scale projections, but there is an urgent need for localized studies that can provide nuanced insights pertinent to Kosovo (Giorgi, 2006). Research should also investigate the social dimensions of climate change to identify the populations most vulnerable to water scarcity and the types of interventions that would be most effective (Adger et al., 2003). Understanding this Mega Trend and its localized impacts is crucial for informed policymaking. Kosovo's policymakers need to consider both adaptation and mitigation strat-

egies, which could range from constructing more resilient water infrastructure to initiating community awareness programs focused on water conservation (Berkhout et al., 2006)

Science-Policy Interface (SPI)

The European Environment Agency (EEA) and European Topic Centre (ETC) method toolkit serve as vital resources for defining capacity and expertise in foresight for Kosovo (EEA, 2020). These toolkits' participatory methods could bridge the gap between scientific research and policy decisions (Turnhout et al., 2010). Given Kosovo's challenges in water management, from weak implementation of laws to susceptibility to global Mega Trends, a strong SPI is essential. Effective SPI practices can help bridge gaps between the complex science of water resources and the practical needs of governance. One major challenge is the 'credibility gap', where policymakers may not fully trust scientific input due to perceived bias, complexity, or irrelevance to immediate concerns (Pielke, 2007).

Other challenges may include institutional inertia, lack of resources, and capacity constraints that limit the effective utilization of scientific knowledge (Caplan, 1979).

Adaptive and Sustainable Solutions

Evidence-based adaptive management strategies can be translated to the needs of the Kosovo case. The literature suggests a multi-tiered governance approach water resources effectively (Ostrom, 2009). Adaptive management involves a structured, iterative process of decision-making in the face of uncertainty, aiming to reduce uncertainty over time via system monitoring (Walters, 1986). It is particularly crucial for water resource management, given the complex and dynamic nature of hydrological systems (Holling, 1978). Kosovo could benefit from implementing 'learning-by-doing' strategies (Lee, 1999). These include monitoring key indicators in real-time, conducting periodic evaluations, and allowing for adjustments in policy and practices based on evidence and

performance data. For Kosovo, this involves developing water management practices that are economically viable, socially just, and ecologically sound. Infrastructure investment must consider long-term operating costs, ecological impact, and social acceptability. This could include transitioning from high water usage industries to more sustainable options and investing in water-saving technologies and wastewater treatment plants. Kosovo could invest in technologies for real-time monitoring of water quality and usage, thereby enabling rapid response to emerging issues such as pollution or over-extraction, but also in advanced technologies such as remote sensing, Geographic Information Systems (GIS), and the Internet of Things (IoT).

In general, the paper presents the foresight implication of GMT's and their potential implications on the Kosovo Water thematic aspects, current status, or sustainability of water management.

Methodology

The methodology used for assessing the implication of the GMTs was in line with the EEA GMTs selection toolkit and "checklist document" developed by the EEA SOER guidelines considering environmental studies and generated from different sectoral and spatial perspectives in Kosovo.

The following steps have been used to analyze the selection of GMTs in the Kosovo case:

1. Exploration of the implications of global megatrends on the environment and environmental policies at the national level;
2. Assessment of sustainability transitions and niche innovations using examples from other countries;
3. Development of methods that enabled countries to reflect on the impacts of the EEA GMTs and their meaning at a national level;
4. Overview of risks and opportunities now and in the future;

5. Considering the implications of GMTs by reviewing studies focused on topics of interest and in line with the level of expertise and capacity within a country.

Considering the data and information from the national level, two global megatrends have been selected to assess their implications in Kosovo: GMT 7: Intensified global competition for resources and GMT 9: Increasingly severe consequences of climate change. Both selected GMTs are analyzed regarding their implications on the national level, their potential effect on the national ecosystems, water quality or resources, human health, and sustainable development. The research is focused on the information gathered from the focus group meetings and data reflected on the assessment of the National Action Programme and other strategies in place related to water use, ecosystem vulnerability, and climate change effects in Kosovo; discussed the prioritizing implications (water & sectors and ecosystem vulnerability) and GMTs 7 and 9; determined initial scoping of implications (likelihood, magnitude and time scales of effects) as well as analyzed opportunities and risks; and provided recommendations for follow-up at the national level. Both proposed methods are participatory in focus and use a systematic approach that needs evidence to prioritize potential impacts on natural resources and climate change in Kosovo based on the knowledge and judgment of the experts and other involved stakeholders.

To develop an improved focus on these implications, five workshops were organized in Kosovo to discuss the selected megatrends, as described by the EEA, and to assess the impact on the Kosovo environment, with a particular focus on water relations to sectors (agriculture, energy, drinking water supply, etc.) and ecosystem vulnerability (wastewater treatment plants, minimum flows, and water levels, etc.). The workshops gathered the main stakeholders to share their knowledge and provide input for the national State of the Environment for Kosovo. In this context of reaching the research objective and investigating the environmental impact of GMTs, the focus group discussions addressed the analyses of effect as well as the potential timescale in which GMTs implications could occur in the Kosovo case. The main discussions

were focused on understanding the impacts of global megatrends based on basic resource needs such as food, water, energy, materials, and ecosystems and their services.

Scoping of GMT implications in the Kosovo case

The national analysis resulted in the selection of GMTs for our national exercise to analyze the potential implications on water. The selected GMT 7 and GMT 9 have been analyzed following the EEA's methodologies.

Table 1. Summary of GMT implications identified by main stakeholders in Kosovo

GMT	Identified GMT implications	National issues considered most likely affected by implications
GMT 7 Intensified global competition for resources	Effect of the water supply	Structural economic changes and economic risk Overuse of water resources Need for increased renewables and efficiency Not all strategies are developed to implement all the processes Water pollution and flooding *The new water reservoirs planned with Kosova's strategic plans in the transboundary rivers shared with North Macedonia, Serbia etc. (e.g. the reservoir planned in Lepenc river which is a tributary of Vardar river).*
	Limits on the amount of resources available	
	Increased environmental burdens	
	Risk for prices & availability of resources	
	Insecurity and conflict linked to resource competition	
	Need for renewables Biomass and Biogass	
	Risk of supply for critical resources	
GMT 9 Increasingly severe consequences of	Increased frequency of droughts and fires	River and urban flooding Droughts and erosion Infrastructure damage Risk to food systems Economic risk
	Precipitation changes	
	Loss of ecosystems/biodiversity	

climate change	Increase in environmental problems – water resources decrease	
	Risk to food security	
	Allien species	

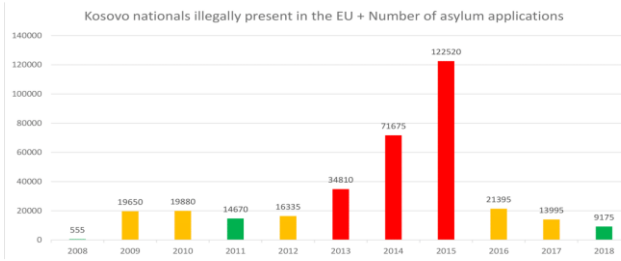
Table 2. Scoping of identified implications

GMT title	Prioritized Implications	Estimated likelihood (high/low)	Magnitude of effect (high/low)	Timescale over which implication may occur
	Effect of the water supply	High	High	Medium-term
GMT7	Limits on the amount of resources available	High	High	Medium-term
	Increased environmental burdens	High	High	Medium-long term
	Risk for prices & availability of resources	High	High	Medium-long term
	Insecurity and conflict linked to resource competition	Low	Medium	Short-medium term
	Need for renewable energy - biomass and biogas	Low to medium	Low to medium	Short-medium-long term
	Risk of supply for critical resources	Medium	High	Medium-long term

GMT9	Increased frequency of droughts and fires	High	High	Short-medium-long term
	Precipitation changes	Low to medium	Medium	Short-medium-long term
	Loss of ecosystems/biodiversity	Medium	High	Short-medium-long term
	Risk to food security and human health	Medium	Medium	Short-medium-long term
	Increased damage to (water) infrastructure	Low to medium	Medium to high	Long term
		Low to medium	Medium	Short term
	Effect of the water supply	Medium to high	Medium to high	Short-medium-long term

Table 3. Rank of implications –important aspects to be considered further

GMT7 Intensified global competition for resources	
Implication: Increase in environmental problems – water resource decrease	
Social aspects: effects on human health, loss of jobs due to the decrease in environmental investments, migration (brain drain) internationally, as well as displacement inside the	Prioritization of sectors (agriculture has the highest potential) with the highest importance/potential for development – utilizing/materializing resources already available (take advantage of monitoring provided by local communities).

country from rural to urban areas.	 (Source: Garcia, 2020)
Economic aspects: competition for critical resources in the whole region, risk for agriculture and farming regarding resource availability, GDP – export and import of the products.	The role of donations as a form of investment for development – a small investment could change the situation (according to the priorities, e.g., IPA3 for municipalities now). Improve of the mechanisms in monitoring, implementation and enhancing the capacity building in environmental problems. Water Security is closely linked to national security in Kosovo, given its topography and history and its dependence on the Ujman/Iber-Lepenc system.
Governance aspects: lobbying/corruption as competition for resources increases due to environmental problems.	***Lobbying*** is considered an important ***aspect*** of governance; however, environmental issues are often dominated by influential players. It is also followed by governmental changes/reduction in donations/investments because of environmental issues, etc. *Corruption* remains an issue of serious concern.
Lifestyle changes – adaptation to the new challenges (e. g., similar to what was seen during the pandemic).	Kosovo needs to make significant progress in climate change mitigation, reducing greenhouse gas emissions, consumption of natural resources and nature protection. The role of financial inclusion and international remittances in Kosovo are important; they led towards the lessons learned after the pandemic effects and provided opportunities to adapt to the new environmental and lifestyle changes (World Bank, 2022).

Implication: Need for renewable energy - biomass and biogas	
Loss of biodiversity, highly valued ecosystems (e. g. forests)	Holistic and multisector cooperation, programmatic approach. Biomass potential is considered forests in Kosovo that represent a good energy source. Researchers confirm that there is potential to increase the capacities of energy from 0 MW in the transmission system to 16 MW for the use of biomass within the next 10 years. Some studies identified an estimated potential of 120 GWh/year for the medium-term to be achieved in recent years. (Rizvanolli, 2019)
Changes in the amount of air and GHGs emissions,	Taking advantage of EU funding to support the low-income countries' investments.
Land use and land cover changes and the issue of land ownership.	Learning from the experiences and knowledge of the other countries. Knowledge transfer.
Loss of ecosystem services (e.g. changes in carbon sequestration).	Change in energy mix – switch from fossil fuels to renewable ones.
Insufficient infrastructure to support the increase in renewable energy production (distribution, storage). Cost of the transition for the energy system. Loss of jobs in the energy sector (due to lack of skills).	The need for renewable energy will need to be complemented with energy efficiency measures – nature-based solutions (green roofs, green facades as isolation). Achieve the EU goals concerning renewable energy. Development of the new infrastructure/energy systems that enable distribution and storage of the energy. New job opportunities in the green sector.
	Evidence: According to the national energy plan in Kosovo, and about 25,69% of renewable energy was reached in 2019, surpassing its 2020 target by 25%. However, according to the plan, this refers to the sectorial

	target for heating and cooling being overreached, while contributions of renewable energy to electricity and transport are still very low.
GMT9 Increasingly severe consequences of climate change	
Implication: Increased frequency of droughts and fires	
Increased loss of biodiversity and forest (loss of habitats and species)	Development of fire management plans and an early warning system for forest fires.
Degradation of soil, and agriculture sector impacts (loss of productivity, also as an economic impact).	Development of infrastructure (e.g. artificial lakes) for water accumulation.
Forest fires – increased air pollution and GHGs emissions.	Increase people's awareness of the importance of reducing forest fires (especially in the summer season) and changes in their behaviour.
Water shortages due to droughts.	Raising awareness for efficient water use and reducing water leaking (increasing artificial resources).
Population migration from the affected places (to the more secure places).	Increase the resilience to the impact of droughts and fires.
Loss of the ecosystem services of the forests (loss of the groundwater regulation, increase of the erosion).	Upgrade spatialized management solutions, establish efficient monitoring systems, and invest in technological infrastructure.
Increase impact on natural and cultural monuments due to acid rain.	Developing long-lasting infrastructures that can continuously protect the monuments from degradation.
Economic impacts due to the loss of people's properties.	Kosovo's unemployment rate (40%) remains very high compared with other European countries (World Bank, 2022). The country relies heavily on remittances from the diaspora due to slow economic progress. Some of the problems burdening Kosovo

	include high levels of air pollution, a deficient education system, the absence of a visa liberalization agreement with the EU, the impact of the COVID-19 pandemic, which entailed lockdowns and a significant economic contraction as well as property loss.
	Evidence: • Warming is becoming higher than average, especially for mountain areas. • Decrease in overall annual precipitation, with most significant decreases in summer. • Increases in winter precipitation, particularly in mountains, resulting in more frequent spring flooding. • In Kosovo, a decline of 50 days per year of snow cover by 2050
Implication: Risk to food security and human health	
Loss of productivity.	Introduction of crops that are more drought resilient.
Internal and external migration due to food security issues.	Development of food control process (improvement of human health and reduced mortality).
Lack of food quality control for foods produced in the country and imported.	Development of food control process (improving human health and reducing mortality).
Higher exposure to lower quality products imported to Kosovo (e. g. in the case of meat).	Improvement of incentives (e.g., subsidies) for national food production.
Uncontrolled use of pesticides in agriculture (infiltration in the groundwater).	Development of a soil monitoring plan for agricultural land.
Lack of local food production and increased imports/increasing food	Increase the agricultural products from the rural areas (local producers) with the support of the government.

prices lead to lower-income people consuming food of unknown quality.	
Lack of ***social*** and economic determinants of ***health*** addressed in national policies and programmes that ***enhance health*** equity.	Increase the government and social capacities to prevent risk and improve human health.
	Central-level institutions should intertwine policies to promote agriculture among youth and discourage migration. There should be more quality checks and control of food items, as this is a practice that Kosovo lacks. Proper implementation of legislation in place is needed, and better monitoring mechanisms for the whole food system legislative framework are required. Farmers and producers should be more aware of the importance of professional consulting services and provide training programs to increase their capacities in sustainable production practices.

The result showed the need to improve the cooperation and interaction between different entities," which is inherent to the concept of sustainable development and knowledge-based system in water management, food security, and nature protection. Another important aspect is the government's stand that must provide financial support for appropriate environmental management planning and work more toward the excellent reformulation of environmental policies. The government investments must be maximized and focused on increasing institutional pluralism in the extension of services, maximizing public welfare, and enhancing access to the economic efficiency of the water, energy, infrastructure, and agriculture sectors in the identified GMT's approach.

Mechanism of collaboration and interaction:

Multi-actor partnerships are proposed as the most effective way of organizing innovations and ensuring sustainability of water management, use of resources, climate change mitigation, food production, community involvement, etc. Enhancement of the partnerships and networking among institutions in charge presents the basis of , solid, and effective cooperation, public-private partnerships, institutional pluralism,participation from the producers/organizations, etc. Therefore, the investment in stakeholder capacities through training, environmental knowledge, and exchange is of great interest.

Policy gaps and needs

This section presents the key environmental legislation developed in Kosovo in line with EU requirements and identifies gaps and needs for improvements. Implementing national legislation in the light of EU legislation is one of the main challenges ahead. Kosovo Environmental Strategy (KES) represents one of the most important steps towards the complete and long-term protection of the environment. The Kosovo Environmental Action Plan (KEAP) is the outcome of the KES operational part, which was an obligation derived from the existing Law on Environment Protection. In the best possible way, obligations deriving from EU laws and international agreements have been taken into account in the development of this document.

Kosovo adopted a wide environmental legal framework where the primary legislation has been complemented and, in some cases, repealed by new environmental laws that continue to envisage incorporation in the EU environmental *acquis*. Therefore, weak implementation is considered to be at the root of weak practices that are openly carried out in most of Kosovo's territory, such as deforestation, illegal building, **poor implementation** *of* **water** resources management functions, etc. In this regard, Kosovo still suffers from a lack of enforcement and compliance with the laws. On the other hand, the progress related to improving water quality has also been limited in line with Law No. 04/L-

147 on the waters of Kosovo. The issue of low administrative capacities, weak water management in terms of organizational structure and number of qualified staff, and the current institutional set-up implements the Law on Water very difficult to coordinate. The planning and preparation of the infrastructure investment are lagging due to the low funding compared to the needs of the water sector. The lack of investments and lack of wastewater treatment facilities continue to hamper the operation of water treatment. In addition, the Kosovo National Water Strategy Document 2017-2036 defines the new actions needed and the measures for water resource conservation and protection

Further, the strategy for climate change is another crucial step in the management policy process of mitigating GHG adopting to climate change for the upcoming years. It is also an opportunity to see the mitigation and adaptation measures that will stimulate sustainable development. This strategy refers to ecological, social, or economic adjustments in response to actual or expected climatic simulations and their effects or impacts. The strategy foresees changes in the processes, practices, and structures to moderate potential damages or benefit from climate change opportunities. Energy Strategy 2017-2026 determines the main factors for the country's economic development, and the increase in social welfare is the security of the energy supply. It also foresees fulfilling targets and obligations in energy efficiency, renewable energy sources, and environmental protection. However, in the Kosovo case, more efforts are needed to strengthen the institutional capacities, enforce legislation, create a safe environment for investments from the business sector, and finance new technologies that will help tackle the environmental challenges and support remediation processes. Another important aspect is strengthening multi-stakeholder cooperation and avoiding overlapping or shared jurisdiction related to water management issues and environmental protection in Kosovo.

Conclusions

In this paper, we have identified and discussed the implications of two megatrends in relation to water management practice. GMT’s practice described in the paper showed that the implication and future develop-

ment could predict future impacts and then provide solutions on approaches underlining resilience and sustainability assessment. Even though the paper dealt with few specific challenges on water resource availability, water shortages, and increased flood risk, we also recognize that other challenges could form part of further future research, such as the implications of megatrends for effective implementation of environmental assessment and mitigation measures as well as the people's awareness and changes in their behavior.

Another important aspect of the science-policy interface is the need to identify and formulate strategies that require a more extensive research approach and understanding of the implications of GMTs. Further, the relevance of applying GMTs in Kosovo on the water case depends on the economic, social, political, and environmental implications. However, an important focus is how Kosovar society adsorb megatrends' opportunities.

To sum up Kosovo's strategies, there is a need for inter-institutional cooperation that ensures transparent and effective flows of information, knowledge, and financial resources to support sustainable development through effective water resource management, climate change, and environmental protection needs. In this regard, the government will need to identify and select measures that best suit their level of development and governance frameworks in alignment with environmental management, climate change mitigation, and adaptation. Further, the GMT's implications and relevance showed the need to strengthen policy measures following national priorities and circumstances. It is important to undertake policy measures and identify the synergies among economic, environmental, and social objectives and use this information to set policy priorities such as updating the fund schemes, investing in renewables, promoting green technology use in agriculture, encouraging participation of different stakeholders in decision making and promoting green infrastructure, foster the share of adequate information associated with implementing policies.

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VLERËSIMI I MEGATRENDEVE DHE IMPLIKIMEVE TË TYRE NË UJËRAT NË KOSOVË

Mihone Kerolli Mustafa

Përmbedhje

Megatrendet globale përdoren gjerësisht sot për të vlerësuar implikimet në praktikat e vlerësimit mjedisor. Kjo metodë përdoret kryesisht për parashikimin dhe planifikimin e hershëm të zgjedhjeve të mundshme që qojnë drejt një zhvillimi të qëndrueshëm mjedisor. Në përgjithësi, megatrendet globale janë forca makroekonomike dhe gjeostrategjike që përdoren për formimin e mundësive të jashtëzakonshme për të parandaluar dhe reduktuar rreziqet mjedisore. Në përgjithësi, termi "Mega Trends" përmbledh modele të gjera, afatgjata globale që prekin ose pritet të prekin të gjithë sektorët e shoqërisë, duke filluar nga zhvendosjet demografike dhe urbanizimi te përparimet teknologjike, ndryshimet klimatike dhe ndryshimet gjeopolitike. Të kuptuarit e Mega Trends është thelbësore për të kuptuar peizazhin e ardhshëm të sektorëve të ndryshëm, duke përfshirë edhe menaxhimin e burimeve ujore. Ky punim synon të përmbledhë kontributet kryesore në diskursin mbi Mega Trendet dhe implikimet e tyre për vlerësimin e peizazhit ujor. Menaxhimi i burimeve ujore është një sfidë kryesore me të cilën përballen vendet në nivel global, veçanërisht përballë ndryshimit të kushteve klimatike dhe kërkesave në rritje për shkak të rritjes së popullsisë dhe industrializimit. Si shumë vende të tjera, Kosova ka miratuar një kornizë ligjore për ruajtjen e mjedisit, por aktualisht po përballet me sfida të shumta në zbatimin efektiv të politikave të menaxhimit të ujit. Kosova ka bërë përpjekje për të miratuar ligje që përputhen me standardet e Bashkimit Evropian (BE), por mungesa e zbatimit dhe pajtueshmërisë mbetet një çështje parësore. Ky fenomen nuk është unik vetëm për Kosovën; shkëputja ndërmjet miratimit dhe zbatimit të politikave është një problem global.

Në këtë punim, ne kemi identifikuar dhe diskutuar implikimet e dy megatrendeve në lidhje me ndërveprimin shkencë-politikë dhe praktikën e monitorimit mjedisor. Rezultatet e nxjerra janë një përmbledhje e punës së angazhuar me Rrjetin Evropian të Informimit dhe Vëzhgimit të Mjedisit për të analizuar rastin e Kosovës. Në rastin e Kosovës dhe rajonit, testimi dhe vlerësimi i aplikimit të GMT-ve është një process i ri si në kuptim ashtu edhe në zbatim. Megjithatë, analiza e rezultateve dhe informacioneve të gjetura rezultojne interesante në kuptim të trajtimit të lidhjes shkencë-politikë si në nevojën për identifikimin dhe formulimin e strategjive që kërkojnë një qasje më të gjerë kërkimore ashtu edhe nëkuptim të implikimeve të GMT-ve. Më tej, rëndësia e aplikimit të GMT-ve në Kosovë për rastin e ujit varet nga implikimet ekonomike, sociale, politike dhe mjedisore. Megjithatë, një fokus i rëndësishëm në të ardhmen është se si shoqëria kosovare i përvetëson mundësitë që ofrojnë megatrendet.