

Topic Concept Note Template

Thematic Process, 11th World Water Forum

- **Theme Number:** [6]
- **Theme Title:** [Value of Water]
- **Topic Number:** [6A]
- **Topic Title:** [Valuing water for sustainable Economic growth]
- **Topic Coordinator:** Ministry of Environment, Water and Agriculture (MEWA) KSA/ the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), League of Arab States (Mohamed MOKHTAR, Water Expert)

I. Topic Overview

- **Valuing water:** understanding and assessing water's full value beyond cost or price, including economic value; social value; environmental value; resilience value.
- **Sustainable economic growth:** creates prosperity without depleting water resources; manages risks and uncertainties including climate change; ensures integrational benefits, not short-term gains; and recognizes water as a strategic input to economic systems.

Water valuation is increasingly recognized as a critical enabler of sustainable economic growth, as it allows decision-makers to understand and capture the full economic, social, environmental, and resilience value of water beyond its direct cost or price. In many contexts, water remains undervalued in planning and investment decisions, leading to inefficiencies, resource depletion, and increased vulnerability to climate risks. By adopting more accurate and comprehensive valuation approaches, countries and institutions can make more informed decisions, improve resource allocation, and strengthen economic resilience across sectors.

The topic explores how integrating water valuation into economic planning, policy frameworks, and investment strategies can support sustainable growth, enhancing productivity, and ensure long-term water security. It highlights the role of water as a strategic asset within economic systems and examines how improved valuation can drive innovation, efficiency, and inclusive development across regions, particularly in water-scarce and climate-vulnerable contexts.

Rationale and Context

'Water' is one of the basic inputs to economic growth, social stability, and environmental sustainability. Besides, in most regions, water remains undervalued in economic and development

planning, investment decisions, and policy frameworks, leading to inefficiencies, unsustainable abstraction, and heightened vulnerability to climate change. This topic addresses the need to move beyond water as a purely technical or sectoral issue, and instead recognize its full economic, social and environmental value as one of the drivers of sustainable development.

Valuing water for achieving sustainable development is central to achieving long-term water safety and security, economic, social, environmental and livelihood resilience, and social well-being. Water underpins agriculture, energy, industry, ecosystems, and urban development, yet its economic, social, and environmental value is often undervalued or poorly reflected in decision-making process. Water resources enable an extended value-chain that goes far beyond direct supply, generating economic and industrial value through agriculture, energy, manufacturing, services, and innovation, and contributing significantly to revenues, job creation, and overall economic growth.

Reliable WASH services are fundamental to public health, human dignity, and economic productivity, and their long-term sustainability depends on recognizing and valuing water as a critical social, economic, and environmental asset within planning and investment decisions.

within this context, it is important to note that public water management typically operates across policy, regulatory, and operational tiers. In many countries, water services are delivered under natural monopoly structures, reflecting the network-based nature of water infrastructure and the public interest considerations involved. While such arrangements are appropriate for water service provision, weak water valuation frameworks and limited performance incentives across these tiers can lead to efficiency losses. These losses often manifest through suboptimal water allocation decisions, as well as insufficient incentives for cost minimization, service improvement, and innovation.

Water usage patterns are often viewed as a mechanism capable of revealing the full economic value of water, which usually is discussed under water pricing frameworks. However, opinions on this approach differ across schools of thought. Supporters argue that market-based mechanisms improve efficiency and resource allocation, while opponents emphasize that water is a unique good with no substitute, raising concerns related to equity, access, and social welfare.

Valuing water for sustainable economic growth is a global concern, particularly in arid and water-stressed regions, where economic diversification, food security, energy transitions, and urban development are tightly constrained by water availability and governance. It aligns strongly with SDG-6 and contributes to other SDGs, such as (2, 8, 11, 12, 13, 15, and 17), while integrating cross-cutting dimensions including climate resilience, digital innovation, inclusive governance, partnerships, and sustainable financing. Where it addresses the need to integrate water valuation into development planning, investment strategies, and policy frameworks for conservation, utilization, and access to water resources at global, regional and at local levels.

Water creation comes from the entire water value chain, from the identification and development of water sources through abstraction, treatment, conveyance, distribution, and effective wastewater collection and treatment. The embedded water value includes significant economic, social and environmental opportunities to be explored. This value creation is realized directly and

indirectly through investments in infrastructure, technology, and innovation, as well as water recycling and sludge reuse.

Valuing water has been presented since 2018 as a concept to catalyze action for the sustainability agenda through the Making every Drop Count report from the UN and the World Bank. Since its conception, valuing water has had the goal to motivate decision-makers in the government and the private sector to recognize how important water is for value chains, while asking to better integrate different stakeholders in decision-making processes, prioritizing youth, women and local communities. Since then, there have been multiple exercises to implement this approach, including the Valuing Water Initiative in Bangladesh, which traced the contribution of water to the textile value chain; another example is the Government of Tanzania, who calculated the contribution of water for the country's economy, particularly in the tourist sector; and the Government of The Netherlands who collaborated with the Colombian, Chilean, Peruvian and Brazilian Government in the exploration of how valuing water can contribute to processes of inclusive water governance and to better understand how water contributes to risk management and how to better disclose water information for water companies.

Global water challenges such as water scarcity, pollution, demand and climate change requires a global scope to address and tackle these challenges, the Global Water Security and Sanitation Partnership (GWSP) is an example of the global collaborative effort to create innovative solutions to water challenges.

Young professionals, entrepreneurs, researchers, and community leaders are increasingly driving innovation in digital tools, circular economy solutions, data analytics, and nature-based approaches that can strengthen water valuation and decision-making. Youth inclusion and the engagement of future generations are therefore critical to the transition toward valuing water for sustainable economic growth. Integrating youth perspectives supports intergenerational equity, strengthens future institutional and workforce capacity, and ensures that valuation frameworks reflect societal priorities, innovation pathways, and long-term resilience needs for water-smart economies.

It is also essential to acknowledge the vital role of women in water consumption and use, particularly within developing communities. Women are often the primary managers of household water use and key actors in agricultural and community-level water practices. Their decisions and behaviors directly influence water-use efficiency, which in turn affects the cost of water production and distribution. Consequently, empowering women through targeted policies, access to information, and inclusive participation in water governance is closely linked to improved water efficiency outcomes and more accurate water valuation.

Objectives of the Topic

The intended objectives of this topic include:

- *Strengthen understanding of the economic, social and environmental value of water from grassroots to policy level;*
- *Support policy, institutional reforms and financial mechanisms that reflect the true value of water across sectors;*
- *Promote innovative tools, data, that enable sustainable economic and environmental growth;*
- *Strengthen capacity, knowledge-sharing, and resource mobilization to enable informed, co-created, and evidence-based decision-making.*
- *Develop an award scheme to the most sustainable and value creating water project or initiative.*
- *Promote coordinated awareness and advocacy campaigns to strengthen understanding and uptake of water valuation among the public, institutions, and government regulatory agencies.*
- *Strengthen youth, WASH and circular economy in water related economic policies and development mechanisms.*
- *To assess water-use efficiency and productivity in agricultural, industrial, and domestic sectors, and evaluate their implications for economic growth and resource sustainability.*
- *To analyse the relationship between water valuation, demand management, and investment efficient, particularly in water infrastructure and service delivery systems.*
- *To quantify the full economic value of water resources by incorporating production, distribution, operation, maintenance, and scarcity costs across different sectors.*

II. Key Issues, Opportunities, and Scope

Key Challenges:

Due to the complex nature of water valuation as it involves different stakeholders and views many gaps are identified, mainly user groups have different views on valuation, no clear economic benefits in terms of the price of water and its true economic value, there is no common approach to evaluate the water.

The main issues of this topic addresses:

- *Limited integration of water valuation in national economic and sectoral planning;*
- *Inadequate water valuation methodologies and frameworks in economic planning;*
- *Fragmented governance and regulatory frameworks across water-dependent sectors;*
- *Climate change impacts increasing water-related economic risks;*
- *Data gaps and limited access to valuation tools and decision-support systems;*

- *Perceiving water as a free public good remains a major challenge to sustainable and efficient water valuation;*
- *Political will in many cases, as well as the social acceptance in scarce water countries;*
- *Limited awareness, skills, and engagement among young professionals and the wider public on water valuation concepts, tools, and their implications for economic development.*
- *Insufficient Resilience of Agricultural Water Systems to Climate Change: traditional irrigation and drainage systems are often vulnerable to extreme weather events such as droughts and floods. A comprehensive assessment framework that fully incorporates climate risks into their design, operation, and management is lacking, which poses a direct threat to food security and rural economies.*

Opportunities and Strategic Importance:

The key issues and challenges:

- *Inadequate and fragmented water valuation methodologies:
Existing approaches to valuing water are often partial, sector-specific, or inconsistent, failing to capture the full economic, social, environmental, and risk-related value of water across scales and sectors;*
- *Lack of standardized and operational pricing frameworks:
The absence of robust, comparable, and decision-oriented valuation frameworks limits the ability of policymakers and investors to integrate water value into planning, budgeting, and investment appraisal;*
- *Weak linkage between valuation and decision-making:
Even where valuation studies exist, they are rarely translated into actionable policy instruments, regulatory mechanisms, or investment criteria;*
- *Limited data integration and methodologies transparency:
Gaps in data availability, interoperability, and transparency constrain the credibility and uptake of valuation results, particularly in water-stressed and developing regions;*
- *Climate and uncertainty not fully embedded in valuation:
Many valuation methodologies do not adequately reflect climate risks, variability, and long-term uncertainty, undermining their relevance for resilient economic growth.*

The above mentioned issues can be used as opportunities to:

- *Develop fit-for the -purpose valuation frameworks that integrate economic, social, environmental, and resilience dimensions and can be applied at national, basin, and project levels;*
- *Develop methods to link water valuation with finance and investment decision-making, enabling better project prioritization, risk assessment, and resource allocation;*
- *Improve the robustness, transparency, and scalability of water valuation methodologies by leveraging digital tools, data platforms, and analytics;*

- *Positioning water valuation as a strategic enabler of sustainable economic growth, climate adaptation, and inclusive development, particularly in arid and water-scarce regions;*
- *Embedding water valuation in development finance, investment appraisal, public budgeting, and social impact metric to value non-economic returns when investing on water;*
- *Driving Agro-Ecological Transformation, as innovative irrigation and drainage management is not merely a technical means to enhance water use efficiency; it is a core driver for transforming agricultural production towards more sustainable and ecologically resilient models. This approach can facilitate the synergistic restoration of water, soil, and ecosystems.*
- *Strengthening public-private partnerships and innovative financing mechanisms.*

Proposed Priorities of the Topic / Guiding Questions

The major guiding questions or prioritized-areas that will help structure Topic-level discussions and sessions, include:

- *How can water valuation be operationalized to support sustainable economic growth?*
- *What policy and institutional mechanisms enable effective valuation and allocation of water?*
- *How can digital innovation and data improve transparency and investment decisions?*
- *How can valuation approaches support climate adaptation and resilience?*
- *Deploy circularity to enhance water valuation and maximize the value creation.*
- *How can circularity be developed to enhance water valuation and maximize value creation?*

Proposed Sessions of the Topic

The proposed sessions of this topic include:

- *Session title: Water Valuation as a Foundation for Sustainable Development, awareness raising, development of innovative and digital tools, youth inclusion and WASH;
Session purpose: to establish a common understanding of water valuation and its role in supporting sustainable development, including economic, social, and environmental dimensions, while raising awareness among policymakers, youth, and stakeholders.
Format: interactive session combining case illustrations, and moderated discussion with multi-stakeholder participation.*

Expected output:

- *shared conceptual framework for water valuation;*
- *key messages for awareness and policy uptake;*
- *Identification of priority area for capacity-building and knowledge dissemination.*

- *Session title: Integrating Water Value into Development Finance and Investment Decisions and institutional reforms;*
Purpose: to explore how water valuation can be embedded in development finance, public budgeting, and investment appraisal to improve project prioritization and long-term sustainability.
Format: Panel discussion with policymakers, development banks, private sector representatives, and experts, followed by targeted discussion.
Expected output:
 - *practical recommendations for integrating water valuation into investment decisions;*
 - *identification of entry points for public-private partnerships and financing mechanisms;*
 - *initial framework linking valuation with investment and economic planning.*
- *Session title: Valuing Water in Arid and Water-Stressed Economies, lessons and success stories (Joint Session);*
Purpose: to highlight challenges and opportunities of water valuation in arid and water-scarce regions, with a focus on economic diversification, resilience, and resource optimization.
Format: Case-study driven session with regional experts, followed by interactive discussion.
Expected output:
 - *collection of regional best practices and lessons learned;*
 - *policy-relevant insights for water-scarce contexts;*
 - *recommendations for integrating valuation into national strategies in arid regions.*
- *Water valuation as a driver for water allocation and planning decisions. (joint session: water security);*
Purpose: to examine how water valuation can inform allocation decisions, basin planning, and long-term water management strategies under competing demands.
Format: policy dialogue with basin authorities, planners and experts, supported by scenario-based discussions.
Expected output:
 - *policy guidance on linking valuation to allocation mechanisms;*
 - *identification of tools for decision-making under scarcity;*
 - *strengthened linkage between valuation and water security planning.*

III. Expected Outcomes and Deliverables

The expected outcomes and deliverables under different categories, include:

Policy and Strategic Outcomes:

- *Action-oriented policy recommendations to support the integration of water valuation into national economic planning, particularly in water-stressed and climate-vulnerable contexts;*
- *Development of strategic guidance outlining how governments and institutions can embed the value of water;*
- *Policy-level recommendations to create enabling environments for public-private-partnerships, blended finance, and development finance.*
- *Strategic guidance on promoting agro-ecological transformation through water management: this deliverable would offer policy recommendations on how countries can use tools like water pricing, water rights, and subsidies to incentivize the ecological modernization of irrigation and drainage systems, thereby supporting the transition to more sustainable agricultural models.*

Technical and Knowledge Deliverables

Technical and knowledge deliverables will include practical valuation methodologies, case studies, data and decision-support resources, and capacity building materials to support evidence-based water valuation and sustainable economic decision-making.

- *Tools and methodologies to assess the economic, social, and environmental value of water;*
- *Data platforms and decision-support systems to improve transparency and analysis;*
- *Case studies showcasing real-world applications and lessons learned;*
- *Synthesis notes and briefs that translate insights into actionable guidance.*
- *Methodologies and tools for assessing agricultural water system resilience: this would involve developing a multi-dimensional assessment framework that incorporates climate risks, engineering measures, and socio-economic adaptive capacity. Such a framework would provide a scientific tool for diagnosing and enhancing the resilience of agricultural water systems across different regions.*

Partnerships and Financing Outcomes:

- *Strategic partnerships to mainstream water value in economic decision-making, and to monetize the tangible and intangible benefits and values;
Partnerships with economic planning ministries, development agencies, think tanks, and international organizations to embed water valuation into growth strategies, macroeconomic planning, and sectoral development policies.*
- *Strengthening partnerships with international lending institutions, donor agencies, and leading global consulting firms to institutionalize the use of economic water pricing—rather than purely financial or market-based pricing—within feasibility studies for water projects worldwide.*
- *Engagement with private sector and finance actors on valued-based decision frameworks:*

Targeted engagement with development banks, investors, and the private sector to promote the use of water valuation as an upstream analytical input for investment appraisal, rather than focusing on specific financing instruments.

- *Economic narratives and investment logic for water-dependent growth:
Development of shared narratives and analytical frameworks that demonstrate how valuing water improves productivity, reduces economic risk, and supports long-term growth across sectors such as agriculture, energy, industry, and cities.*
- *Value-driven project prioritization approaches:
Contribution to approaches that help governments and institutions prioritize projects and interventions based on economic value, risk reduction, and resilience benefits, complementing financing mechanisms addressed under other themes.*
- *Cross-theme Collaboration platforms:
Structured collaboration with theme 2 (water finance) and other themes to ensure that water valuation outcomes inform financing discussions, while maintaining a clear distinction between valuation (Topic 6A) and financing instruments (Theme 2).
Partnership with farmer's unions or water user's associations could be beneficial.*
- *Mainstreaming economic water pricing in feasibility studies:
Over the past three decades, project appraisal practices have largely prioritized financial analysis, with insufficient consideration given to comprehensive economic analysis. This imbalance has contributed to water pricing policies that emphasize operation and maintenance cost recovery, while insufficiently accounting for social equity, environmental externalities, and the full economic value of water as a scarce and strategic resource. Mainstreaming economic water pricing in feasibility studies would enable more efficient resource allocation, enhance long-term sustainability, and support inclusive and resilient water sector investment.*

Actions and Initiatives for Implementation

- *Design and initiation of pilot projects that apply water valuation approaches, such as infrastructure planning, basin management, urban development, agriculture/or energy sectors, demonstrating tangible economic and sustainability benefits.*
- *Development of practical institutional action framework that guide ministries, water authorities in operationalizing water valuation.*
- *Promotion of formal cooperation arrangements, such as memoranda of understanding (MoUs), joint initiatives, or coordination platforms.*
- *Launch of innovation challenges, technical working groups, or communities of practice to refine and scale water valuation tools and implementation approaches.*

Communication and Visibility

Communication and visibility outcomes will include clear policy messages on the economic value of water, targeted public communication through forum platforms and events, and actionable contributions to the forum declaration promoting water valuation as a foundation for sustainable economic growth.

IV. Monitoring and Post-Forum Action

The outcomes of this topic will contribute to the long-term legacy of the 11th World Water Forum, support follow-up initiatives toward the 12th World Water Forum, and inform global processes including the UN Water Conference and climate-related agendas. Continued partnerships, monitoring mechanisms, and knowledge-sharing platforms will ensure sustained impact beyond the Forum, can be explained as follows:

- *Long-term forum legacy: the outcomes will contribute to the long-term legacy of the 11th World Water Forum by positioning water valuation as one of the foundational principle for sustainable development and informed decision-making. By advancing practical framework, policy guidance, and narratives that integrate the economic, social, environmental, and resilience value of water, the topic will help shift how water is perceived and treated beyond the forum; from a sectoral input to a strategic economic asset.*
- *Follow-up initiatives towards the 12th World Water Forum: the outcomes will provide a strong basis for continuity and progression toward the 12th World Water Forum through”*
 - *The identification of pilot initiatives and implementation pathways;*
 - *The development of valuation frameworks and guidance;*
 - *A clear set of lessons learned derived from topic and thematic groups and evidence that can inform future thematic discussions on water, growth, and resilience.*
- *Contributions to global agendas and processes: the outcomes will directly contribute to global agendas by:*
 - *Supporting SDG 6 implementation and related SDGs (2, 8, 11, 13, 15, 17);*
 - *Informing UN water processes with practical insights on integrating water valuation into development and economic planning;*
 - *Contributing to climate conferences and adaptation agendas by demonstrating how water valuation strengthens resilience;*
 - *Providing relevant inputs for basin networks and transboundary initiatives, where valuation can support cooperation, investment prioritization, and shared benefits.*
- *Continued partnerships, knowledge-sharing, and monitoring mechanisms: will promote sustained engagement beyond the forum by:*
 - *Encouraging the establishment of communities and other working-groups for practice and partnerships focus on water valuation and economic growth;*

- *Supporting ongoing knowledge-sharing platforms through regular and periodic discussion;*
- *Promoting the use of monitoring indicators and evaluation frameworks to track how water valuation is applied in policy and investment decisions over time.*

V. Proposed Cross-Process Dialogue Areas

The proposed dialogue ideas that could be developed jointly with other topics within the Theme or other Themes during the Forum preparation cycle, could be:

- *Valuing water for water security and climate resilience (theme-1 ‘water security’, and theme-3 ‘water for human and nature’).*

This dialogue will explore how economic valuation of water can strengthen water security, climate adaptation, and resilience planning, particularly in water-scarce and climate-vulnerable regions. It will examine how valuing water can inform decisions on drought management, flood protection, ecosystem services, and long-term water allocation.

- *Valuing water to unlock sustainable financing and investment (theme-2 ‘water finance’, and theme-5 ‘innovation for water management’).*

This dialogue will focus on how credible water valuation frameworks can unlock public and private financing, improve investment appraisal, and support innovative financing mechanisms such as blended finance, and results-based financing.

- *Digital innovation and data for water valuation and economic planning (theme-5 ‘innovation for water management’, and theme-4 ‘water governance and diplomacy’).*

This dialogue will examine the role of digital tools, data platforms, and AI-based analytics in operationalizing water valuation across sectors and borders. It will also explore how transparent data can support cooperation, trust, and evidence-based decision-making.

- *Mobilizing private capital for the water sector through sustainable finance and public-private-partnerships (PPPs):*

This dialogue will explore the critical role of private capital, sustainable finance, and public-private-partnerships in addressing water challenges and supporting long-term economic growth. It will highlight how water-intensive industries can play a leading role in driving transformation, by adopting responsible water valuation, efficiency measures, innovation, and investment practices.

Proposed Cross-Process Dialogue Ideas:

- *Valuing water in national economic policy and public decision-making:*
This dialogue will explore how water valuation can be embedded in national economic policies, public investment planning, and legislative frameworks. It will focus translating the value of water into actionable policy instruments, budgetary decisions, and regulatory reforms that support sustainable economic growth.
- *Valuing water at basin, local, and regional levels for sustainable development:*
This dialogue will examine how water valuation approaches can be applied at basin and local levels to improve planning, investment prioritization, and stakeholder engagement. It will highlight the role of basin institutions and local authorities in translating national valuation frameworks into practical, place-based solutions.

Proposed Priority Regions for Regional Dialogue:

Below are two proposed regions for collaboration with the regional process:

- *Arab Region/Middle East and North Africa (MENA)*
The Arab region faces some of the highest levels of water scarcity globally, with water constraints directly affecting economic growth, food security, energy systems, and urban development. Valuing water is particularly critical in this region to support economic diversification, climate resilience, and sustainable investment decisions, especially in arid and semi-arid contexts.
- *Sub-Saharan Africa (with focus on water-stressed and fast-growing economies)*
Many Sub-Saharan African countries face a double challenge of water insecurity, rapid economic and demographic growth. Integrating water valuation into development planning is essential to guide investments in agriculture, hydropower, urban water services, and climate resilience.