# Climate Governance in Relation to Urban Water Management in the Middle East and North Africa

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## BACKGROUND

**WATER:** The region – which is at a very high risk of extreme water events due to climate change including drought and degraded water quality (Abou Rayan & Djebedjian, 2016) – lacks collaboration over water (Eissa & Khalil, 2021). For example, Israel hegemonic control over the Jordan River Basin, making Jordan, Lebanon, Palestine and Syria vulnerable (Shah et al., 2018). Increased water demand coupled with increased human impact put our water sources at risk and call for more effective climate law design and implementation.

**CLIMATE CHANGE AND ACTION:** There is evidence of climate action in the region, however, it lacks in political will, well-defined responsibilities and long-term visions (Eissa & Khalil, 2021). Interventions are also sometimes short-term, such as desalination solutions which do not address the fundamental drivers of climate change (Shah et al., 2018)

**GOVERNANCE:** Governments in the region are heavily centralized, with most fiscal and strategic decisions taken at the national level (Edo et al., 2020; Eissa & Khalil, 2021). In most cases, urban water is managed by national or subnational bodies (Edo et al., 2020). Lack of coordination between and within government units (Eissa & Khalil, 2021).

Based on frameworks by Hölscher et al., 2019 and Eissa & Khalil, 2021, as well other literature, propellers of effective climate governance include:

- City-level governance (Anguelovski & Carmin, 2011; Hölscher et al., 2019; van der Heijden, 2019)
- Governance to influence actor-dynamics, rather than to control (Hölscher et al., 2019)
- Multi-level and multi-sectoral collaboration, requiring strong communication and coordination (Eissa & Khalil, 2021; Hölscher et al., 2019)
- Data collection and monitoring; deep understanding of the water-related risks and vulnerabilities (Hölscher et al., 2019).

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- There is existing climate action from a few subnational-level governments (Eissa & Khalil, 2021)
- Climate action for SDG 13 is moderately increasing in the region (Sachs et al., 2021)
- Forerunners like Istanbul and Abu Dhabi have decentralized urban water management (Edo et al., 2020)

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- Governments have a governance-to-control mindset
- Governments in the region are heavily centralized, allowing minimal autonomy for local-level units (Eissa & Khalil, 2021)
- Lack of prioritization of climate action (Eissa & Khalil, 2021)
- The region suffers from poor law and policy enforcement (Edo et al., 2020)
- Lack of disaggregated data and deep knowledge around urban water and climate change impacts (Loudyi & Kantoush, 2020; Mourad et al., 2019)

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- Regional platforms and relations can be activated for knowledge and technology sharing
- Climate law and policy can be designed to address social and economic development issues (Eissa & Khalil, 2021)

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- True decentralization in the region is expected to require a couple of decades (Zaki, 2019)
- Political instability and conflict within the region

## RECOMMENDATIONS FOR EFFECTIVE CLIMATE GOVERNANCE

### PERSPECTIVE SHIFTING

1. The role of governance is to facilitate transformation, enable innovation, cope with disruption, and unsettle embedded unsustainable practices
2. Climate action is strongly interlinked to social and economic development, as it will specially impact physical aspects such as water usability. This will also require clear and explicit political will for climate law and action

**EFFECTIVE IMPLEMENTATION:**

Decentralization; defined spheres of government; coordination and communication between and across government levels and units; collaboration with other actors and sectors

### REFERENCES

Abou Rayan, M. M., & Djebedjian, B. (2016). Urban Water Management Challenges in Developing Countries: The Middle East and North Africa (MENA). In T. Younos & T. E. Parece (Eds.), *Sustainable Water Management in Urban Environments* (pp. 295–326). Springer International Publishing. https://doi.org/10.1007/978-3-319-29337-0_10

Anguelovski, I., & Carmin, J. (2011). Something borrowed, everything new: Innovation and institutionalization in urban climate governance. *Current Opinion in Environmental Sustainability, 3*(3), 169–175. https://doi.org/10.1016/j.cosust.2010.12.017

Edo, E., Sadayeva, G., & Hassan, N. (2020). *MENA Megacities Approaching Day Zero: A Comparative Study Between Cairo and Istanbul.* 33.

Eissa, Y., & Khalil, H. A. E. E. (2021). Urban Climate Change Governance within Centralised Governments: A Case Study of Giza, Egypt. *Urban Forum.* https://doi.org/10.1007/s12132-021-09441-9

Hölscher, K., Frantzeskaki, N., & Loorbach, D. (2019). Steering transformations under climate change: Capacities for transformative climate governance and the case of Rotterdam, the Netherlands. *Regional Environmental Change, 19*(3), 791–805. https://doi.org/10.1007/s10113-018-1329-3

Loudyi, D., & Kantoush, S. A. (2020). Flood risk management in the Middle East and North Africa (MENA) region. *Urban Water Journal, 17*(5), 379–380. https://doi.org/10.1080/1573062X.2020.1777754

Mourad, R., Jaafar, H. H., & Daghir, N. (2019). New estimates of water footprint for animal products in fifteen countries of the Middle East and North Africa (2010–2016). *Water Resources and Industry, 22,* 100113. https://doi.org/10.1016/j.wri.2019.100113

Sachs, J. (2012). From Millennium Development Goals to Sustainable Development Goals. *The Lancet, 379*(9832), 2206–2211. https://doi.org/10.1016/S0140-6736(12)60685-0

Shah, N. Y., Wirkus, L., & Swatuk, L. (2018). Can climate change challenges unite a divided Jordan River Basin?. In *Water, Climate Change and the Boomerang Effect* (pp. 121-139). Routledge.

van der Heijden, J. (2019). Studying urban climate governance: Where to begin, what to look for, and how to make a meaningful contribution to scholarship and practice. *Earth System Governance, 1,* 100005. https://doi.org/10.1016/j.esg.2019.100005

Zaki, L. (2019). Decentralization in Morocco: Promising Legal Reforms with Uncertain Impact. *Arab Reform Initiative.* https://www.arab-reform.net/publication/decentralization-in-morocco-promising-legal-reforms-with-uncertain-impact/