

# **Water supply issues in the Valle de Mexico: User side perceptions**

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## **ABSTRACT**

Mexico's center territory, Valle de Mexico, is the most populated and developed area in the country. Although it is also the wealthiest area of the country, its unreasonable size gives rise to issues that require prompt attention. The problem of supplying water to the urban region of Mexico City and the metropolitan area is extremely complex due to the interconnection it has with different factors such as public affairs, social conflicts, consequences for the environment, energy – water nexus, economic investments, among others. This research evaluates the problem of water supply by examining the key driving forces that impact reliability of the supply as perceived by residents. A literature review revealed that the water crisis in the region is closely coupled with many social and economic issues. Energy-water nexus connections are a significant driver in water governance activities because the majority of water agency budgets, estimated to be 80%, is directed to electric bills rather than mitigation, monitoring or maintenance. Yet these relationships are based on limited information from the field and, therefore this study takes initial steps to fill the gap in knowledge about water supply conditions by collecting ground truth data related to the observations and perceptions of resident via interviews and surveys. Results of surveys and responses from approximately 192 participants completed between July and August 2017 indicate that there are two different categories of water shortage in the Valle de Mexico. The first is related to non-mitigation of infrastructure failures, such as leaks and broken pipes, while the second is that water users do not conserve the resource when it is available. Interestingly, the second type of water shortage is exacerbated by the beliefs and perceptions of residents in the region because their behaviors reflect a pattern of overconsumption when water is present in the system. The result is an increase in periods without water supply in the system driven purely by use patterns. This result highlights the urgent need to better understand the mindset of users to guide future urban development. Improving understanding about the drivers behind water scarcity in the Valle de Mexico is useful in relation to the water sector, as well as all of the other sectors and aspects that will negatively impact the lives of residents. All the inhabitants of Mexico, regardless of their actual role, must become primary actors working together on this complex and often intimidating issue.



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