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Users' reaction to the drought of 2014 in Lebanon; quantifying the effects

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A drought that Lebanon witnessed during the water cycle of 2013-2014 seemed to mimic the expected decrease in precipitation projected in one of the 2020 scenarios reported in Lebanon's second national communication to the United Nations Framework Convention on Climate Change. Nationally, data and assessment studies on drought impacts are generally lacking, and thus, this drought presented an opportunity to quantify drought effects. In the aim of understanding the effect drought has on the Lebanese economy, and its different sectors, a survey was conducted to set a baseline of the changes in the direct cost of water as well as other impacts that might have resulted on the water users. The survey reached out to different sectors to include the touristic establishments, industries, agriculture holders, and households.
The sample selection and the data collection underwent several controls in order to ensure unbiased data. Moreover, a descriptive analysis was produced from the survey results, using STATA and Microsoft Excel. The main results have shown a shift of dependency towards water tankers during the drought season as opposed to the normal higher dependency on the public networks and private wells. Moreover, the cost incurred in general showed an average of 32% increase to the previous water bills across the different sectors, this in return is expected to have ripple effects on the national economy accounting for around 13.5% of GDP. However, the survey showed that little was done in terms of long term adaptation on the consumers' side, where most of the adaptation done included awareness campaigns for an economized water usage on the short term.
The survey brought forward the un-preparedness of the country to react to such extreme events due to the absence of drought preparedness and management plan. . The results highlight the projected losses the country will have if no proper adaptation measures were taken. These impacts were caused by a one-year drought, however as this is expected to be the normal scenario in the future, it is of great importance to work on an adaptation policy in Lebanon, and on a drought management plan in particular.
The high costs and unsustainable solutions that were applied during the drought season have shown how unprepared and unaware the Lebanese citizens are of such extreme weather events.