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Lebanon: investing in youth power to drive sustainable water solutions

Although known as a water rich country, Lebanon faces impending water shortages due to unsustainable water management practices, environmental risks, and population pressures. UN Youth Volunteers Zeinab Chamas, Nizar Mortada, and Raymonda Chamoun serve with UNDP Lebanon to implement the project “Support to Host Communities in the WASH Sector.” Through their work, these youth volunteers help mitigate the risk of water shortages and promote SDG6: clean water and sanitation for all people. Nizar (24), Raymonda (28), and Zeinab (27) serve as UN Youth Volunteers in Water/Irrigation Engineering, assisting with the upgrade of existing irrigation infrastructure. “The project consists of the rehabilitation of existing damaged irrigation canals and the transformation of earthen canals to concrete canals,” Raymonda explains. In many regions of the country, very old earthen canals used to transmit water to agricultural lands cause massive water losses. Given that groundwater resources are already overexploited, the canals’ inefficiency heightens existing strains on the limited availability. Upgrading irrigations canals increases the net amount of water available for use, ultimately translating to increased crop yields and improved livelihoods for farmers. “Prior to the project, farmers relied mostly on groundwater as a water source for irrigation. By upgrading the irrigation canals, they now rely on surface water and hence groundwater can be used for other purposes like drinking. Moreover, the upgrade of irrigation canals from earthen to concrete canals, reduced water losses by around 40%, which also enhanced water availability.”— Zeinab Chamas, UN Youth Volunteer with UNDP Lebanon The project targets rural areas across the country including the North, Bekaa and the South. So far, it has been implemented in 13 sites with more than 30,000 beneficiaries. The project is funded by the Government of Germany (KfW), in partnership with the Ministry of Energy and Water and the local municipalities. Zeinab was assigned to work on sites in the South of Lebanon, while Raymonda works in the North. Their day-to-day work involves a combination of office and site work. “When on site, I monitor the work of contractors to make sure all activities are executed properly,” Zeinab says. “I supervise the work of labours and ensure the implementation of safety measures on site. This work is complemented by additional office tasks including writing reports of the work progress and identifying beneficiaries and potential sites. All these duties are done under the supervision of the site engineer who is my direct supervisor.” All three Youth Volunteers feel that their work contributes to addressing climate change. Raymonda notes, “The upgrading of irrigation canals makes the water cleaner and decreases water pollution, therefore decreasing the emission of some toxic gases, which may subsequently contribute to global warming activities.” Nizar further explains that as part of the project, they encourage farmers to use springs for irrigation instead of relying deep wells to pump

groundwater. The resulting reduction in the use of water pumps, which rely on diesel and electricity, further reduces air pollution. Beyond their work, Zeinab is confident that youth can play a role in directly responding to some causes of climate change. Last year, she won a green ticket to the Youth Climate Summit thanks to her efforts to engage young people and her scientific research on resource use and allocation. Nizar, Raymonda, and Zeinab's contributions to UNDP Lebanon showcase youths' potential to play an important role in promoting the SDGs.



Arab States

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Sustainable Development Goal: [SDG 6: Clean water and sanitation](#) [SDG 12: Responsible consumption and production](#) [SDG 17: Partnerships for the goals](#)