



In the coming decades, the world will need increasing amounts of resources. Population growth, resource-intensive lifestyles and the damaging effects of climate change will lead to water, energy and food insecurity across the globe. Apart from approaching these challenges in an integrated way, building resilience and fostering prosperity are also essential in preparing for achieving the Sustainable Development Goals of 2030. The WEF serious game is designed as a gamified analysis tool, aiming to accelerate the development of capabilities that are needed for securing water, energy and food supplies in following decades. Young people from the Netherlands and Jordan played a series of serious games in September 2021, with Middle Eastern and European scenarios. Here are their conclusions.



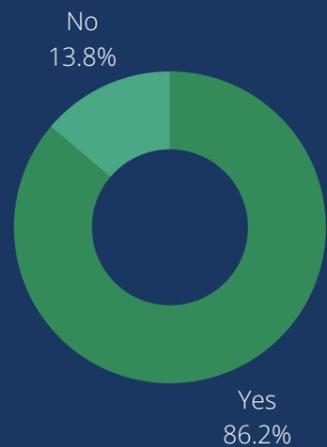
Middle East

- The MENA region is the most vulnerable region in the world to water insecurity. [1]
- With current policies, the share of oil and gas in the primary energy mix of the Middle East is projected to decrease from 98% in 2018 to 79% in 2050. [2]
- The enormous population growth and the effects of climate change will significantly increase the region's food import dependency. [3]

Europe

- Sea water level is expected to rise by 60-80 cm by the end of the century. [4]
- Climate change will lead to more intense and frequently occurring floods, droughts and wildfires. [5]
- The European agricultural system will not suffer significantly in terms of availability of food. However, maintaining the productivity of the sector is important for addressing global challenges of food scarcity. [6]

Would you like to contribute putting this capability into practice?

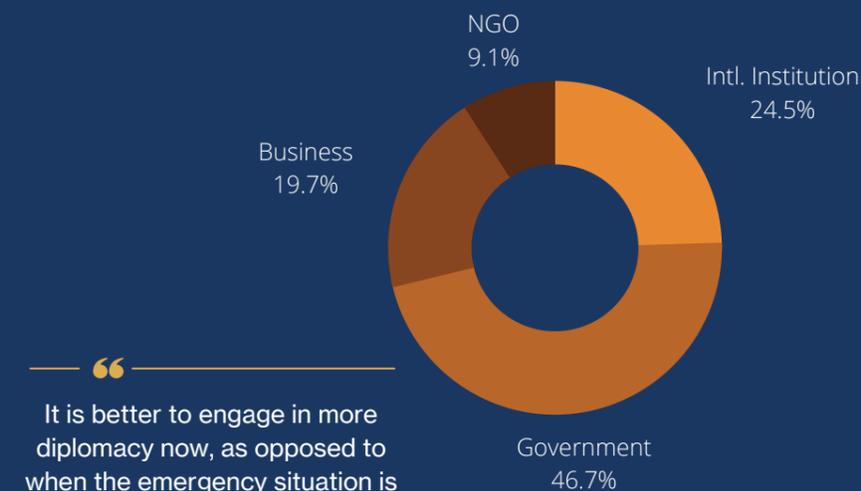


“ Finding ways to increase the yield of agricultural crops in limited spaces is possible, examples of which can be found in the Netherlands. With looming droughts and less arable land, now is the time to invest in R&D in this sector. ”

Conclusions and Recommendations

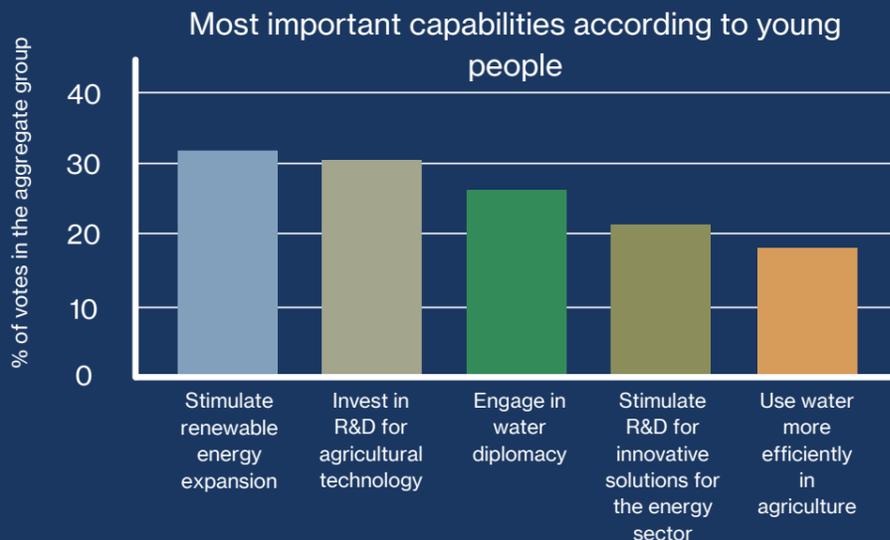
- 1. Young people want to be involved in shaping their own future:**
86 % of all participants want to contribute to addressing water, food and energy scarcity in Europe and the Middle East.
- 2. Governments should take the lead, in close cooperation with businesses:**
46.7 % of young people believe that governments are the primary actors in building resilience, while 19.7 % believe the business sector has a key role.
- 3. Young people in the Middle East and Europe find renewable energy expansion to be the main priority for investments.**
- 4. Water scarcity concerns young people, especially in the Middle East:**
Engage in water diplomacy: International agreements and joint institutions can reduce the risk of cross-boundary water conflicts.
Prepare for water-related disasters: Strengthen emergency response readiness to prepare for disasters.
- 5. Innovation is the basis of a prosperous and resilient society:**
Together with businesses, stimulate R&D for agricultural technologies to increase productivity, for innovative techniques for water reuse, desalination and efficiency, and for energy storage capacity for new products like hydrogen and electricity.
- 6. The water, energy and food nexus should be addressed as a whole:**
The available water supply depends on energy-intensive processes while also impacting the productivity and prosperity of the agricultural sector.
Solutions should make use of the synergies between the three sectors.

Who should be the prime actor in executing this capability?



“ It is better to engage in more diplomacy now, as opposed to when the emergency situation is actually happening, to avoid conflict and create a faster reallocation of water. ”

“ Green energy is the future. Some countries in MENA have ample funds and space to set-up large renewable energy fields. With the proper investments and international outlook, any superfluous energy could be exported to other countries in the region and beyond, increasing energy security everywhere. ”



[1] World Bank, "Beyond Scarcity Water Security in the Middle East and North Africa", 2018.
[2] BP, "Energy Outlook - Middle East", 2020.
[3] Economist Intelligence Unit, "Food Insecurity Remains Concern in MENA Region".

[4] European Commission, "How Will We Be Affected?", 2016
[5] Isla Binnie and Kate Abnett, "As Floods Hit Western Europe, Scientists Say Climate Change Hikes Heavy Rain", 2021.
[6] European Environment Agency, "Food in a Green Light: A Systems Approach to Sustainable Food", 2017.