

Middle East Megatrends: Transforming our region

Understanding the impact of megatrends in the Middle East



Climate change and resource scarcity

Driven by growing evidence of the direct impact of climate change – heat waves, droughts, floods and super-storms – the focus on climate change has returned. After decades of debating, the world's governments agreed in 2015 to do what was necessary to decarbonise their economies over the next few decades and attempt to keep global warming to below 2°C above pre-industrial levels.

In PwC's most recent global CEO survey, executives in the Middle East were among the least concerned by the impact of climate change and resource scarcity. The reality, however, is that **changing the way humans use the planet's resources will impact the GCC countries more than most.** GCC countries are among the world's highest users of energy and water per capita. Since we are burning both oil and gas to produce power and desalinated water, we also have the worst carbon footprint. Our economies rely heavily on revenues from fossil fuels and our rain and groundwater resources are depleting.

The pressure to tackle these enormous challenges may appear to be just a result of the 'lower for longer' oil price, rather than the realities of climate change and resource scarcity – but the two are increasingly linked and exacerbated by rapid population growth and urbanisation. This realisation is reflected in the flurry of initiatives to cut subsidies on fuel, electricity and water and to ensure the region catches up in solar energy, and so has a chance of sustaining its status as an energy hub regardless of decarbonisation over the course of this century.



GCC is among the world's **highest** energy user per capita¹



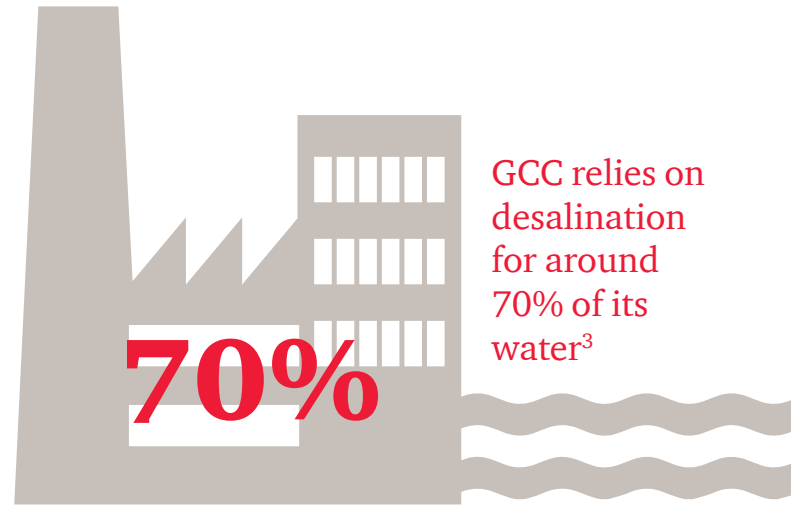
Solar energy will account for almost **two thirds** of the Middle East's energy mix by 2050²

Until 2015, the Middle East was lagging far behind on developing renewable energy. By the end of 2014, the GCC's entire installed and planned capacity was just 10% of Belgium's and less than 1% of Germany's. But 2015 was a tipping point. Dubai, for instance, tripled its renewable energy target to 15% of the energy mix by 2030, ramping up solar purchase contracts following a tender that came in with the cheapest solar PV prices in the world and making rooftop solar mandatory within 15 years. Abu Dhabi – home to the UN's International Renewable Energy Agency, and the rest of the GCC, are following suit. **The International Energy Agency projects that solar energy will account for almost two-thirds of the Middle East's energy mix by 2050.**

The population of the GCC will have tripled in 50 years but there will not be enough water and perhaps no oil – so what do we need to do now?



Water will become a significant challenge in the coming decade. Peak water consumption is forecast to grow by a third in the next five years and, with groundwater depleting rapidly, the GCC relies on desalination for around 70% of its water. The consequences are already being felt: marine salinity has increased significantly, affecting environment and fish stocks; agriculture and food security is being outsourced to countries in Central Asia, Africa and Latin America; and water utilities are starting to look for ways to ensure that people conserve their very expensively produced water, despite paying so little for it.



Water consumption is forecast to grow by a third by 2020⁴



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Sources:

1 UN. 2 IEA. 3 FAO. 4 FAO.