

The National



Water scarcity will be at 'alarming levels' by 2025, GCC warned

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DUBAI // A grim scenario of water shortages, desertification and extreme soil salinity has been forecast for the Arabian Gulf, possibly within the next 12 years.

With water scarcity predicted to reach alarming levels by 2025 in the Middle East, government officials and experts are seeking more research into ways to reverse the damage caused by climate change.

"This area was water and desert 40 years ago," said Ahmed Al Mansouri, a member of the FNC and former researcher in preservation.

"But things have changed. The world is facing a threat to water and arable land, and food security isn't as given as we think. Such threats pose health threats to humanity."

Mr Al Mansouri was speaking at the National Research Foundation's symposium on sustainable management of soil and water resources.

"Scientists and researchers are looking for solutions," he said. "The replacement of our current resources is an important strategy and we need policy-making for water and soil usage."

The Middle East and Arabian Gulf are expected to fall under the "physical water scarcity" category by 2025, in the worst scenario.

"It's the most scarce area," said Dr Ismahane Elouafi, director general at the International Centre for Biosaline Agriculture in Dubai. "And by 2050, it'll only get worse."

Water supplies are being depleted in GCC countries at among the quickest rates in the world. Among Arabian Gulf countries, the rate of depletion in the UAE is second only to that in Kuwait.

"The Middle East is one of the most vulnerable regions to climate change, salinisation and desertification," Dr Elouafi said.

"The magnitude of the problem requires strong cooperation among national research and development programmes, private sectors and donors."

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With temperatures expected to increase by up to 2.5°C by 2050 and a decrease in annual rainfall of 10.5 per cent in the Middle East, severe water shortages, desertification, coral-reef bleaching and more disastrous events – such as drought and floods – are anticipated.

“All of them are very alarming and all of them have been scientifically proven,” Dr Elouafi said.

“We have to tackle it by improving water and soil management, improving salt-tolerant varieties of forage, dates and bioenergy trees, and support capacity building and agricultural institutions.”

Poor farm management methods must change, she said.

“Nearly 1.6 million hectares of land are lost globally each year due to salinisation and 53.1 million hectares are affected by salinity in the Near and Middle East,” Dr Elouafi said.

“At this rate, all irrigated areas that now contribute to agricultural foods will be out of production in 140 years. This is due to mismanagement, but there is a way to stop and reverse it.”

In the UAE, more than 31 per cent of existing farms are unsuitable and 20,000 are abandoned, mainly in Abu Dhabi’s Western Region, due to water and soil salinity.

“Salinity is a major threat to the sustainability of agriculture but there’s no innovation without research, so we have to invest in research,” Dr Elouafi said.

“We have to identify new and improved salt-tolerant germplasm to sustain the ecosystem productivity in changed climates, and we have to develop an alternative production system and technologies.”

Scientific research will also have to expand.

““We need more collaboration between universities and local government departments,” said Dr Husam Al Ulama, the foundation director.

“Researchers are also short on budget. We have one but it’s not enough to cover and encourage all researchers.”

The culture and priorities of the UAE will have to shift to avoid the coming problems.

“We have a lack of research culture,” Mr Al Mansouri said. “We have a gap between the East and the West, intellectually, and it’s widening so we should invest in ethical standards and the transfer of know-how to narrow that gap.

“Now, we’re talking about risk management but in a few years we’ll be talking about crisis management. We can’t live in the comfort zone.

“If the world is affected then so are we, so we have to equip the people here and empower the research community.”

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