

## Climate change is turning the cradle of civilization into a grave

By Louisa Loveluck, Mustafa Salim , *The Washington Post*

Required Annotations	Student-Created Annotations	Summary / Questions / Reflection
Student-created		Required (bold)

HADDAM, Iraq — No one lives here anymore. The mud-brick buildings are empty, just husks of the human life that became impossible on this land. Wind whips through bone-dry reeds. For miles, there's no water to be seen.

Carved from an ancient land once known as Mesopotamia, Iraq is home to the cradle of civilization — the expanse between the Tigris and Euphrates rivers where the first complex human communities emerged.

But as climate change produces extreme warming and water grows **scarcer** around the Middle East, the land here is drying up. Across Iraq's south, there is a sense of an ending.

Dozens of farming villages are abandoned, but for an isolated family here and there. The **intrusion** of salt water is poisoning lands that have been passed for generations from fathers to sons. The United Nations recently estimated that more than 100 square miles of farmland a year are being lost to desert.

Years of below-average rainfall have left Iraqi farmers more dependent than ever on the dwindling waters of the Tigris and Euphrates. But upstream, Turkey and Iran have dammed their own waterways in the past two years, further weakening the southern flow, so a salty current from the Persian Gulf now pushes northward and into Iraq's rivers. The salt has reached as far as the northern edge of Basra, some 85 miles inland.

Temperatures in Iraq topped a record 125 degrees this summer with aid groups warning that drought was limiting access to food, water and electricity for 12 million people here and in neighboring Syria. With Iraq warming faster than much of the globe, this is a glimpse of the world's future.

Across marshes often hailed as the original Garden of Eden and on the baking lands beyond, inhabitants now face a choice. "Do we stay or do we go?" sighed Raad al-Ghali, a buffalo herder in the historic marshland of Chibayish while recently sheltering in the shadow beside his tent. "Everyone is suffering these days. We don't know what to do."

In Chibayish's labyrinth of winding waterways, water levels have dropped. Salt and pollution are killing the reeds. To keep their animals alive, residents fill rickety boats with drinking water purchased miles away.

Nearby fields have turned brown. Orchards and roses have disappeared, and the palm trees are dying slowly. In the border town of Siba, water for irrigation is so salty it is poisoning the harvest.

"We used to grow greenhouses of cucumbers," recalled a farmer, Abu Ahmed, 52, standing in his **desiccated** farm. "Now we don't even have a single cucumber's worth of fresh water. How can we continue here?"

The impact of rising temperatures started slowly, people recall. Year after year, the summers got hotter. Days on the water felt more difficult, and cases of

heatstroke increased, according to residents. Buffaloes fell sick. Fish were found dead on the shore.

In previous summers, Ghali's animals were tended by his wife and sons, but this year they left for the town of al-Majer, 70 miles to the north. "They were tired of it here. It was too hot for them. Sometimes we feel like we're the last generation who will do this. We feel like it's the end of an era."

Ghali's hair had grayed at his temples, framing wrinkles deepened by the sun. The 40-year-old looked exhausted. Could he sell the animals and move, too? He shook his head. "No one would buy them now." He looked out across the mud flats where his black buffaloes stood sweating. "We never thought things would reach this point," he said.

Iraq's average temperature has risen by 4.1 degrees Fahrenheit since the end of the 19th century, according to Berkeley Earth, double the speed of the Earth as a whole. Climate scientists warn that the extreme temperatures facing places like southern Iraq are a small taste of what will follow elsewhere.

Iraq's climate woes have **exacerbated** shortages in everything from food to electricity generation. Fisheries have been depleted. In the country's north, wheat production is expected to decline by 70 percent, aid groups say. In provinces without access to rivers, families are spending ever larger portions of their monthly income on drinking water.

The result, increasingly, is migration. According to the International Organization of Migration, more than 20,000 Iraqis were displaced by lack of access to clean water in 2019, most of them in the country's south.

But as they flee to towns and cities, they're further straining services already hollowed out by widespread corruption and weak job markets where unemployment is high.

Researchers say migration has sparked tensions with longtime residents, who blame the newcomers for shortages of water and electricity. Summer blackouts are already frequent.

And politicians use migration to **deflect** from their own failures. "There's now a narrative that says people who are emigrated to the cities and living in unofficial neighborhoods are overburdening the local water and power supplies," said Maha Yassin, a researcher at the Clingendael Institute's Planetary Security Initiative.

In Majer, a run-down town where the summer heat forces residents indoors for much of the day, Ghali's brothers described the new life they had found there. The lights flickered, and a weak fan whirred.

"I'm just sitting here. There's no work," said Tahseen Mohamed, 25, dressed in a dark galabeya<sup>1</sup> with his black hair brushed neatly upward.

The house was packed with relatives, all dependent on an uncle who earned a salary serving with a militia in the country's north. Another brother, they said, was trying to sell the family's buffalo milk but with little luck. "The salt made their milk fatter," he said.

---

1 Traditional man's robe

All agreed that life was more tolerable in the city. The children were happier; the houses had fans. But anxiety still abounded. Ghali, they said, had been taken to the hospital days earlier with heatstroke. An infant niece had died in the hot car when they tried to take her to the doctor. "The heat makes life so difficult. We know this only gets worse," said Hussein Mohsen, age 24.

Mohamed said that his wife had left him once they moved to Majer, because he couldn't afford a house. "Look, I want to make it happen, but where does the money come from?" the young man asked.

In the corner of the room, an old woman nodded sympathetically. "We're not ourselves here," she said.

Some villagers can't even afford to **flee** the **tendrils** of climate change. In the pockets of Iraq's rural south that have largely emptied of people, some families fret they have been left behind.

As night fell in the remote border town of Faw on a recent day, Jamila Mohamed, 55, and her brother Hussein were worrying about their animals.

The family was **squatting** in a government building, because they could not afford to pay rent, and relying on their livestock for food. But the rising heat and salty water have made the land they live on almost useless. Several cows have died. Others are rail-thin.

"We need to sell them because we can't feed them," Hussein said, patting a black and white calf on the head. "But what happens after that? We can't afford to leave this place."

Standing in the twilight as the cows grazed on dirty hay, the air felt still and silent. Crossing her arms, Jamila exhaled sadly. "Almost everyone left us," she said. "We only have God now."

## Questions

1. Read the highlighted paragraphs from page 1 of the article. How is the central idea developed in these two paragraphs?
  - a) They both support the idea that Iraq was once home to the first advanced culture to arise in the world.
  - b) They both support the idea that some aid groups are trying to help Iraqis deal with the results of climate change.
  - c) They both contribute to the idea that Iraqi residents in the city are frustrated with the arrival of the new migrants.
  - d) They both contribute to the idea that the conditions in Iraqi farm villages are dire and they are being abandoned.
2. Which statement would be MOST important to include in a summary of the article?
  - a) Better known as the cradle of civilization, Mesopotamia was located in what is now known as Iraq.
  - b) Due to rising temperatures and depleted resources, many Iraqis are forced to migrate to the cities.
  - c) Despite Ghali's attempts to continue herding buffaloes, his wife and sons left for the town of al-Majer.
  - d) Because Iraqi politicians want to hide their shortcomings, they blame newcomers for problems in the cities.
3. Read the sentence from the article: Years of below-average rainfall have left Iraqi farmers more dependent than ever on the dwindling waters of the Tigris and Euphrates. Which option is the BEST definition of the word "dwindling" as used in the sentence?
  - a) calming
  - b) raging
  - c) shrinking
  - d) thriving
4. Read the highlighted passage on page 2. Which word from the selection helps the reader understand that climate change has made problems in Iraq worse?
  - a) exacerbated
  - b) generated
  - c) production
  - d) expected