Coasts and Connections

How a cyclone connects local choices to global change

SS24.WH.18 "Describe the interrelationship between people and the environment in the late twentieth and early twenty-first centuries. 18a Research major natural disasters and evaluate the effects of changes in weather, climate..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two ways environmental conditions affect coastal life, circle one comparison between countries, and number two benefits or limits of communication technology. Use your marks to trace how local and global choices connect.

Living With the Water in Bangladesh

1 In 1991, a cyclone pushed seawater across low-lying coastal Bangladesh. More than 100,000 people died, and farms and homes were destroyed. The disaster made safe shelter a public priority. Since then, Bangladesh has expanded cyclone shelters and warning systems, while many coastal communities have trained volunteers. In these communities, preparing together has become part of local identity. A cyclone is a short-term weather event. Rising sea levels, driven partly by a warming climate, can make storm surges reach farther inland. Salty floodwater can also damage rice fields and drinking-water supplies.

2 Resource use also links distant places to this coast. People in the United States generally use much more energy per person than people in Bangladesh. Greater use of fossil fuels adds greenhouse gases to the atmosphere, although emissions differ by fuel source and country. Meanwhile, Bangladesh relies on land and freshwater for farming, and its garment factories use water and electricity to make clothing sold abroad. When salt enters fields or wells, families may have to change crops, find new water sources, or move. Thus, decisions about resources both within Bangladesh and overseas affect coastal livelihoods.

3 Science and communication offer tools, but they do not erase risk. Satellites help track cyclones, and phone messages and Internet posts can spread forecasts quickly. A warning is useful only if people receive it, trust it, and can reach shelter. Some households lack reliable electricity or Internet access; false posts can also confuse people. After a storm, online networks may help relatives locate one another and aid groups coordinate supplies. Yet rebuilding requires more than a signal: safe water, affordable materials, and local knowledge about flooding matter too. The technology that connects distant buyers and workers cannot replace decisions made by coastal residents.

2 ANSWER WITH EVIDENCE

Use the passage

1. How could a rising sea level change the effects of a cyclone on coastal farms?

2. How did the 1991 cyclone help change the way some coastal communities prepare together?

3. Compare energy use per person in the United States and Bangladesh. Why might that difference matter to Bangladesh's coast?

4. How can worldwide communication help people during a cyclone, and why might it fail to protect everyone?

3 YOUR TURN

Your own words

Imagine you advise a coastal town in Bangladesh. Write one paragraph proposing a way to reduce cyclone risk, a way to protect a natural resource, and a rule for sharing warnings. Explain one tradeoff and how resource use in the United States connects to your plan.

ANSWER KEY

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GRADE 9 · SS24.WH.18

PART 1 · READ AND MARK

Underline two ways environmental conditions affect coastal life, circle one comparison between countries, and number two benefits or limits of communication technology. Use your marks to trace how local and global choices connect. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How could a rising sea level change the effects of a cyclone on coastal farms?	**A higher sea level can let a cyclone's storm surge reach farther inland, where salty water can damage rice fields.**
2	How did the 1991 cyclone help change the way some coastal communities prepare together?	**After the disaster, shelters, warnings, and trained volunteers became priorities. Preparing together became part of local identity in some communities.**
3	Compare energy use per person in the United States and Bangladesh. Why might that difference matter to Bangladesh's coast?	**People in the United States generally use much more energy per person. Fossil fuel use adds greenhouse gases, which contribute to warming and rising seas that increase coastal risk.**
4	How can worldwide communication help people during a cyclone, and why might it fail to protect everyone?	**Phone messages and Internet posts can spread forecasts quickly. People without reliable access may miss them, false posts can cause confusion, and some people cannot reach shelter.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Our town should build a raised shelter and practice reaching it before cyclone season. We should store rainwater in covered tanks because storm surges can make wells salty. Volunteers could confirm official forecasts before sending phone alerts, then visit neighbors without reliable service. These steps cost money and time, but they could prevent deaths and water shortages. People in the United States generally use more energy per person than people in Bangladesh, so reducing fossil fuel use abroad also matters for long-term climate risk. Local residents should choose shelter routes because they know which roads flood first.

Accept other feasible plans that address cyclone risk, protect a natural resource, set a warning practice, and explain a tradeoff. The comparison should correctly identify higher energy use per person in the United States and connect fossil fuel use to long-term coastal risk.