Coasts Under Threat

Cyclone regions, changing defenses, and the reach of aid

GHW.9.1 "Use maps to identify regions in the world where particular natural disasters occur frequently, and analyze how the physical and human environments have been modified over time in response to environmental threats..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline phrases that locate cyclone regions, circle changes people made to reduce danger, and number one detail that shows aid helped and one that shows its limits.

When Cyclones Reach the Coast

1 Two regions face frequent tropical cyclones: the Bay of Bengal, north of the Indian Ocean, and the western Pacific near the eastern Philippines. Bangladesh lies at the head of the Bay, where low river deltas expose crowded villages to storm surge. The eastern Philippines consists of islands directly in the path of Pacific storms. In both regions, warm ocean water fuels cyclones, while coastal shape and settlement patterns increase danger. A storm surge can push seawater far inland. Locating these regions by ocean and nearby land helps explain why similar storms can have very different human costs.

2 Bangladesh shows how responses can change over time. A 1991 cyclone killed about 138,000 people; Cyclone Sidr in 2007 killed about 3,400. These totals alone do not prove that one storm was safer, since storms differ in strength and where they strike. Between the disasters, Bangladesh expanded raised cyclone shelters, trained warning volunteers, and improved evacuation systems. Coastal embankments were strengthened to slow flooding, while coastal mangroves were protected and replanted to help reduce wave energy. Shelters and warnings can save lives, but families may hesitate to leave livestock or may live too far from a shelter.

3 In November 2013, Typhoon Haiyan devastated the central Philippines, especially islands around Leyte and Samar. More than 6,000 people died. After the storm, foreign governments and aid groups delivered food, clean water, medical care, and temporary shelter. International flights and ships brought supplies, but damaged roads and airports slowed delivery to some communities. The aid met urgent needs, yet rebuilding permanent homes took years, especially where families could not easily move away from exposed coasts. Officials later strengthened some evacuation centers and warning plans. Comparing rapid relief with slow rebuilding gives a fairer judgment of aid than simply counting donated supplies.

2 ANSWER WITH EVIDENCE

Use the passage

1. Locate the two cyclone regions using the oceans and nearby lands named in the passage. What coastal feature increases danger in each region?

2. Identify one change to Bangladesh's physical environment and one change to its human systems. Explain how each could reduce cyclone harm.

3. Why do the death totals from Bangladesh's 1991 and 2007 cyclones not prove by themselves that its changes worked?

4. Assess international aid after Typhoon Haiyan. Give one detail that shows it helped and one that shows a limit.

3 YOUR TURN

Your own words

A low, crowded island beside the Bay of Bengal has no shelters and one port that storms often damage. Write four or five sentences explaining its cyclone risk, proposing one physical change and one human change, and predicting one benefit and one limit of international aid using evidence from both regions in the passage.

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PART 1 · READ AND MARK

Underline phrases that locate cyclone regions, circle changes people made to reduce danger, and number one detail that shows aid helped and one that shows its limits. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Locate the two cyclone regions using the oceans and nearby lands named in the passage. What coastal feature increases danger in each region?	**Bangladesh is at the head of the Bay of Bengal, north of the Indian Ocean; its low river deltas are exposed to storm surge. The eastern Philippines lies by the western Pacific; its islands are in the path of Pacific storms.**
2	Identify one change to Bangladesh's physical environment and one change to its human systems. Explain how each could reduce cyclone harm.	**Strengthened embankments can slow flooding. Raised shelters, warning volunteers, or improved evacuation systems can help people reach safety.**
3	Why do the death totals from Bangladesh's 1991 and 2007 cyclones not prove by themselves that its changes worked?	**The storms differed in strength and where they struck, so the totals alone cannot show how much the changes helped.**
4	Assess international aid after Typhoon Haiyan. Give one detail that shows it helped and one that shows a limit.	**Foreign governments and aid groups delivered urgent supplies such as food and clean water. Damaged roads and airports slowed delivery, and rebuilding permanent homes took years.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

On an island beside the Bay of Bengal, frequent cyclones threaten homes because storm surge can push seawater inland. The island could plant coastal mangroves to reduce wave energy, as Bangladesh has done. It could also build raised shelters and train warning volunteers so residents can evacuate. Like the relief sent after Haiyan in the Philippines, international aid could provide clean water and medical care. However, damage to the island's only port might delay supplies, so fast donations would not guarantee fast delivery.

Accept other passage-supported physical and human changes. For aid, look for a judgment that distinguishes needed supplies from barriers to delivering them.