Water Shapes Fields

Rice farming and changing land use in the Mekong Delta

SS24.HG.13 "Explain how resource availability and cultural practices influence agricultural methods, crop selection, and land-use patterns. 13a Describe how cultural diffusion and changes in technology have advanced agricultural methods over time."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB As you read, underline water conditions and circle the farming methods or crop choices they influence. Give matching numbers to two condition-and-response pairs.

Farming with the River

1 In Vietnam's Mekong Delta, the river floods during the rainy season, while dry months can leave fields short of fresh water. For generations, many families grew rice for meals and trade. In areas with deep seasonal floods, farmers planted tall rice varieties that could keep growing as water rose. Some fields produced one crop each year because the plants needed months to mature. Farmers built canals to move water and used raised banks to guide it. The land was not divided at random: fields, canals, and homes were placed around the changing supply of water.

2 In the 1960s, scientists at the International Rice Research Institute in the Philippines bred shorter, faster-growing rice varieties. Seeds and farming knowledge spread across national borders. In parts of the delta, farmers adopted these varieties along with fertilizer, pumps, and improved canals. With controlled water and a shorter growing season, some land could produce two or even three rice crops a year. Pumps also let farmers irrigate when rain was scarce. Yet buying fuel and fertilizer cost money, so access to these tools was uneven.

3 Near the coast, salt water can move into rivers and canals during the dry season. Rice needs fresh water, so some farmers switch part of their land to shrimp ponds or raise shrimp when fields are too salty for rice. Others keep growing rice where fresh water is available, especially because rice remains important in local diets and trade. New dikes and gates can block salty water, but they require money and can change how water moves through nearby land. The same delta therefore contains different land-use patterns, shaped by water, technology, and the choices families make.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why did farmers in areas with deep floods plant tall rice, and how did that choice affect how often they harvested?

2. How did ideas and seeds from outside Vietnam help change rice farming in parts of the delta?

3. Why might a coastal farmer use land for shrimp while another farmer keeps growing rice?

4. How could the cost of technology lead to different land-use patterns in the delta?

3 YOUR TURN

Your own words

Imagine a village with steep slopes and a short rainy season. Families value maize for traditional meals, and neighboring farmers have shared contour planting and low-cost drip irrigation; in four sentences, propose a crop and land-use plan and explain how water, culture, shared knowledge, and technology shape it.

ANSWER KEY

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HIGH SCHOOL · SS24.HG.13

PART 1 · READ AND MARK

As you read, underline water conditions and circle the farming methods or crop choices they influence. Give matching numbers to two condition-and-response pairs. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why did farmers in areas with deep floods plant tall rice, and how did that choice affect how often they harvested?	**Tall rice could keep growing as floodwater rose, but it took months to mature, so some fields produced only one crop a year.**
2	How did ideas and seeds from outside Vietnam help change rice farming in parts of the delta?	**Shorter, faster-growing rice bred in the Philippines spread to the delta. With controlled water and other tools, some farmers could grow two or three crops a year.**
3	Why might a coastal farmer use land for shrimp while another farmer keeps growing rice?	**Salt water can make coastal fields unsuitable for rice, so a farmer may use them for shrimp. A farmer with fresh water can keep growing rice for food and trade.**
4	How could the cost of technology lead to different land-use patterns in the delta?	**Farmers who can afford pumps or gates may irrigate fields or block salt water and keep growing rice. Farmers without those tools may grow fewer crops or use salty land for shrimp.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would plant a drought-tolerant maize variety because the rainy season is short and families use maize in traditional meals. I would arrange the fields in rows across the slopes to slow runoff and reduce soil loss. Farmers could use the contour planting method shared by their neighbors. Low-cost drip irrigation would deliver limited water to the maize roots during dry weeks.

Accept other plans that address the short rainy season, steep slopes, maize's cultural importance, shared farming knowledge, and the effect of irrigation technology. Question 4 may also mention that dikes and gates change water flow on nearby land.