



**Question 1** (2 marks)

Source A and Source B are on the topic of land degradation. Watch the video in Source A and look at Source B to answer the questions that follow.

[Source A](#)

Source A transcript

[Source B](#)

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Land is an essential part of life on Earth – plants, animals, and humans depend on it to stay alive. It is a source of food, our habitat, and home to countless resources.

We all depend on soil. Even though it covers the Earth in a thin layer it is the site of intensive activity and home to extremely rich ecosystems.

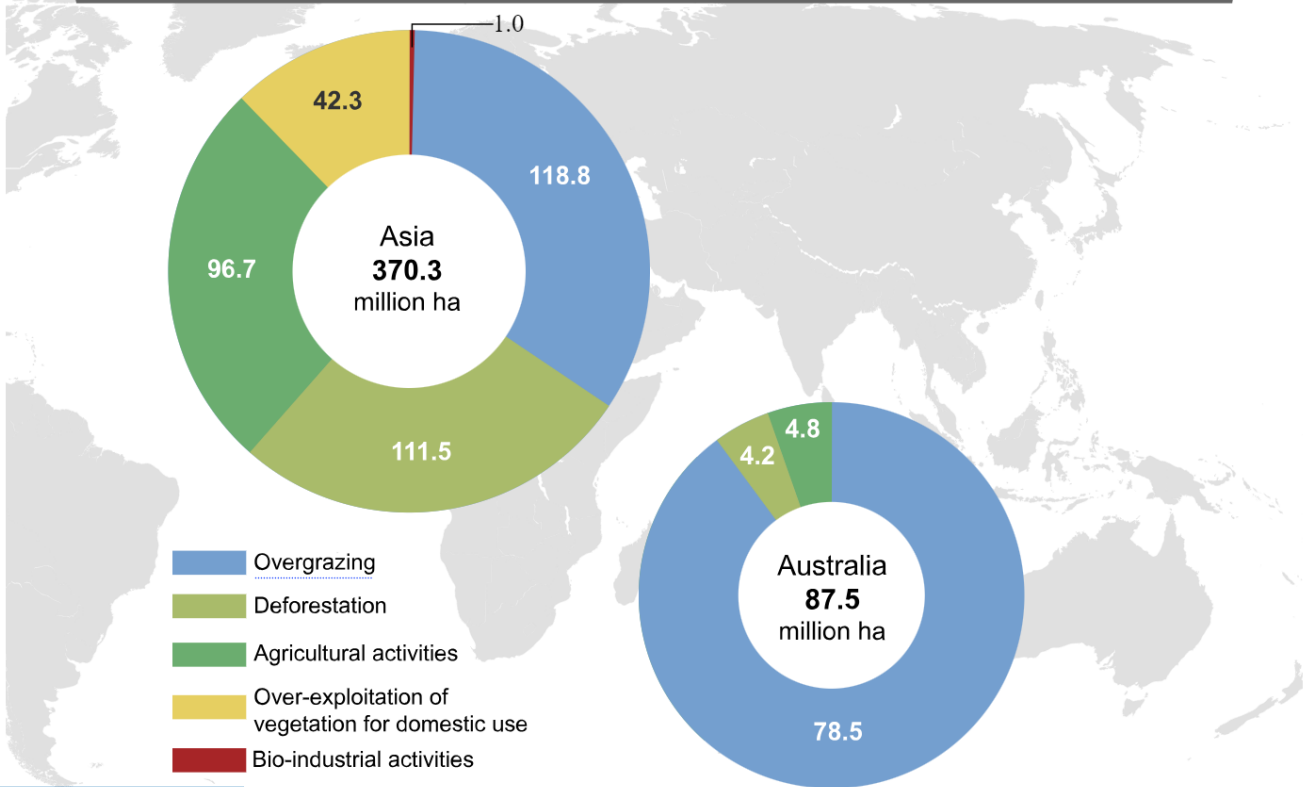
It can take up to 500 years to create 2.5 centimetres of soil but just a few years to destroy it.

The evidence is clear that soil is being damaged. Today, 75 % of land on Earth is degraded, threatening the well being of 3.2 billion people. This is occurring across the globe.

Soil degradation is the decline in the overall quality of soil, which is commonly caused by human activities.

We must take action. Soil must be protected.

The main causes of land degradation in Asia and Australia expressed in millions of hectares



Scroll down to continue



Question 1a (1 mark)

Using the data from Source B, **identify** the biggest cause of land degradation in Asia.

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Question 1b (1 mark)

Using the data from Source B, **identify** which region has the most total land degraded.

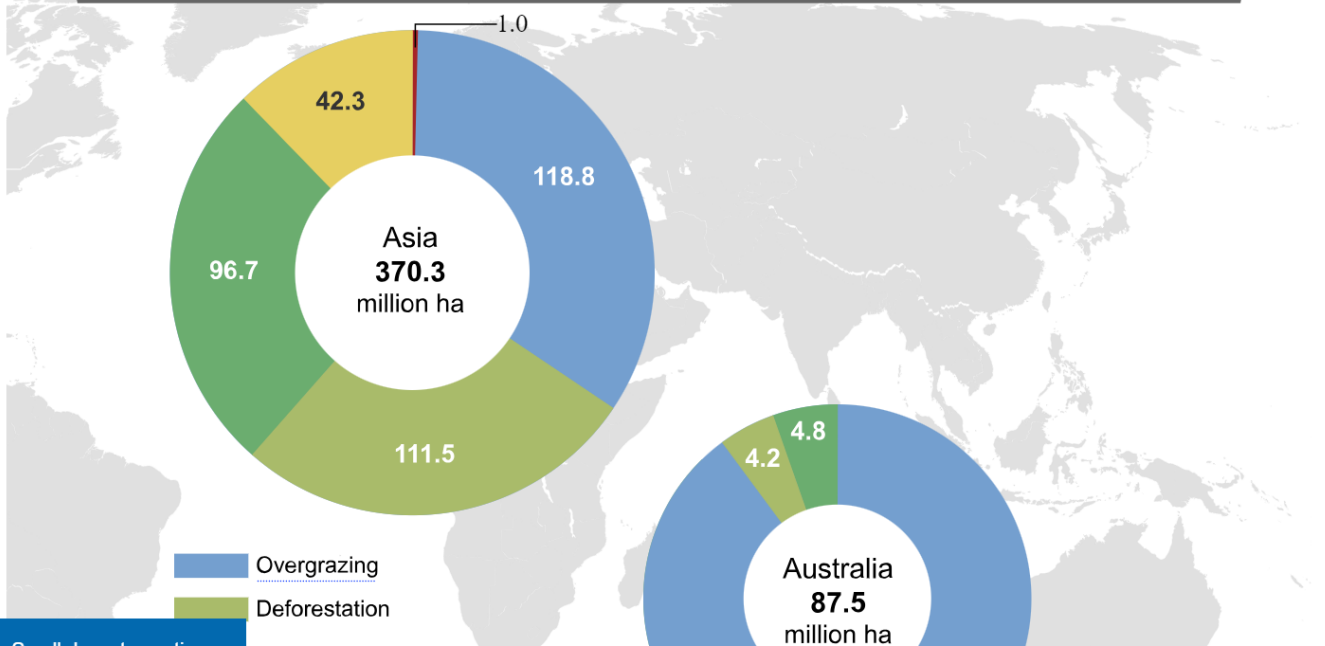
**B** *I* | ← → |    $x_2$   $x^2$  |  $\equiv$   $\equiv$  |  $\Omega$   $\Sigma$  | Styles ▾ |



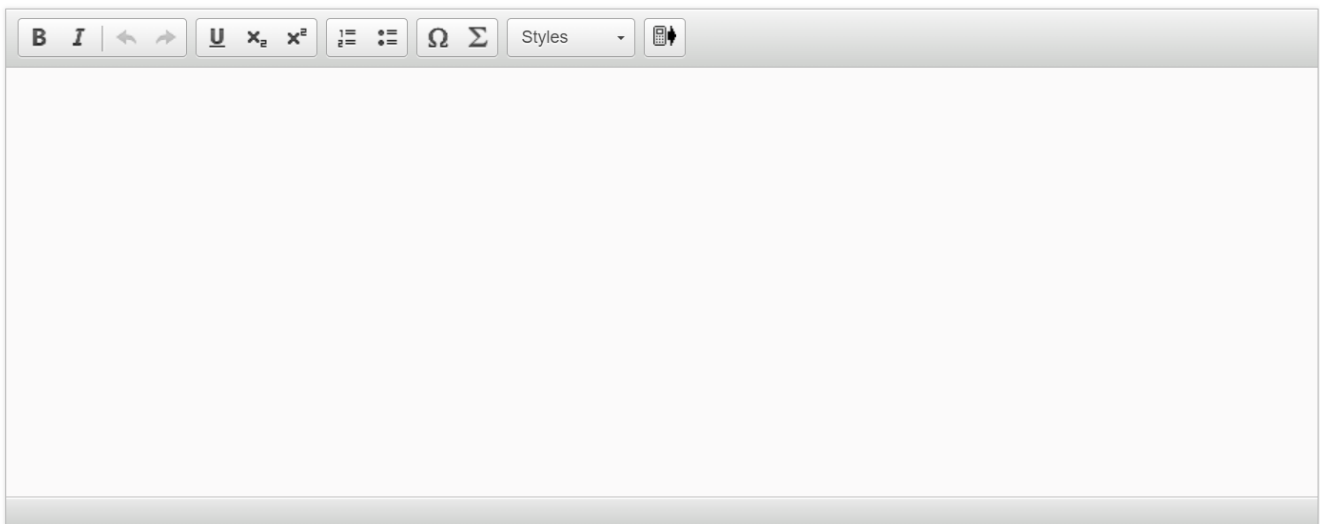
**Question 2** (4 marks)

Source B is repeated below for information.

The main causes of land degradation in Asia and Australia expressed in millions of hectares



**Explain** how **one** human activity causes land degradation.



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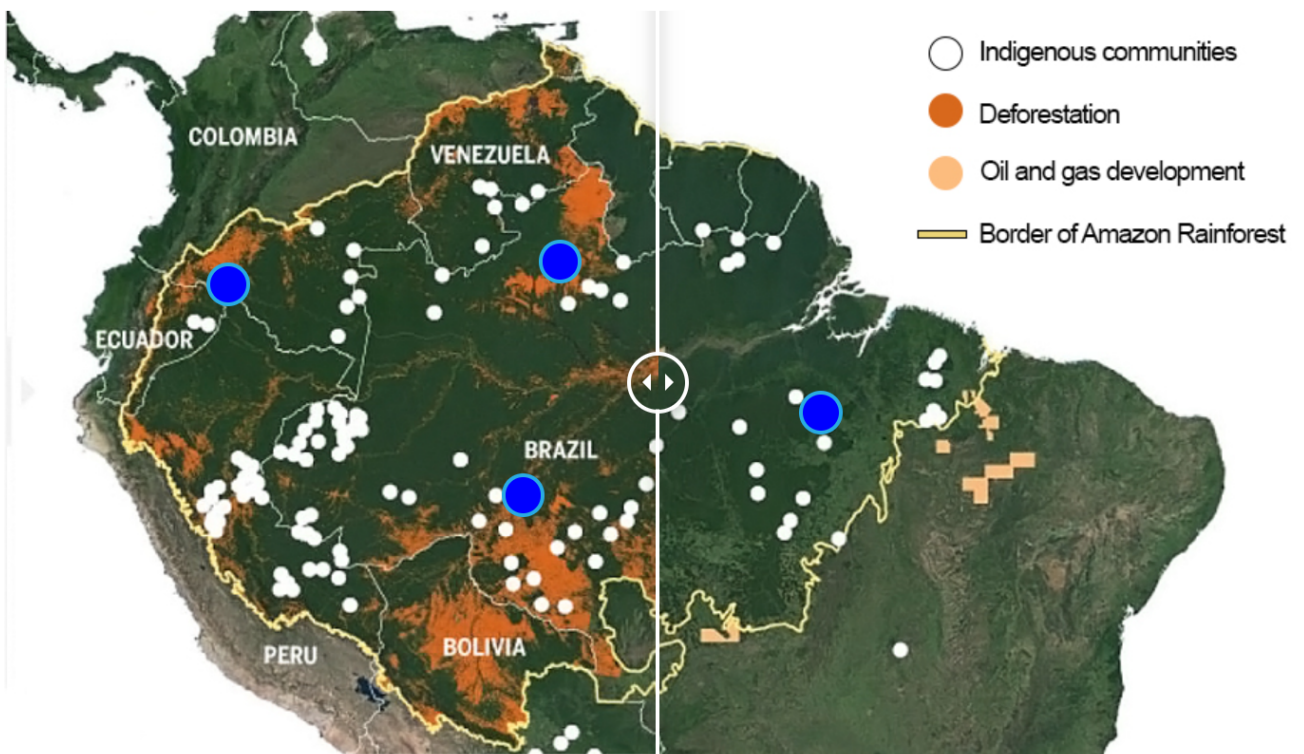
**Question 3** (8 marks)

As part of a unit of inquiry, an MYP year 5 class in Brazil learned more about the effect of human actions on the rainforest biome and the identities of the people who live there. The class was shown the source below about the impact of deforestation on the indigenous people of the Amazon Rainforest in South America.

Look at Source C below and answer the question that follows.

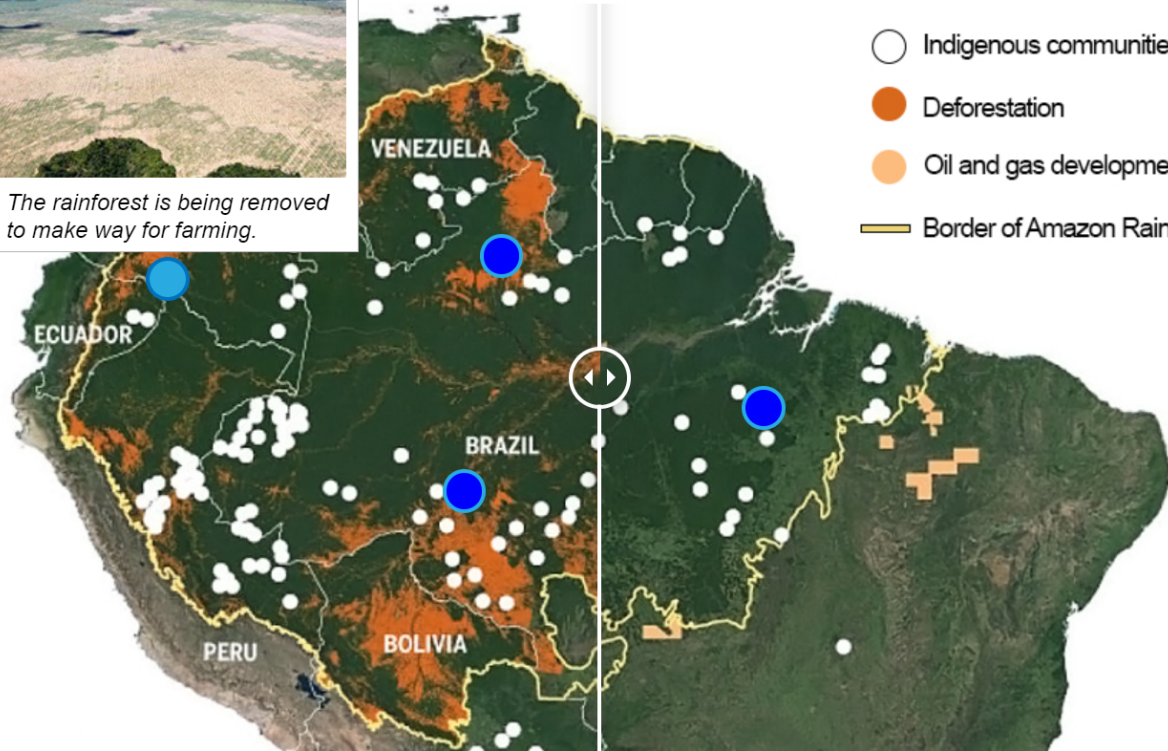
**Source C**

The interactive map below reveals how changes in the Amazon Rainforest are impacting indigenous communities. Click on the blue icons and drag the slider to the left and right to see the lasting effects of deforestation.

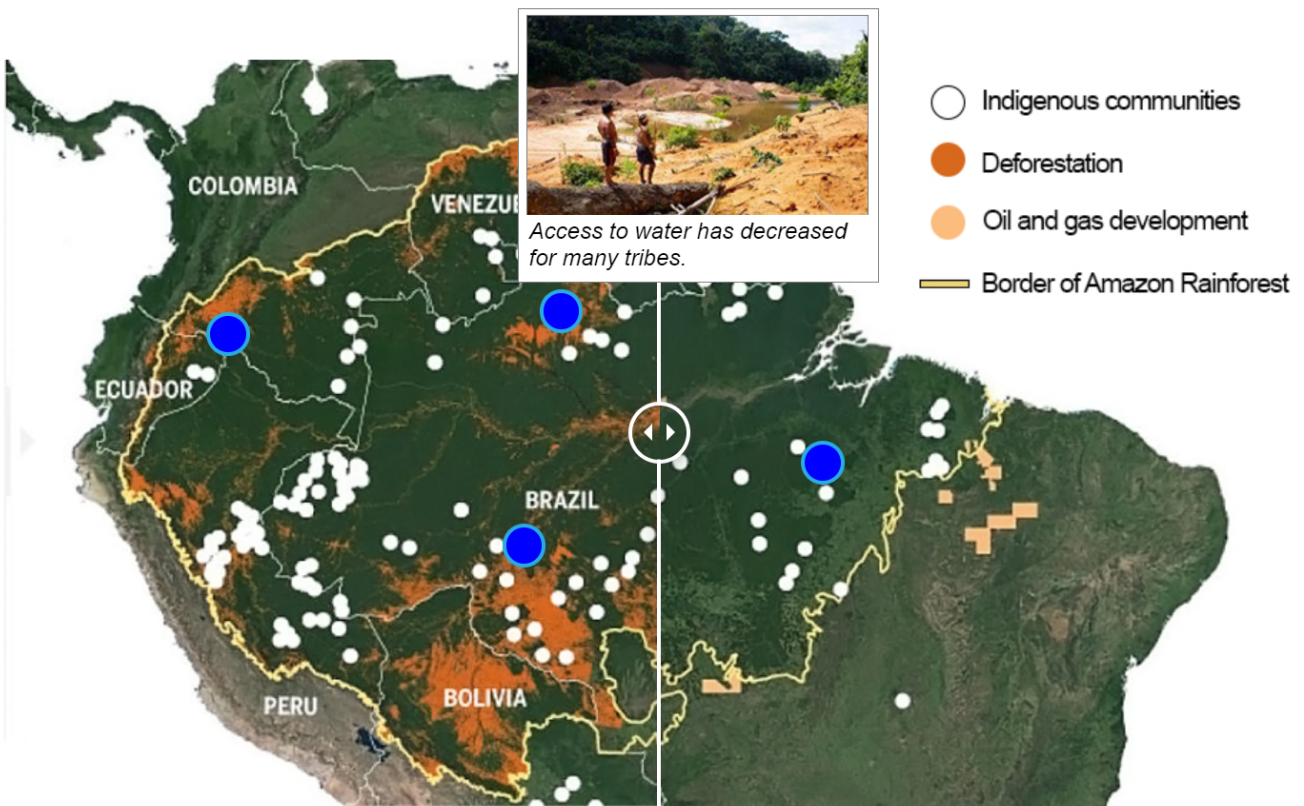


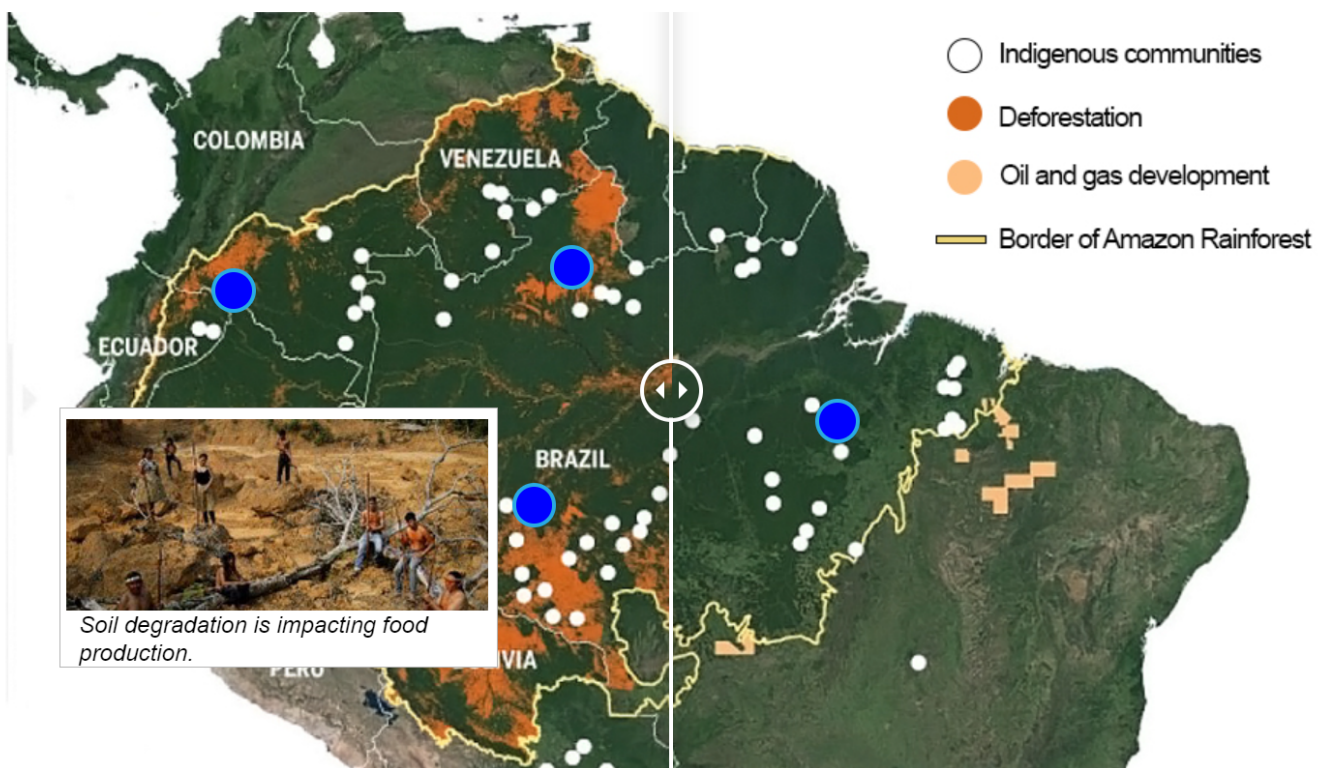


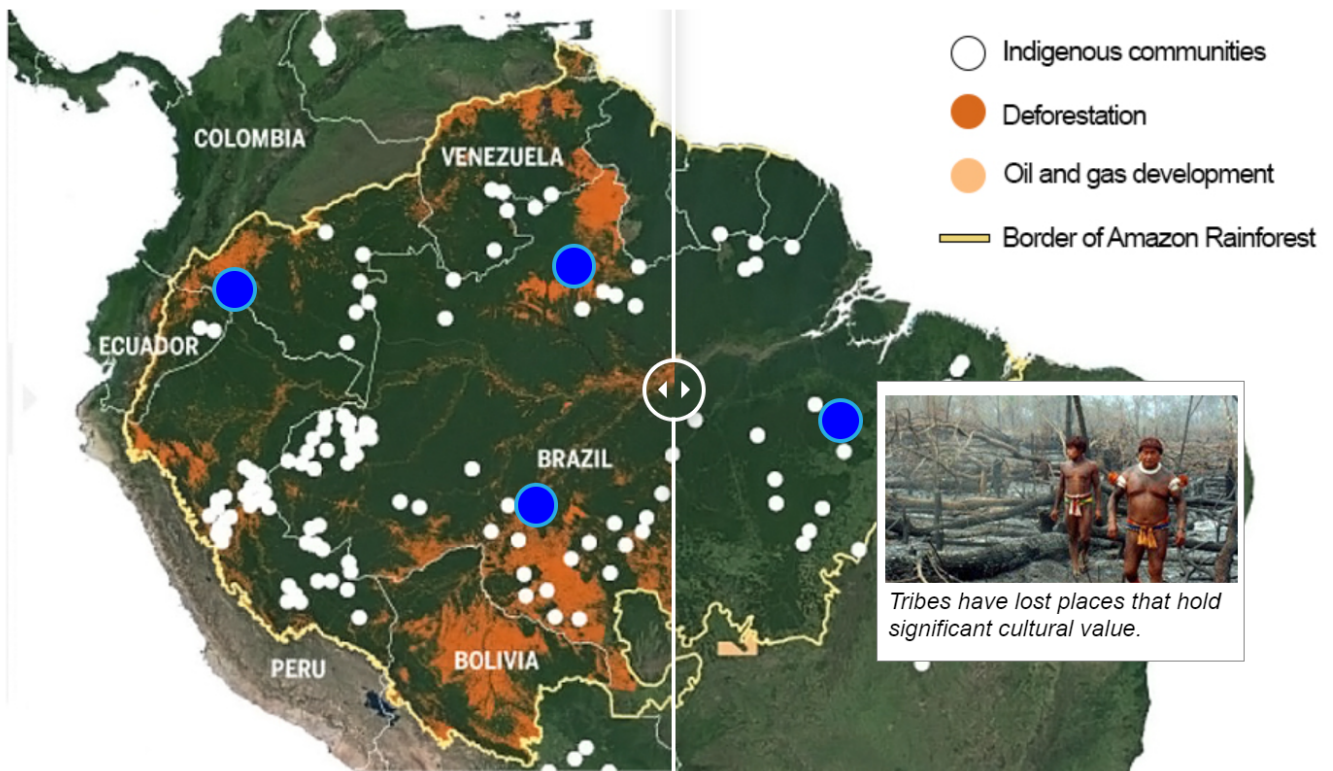
*The rainforest is being removed to make way for farming.*



- Indigenous communities
- Deforestation
- Oil and gas development
- Border of Amazon Rainforest







Based on this source, the class decided to investigate how deforestation has changed the lives of indigenous people in the Amazon Rainforest. The class produced the following action plan to collect data.

You will be asked to evaluate the action plan.

• **Statement of inquiry:** Change in the natural environment can impact human identities and relationships.

• **Research question:** To what extent do changes in the natural environment impact human identities?

• **Procedure:**

- We will visit the 4 villages shown on the map [Source C] over two weeks and interview different families to understand how deforestation has changed their daily lives.

- Soil samples will be collected and analysed for fertility.

• **Sample size:** 12 families total (3 families from each of the 4 villages).

• **Methods of data collection**

**Primary data:**

- 1) Collect 5 soil samples from each village
- 2) We will ask the following open-ended questions:

*a) Do you eat different foods because of deforestation?*

*b) Are there enough wild animals left to hunt?*

*c) How has deforestation affected your children?*

*d) How many sacred areas have been destroyed?*

**Secondary data:**

- **Procedure:**

- We will visit the 4 villages shown on the map [Source C] over two weeks and interview different families to understand how deforestation has changed their daily lives.

- Soil samples will be collected and analysed for fertility.

- **Sample size:** 12 families total (3 families from each of the 4 villages).

- **Methods of data collection**

- Primary data:**

- 1) Collect 5 soil samples from each village

- 2) We will ask the following open-ended questions:

- a) *Do you eat different foods because of deforestation?*

- b) *Are there enough wild animals left to hunt?*

- c) *How has deforestation affected your children?*

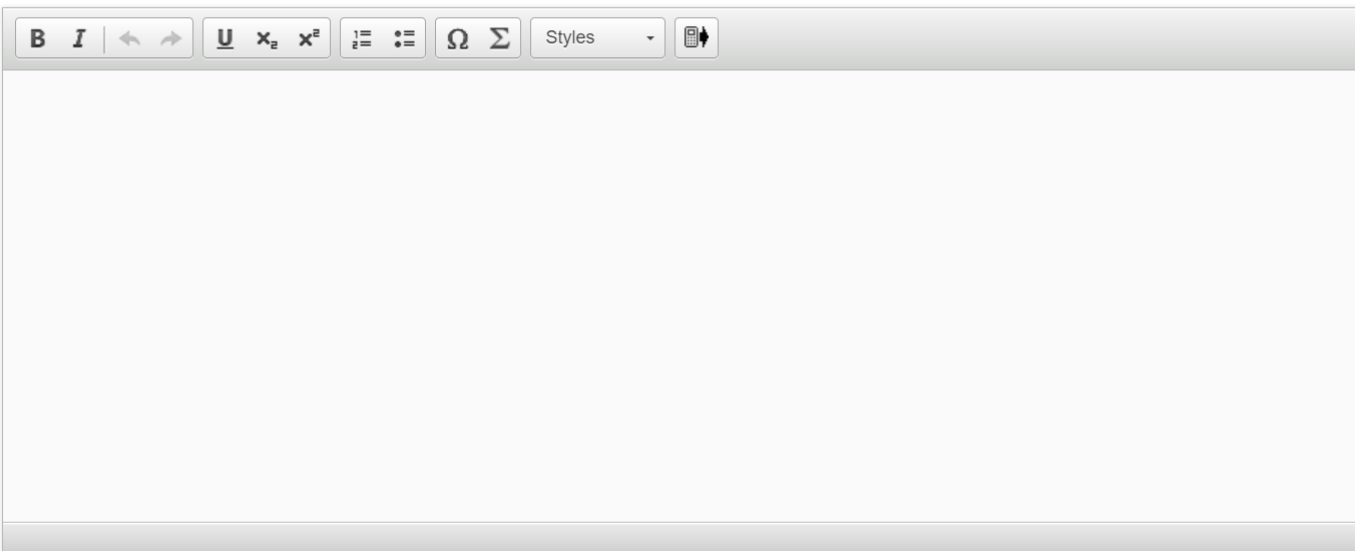
- d) *How many sacred areas have been destroyed?*

- Secondary data:**

- 3) Maps showing deforestation in the Amazon Rainforest

- 4) Statistics on deforestation from wildlife organizations

**Evaluate** the action plan.



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#### Question 4 (12 marks)

You have seen an investigation into deforestation in the rainforest biome in question 3. You will now design your own investigation into a different human activity that is changing a biome that you have studied.



#### Question 4a (2 marks)

Use the following statement of inquiry to **formulate** a clear and focused research question for an investigation into a biome you have studied.

**Statement of inquiry:**

Human activities can change the natural environment.

**B** *I* | ← → |  x<sub>2</sub> x<sup>2</sup> | ☰ ☷ | Ω Σ | Styles ▾ | 📄 ↕



**Question 4b** (4 marks)

**Justify** the relevance of the research question in 4(a) to the statement of inquiry.

**B** *I* | ← → | U  $\times_2$   $\times^e$  |  $\frac{1}{z}$   $\frac{1}{z}$  |  $\Omega$   $\Sigma$  | Styles ▾ |



**Question 4c** (2 marks)

**Outline one** challenge you might face in your investigation.

**B** *I* ← → U  $x_2$   $x^2$  ☰ ☷ Ω Σ Styles ▾ 📄



**Question 4d** (4 marks)

Excluding interviews, **explain one** benefit of using one other method of data collection in your investigation.

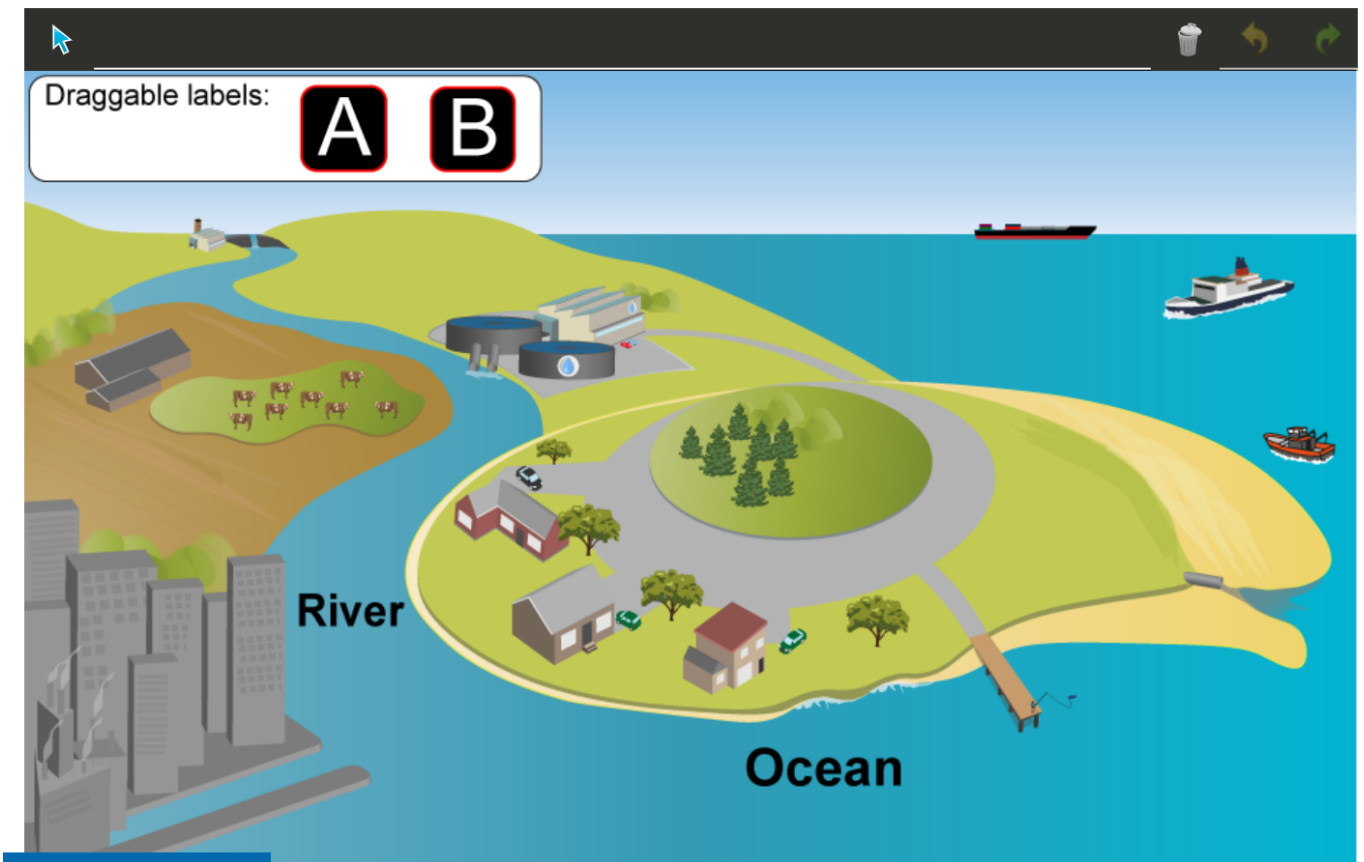
**B** *I* | ← → |  x<sub>2</sub> x<sup>2</sup> | ☰ ☷ | Ω Σ | Styles ▾ | 📄

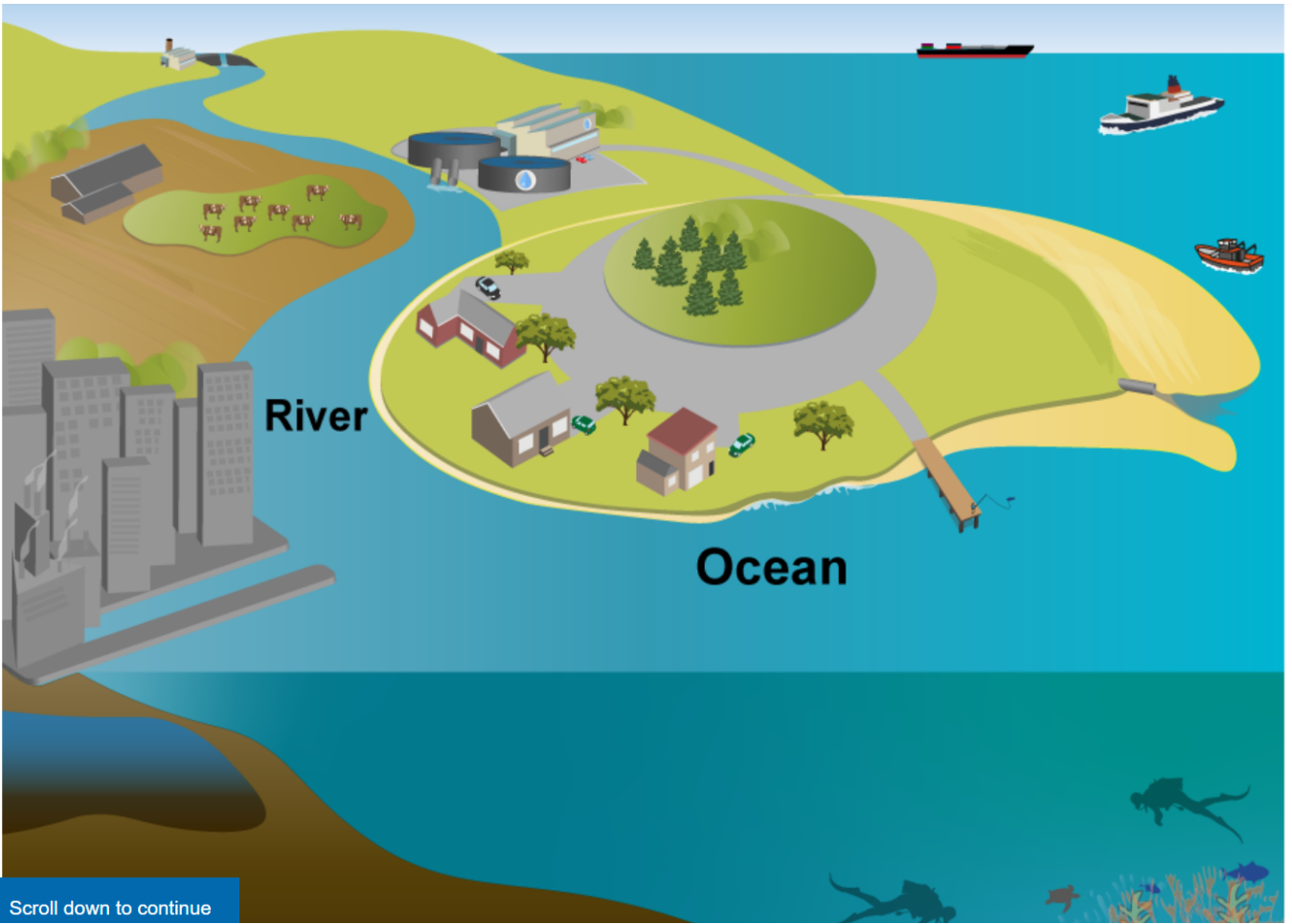


**Question 5** (18 marks)

The diagram below shows the community of Portchester, a town in the United Kingdom. You have been asked to create a presentation for the local government. Your aim is to persuade the government officials to adopt sustainable management strategies for the river **and/or** coastal system in Portchester.

You will use the diagram below to support your presentation. Drag and drop the labels to show the locations of **two** threats to the river **and/or** coastal system in Portchester that your presentation will focus on.





Create a key/legend for the diagram:



A rich text editor toolbar with icons for Bold (B), Italic (I), Undo, Redo, Underline (U), Subscript (x₂), Superscript (x²), Bulleted List, Numbered List, Omega (Ω), Sigma (Σ), Styles dropdown, and a mobile device icon.

Write a script for your persuasive presentation to **explain** the sustainable management strategies you would recommend to address the **two** threats to the river **and/or** coastal system you have identified.

In your script, you **must** include:

- examples from your MYP studies
- reference(s) to your labelled diagram
- a concluding statement or summary.



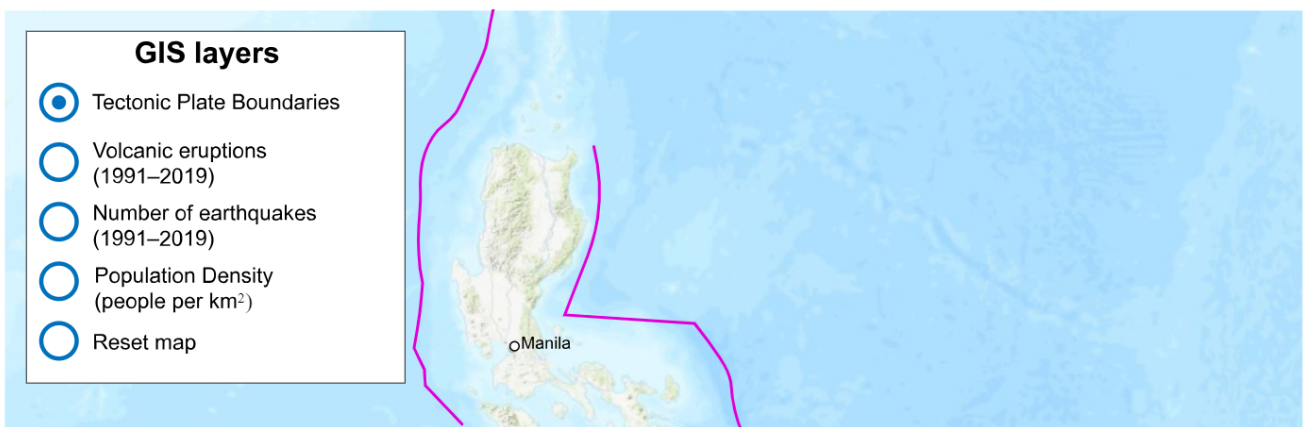
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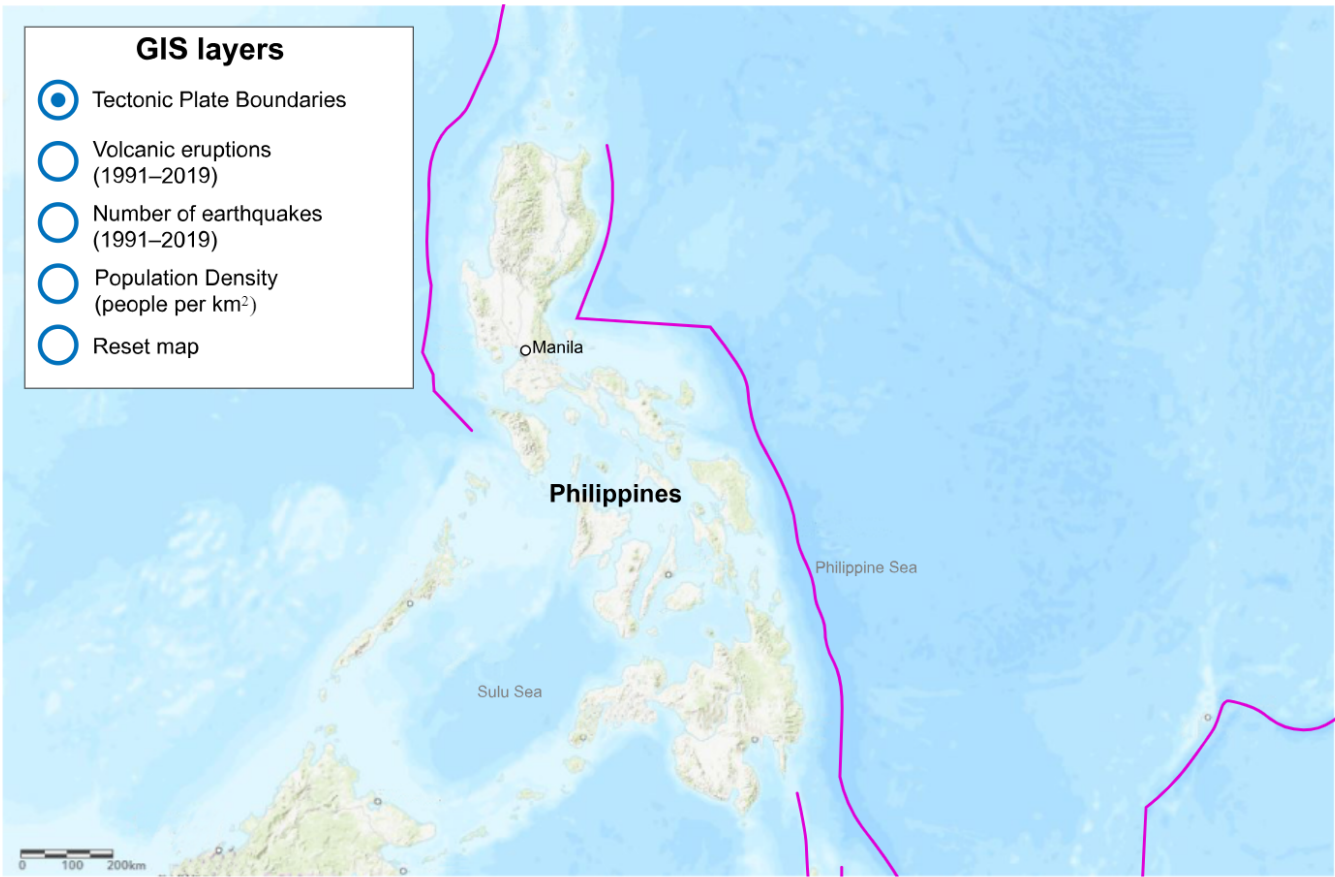
**Question 6** (6 marks)

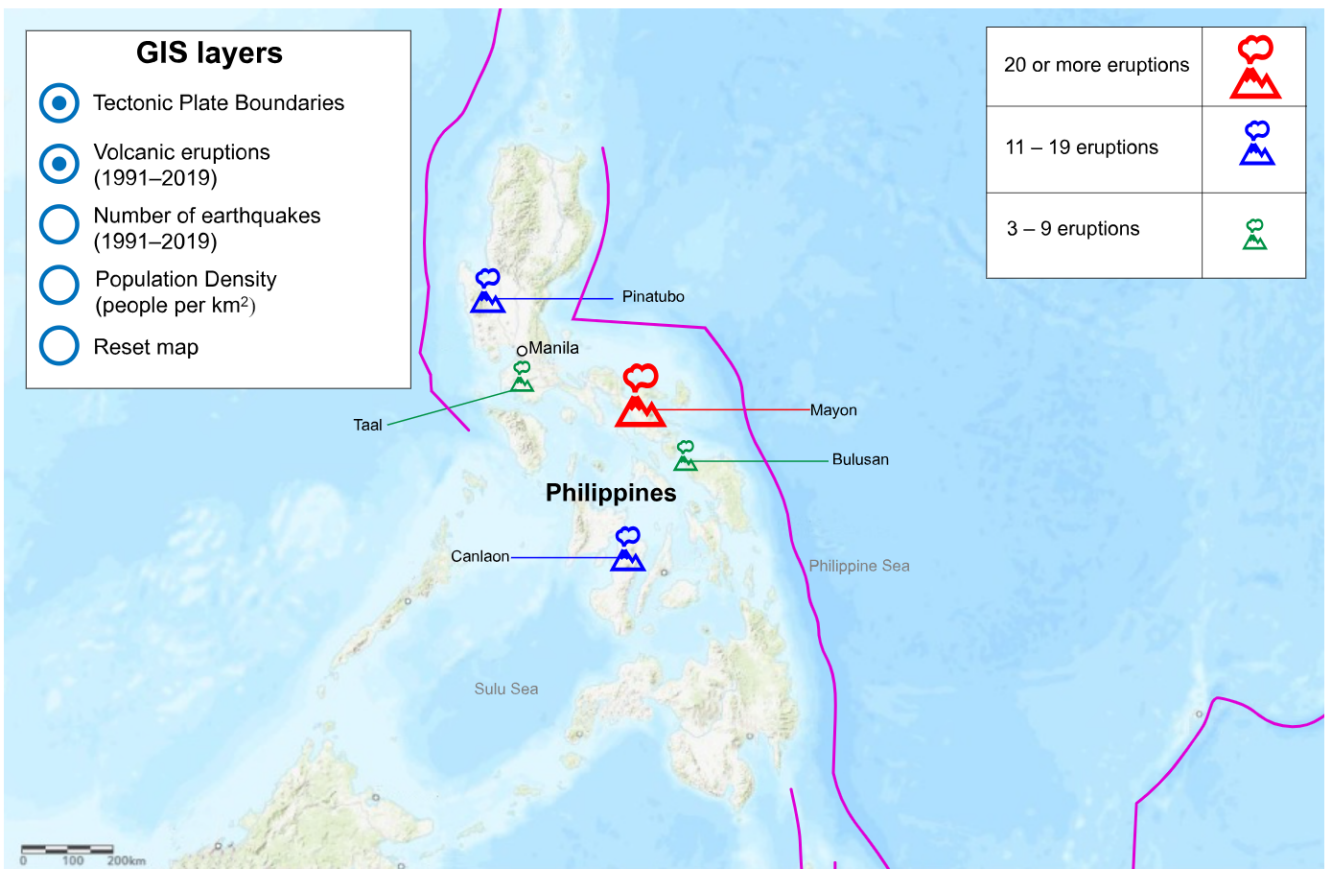
The maps below were produced by GIS-Education, a global mapping company. They show tectonic activity in the Philippines, a country in Southeast Asia. The Philippines is located on a destructive plate margin.

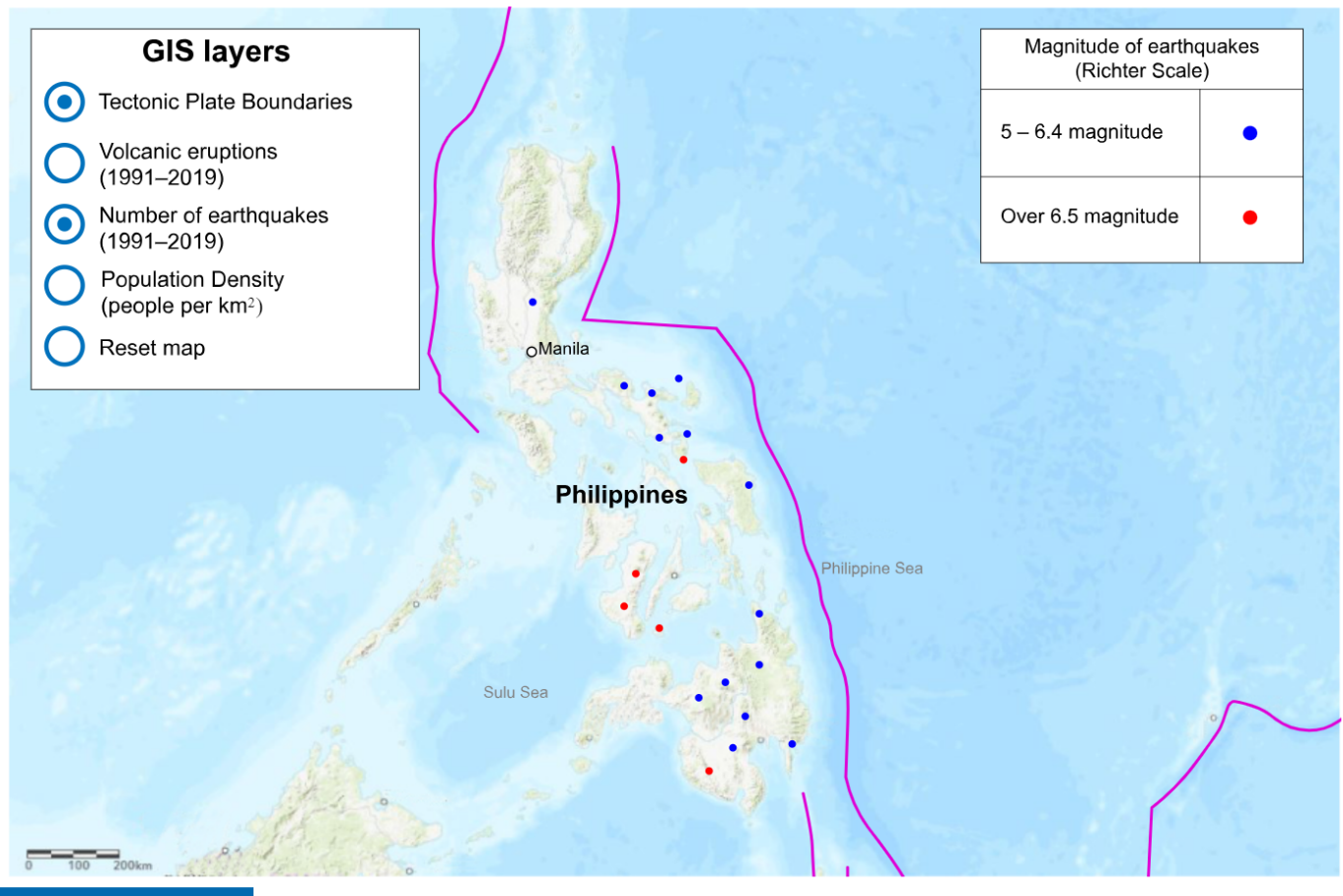
**Source D**

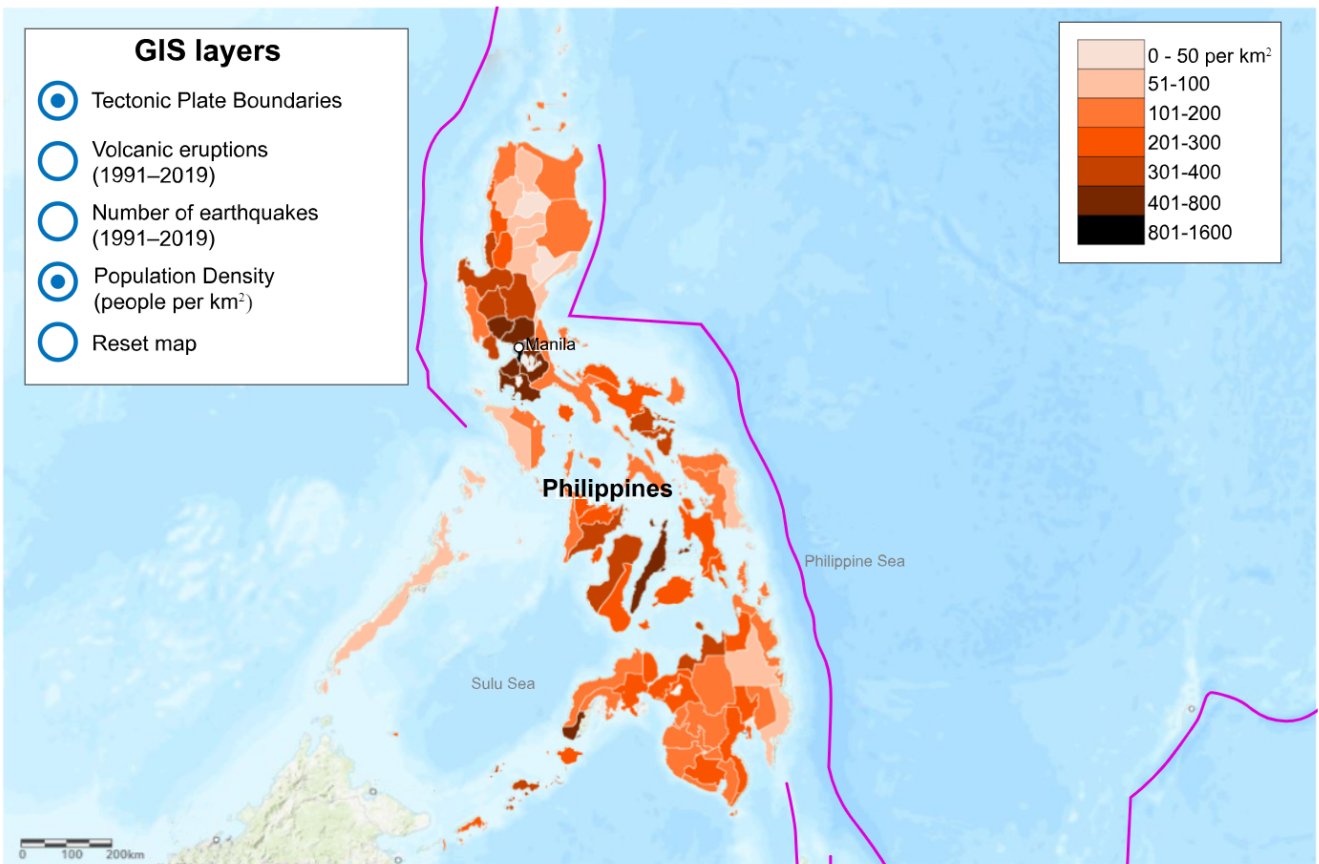
This media is interactive













Question 6a (1 mark)

**Identify** the number of volcanoes in the Philippines that have erupted between 11 and 19 times.

**B** *I* | ← → |  x<sub>2</sub> x<sup>e</sup> | :≡ :≡ | Ω Σ | Styles ▾ | 📄 ↕



Question 6b (1 mark)

**State** the origin of Source D.

**B** *I* | ← → |  x<sub>2</sub> x<sup>2</sup> | ☰ ☱ | Ω Σ | Styles ▾ | 📱



**Question 6c** (2 marks)

**Outline one** value of Source D to a resident living in the Philippines.

**B** *I* | ← → | U  $x_2$   $x^2$  |  $\text{☰}$   $\text{☷}$  |  $\Omega$   $\Sigma$  | Styles ▾ |



Question 6d (2 marks)

**Outline one** limitation of Source D for a resident living in the Philippines.

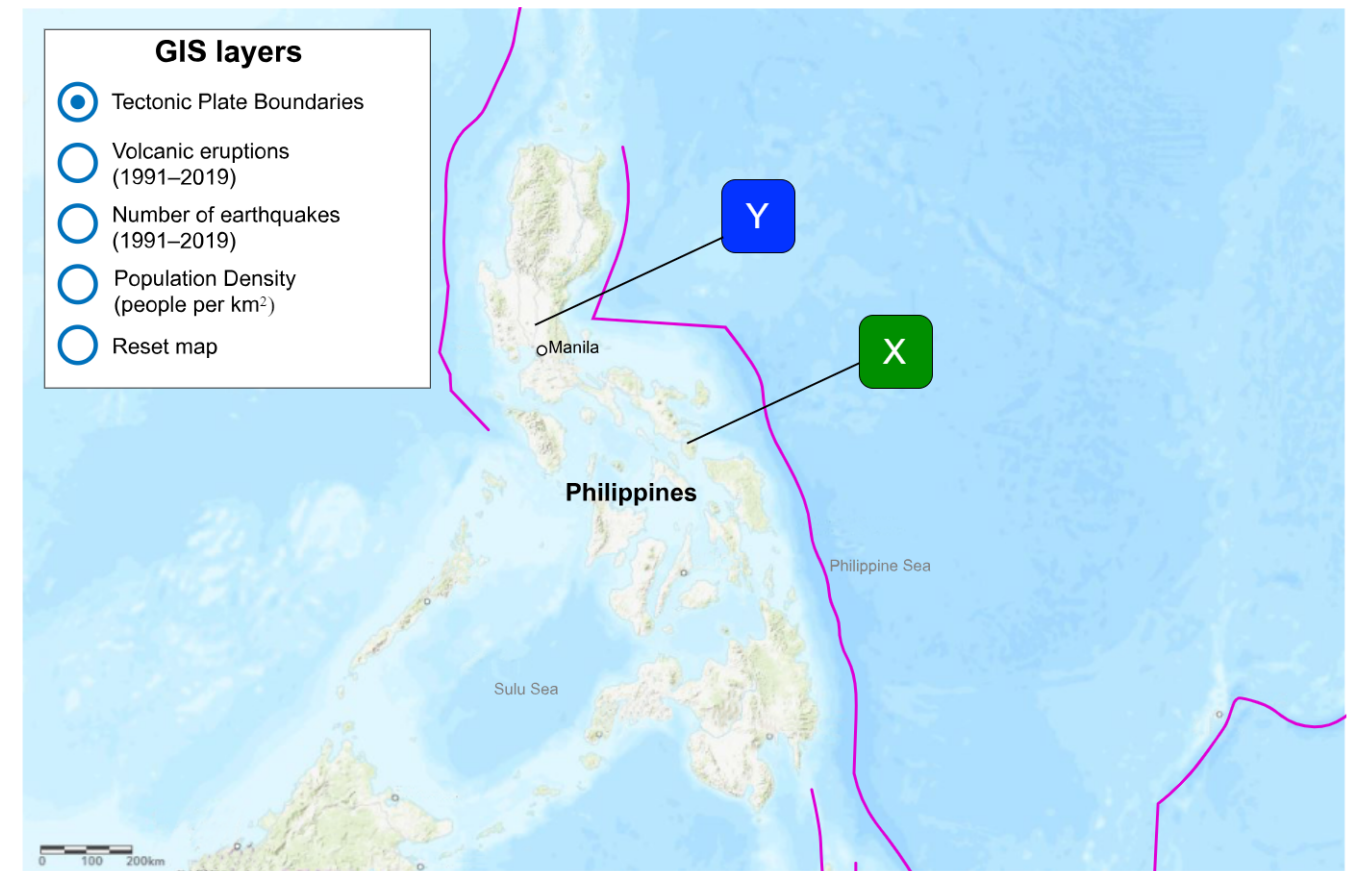
**B I** **U**  $x_2$   $x^e$   $\Omega$   $\Sigma$  Styles

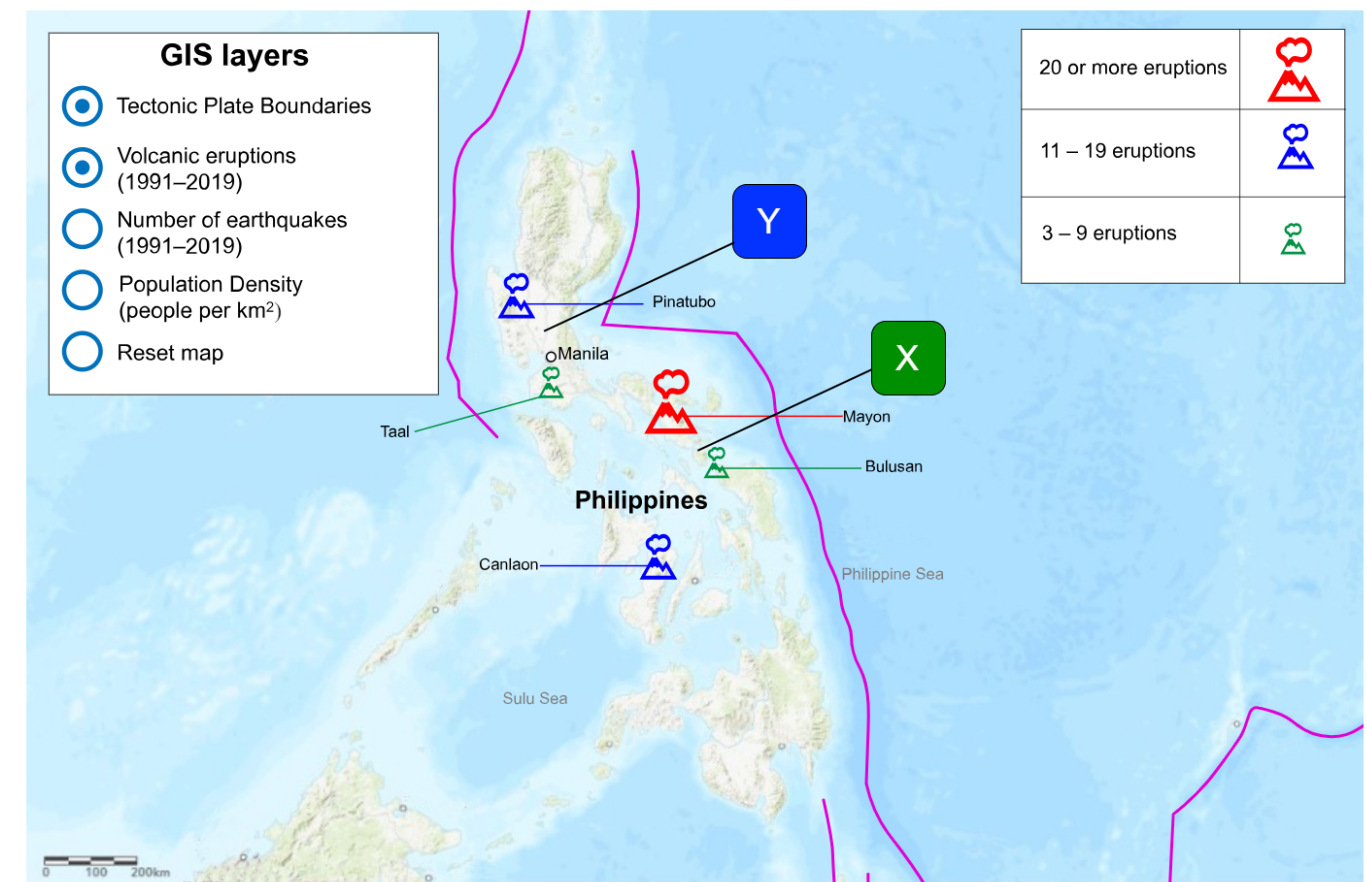
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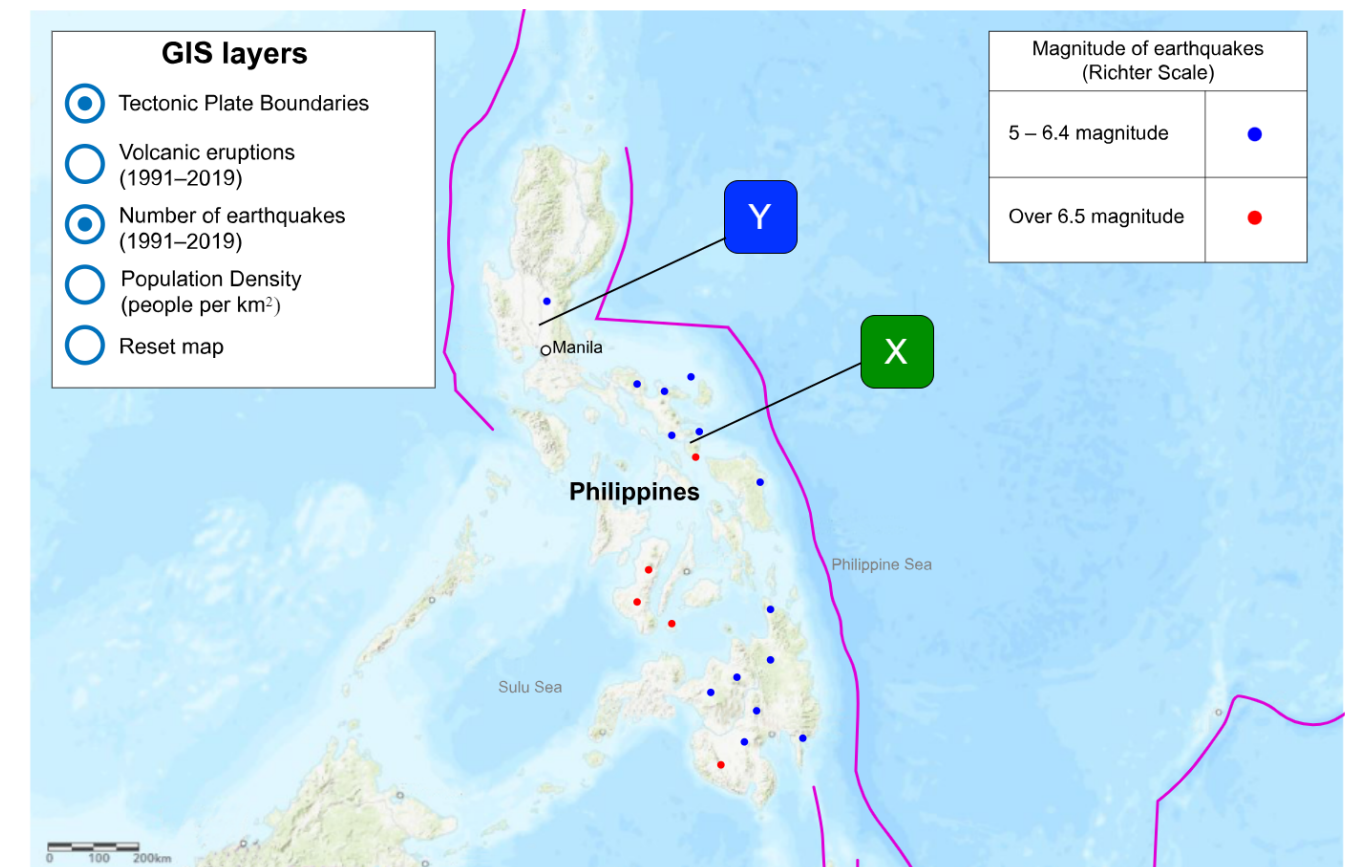


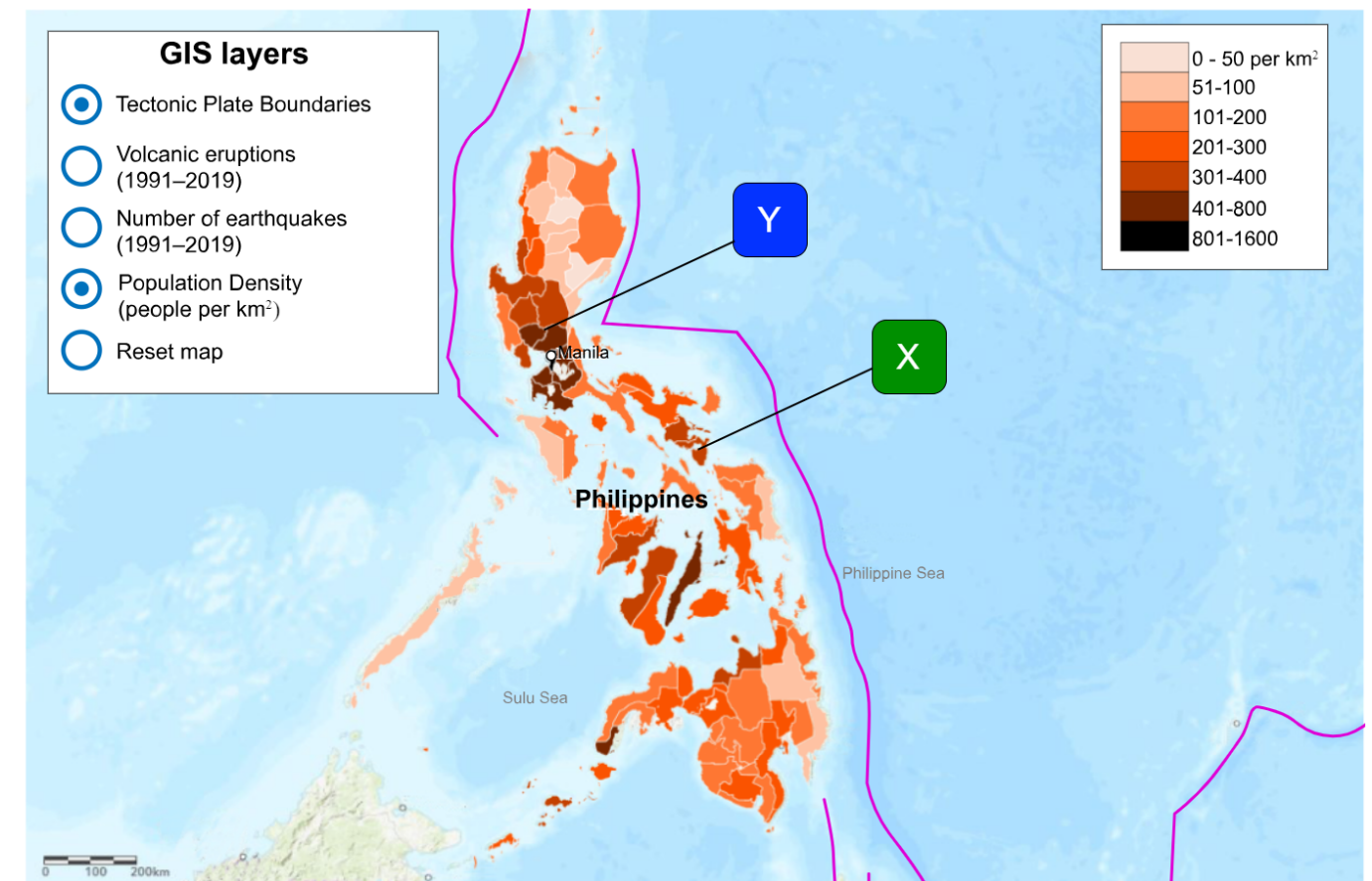
**Question 7** (6 marks)

The government of the Philippines has decided to invest in earthquake-proof structures. They need to decide whether to invest in location X or Y. These locations are marked on the map in Source D below.

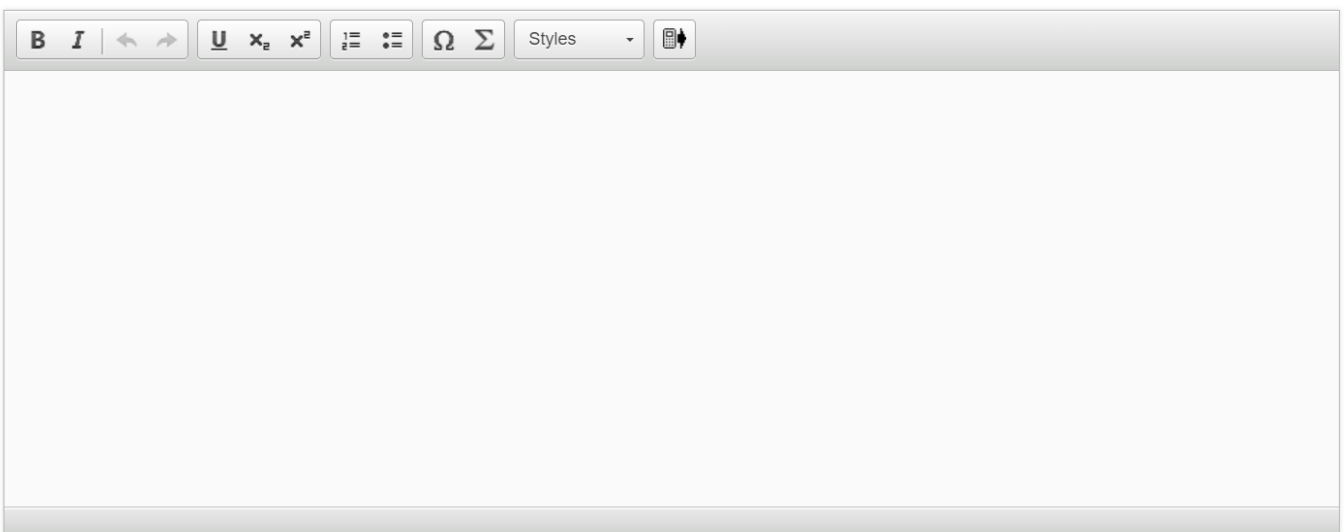








Using evidence from Source D, **justify** which location the government should invest in.



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**Question 8** (24 marks)

**To what extent** do secondary effects of tectonic activity pose a greater risk to people and property than primary effects?

In your essay you must:

- include examples from your MYP studies to support your arguments
- refer to volcanic activity and/or earthquakes
- consider different perspectives.

**B** *I* | ← → |    $x_2$   $x^2$  |  $\frac{1}{2}$   $\frac{3}{4}$  |  $\Omega$   $\Sigma$  | Styles ▾ | 