**2023**

**Year 12 Earth and Environmental Science – Unit 4**

**Task 10: Climate Change Case Study**

**Assessment Type: Extended Response**

**Weighting: 10%**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Due Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Total Mark** |  |

*I acknowledge that all the information contained in this task is my own work and not taken from other sources. If other sources have been used, they have been acknowledged in my references.*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Student Signature)

*Please see SEQTA for teacher feedback and comments.*

**Task:**

Your task for this assessment is to research the impact of climate change on a Western Australian Biotic resource.

This assessment can be submitted online via SEQTA or a physical copy.

**What you need to do:**

1. Choose a biotic resource from the list below and identify the area in which it operates. Describe the industry and the region, including a map.
2. Describe the current and recent historical (last 10 years) climate of the region and how this related to the chosen industry.
3. Research how climate change could affect this resource and its management in this region in the future.
4. Record where you obtain your information in a reference list.

**Western Australian Biotic Resources:**

Please choose one of the following:

|  |  |
| --- | --- |
| * Wineries * Fisheries * Forestry * Horticulture | * Grain production * Poultry or livestock production (for meat, wool, dairy, eggs etc.) * Tourism * Other (please check with teacher)   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

*Use the tick boxes in each section to ensure that you have included all required information.*

**INTRODUCTION (6 marks)**

* Describe the chosen industry. Including what the industry is, how long it has operated in Western Australia, where it exports to, who the largest producer is.
* Describe the region where the industry is centred.
* Include a map of the region, with industry area marked.

**IMPACT OF CLIMATE CHANGE (14 marks)**

* Describe the current and recent historical (within 10 years) climate. Including any notable changes in climate.
* Relate the regions climate to the production of the resource.
* Relate the impacts of climate change on the resource region.
* Identify two effects of climate change on the resource.
* Relate the environmental changes to the resource being studied.
* Discuss the possible adjustments that are necessary for this resource to be accessed in the future.
* List relevant adjustments

**CONCLUSION (2 marks)**

* Summarise the key findings of the case study.

**REFERENCES (3 marks)**

* Use a variety of resources
* Use the APA referencing style for reference list.

**MARKING KEY: The impact of climate change on a WA biotic resource**

|  |  |
| --- | --- |
| **Case study report** | **Possible  mark** |
| **Introduction** |  |
| * Describes the industry, includes a map | 1–4 |
| * Briefly describes the region where the industry is centred | 1–2 |
| **Effect of climate change** |  |
| * Describes current/historical climate | 1–2 |
| * Relates climate to production of the resource | 1–2 |
| * Correctly relates the effects of climate change to the selected region | 3–4 |
| * Lists one or two effects of climate change | 1–2 |
| * Relates the environmental changes to the resource being studied | 1–2 |
| * Discusses possible adjustments that are necessary for this resource access in the future | 3–4 |
| * Lists a relevant adjustment | 1–2 |
| **Conclusion** |  |
| * Concisely summarises the findings of the case study | 2 |
| * Briefly describes the findings of the case study, omitting some key points | 1 |
| **References** |  |
| * Lists a variety of resources * Uses correct format for references | 1–2  1 |