Investigation Task: Biomes & Resource Production

**Year 9-10 Geography**

**Learning intention:** *We are finding out more about Australian industry sectors that produce resources, and the natural or managed environment in which these resources are produced or grown. We are considering the environmental impact and changes to the biome caused by these processes.*

In this task you are required to investigate the ways that humans alter a specific biome to produce food and fibre, and the environmental impact of these alterations. At the end of the research process, you will produce a report that includes relevant maps, diagrams, graphs, and tables. You should aim to use both primary and secondary sources and record the details of your sources in a bibliography. An important part of the process is to **reflect** onand **evaluate** individual or collective actions in response to the issue of unsustainable food production.

Choose one of the following industries. **NOTE:** you may not choose the same one as someone else.

* Vegetables
* Rice
* Wheat
* Fish & seafood
* Pork
* Beef and/or lamb (meat)
* Chicken
* Dairy
* Sugar
* Cotton
* Wool
* Coffee
* Dried fruit
* Bananas

**Before you start:** Study the marking rubric for this task, making sure you understand what information is required. Then conduct library and/or internet research on the topic to answer the following questions. Don’t forget to RECORD your information sources for the bibliography!

Step 1: Observe, record & describe

* Where is your resource grown, farmed, or produced?
* What is your resource like? What products can be created from it? (include labelled diagrams/pictures)
* Has the way that people use it changed over time? If so, how?
* What Australian biome is it mainly found in? What are the features of this biome?
* What was this area traditionally used for by the Indigenous people who inhabited it? Did they use this area to produce your resource?

Step 2: Explain

* Why is your product produced in this biome?
* What does the process of farming and/or producing it involve? (include labelled diagrams/pictures)
* How has the way it is farmed or produced changed over time?
* Who are the main buyers for this resource and how is it transported to them?
* What are some ways that producing and distributing your resource could be done more sustainably?
* Is your product (or any waste/by-products it creates) used as a foodstuff or biofuel?

Step 3: Evaluate and Predict

* What impact does the production of your resource have on the biome (environment, landscape, topography}?
* What impact does the production of your resource have on the people/society of the biome? Does it have any impact on the Indigenous people in the area?
* What impact does the production of your resource have on the Australian economy? (Include charts/graphs)
* How do you think the social, environmental, and economic effects above might change in future, taking into account factors such as climate change and increased population?
* What factors might motivate people to use the area more sustainably and sensitively?
* What long-term economic savings could be achieved by using more sustainable practices?

Step 4. Decide and Advocate

* Your opinion: What do you think about the processes used to produce your resource? Are they ethical? Are they sustainable?
* Which political, corporate or indigenous groups have control over the decisions made about the production of this resource in Australia? Who benefits the most from it? Who is the most impacted by it?
* How could Indigenous perspectives or cultural practices be incorporated into the process?

**IMPORTANT:** Make sure you list all sources used in a bibliography.

Marking Rubric

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| --- | --- | --- | --- | --- |
| **REQUIREMENTS** | **A** | **B** | **C** | **D** |
| **Observe, Record, Describe**   * Detailed description of resource including products & uses, biome and location * Consideration of history and Indigenous perspectives * Includes at least two labelled maps or diagrams |  |  |  |  |
| **Explain**   * Detailed explanation of production process, why it’s produced in this biome, history of the process, how & where it’s distributed * Detailed explanation of current sustainable practices or possible improvements * Includes at least two labelled diagrams or flowcharts of the production process. |  |  |  |  |
| **Evaluate & Predict**   * Evaluation of effects of production on natural and built environments * Considers social, ecological & economic impact. Explains how the decisions and actions taken by people add to or reduce the effects * Makes informed and accurate predictions about future effects * Includes at least one chart of economic impact and at least one diagram, illustration, chart or graph of production effects. |  |  |  |  |
| **Decide & Advocate**   * Gives thoughtful opinions about processes * Identifies key decision makers and political investors * Considers Indigenous perspectives |  |  |  |  |
| **Research & Bibliography**   * Locates relevant and detailed information and/or data from a range of appropriate sources and selects the best methods to record them * Information is presented clearly and logically * Comprehensive bibliography with at least 6 sources, structured correctly |  |  |  |  |