Unit Overview

Unit 3: Responding to land cover transformations

In Unit 3, students develop an understanding of changes to the biophysical environment over time, with a particular focus on land cover transformation and climate change. Through a case study and fieldwork, students investigate the geographical processes, natural and anthropogenic, that have resulted in change to Earth's land cover and climate change and the resulting impacts and challenges posed at global, regional and local scales. Students propose action in response to a land management or water management challenge for a fieldwork location.

Fieldwork plays a central role in Topic 2 of this unit. Through experiential learning, students apply a range of geographic skills to collect, manipulate and explain the meaning of data. Through this field study, students understand that managing land cover change at the local level is required for resilient and sustainable futures.

The learning for this unit consists of two separate and interrelated topics. Each is of equal importance in providing students with the required knowledge and skills to demonstrate understanding of the unit objectives.

Topic Overview

Topic 2: Responding to local land cover transformations

IA2: Field Work Component (5 hours)

In Topic 2, students explain the geographical processes that result in land cover change at a local scale and how these processes shape the identity of places. They understand the interconnections between people and physical systems, and the effects of land cover change on community and the environment at a local scale, including for Aboriginal peoples and Torres Strait Islander peoples where appropriate. They recognise the spatial pattern of this land cover change and the implications for people and places. Students investigate a specific local land or water management challenge by conducting fieldwork, using the geographic inquiry model.

Students propose action to manage the identified challenge to improve the sustainability of land use in the local area. Through their fieldwork investigation, students apply a geographical perspective to understand the impacts of land cover change for the biophysical environments, and people in their own community and the challenge of sustainable responses.

Subject Matter: Topic 2

Explain the geographical processes that result in particular physical features (e.g. dune systems, river systems, deserts, forests, grasslands) that shape the identity of places at a local scale.

Explain the importance of Aboriginal peoples' and Torres Strait Islander peoples' connection to Country/Place and their understanding of natural features and elements of the local ecosystem/s, e.g. dune systems, river systems, deserts, forests, grasslands.

Interpret land use maps to identify where changing land cover (e.g. deforestation, land reclamation, agricultural practices, urbanisation, land drainage, pastoralism, mining) has had an impact on the biophysical environment in a local area.

Explain Aboriginal peoples' and Torres Strait Islander peoples' care for land (as applicable to their local area, where relevant) and the impacts of these practices on land cover over time.

Explain geographical processes that have contributed to land cover change in a local area, including

- Anthropogenic processes, e.g. urbanisation, agriculture and resource exploitation
- Natural processes, e.g. weather, natural hazards.

Explain the implications for environments and people of the changing land cover, including on spiritual and cultural features of value for Aboriginal peoples and Torres Strait Islander peoples, where appropriate.

Conduct a field study (for assessment purposes) to collect primary data for investigating a land management or water management challenge as a result of land cover change on a local scale. As part of this field study, students must:

- Use geographic inquiry to carry out fieldwork for investigating a local land management or water management challenge
- Identify data required and appropriate methods for data collection analyse data gathered in the field to explain the nature, location and extent of the challenge
- Apply geographical understanding from their analysis to generalise about the impacts on people, including Aboriginal peoples and Torres Strait Islander peoples, where appropriate, and the sustainability of the environment for the place being investigated
- Propose action/s in response to the generalisations to address the land management or water management challenge to create or improve the sustainability at the fieldwork location

Transform primary data collected in the field using cartographic, graphic and mathematical skills, spatial and information and communication technologies to communicate findings in a fieldwork report.

Internal Assessment 2: Field Report

(Unit 3, Topic 2)

Collect, analyse and interpret geographical data and information gathered in the field.

Explain the processes and interactions that result in land cover change at the fieldwork location.

Generalise about the impacts of the land cover change at the fieldwork location.