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Environmental systems and societies
Standard level
Paper 1 – resource booklet

30 April 2026

Zone A afternoon | **Zone B** afternoon | **Zone C** afternoon

1 hour

Instructions to students

- Do not open this booklet until instructed to do so.
- This booklet contains all the resources to answer paper 1.

Figure 1(a): World map showing the location of the island of Mauritius

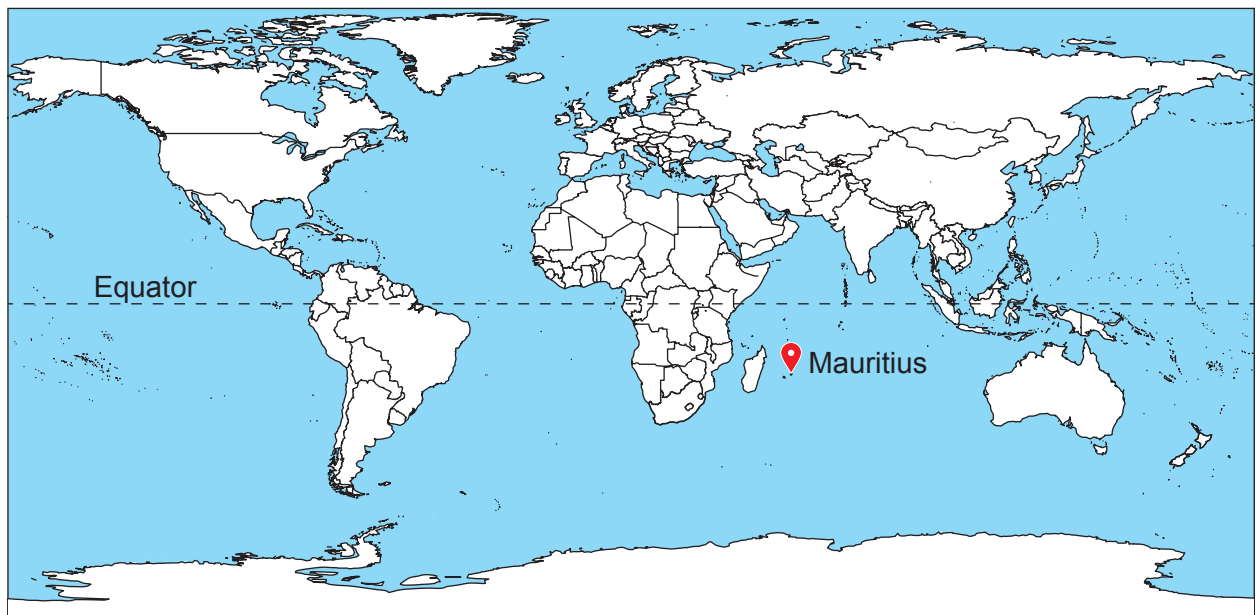


Figure 1(b): Topographic map of the island of Mauritius

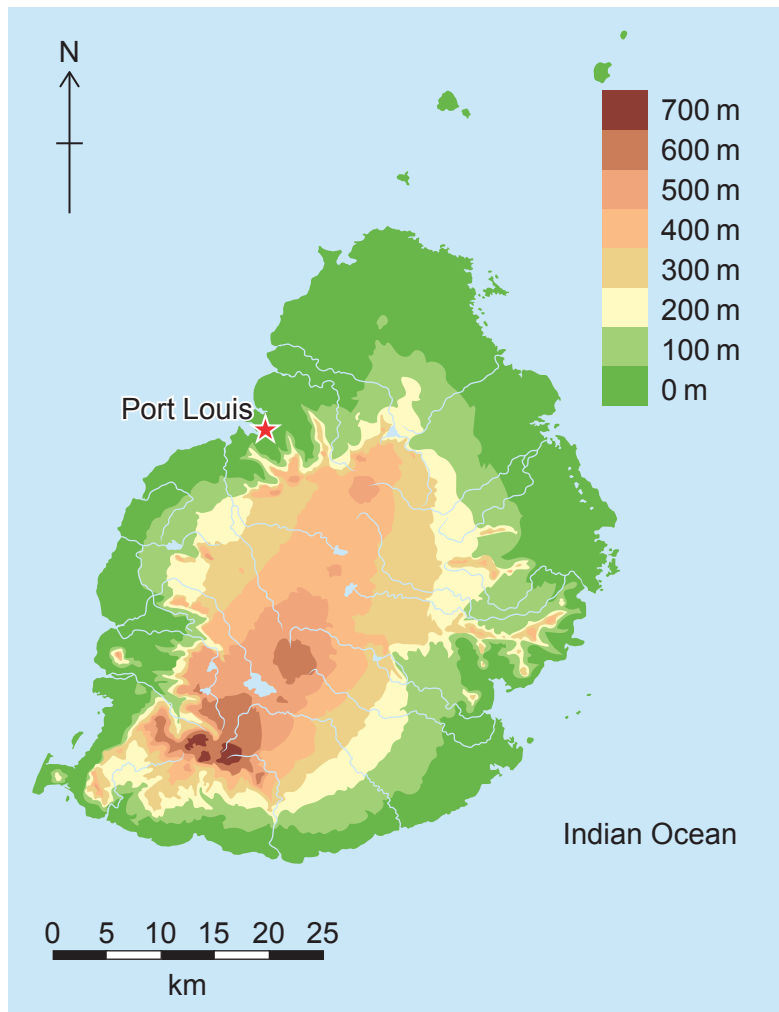


Figure 1(c): Fact file on the island of Mauritius

- Mauritius is a tropical island 2000 km off the south-east coast of Africa, with an area of about 1865 km² surrounded by coral reefs.
- It was formed by volcanic eruptions approximately 10 million years ago.
- Over the last 400 years, people from Europe, Africa, India and China have settled in Mauritius, resulting in the diverse range of customs and traditions that make up Mauritian culture.
- Forest cover is about 25 % of the land area (both plantation and natural forest), of which roughly 2 % is native. About 43 % of land is used for agriculture; 28 % is built-up areas.
- Economy is based on agriculture, financial services and tourism.
- Main exports include sugar, processed fish, textiles and clothing.
- Main imports include refined petroleum, coal and manufactured goods.

Figure 1(d): Climate graph for the island of Mauritius

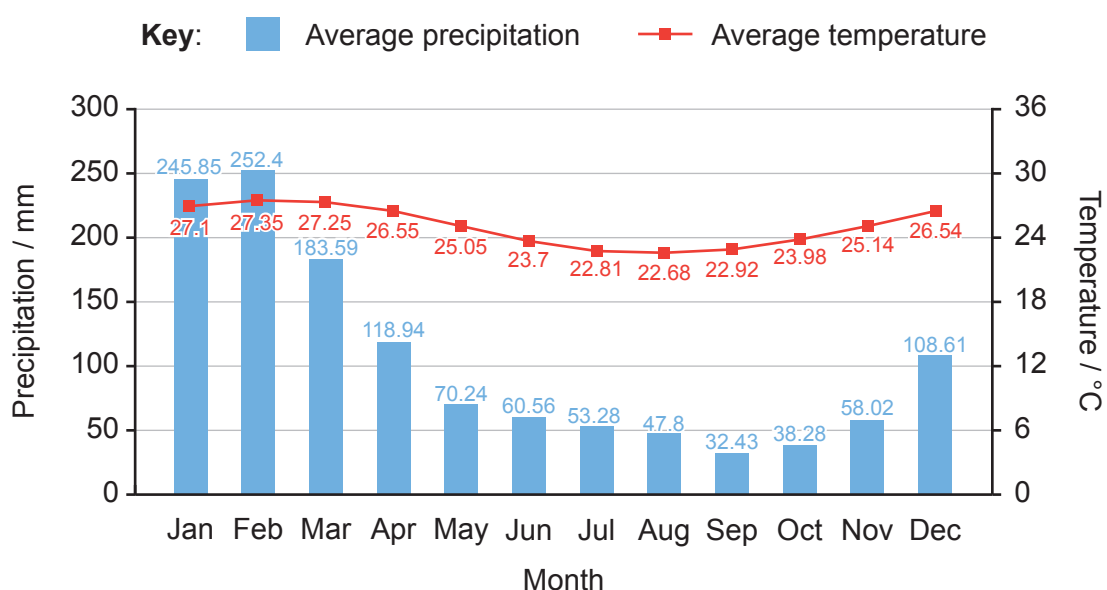


Figure 2(a): Fact file on biodiversity of Mauritius

- Mauritius is famous for the extinct dodo (*Raphus cucullatus*), a flightless bird.
- The flora and fauna of the island show a high level of diversity and endemism.
- Major threats to biodiversity include habitat degradation and loss, invasive alien species, pollution, pests, disease and climate change.
- National parks and marine reserves have been set up to conserve biodiversity.
- Within conservation areas, habitat restoration schemes have involved the removal of invasive alien species such as rats, rabbits, feral pigs, goats and deer.
- Conservation efforts have involved local communities and included educational campaigns on the importance of biodiversity conservation.

Figure 2(b): Number of native, endemic¹ and extinct species within terrestrial species groups in Mauritius

Species group	Total number of native species	Number of endemic species	Number of extinct species
Flowering plants	691	273	61
Mammals (bats ²)	5	1	2
Land birds	28	19	16
Reptiles	17	16	5
Butterflies	30	5	4
Snails	125	81	43

¹ endemic: native species not found anywhere else

² bats: the only mammals native to Mauritius are bats

Figure 2(c): Human population growth and change in native forest cover in Mauritius, 1600–1997

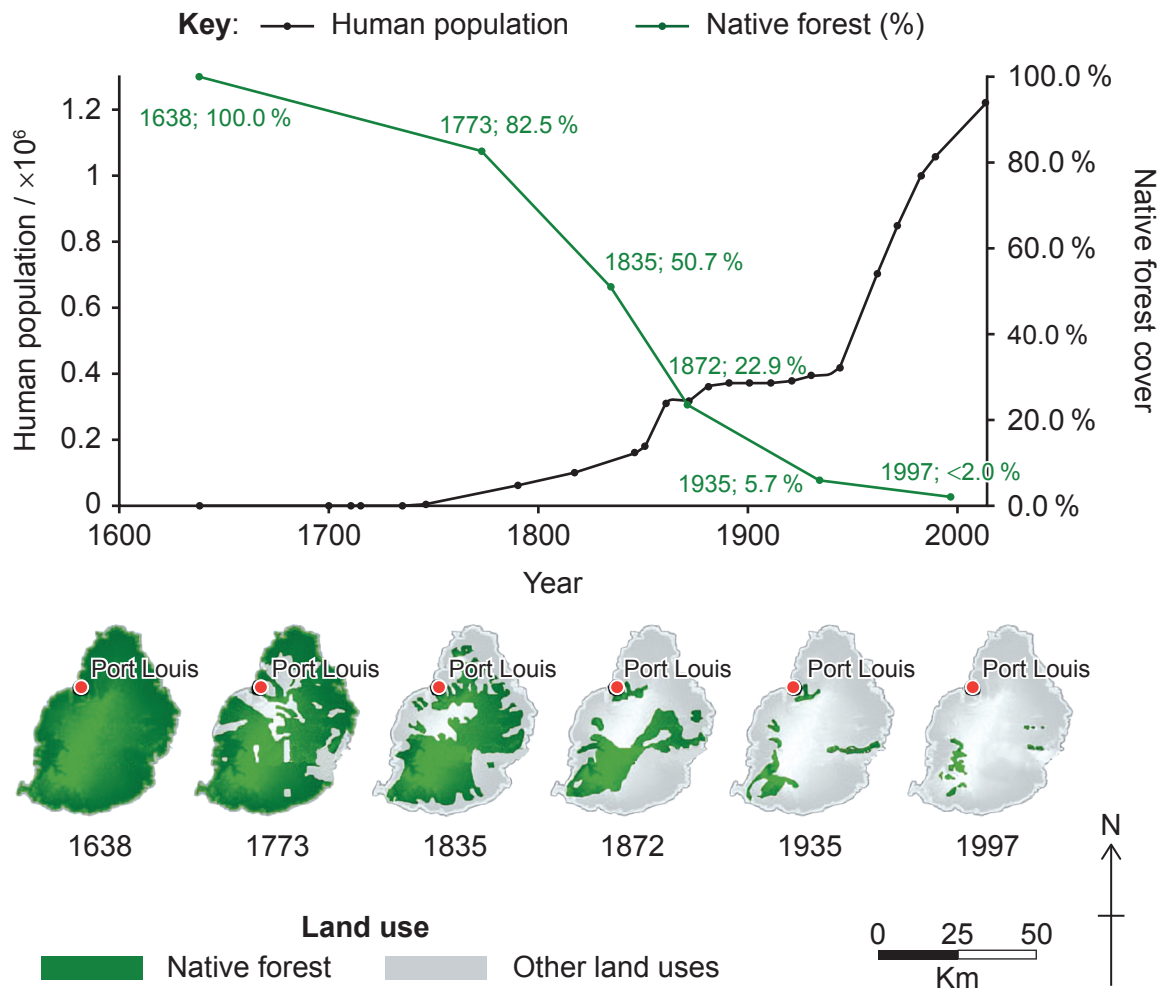


Figure 3(a): The Mauritius kestrel (*Falco punctatus*)



Figure 3(b): Fact file on the Mauritius kestrel (*Falco punctatus*)

- The kestrel is the national bird of Mauritius.
- The kestrel is listed on the International Union for Conservation of Nature's (IUCN) Red List. This means its status is endangered (as of February 2023).
- The kestrel preys on small birds, reptiles such as geckos, and insects.
- Threats include loss of habitat, use and bioaccumulation of dichlorodiphenyltrichloroethane (DDT) and invasive alien species (such as cats, mongoose and macaques).
- In 1974, there were only four known individual kestrels. By the end of the 1990s, following a restoration programme, numbers increased to between 350 and 500. However, by 2018, there were estimated to be less than 250 individual Mauritius kestrels remaining.
- Restoration programmes have included:
 - provision of predator-proof nest boxes
 - supplementary feeding
 - hand-rearing birds at the Gerald Durrell Endemic Wildlife Sanctuary for release into the wild
 - control of predators near nesting sites and release areas
 - monitoring breeding activity of wild populations.

Figure 3(c): Geographical range of the Mauritius kestrel (*Falco punctatus*)

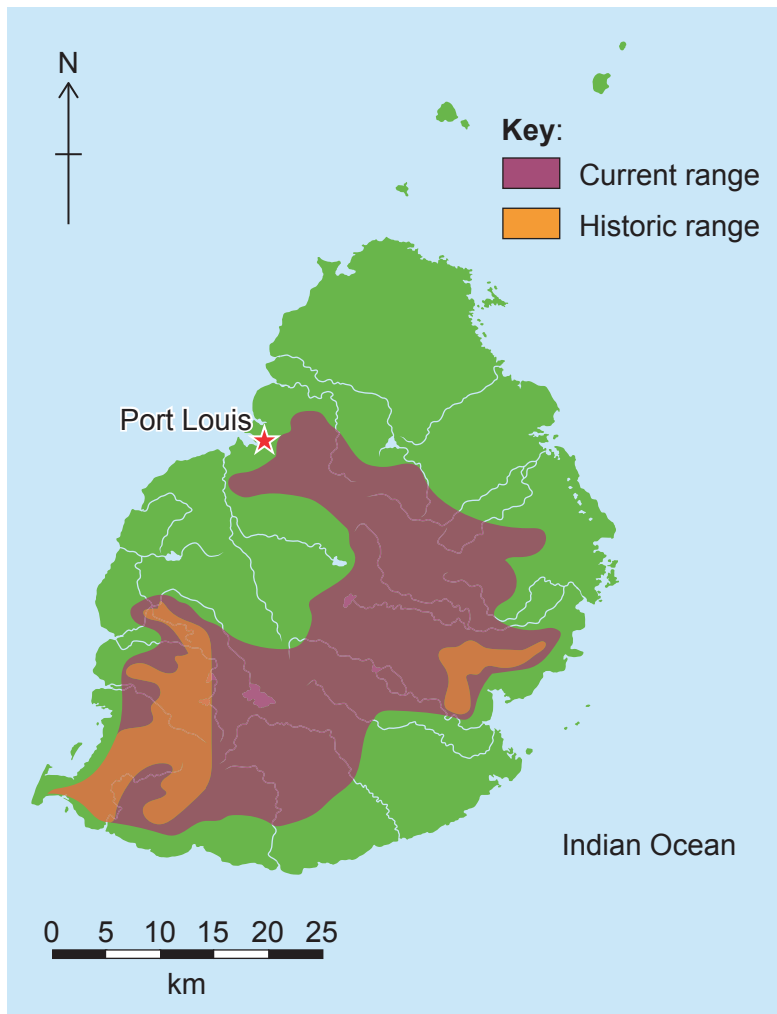


Figure 4(a): Fact file on demography of Mauritius, 2024 est.

Total population	1.3 million
Birth rate	9.8 births per 1000 people
Death rate	9.0 deaths per 1000 people
Total fertility rate	1.36 children per woman
Life expectancy	75.4 years
Urban population	40.9 % (for 2023)
Urban population growth rate	0.28 %
Population growth rate	0.07 %

Figure 4(b): Age–sex pyramid for Mauritius, 2023

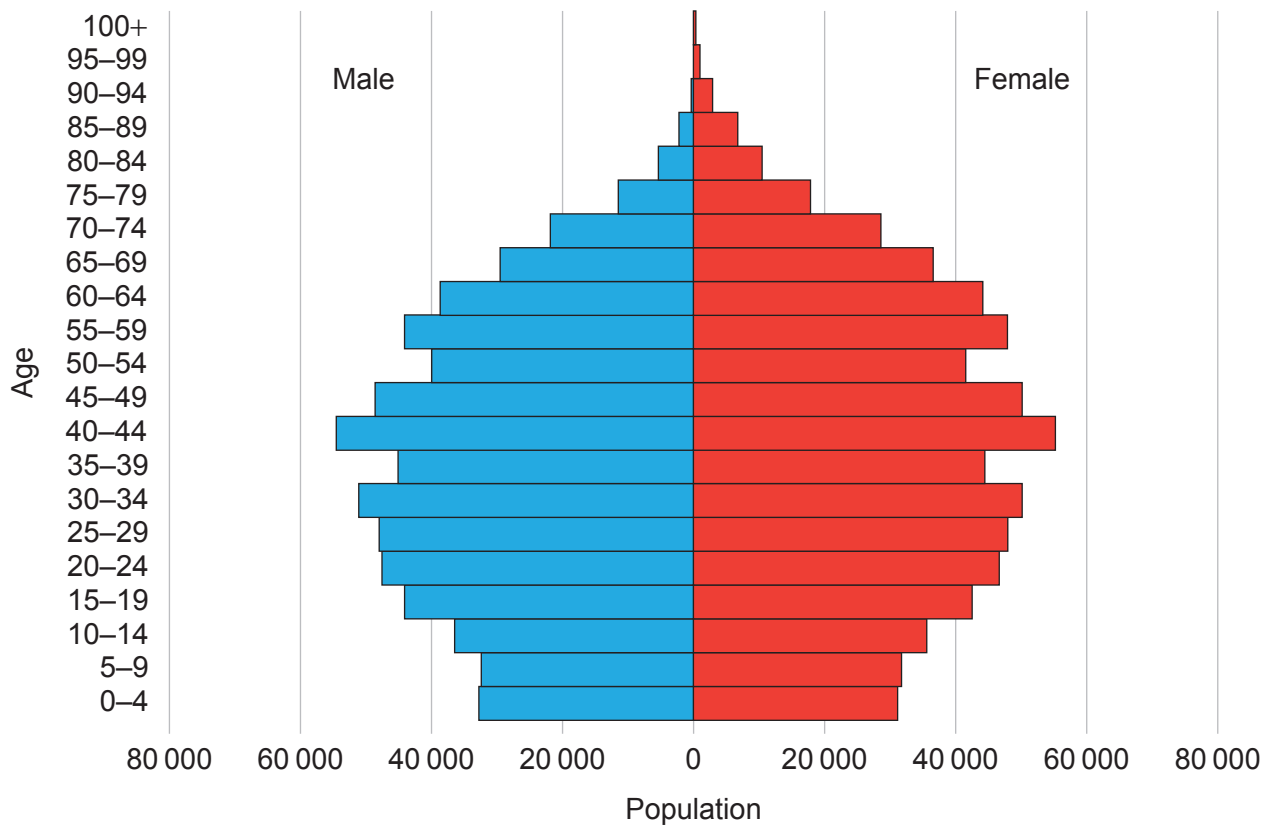


Figure 5(a): Economic activity and land use in Mauritius

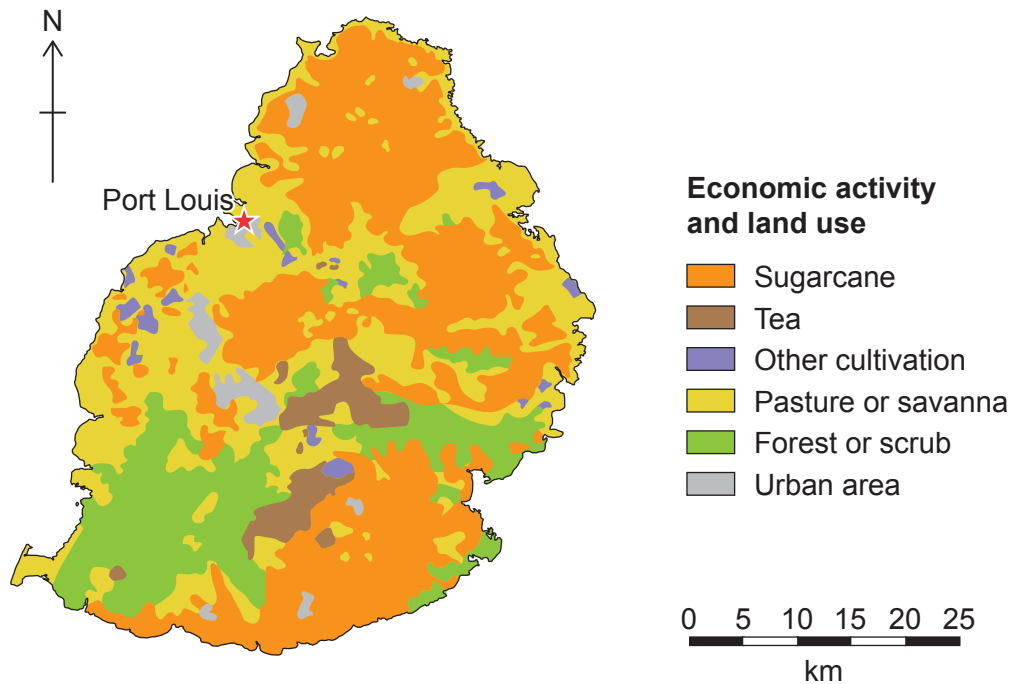


Figure 5(b): Fact file on agriculture in Mauritius

- In 2024, Mauritius produced about 30 000 metric tonnes of sugarcane.
- The refined sugar produced is exported across the world.
- Sugarcane is a water-intensive crop. In some regions within Mauritius, rainfall is sufficient throughout the year for sugarcane growth. However, in other regions, surface water or groundwater is needed to irrigate the crops.
- Reductions in the price of sugarcane (since 2006) have led to changes to other agricultural uses by some small-scale farmers.
- Sugar mills are used to refine the sugar. They have also diversified to include electricity generation and ethanol production.
- Although Mauritius also grows other vegetables and fruit, it imports most of its food.

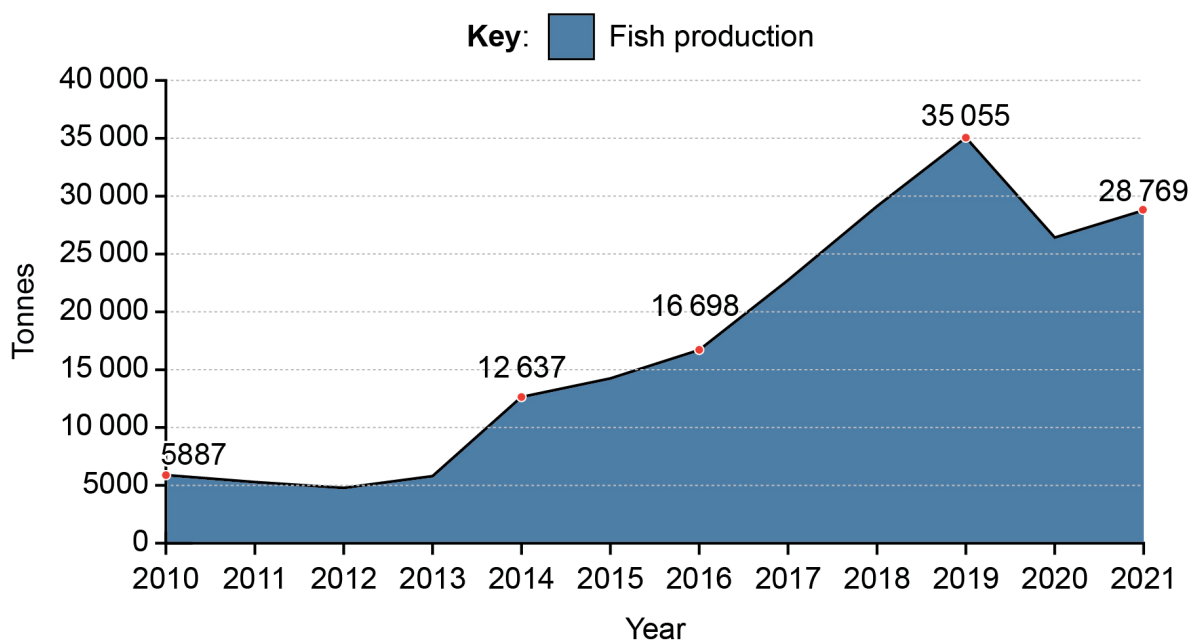
Figure 6(a): Fact file on the blue economy of Mauritius

- The World Bank defines the blue economy as “the sustainable use of ocean resources for economic growth, improved livelihoods and jobs while preserving the health of ocean systems.”
- The blue economy of Mauritius includes:
 - coastal tourism
 - fishing
 - seafood processing
 - seaport activities.

Figure 6(b): Number of tourist arrivals to Mauritius, 2013–2023



Figure 6(c): Fish production in Mauritius, 2010–2021



**Figure 7(a): Electricity production in terawatt hours (TWh)
by source in Mauritius, 2000–2022**

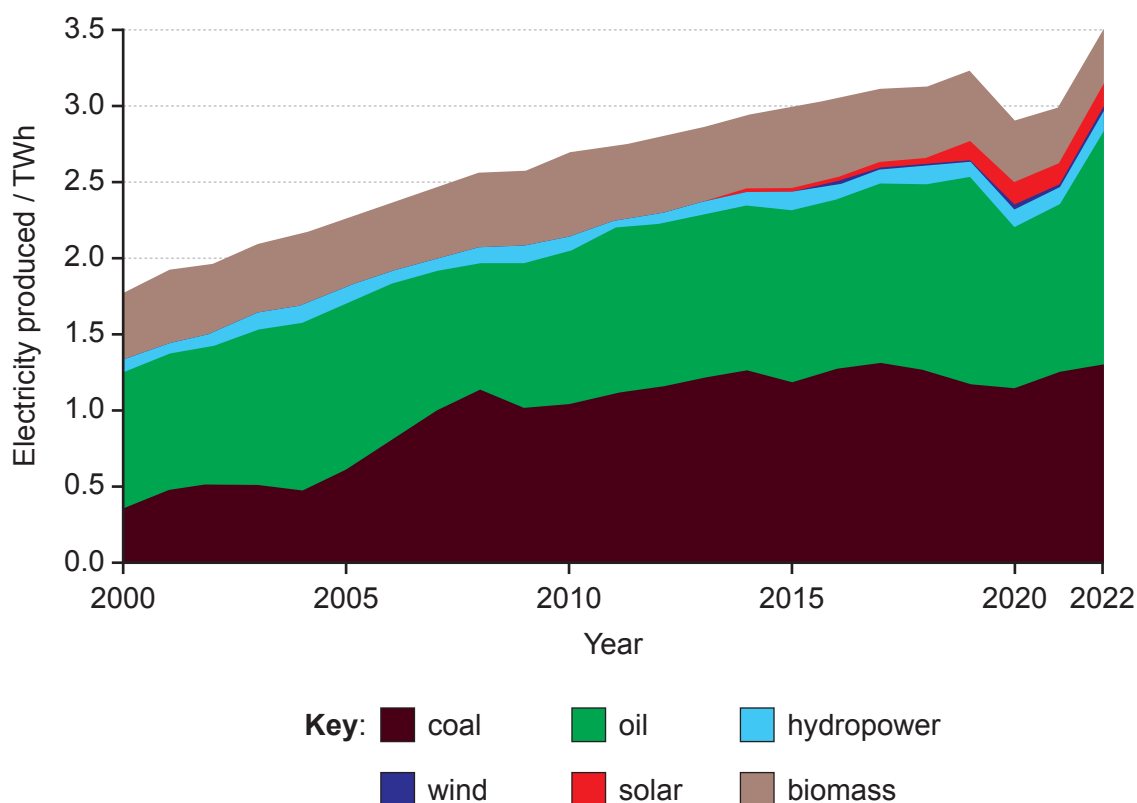


Figure 7(b): Fact file on electricity production in Mauritius

The Renewable Energy Roadmap 2030 was set out by the government in 2021, with the aim to:

- increase the use of renewable energy in the production of electricity to 60 % by 2030
- phase out the use of coal in electricity production by 2030
- increase energy efficiency by 10 % by 2030 (compared with 2019 levels).

**Figure 8(a): Carbon dioxide emissions
(tonnes of CO₂ per year) by sector in Mauritius, 1990–2020**

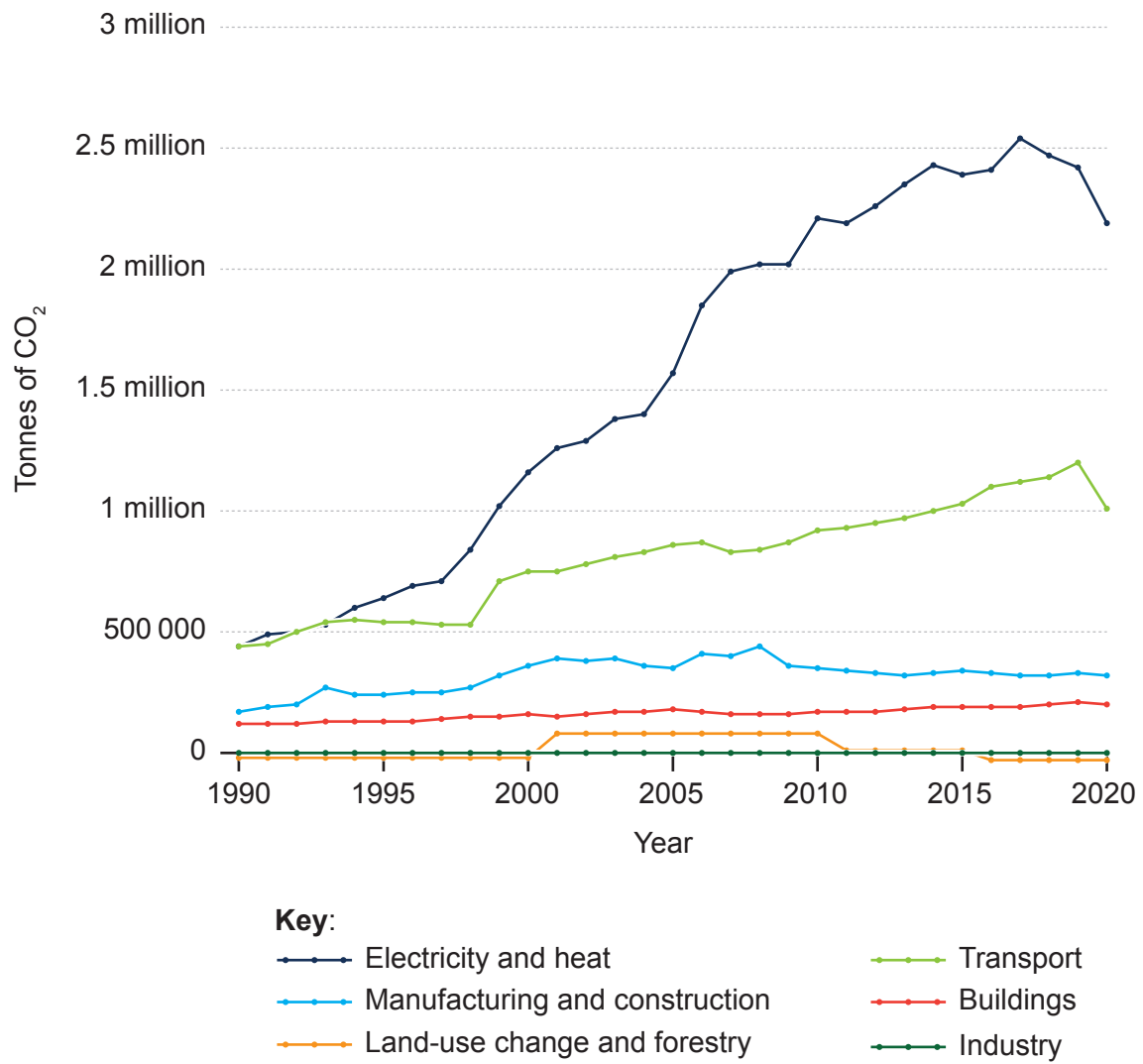
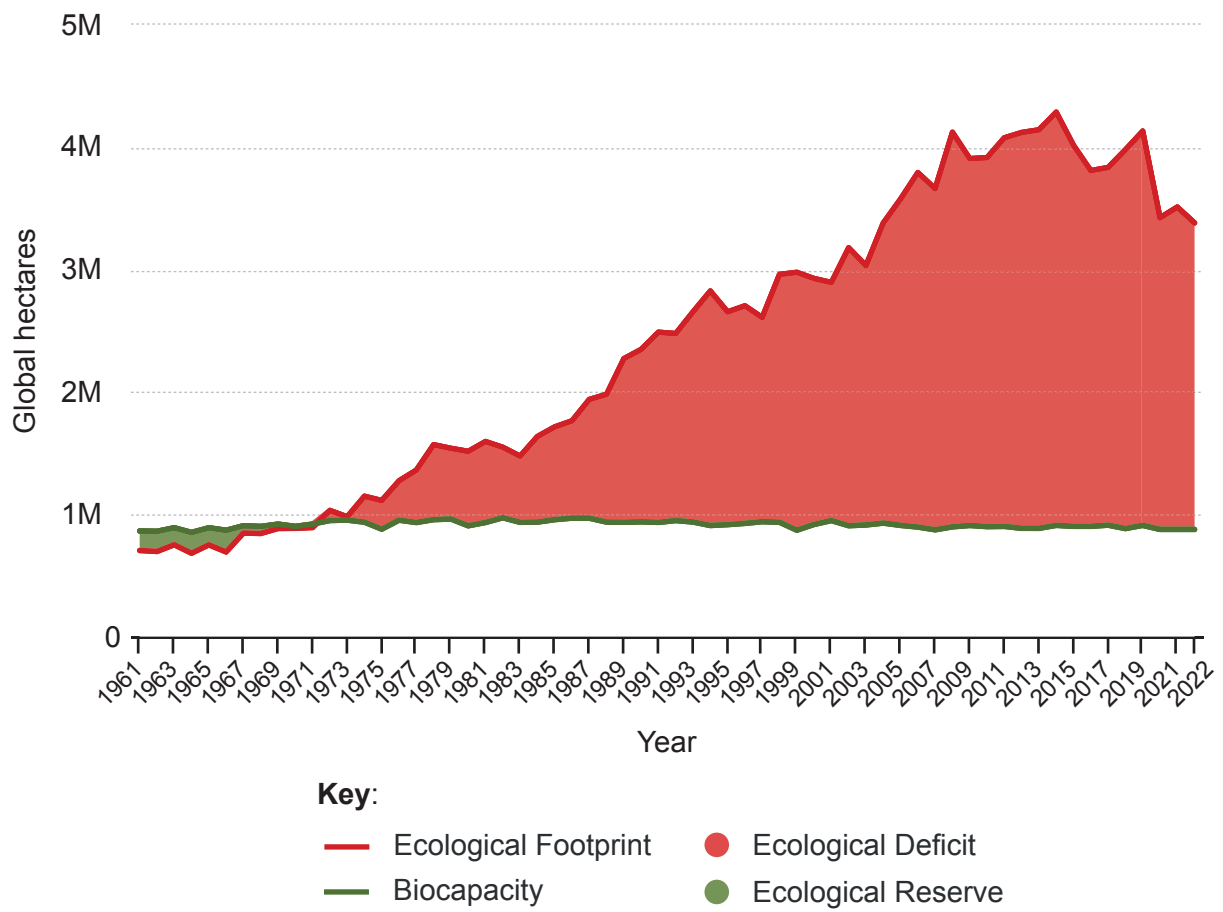


Figure 8(b): Ecological footprint and biocapacity for Mauritius, 1961–2022



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- Figure 3(c):** BirdLife International (2023). Species factsheet: Mauritius Kestrel *Falco punctatus*. Downloaded from <https://datazone.birdlife.org/species/factsheet/mauritius-kestrel-falco-punctatus> on 4 September 2025.
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