



**A-level
GEOGRAPHY**

Paper 1 Physical Geography

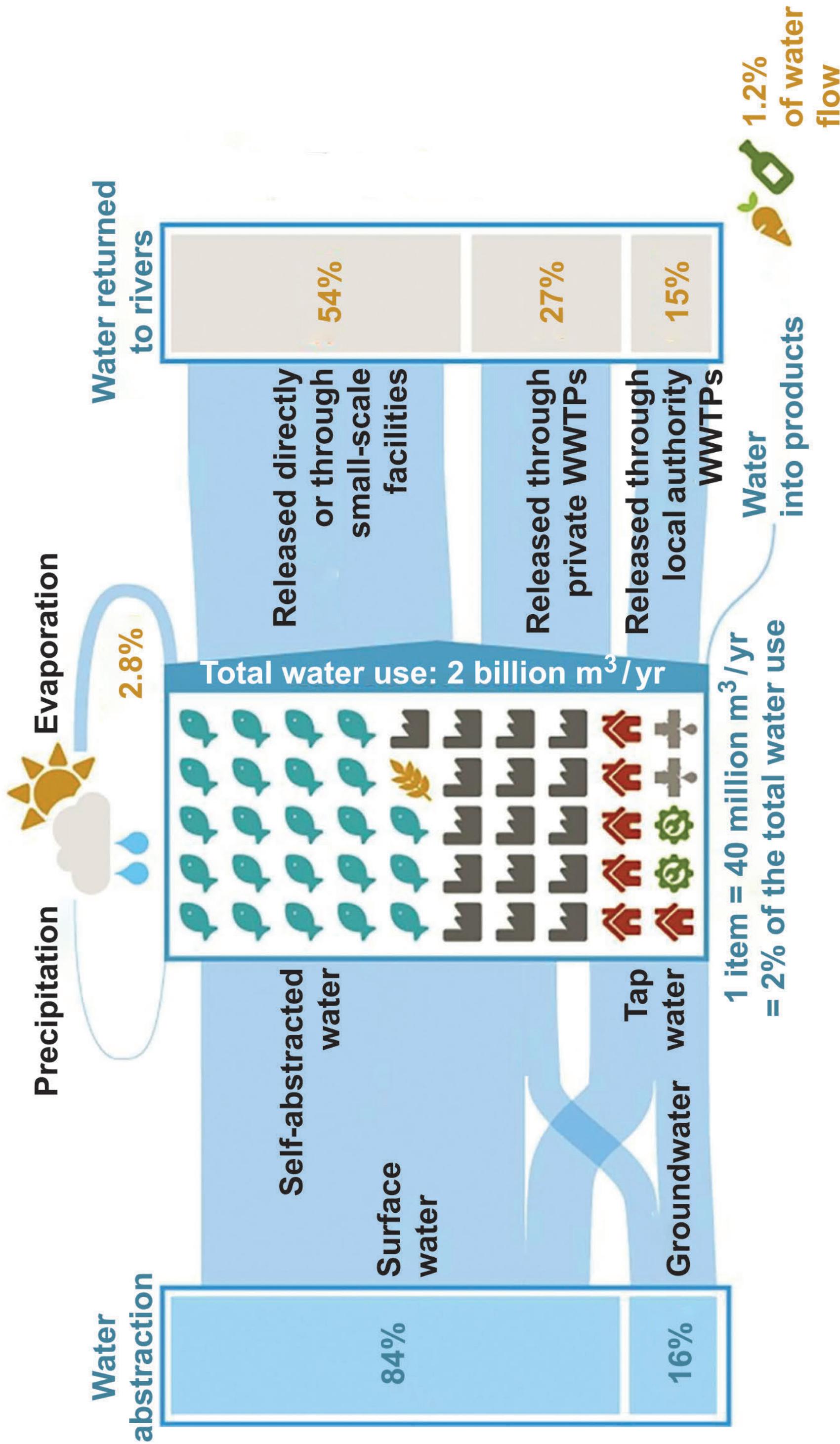
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Insert

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FIGURE 1

Information about freshwater abstraction in Finland in 2020



KEY

-  Fish farming
-  Agriculture
-  Industry
-  Households
-  Services
-  Leaks

WWTPs Wastewater treatment plants

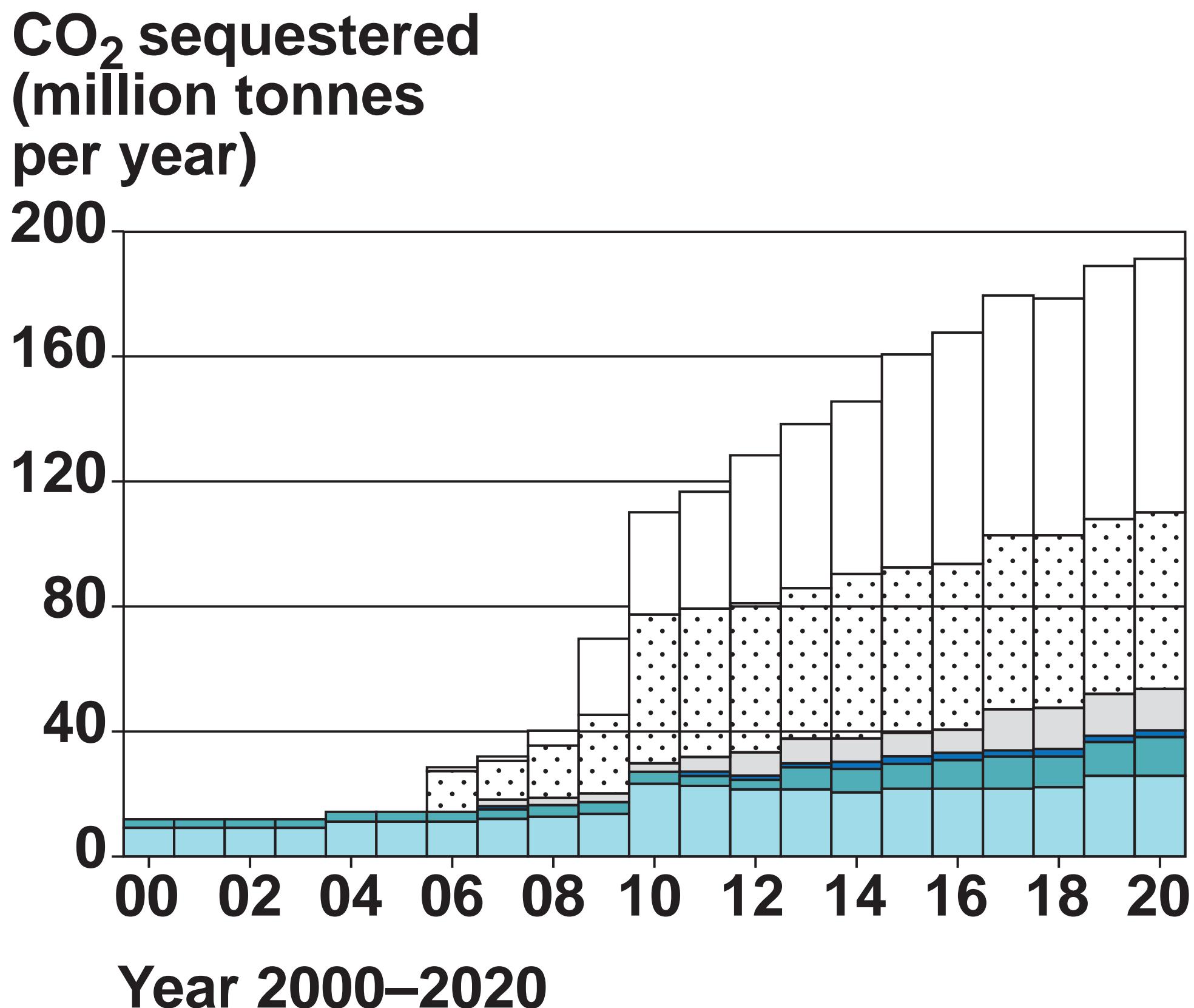
NOTE:

Self-abstracted water is the water taken directly from lakes, rivers and groundwater by private individuals and companies.

[Turn over]

FIGURE 2

Global proposed carbon sequestration rates compared to implemented carbon sequestration rates between 2000 and 2020



Carbon sequestration projects Proposed but not implemented

- Power plants
- Other industrial
- Gas processing

Implemented

- Power plants
- Other industrial
- Gas processing

[Turn over]

FIGURE 4a

The location of El-Sheikh El-Shazli relative to a number of wadis in the area shown on a satellite image

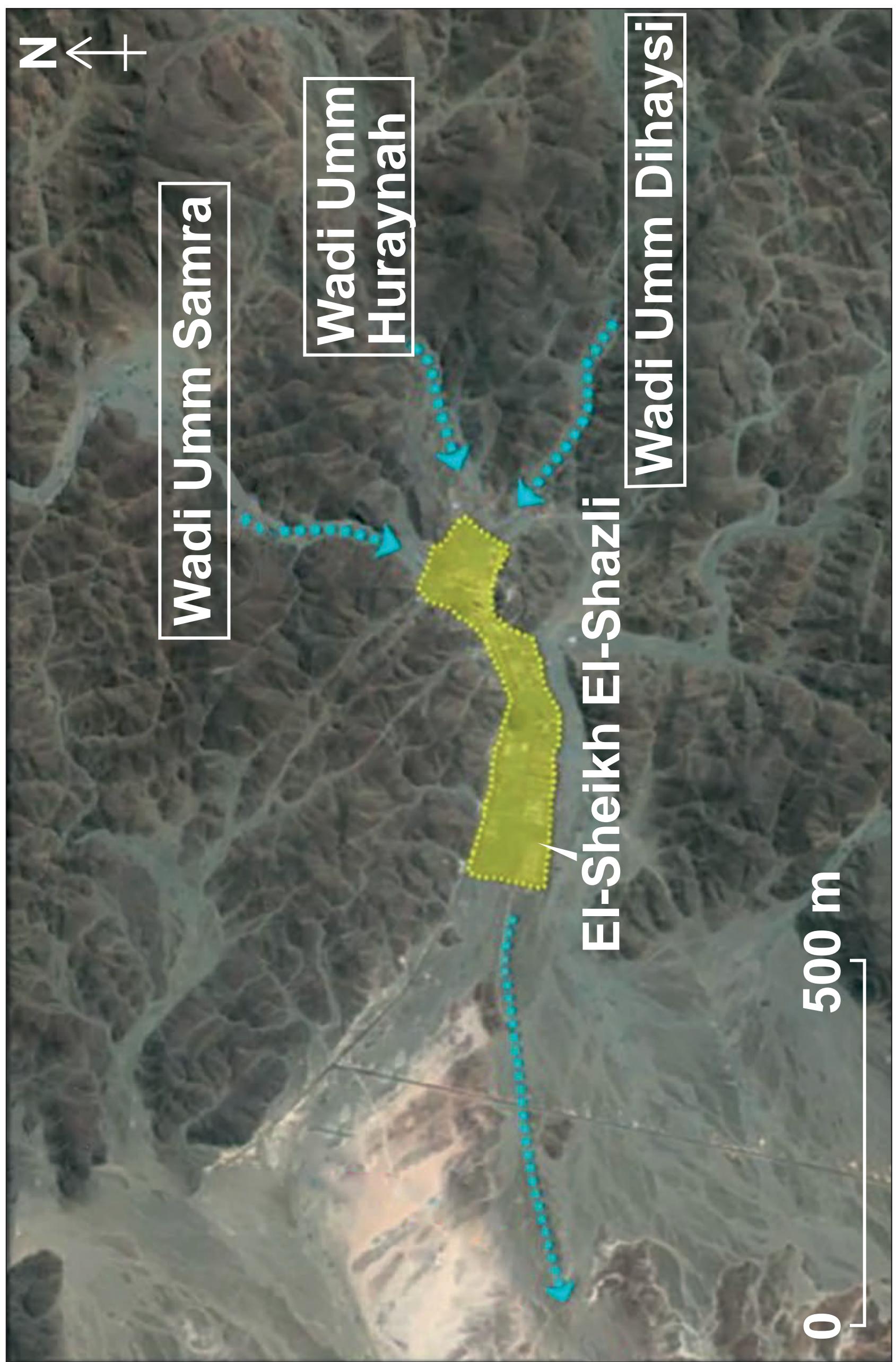
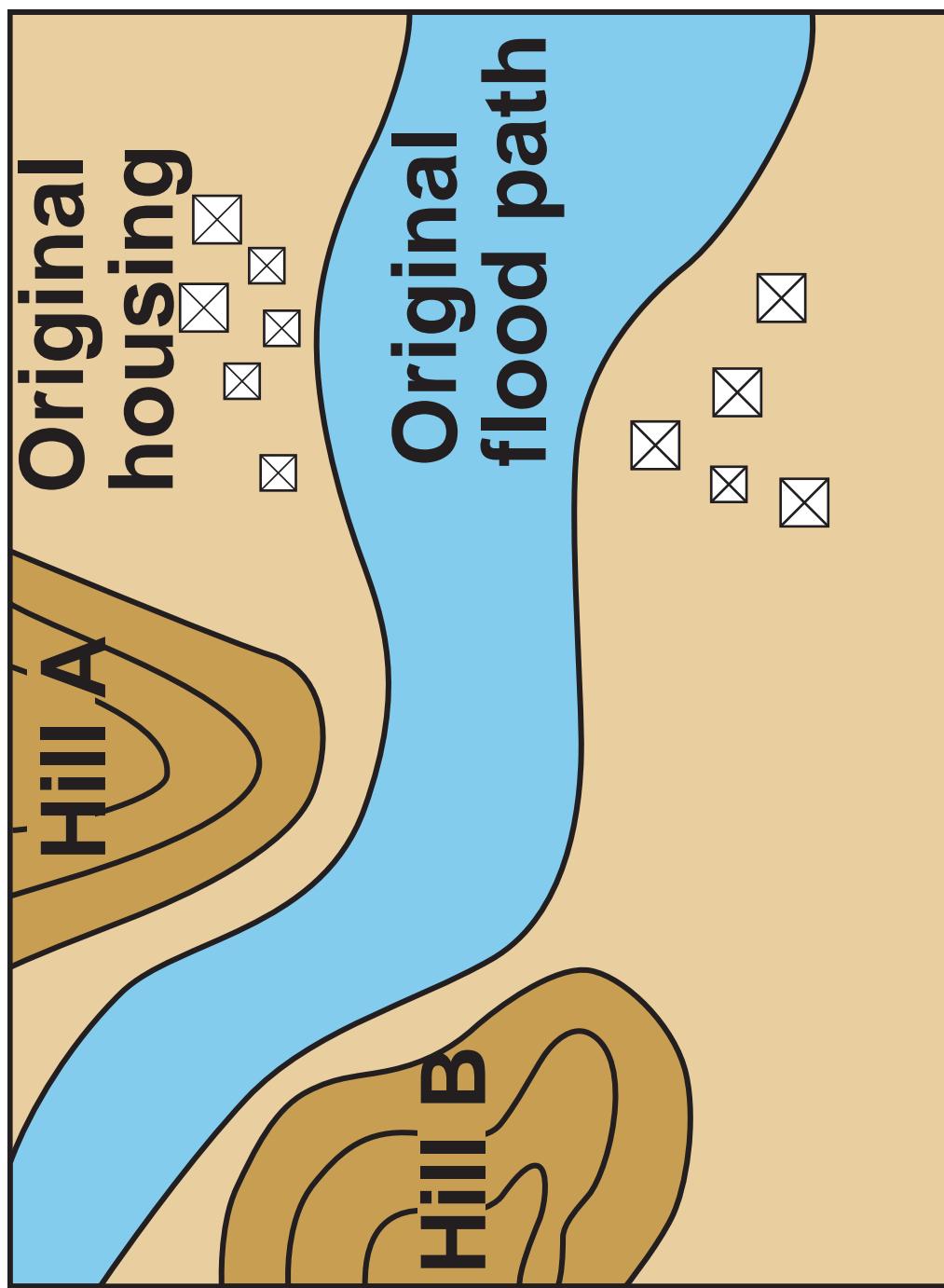


FIGURE 4b

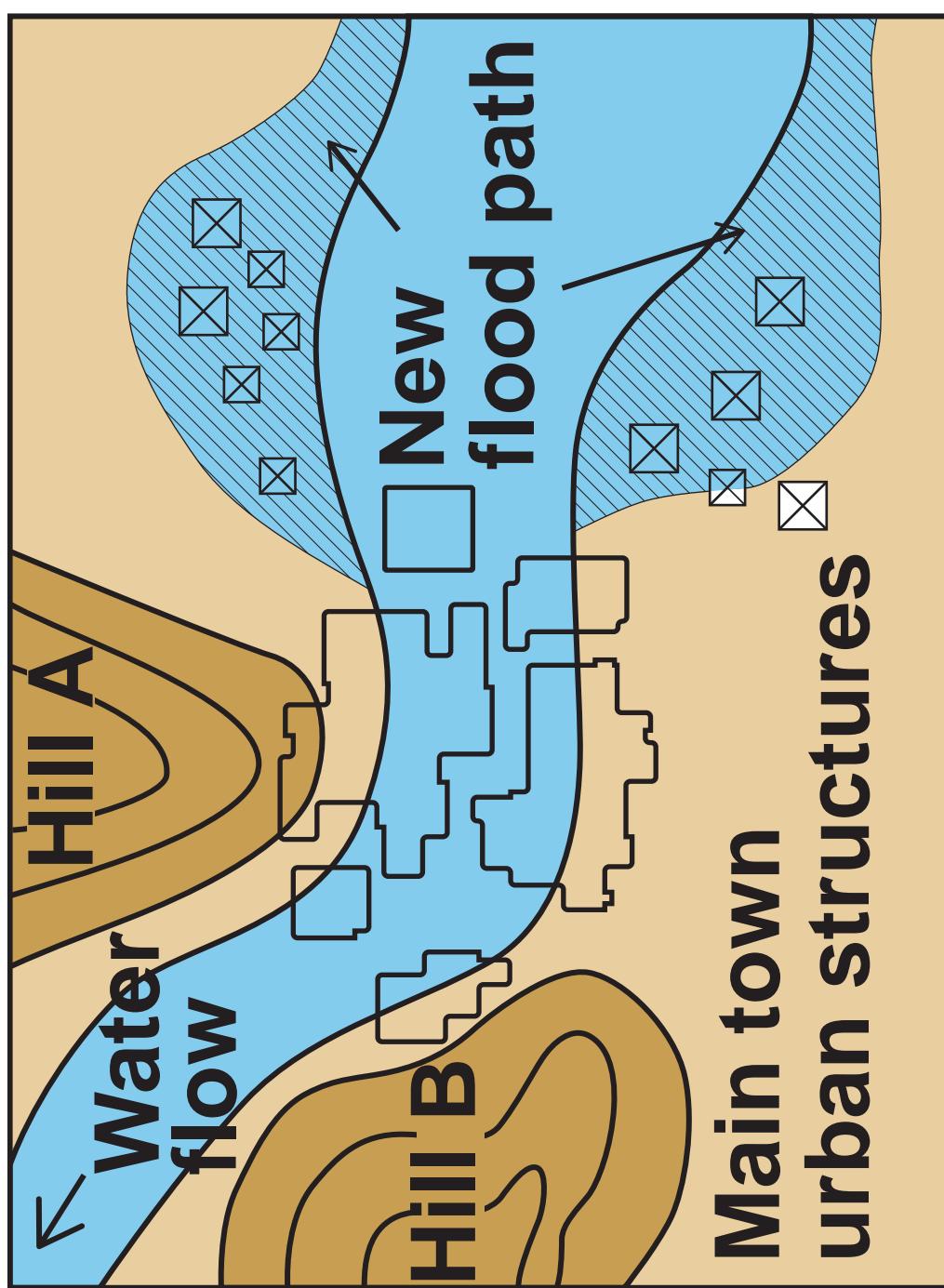
Sketch maps of the town and area flooded before and after increased urbanisation



N
↑ 0 250 m

Original flood path before the town was highly urbanised

[Turn over]



N
↑ 0 250 m

Flood path after increased urbanisation of the town

FIGURE 4c

A photograph of the town looking towards the hills in FIGURE 4b



FIGURE 6a

A photograph of mangrove taken above and below the water line



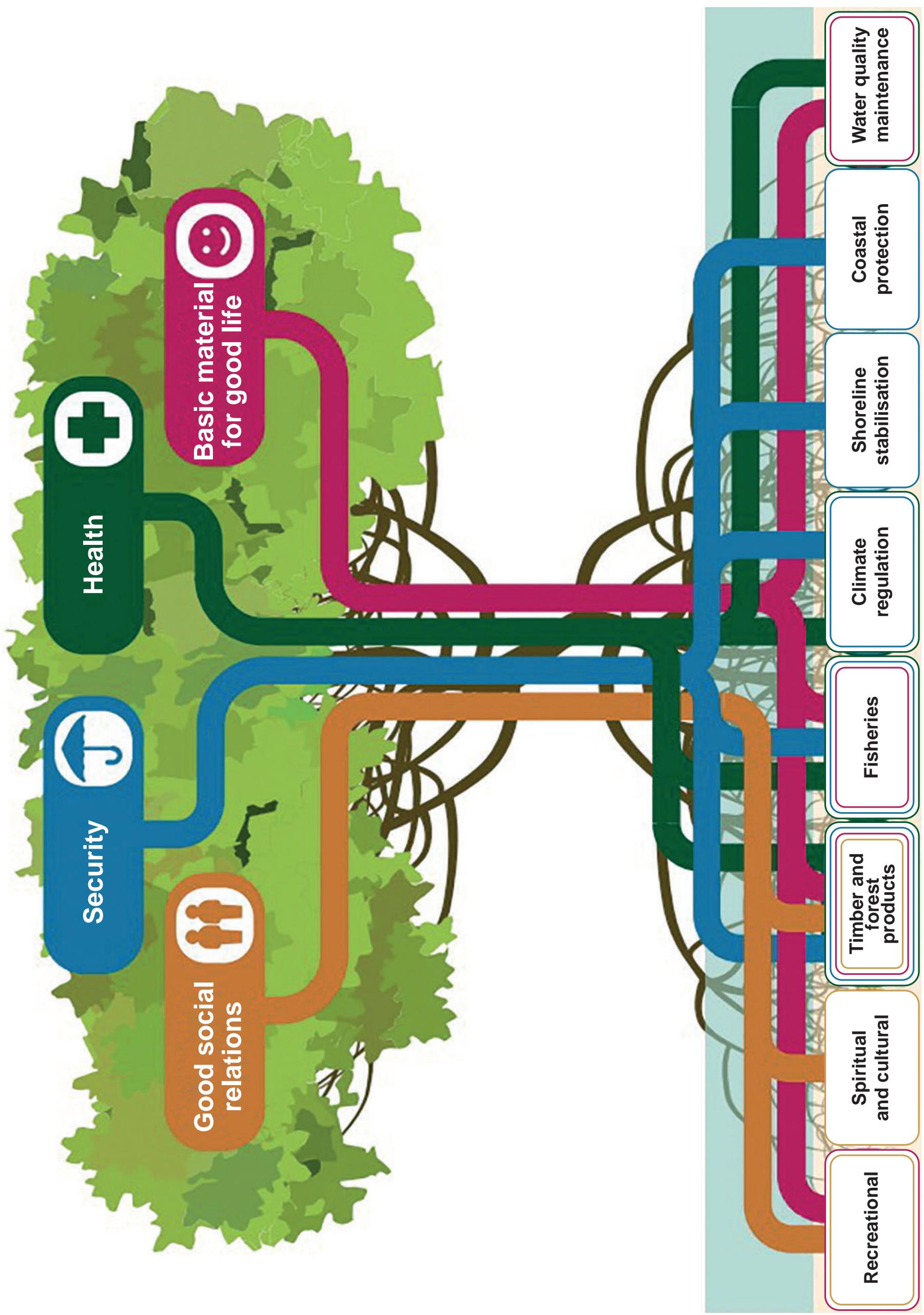
NOTE:

Mangrove is naturally occurring forest which grows under water in calm saline coastal waters of tropical countries.

[Turn over]

FIGURE 6b – the major benefits of mangrove for people

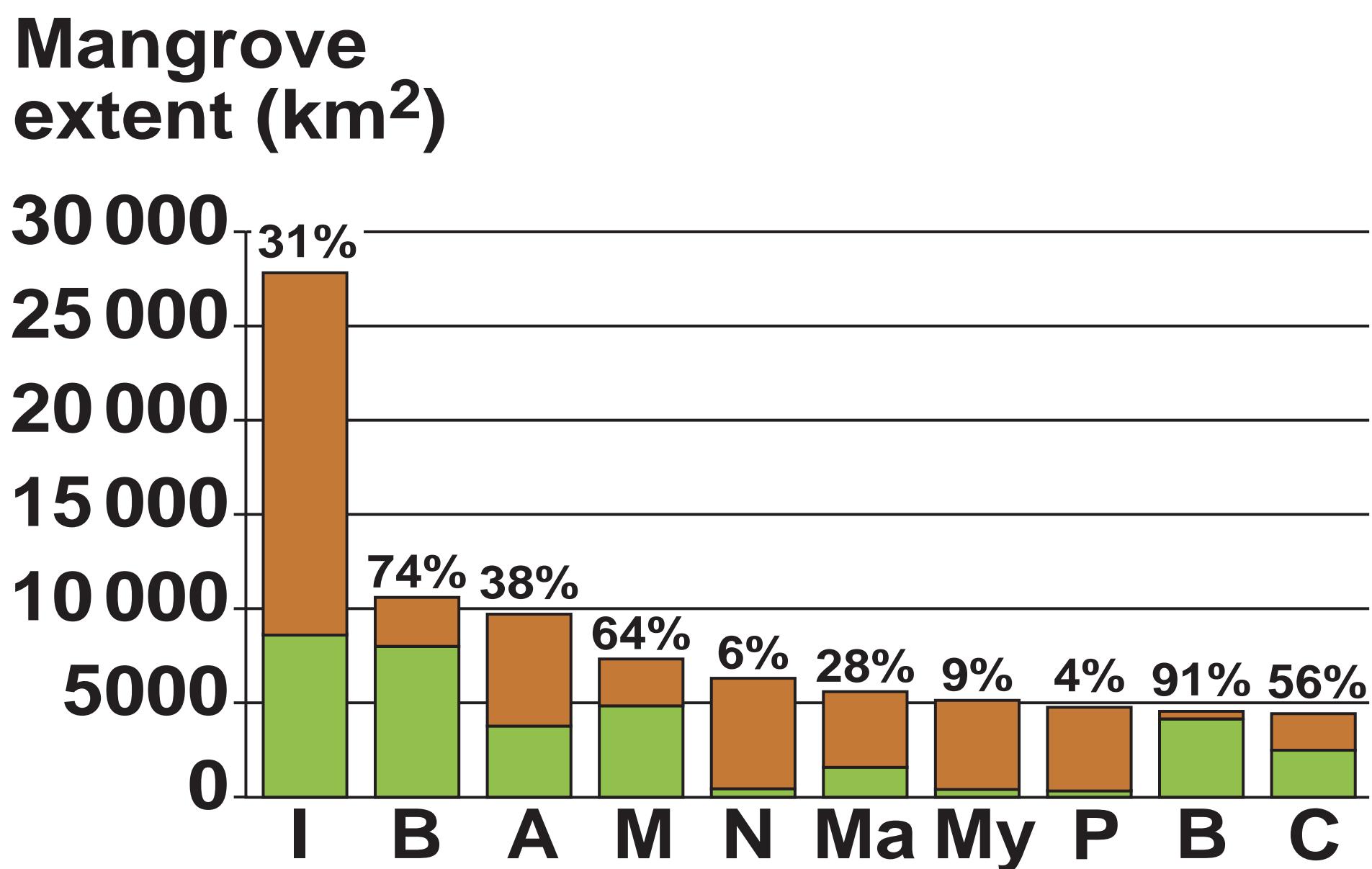
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FIGURE 6c – the proportion of protected and unprotected mangrove in the ten largest nations with mangrove forests



KEY

% = Proportion of mangrove protected in each area

 **Unprotected mangroves**

 **Protected mangroves**

I = Indonesia

B = Brazil

A = Australia

M = Mexico

N = Nigeria

Ma = Malaysia

My = Myanmar

P = Papua New Guinea

B = Bangladesh

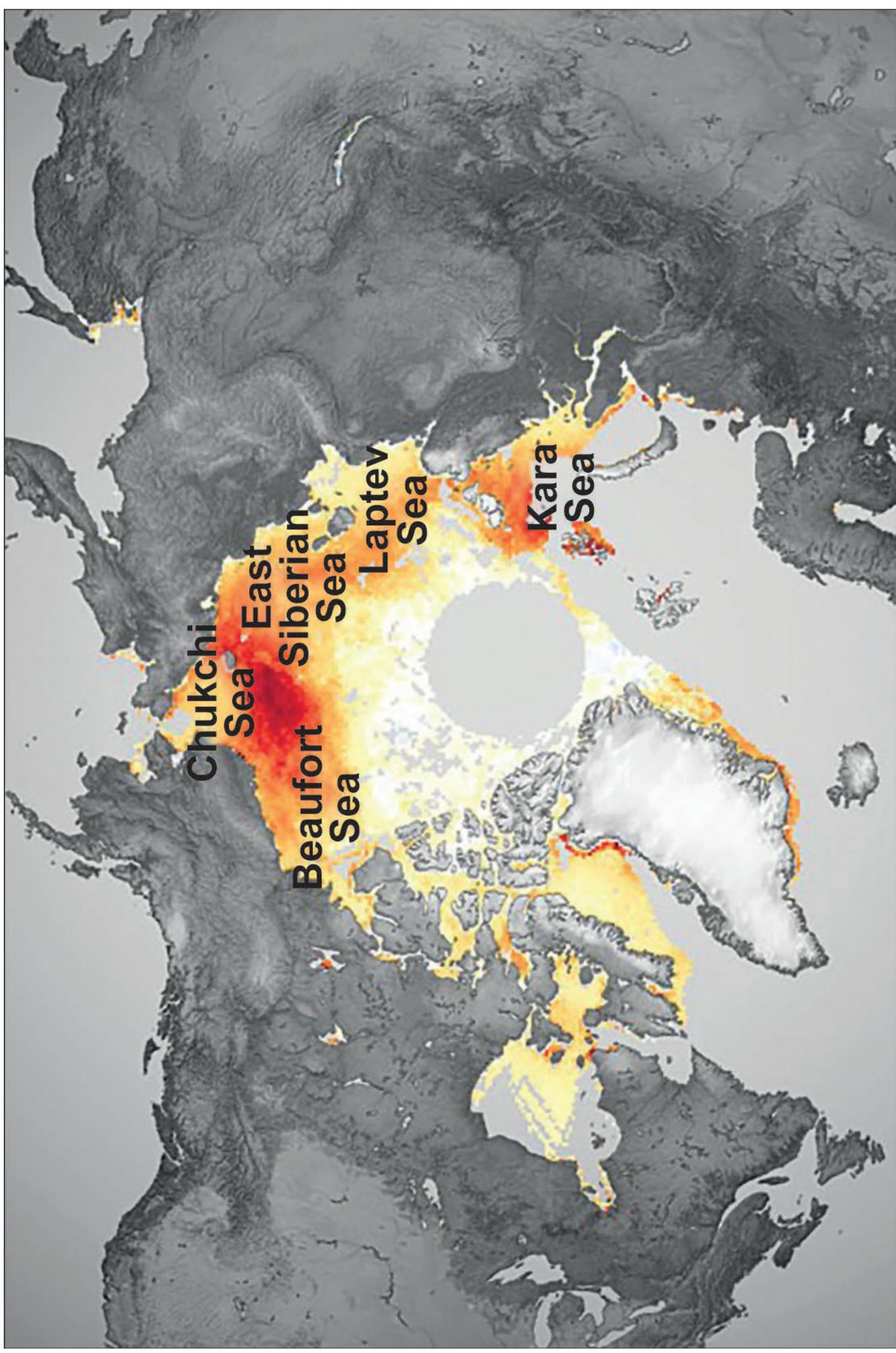
C = Cuba

[Turn over]

FIGURE 8a

Trends in the onset of winter freeze-up in the Arctic Ocean and surrounding areas, 1979–2019

14



Freeze trend 1979–2019



NOTE:

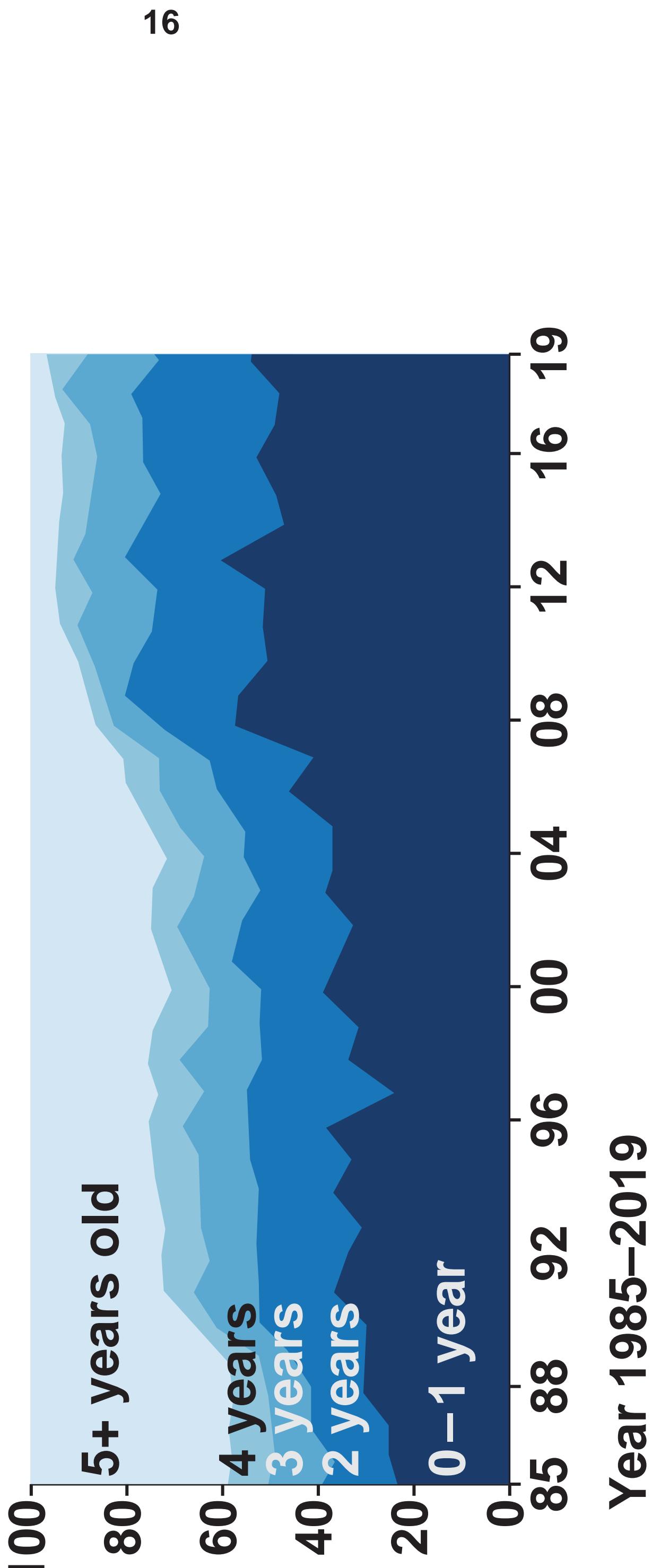
All data is calculated from the 1979 baseline. '0' represents the 1979 baseline.

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FIGURE 8b

The change in the age of ice in the Arctic Ocean, 1985–2019

Per cent of ice in the Arctic Ocean by age (during the first week of November)



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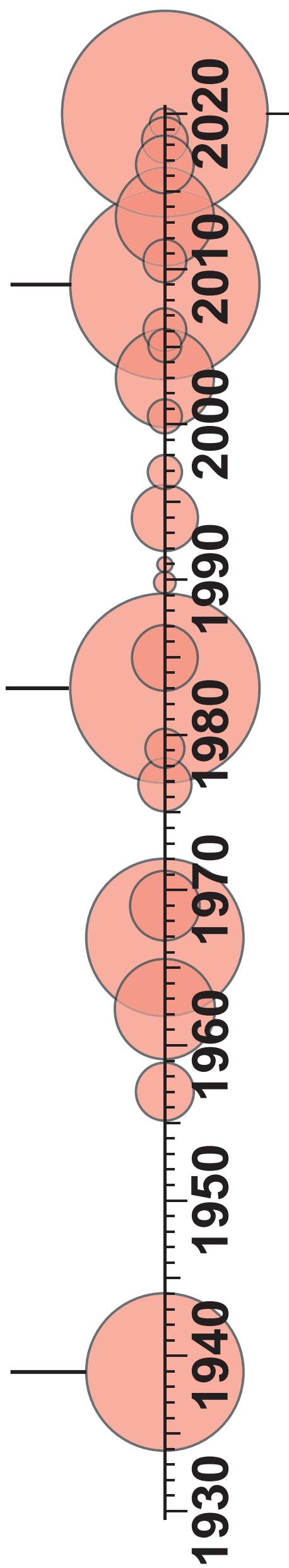
FIGURE 9

Information about wildfires in Australia Houses destroyed and number of deaths by wildfires, by fire season

Jan 1939:
71 people died,
1300 homes destroyed

Feb 1983:
75 people died,
2108 homes destroyed

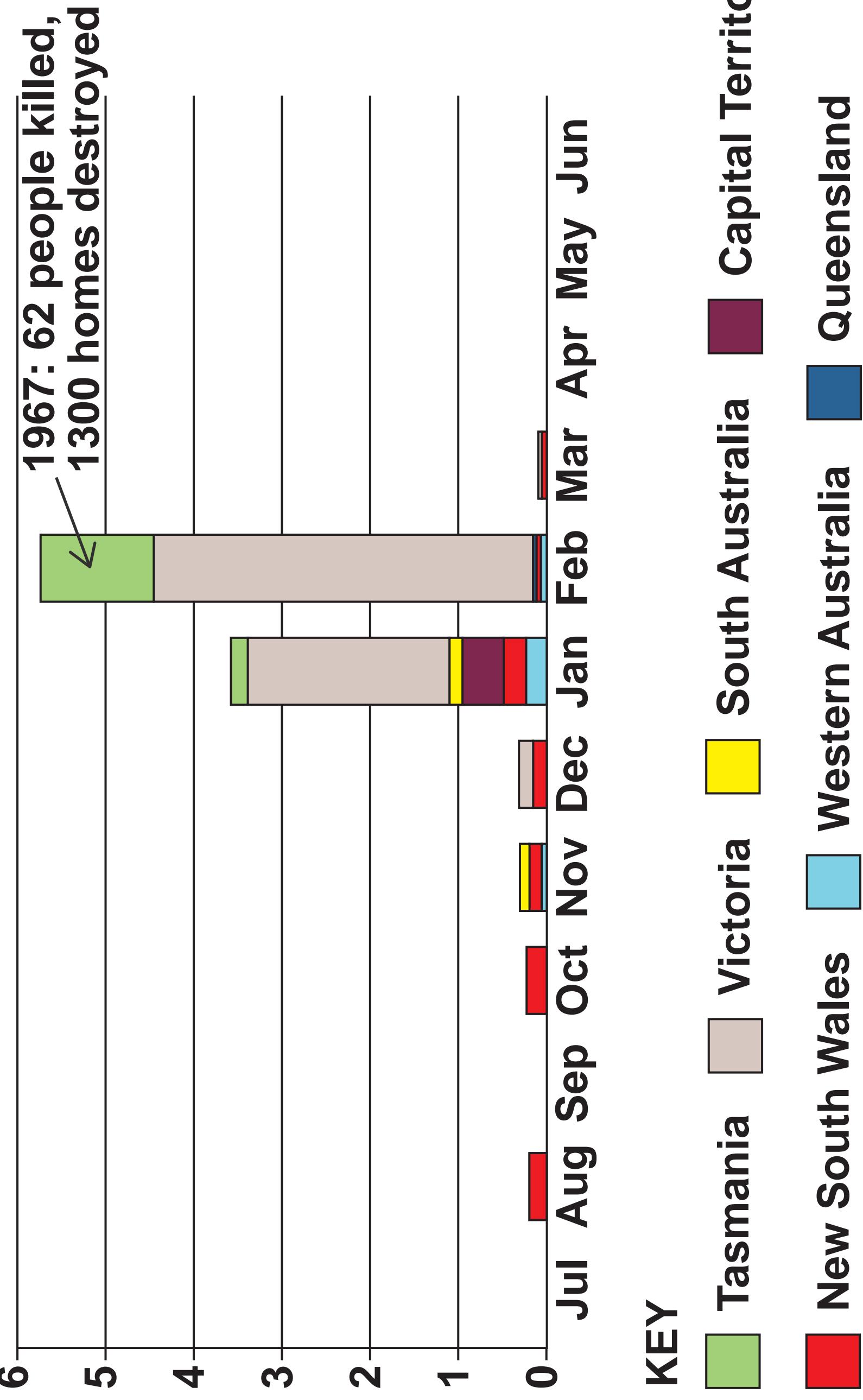
Feb 2009:
173 people died,
2029 homes destroyed



In 2020,
a record 2306
homes
destroyed

... previously, the most damage has been caused
in February ...

Total number of houses destroyed by wildfire in Australia over the past 100 years broken down by month and state (thousands)



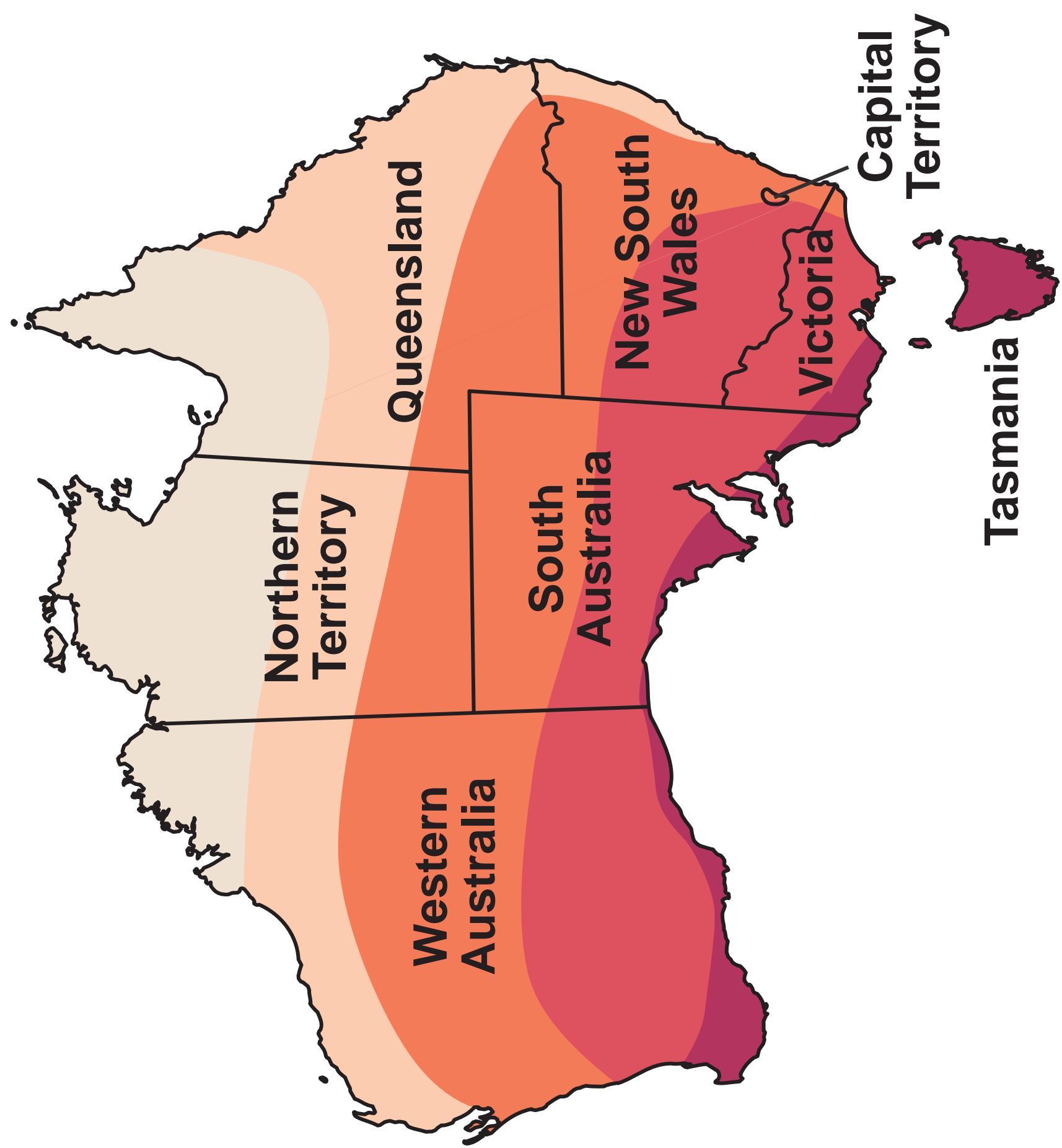
KEY

- Tasmania
- New South Wales
- Victoria
- Western Australia
- South Australia
- Queensland
- Capital Territory

[Turn over]

FIGURE 9 continued

... as the fires peak later in the season for the southernmost states



KEY

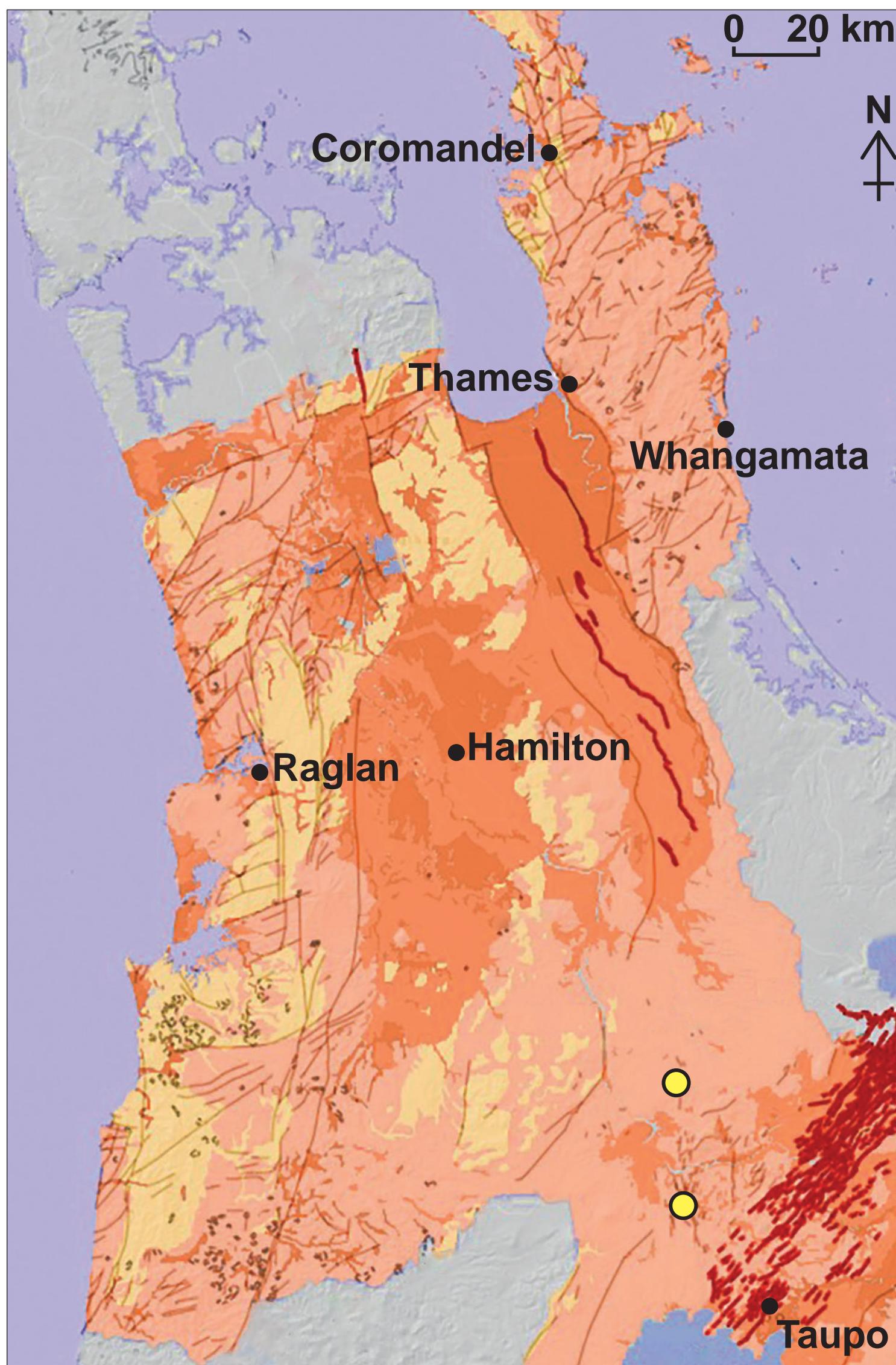
Australia's fire seasons

- Winter / spring (Jun–Nov)
Spring (Sep–Nov)
- Spring / summer (Sep–Feb)
- Summer (Dec–Feb)
Summer / autumn (Dec–May)

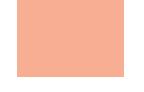
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FIGURE 10

Information about areas at risk following a seismic event based upon underlying geology in Waikato District and the surrounding area, New Zealand



KEY

-  Active fault lines
-  Other fault lines
-  Recent seismic activity
-  A – Most hazardous
-  B – Quite hazardous
-  C – Not very hazardous
-  D – Least hazardous

NOTE:

Area A – Deposits less than 10 000 years old – soft sediments formed by river and coastal deposition.

Area B – Volcanic ash and gravel deposits up to 2.5 million years old.

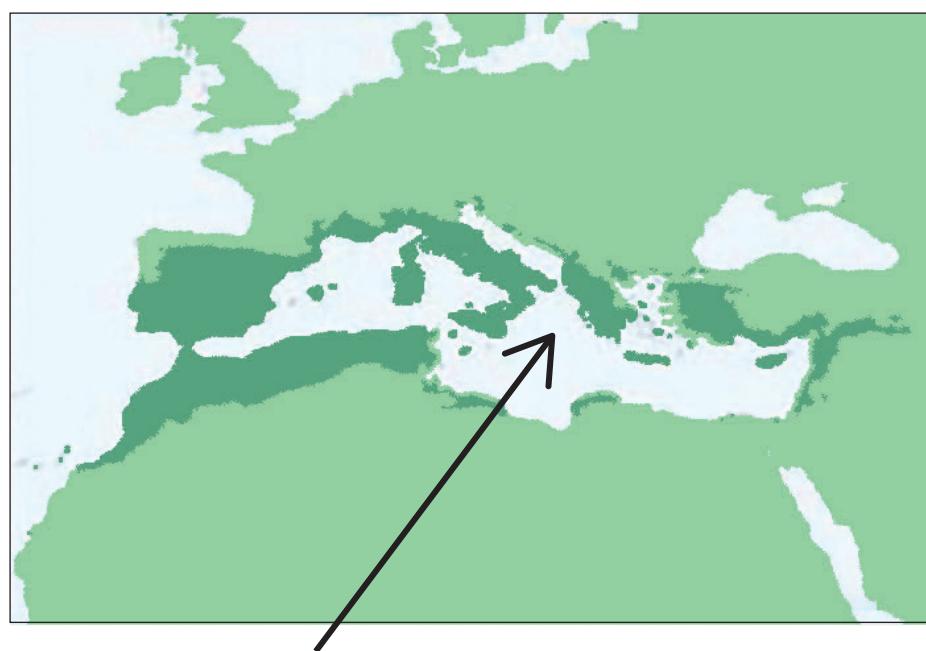
Area C – Sandstone, limestone and coal deposits up to 75 million years old.

Area D – Hardened sandstone more than 75 million years old.

[Turn over]

FIGURE 11

Data related to the number of endangered species across the Mediterranean Basin in 2017



Mediterranean Basin

How to read this graph

- 1 Species group
- 2 Total species assessed
- 3 Total threatened species

CR Critically endangered

EN Endangered

VU Vulnerable

■ % estimated threatened species of the total assessed amount

■ % estimated completeness of assessment

1 VERTEBRATES

2 2236

3 430:

106 148 176

CR **EN** **VU**

Freshwater fish

41% 100%

Marine fish

13% 100%

Reptiles

23% 90%

Mammals

18% 99%

Amphibians

30% 98%

Birds

6% 99%

1 PLANTS

2 1784

3 396:

113 136 147

Plants

25% 8%

1 INVERTEBRATES

2 1938

3 470:

111 187 172

CR **EN** **VU**

Freshwater molluscs

59% 97.8%

Dragonflies and damselflies

10% 95%

Dung beetles

20% 34.5%

Butterflies

4% 100%

Anthozoa

25% 92%

Freshwater crabs, crayfish and shrimps

25% 94%

Globally threatened species by country



[Turn over]

FIGURE 12

Information about the Ainsdale Sand Dunes National Nature Reserve (NNR) in north-west England

The Ainsdale Sand Dunes NNR is a very important wildlife site in England, with the finest example of lime-rich sand dunes on the north-west coast. It forms part of 21 km of unspoilt sand dune system, designated a Site of Special Scientific Interest (SSSI), between Liverpool and Southport.

Amongst the dry dune grassland and dune slacks, many rare and specialist coastal species thrive in the unique environment, from northern dune tiger beetles, sand lizards and natterjack toads to the elusive petalwort. The beach section also supports large numbers of overwintering wading birds who feast on the rich pickings below the high water mark, and the red squirrel is found in the pine woodlands.



**KEY**

- ■ ■ Trans Pennine Trail
- ○ Woodland Path
- - - Sefton Coastal Path
- ● ● West End Walk
- ● ● Pinfold Path
- ● ● Dune Path North
- ● ● Fishermans Path
- ● ● Old Fishermans Path
- ■ ■ Slack Path

0 200 m

- Railway
- Ainsdale Sand Dunes NNR
- Open access land
- No dogs
- Minor road
- Bridleway
- Footpath
- ☒ Wheelchair accessible picnic area
- ☒ Cycle parking
- Beach/sand dunes
- Pine woodlands

END OF RESOURCES

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