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Geography
Higher level and standard level
Paper 1 – resource booklet

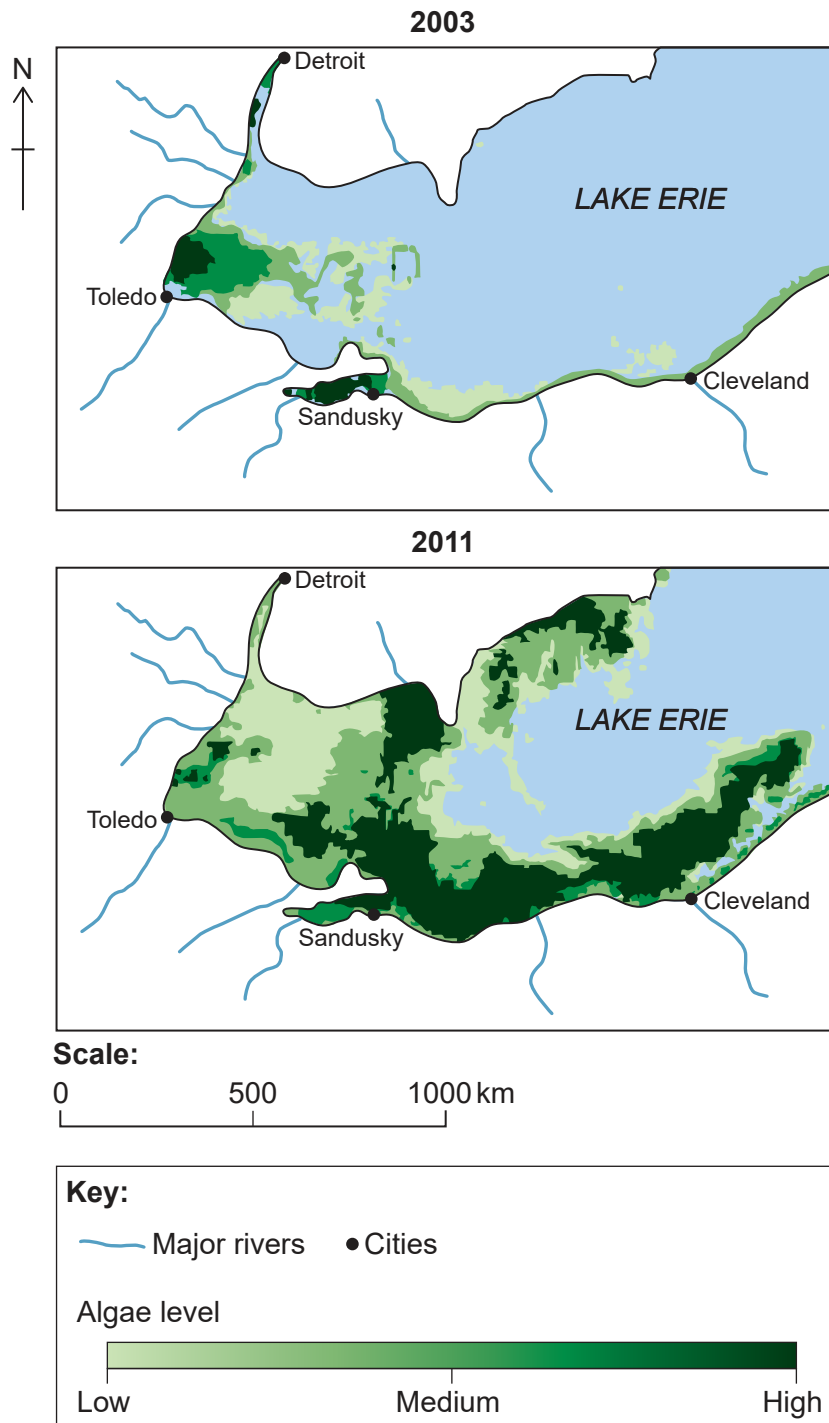
Friday 6 November 2020 (afternoon)

Instructions to candidates

- Do not open this booklet until instructed to do so.
- This booklet accompanies paper 1.

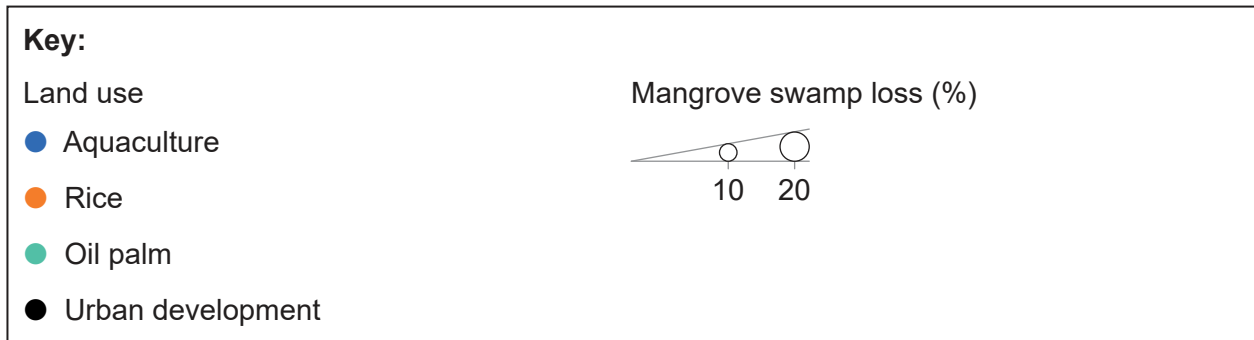
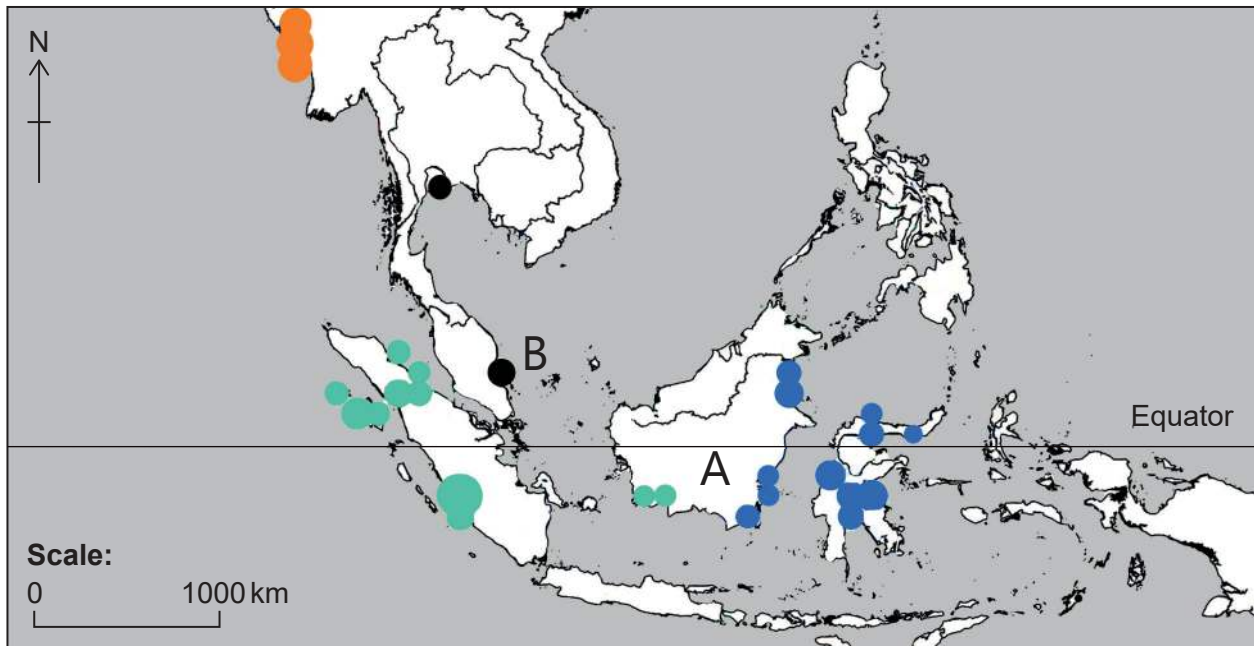
Option A — Freshwater

1. The maps show the growth of algae in a freshwater lake where eutrophication is occurring. Algae growth is caused by high levels of nutrients.



Option B — Oceans and coastal margins

3. The map shows land use changes that led to the loss of mangrove swamps in selected Southeast Asian countries in 2012.



Turn over

Option D — Geophysical hazards

- 7. The map shows Snæfellsjökull in Iceland. The scale of the map is 1:100 000 and the contour interval is 20 metres.



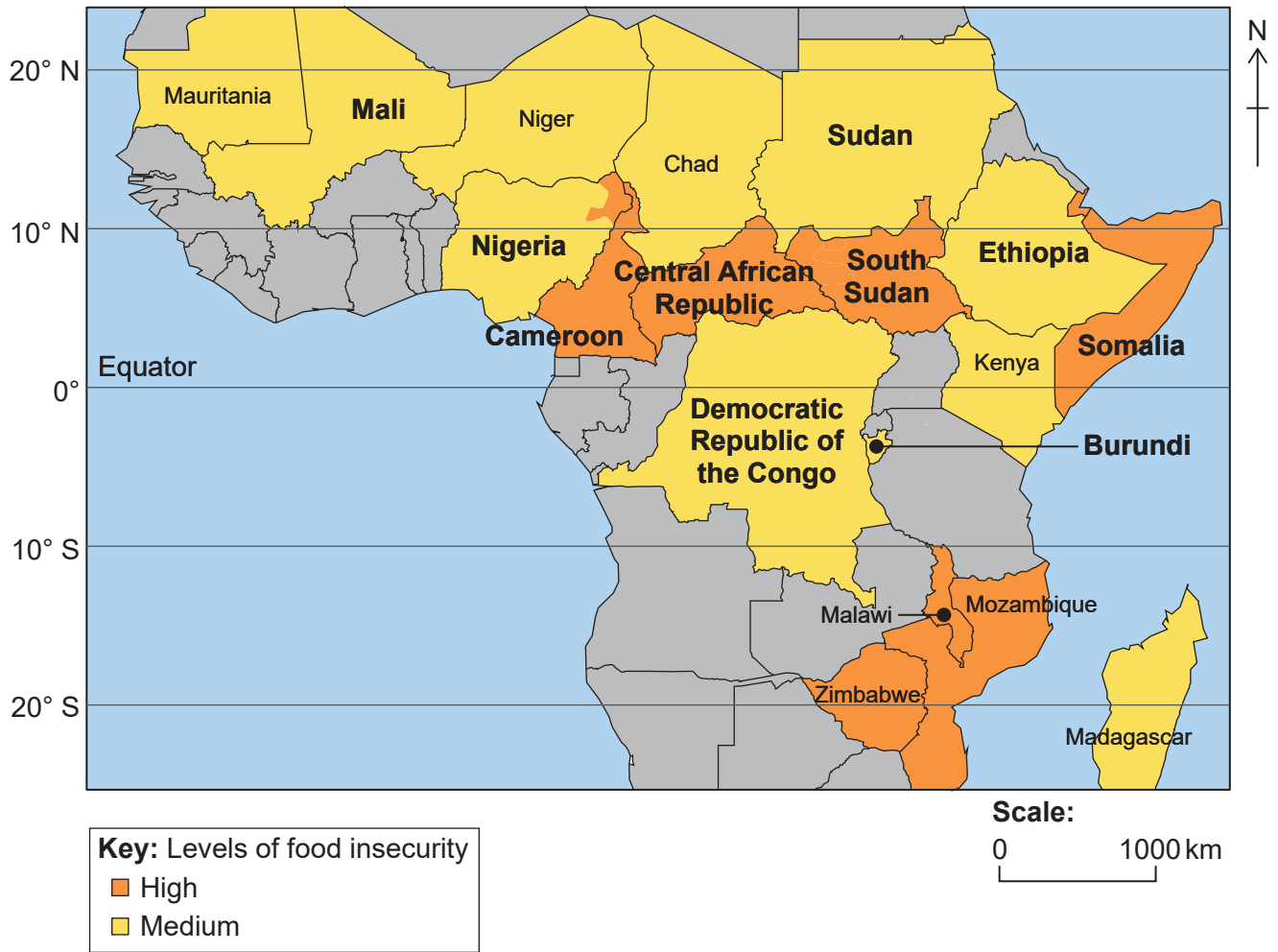


Key:

-  Information
-  Camp site
-  Airfield
-  Bridle path
-  Foot path, marked
-  Foot path, unmarked
-  Town or village
-  Main road
-  Secondary road
-  Track
-  Nature reserve
-  Natural monument
-  National park
-  Glacier (*jökull*)
-  Block lava
-  Crater

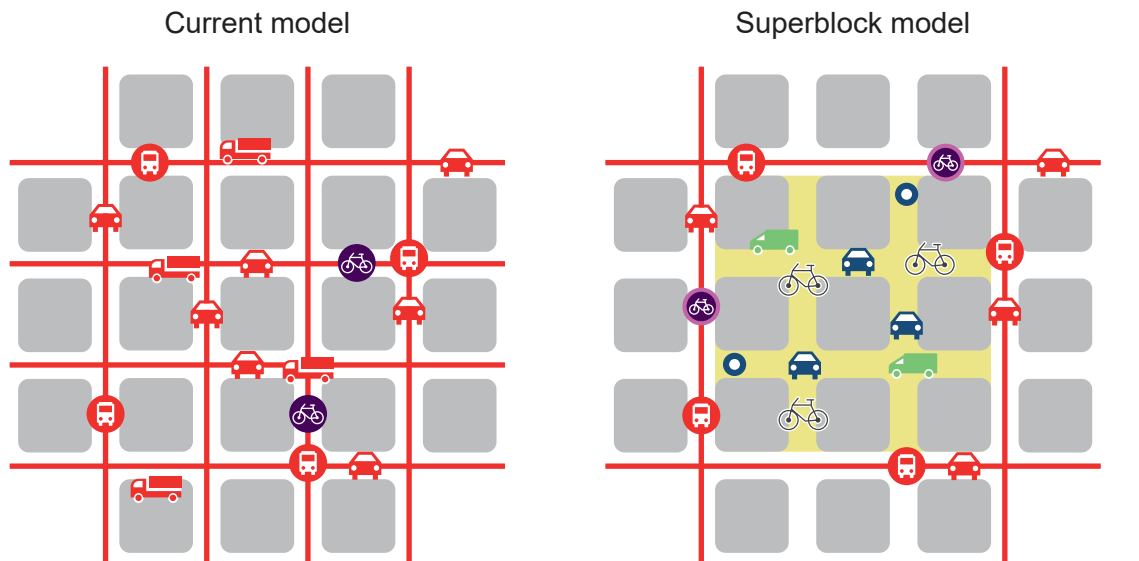
Option F — Food and health

11. The map shows selected African countries suffering from severe food insecurity in 2017.



Option G — Urban environments

13. The diagram shows a planned model of a superblock, part of an initiative to create sustainable smart cities.



Scale:
0 400 m

Key:

- | | |
|----------------------------------|-----------------------------------|
| Public transport network | Heavy goods vehicles |
| Main bicycle network (bike lane) | Urban and emergency services |
| Bicycle network (no bike lane) | Access control |
| Free passage of bicycles | Roads |
| Private vehicle passing | Pedestrian priority routes |
| Residents' vehicles | Current housing area (100 people) |

References:

Option A NOAA.

Option B Drivers of mangrove loss in Southeast Asia, Daniel R. Richards, Daniel A. Friess, *Proceedings of the National Academy of Sciences* Jan 2016, 113 (2) 344–349; DOI: 10.1073/pnas.1510272113.

Option D Based on data from National Land Survey of Iceland.

Option F Courtesy Africa Center for Strategic Studies.

Option G Superblock Model diagram, Barcelona Urban Ecology Agency.