

CASE STUDY: AFGHANISTAN'S FOOD SHORTAGE

- A country or region suffering from food shortage

Location: Asia / Middle East

Religion: ~~not~~ Muslim, Taliban Extremism

War: 30 years and counting (w/ Russia, Taliban, USA)

Life Expectancy at birth: 51.3 years (lowest in the world)

Infant mortality rate: 112.8 / 1000 live births

Child labour percentage: 25.3 %

Education expenditures: 3.4% of GDP

~~not~~ Unemployment rate: 35% (2008)

Population below poverty line: 35.8% (2011)

70¢ earned per day, 58¢ per bag of rice, 120¢ on the black market

3 million people in the Herat province had insufficient wheat

Market price of food skyrocketed

Rivers affected by drought (major one in 2012)

Growing winter → hypothermia

CASE STUDY: ECO TOURISM IN THE MONTEVERDE CLOUD FOREST

- An area where tourism is important.

Attractions:

- Altitude of 1700m
- 100 mammalian species, 2500 plant species, >400 bird species, >120 reptile + amphibian species
- Trails and trams, canopy tours, museums

Advantages

- 80 new businesses opened since 1970s
- The Reserva Biológica Bosque Nuboso Monteverde covers over 10,500 hectares,
- 400 full-time + 140 part-time jobs related to tourism

Disadvantages

- Land prices have increased
- people have migrated, looking for jobs = pressure on local infrastructure
- Atmosphere changed from a local Quaker community to a tourist centre
- Tourists demanding more facilities + more luxury
- 40% of Monteverde's amphibians have become extinct
- Areas close to trail = less wildlife
- Some activities (e.g. ziplining) are not sustainable
- Dirt track road: tourists arrive in 4x4 → petrol + dust

Management:

- Budget reserved to train + educate locals and tourists about protection of the reserve
- Access to the cloud forest is strictly controlled (1td. trails)

CASE STUDY: ENERGY SUPPLY IN CHINA

- Energy supply in a country or area
- World's largest emitter of greenhouse gases
- Industrial sector = 70% of energy use.
- Coal: 3527 Mt produced; 199 Mt imported (~~67%~~)
 - ↳ Declining, peak in 2014, 67% of energy consumption
- Petroleum: import approx. 7 mil barrels per day
 - ↳ market dominated by Sinopec, CNPC, CNOOC
 - ↳ 18% of energy consumption in 2013
- Gas: 8% of energy consumption in 2013
- Hydro/Nuclear/Wind: 9% of energy consumption in 2013
- In 2013, 5000 coal mines were closed
- China has ~~2380 GtCO₂~~
- In 2016, China reached a total wind power generation capacity of 149 GW
 - ↳ Generated 241 TWh of electricity
- In 2015, the hydro capacity in 2015 was 319 GW
 - ↳ Generated 1,126 TWh of power energy

CASE STUDY: M4 CORRIDOR

- An industrial zone or factory

Runs from from Wales to London

Home to lots of tech firms like microelectronics , Rolls Royce , and British Aerospace b/c:

- M4 motorway to transport input and output
- Mainline railway Wales to London
- Heathrow airport (and 4 others) for international links
- Large labour force from London and nearby towns
- Nearby firms to exchange ideas
- Near Bristol, Bath, Reading, and London universities for expertise and research
- Attractive environment for workers (e.g. National Parks like Dartmoor)

CASE STUDY: NIKE

- A transnational corporation and its global links

HQ: Beaverton, Oregon

CEO: Mark Parker

Nike's shoe/clothing production takes place at Tangerang
= ~~at~~ 25 km west of Jakarta

Average wage of a Nike factory worker in an LEDC: \$1.25
LeBron James' lifetime endorsement deal worth \$500 mil

Employs 44000 people worldwide

2014: brand alone worth \$19 bn

More than 700 shops around the world

Offices located in 45 countries outside USA

As of July 2011, ~~more~~ $\frac{2}{3}$ of ~~the~~ factories producing

converse products did not meet worker treatment standards

April 2014: Strike in China factory:

- 70,000 employees
- Underpay of employees by 250 RMB per month (for 20 years)
- Average salary at Yue Yuen factory is 3000 RMB

CASE STUDY: WAYAN TOPELE'S BALINESE RICE FARM

• A farm

Location: 7.5 km N of the town of Ubud, near River Sala

Area: 0.6 hectares

Operated by family + contract labourers (when needed)

Primarily a subsistence farm

Contiguous farm: all found in one parcel of land

Fairly gentle gradient: only 2 levels needed

- Section 1 - upper level - mix of IR36 and padi Bali
- Section 2 - lower level - IR36, + veg + grass near river

Padi Bali rice = 6 months to cultivate; IR36 = 3 months to cultivate

Harvested rice = $\frac{1}{3}$ govt., $\frac{1}{3}$ eaten, $\frac{1}{3}$ barter for machinery

Little/no education = no accurate records of crop production

Normal year: 120kg of rice produced

↳ 1994: rumors ricech → 50% of harvest

↳ Handed to govt., destroyed, free pesticide provided

Subak (irrigation system) gave him 2 quotas of water

Very fertile soil:

- Alluvial deposits from River Sala = underlayers fertile
- 1963 eruption of Gunung Agung = surface layers fertile

Pests: black moths, grasshoppers, Sangit mosquitoes, birds

Technology: high-yielding varieties of rice (e.g. IR36), fertilizers (e.g. TSP, urea, KCl)

CASE STUDY : WATER SUPPLY IN LESOTHO

- Water supply in a country or area
- The Lesotho Highlands Water Project is the largest civil engineering project in Africa
- When completed, it will divert 40% of Senqu river water through 5 large-scale dams
- After taking water for its own use, Lesotho will sell it to South Africa (demand > supply)
- Income will be used to develop its infrastructure and econ.
- Lots of highlands which receive high rainfall
↳ valleys are ideal for building dams + reservoirs
- HEP can be generated with the dams
- Lakes will attract tourism, creating jobs + benefiting the economy