Geography In Everyday Life

Thinking Geographically - Topic 1.1 Relationship between people and nature in their neighbourhood

1. What is the relationship between people and nature? [Closely related to 2, below]

Local communities and nearby nature areas are dependent upon each other.

- People are dependent on nature:
  - Nature provides air and water > Survival
  - Nature > Spaces for recreation and leisure activities > Bond with family and friends > Maintains human's physical and mental well-being
  - Living Things (e.g. Bees) Pollinate crops > Continuous supply of food
- Nature areas are also dependent on local communities to thrive:
  - People in neighbourhoods > Tend to health of nature areas > Living things thrive
  - Individuals in local communities > Encourage one another > Enjoy nature areas > Sustainable manner without causing irreversible damage

- *Local communities and nearby nature areas mutually affect each other benefitting the parties involved.*
    - *Presence of green spaces and wildlife > Enhance well-being*
    - *Human activities > Enhance biodiversity*
        - *E.g. Reforestation activities > Gain enjoyment > Enhance mental health and well-being of people*
        - *E.g. Reforestation activities > Natural environment enhanced > As more shelter and habitat > Wildlife to thrive*

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2. How do people and nature bring about benefits to each other?

- Nature areas benefit people by lowering temperatures, removing pollutants and providing space for recreation
    - Lowering air temperature with the use of vegetation
        - Provides shade > Reduce sunlight reaching the surface
        - Surroundings cooled via evapotranspiration
            - Water that is absorbed by plants through roots > Released into the air as water vapour > Cools the surrounding air
    - Removal of pollutants
        - Photosynthesis > Absorbs carbon dioxide and air pollutants > Releases oxygen
        - Small particles get intercepted > Washed into ground during rain
        - Wetland plants > Trap suspended materials in the water > Improve water quality
    - Provision of recreational spaces
        - Nature areas > Outdoor activities > Reduce stress
        - Direct frequent interactions > Bring health benefits > Reduces severity and occurrence of health problems
- Community activities that promote the importance of environmental protection

- Locals collectively raise awareness about the value of nature areas > Encourage positive behaviour which does not damage nature
    - E.g. Clean-up programmes > Remove pollutants > Restore natural habitats > Provide a healthy environment > Species to thrive

3. What are the disadvantages people and nature bring to each other?

- Causing soil erosion, damaging vegetation, worsening pollution and *disturbing* wildlife [People to nature]
    - Soil erosion and damage to vegetation
        - Hiking along non-designated trials
            - Cause soil compaction > Prevents rainwater from infiltrating the surface
            - Step on vegetation > Damaged > Affect their growth
    - Worsening pollution (littering) and disturbing wildlife
        - Mistake litter for food > Consume > Get hurt and suffer > May lead to death
        - Feeding wildlife > Changes of habits and behaviours > Human wildlife conflict as wildlife associate food with people
- Wildlife from nearby nature areas may harm people and environmental protection may limit development [Nature to people]

Urban Expansion	Growing Interest in outdoor recreation	Greening efforts
• Nature habitats shrink • Wildlife venture into urban areas for food or shelter	• More time spent in nature areas • Increase frequency of human-wildlife encounters	• Bring nature back into city • Promote human wildlife encounters

    - People may not know how to deal with them > Unintentionally provoke > Attacked
    - Animals fearful > Likelihood to attacks increase when provoked

Due to these limits, environmental protection may be perceived to be limiting development

- People feel environmental protection of nature is done at the expense of their needs
    - E.g. Construction of CRL
        - Direct route: Cuts through nature reserve > Shortens travel time significantly
        - Skirting route: Longer route but conserve natural environments (Done at expense of needs and interests)

Thinking Geographically - 1.2 A sense of place in neighbourhoods

1. What is a sense of place?

- Derived from our experiences with environments and interactions with others
- Developed when people associate meanings and memories > Reflects r/s ppl have w places

2. Acquiring sense of place

- Regular and frequent visits
    - Recalls character and features > Create memories
- Significant events at landmarks or gathering places
    - Easy to spot, recognisable, > Usally symbolic and historical
    - It can feature both negative and positive memories
        - [-] Feature as public symbols > Reflects how people(community) respond to the tragedy > A place where memories of their loved ones are kept
        - [+] Interactions with people at everyday places > Build an attachment to these places > Create memories and meaning

3. Representation of sense of place

- Communities and locals represent their places > Media > Reflects ideas, memories and significance of the place

    - Media can come is forms of audio, text, images, still or moving objects
    - Media can also come in different types such as print-based, broadcast-based and internet-based media
        - E.g. The use of #sgmemory on Instagram reflects and represents the memorable experiences of Singaporeans
- Different expressions in media > Enhance or contradict sense of place
    - Sense of place shapes our identity
        - We respond well the representation that we agree with how we feel about our neighbourhoods
            - New layers of representations are added from new information > Enhance sense of place
        - We act defensively > Others challenges our sense of place > Dismiss these claims

Thinking Geographically - Topic 1.3 Relationships between locations in a neighbourhood

1. What is a region?

- A region has similar characteristics like:
    - Environmental characteristics
    - Geographical location
    - Humans characteristics
- Spheres of influence of services, events and objects in different parts of the location
    - At the region's boundaries they are less effective

2. What are spatial patterns?

- Reflect non-random arrangements that are recognisable as shapes, clusters and geometry or repeated and regular occurrence.
- Spatial patterns appears as

- Geometry and lines such as points and circles
  - E.g. Circle Line
- Clusters and concentrations
  - Industrial, commercial and housing areas
- Repeated occurrences at regular intervals
  - Bus stops are spaces apart from one another to serve residents of multiple precincts to enhance convenience and accessibility

3. What are spatial associations?

- The tendency of two services, events of objects > Located close to one another
- This provided seamless connections > Benefiting everyday life of people
  - [Specify benefit: Convenience? Accessibility?]

Thinking Geographically - Topic 1.4 Organisations of Neighbourhoods in Singapore

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1. What are spatial scales?

- Extent of an area of which a process and phenomenon takes place
- Arranged in spatial hierarchies, global, regional, local
  - Southeast Asia located in Asia
  - Singapore located in Southeast Asia
- Nested areas are smaller ares located in larger areas
- Recognising spatial scale > Understand how processes affect nature and people
- Examine spatial scale > Different perspectives

2. What are spatial scales in Singapore

- Singapore consist of 20 towns
  - Has a town centre

        - Town centre where there is a commercial and social hub for interactions
            - Usually has shopping malls
        - A town centre may also include an integrated transport hubs
            - Attract others from other towns to visit (malls)
            - Allow seamless connection > Travel elsewhere
                - Business can take advantage of the shorter and cheaper travels

3. What are spatial hierarchies?

- Residential Unit > Precinct > Neighbourhood > Town
    - Nested areas of different sizes, beginning with a single RU
- Precincts
    - 400 to 800 residential units
    - Facilities located in close proximity > Convenience
        - Meet Everyday needs
            - E.g. Community gardens, playgrounds, fitness corners
- Neighbourhoods & Town
    - 6000 to 8000 residential units
    - Many precinct make up a neighbourhood
    - Many neighbourhoods make up a town
        - Surrounds the town centre > Convenient travel
        - **Wide range** of facilities that integrated facilities such as transportation, community centres and commercial shops
            - Complement one another well

4. How is town planning done in SG?

- **Serves residents** and **provide for nature** at precinct, neighbourhood and town levels

    - For housing, industrial and commercial use
    - Remaining land for other infrastructure
        - E.g. Schools, parks, roads other essential facilities
    - Facilities > Self-sufficient > Provide employment opportunities
- Creates **connections** and **synergies** across precincts, neighbourhoods and towns
    - Achieve sustainability
    - Long-term plans at national level > Optimising land > Cater to diverse needs current and future generations
        - E.g. URA Master Plan > Plans land-use for the future and reviewed every 5 years
    - Land scarce Singapore > Need to accommodate needs that are typically not located in cities
        - E.g. Senoko Waste Energy Plant > Maximises benefits
            - Manages pollution, provide employment and education opportunities

Sustainable Development - Topic 2.1 Sustainable Urban Neighbourhood

1. ~~What is development?~~

- ~~*Refers to economic, social and political process > Results in improvement of standard of living*~~
- ~~*Classified based on economic and social indicators*~~
    - ~~*Economic indicator: Gross Domestic Product (GDP) per capita [Total value of goods in a given year divided by population]*~~
    - ~~*Social indicators:*~~
        - ~~*Life expectancy - Depend on quality healthcare*~~
        - ~~*Adult literacy - Professions*~~

2. What is sustainable development

- Meets the needs of population > Achieve high SOL
    - Ensure the ability of future generations to meet their own needs
    - Present needs are also met
- Economic, Social and Environmental
- *Vary from place to place across time > Strike a balance > Greater emphasis on one when needed*
- *Overlooking on one dimension > Lead to other dimensions being overlooked*
    - E.g. Economic growth prioritised > Environment neglected and destroyed > Degradation of quality of environment
- UN Sustainable Development Goals (UNSDG) > Achieve 2030 Agenda for Sustainable Development > Aim for high standard of living > Peace for **current and future generations**

3. How can urban neighbourhoods achieve economic and social sustainability

- **Economic sustainability**
    - Ensuring neighbourhood > High enough population density > Support local business > Keep transport and infrastructure cost low
        - Local businesses > Sustain themselves > As sufficient demands for goods and services
        - Take up employment > Earn income > Increase standard of living
    - Keep infrastructure and transport costs low
        - Buildings and objects > Located close to one another > No need travel far
        - Transportation > Close to one another > Less money spent on connecting infrastructure (bridges)
- **Social sustainability**
    - Residents full included > Have a sense of shared identity
    - Shared community spaces > Regular interaction

- *Urban neighbourhood population small* > Facilitate regular interactions > Meet needs
  - Residents come together > Discuss issues > Find solutions to various challenges
  - Builds resilience and +ve relationships > Open to communication , respect and understanding > Reduce misunderstandings
    - E.g. Residents' Network
      - Promote neighbourliness > Community cohesiveness > Encourage voicing out opinions > Participate in decision-making regarding issues in neighbourhood

4. How can neighbourhoods be sustained environmentally?

Ample protection for nature [1]

- Wildlife can thrive in urban areas > Human-wildlife coexistence can be fostered
- Concreted efforts made (Recovery and conservation programmes)
  - Protect existing species and ecosystems
  - Re-establish species
- Diff species of plants > Provides shelter and food for wide variety of wildlife to thrive

Having facilities that minimises waste and supports recycling [1]

- Encourage people to recycle
  - Conveniently places recycling facilities (blue bins)
  - Neighbourhood-scale activities by town councils (Educating others through posters and banners)
  - Less strain > Landfills fill up at slower rate
- Recycled materials > Less raw materials used > Decrease depletion of materials

Energy and water-efficient design approaches for buildings and landscapes [2]

- Designing of buildings > Minimises use of resources
  - Smart technology and eco-friendly features
    - E.g. Green Towns Programme under HDB
      - Cool paint used > Lower temperatures up to 2°C > Reduce energy consumption
      - Rainwater harvested > Used for washing > Reduce overall water consumption

Sustainable Development - 2.2 Ecosystem Services in Urban Neighbourhoods

1. What are ecosystem services?

- It refers to the benefits brought along by nature to people which are optimised when we have a healthy natural environment
- Produced by communities and non-living environments > Critical for survival

2. Provisioning Ecosystem Services

- Refer to tangible resources (food, water and wood) that people get from ecosystems
- Food > Important resource provided by nature > Through agriculture and fisheries
  - E.g. Community gardens > Planting edible foods

3. Regulating Ecosystem Services

- Refers to benefits from **regulation** of various ecosystem processes
  - Ecosystem services > Work together > Functional, sustainable and resilient to change
- E.g. Regulating services in Bishan-Ang Mio Kio park
  - Regulating local climate
    - Trees > Provide shade > Reduce direct sunlight > Lower surface and air temperature
  - Regulating water flows

        - Vegetation > Reduce surface runoff > Retain water in soil > Reduce risk of floods
    - Regulating air quality
        - Plants > Photosynthesis (describe process) > Remove air pollutants

4. Cultural Ecosystem Services

- Refer to the intangible benefits
    - **A**esthetic experiences
    - **R**ecreational activities
    - **E**ducational opportunities (Learning journeys)
- Green spaces > Activities
    - Stress relieve > Improve mental and physical health
    - **Foster social belonging > Strengthen sense of place**
    - E.g. Bukit Timah Nature Reserve
        - Engage in recreational activities (hiking)
        - Provide educational opportunities (fieldwork)

5. Supporting Ecosystem Services

- Ensure functioning of all other ecosystems
    - **Soil formation** > Important for health of all ecosystems > Ensures agriculture can take place
        - Contributes to biodiversity (Habitats)
        - Acts as water filter
    - **Pollination** > Wild bees > Crops can reproduce and provide food for living things
    - **Photosynthesis** > Absorb CO2 > Release O2 > Maintain O2 content of Earth's atmosphere

Sustainable Development - Topic 2.3 Common Hazards Within Neighbourhoods

1. What is a hazard?

- Process, phenomenon or human activity > Cause loss of life, health impacts or property damage > Social and economic consequences
- Natural or man-made
    - E.g. Natural disasters (natural) or traffic hazards (man-made)

2. Fire Hazards and their impacts

- Common causes:
    - Unattended cooking
    - Faulty electrical appliances and wiring > Ignite flammable materials
    - Overcharging of devices or PMDs
- Impacts:
    - Health impacts
        - High levels of CO > CO poisoning > Result in headache, loss of consciousness, dizziness
            - Unable to evacuate in time > Suffer severe burn injuries, disabilities or deaths
        - Smoke inhalation > Breathing difficulties > Death and suffocation
    - Property damage
        - Destroy properties > Economic loss of goods, furniture, important documents
        - Further costs > Repair and rebuild properties

3. Air pollution hazards and their impacts

- Presence of contaminant or pollutant substances > Interfere with human health and produce other harmful environmental impacts
- Common causes:
    - Burning vegetation
    - Industrial and motor emissions

        - Significant amount of exhaust emissions such as nitrogen oxides, CO2 and other pollutants

- Health Impacts:
    - Long exposure > Respiratory problems and lung cancer
    - PM 2.5 (Particulate Matter 2.5) [soot, smoke, dust] > Enter bloodstream > Lodge onto human lungs > Decline of lung function
    - Children > High levels of nitrogen dioxide > Asthma

4. Traffic hazards and their impacts

- Common causes *[Link: Increase risks of accidents]*
    - Speeding > Exceed speed limit > Cannot stop in time > Hit pedestrians/vehicles
    - Red-light running > Risk of hitting pedestrians/vehicles
    - Drink-driving > Not fully aware > Drive recklessly
- Health Impacts:
    - Serious injuries, disabilities or loss of life

Sustainable Development - Topic 2.4 Sustainable Urban Neighbourhoods

1. What is environmental stewardship?

- Environmental stewardship > Actions taken by individuals, groups, government > Provide care and responsibly use environment > Environmental and/or social outcomes > Sustainable neighbourhoods
- Actions should: (Link to these points)
    - Conserve natural resources
    - Preserving existing natural environments
    - Repair damages > Reverse -ve impacts from human actions

2. How can environmental stewardship be achieved?

- Promote volunteerism

    - Share knowledge with others about importance of sustainable ecosystems
    - More awareness on how to protect the environment and will responsibly use it
- Partnership of public and private sectors
    - Contributes and enhance environmental stewardship efforts > Different expertise, experiences, resource > Crucial to work together

3. What is disaster risk management?

- Refers to actions that prevent new risks from happening, reduce existing risk and manage disaster risks
- Aims to reduce:
    - Reduce neighbourhood's exposure to hazards
    - Reduce vulnerability of people and properties to hazards
        - E.g. SG's disaster risks management plan
            - SCDF respond to disaster
            - Town Council > Cooperate with other government agencies > Public safety and prevent injury
            - Strategies focus on:
                - Improving preparedness to respond to hazards
                    - E.g. SCDF conducts Community Emergency Preparedness Programme (CEPP) > Life saving skills and emergency procedures
                - Implementation of monitoring and warning systems
                    - E.g. Public Warning Systems (PWS) > Sirens > Warns public about disasters

4. What is community resilience

- Refers to the ability of a community to resist, adapt to and recover from impacts of disasters in an efficient manner

It can be developed by:

- Strengthening of relationships among residents and raising their awareness of potential hazards
    - Disaster Risk Management Plans > Widespread support and long-term participation > Effective and sustainable
    - Community activities > Know their neighbours > Foster +ve relationships > Depend on one another during emergencies
- Developing residents' ability to organise themselves and equip themselves with resources to resist, adapt and recover from a disaster
- Inclusive planning process > Share thoughts
    - Communicate with planners and government > Minimise potential hazards
    - Participate in projects to learn about disaster risks
- E.g. Community First Responders (CFRs) volunteers
    - Support rescue and relief work
    - Educate public > Simple first-aid and basic firefighting
        - Residents are aware of potential hazards
        - Immediately tend to injuries and steps to take to prevent another one from occurring

!!!Note/Disclaimer: Content is strictly based off textbook. Cover picture is also taken by myself. Notes were previously personalised so there can be some inconsistencies especially with abbreviations (governmental organisations). Hope these notes help! All the best for your exams :D