

# Climate Change and Wellbeing



# Structure

- **Well being**
- **Climate Change**
- **Climate Change and Well Being**

# Well Being

**a contented state of being happy and  
healthy and prosperous**

# Climate Change

- **reality**
- **one of the greatest threats to people and the environment**
- **alter the distribution and abundance of plant/animal species, and hence disturb the ecosystem balance**
- **adverse impacts on human societies and economies**

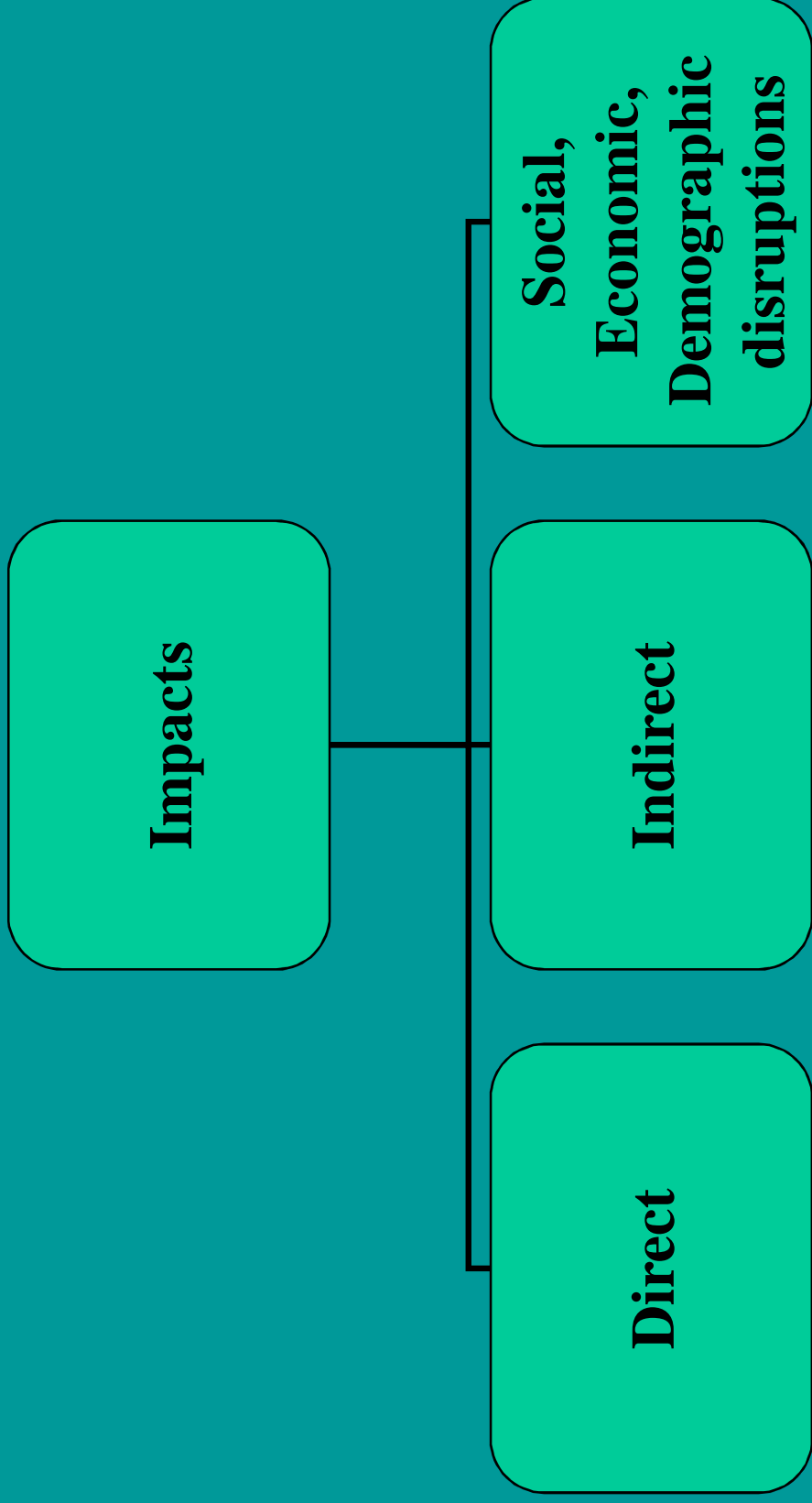
# Climate Change and Wellbeing

- **Climate Change impacts on human settlement and infrastructure**
- **Climate Change and human health**

# **Climate Change - impacts on human settlement and infrastructure**

- **Agriculture**
- **Energy use**
- **Transportation**
- **Industry**
- **Environmental quality**

# Climate Change Human Impacts



# **Climate Change and Human Health**

## **Direct Impacts**

- **increase in deaths due to an increase in frequency & severity of heat waves (leading to cardiovascular and respiratory morbidity and mortality)**
- **increased production of air pollutants and aeroallergens due to meteorological factors**
- **increase in risk of death, injury and starvation from increases in frequency of droughts & flooding**
- **increased ground-level exposure to UV radiation – increased rates of skin cancer, eye cataracts....**

# **Climate Change and Human Health**

## **Indirect Impacts**

- **transmission of vector-borne diseases such as malaria, dengue**
- **increased occurrence of waterborne & food-borne diseases**
- **storm surges as a result of damage to coastal infrastructure will result in waste-water, sanitation-related diseases**
- **loss of species used in medical field (such as heart by-pass stents from a particular soil bacteria)**

# **Climate Change and Human Health**

## **Social, economic and demographic disruptions**

- **mental and physical health risks follow social and economic disruption and dislocation**
  - **depression, suicide**
  - **child emotional and developmental experiences**

# Adaptation to Climate Change (1)

## IPCC definition:

**“adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities”**

**- balance between costs and benefits**

# Adaptation to Climate Change (2)

- **Adaptation is made up of actions throughout society, by individuals, groups and governments**
- **Adaptation is an issue relevant at local, national and international levels**
- **As climate change is dynamic, adaptation is not a one-off activity, but an ongoing, systemic programme of continuous review and action**
- **Adaptation to climate change is a relatively young and rapidly moving science**

# Adaptation to Climate Change (3)

- **Agriculture – alter crop species, improve irrigation, plant breeding**
- **Sea-level rise – seawalls as needed**
- **Forestry – plant new trees, intensify management**
- **Energy – insulation, building designs, alternative energy**
- **Water – invest in water efficiency, better storage, flood risk management**
- **Biodiversity – protect endangered species**
- **Aesthetics – educate public of adaptive options, adapt recreation**

# **Adaptation to Climate Change**

## **Human Health**

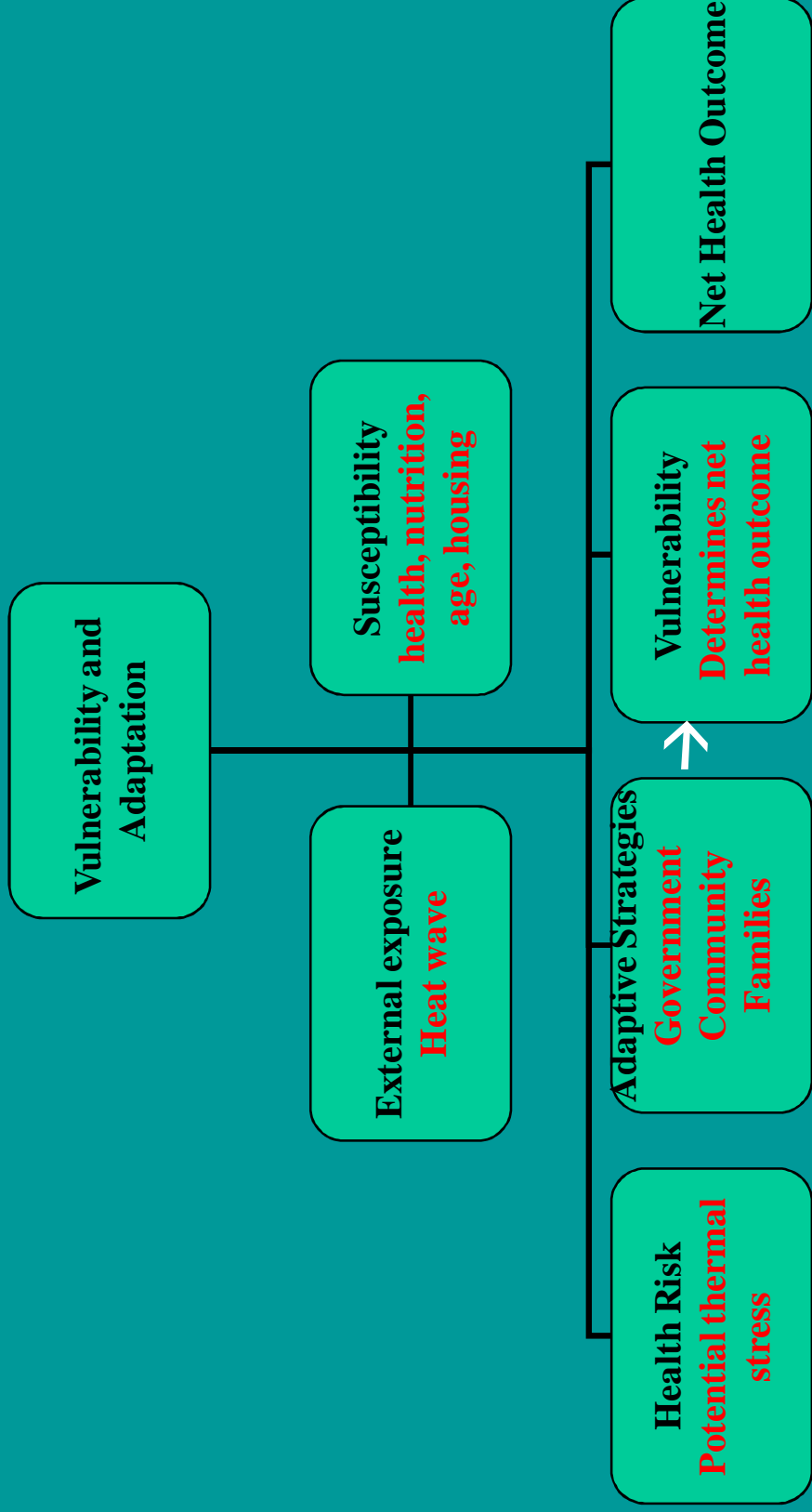
- **Prepare for extreme weather**
- **Avoid insect bites**
- **Control disease carriers**
- **Treat infected people**
- **Diet**

# Adaptation to Climate Change

## Human Diet

- **Buy fresh, seasonal, locally-produced food – less distance to travel and so uses less fuel**
- **Eat fewer processed and refrigerated foods (save energy – manufacture, transport, store)**
- **Waste less food**
- **Drink tap water (such as UK) – bottled water uses large amounts of energy to produce/transport**
- **Reduce the amount of meat consumption**

# Vulnerability and Adaptation



# Projected Climate Change for the UK

- **continue to get warmer**
- **summers continue to get hotter and drier (for much of UK)**
- **winters continue to get milder and wetter**
- **some weather extremes will become more common, others less common**
- **sea-level will continue to rise**

# Individual Responsibilities

- **energy efficient**
- **plant trees**
- **waste reduction, recycle, reuse**
- **education (work, community, home)**