

COVID-19 AND CLIMATE CHANGE

Community vulnerability and the integration imperative



Robert Newell, Food and Agriculture Institute, University of the Fraser Valley

Ann Dale, School of Environment and Sustainability, Royal Roads University

Vulnerabilities and Integrated Approaches

Vulnerabilities highlighted by the pandemic are vulnerabilities to other exogenous shocks

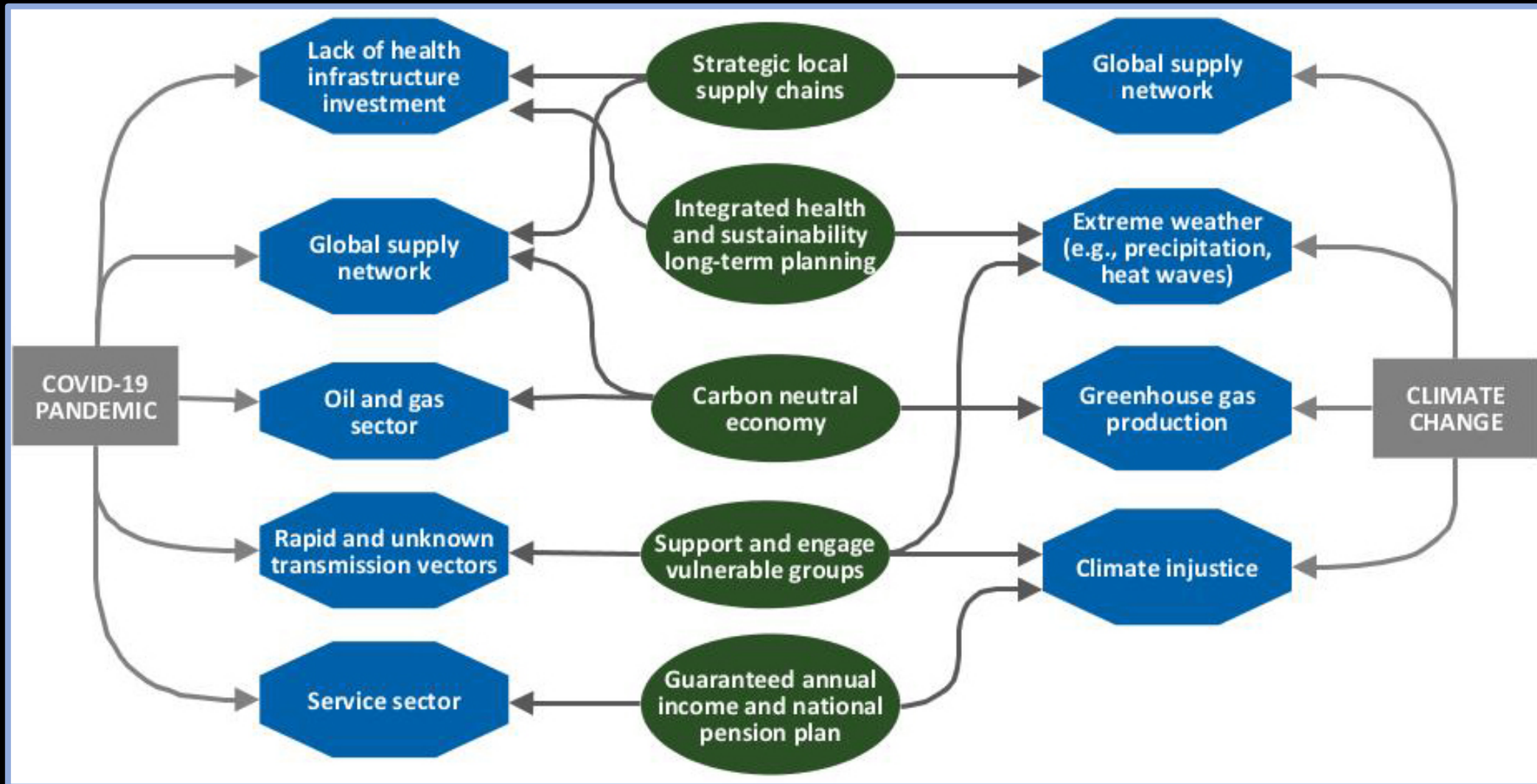
- Global, transboundary supply chains
- Labour shortages
- 'Just-in-time' inventory management
- Disruptions to transportation networks
- Inequitable income and job losses (e.g., oil and gas, service)
- Single-resource economies
- Social connectivity (challenges and needs)
- Vulnerable populations (e.g., homeless and underhoused)



Source: Khu'hamgaba Kitap, Wikimedia Commons

Resilience and Integrated Approaches

Strategies for pandemic resilience are strategies for community sustainability and resilience

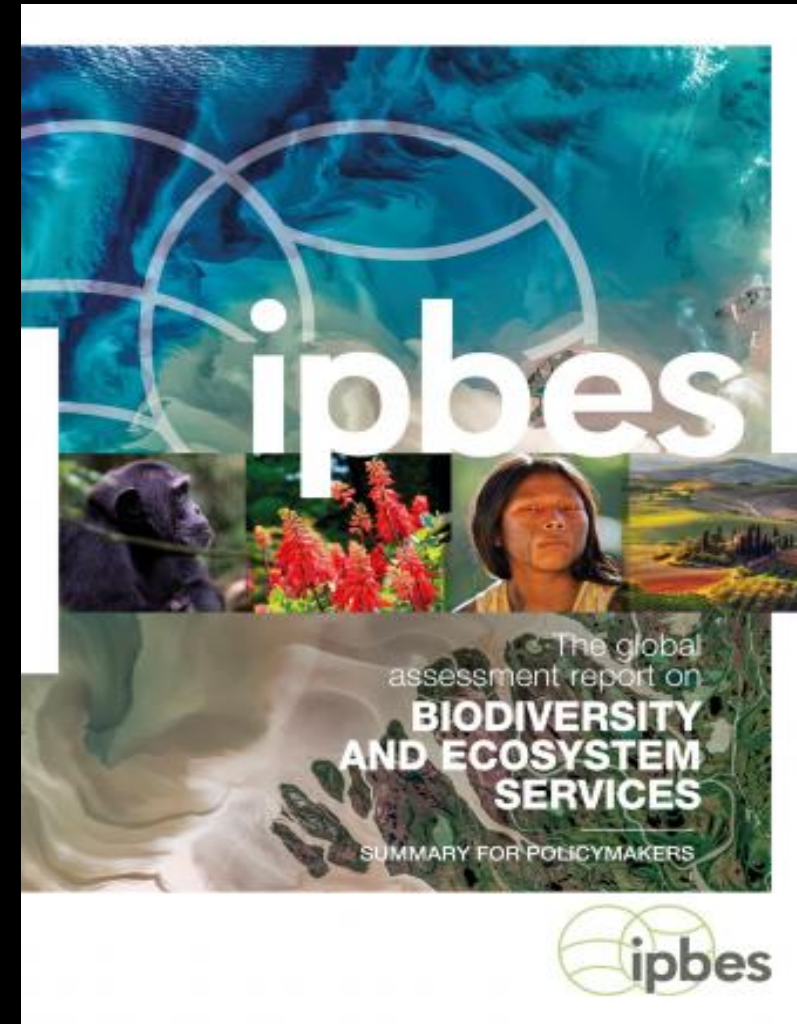
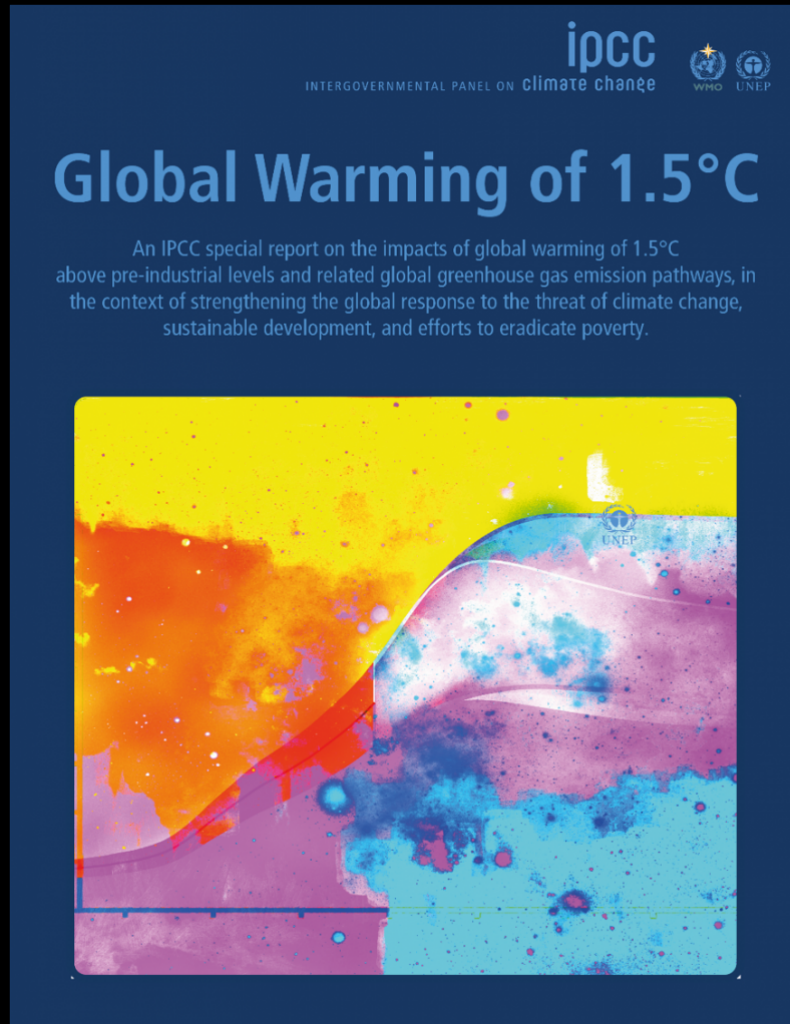


COVID-19, THE LESSON(S)

The Imperatives

The intersectionality of climate change, biodiversity and human health

Climate
change



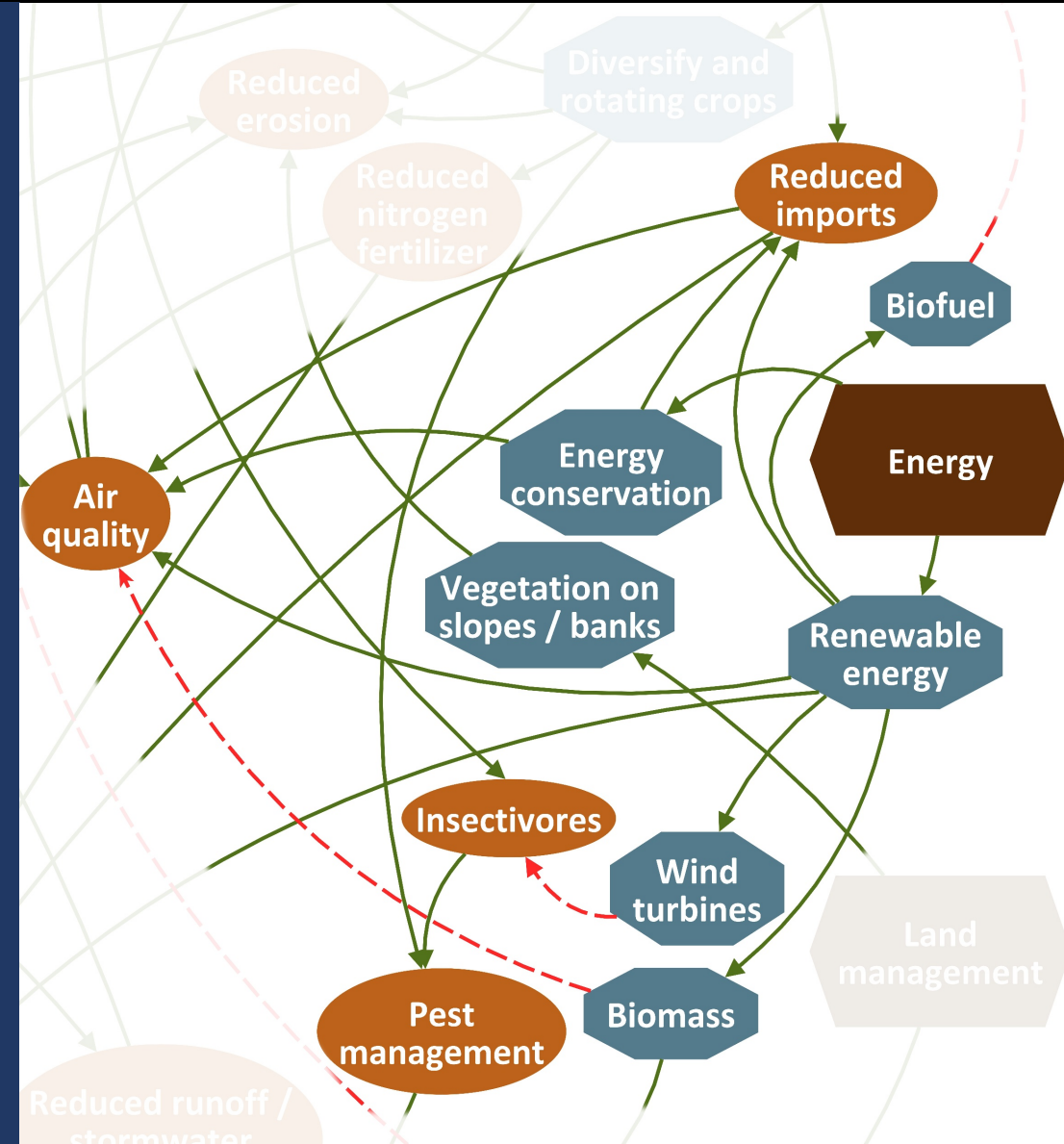
Biodiversity
loss

Areas of Vulnerabilities and Integrated Strategies

Localization

VULNERABILITIES: Global supply chains;
Health infrastructure

CONSIDERATIONS: Dynamic balance between
local and global supply
chains; Food security;
Infrastructure resilience -
renewable energy
prioritization (but consider
energy source); Air quality

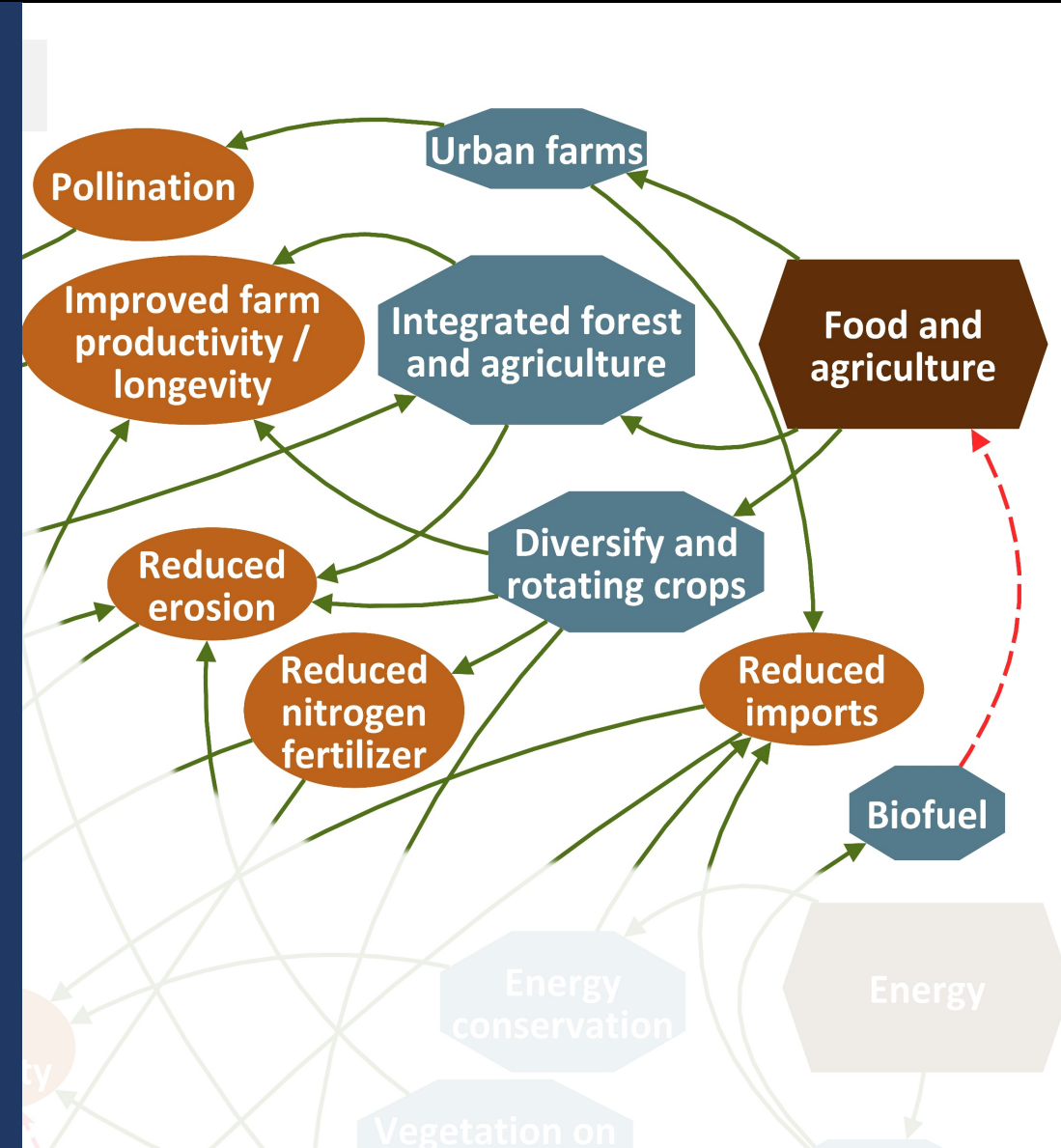


Areas of Vulnerabilities and Integrated Strategies

Diversification

VULNERABILITIES: Single-resource economies;
Vulnerable sectors and loss
of employment

CONSIDERATIONS: Diversify production and
regenerate ecological
function; New practices
(e.g., integrated urban
agriculture/aquaculture
farming)

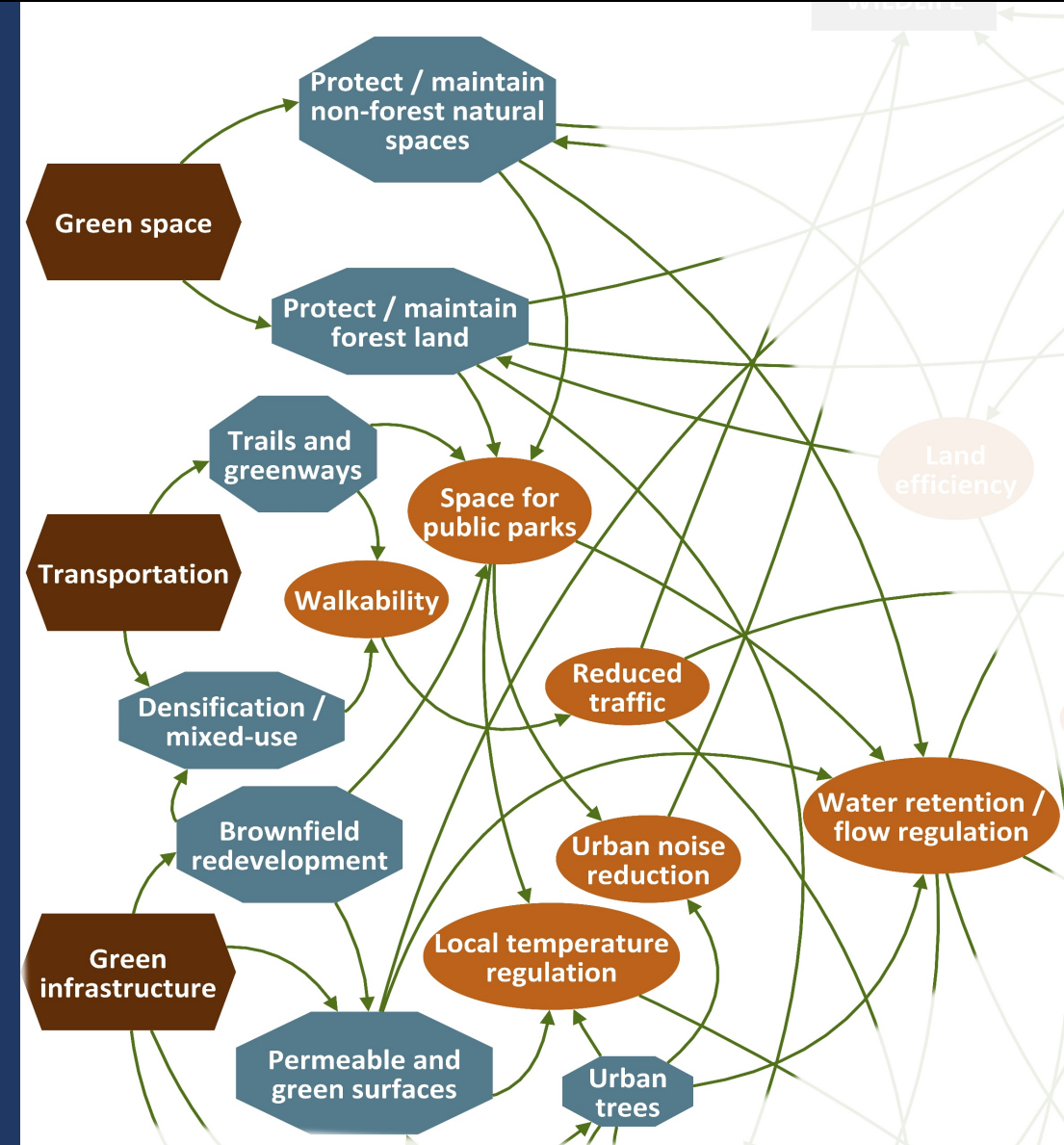


Areas of Vulnerabilities and Integrated Strategies

Connectivity

VULNERABILITIES: Challenges associated with urban densification; Urban 'crowding'

CONSIDERATIONS: Strategic distribution of parks and greenways; Optimizing distribution of green infrastructure and critical ecosystem services; Increase riparian buffers



Future Research

The climate-biodiversity-health (CBH) nexus

