

Climate Change and the Human Dimension

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Purpose Statement

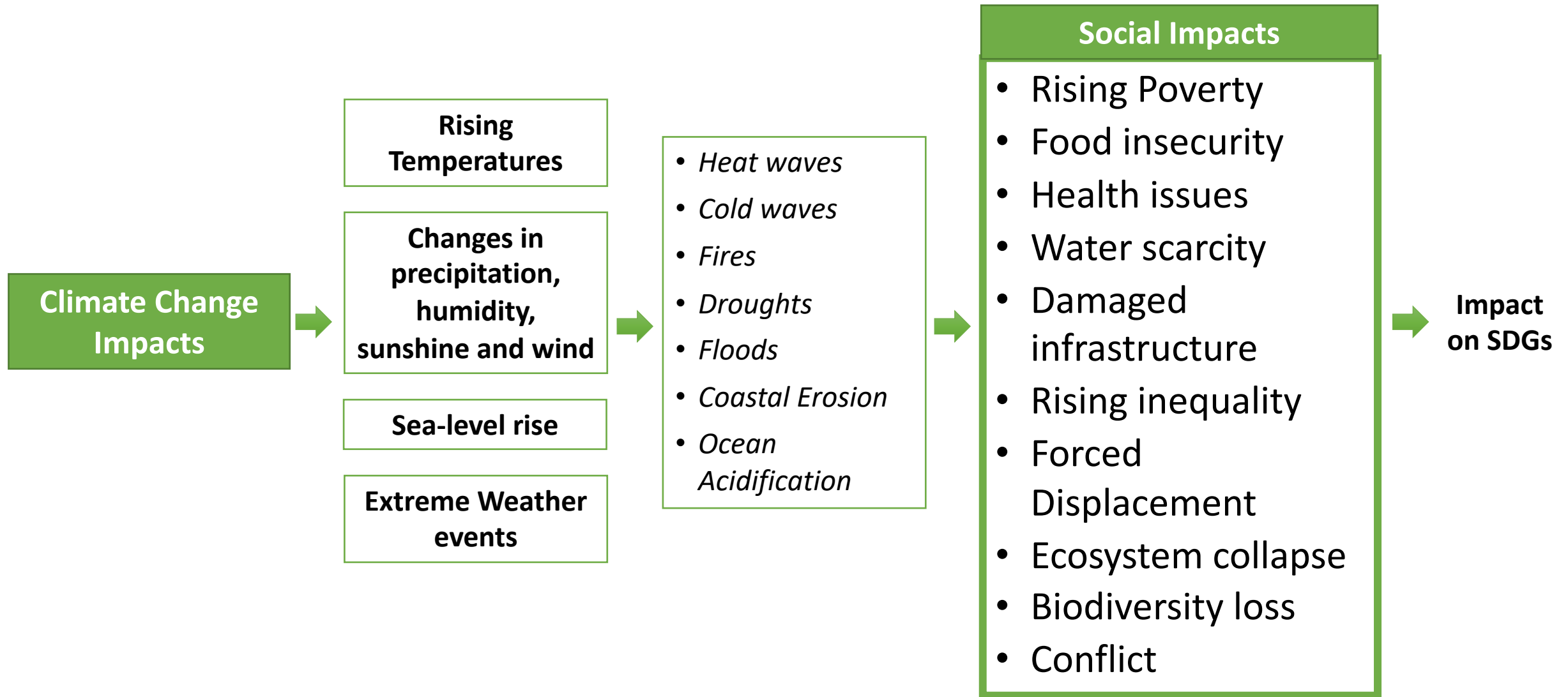
The purpose of this presentation is to review and discuss the current knowledge related to the impacts of climate change on individuals, societies and communities and to highlight the social dimensions of climate change.

Presentation Outline

1. Impacts of Climate Change on Individuals, Societies and Communities
2. The Social Dimensions of Climate Change
3. Public Awareness and Engagement with Climate Change
4. Integrating Social Dimensions in Climate Change Policy
5. Local Perspectives – Egyptian Context

1. Impacts of Climate Change on Individuals and communities

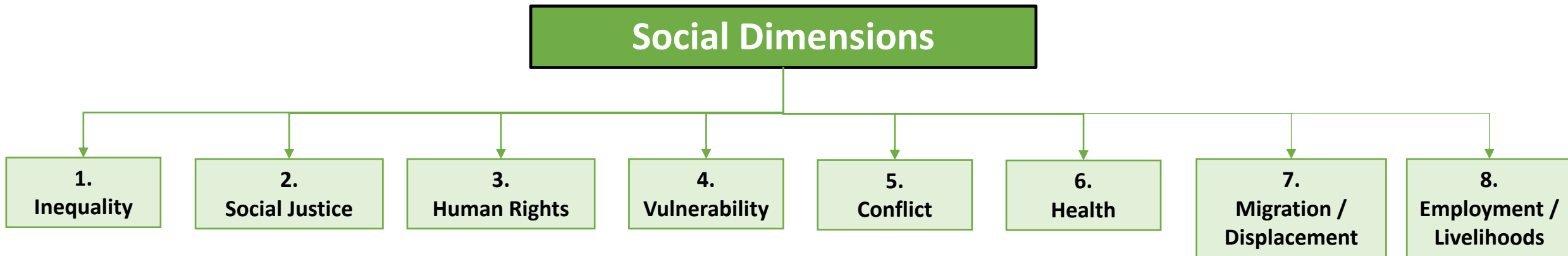
Impacts of Climate Change on Individuals, Societies and Communities



2. The Social Dimensions of Climate Change

The Social Dimensions of Climate Change

- Research and policy-making on climate change have focused primarily on climate science, technological solutions, and projected impacts. An emphasis on people -the key drivers of climate change has been secondary.
- Not enough attention has been paid to how individuals, households and communities will experience the impacts of climate change – what the UN terms the ‘social dimensions of climate change’.



1. Inequality

- Climate change is deeply intertwined with global patterns of *inequality*.
- While the effects of climate change are global, climate risks disproportionately affect the poorest countries and people, who are more vulnerable to the impacts yet ***contribute the least GHGs emissions***.
- Inequality issues that are exacerbated by climate change and need to be addressed: ***between wealthy and poor countries; between rich and poor within countries; between men and women, and between generations***.



- The richest countries represent only ***16% of the world population*** but almost ***40% of CO2 emissions***. The two categories of the poorest countries in the World Bank classification account for nearly ***60% of the world's population***, but for ***less than 15% of emissions***.
- In the absence of well-designed and inclusive policies, climate change mitigation measures can place a ***higher financial burden on poor households***; for example, policies that expand public transport or carbon pricing may lead to higher public transport fares which can impact poorer households more.

2. Social Justice

Impacts of Climate Change	Social Justice Perspective	Implications for Policy and Action
<p>Greenhouse gas emissions correlate with wealth and growth.</p>	<ul style="list-style-type: none"> Responsibility for climate change lies primarily with richer people in richer countries. 	<ul style="list-style-type: none"> Need to build global solidarity and momentum for climate action. Developed countries have an ethical obligation to reduce emissions rapidly and to provide adaptation support to poor countries. Climate mitigation should not constrain energy access for poor people, nor should it constrain the growth paths of poor countries.
<p>Climate change impacts differ according to people's power, wealth, and level of dependency on natural resources.</p>	<ul style="list-style-type: none"> The brunt of climate change impacts is borne by poor people in poor countries. Women will be disproportionately affected by climate change Indigenous people are among the most socially excluded people globally. They rely on ecosystems particularly prone to the effects of climate change 	<ul style="list-style-type: none"> There is a compelling need to understand the social dimensions of vulnerability by examining the assets, knowledge, institutions, and relationships that different groups have to help them cope with external threats. People can be more or less vulnerable according to age, ethnicity, caste, gender roles, sources of livelihood, ability to access public support, or ability to migrate. An understanding of social difference must be translated into guarantees that people's enjoyment of fundamental human rights will not be compromised by climate change impacts.

Social Justice

Impacts of Climate Change	Social Justice Perspective	Implications for Policy and Action
<p>Developed countries will increasingly seek to mitigate climate change through technological innovation.</p>	<ul style="list-style-type: none"> • Technological innovations and shifts in market incentives in the North can have rapid and sweeping effects on the livelihoods of vulnerable people in the South (for example, the move to biofuels and resulting upward pressure on global food prices). 	<ul style="list-style-type: none"> • Mitigation measures should be robustly analysed to ensure that they do not cause damage to vulnerable people's livelihoods. • Rather than being regarded as a one-way transfer from North to South, technological innovation should capitalize on local people's knowledge.
<p>Extreme Weather Events (cyclones, storm surges) will become more frequent, with serious implications particularly for coastal areas.</p>	<ul style="list-style-type: none"> • Poor people tend to be more vulnerable to injury, death, and destitution as a result of extreme weather events. For example, urban poor in informal slum settlements live in less-robust structures, tend to be unprotected and lack access to information. • Women frequently are more vulnerable to death and injury from cyclones and extreme weather events (owing to behavioural restrictions on mobility, restrictive dress codes, and lack of information). 	<p>Actions is needed to empower the vulnerable and strengthen their resilience:</p> <ul style="list-style-type: none"> • Enhanced information to enable good choices about location and movement in the face of weather threats • Enhanced rights for housing to provide incentives to strengthen structures • Enhanced rights for women to ensure that they have access to information and skills that will aid survival.

Social Justice

Impacts of Climate Change	Social Justice Perspective	Implications for Policy and Action
<p>Carbon Assets (trees, peat marshlands, rangelands) increasingly will be valued for their carbon sequestration properties in the struggle to contain and mitigate climate change.</p>	<ul style="list-style-type: none">• Poor people's rights in carbon assets—whether ownership or use and access rights—are critical to dignity and livelihood.	<ul style="list-style-type: none">• Robust and accountable policy and institutional frameworks must be established to protect poor peoples' rights in carbon assets and to maximize the income streams they can derive from those assets.

3. Human Rights

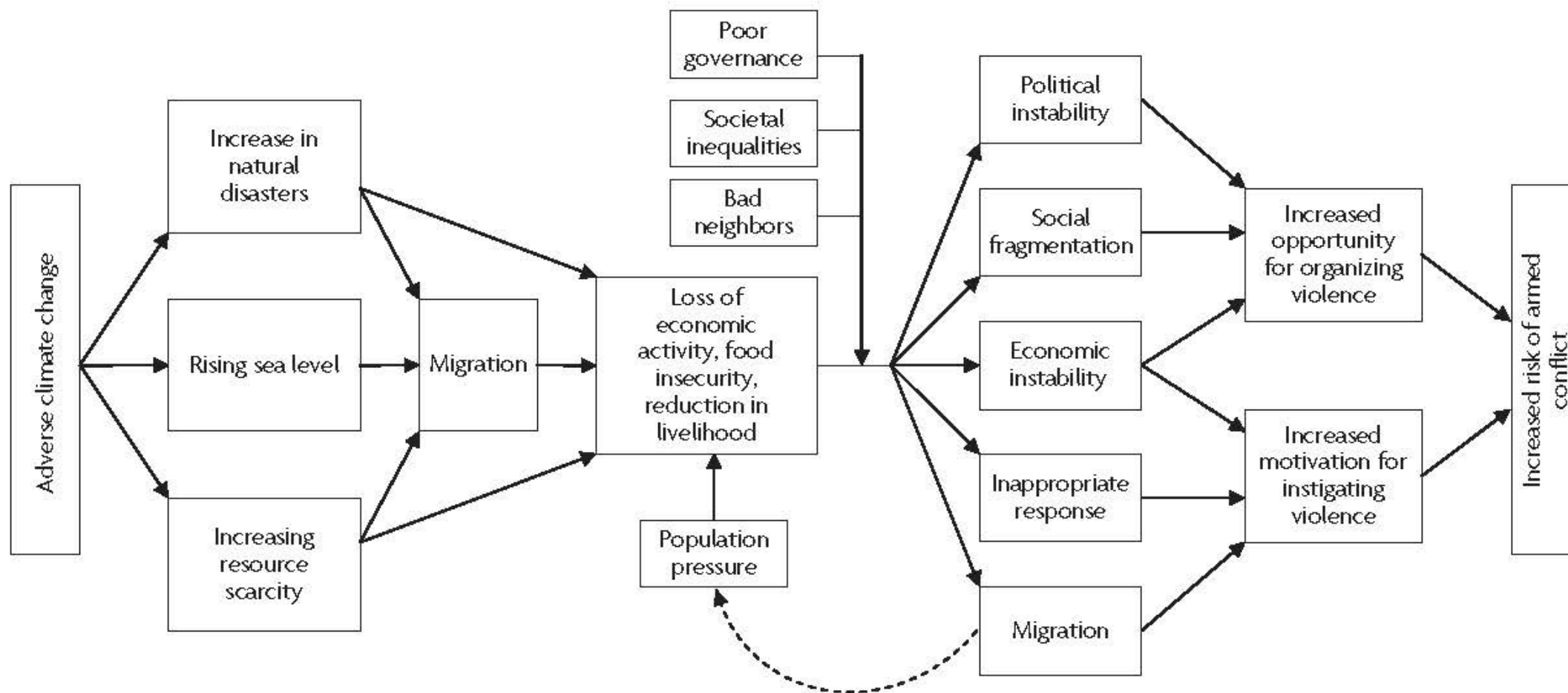
Impacts of Climate Change	Impacts on Human Systems	Human Rights Impacted	International Conventions
<ul style="list-style-type: none"> • Temperature issues • Risks of extreme weather events • Threats to unique systems • Changes in precipitation patterns and distribution of water • Threats to biodiversity • Sea-level rises, • Flooding • Storm surges • Large-scale singularities 	<ul style="list-style-type: none"> • Increased water insecurity • Increased health risks • Changes in livelihoods • Effects on the economy • Changes in agricultural productivity and food production • Threats to security • Effects on human settlements, land, and property • Migration • Political/public services • Damage to vital infrastructure • Cultural integrity • Decline in natural systems services • Distribution of impacts (vulnerable people will suffer most) • Aggregate demands 	<ul style="list-style-type: none"> • Life • Health • Means of subsistence • Adequate standard of living • Self-determination • Water • Culture • Property • Adequate and secure housing • Education • Gender rights • Children’s rights • Indigenous rights 	<ul style="list-style-type: none"> • United Nations Universal Declaration on Human Rights • International Covenant on Economic, Social and Cultural Rights • International Covenant on Civil and Political Rights, 1966 • Optional Protocol to the International Covenant on Civil and Political Rights, 1976 • Convention on the Elimination of All Forms of Discrimination Against Women, 1979 • Convention on the Rights of the Child, 1989

4. Vulnerability

- Certain social groups are **more vulnerable to climate change**: female-headed households, children, persons with disabilities, ethnic minorities, landless tenants, migrant workers, unemployed people, older people, sick people, and other socially marginalized groups.
- The root **causes of vulnerability** lie in a combination of geographical context, financial, socio-economic and cultural status; access to services, decision-making, and justice.
- Poor people are **more exposed** to climate impacts but have **less capacity** to face them.
- Climate change will affect certain groups more than others, particularly groups located in **vulnerable areas** exposed to coastal storms, drought, and sea level rise.
- **Some types of professions and industries** may face more considerable challenges from climate change. Professions that are closely linked to weather and climate, such as outdoor tourism, commerce, and agriculture, will likely be especially affected.
- City residents and urban infrastructure have distinct sensitivities to climate change impacts. For example, heat waves may be amplified in cities because cities absorb more heat during the day than suburban and rural areas.

5. Social Unrest and Armed Conflict

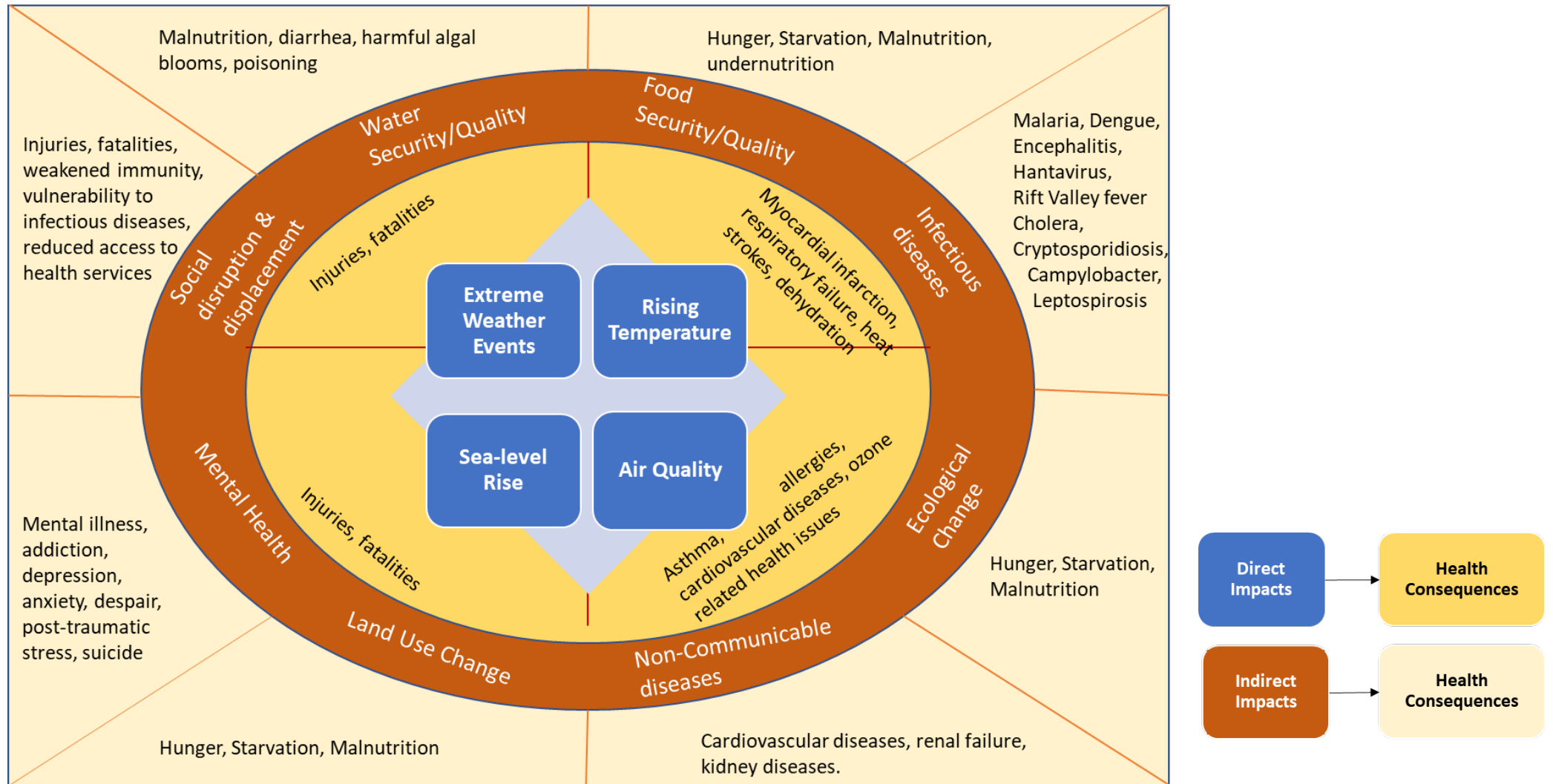
Possible Pathways from Climate Change to Conflict



*Competition over scarce natural resources –exacerbated by climate change- may lead to conflict especially where other mediating factors are at play in the same region, including social tensions, extreme poverty and weak governance.

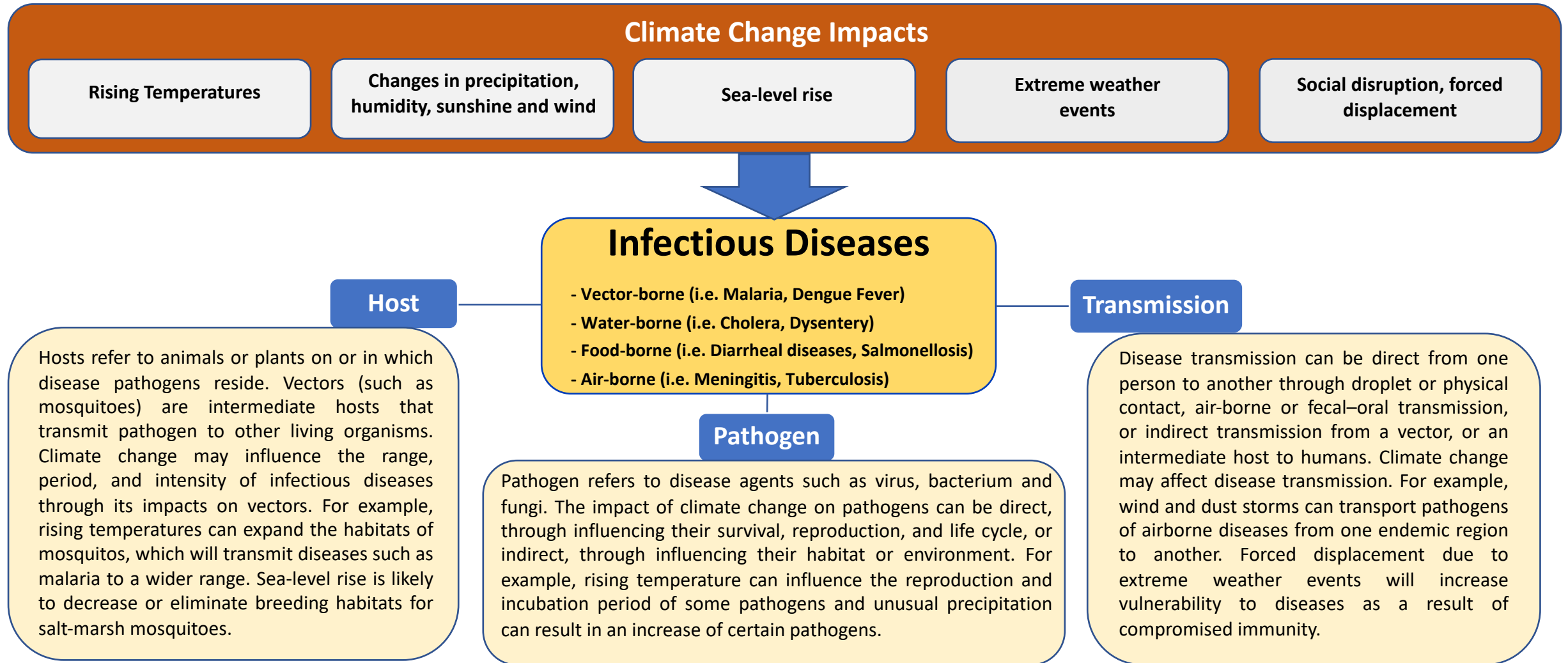
6. Human Health

Direct and indirect impacts of climate change on health and related health consequences



Human Health

The impacts of climate change on various aspects of infectious diseases



Human Health

Options for Adaptation Strategies to Reduce Health Impacts of Climate Change

Health Outcome	Legislative	Technical	Educational / Advisory	Cultural / Behavioural
Thermal stress	Building guidelines	Housing, public buildings, urban planning to reduce heat island effects, air conditioning	Early warning systems	Clothing, siesta
Extreme weather events	<ul style="list-style-type: none"> • Planning laws • Building guidelines • Forced migration • Economic incentives for building 	<ul style="list-style-type: none"> • Urban planning • Storm shelters 	Early warning systems	Use of storm shelters
Air quality	<ul style="list-style-type: none"> • Emission controls • Traffic restrictions 	<ul style="list-style-type: none"> • Improved public transport • Catalytic converters • Smokestacks 	Pollution warning	Carpooling
Vector-borne diseases	N/A	<ul style="list-style-type: none"> • Vector control • Vaccination, impregnated bed nets • Sustainable surveillance, prevention and control programs 	Health education	Water storage practices
Water-borne diseases	<ul style="list-style-type: none"> • Watershed protection laws • Water quality regulation 	<ul style="list-style-type: none"> • Genetic/molecular screening of pathogens • Improved water treatment (e.g., filters) • Improved sanitation (e.g., latrines) 	Boil water alerts	<ul style="list-style-type: none"> • Washing hands and other hygiene behaviour • Use of pit latrines

7. Migration and Displacement

- *Increased drought*
- *Rising sea levels*
- *Extreme Weather Events*

Climate Related Migration

Forced Migration

People fleeing from the imminent threat or aftermath of a climate disaster

Planned Displacement/Relocation

Planned relocation of households and communities as an adaptation strategy

- Adaptive migration that reduces vulnerability requires assets, including human and social capital. Those without these assets may not be able to move and therefore will remain more vulnerable to climate hazards.
- People migrating to urban areas are frequently poor, and often do not have secure lands rights, use substandard materials for housing, and may have no choice but to build in the most precarious locations.
- In the absence of affordable housing, migrants may resort to unregulated construction, as well as unsustainable and unsanitary livelihood practices leading to serious public health risks, increased risk of violence against women, deforestation, soil erosion and pollution

8. Livelihoods / Employment

- Climate change impacts such as temperature increases, changes in precipitation regimes or sea-level rise will affect – directly or indirectly – the productivity and viability of nearly all economic sectors with labour market implications ***affecting people's livelihoods***.
- Climate change may ***affect workforce availability*** due to additional occupational health constraints (higher temperature at work, more frequent natural hazards keeping people from reaching their work place).
- ***Several economic sectors are highly vulnerable*** because of their dependence on regular climate conditions. Sectoral production shifts – in agriculture and tourism for instance – are expected as a consequence.
- ***Major investments in adaptation*** could offer employment in activities such as reinforcing coastal defences and relocation of exposed settlements.

3. Public Awareness and Engagement with Climate Change

Public Awareness and Engagement with Climate Change

- A challenge facing many countries is ***engaging citizens*** that may not understand climate change, and getting their ***support for climate policies***.
- It is critical that people are brought along in the decision-making process – this requires transparency, access to information and citizen engagement on climate risk and green growth in order to garner ***public support and demand to reduce climate impacts***.
- Communities bring unique perspectives, skills, and knowledge to the challenge of strengthening resilience and addressing climate change. They should be engaged as ***partners in resilience-building*** rather than being regarded merely as beneficiaries.
- The ability to adapt will depend on the ***public's risk perception*** of climate change and their ***willingness to act*** to address it.
- Understanding public risk perception of climate change is vital in informing policy and developing effective risk communication strategies.

4. Integrating Social Dimensions in Climate Change Policy

Climate Change Policy

- ***Social Dimensions to consider in climate change policies:***

Social Needs

- Equity and social inclusion
- Human rights
- Participatory politics
- Governance
- Cooperation and solidarity
- Education

Individual Needs

- Health
- Decent work
- Social protection
- Empowerment
- Mobile assets

Basic Needs

- Water
- Food
- Energy
- Shelter
- Transport
- Security

- ***Why incorporate social dimensions of climate change into climate policies:***

- **Safeguard the rights of the people** - respecting human rights is a prerequisite to adequately address climate change; empowers them as actors
- **Ensure a successful outcome** - effective policy relies on people changing their behaviours; people as end-users and their willingness to adopt 'clean' technologies
- **Follow international conventions and declarations** - strong precedent already set by international instruments

Climate Change Policy

- Climate change poses a challenge to established policy frameworks because it cuts across institutional issues that are traditionally addressed separately
- Compartmentalizing climate change policy responses into a series of sectoral agendas, such as energy omits some of the key features of climate change.
- An integrated approach, that incorporates the social analysis of causes, impacts and benefits would be a useful way of overcoming this barrier
- The cross-cutting nature of climate change offers multiple secondary opportunities, also known as social **co-benefits**: job creation, gender equity, access to social protection, food security, etc.
- ***Needed procedural principles for the design and implementation of CC policies and programmes***: Participation, Accountability, Non-discrimination and equity, Empowerment and Transparency

Climate Change Policy Recommendations

- Complement global and regional climate analysis with ***social impact assessments*** to properly identify how climate change will impact health, employment, gender equity, might trigger migration, increase vulnerability, etc
- Develop more frequent and better informed social impact assessments, including criteria, methodologies and ***monitoring and evaluation models***
- Promote ***inter-ministerial policy coordination/dialogue*** in order for decisions on climate to be taken in a coherent manner with social priorities.
- ***Dialogue*** between decision makers and stakeholders
- Identify ***research*** gaps
- Ensure ***social safeguards*** are in place to protect the interests of all, in particular the most vulnerable when fashioning climate solutions
- Invest in human capital: invest in ***education and skills***

5. Local Perspectives: Egyptian Context

Expected Climate Change Impacts

- Egypt is ***one of the most susceptible countries*** to the potential impacts of climate change.
- It is expected to be ***the most affected country in the Middle East and North Africa*** with the most exposed population and agricultural land impacted ***by sea level rise*** under all projected scenarios.
- The Nile Delta is Egypt's ***most vulnerable region*** and was named by the IPCC among the three ***most vulnerable deltas*** to climate change in the world.
- The Nile delta has been suffering from land subsidence, soil salinization, and coastal erosion which will all be ***exacerbated by climate change impacts*** like sea level rise and extreme weather events.

Socio-economic Impacts

- Saltwater intrusion is projected to reduce land productivity in the Delta, and SLR will lead to the loss of agricultural land, which will ***threaten Egypt's food security*** and reduce farming opportunities leading to ***unemployment***.
- Climate change impacts will affect groundwater and will lead to deteriorating water quality which will ***threaten Egypt's water security***.
- Many cities on the Nile Delta coastal zone will be susceptible to inundation under various SLR scenarios with ***Alexandria*** being the highest population and largest area affected causing severe ***infrastructure damage and forced migration***.
- In general, climate change will have significant ***socio-economic impacts*** on Egypt affecting public health, tourism, infrastructure, and vulnerable populations.

Public Risk Perception of Climate Change in Egypt

- **A recent study on a sample of the Egyptian public showed the following:**
 - The majority see climate change as an important environmental problem for Egypt, but not the most important when compared to other environmental problems.
 - The majority thought that the negative effects of climate change in Egypt have begun
 - While participants were concerned about climate change and mostly believed that human activities are causing it, they were not fully aware of the correct activities.
 - The majority of respondents were in favour of taking some kind of action to adapt to CC.
 - The majority thought that responsibility to address CC lies mainly at the government level followed by local authorities and municipalities
 - The majority indicated a high level of willingness to support all adaptation measures
 - Only 24.7% of respondents believed they were capable of adapting to climate change
 - The majority reported having experienced the impacts of CC personally in the form of flash floods, heat waves, cold winters and coastal erosion.
 - The majority acknowledged a need for climate change awareness campaigns and they believed that people do not know much about climate change in Egypt.