

Climate Change – Mitigation Strategies to Secure Mankind's Future.

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Introduction



Figure 1: Impact of Climate Change (Responding to Climate Change, 2019)

Climate change is a global challenge caused by an increase in the presence of greenhouse gases, deforestation, destruction of marine habitat, and population increase.



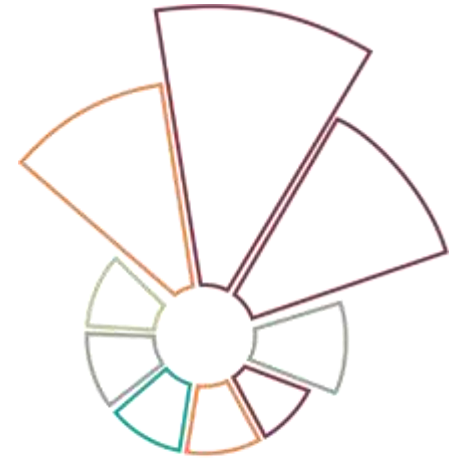
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Figure 2: Effects of Climate Change (Electrolux Group, 2019)

Devastating effects of climate change include:

- Acidification of oceans
- Extreme weather phenomena
- Extinction of some species
- Massive migrations
- Changes in ecosystem



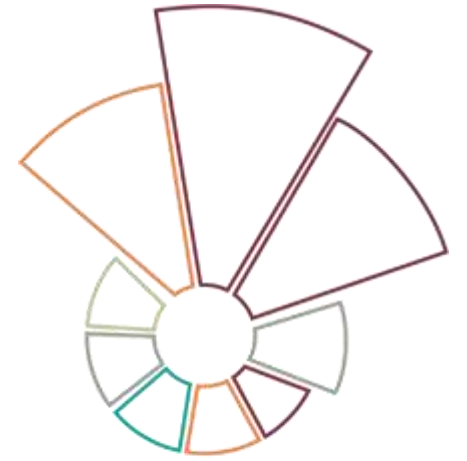
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Introduction



Figure 3: Melting and Rising Seas Leading to Incessant flooding in Coastal Areas. (Mitigation and Adaptation to Climate Change, 2019)

- Desertification
- Melting and rising seas.



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Figure 4: Greenhouse Gas Emissions (What is Climate Change Mitigation?, 2019)

Mitigation measures are those actions that are taken to reduce and curb greenhouse gas emissions. Mitigation, therefore, attends to the causes of climate change.



Introduction



Figure 5: Effects of Climate Change (Effects/Facts, 2019)

Adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause or taking advantage of opportunities that may arise.



Methodology



Figure 6: Restoring Degraded Ecosystems (Forests and Climate Change, 2019)

Nature-based solutions are solutions that build upon ecosystems and involve three types of actions, which may be combined at all levels:

- Preserving the integrity and good ecological status of ecosystems



Methodology



- Improving sustainable management of ecosystems used by human activities
- Restoring degraded ecosystems or creating ecosystems.



Figure 7: Climate Change Solutions(Mitigating Climate Change - Our Roles and Responsibilities, 2019)

Methodology

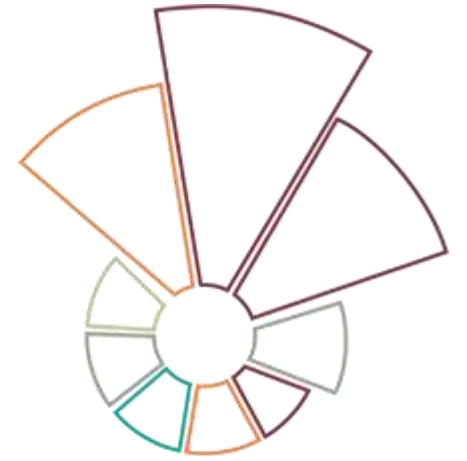


Figure 8: Technological Solutions to Energy Supply (Responding to Climate Change, 2019)

Technological -based solutions are mostly geoengineering solutions that can help prevent or counteract the effects of climate change.

These solutions focus on Energy Supply

- Transportation



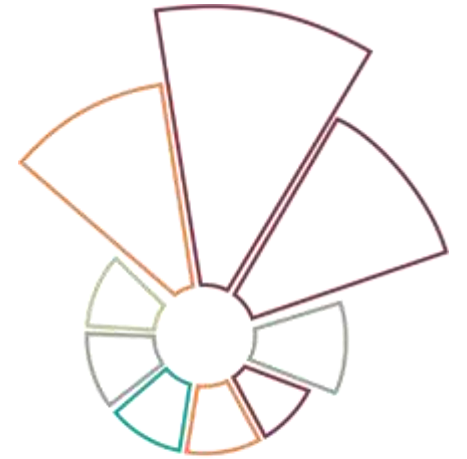
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Methodology



Figure 9: Climate Resilient Buildings(Adaptation Options, 2019)

- Building
- Forestry
- Waste management
- Agriculture
- Industry



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Research Results



Compared to technological-based solutions to climate challenges, nature-based solutions are often lower in cost, longer lasting, and have multiple synergistic benefits for a variety of sectors and political goals.



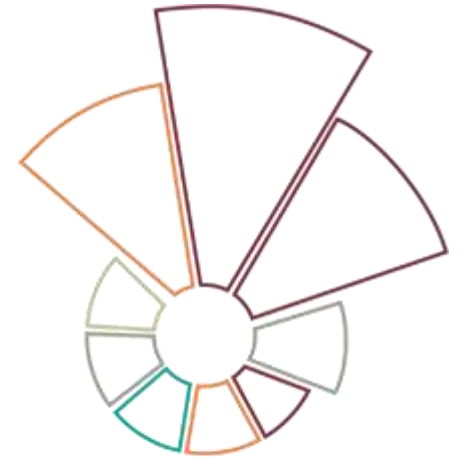
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Figure 10: Comparison of Climate Mitigation Solutions (Scales of Justice, 2019)

Recommendations

Barriers to technological based solutions to climate change:

- Capital costs
- Financing
- Dependence of markets, institutions and governments on Fossil fuels
- Public perception

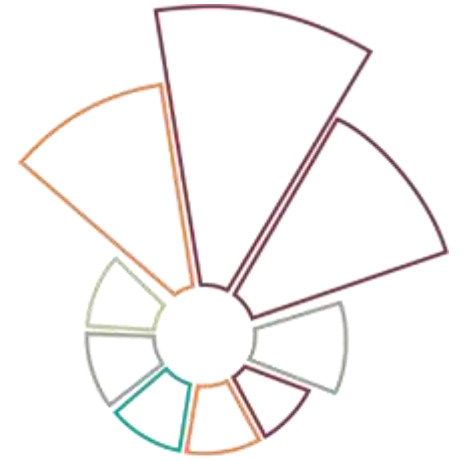


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Discussion

For the success of climate change mitigation strategies this paper recommends:

- Improved governance
- Institutional effectiveness
- Improved financial resources
- Technological innovations
- Climate resilient infrastructural development
- Changes in socio cultural attitudes
- Climate friendly behaviors and lifestyle choices



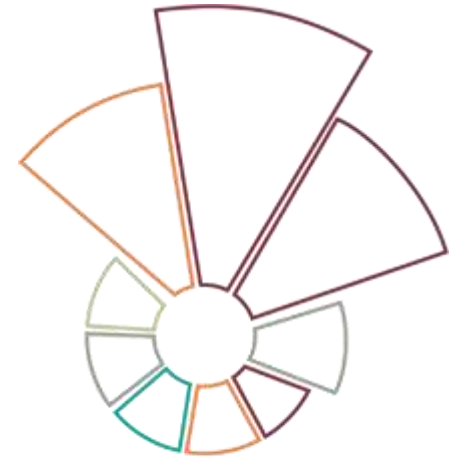
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Conclusion



Figure 11: Conclusion (Judge Hammer, 2019)

If mankind is to survive the consequences of climate change, we must mitigate its cause for the physical signs and socio-economic impacts of climate change continue to accelerate.



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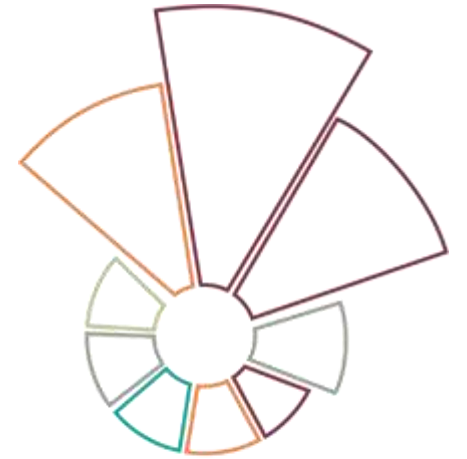
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