



Interdisciplinary Design Strategy

CLIMATE CHANGE & MIGRATION

RESEARCH REPORT



Founded in 2003, the Institute without Boundaries (IwB) is a Toronto-based studio that works toward collaborative design practice with the objectives of social, ecological and economic innovation through design research and strategy.

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GEORGE BROWN COLLEGE

Interdisciplinary Design Strategy 2021-22

Institute without Boundaries

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IWB 2021-22

The Institute without Boundaries (IWB) has a nine-month intensive postgraduate certificate program called Interdisciplinary Design Strategy (IDS) offered through the School of Design, at George Brown College in Toronto. The program teaches design strategy, research, and collaboration to students from diverse professional and academic backgrounds.

In the IDS program, students and faculty collaborate with a partner organization to understand and tackle real-world challenges. Guided by the demands of a major project partner, students learn skills, conduct research, create comprehensive proposals and present their work to stakeholders and the public. The IDS program runs in tandem with the IWB's research, special projects, and consulting work thereby giving students and partnering organizations the opportunity to learn from one another.

The Institute without Boundaries (IWB) was founded in 2003 by the School of Design at George Brown College, in consultation with Bruce Mau. The IWB is a Toronto-based academic program and studio that offers unique educational experience and professional services. The Institute focuses on collaborative design practice with the objectives of social, ecological and economic innovation through design research and strategy.

Central to the work of the IWB are real projects of public and global significance that are executed by students, faculty and industry experts either as part of the academic curriculum, research initiatives and/ or creative projects. The Institute has three divisions: an academic postgraduate certificate program called Interdisciplinary Design Strategy; a research division that supports special projects that further the IWB's objectives, and a professional projects division that offers consulting services.

As a top design training and research centre, the IWB is committed to collaborative and interdisciplinary design practice. At the Institute, we see the designer as a problem solver with the ability to affect positive change for humanity. We are a place where students, teachers, industry and community experts come together not only as creators and designers, but also as ambassadors of hope. We imagine how to live, learn, work, and play together as a global community and seek alternative development patterns and viable paths to a bright future.

DESIGNING CLIMATE READY COMMUNITIES

Overview: The 2021–22 Interdisciplinary Design Strategy cohort will embark on a year-long investigation to understand how local solutions could help solve some of the challenges associated with climate change and climate related migration. Future Ways of Living: As we transition to the 21st century, global forces such as geopolitical fragility, mass migration, income inequality, rapid urbanization, economic restructuring, precarious employment, climate change, and exponential technological innovation are challenging our existing societal constructs and transforming the ways we live. This can have both positive and negative impacts on our human experiences, and as designers we often react to these forces rather than anticipate them to achieve our collective aspirations.

Future Ways of Living is both a research method and a call to action developed to foster anticipatory design. As a research method, it aims to investigate and visualize the past and present forces shaping society, which inform an understanding of potential futures. As a call to action, it challenges us to imagine and create what ought to be, rather than what exists. This approach encourages the development of tangible design outcomes that can contribute to more responsible, humane, sustainable, democratic, and resilient futures.

In 2021-22 the Institute without Boundaries (IWB) will reimagine local solutions to help communities mitigate or adapt to the many impacts of climate change including but not limited to environmental migration. The Institute will focus on key communities in Europe, Canada, and Latin America as case studies for how grassroots action can create systemic change, revive decaying cities, diversify economic development, and cultivate new and healthier ecosystems.

EXECUTIVE SUMMARY

The following is a digital report created by the Institute Without Boundaries (IwB) - Interdisciplinary Design Strategy Students of 2021-22. This report synthesizes findings and emphasizes emergent themes from the first semester's generative research on climate change and environmental migration.

The research is a collective effort of students and faculty at the IwB. To better understand the problem space, we've enlisted subject matter experts (SMEs), advisory board members, and guest speakers for guidance and perspective in the field of design strategy.

The research team used a variety of ways to examine the problem space, beginning with a baseline study to identify pain points and how they are being treated in various regions across the globe. The students then gathered data and reflected it through visualisations that depicted the problem's scope.

Furthermore, after gaining a thorough grasp of the issues, students brainstormed over a hundred solutions to the identified difficulties with the help of experts and professionals who were invited to a panel of advisors. The discovery of solution touchpoints throughout a climate migrant's journey was one of the most important outcomes of the generative research phase.

In the second phase of the investigation, students sought people who could talk about how climate change has influenced migration patterns throughout the world. Policymakers, environmental activists, representatives from organisations working on climate action or climate migration in particular, academics and analysts, and anybody else who had worked to solve issues faced by migrants in general were among those who participated. For our next phase of research we identified a diverse group of stakeholders that were willing to provide informational interviews and further inform observations/insights made in our secondary research scan. We created a research plan and interview guide to ensure dialog in the areas of climate change, migration patterns, barriers to migration, future scenarios, justice, best practices, success metrics, culture/community and value of migrants. Participants came from a variety of professions, including policymakers, environmental campaigners, representatives from organisations working on climate action or climate migration in particular, researchers and analysts, artists and designers. Primary research is ongoing and will continue to inform the project throughout the entire year.

As an outcome, this report lays a foundation for future reference in order to aid in the solution approach. It not only identifies the gaps, but brings an opportunity lens to the existing scenario, and intends to shape plans for climate-resilient communities of the future.

In 1990, the Intergovernmental Panel on Climate Change projected that natural disasters caused by atmospheric changes to the climate would displace millions of people worldwide from their home communities. This global phenomena has come to be known as climate migration, and we have already seen it begin to take effect. With natural disasters becoming far more frequent and catastrophic, as demonstrated in 2021 alone by the wildfires in British Columbia, waves of environmental migration have already followed. However, the status of the so-called Climate Refugee remains in a space of legal ambiguity, which undermines the protections of those facing the most risk of environmental displacement. While countries are attempting to commit to climate-ready targets in the years to come, experts note that these targets will not mitigate climate effects soon enough for natural landscapes to remain sustainable and inhabitable. If this is the case, we are set to remain on track for the hundreds of millions of people projected to fall under this ambiguous category as climate migrants by 2050. With no existing supportive infrastructure or legal framework prepared to accept these massive influxes, communities will require innovative solutions through grassroots approaches. Migrants will require sustainable channels through which they have a means of support and guidance. At-risk communities will require mitigation and adaptation strategies to cope with ongoing exposure to natural disasters. And countries will have to act both to minimize their climate impacts and expand their reception of unprecedented migration flows.

PROBLEMS

Global North countries are responsible for 92% of global greenhouse gas emissions, contributing to worsening changes to the climate. In contrast, these changes are felt most by low-lying coastal nations in the Global South. Climate change is a global systemic condition, but its impacts are most directly manifested in local communities which lack the same infrastructure or resources as governing states.

People displaced by climate change effects do not qualify for refugee protections under the UN 1951 Refugee Convention. Migration is already a fraught topic in global discourses. The agency, mobility, and self-determination of who gets to migrate and where is implicated in the migration process. Once individuals have reached their migration destination, integration becomes an even larger hurdle. Newcomers to Canada reported that language barriers and the deskilling of their jobs present as two of the largest difficulties in their settlement processes.

OPPORTUNITIES

The definition of what is considered a climate migrant can be expanded upon to include different criteria along a spectrum. In a legal context, the adjustment of a definition is a key opportunity for providing the protections and aid that other migration channels have access to.

At the moment, there is little advocacy done in the realm of climate migration. While climate justice activism does exist, many environmental advocacy groups position the climate migrant at the centre of the climate crisis, conflating at-risk communities with the natural environment in the process. An opportunity for garnering public awareness around the problem of climate migration can lead to greater climate justice action.

Canada has been identified as an opportune country for the reception of climate migrant flows. Because of its vast land, lower population rates, ample resources, and already high rates of general migration reception, working within the scope of Canada provides good opportunities for addressing urgent climate migrant needs.

INSIGHTS

- ▶ The process of migration is a continuum and the journey of a climate migrant may not have an ending point.
- ▶ Understanding where climate migrants could be placed, with respect to providing dignified jobs and a place to live sustainably should be part of active engagement strategies.
- ▶ Creating a sustainable framework for migration is ground zero for creating a thriving migrant community.
- ▶ Migrants will begin to feel integrated into their community when they believe they are bringing a positive contribution to their society through agency and meaningful work.
- ▶ No one likes to leave their friends and family behind when they move, and when it comes to climate change displacement, individuals who feel compelled to return to their native land might hold on to that concept for a long time until they begin to lose links with it as time passes.
- ▶ There will be no such thing as a one-size-fits-all solution. Even if the journey of a climate migrant may be the same, the solution may vary from person to person.
- ▶ Internal migration is dependent on whether or not people's livelihood is tied to local natural resources.
- ▶ Successful integration of a migrant should ideally solve the hostile attitudes from host communities who feel they're benefiting off of a welfare state.

INTRODUCING THE TEAM



DAKSH GANDHI
Bachelor of Architecture

UNIQUE TALENT
Dancing in the rain

INDIA



KATIE DOYLE
Advanced Diploma in Graphic Design
Certificate in Digital Media Skills

UNIQUE TALENT
Picking things up with toes

CANADA



JENNA ROSE STOREY
Bachelor of Fine Arts · Integrated Media
Furniture Design

UNIQUE TALENT
Staring contest with dogs

CANADA



REBECCA ARSHAWSKY
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UNIQUE TALENT
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CANADA



JOAQUIN (MIGS) TOPACIO
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UNIQUE TALENT
Smell memory

PHILIPPINES



SHASHANK BANAWALIKAR
Bachelor of Architecture

UNIQUE TALENT
Decent standup comedian

INDIA



JOSÉ PABLO (JP) CARRILLO
Bachelor of Visual Communication
Brand & Packaging Designer

UNIQUE TALENT
Idina Menzel who?

MEXICO



ZAN DING
Bachelor of Science in Agricultural
& Environmental Sciences

UNIQUE TALENT
Keeper of things

CHINA

TEAM CHARTER

- 01 Show up for each other and bring enthusiasm, energy, and unique talent to each individual task
- 02 Remember: communication, respectful acknowledgement, kindness, humility.
- 03 Respect our diversity, backgrounds, knowledge, and skills as a team.
- 04 The team will assign and define roles, and practice inclusive decision making where applicable
- 05 Respect people's time and boundaries
- 06 Check in often to ensure everyone is grounded and present
- 07 Encourage everyone to ask for support if they feel stuck
- 08 Everyone has each other's backs, but we are all responsible for each other's work as our own. Everyone should practice accountability as such
- 09 Technology can be an asset of the group as long as we practice cohesively and support each other's tech capabilities. It can bring us together as a group, and no one should feel demotivated because of its incorporation
- 10 Meetings should be cordial, respectful, and structured. Agendas should be provided prior to the meeting. Agenda maker, note taker, and time keeper will be assigned to/volunteered for on a rotating basis (with some exceptions)



**BIG PROBLEMS.
BIG QUESTIONS.
ONE IDS.**

RESEARCH PLAN

While amounting numerous sources, the team will discuss strengths/skills/interests to determine a course of action to thematically divide content and plot an immersive research Researchers will meet throughout each phase to log points of interest, summarize discoveries, connect research trends, and discuss how they fit into primary objectives. The intent is to understand the current holistic landscape of systems, services, and policy that impact climate refugees. We will discuss overlaps and gaps in our findings to identify problems, determine niche topics, and push for more creative research.

Team members will use their unique empathetic lens in conjunction with a team vision to imagine the viability and feasibility of future scenarios to order to guide content and hone research themes.

The team will focus on local case studies and conduct informational interviews to identify the needs/values of climate refugees while building Personas from key regions to grasp a better understanding of the day-in-the-life of a climate refugee and contextualize their past, present, future. This information will help build an expansive and evolving systems matrix that we can translate vision into flexible design solutions.

Research will guide the team to build design strategies for Climate Ready Communities / Ecosystems that remain flexible and phased to adapt to continuing needs. The team will develop key terms, definitions and areas of focus to hypothesize social innovation and strategy for sustainable communities.

Through identifying problems we can envision a solution. The team will translate data to possible futures to plan adaptive design solutions.

Semester Two - Denouement (/ ,dānoo'māN/)



HOW AND FOR WHOM CAN WE BEGIN TO ADDRESS CLIMATE CHANGE?

FRAMING THE PROBLEM

Assess. Through various methodologies of secondary research, including literature reviews, data collection, and precedent scans, the assess portion of the research attempts to identify and qualify the problem space of climate migration. This section will include a general overview of the current state of climate change and climate migration both globally and in Canada, the pointed definitions and classifications of various terminology and typologies implicated in the problem space, and a presentation of the historical influences of climate migration including legislation and projections.

In 2021/22, Interdisciplinary Design Strategy students are confronting the massive challenge of Designing Climate Ready Communities. Climate change is an urgent global crisis. Countries aren't acting fast enough to mitigate climate change, which has caused unprecedented waves of displacement from uninhabitable afflicted regions. By 2050, one of climate changes' largest impacts will be accelerating influxes of climate migrants. Without the necessary infrastructure or legal protections, the world will be unable to support this influx. In the context of climate change, mitigation and adaptation become necessary approaches to confronting this wicked problem.

PRELIMINARY QUESTIONS

WHO ARE THE PEOPLE MIGRATING DUE TO CLIMATE CHANGE?
WHAT ARE THE LARGE & SMALL SCALE CONSEQUENCES OF CLIMATE CHANGE EFFECTS?
WHERE ARE THE COMMUNITIES THAT PEOPLE ARE MIGRATING FROM AND TO?
WHEN MUST DIRECT ACTION BE IMPLEMENTED TO MITIGATE THESE EFFECTS?
WHY DOES CLIMATE CHANGE CAUSE PEOPLE TO MIGRATE?
HOW MIGHT WE BOTH MITIGATE THESE EFFECTS AND SUPPORT THOSE AT THE FOREFRONT OF CLIMATE-RELATED RISK?

DEFINITIONS

In order to understand the initial problem space, these frequently used terms are clearly defined and will be expanded upon throughout the report.

CLIMATE CHANGE

One of the most significant environmental crises caused by greenhouse gas emissions; often as a consequence of human activities.

ENVIRONMENTAL MIGRATION

The movement of people to new locations prompted by sudden or gradual change in the environment that affects living conditions. It can be temporary or permanent; forced or optional; individuals, families, or entire communities

CLIMATE REFUGEES

People who are forced to migrate due to life-threatening situations caused by climate change. They cannot benefit from government-funded support and assistance because they are not recognized as actual refugees.

CLIMATE RESILIENCE

The sustained ability of a community to prepare and plan for, adapt, and recover from adverse climatic events.

TYPES OF MIGRANTS

The term “environmental migrant” can be further subdivided into classifications of those displaced by climate change. Each type of environmental migrant may have a different experience with climate change effects and their migration processes, yielding different interests and needs. The persona of each individual environmental migrant is shaped by their contextual experiences which cause tensions between why they migrate, how they migrate, and where they can migrate.

ENVIRONMENTAL EMERGENCY MIGRANT

An Environmental Emergency Migrant classifies a person who has been exposed to natural disaster and needs to relocate immediately after the event.

FORCED ENVIRONMENTAL MIGRANT

A Forced Environmental Migrant classifies a person who experiences the lessening quality of life and livelihood due to increased exposure to climate risks, initiating their need to relocate with the intent of decreasing such exposure.

ENVIRONMENTAL MOTIVATED MIGRANT

An Environmental Motivated Migrant classifies a person who experiences a slower onset exposure to climate risks, enabling them to plan and relocate over a greater amount of time, enabling greater agency and opportunity in the resettlement process.

INTERNALLY DISPLACED PERSON

An Internally Displaced Person classifies a person whose exposure to climate risk has prompted them to relocate within their country (most likely from a rural region to an urban region) with the intent of decreasing such exposure.

OTHER (NON-MIGRANT, LOCAL)

This category of “other” classifies people who have not migrated or have migrated due to non-climate related factors. This classification remains significant because climate change is still relevant to people regardless of their migration status due to its condition as a globally experienced crisis. Further, it also takes into consideration those who are unable to migrate due to particular pain points.

TYPES OF CAUSES

Solutions to approach climate migration may focus on varying root causes, according to which problem the solution is attempting to solve. For simplification purposes, these causes are divided into three major categories.

MAN-MADE HAZARDS

Man-made hazards are hazards that are directly produced by human activities. This category includes greenhouse gas emissions, landfill solid waste, watershed pollution, deforestation, and mass agriculture, all which degrade the natural environment, cause a region to become uninhabitable, and further implicate the changing of climates.

NATURAL DISASTERS

Natural disasters are a result of changing atmospheric conditions which produce large-scale devastations by and to the natural environment and its inhabitants. This category includes wildfires, flooding and sea level rise, and tropical storms, whose consequences are unpredictable and disrupt natural ecosystems and communities.

OTHER

Any cause that falls under this category concerns risks to the sociopolitical conditions of our globalized world. Examples may include, but are not limited to, mass migration, environmental racism, and economic inequities. All “other” causes are still relevant to climate migration as they demonstrate specific pain points that function within the broader system of climate change.

TYPES OF STRATEGIES

Taking a deeper dive into existing opportunities for intervention, the following four strategies categorize the ways in which organizations, institutions, and individuals can utilize areas of interest to approach gaps in the systemic problem.

SERVICE/EXPERIENCE

A service that provides ample and organized resources toward an identified problem space to ease the user’s experience in navigating such space.

GOVERNANCE

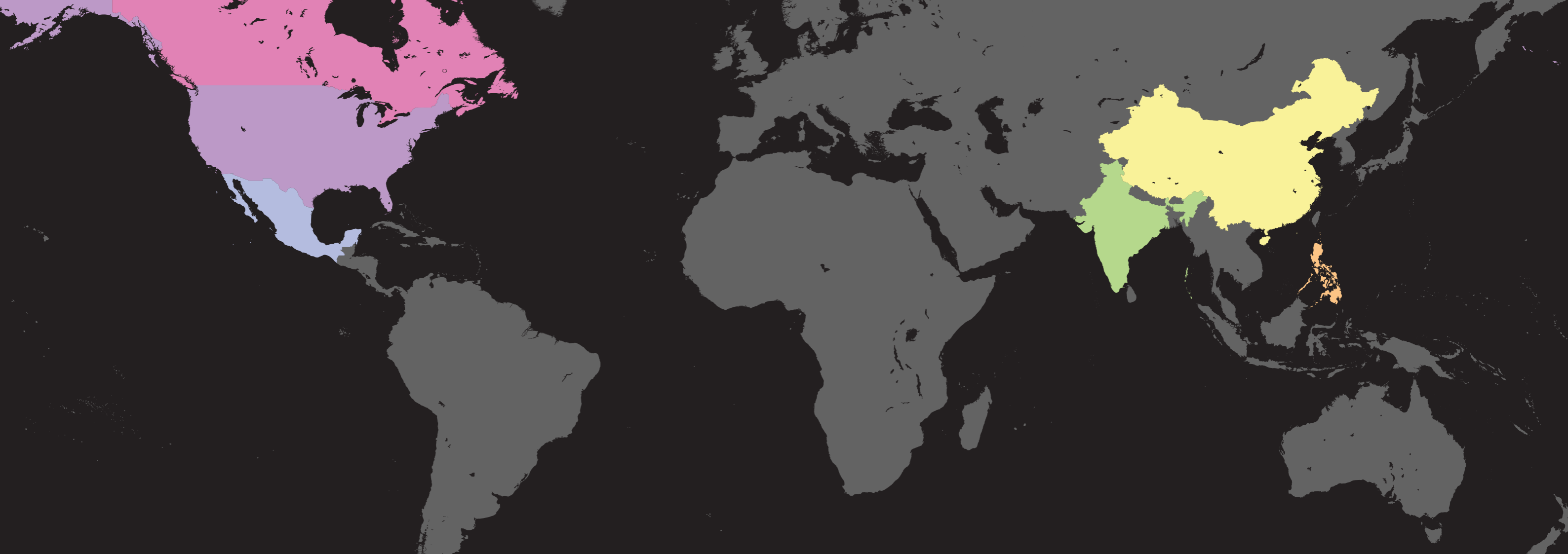
Led by an institutional or governmental organization, governance reworks existing policy frameworks to identify key opportunities for political intervention.

TECHNOLOGY

A technical or digital tool that monitors, analyzes, reports or facilitates a network. It can save time, reduce reliance on physical materials, be layered with security measures, track inefficiencies / areas for improvements and operate on a large scale.

INFRASTRUCTURE

A system of physical and organizational structures that provide the functional groundwork of a country, institution or society. Functional infrastructure has a correlation to a good quality of life and access to necessary resources.



HOW DO WE TELL THIS STORY IN TWO MINUTES?

Since the climate crisis remains a global phenomena, it is equally as relevant to analyze how different areas of the world have been contributing to and influenced by the onset of climate change effects, with environmental migration as a key impact on nations.

SIX COUNTRIES

This set of data visualizations explores impacts of climate change and commitments to natural disaster relief in the countries of Canada, the United States, Mexico, India, China, and the Philippines over the past 10 years.

These countries were selected to represent the internationally diverse team and to demonstrate a wide yet focused range of significant countries in the context of climate change.

IDENTIFYING METRICS

Countries were analyzed in terms of their CO2 emissions, frequency of natural disasters, contributions to the Central Emergency Response Fund (CERF) division of the UN, and number of internally displaced people over the last 10 years. The intent behind this exercise was to glean comparisons between how much the countries contributed to climate change and its adverse impacts on each country. Yet, the data gathered resulted in more independent statistics, rather than a consistent story of climate migration on a national scale.

GLOBAL NORTH VS. GLOBAL SOUTH

A key tension that was extracted from these data sets was the resilience of a country against climate change versus its influence on the global state of climate change. The data validated that Global North nations contribute more to climate change yet have greater resilience toward it.

INTERNAL VS. EXTERNAL MIGRATION

Climate change effects are projected to internally displaced 140 million people by the year 2050. The highest current number of internally displaced people of the six countries is China. Given that China has the highest global population and one of the highest average frequencies of natural disasters, this data stands as a reasonable validation finding. This correlation is negligible when considering other countries. For example, the U.S. was found to have the second highest frequency of natural disasters despite experiencing one of the lowest rates of IDPs. As noted above, this may be due to the greater resilience of Global North countries in the face of climate change effects. Yet, one factor that remains missing from these data sets is the statistics concerning external migration. Where are the external migrants in this picture? This is an identified gap in findings especially in a country like Canada, where the number of internally displaced persons is relatively low. To understand how to design for incoming numbers of climate migrants, it is first critical to understand the root climate-related causes that compels one to leave their home country.

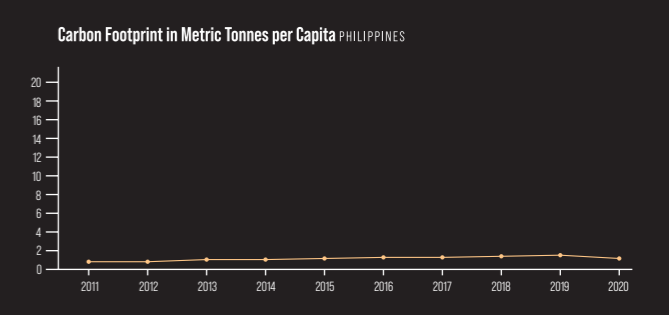
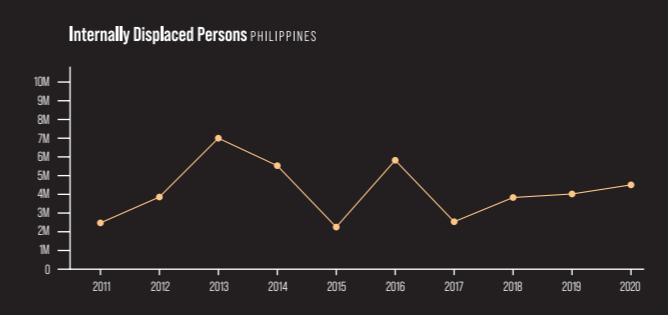
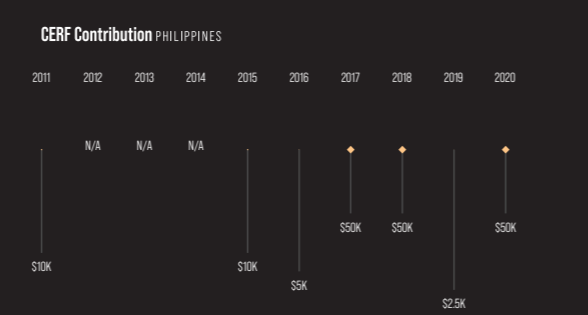
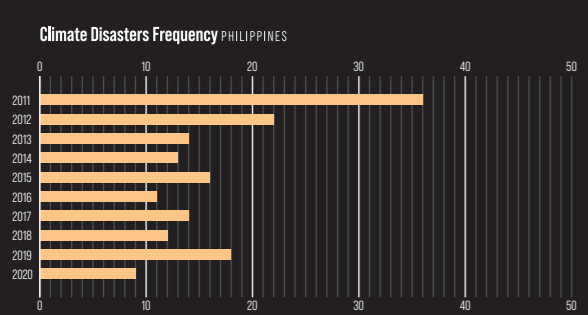
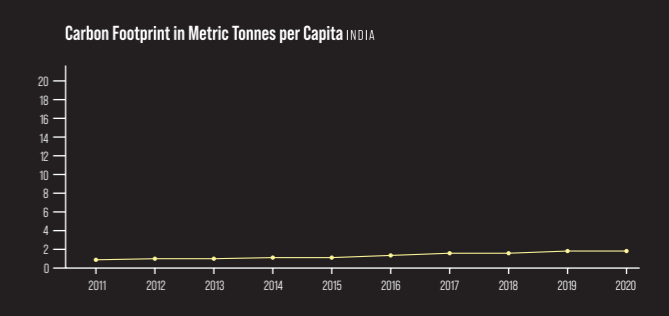
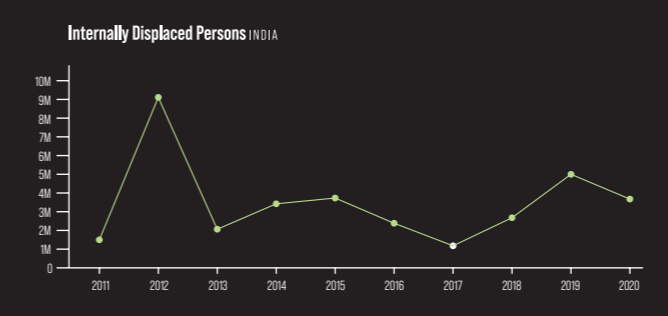
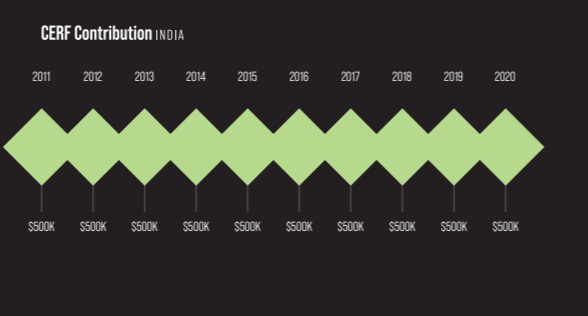
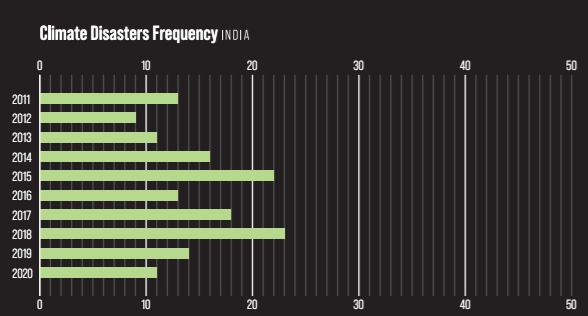
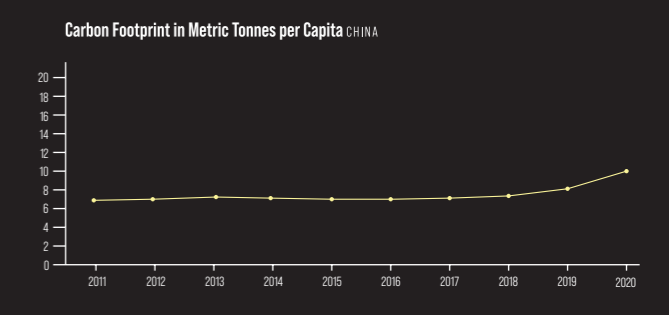
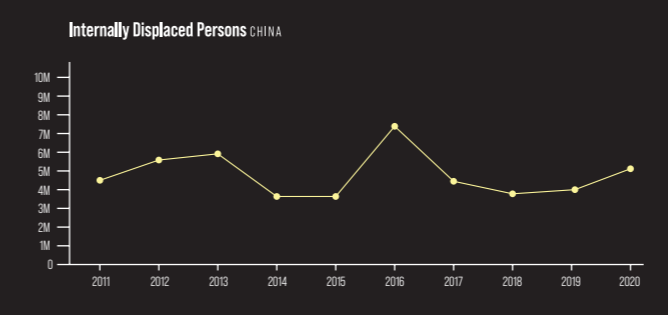
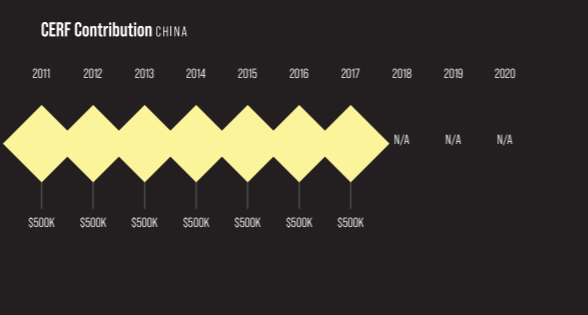
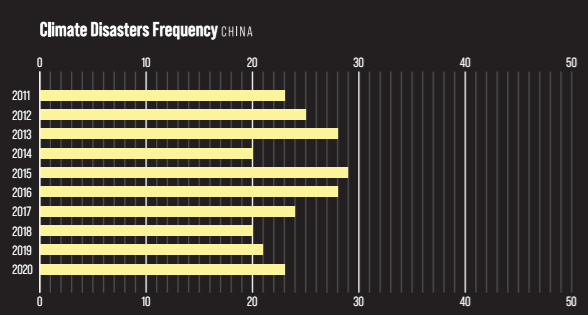
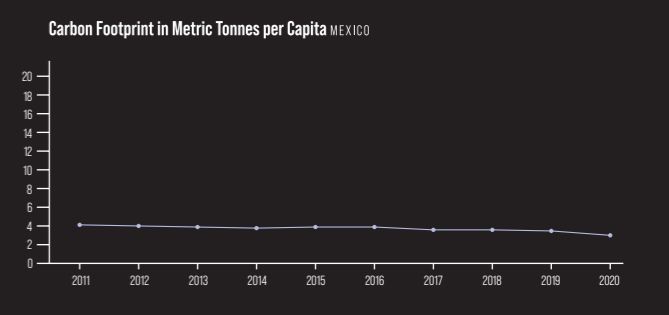
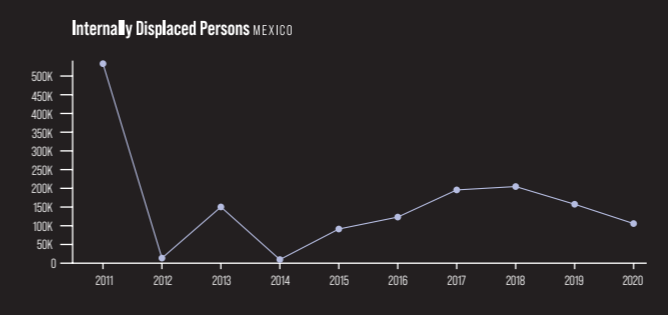
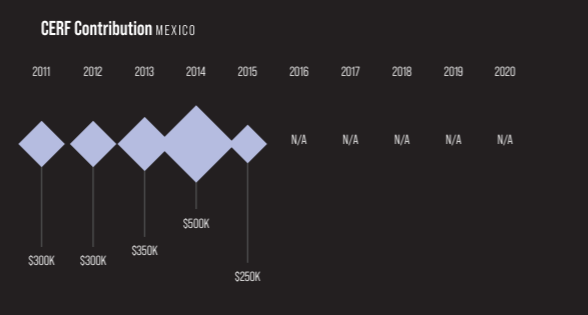
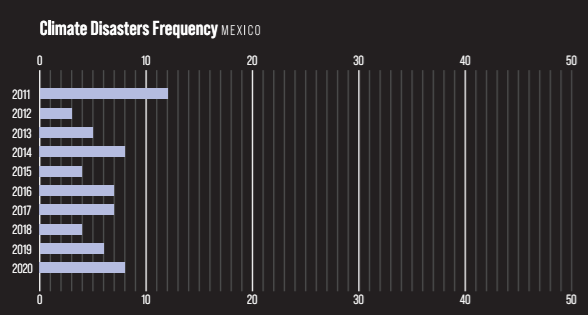
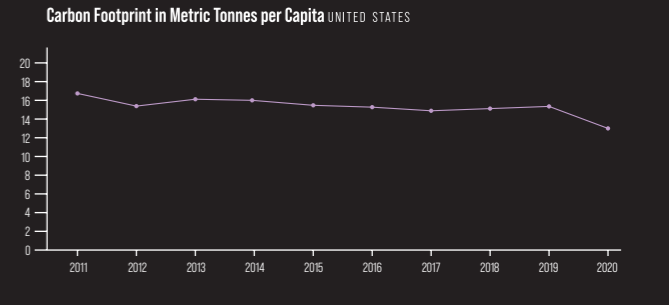
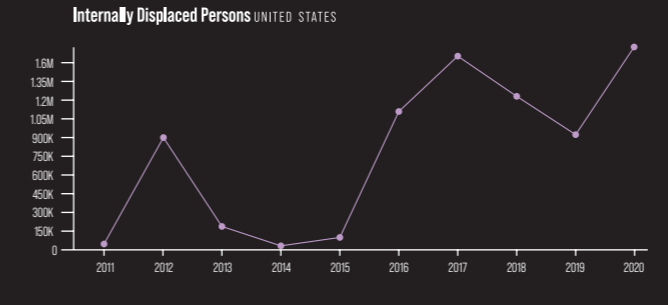
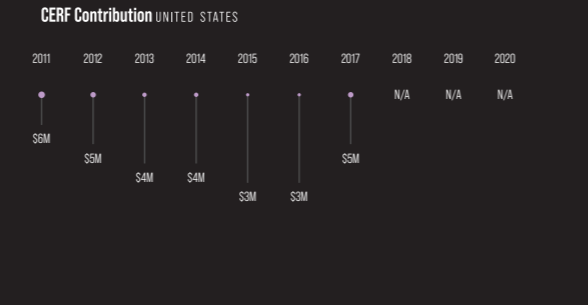
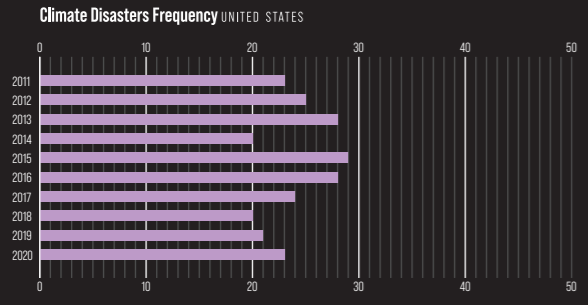
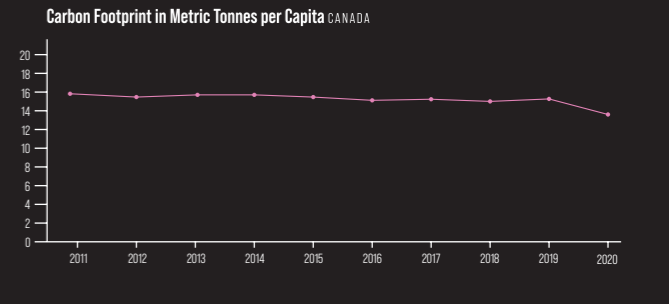
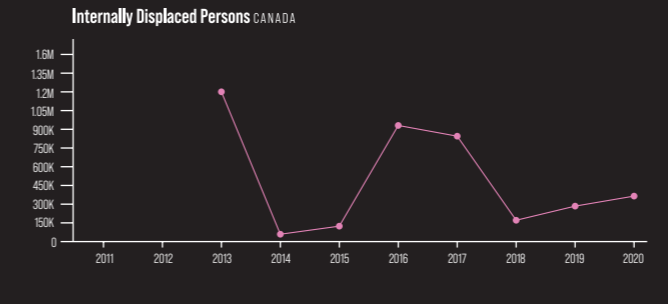
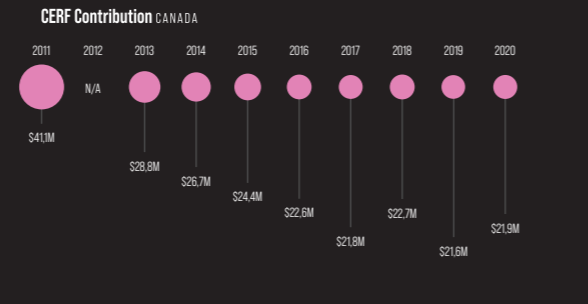
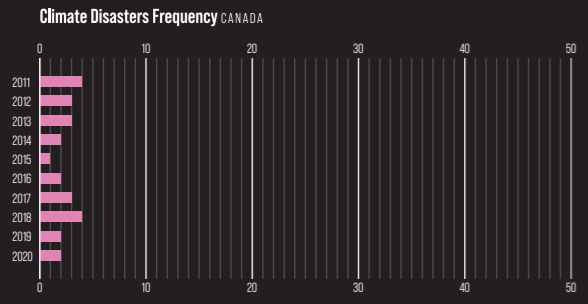
WHAT IS CANADA'S ROLE

Data shows that Canada, as of 2020, contributes the highest to global greenhouse gas emissions. In contrast, the UN reported Canada as the top CERF contributor among the 10 countries on average, despite having the lowest number of internally displaced persons and lowest frequency of natural disasters.

These statistics, while openly accessible, demonstrate the difficulty of understanding the impacts of Canada's activity abroad. Because external migration data is difficult to track and compare due to cross-border geopolitics disrupting information flows, the results of this data analysis are less reflective of real-world conditions of climate migration.

BIG DATA

The quantitative data that was extracted reduces the inherently human aspects of our research to mere numbers. While it may prove useful in visualizing geopolitical scalar dynamics, the human scale disappears from this 'portrait'.



TIMELINE

This timeline brings some context to migration, policy, and emissions in Canada over a hundred year period. Starting with the 1951 UN Refugee Convention, and ending on the projected human landscape in Canada in 2100, it is evident that forecasted migration within Canada corresponds with the global trends towards a climate crisis and loss of habitable land.

1951

2018

2020

2021

2050

2100

UN REFUGEE CONVENTION does not recognize fleeing from climate effects as reasonable claim to refugee status.

Canada signs onto the **UN GLOBAL COMPACT FOR SAFE, ORDERLY AND REGULAR MIGRATION** to develop standardized solutions for migrants motivated by climate change effects.

UNHCR decision to protect non-refoulment rights of a climate migrant from Kiribati.

21.4 MILLION people classified as environmental migrants.

By the end of the year, Canada will report on their interim emission target goals.

140 MILLION people per year will be internally displaced by climate change effects.

Canada's target year for net zero emissions.

Canada's population will triple to **100 MILLION**.

Island nations like Kiribati will be **COMPLETELY UNDERWATER**.

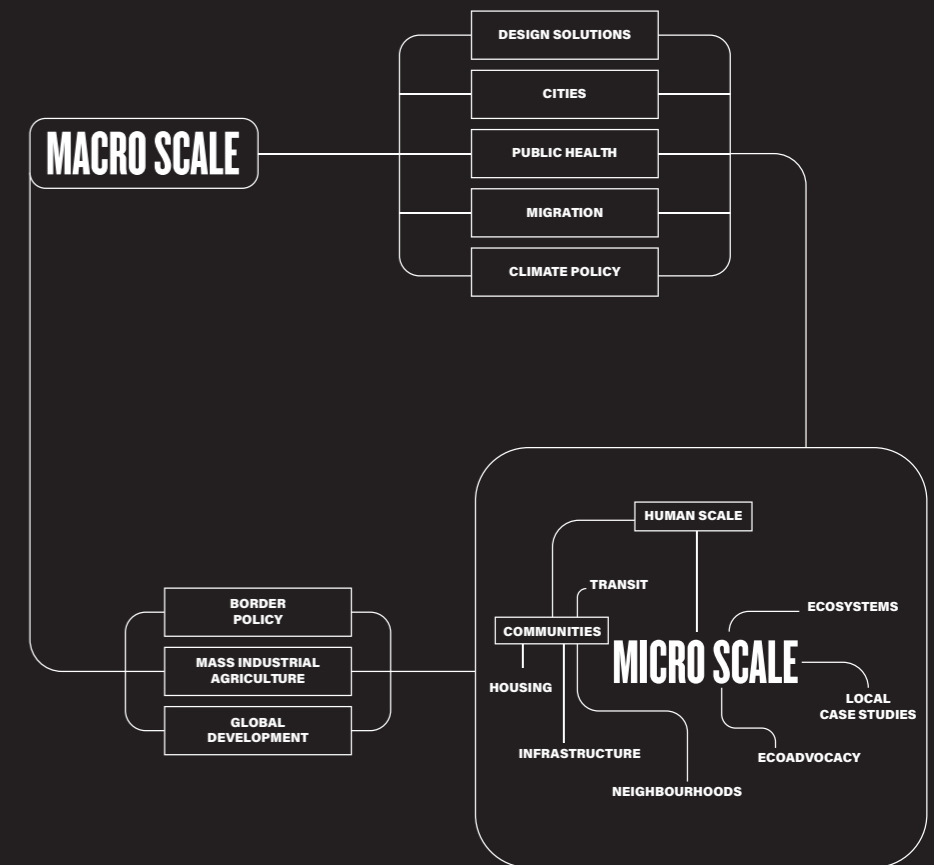
ACKNOWLEDGE

FRAME

Acknowledge. Given the overview of secondary research compiled by the team, the acknowledge portion of this document frames and communicates our own approaches to making sense of the raw data. This portion identifies observations, opportunities, and gaps revealed in the analysis and comparison of previously extracted data. This section will include preliminary observations gleaned from the problem space, systems mapping and introductory framework exercises, and an overview of case study comparative analyses to explore the different angles through which the team will interrogate the problem space.

FRAMING THE APPROACH

How and for whom might we begin to address climate migration in the context of climate change? To understand the massive problem and all of its intersecting complexities, it is important to map out the problem space into broader activities at the Macro Scale in relation to their local impacts at the Micro Scale. While climate migration exists as a colossal systemic issue, its impacts on humans and ecosystems are equally as significant. Exploring the spaces in between these two scales is where solutions can make the most meaningful impacts.



OUR DISCOVERIES

Many discoveries were made through the initial phase of data collection and secondary research. These preliminary findings reveal key areas that will segue into further exploration throughout the design research process. These include:

CATEGORIZATION

The effects of climate change can force individuals to move out of their home countries, regions, and communities. These individuals can be categorized as environmental migrants, environment displaced peoples, or climate refugees (of which there is a considerable distinction).

REFUGEE STATUS

Climate refugees are rarely recognized as legitimate refugees by major government and non-government organizations despite the fact that climate refugees commonly see their situation as a last-resort measure.

VARIABILITY OF CLIMATE CHANGE

The effects of climate change are highly variable and often inconsistent. Therefore, solutions must be able to quickly and effectively adapt to these changing conditions.

MIGRATION AS ADAPTATION

The unpredictable risks of climate change lie at the source of unpreparedness, causing greater displacement. Therefore, priority must be placed on those already affected by climate change rather than trying to mitigate its effects, which can act as a secondary interest.

INTERSECTIONALITY

Climate change is an intersectional issue; increased exposure to climate risk heightens the discrimination of already marginalized groups. Solutions must always address compounding issues of global and local discrimination, oppression, and inequity.

URGENT ACTION

We are currently acting in a window of opportunity; it is only at this very moment that we can attempt to mitigate the effects of climate change. It is critical that solutions are designed to operate in the immediate present and unpredictable future.

PUBLIC HEALTH

Environmental migration can be addressed through a lens of public health. In the context of the pandemic, we have witnessed how the migration of biodiversity to new environments can encourage healthy or unhealthy interaction with humans.

CULTURAL LOSS

The effects of climate change and environmental migration can be addressed through a lens of cultural specificity. When Indigenous groups are forced to move from their native homes it compounds colonial degradation on traditions, language, community, connection to land and the ability to pass on knowledge to future generations.

RESEARCH OBJECTIVES

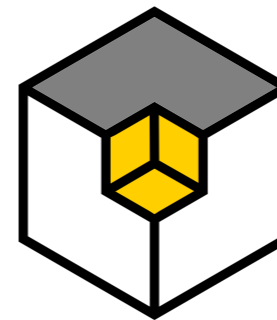
Given that climate change is already affecting people globally and their livable communities, how can communities and environments react as a collective to these changes? The following section explores how communities and ecosystems can defend and recover from climate change/environmental degradation to avoid last resort measures such as climate refugees and environmental migration, or how communities are coping with incoming migrant populations.

This section will explore the following objectives:

- ▶ Understand how governments, organizations and communities are approaching climate migration issues.
- ▶ Understand the methods people are using to tackle climate migration issues.
- ▶ Understand which climate-related issues are being addressed through design solutions.

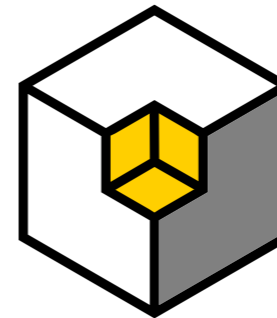
FRAMEWORK

A framework was created to assess the value of a precedent and what it adds to the fight against Climate Change. Each precedent has been qualified according to specific gain that their intended solution or outcome contributes to a broader discourse of climate action. Precedents have been categorically filtered through three main value-based classifications; Climate Justice, Climate Awareness and Climate Restoration.



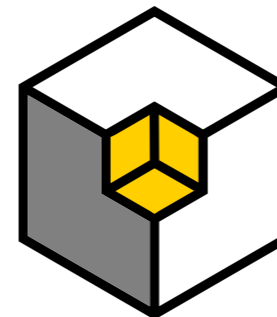
▪ CLIMATE AWARENESS

solutions attempt to alter perceptions and behaviour on the individual and systemic level that contribute to climate change.



▪ CLIMATE RESTORATION

refers to things that mitigate the degradation of the natural environment and their impact on communities.



▪ CLIMATE JUSTICE

refers to the fair treatment, involvement, and protection of all life with regard to the distribution of environmental benefits and responsibilities.

MAPPING THE PRECEDENTS

Precedents were plotted on a Google Earth repository to understand their scalar and spatial relationships in a global mapping process. While over 40 precedents were plotted and analyzed, this repository will continue to grow as we encounter more relevant cases throughout our research. Since this stage will continue to iterate during the research process, it can be used as a widely disseminated tool beyond our own project to identify current trends in solution spaces and outstanding gaps in systemic solutions. The Google Earth repository demonstrates how vast the scope of climate migration extends, and that effective solutions necessitate both top-down and bottom-up approaches to connect the macro and micro scales of a global phenomena with local impacts.

SCAN ME



a's Role

55°N

50°N

45°N

40°N

35°N

30°N

100°W

95°W

90°W

85°W

80°W

55°W

60°W

65°W

70°W

Interdisciplinary Design Strategy 2022

Soul Fire Farm

Spaulding Rehabilitation Hospital Boston

Occupy Sandy

Rebuild By Design: Hurricane Sandy

The East Side Coastal Resiliency, East River Park

Field Ready

Greensburg Sustainable Comprehensive Plan

CASE STUDIES

The following case studies are 3 selected precedents that effectively address each pillar of climate awareness, climate justice, and climate restoration. When compounded, the 3 solutions reveal that it is within the overlap of our pillars that a systemic solution will address all pain points of the system.



MOVING STORIES · CLIMATE AWARENESS

2013, Global

CAUSE Man-made Hazards

STAKEHOLDERS Forced Environmental Migrants, Emergency Environmental Migrants, Environmental Motivated Migrants, Internally Displaced Persons

STRATEGIES Service/Experience, Technology

SUMMARY Blog series on climatemigration.org about interviews with people displaced by climate. These stories are the experiences of people whose communities were affected by climate change. Some migrate from their lands and some fight to preserve it.



CARTERETS ISLAND RELOCATION PROJECT · CLIMATE JUSTICE

2009, Papua New Guinea

CAUSE Natural Disasters

STAKEHOLDERS Forced Environmental Migrants, Emergency Environmental Migrants

STRATEGIES Governance, Service/Experience

SUMMARY A planned relocation to resettle Carterets Islanders while maintaining cultural identity and living sustainably and self sufficiently.



SRI LANKA MANGROVE RESTORATION PROJECT · CLIMATE RESTORATION

2015, Sri Lanka

CAUSE Natural Disasters

STAKEHOLDERS Other

STRATEGIES Infrastructure

SUMMARY The project will protect all 21,782 acres of Sri Lanka's existing mangrove forests by providing alternative job training and microloans to impoverished women who live in small communities adjacent to the nation's mangrove forests.

OBSERVATIONS

After scanning existing precedents at different intersections, we developed a set of observations which will be used to inform our research of gaps and potential opportunities in the solution space.

SCOPE

Climate Change is not defined by sovereign nations and yet action/policy often end at political boundaries. The scope must remain adaptable to conclusively approach climate change and climate migration issues in an equitable manner. Effective strategy will operate both within these boundaries and in the space between them.

MITIGATION AND ADAPTATION

Climate adaptation strategies can inform mitigation strategies and vice versa. Effective climate solutions must address both short-term adaptation and long-term mitigation strategies as implicitly linked on a time-based spectrum of confronting climate change and environmental migration.

CLIMATE AWARENESS

Climate awareness plays a fundamental and initial role in reshaping perceptions and behaviours regarding environmental practices. Awareness inherently informs subsequent action taken at an individual or group level.

ACTION

Actionable strategy that goes beyond initial governance measures is essential in providing effective solutions to systems-level problems. The process of implementing such action can shift power back to communities and ecosystems in garnering climate action.

GRASSROOTS APPROACH

A grassroots approach to climate solutions enlists communities/ecosystems at the forefront of climate action and direct impact. Meaningful results put power back into the hands of the individual, combating climate anxiety and apathy that leads to inaction.

ASSESS • ACKNOWLEDGE • EVOLVE

CHARTER

RETIRE

BACKGROUND

Charette is a one week intensive, interdisciplinary workshop. Students are given a design brief and are expected to flesh out solutions—from ideation to strategy and planning to prototype—within the week. Advisors from various related fields join faculty to consult on the students' work throughout the week, leading to a final presentation of the best solutions to the given brief.

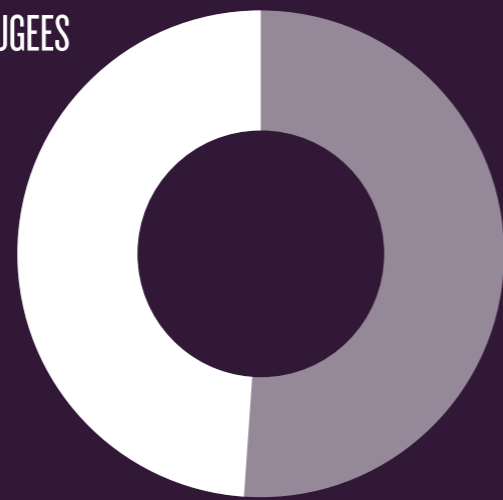
CONTEXT

Climate change is an urgent crisis. Countries aren't acting fast enough to mitigate climate change, which catalyzes greater displacement.

By 2050, one of climate changes' largest impacts on Canada will be accelerating influxes of climate migrants. Without the necessary infrastructure or legal protections, Canada will be unable to support this influx.

In the context of climate change, mitigation and adaptation become necessary approaches to confronting our wicked problem. Migration must be considered a realistic adaptation strategy for the millions of people environmentally displaced worldwide.

20.5 M
GENERAL REFUGEES
48.9%



21.4 M
ENVIRONMENTAL
MIGRANTS
51.1%

The United Nations High Commissioner for Refugees is the international institution responsible for refugee aid and support. While the UNHCR supports 20.5 million people that qualify as refugees, they categorize 21.4 million people that don't fall under their jurisdiction as environmental migrants. They do not qualify for the same legal protections or support that refugees from other circumstances do.

Can Canada act as a springboard for addressing urgent concerns regarding climate change & migration?

FUTURE SCENARIOS

- Canada is warming at a rate twice as fast as other global averages.
- Canada is ranked fourth in the world for accepting migrants and refugees.
- Canada has an abundance of land and natural resources to house increasing populations. 20% of the world's freshwater is found in Canada.
- Climate Change is an intersectional issue. Those at risk of environmental displacement often experience frontline climate effects in underserved and marginalized communities.

By scoping our solutions in Canada, but allowing them to extend to global applications, we can address the both ends of the spectrum of climate change: its effects to those affected.

OPPORTUNITIES IN A WARMER CANADA

According to a recent research by Moody's, by the middle of the century, Canada's GDP might expand by up to 0.3 percent, or \$9 billion each year. Expanded cropland, higher economic production, and a reduction in cold-related fatalities are all possible advantages [of climate change], according to other research. Canada is likely to perform better than other nations. However, it is not true to suggest that climate change will help the country. Given that the country is one of the most preferred spots for immigrants, it's critical to look at the larger picture to understand what these studies are missing.

WHY DO PEOPLE MOVE TO CANADA?

- Abundance of preserved natural environments.
- Emerging economic opportunities.
- Less policy barriers to entry than the USA.
- Support from the existing multicultural migrant network.

WICKED QUESTION

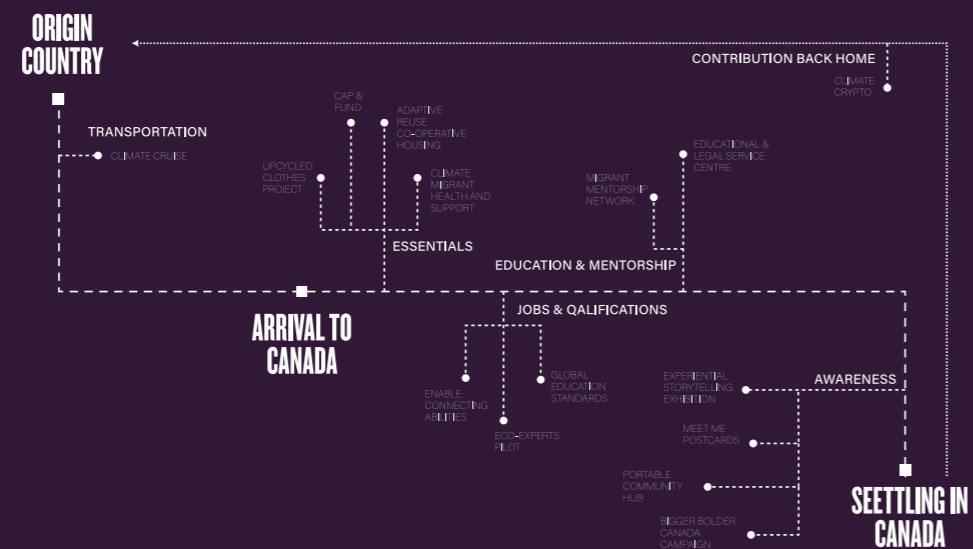
How can communities address the impacts of climate change by 2050?

GOALS

Before ideating various solutions, a set of driving principles was developed that would guide each new concept. Ideally solutions are;

- collaborative in nature
- actively addressing common barriers migrants face
- pushing to humanize the often isolating process of migration
- work across all types of migrants
- contribute to resilience at a human, community, and environmental level
- scalable and adaptable in time and changing environmental conditions

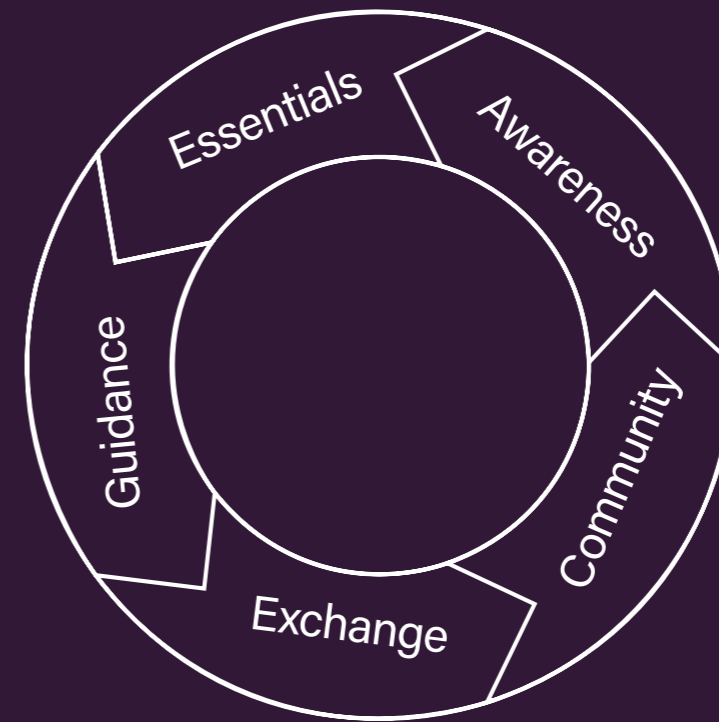
USER JOURNEY MAP (CHARRETTE VERSION)



SOLUTIONS FRAMEWORK

What do climate migrants need when they arrive in Canada? This system loop demonstrates how different pain points of migration can be addressed. The loop structure represents how all of these factors build off one another; a system of solutions will continue to build stronger resilience among climate-risk populations who have not yet migrated, who have just arrived in Canada, and who have settled in Canada over a long period of time.

To contextualize our 15 solutions presented at the 2021 IDS Fall Charette, we provided five data informed situations that climate migrants face during their journeys. For each situation, we identified key opportunities for solutions that focus on Essentials, Awareness, Community, Exchange, and Guidance as goal-oriented pillars.



IDEATION

INTRODUCTION

The following ideas represent the five pillars of the solutions framework. Each solution attempts to instill values of collaboration, circularity, scalability, a right to repair, and the unique skill sets migrants bring to local communities in Canada. These solutions are iterative in nature; meaning, they were produced during the fast-paced ideation stage of Charrette Week and will be expanded upon given new research and findings as the year-long project continues. Each solution was approached using an initial “How Might We” question to understand the context of the problem to then identify opportunities within that space. Potential partnerships with existing programs and organizations were also leveraged to support the feasibility of each solution.

SITUATION 1

Canada's migration streams filter out skills and experiences, which causes a large phenomenon of deskilled migrants in Canada. 46% of Canadian immigrants reported the largest difficulty is finding a job.

EXCHANGE: ECO EXPERTS



How might we design a suitable stream of migration for climate migrants so that their skills are valued and instill benefit in Canada's local green spaces?

Eco-Experts provides climate migrants a unique channel through which they can securely migrate to Canada without redefining the legal framework. Utilizing Canada's Public Policy of Resettlement through private sponsorship as precedent, a pilot program is designed to integrate climate migrants as specific-field experts, sharing their cultural knowledge on improving local ecosystems and creating wider engagement with local communities. Climate Migrants can apply for the pilot program and be matched with an Urban Parks placement as an expert-in-residence. Partnerships with Good Work.ca and Work in Culture will allow the migrant to have the option to select their preferred medium for producing work, whether educational or artistic. The work and events that the expert-in-residence produces will bolster public engagement with the local park, creating further opportunities for strengthening community ties and public awareness.

PRECEDENTS AND PARTNERSHIPS

- Gibraltar Point Artist Residency
- Evergreen Elder-in-Residence Program
- Goodwork.ca
- Work in Culture
- Government of Canada Immigration Pilot Program
- Unreasonable Group

SITUATION 2

When migrants move to Canada, they often lack the infrastructure to build communities. Because climate refugees are not recognized in Canada, they are not given the proper resources for basic needs. Things like transportation and housing are increasingly inaccessible for climate migrants. In terms of adapting to new environments, 14.6% of new migrants in Canada report getting used to weather as a top difficulty.

ESSENTIALS: ADAPTIVE REUSE HOUSING



How might we provide housing to climate migrants that don't have the means to procure housing in a sustainable way that also provides community?

The aim of the co-operative housing is to provide subsidized housing to those that need it in an evolutionary way so that rent is geared to income. Even when there is no income they will be accommodated and those with higher incomes would be encouraged to stay to offset those that don't have income. The reason for this being co-operative housing is because it is adaptable to income and it creates a sense of community and ownership that can easily be lost when one loses their home to climate change. The migrants would share responsibility over the residences. Co-operative housing also has the benefit of not having a landlord, which can be a problem faced by people not familiar with the housing market as they can more easily fall into an exploitative housing situation without the knowledge of the support for tenants. Collective decisions will be made by an elected board of co-op owners. The reason it is an adaptive reuse project is that these projects, while often more costly, can be more sustainable. Also, this solution would aim to distribute migrants to areas in Canada that had needs for more people and infrastructure in need of updating. In this way the arriving migrants can help bolster the specific, smaller communities as well.

PRECEDENTS AND PARTNERSHIPS

Campus Co-operative Residences · Toronto Community Housing (TCHC)
Hariri Pontarini Architects · ERA Architects

ADDITIONAL COMMENTARY

It must be considered that the cost of the adaptive reuse approach is often more expensive and not always more sustainable than building from scratch. Some residents might be unwilling to pay while others pay nothing, creating animosity. Co-operative housing might not be the most suitable place for everyone and is not guaranteed to foster a sense of community. This solution can be pushed further with more research in these fields.

SITUATION 3

New migrants in Canada often experience isolation while transitioning, sometimes as a result of difficulties acculturating or speaking English or French. 26% of migrants in Canada report their greatest difficulty is adopting a new language.

GUIDANCE: EDUCATION AND LEGAL SERVICES



How might we create an interactive and educational space for migrants to effectively adjust to a new environment while retaining their cultural practices?

We envision a space to help new climate migrants efficiently navigate the resettlement process, receive training to support themselves, and build networks with other migrants. By partnering with COSTI Immigrant Services and ISSofBC, this space will assist with the technical adjustments climate migrants face when moving to Canada, such as learning English and transferring skills. Partnerships with UofT's Community Legal Clinics for Immigration will offer consultations in the space so that climate migrants effectively have a "one-stop-shop" for all logistical resettling needs. However, a main point of this school will be to offer community collaboration and retain cultural diversity. Climate migrants will have the opportunity to host workshops and cooking classes to share their culture, and the impacts climate change has had on it, with the community of migrants and non migrants. This space will support climate migrants in their process while also emphasizing cultural traditions and diversity.

PRECEDENTS AND PARTNERSHIPS

COSTI Immigrant Services · ISSofBC · Evergreen Refugee Programming
UofT's Community Legal Clinics for Immigration · Fundación Monge Costa Rica

AWARENESS: BIGGER BOLDER CANADA



How might we demonstrate the value that climate migration could bring to Canada so civilians can encourage their politicians to create more inclusive legislation?

Bigger Bolder Canada is an ad campaign that utilizes social media and print to target Canadian citizens. The campaign message would be that climate refugees are not currently accepted by Canada and Canada is in need of a higher population to properly thrive. According to the Century Initiative, in order to get Canada where it wants to be in the future, in regards to the economy, the climate, and culture, Canada needs 100 million people by 2100. The campaign would pair with the Century Initiative who has done large amounts of supporting research to provide factual data to Canadians that backs up the idea that more migrants are needed. Canada has much lower levels of immigration compared to the past so there is a precedent for higher levels of immigration. The campaign would highlight the value migrants add to Canada like being more likely to start their own business or contributing taxes. As outlined in other solutions, climate migrants can bring specific knowledge that can help Canada become a more climate effective society.

PRECEDENTS AND PARTNERSHIPS

Century Initiative · Halo · Rally Rally · Intent

ADDITIONAL COMMENTARY

The Bigger Bolder Canada campaign would benefit from strategizing and further analysis. Aspects that require research if we are to continue with this project include audience, mediums, budget, and concise objectives, messaging and user feedback.

SITUATION 4

We are continuously presented with distressing information on the severity of climate change through death-tolls and lands lost. Climate migration can often be an isolating experience, where one loses a sense of community and culture once they integrate into a destination. Hostility toward migrants is exacerbated when looking at climate migrants and refugees specifically, especially given the stigma surrounding the term refugee in addition to their lack of legal recognition.

COMMUNITY: COMMUNITY H.U.B. (HUMAN UTILITY BUGGY)



How might we encourage participatory activities and sharing of distinct cultures in a new and existing environment so that migrants can connect to a larger community?

Starting life in a new country can be isolating. Often migrants leave behind support systems and cultural institutions that foster creativity and a sense of personal value. As population grows and space becomes limited, existing cultural institutions might reach capacity; where will we look in order to grow and thrive? New and established communities will have to develop adaptable strategies to promote wellbeing while working within a sustainable framework. This solution utilizes our driving principles of collaboration, circular economy, and right-to-repair as we must ensure our designs remain intersectional at a human, geographical and temporal level. These trailers will endure as they are detached from combustible engine technology and will be robust in nature, with considerations made for harsh terrain, extreme weather, and seasonal changes. They will be designed to be disassembled and reassembled for malleable purpose, and consist of repairable parts for continuous use. By addressing design solutions through functionality, temporality and modularity we can ensure we are creating solutions that further Canada's resilience in a changing world.

PRECEDENTS AND PARTNERSHIPS

Portable Theatre Workshop Company (POTOWOCA) · Move Mobility · Stackt Market Colorado Campworks Nomadic System One · Dr. Vagón


ASSESS • ACKNOWLEDGE • EVOLVE

CHARTER

REITERATE

CONCLUSION

After a presentation to a panel of experts, each solution was interrogated to understand its creativity, feasibility and success at addressing user needs. These solutions are not final; they require further research and will go through multiple iterations after value assessments, prototyping, and an exploration of unintended consequences. Each solution will be further developed to explore how they may address both climate change, migration, and, at the centre of the two, climate migration. The state of climate change and migration is constantly in flux; therefore, these solutions must be adaptable and flexible with changing conditions.



Evolve. The final section of this document uses the previous two sections to elaborate on framing potential solution spaces. Now that data has been extracted and analyzed, the question remains: where do we go from here? The evolve section communicates what we as a team have taken away from our research over these past few months; our outputs, our insights. This section will dig deeper into challenging previously accepted notions about the problem space, utilizing expert consultancy to understand where the opportunities lie. The evolve portion of the document will include an outline of the solution space as informed by subject matter expert guidance, a user journey map that identifies all key touchpoints and pain points of a climate migrant informed by the aggregate research conducted throughout the semester, and an overview of insights formed by the team that demonstrate our key take-aways from the entire research process. As this section is labelled evolve, it is fitting that it both describes our evolution as a research team and a nod to the evolving nature of the research that we will conduct in the next phase.

**OUTPUTS
OUTCOMES**

PRIMARY RESEARCH INTRODUCTION

For our next phase of generative research we identified a diverse group of stakeholders that were willing to provide informational interviews and further inform observations/insights made in our secondary research scan. We created a research plan and interview guide to ensure dialog in the areas of climate change, migration patterns, barriers to migration, future scenarios, justice, best practices, success metrics, culture / community and value of migrants. Participants came from a variety of professions, including policy-makers, environmental campaigners, representatives from organisations working on climate action or climate migration in particular, researchers and analysts, artists and designers. Primary research is ongoing and will continue to inform the project throughout the entire year.

INCLUSION CRITERIA

Subject Matter Experts (SMEs) with expertise working in climate crisis, catastrophic disasters, migration, sustainable design, and relevant outreach programs.

Due to a lack of data and the vulnerable position that many migrants find themselves in, we will not be seeking out climate migrants for interviews at this stage of the research. Although we understand that using SMEs to understand our user has an inherent bias, we expect that this will be sufficient to move our research forward with integrity. If we find a suitable participant who is also a migrant, the interview questions will be altered to take into account the sensitivity of the situation.

RESEARCH QUESTION

What can subject matter experts' work and experience inform us about the problems that climate migrants face, and what strategies and approaches may be used to address them?

OBJECTIVES

- Understand how SMEs/NGOs/Community Groups/ Government approach, mitigate & address climate migration
- Understand a migrant journey, mindset, pain points, etc.
- Understand the Threats & Risks Contributing to Climate Migration
- Understand the current and future patterns of migration
- Look for gaps and determine actions required to improve the current state

OBSERVATIONS

CURRENT STATE

SITUATION

Climate change adds another layer of stress to a society that is already under strain. Climate migration is considered as a negative dynamic that produces loss in both sending and receiving nations without suitable regulatory structures. Migrants secretly live in a new place with no rights or responsibilities. Among all types of movements, internal migration is most prevalent since people do not really want to leave their homes. Because these people are not able to actively participate in decision-making, they must relocate to government-designated places. Displaced people, especially Indigenous communities, might lose attachment to their culturally-specific sites and practices during continuous migration.

OPPORTUNITIES

Legal, regular migration pathways can provide relevant protection for climate migrants to respect their rights, dignity and obligations. Proactive planning and empowerment allow climate migrants to determine their own future as well as preserve their own heritage and culture.

FUTURE TREND

RATIFICATION

CLIMATE (IN)JUSTICE

EMOTION/VALUE

“It’s more like a continuum than criteria that you can categorize people into”

- Robert McLeman

“It doesn’t benefit the receiving country to have a whole bunch of people living clandestinely within their borders without rights or obligations that go with being a legal resident”

- Robert McLeman

“Things we need today are things that climate migrants will need tomorrow. How can we expand the support system?”

- Hima Batavia

SITUATION

The effects of climate change are irreversible. Even if emissions of greenhouse gases are reduced to near zero over the coming decades, a growing amount of people will be adversely impacted and will start to migrate. The abundance of information on climate migration may raise public awareness of the seriousness of the problem. Nobody would be able to keep out of it. Collective action among the entire society will play a significant role to ease the movement and protect migrants.

OPPORTUNITIES

People share experiences, stories and best practices and allow us to learn from these in order to develop suitable frameworks locally and globally. Prepare ahead of time to ensure that enough measures are accessible in the case of an emergency

SITUATION

Migration is a continuous process probably driven by multiple reasons, therefore it is difficult to isolate environmental/climatic causes, in particular from political, social, economic or humanitarian ones. Even though the migration is climate-driven, the actual migration itself would be put into economic migration or labour migration due to lack of internationally recognized forms.

OPPORTUNITIES

The least degree of legal protection - non performance - prevents receiving countries from repatriating people who are in danger of losing their lives due to climate-relevant events back to their home countries. A specialised agency needs to be established to address environmental mobility at all levels, whether federally or provincially. This body serves as an umbrella that can connect all of the disparate departments that operate independently

SITUATION

The current refugee system is already at capacity. Prolonged periods of waiting placed migrants’ lives at an exacerbating risk. The already-existing backlash towards migrants may worsen since they are considered as taking advantage of the welfare system and not contributing. Indigenous peoples around the world, who are on the front lines of climate change, have undergone repeated movement within the border, yet have frequently relocated to sub-par land because of uneven distribution of resources.

OPPORTUNITIES

Advocacy and story framing can be an effective means to raise the public awareness and empathy for climate migrants - all of us are in the same boat. Allow climate migrants to showcase their unique skills and leverage their valuable experience and knowledge associated with climate migration

SITUATION

Climate change is a global experience of pain and loss of our natural environments and ecosystems. For all of us, the natural environment represents a home suitable for the survival and thriving of humanity. For climate migrants, this grief is manifested in the front-line experiences of climate effects that displace them from their homes and communities. When they migrate to a new country, they bring with them the emotional burdens related to losing a home and new emotional trauma related to integrating to an unfamiliar (sometimes unaccepting) environment. In this sense, non-migrants and migrants alike experience this loss at different scales. While the loss of a non-migrant’s home may not be as imminent, and therefore might not manifest itself in the same ways, this grief exists on the same spectrum when all people lose their attachment to home environments due to catastrophic changes.

OPPORTUNITIES

Respect migrants’ dignity and value by utilising their knowledge and skill sets to improve the receiving community. As humans all experience different forms of grief at intersections on a spectrum, emotional support structures formed by community relationships will be a key factor in managing this grief together as global citizens. The loss of a natural environment should emotionally affect everyone, everywhere. Learning from experiencing this loss will help connect people back to their natural environments, where this newfound empathy for the land will propel collective action.

USER JOURNEY MAP

Throughout our research, we have uncovered barriers that climate migrants experience during the migration process. Informational interviews with Subject Matter Experts revealed many of these pain points and have reminded us of the importance of community and dignity as core values in this journey.

We have identified six stages in the journey of a climate migrant;

INCIDENT

Either a slow-burning process wherein communities degrade and become unlivable or an immediate incident such as a natural disaster causes forced migration.

RESOURCES

Consider what channels are available in order to address their specific relocation needs.

SECURITY

Assessment of the target settlement in terms of livability.

PROTECTION

Assessment of individual safety before, during and after migration.

INTEGRATION

Being able to live a dignified life in their new community.

COMMUNITY

Opportunity to expand the support system and make social / cultural connections. As the climate changes, more worldwide incidents will occur.

SUMMARY

By exploring pain points and gain points we can reveal patterns that could be useful moving into evaluative research. Firstly, we noticed clusters of pain points in the early phases of migration, particularly in the process of pre-departure; this possibly points to a lack of channels to assist climate migrants. Secondly, we observe a cluster of gain points in the latter part of the journey. Is this an opportunity? Can these gains transverse the rest of the map?

Work on this journey map is ongoing; development will continue as we uncover more pain points and opportunities over the course of the year.

STAGES



STEPS

	CLIMATE CHANGE IS MAKING IT NECESSARY FOR ME TO MIGRATE.	WHAT ARE POSSIBLE MIGRATION STREAMS AVAILABLE TO ME?	WILL MY NEW COUNTRY HAVE ALL MY NECESSITIES?	I SHOULD CREATE A PLAN TO ENSURE SAFETY IN THE DESTINATION COUNTRY.	NOW THAT I'VE ARRIVED, WHAT ARE THE PRIORITIES THAT WILL HELP TRANSFORM THIS PLACE INTO A HOME?	LIFE IS NOW SEEMS STABLE. BUT HOW CAN ELSE CAN I MAKE IT BETTER?
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NEEDS

	<ul style="list-style-type: none"> Identifying the next steps to start migrate. 	<ul style="list-style-type: none"> Meeting the eligibility criteria. Transportation Acquisition of documents (IELTS, Diplomas, Passports, IDs, Credentials) 	<ul style="list-style-type: none"> Safety Temporary shelters 	<ul style="list-style-type: none"> Creating Normalcy Kinship Emotional support systems Affordable housing 	<ul style="list-style-type: none"> Access to internet Keeping connection to home Adding value/contributing to society 	<ul style="list-style-type: none"> Ability to find dignified work. Finding place in community. Self sustainable. Building a better future for the next generation.
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PAIN POINTS

	<ul style="list-style-type: none"> Emotional Grief of losing a home/environment 	<ul style="list-style-type: none"> No channels for climate migrants specifically. Volume of applicants/long waitlists. Capability of the host country. Social and economic barriers. Having a viable method of transportation. NIMBY. Finances to migrate. Migrating processes can be very expensive. Especially for those who've lost everything Process acquisition of documents (IELTS, Diplomas, Passports, IDs, Credentials). 	<ul style="list-style-type: none"> What is the guarantee that this the best move. Access to information. 	<ul style="list-style-type: none"> Uncertainty leads to anxiety. Trauma. 	<ul style="list-style-type: none"> Undignified jobs tied to identity. Cultural attitudes towards migrants. Willingness of host countries to welcome migrants. Acceptance by host communities. Family experiences continued risks. Emotional grief of losing a home/environment. 	<ul style="list-style-type: none"> Supporting family and communities back home.
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GAIN POINTS

	<ul style="list-style-type: none"> First aid and first responders. A new location to establish career, quality of life, etc. 		<ul style="list-style-type: none"> Redefining what community is. 	<ul style="list-style-type: none"> Scale of community (twitter example). 	<ul style="list-style-type: none"> Need for tech. Existence of new communities. Ethic of care. So much of the migration process upon arrival depends on access to internet. Emotional support structures in place that keep them connected to home. 	<ul style="list-style-type: none"> Food, Thermal Energy, Fertilization (Aquaponics). Resource sharing & support. Localized Solution
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INSIGHTS

THE PROCESS OF MIGRATION IS A CONTINUUM AND THE JOURNEY OF A CLIMATE MIGRANT MAY NOT HAVE AN ENDING POINT.

UNDERSTANDING WHERE CLIMATE MIGRANTS COULD BE PLACED, WITH RESPECT TO PROVIDING DIGNIFIED JOBS AND A PLACE TO LIVE SUSTAINABLY SHOULD BE PART OF ACTIVE ENGAGEMENT STRATEGIES.

CREATING A SUSTAINABLE FRAMEWORK FOR MIGRATION IS GROUND ZERO FOR CREATING A THRIVING MIGRANT COMMUNITY.

MIGRANTS WILL BEGIN TO FEEL INTEGRATED INTO THEIR COMMUNITY WHEN THEY BELIEVE THEY ARE BRINGING A POSITIVE CONTRIBUTION TO THEIR SOCIETY THROUGH AGENCY AND MEANINGFUL WORK.
NO ONE LIKES TO LEAVE THEIR FRIENDS AND FAMILY BEHIND WHEN THEY MOVE, AND WHEN IT COMES

TO CLIMATE CHANGE DISPLACEMENT, INDIVIDUALS WHO FEEL COMPELLED TO RETURN TO THEIR NATIVE LAND MIGHT HOLD ON TO THAT CONCEPT FOR A LONG TIME UNTIL THEY BEGIN TO LOSE LINKS WITH IT AS TIME PASSES.

THERE WILL BE NO SUCH THING AS A ONE-SIZE-FITS-ALL SOLUTION. EVEN IF THE JOURNEY OF A CLIMATE MIGRANT MAY BE THE SAME, THE SOLUTION MAY VARY FROM PERSON TO PERSON.

INTERNAL MIGRATION IS DEPENDENT ON WHETHER OR NOT PEOPLE'S LIVELIHOOD IS TIED TO LOCAL NATURAL RESOURCES.

SUCCESSFUL INTEGRATION OF A MIGRANT SHOULD IDEALLY SOLVE THE HOSTILE ATTITUDES FROM HOST COMMUNITIES WHO FEEL THEY'RE BENEFITING OFF OF A WELFARE STATE.

NEXT STEPS

- **DEFINE** user groups based on the findings of the interviews.
- **IDENTIFY** design intervention opportunities by thoroughly examining the needs of stakeholders.
- **LEARN** how previous initiatives have built successful frameworks and strategies.
- **FOCUS** on the different types of migrants to include variations in needs.

DESIGN TO EXHIBITION

The design research conducted over the past few months will be communicated and featured in a DesignTO exhibition in January 2022 as a professional display to depict the problem space and potential solutions, with the goal of engaging the audience in a thought-provoking debate around the topic of Climate Migration.

USER INTERVIEWS

Using information gathered from the Subject Matter Expert interviews, and possible points of contact, potential climate migrants defined as ‘users’ will be contacted for further interviews. This will inform the team of specific user needs relevant to the final output of the project.

WINTER CHARRETTE

In February 2022, the winter design charrette will be hosted by cohort researchers to engage international experts, practitioners, and design students in an intensive, week-long series of workshops and ideation sessions that will further elaborate on potential solutions with the intent of producing a global collaborative platform for co-creation in the defined problem space.

CONCLUDING STATEMENT

As this research is ongoing, this document will continue to expand upon new discoveries and findings. We’d like to take this space, as a team, to acknowledge our generous faculty, who have been so supportive and collaborative during this first stretch of our year-long process. Thank you to the Major Project Faculty; Rob, Matt, John, Graeme, and Naz, for all your unwavering efforts and encouragement in our exciting, sometimes tumultuous, process. However, our journey doesn’t end here. And we are more than eager to begin the next phase with you.

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