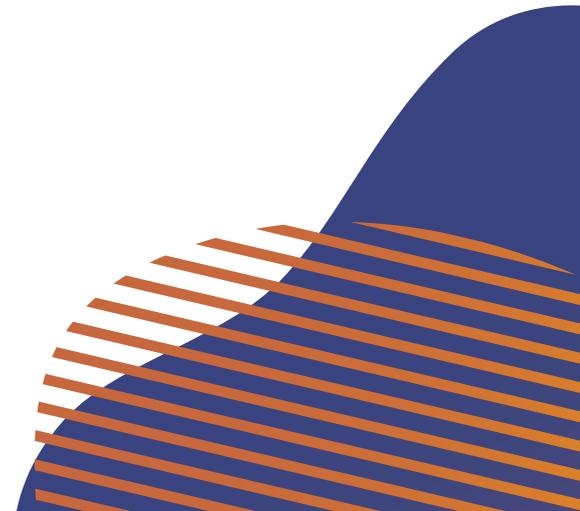
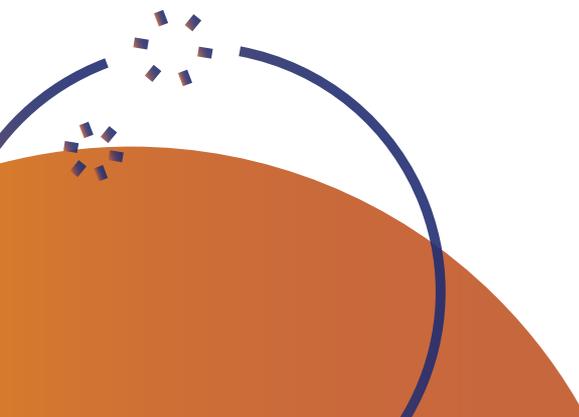


MAP THE SYSTEM CANADA

2020 FINALIST SHOWCASE: SYSTEM MAPS



DESIGNED BY

WILDE
INFORMATION DESIGN AGENCY



Saïd
Business
School



Institute for
Community Prosperity

McConnell



Re•Code



MAP THE SYSTEM

Map the System is a chance for students and recent graduates to learn more about the issues they care about and present their findings to the world. Tackling global challenges starts with understanding a problem and its wider context rather than jumping straight into a business plan or an idea for a quick fix. Participants are asked to demonstrate a deep understanding of a pressing social or environmental issue by mapping out the landscape of the current solutions and identifying missing opportunities for positive change.

The goal of Map the System is to encourage a learning-first approach to social change – one where people take the time to understand and build upon existing efforts before attempting something new. Ultimately, social change is complicated. Mapping is an effective strategy for gaining insight into the many inter-connected facets of complex social issues.

THE CANADIAN EDITION

The Map the System Canadian Edition is a huge undertaking that cannot be brought to life without a community of leaders and collaborators committed to meaningful changemaker education. Map the System is an initiative of the Skoll Centre for Social Entrepreneurship at Saïd Business School, University of Oxford. This year's Canadian edition of Map the System is organized by the **Institute for Community Prosperity**, in partnership with the **McConnell Foundation's Re-Code Initiative**, the **Trico Charitable Foundation** and the Skoll Centre.

In Canada, 16 registered post-secondary institutions from across the country participated in the competition. Each institution held an on-campus final to select the top team who represented their institution in the Canadian Final.

This year, for the first time ever, the Canadian Final was held completely online. An audience tuned in from across the country to watch the 16 teams showcase their work, and compete for the opportunity to advance to the Global Map the System Final, and for access to "Apprenticing with a Problem" funding.



PREFACE

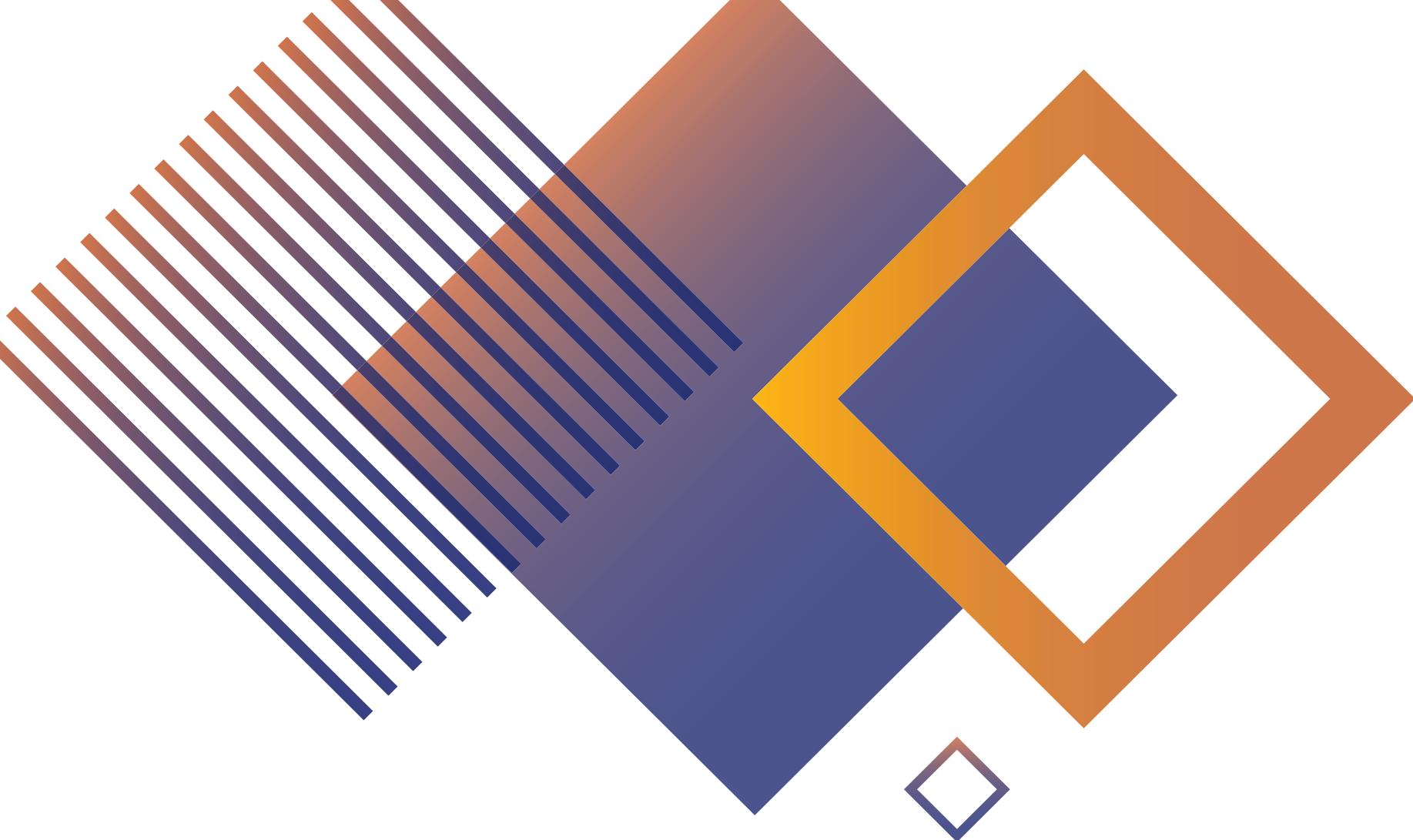
The May 8th, 2020 Map the System Canada Online Final Showcase was a celebration of all student learning, systems education and commitment. It is our belief that we all have the capability to make meaningful and impactful change in our society. We also know that more than ever the world needs changemakers. With that, we stay committed to providing students a transformative learning experience that catapults them to be the change the world needs. We stay committed to learning with students about the complexities of social, environmental and economic issues and finding ways to address them.

In 2020, students and educators were also faced with the additional challenge of navigating a global pandemic. For all these reasons and more, it is with great excitement and pleasure that we have compiled all the system maps from the 2020 Canadian Finals. This work is an archive and a call to action. It is also

a showcase of individual courage. The maps presented here are the results of countless hours of labour, but more than anything else, they are the seeds of a small group of people who are committed to changing the world.

This year teams were also required to submit a 5-minute video that included a detailed overview of the research each team has conducted. You can find the links to each team's video submission within this booklet. Take care and enjoy.

- Latasha Calf Robe
Program Manager, Map the System



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PARTICIPATING INSTITUTIONS





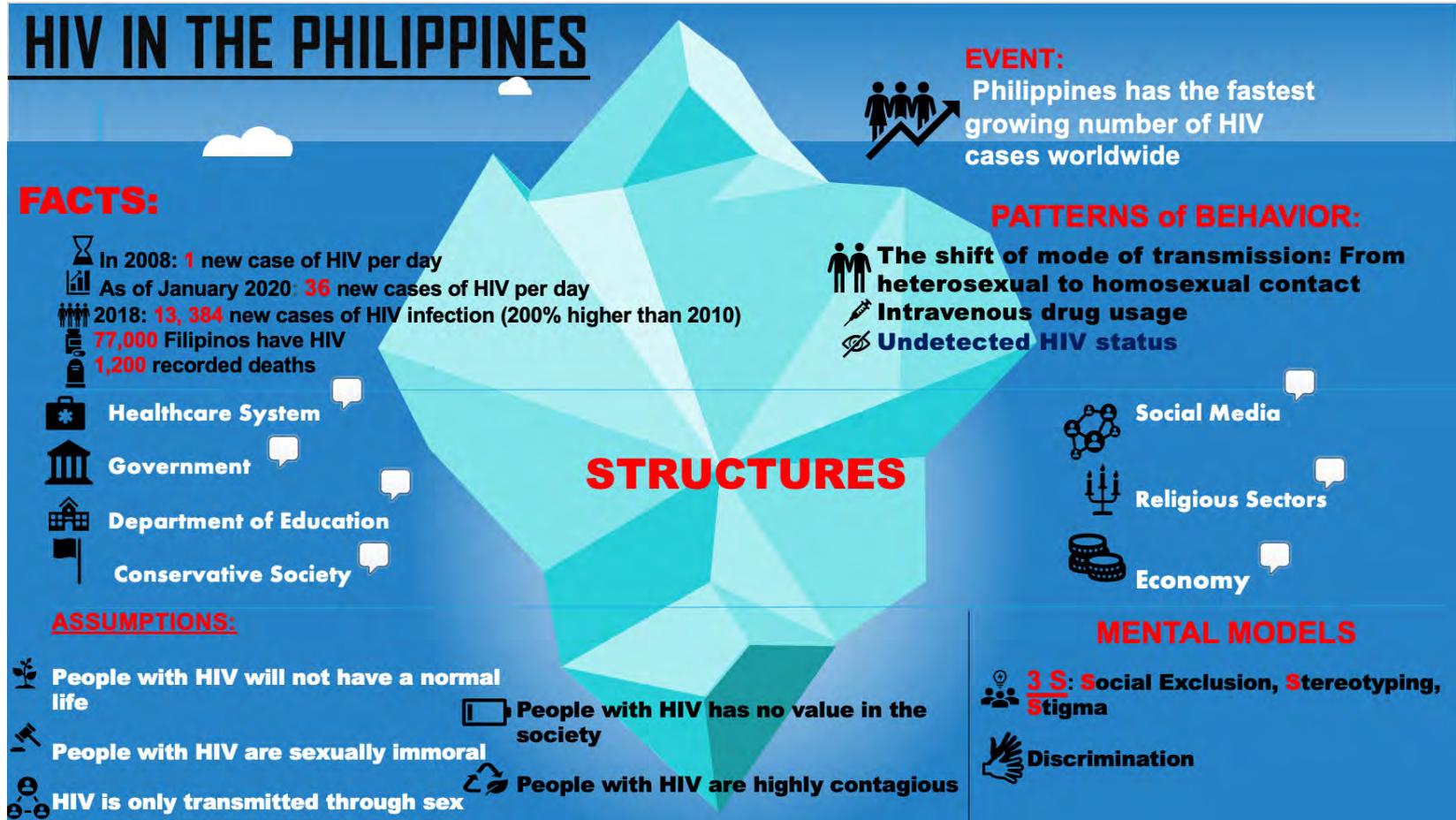
MAPPING THE SYSTEM

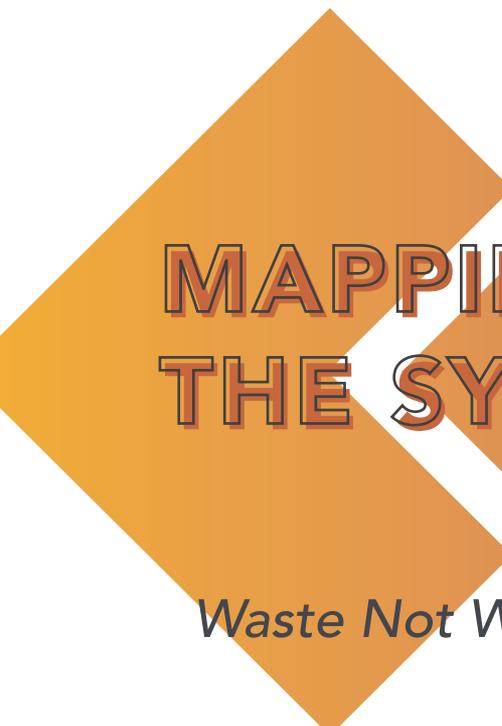
Transcending Paradigms on HIV in the Philippines

Team: Francis-an Barbra
Educators: Vanessa Lodermeier, Parkash Dhaliwal

This research paper is about stigma-related discrimination on HIV infected individuals in the Philippines. The Philippines is a third-world country and funds for healthcare services is not always enough. HIV is not considered as an urgent issue, but in recent years cases started to increase. However, lack of resources turned out to be just at the tip of the iceberg. It is on how society views the patients that is hindering access to HIV-related initiatives. People living with HIV are discriminated against, blamed and judged. What is the point of adequate resources if patients do not trust the society in protecting their confidentiality and dignity?

[Click Here to view the teams 5-minute video submission.](#)





MAPPING THE SYSTEM

Waste Not Want Not

Team: Nell Perry, Keroles Riad, Alanna Silver,
Monica Thom
Educator: Julie Hamel



We have examined the waste management ecosystem in Greater Montreal. This has included discovering the infrastructure and education needs of the local stakeholders to find out how to decrease waste, and increase composting at public and private institutions in the region. We conducted interviews with key stakeholders, reviewed the literature and we base our understanding on 4 years of experience running the “Waste Not, Want Not” compost collaboration at Concordia University during which we have had many thoughtful discussions with a diverse range of community members. Our key finding is that waste management needs to be tackled through a multilateral, multi-stakeholder approach in order to create sustainable change.

[Click Here to view the teams 5-minute video submission.](#)

EXISTING MODELS: RECYCLING



Recycling stamp regulations are unclear & enable greenwashing



Until 2019, Canada shipped recycling to China for processing, generating tonnes of green house gas emissions



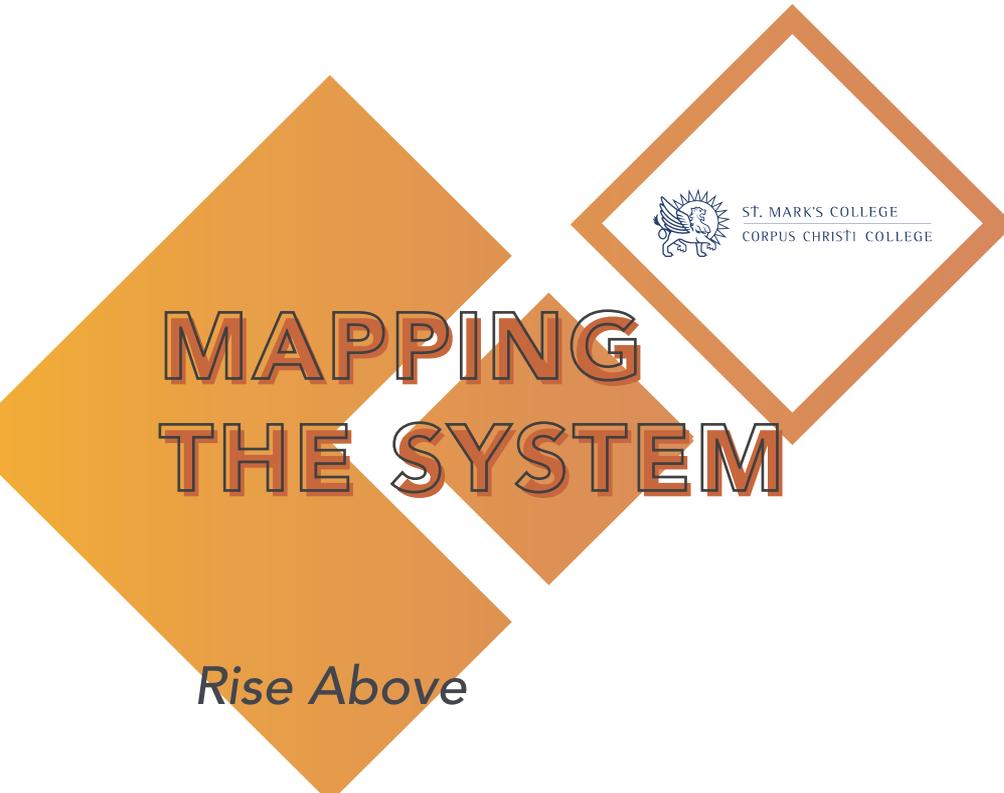
China banned Western recycling imports due to the health crisis that arose caused by improper sorting in homes



Montreal's under-developed recycling industry has resulted in recyclables being sent to the landfill



Canadian recycling companies have no legal obligation to institution recycling if no profit will be gained.



MAPPING THE SYSTEM

Rise Above

Team: Raisa Jose, Gabriella Alvarez, Sean Ryan
Educator: Antonio Daling

Our research focuses on youth homelessness in the Downtown Eastside (DTES) of Vancouver, British Columbia. As Vancouver has become one of the most expensive cities in the world over the past 3 decades, we see the effects of this in our growing population of homeless youth. Although there are currently organizations and fundings that aim to support this issue, there is still an increase in the amount of youth without homes. This is due to most of the support systems in place focusing only on the short term issue of keeping the youth alive. We propose a government agency that's purpose is to have the resources and contacts to set up youth with a plan of action that best fits their individual needs. This will create a higher likelihood that when they enter into adulthood they can break their cycle of poverty.

[Click Here to view the teams 5-minute video submission.](#)

Vancouver, British Columbia

"Age is just a number..."

YOUTH HOMELESSNESS CRISIS



HISTORY OF THE DOWNTOWN EASTSIDE

- The Downtown Eastside (DTES) was once a key economic centre in Vancouver
- Economic downturn drove businesses and hotels away. DTES became home to inferior low-income housing
- Drug use increased and the population transitioned to those with more challenging behaviour and substance-abuse issues
- Closing of government-funded mental health institutions caused influx of former patients into low-income housing in the DTES
- There was little social support (housing and other services) for residents
- Social housing program was ended by federal government as a cost-saving measure



STRUCTURAL FACTORS

- Poverty
- Discrimination
- Lack of affordable housing
- Effect of colonialism on Indigenous peoples

INDIVIDUAL & RELATIONAL FACTORS

- Addiction
- Bullying
- Domestic Violence
- Early Childhood Trauma
- Education/Literacy & Employment Status
- Emergency Homeless Shelter
- Family Conflict
- Indigenous Culture & Rights
- LGBTQ2SA+
- Mental Health
- Poverty
- Sexual Abuse
- Suicide Prevention
- Teen Pregnancy

SYSTEMS FACTORS

- Barriers accessing public systems
 - health, legal and/or social services
- Failed transition from public systems
 - discharge from child welfare, corrections or health care system without an adequate housing plan established prior
- Gaps in services and/or silos of services
 - system is unable to meet the needs of individuals

MAPPING THE SYSTEM

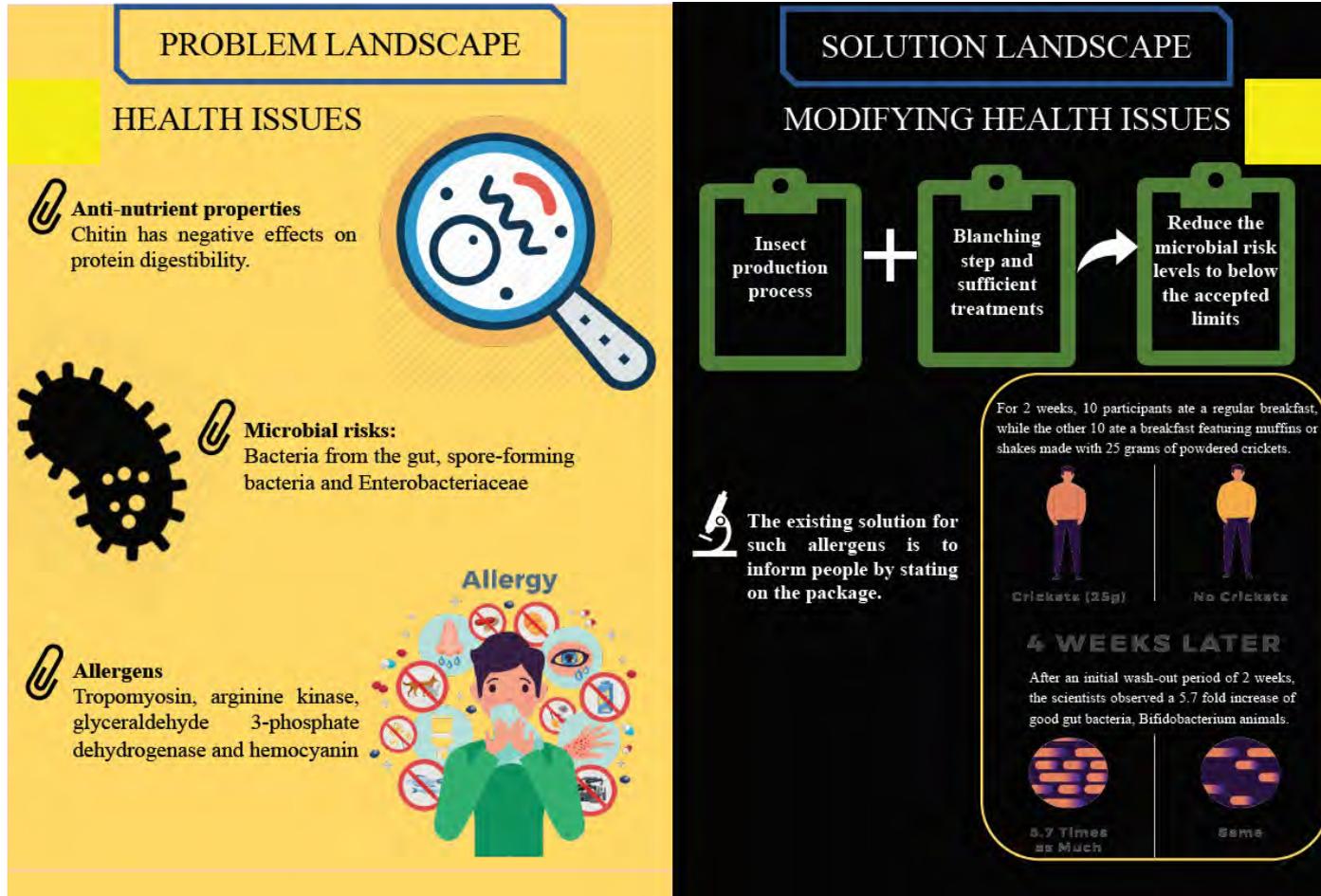
Insectivores

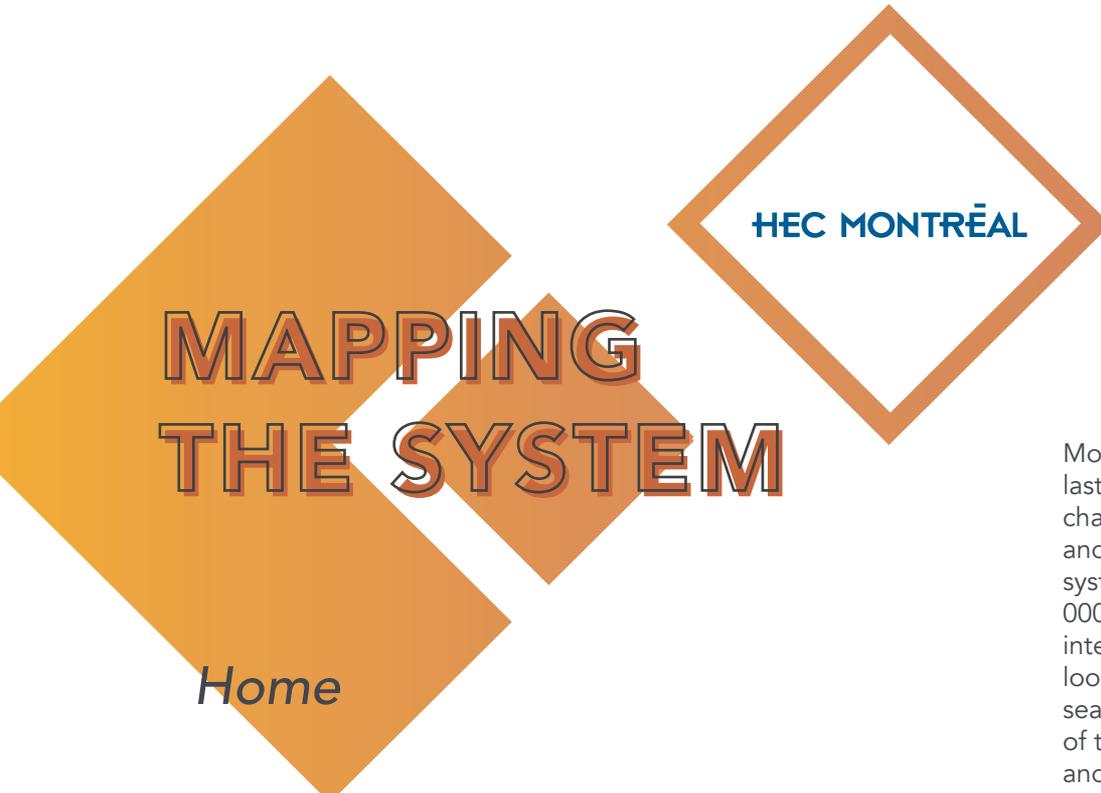
Team: Hamed Kouchaki Penchah, Elahe Fakoor,
Nasrin Attari
Educators: Annie Levasseur, Martin Minville



Insects as an alternative protein source are promising solutions for future food insecurity. Insects have a higher nutritional content, higher production efficiency, and lower environmental footprints in comparison with other conventional protein sources. However, there is still a negative attitude toward consuming insects as food in North America. It is essential to recognize the reasons for such reluctance in society and figure out how efforts can be improved to increase the people's willingness of including insects in their shopping carts. This study has conducted by doing an academic literature review, reading news articles and governmental reports, interviewing the experts, visiting insect farms and restaurants, and surveying people. Lack of public awareness identified as the key reason for the unwillingness toward consuming insects. Educating people about positive health, nutritional, and environmental benefits of eating insects and improving advertising techniques were found as the main levers of change.

[Click Here to view the teams 5-minute video submission.](#)





MAPPING THE SYSTEM

Home

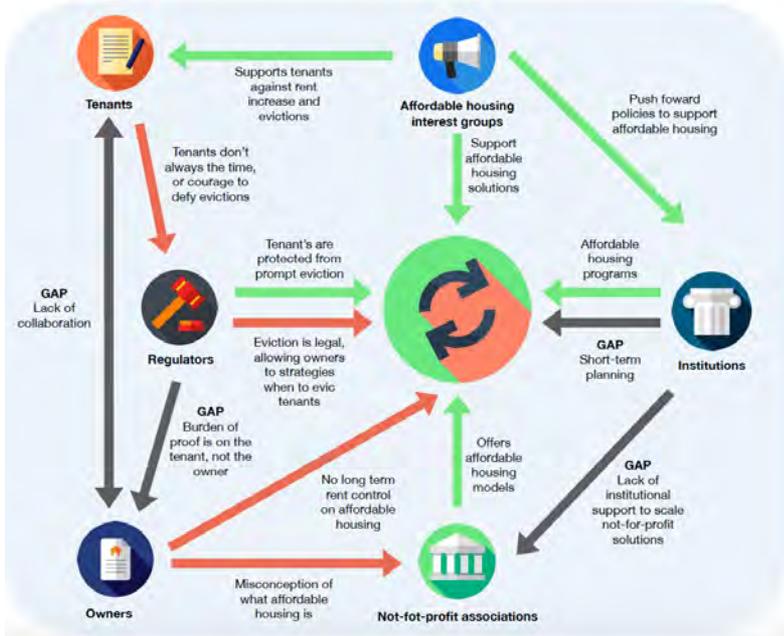
Team: Jean-Francois Plante-Tan
Educator: Mathieu Couture

Montreal has the reputation of an affordable city. But in the last few years, a housing crisis has been in the making. This challenge is important to me because I got evicted this year and that's when I realized the scope of challenge. For this systems map, I focused particularly on the rental market, as 150 000 tenants got evicted in 2019. My research started off with interviews both in Montreal and in Amsterdam to get a quick look at the two different landscapes. After an initial mapping, I searched deeper by doing the patterns and underlying structure of this system. I did so by conducting some desktop research and more interviews. The main lesson is that the current system pushes them to evict tenants to legally increase rent. A for-profit rental market with short term goals see housing as an expense, where affordable housing is actually a social investment.

[Click Here to view the teams 5-minute video submission.](#)

7. Solution landscape: Understanding the obstacles and gaps

Key insights The current solutions face too many obstacles in order to mitigate the housing crisis. In addition, the gaps make it virtually impossible to bring systemic change. Indeed, the gaps are located at the bottom of the iceberg. Those who benefit from these gaps are the stakeholders on the supply side.



9. Levers feedback loop

Key insights Affordable housing is a not-for-profit housing market ran by multiple stakeholders. The well-being of the tenants and the community is at the heart of this long term strategy. Long term financial viability is therefore possible.





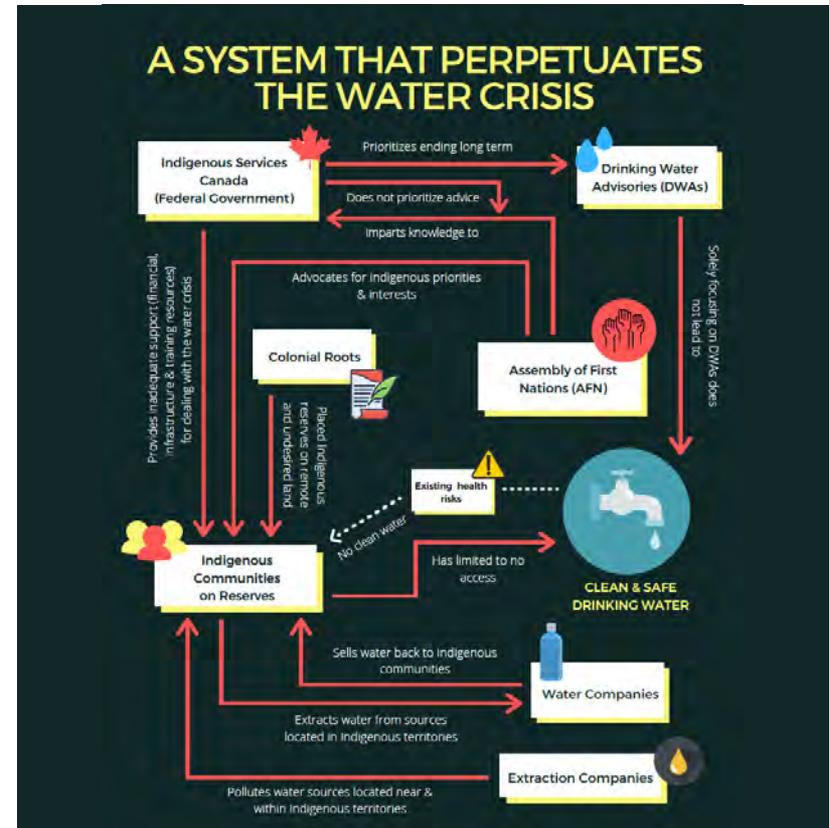
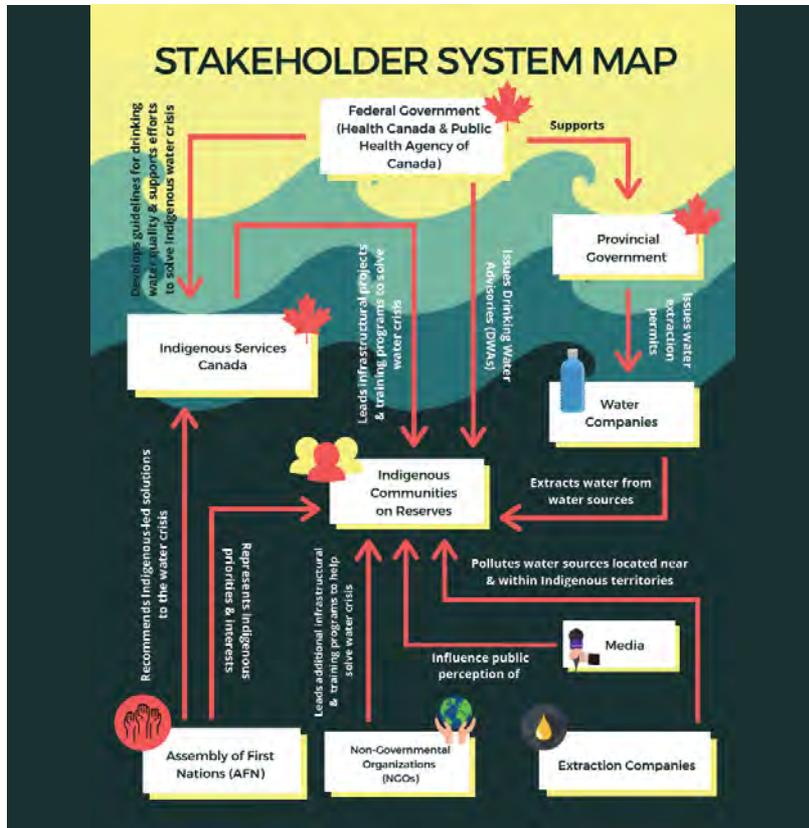
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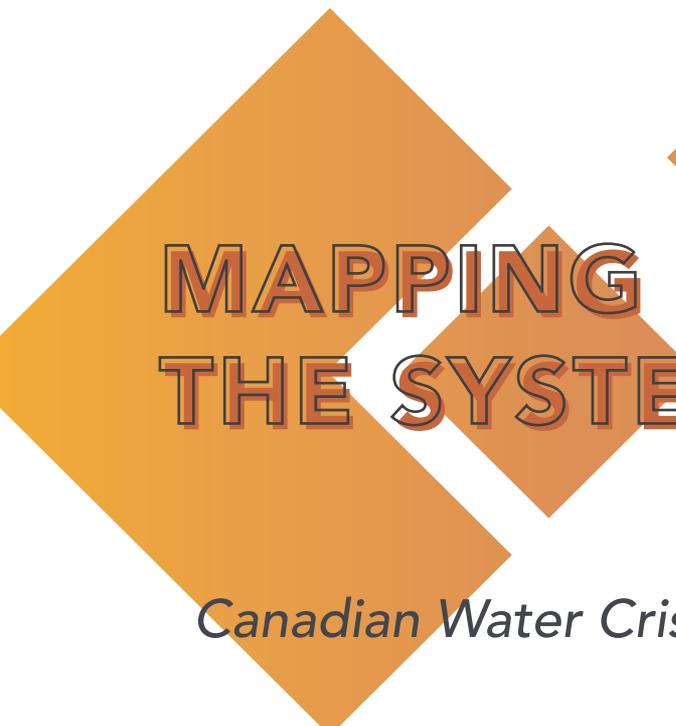
Water We Waiting For

Team: Jullieet Lai, Michelle Nyguan, Keesha Vizconde
Educators: Elinor Bray-Collins, Sara Hassan,
Dawn Macaulay

Our research explores the relationships between stakeholders, circumstances, and physical realities that contribute to the fact that many people on First Nations reserves don't have access to clean and safe drinking water. Our research was conducted largely through gathering accounts of the situation in news articles, scholarly articles, and government documents. One of our key findings was that the relationship between Indigenous people and the federal has yet to be truly reconciled. Indigenous people need a transfer of power, they need to obtain the ability to actuate and have control over their own initiatives and affairs (reasons why are included in larger summary). The fact that the government has still remained hesitant to enable this in some aspects, after all this time since initial colonization, perpetuates a foundation of distrust.

[Click Here to view the teams 5-minute video submission.](#)





MAPPING THE SYSTEM

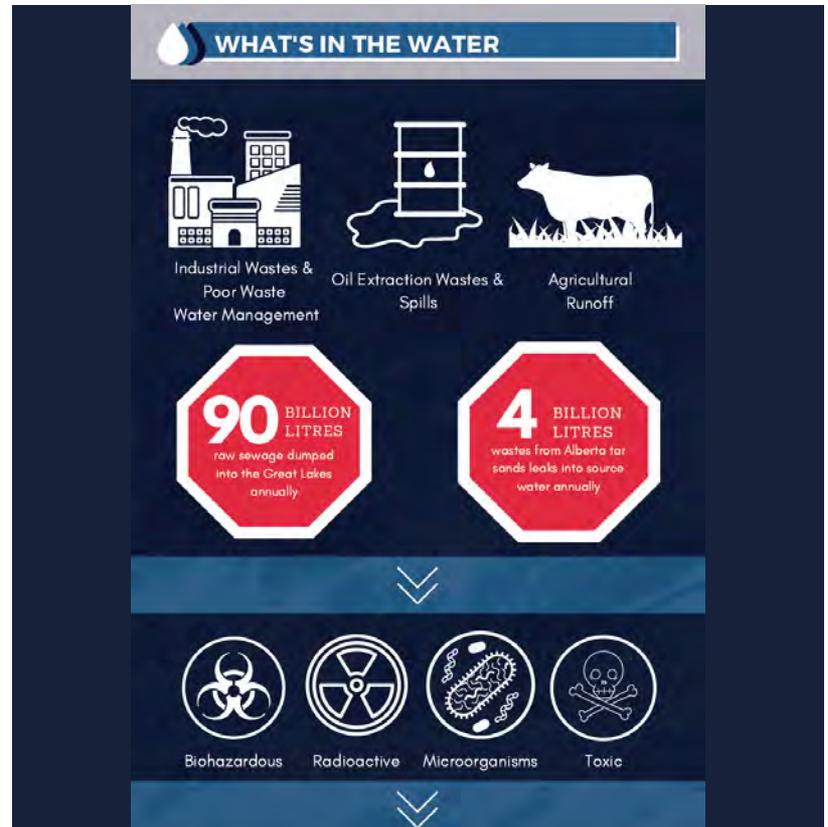
Canadian Water Crisis

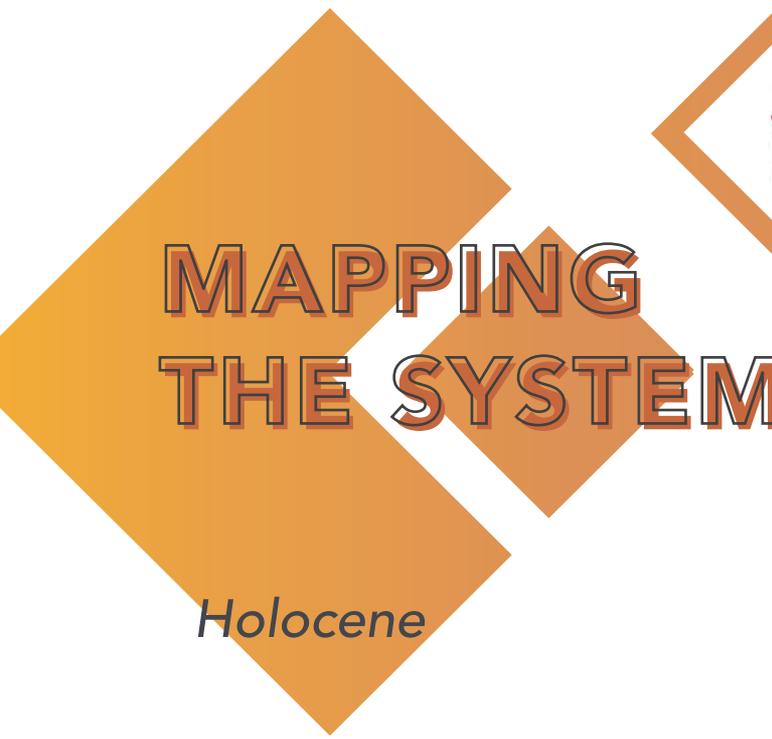
Team: Kylie Morey
Educators: Rhea Kachoo, Leo Wong



Many Indigenous Canadians do not have access to safe drinking water. Laws and policies have prioritized industrial development over source water protection that is vital to ensuring access to safe drinking water for all. I utilized academic journals, personal communication with affected individuals, and current government websites to compile my research.

[Click Here to view the teams 5-minute video submission.](#)





MAPPING THE SYSTEM

Holocene

Team: Bo Simango, Ali Alfosool
Educators: Nicole Helwig, Sarah Croft



MEMORIAL
UNIVERSITY

The most prominent natural disaster in Canada is flooding with three events impacting Quebec, New Brunswick and Ontario in 2019. This led to over 15 000 residences either flooded or isolated, 13 500 disaster victims and over 75 municipalities affected. To lessen the impact of natural disasters, efforts to enhance essential disaster planning, preparedness, response and recovery capabilities. These process-driven response sites are dynamic environments with a number of high value, critical mobile resources/assets – mobile equipment, responders, mobile vehicles, materials/supplies, and food & shelter. This report applies the systems thinking approach to the flooding crisis in Canada, identifying the inputs, throughputs, inter-relationships and outputs, and furthermore highlighting the sequence of systems characteristics that have led to the flooding crisis encountered by communities, provincial and federal government. It provides a comprehensive list of problems & solutions related to infrastructure, environment, institutional, financial and technology of flooding threats in Canada.

[Click Here to view the teams 5-minute video submission.](#)

Background

- Flooding is the most prominent natural disaster in Canada
- 22% of residential properties are vulnerable to overland flooding
- Wetlands occupy 16% of the country with over 8500 rivers and more than 2 million lakes cover Canada
- With climate change, the frequency and severity of flooding is on the rise

Over the past 10 years:

>\$5 billion losses

1.3 million affected (directly & indirectly)

Immeasurable social & cultural losses

Our research methods comprised:

<p>Academic 72 Literature reviews Government - federal & provincial 15 Publications</p>	<p>Interviews 40 Qualitative interviews Inter-governmental 5 Publications</p>
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Problem Landscape

Aging and vulnerable infrastructure

- 40% of roads and bridges in fair, poor or very poor condition
- 30% of water infrastructure in fair, poor or very poor condition.

Canadian Infrastructure Report Card (CIRC), Nov 2019

Lack of climate adaptation-focused policies

"Canadian municipalities will need to invest \$5.3 billion annually to mitigate the worst impacts of climate change"

Federation of Canadian Municipalities & Insurance Bureau of Canada report, Feb 2020

Integrated operations concerns

"Canada needs continued federal leadership to create a cohesive National Action Plan on Flooding"

Insurance Bureau of Canada, Sep 2019

What are the top 3 challenges in Canada?

Solutions Landscape

What solutions can solve the current challenge?

<p>Infrastructure: Resilience and detection</p>	<p>Institutional: Insurance-focused Policy Planning</p>	<p>Asset-Based Community Development initiatives</p>
<p>"Build more resilient infrastructure while integrating environmental protection, disaster prediction and sustainable development concepts"</p> <p><i>Emergency Management Framework for Canada: Toward a resilient 2030</i></p>	<p>EM Framework report articulates core concepts that guide governments, to save lives, protect property and the economy, and preserve the environment</p> <p><i>Emergency Management Framework for Canada, 2017</i></p>	<p>"Community-based initiatives that focus on mobilizing community assets to enhance local resiliency and preparedness as done around the world"</p> <p>e.g. <i>Tamarack Institute, Coady International Institute</i></p>

Gaps & Levers

What is missing and what current efforts could be joined up or improved?

- Limited collaboration between stakeholders**
Enhance whole-of-society collaboration to improve understanding of risks, needs, resources, capacities, and vulnerabilities incl. inter & intradepartmental groups
- Limited capital injection**
Agree on government backed, national flood insurance program, invest in new infrastructure projects where deficiencies exist, household vulnerability & water damage awareness programs
- Limited community-based adaptive capacity**
Promote, fund and foster proactive, self-directed asset-based community development initiatives that focus on mobilizing community assets to enhance preparedness & response efforts



MAPPING THE SYSTEM

Canadian Charity System

Team: Jillian Mah, Ashley Dion & Matthew Taburada
Educator: Ashleigh Metcs

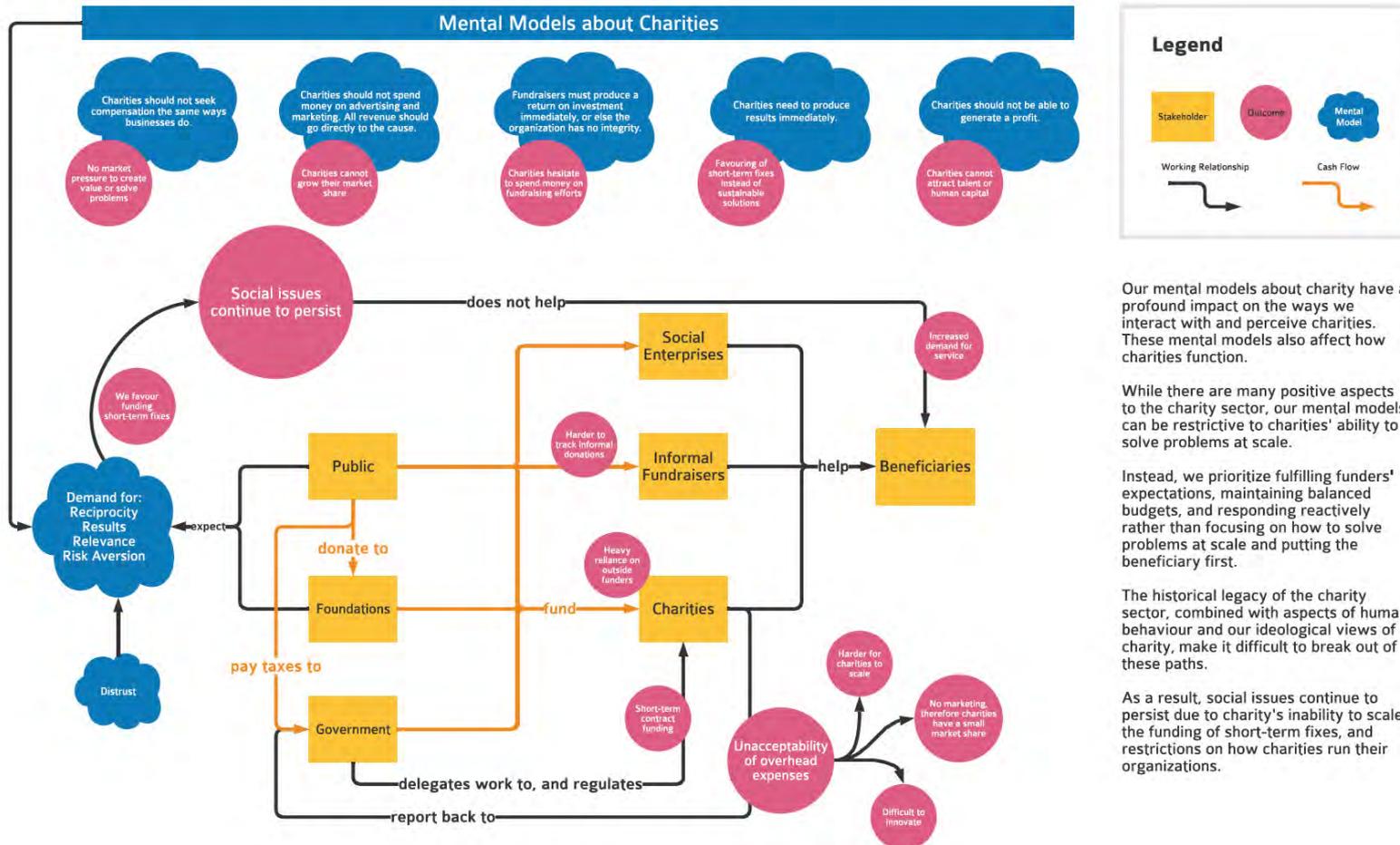
Canada is undergoing a social deficit, relying on a smaller segment of the population to fund charities. We were going to look at the implications of this, but instead, we found a rich system of causes to this social deficit and decided to explore what underlies this issue. We conducted research from over 18 academic sources and subject-matter interviews to explore this stigmatic problem.

The charity system in Canada is heavily filled with structures, mental models, and behaviours that take away from our ability to solve problems in the long-term.

Short-term funding models, and managing donor and public expectations make it difficult for non-profits to innovate. These pressures are amplified by a growing distrust in organizations, online giving, current events, and the growth of social enterprises. When charities are set-up to only focus on short-term fixes rather than long-term success, a re-inforcing loop of unsustainable behaviour is created.

[Click Here to view the teams 5-minute video submission.](#)

How do our mental models about charity affect its function?



Our mental models about charity have a profound impact on the ways we interact with and perceive charities. These mental models also affect how charities function.

While there are many positive aspects to the charity sector, our mental models can be restrictive to charities' ability to solve problems at scale.

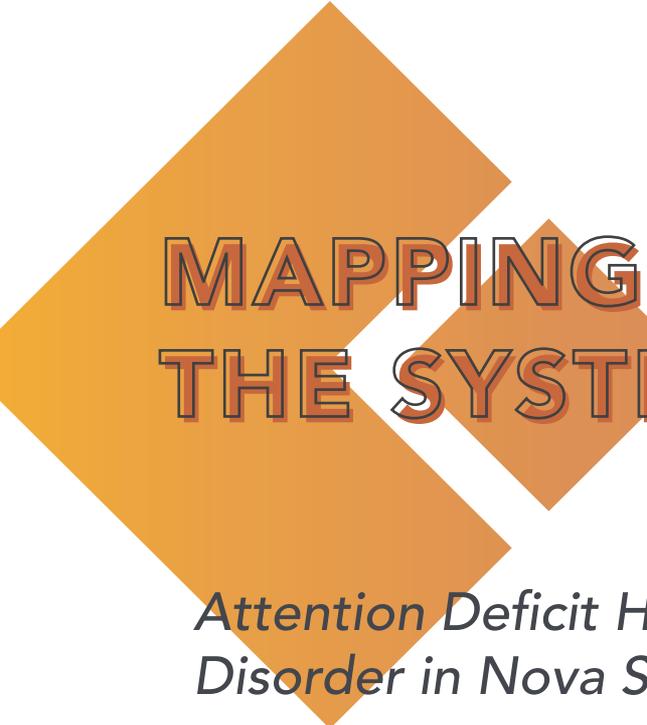
Instead, we prioritize fulfilling funders' expectations, maintaining balanced budgets, and responding reactively rather than focusing on how to solve problems at scale and putting the beneficiary first.

The historical legacy of the charity sector, combined with aspects of human behaviour and our ideological views of charity, make it difficult to break out of these paths.

As a result, social issues continue to persist due to charity's inability to scale, the funding of short-term fixes, and restrictions on how charities run their organizations.



nsc



**MAPPING
THE SYSTEM**

*Attention Deficit Hyperactivity
Disorder in Nova Scotia*

Team: Hailey Covin, Jeremiah Samson
Educator: Deirdre Evans

We conducted an analysis of attention deficit hyperactivity disorder (ADHD) affecting children due to the lack of provincial resources within schools and communities in Nova Scotia. We examined the mental health, social interaction and the educational factors of children with ADHD. We did research by interview, finding journals and articles to figure out resources and improvements that could be made to improve the lively hood of children dealing with the deficits ADHD delivers. In our findings we discovered that there could be adaptations put in place in classroom and community settings. That Nova Scotia has a large need for professionals like doctors and psychologist, this need is affecting the efficiency of resources.

[Click Here to view the teams 5-minute video submission.](#)

Impacts

Mental Health

Social Interactions

↑
1/2

50-90% of children with ADHD have at least one comorbid condition and approximately half at least have two.

Children with ADHD may find it difficult to make friends due to the differences in the way they perceive the world.



MAPPING THE SYSTEM

Affordable Rental Housing Crisis in Toronto

Team: Crystal Fung, Sahil Parikh, and Piotr Zulauf
Educator: Jessica Machado



The City of Toronto, Canada, is now the 6th most expensive city in the world in terms of rental housing. In the last decade, the cost of housing has far outpaced income growth, with house prices growing four times faster and rent growing two times faster.

Population growth is also outpacing the supply of new rental units, leading to increases in homelessness and social housing demand. Those who can access rental housing have been forced to deal with high costs, tenure instability, and overcrowded or unsafe living situations.

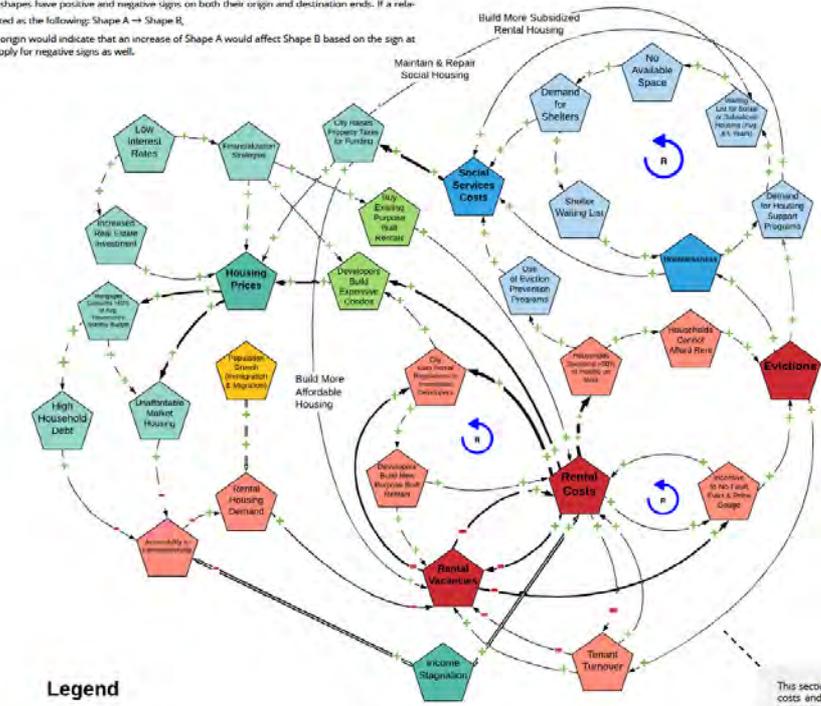
Our project examines the ongoing crisis in Toronto, and its social and economic impacts as well as the proposed solutions. We have sought to understand the housing crisis from a systems thinking perspective. Our goals are to identify impact gaps and levers of change in the system and create a visual systems map to better understand and articulate this social challenge.

[Click Here to view the teams 5-minute video submission.](#)

VICIOUS CYCLE OF HOUSING AFFORDABILITY LOSS

This loop illustrates how the increase of Housing Prices and Rental Costs is reinforced by being part of a larger positive feedback loop. It also shows why the current responses to high rental costs and vacancy rates fall short and even play a role in perpetuating the loss of housing affordability. Annotations are provided where additional explanation is required.

The arrows that connect the shapes have positive and negative signs on both their origin and destination ends. If a relationship were to be represented as the following: Shape A → Shape B, then a positive sign near the origin would indicate that an increase of Shape A would affect Shape B based on the sign at the destination. This would apply for negative signs as well.



Legend

- Rental
- Finance
- Real Estate
- Government/Social Services
- Other

- Reinforcing Loop
- Connecting Arrow
- Output Only Element

This section shows how the increase of rental costs and evictions are ultimately reinforced by the larger housing system as long as the other key elements are not addressed. Developing more housing would do little to lower housing prices and rental costs, because the new developments are motivated by the removal of rent control.

*The darker coloured shapes are the most impactful in the loop.
 **The thickness of the arrows is based on the number of inputs from other arrows.

MAPPING THE SYSTEM

A Systemic Approach to Supporting Refugees at SFU

Team: Mishaa Khan
Educators: Amy Farahbakhsh & Caitlin Stiles



The goal of the project is to improve services for refugee students at SFU due to the lack of awareness about this population's experiences and needs. Data about refugee experiences was collected through a semi-structured interview. Additionally, the two main stakeholders along with a local organization's Project Manager was also interviewed. One of the key findings of the research was that discrimination due to their identity resulted in reluctance to seek support and negatively impacted their experience. This magnitude of this problem can be reduced by creating safe spaces for refugee students and providing them a medium to voice their concerns and share their ideas. This can result in a reduction in misconceptions associated with their identity and can increase the understanding of the SFU community of what it truly means to be a refugee.

[Click Here to view the teams 5-minute video submission.](#)

MAPPING THE SYSTEM

A New Track for the Food System

Team: Geneviève Clément
Educator: Miguel Aubouy



Globally, the food system is the largest cause of greenhouse gas emission, biodiversity loss, ecosystem destruction and fresh water pollution. At the same time, hunger, malnutrition and diet-related diseases kill an inconceivable number of people each year. The current food system needs to change. As a model, I examined the food system in a rural city in Canada, one hour south-east of Montreal: Granby, to find context specific solutions. Two key findings are the lobbying activities preventing the shift towards sustainable farming practices and how the food environment makes the consequences of food choices invisible.

[Click Here to view the teams 5-minute video submission.](#)

The Current Food System

To Correct the Track

Through the lens of a system analysis : national shifts and rural city shifts towards a more sustainable food system



By Genevieve Clement

In order to find contextual solutions, as a model, ...

... my hometown, Granby (Canada) and its economic and political context were investigated.



The largest cause of environmental degradation



900 million people and counting are undernourished



Unhealthy food, via diet related chronic diseases, is the biggest killer



High body mass index and dietary risks were the second and third risk factors that caused the most death and disability in 2017



30 % food waste in the world
In Canada : 58 %



Neonicotinoid seed treatments are useful in less than 5 % of the cases



Pesticides exceeding water quality criteria in the Yamaska River



Accessible



Affordable



Healthy and environmentally sustainable

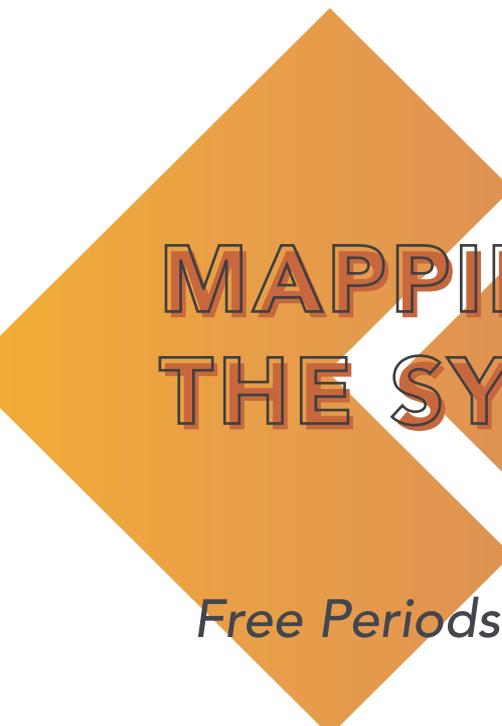


Desirable



Socially relevant





MAPPING THE SYSTEM

Free Periods Canada

Team: Zeba Khan, Niki Oveisi
Educator: Madeline Stewart, Susan Grossman



THE UNIVERSITY
OF BRITISH COLUMBIA

Our team, Free Periods Canada, explored menstrual inequities in Canada, and its impact on marginalized communities. A combination of expert interviews, online surveys, analysis of existing academic, government, and newspaper publications helped us investigate the core challenges of menstrual inequity. This systematic approach helped us understand that in order to eliminate the impact of menstrual inequity : i) The interventions must address the needs of marginalized populations, and knowledge and capacity building should involve both menstruators and non-menstruators II) Governing bodies play an imperative role in creating sustainable change as policymakers but community members hold the power to influence these decisions. A concerted effort is required from all stakeholder groups to create tangible changes.

[Click Here to view the teams 5-minute video submission.](#)

WHY DOES MENSTRUAL INEQUITY EXIST?

IMPACT OF MENSTRUAL INEQUITY

- Having to choose between menstrual supplies and food
- Barriers to social and academic participation
- Distress and anxiety due to lack of proper menstrual supplies
- Detrimental effects on the body due to the overuse of period products

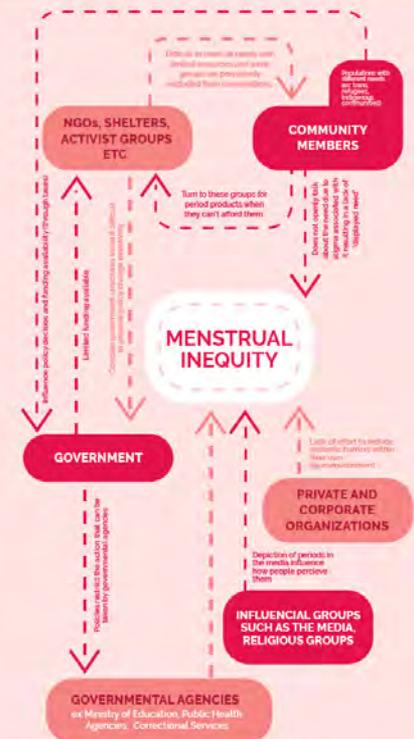
SYSTEMIC BARRIERS THAT LEAD TO MENSTRUAL INEQUITY

- Lack of menstrual supplies when needed
Dispensers are not maintained
- Lack of disposal systems for non-gender binary, trans, and males
- Lack of policies and policy implementation
- Lack of sufficient funding for appropriate research

MENTAL MODELS

- Menstrual inequity does not exist
- People who menstruate should carry their own supplies
- Due to stigma, people don't feel comfortable asking for menstrual supplies

STAKEHOLDERS SYSTEM MAP





MAPPING THE SYSTEM

Transit induced gentrification in Kitchener Waterloo

Team: Emma McDougall, Kaitlin Webber, Sam Petrie
Educators: Brian Doucet, Dawn Parker

Our research explores the current state of transit-induced gentrification in Kitchener-Waterloo. Looking specifically at the cities' newly installed Light Rail Transit (LRT), we explore how this large scale economic tool has attracted growth and development that is causing community displacement for lower income groups. We conducted an in-depth media analysis as well as an academic literature review to scope out both the problem and solution landscapes. Ultimately our research found that the LRT is continuing to drive neighbourhood change, and social, economic and political intervention is needed. Beyond this, we stress the necessity of community engagement and transparency at the early stages of transit infrastructure development for other mid-size cities currently considering LRT. With proper policy for affordable housing in place, and constant discussion between key stakeholders the issues that the Waterloo Region is currently facing, may be avoided.

[Click Here to view the teams 5-minute video submission.](#)

Transit-induced gentrification in Kitchener-Waterloo: Mapping Feedbacks between Economic Development & Community Displacement

How do we maintain affordability around new transit infrastructure?
How can the ION LRT be a lesson for affordability for other mid-size cities?

Problem Landscape: Signs of Gentrification in the ION Corridor

The Region of Waterloo approved the ION light rail transit (LRT) project in 2011, with the main goals of improving transit access and reducing sprawl by encouraging compact development along the central transit corridor (CTC). Since its approval, the CTC has changed drastically, both physically – with new development, particularly in the form of residential towers – and socially – as more affluent residents are moving into core neighbourhoods in the CTC. These changes are putting pressure on existing residents and business owners, and as a result, the ION corridor is undergoing gentrification – the process of neighbourhood socioeconomic transformation from low-income to high-income.

Changes in the ION corridor...

- Construction value: \$2.5B
- Property value: \$558
- Residents: 111K
- Corridor prices: +12%
- Median income: \$15K
- Affordability of home ownership transactions: -17%

LRT Development in Kitchener-Waterloo

- 1974 – "Corridor" presented in Official Plan
- 2003 – Growth Management Strategy approved
- 2006 – Urban Area Boundary approved
- 2009 – LRT as preferred option approved
- 2010 – Federal & provincial funding secured
- 2011 – Route & construction phases approved
- 2014 – Construction
- 2018 – Construction
- 2019 – Operation begins

STAKEHOLDER MAP: Competing Interests

The complexity of the issue of transit-induced gentrification in Kitchener-Waterloo lies in the number of actors involved and their ranging interests. Before developing solutions, we must understand who these stakeholders are and how they interact with each other.

GENTRIFICATION

Transit-induced gentrification (noun)
The gentrification of a neighbourhood where the catalyst is a change in access to, or investment in, transportation.
(see also: gentrification)

Federal Policymakers

Rent supplements (e.g. Canada-Ontario Housing Benefit)

Provincial Policymakers

Prioritisation of urban core renewal

Communities (resident & business)

Insufficient affordable housing policies

GENTRIFICATION

DISPLACEMENT (low- to high-density)

TURNOVER (low- to high-income)

Developers

Municipal Policymakers

Transit-oriented development

Provincial Policymakers

Evaluation via economic indicators (land value, tax brackets, resident income, etc.)

Transit as an economic instrument



MAPPING THE SYSTEM

Clean Water Crisis in Madagascar

Team: Kathleen Cajala, Trevor Rottgen,
Sashini Kothalawalage
Educator: Laura Allan

Our research focuses on the lack of access to clean and safe water in Madagascar. Madagascar is the fourth largest island in the world with a population of over 25 million people and having a subtropical climate that is dry and humid in most parts of the year. Water resources have been unevenly distributed around the country which makes them accessible for Malagasy people. 88 percent of people in Madagascar lack access to clean water leading to annual deaths of over 19000. We have researched the contributing factors to this problem, what's currently being done to solve it, existing gaps and levers of change.

[Click Here to view the teams 5-minute video submission.](#)

The Global Water Crisis

1 in 9
people worldwide lack access to safe drinking water

1 Million
people die worldwide every year due to water or sanitation-related diseases

\$260B USD
in economic opportunities lost worldwide due to the clean water crisis

Water Crisis in Madagascar

88% of people with inadequate access to safe drinking water

2,100 children die each year due to unsafe drinking water

9 in 10 do not have access to proper waste disposal system

Deaths from unsafe water, sanitation and hygiene

Madagascar is one of the hardest hit countries in the global clean water crisis. The situation is especially problematic as the country is isolated in the Indian Ocean, all on their own. As a result they cannot receive the same resources as other struggling nations, and are uniquely disadvantaged, unlikely any country on earth.

Source: WHO

Rural Access

Despite continuing urbanization, much of Madagascar's population is rural, and this is where less than 15% of people have access to clean water and sanitation. These people are reliant on wells and ground water, which is often contaminated. Moreover, diseases and bacteria is easily contracted in this water.

Political Factors

Gaining independence from France just 60 years ago Madagascar is a relatively new country, and created a new constitution just recently in 2010. As a result political instability and lack of resources from the government has been a leading cause of water issues. Government organizations and regulatory bodies have not been in place for long, and have had trouble keeping up with the growing population.

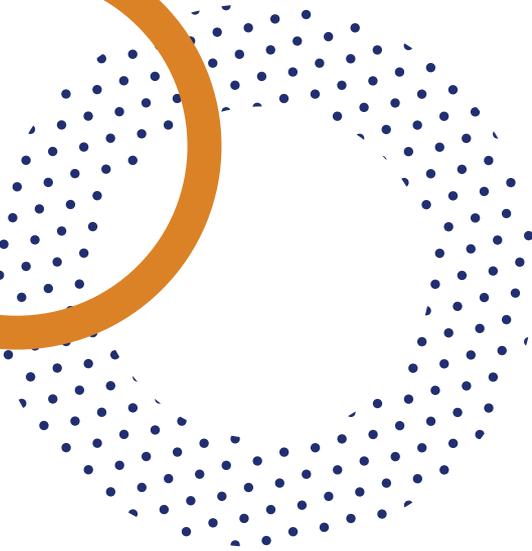
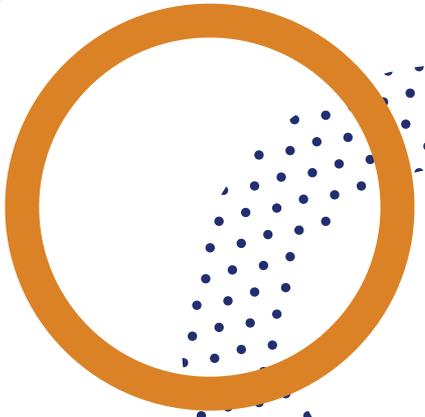
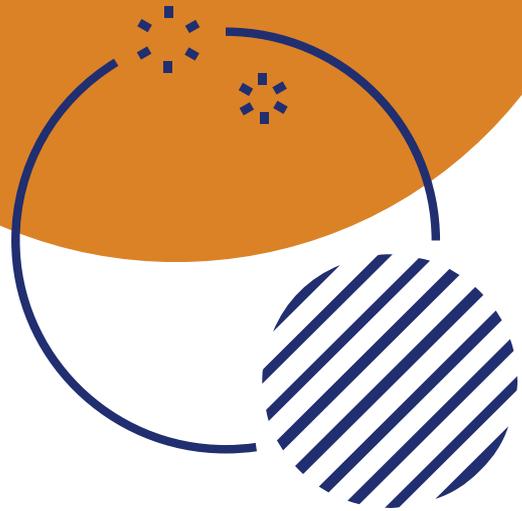
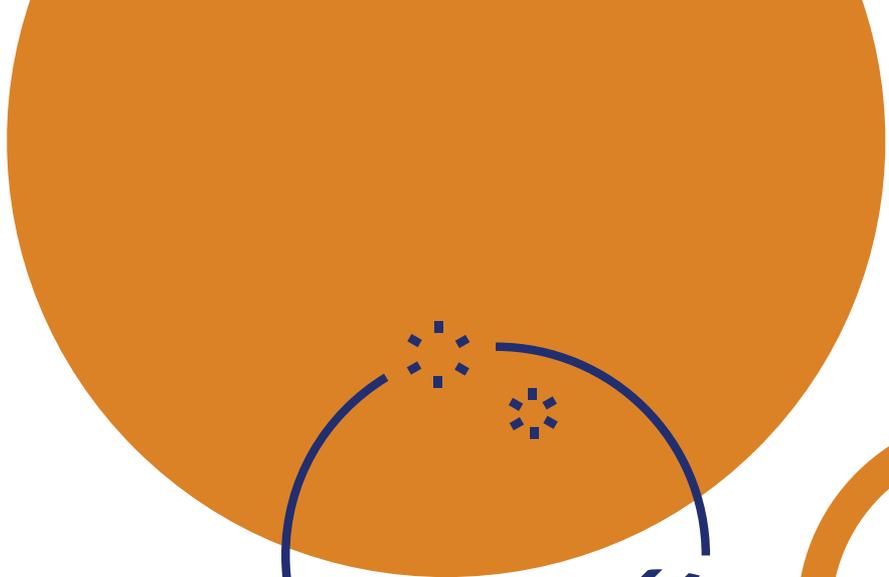
Economic Factors

As one of the poorest nations in the world, it has been very difficult for Madagascar to meet the needs of its struggling citizens. As a result, there is a lack of infrastructure in place outside of major cities, contributing to water access issues. Also, the economy has not seen similar robust growth to other African nations, and low per capita income makes it difficult to see significant improvements from within.

Stakeholder Map

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    graph TD
      LocalCommunities[Local Communities] -- "Demand clean water" --> NGOs[NGOs]
      LocalCommunities -- "Demand safe water" --> MadGov[Madagascar Government]
      LocalCommunities -- "Demand sanitation" --> MadGov
      LocalCommunities -- "Demand for products" --> MadGov
      LocalCommunities -- "Demand for products" --> MunicipalGov[Municipal Governments]
      MadGov -- "Confidence in water" --> NGOs
      MadGov -- "Confidence in water" --> MunicipalGov
      MadGov -- "Demand for products" --> MunicipalGov
      MadGov -- "Trade relations" --> ForeignAllies[Foreign Allies]
      MadGov -- "Natural resources for trade" --> ForeignAllies
      MadGov -- "Natural resources for trade" --> NatEnv[Natural Environment]
      NatEnv -- "Livestock" --> LocalCommunities
      NatEnv -- "Demand for products" --> LocalCommunities
      NatEnv -- "Demand for products" --> MadGov
      NatEnv -- "Demand for products" --> MunicipalGov
      NatEnv -- "Demand for products" --> ForeignAllies
      NatEnv -- "Demand for products" --> NGOs
  
```



TOP SIX FINALISTS



ST. MARK'S COLLEGE
CORPUS CHRISTI COLLEGE

Rise Above

Team: Raisa Jose, Gabriella Alvarez, Sean Ryan
Educator: Antonio Daling



Holocene

Team: Bo Simango, Ali Alfosool
Educators: Nicole Helwig, Sarah Croft



Canadian Charity System

Team: Jillian Mah, Ashley Dion & Matthew Taburada
Educator: Ashleigh Metcs



Office of
Social Innovation

Affordable Rental Housing Crisis in Toronto

Team: Crystal Fung, Sahil Parikh, and Piotr Zulauf
Educator: Jessica Machado



THE UNIVERSITY
OF BRITISH COLUMBIA

Free Periods Canada

Team: Zeba Khan, Niki Oveisi
Educator: Madeline Stewart, Susan Grossman



UNIVERSITY OF
WATERLOO

Transit induced gentrification in Kitchener Waterloo

Team: Emma McDougall, Kaitlin Webber, Sam Petrie
Educators: Brian Doucet, Dawn Parker

MAP THE SYSTEM ORGANIZING TEAM

Map the System

Map the System is an initiative of the Skoll Centre for Social Entrepreneurship, based at the Saïd Business School, University of Oxford. The goal of the Skoll Centre is to maximise the impact of social entrepreneurship in transforming unjust or unsatisfactory systems or practices around the world in order to address critical social and environmental challenges.

The Institute for Community Prosperity

The Institute for Community Prosperity connects students with social impact learning through applied, community-partnered research, creative knowledge mobilization, and systems-focused education. It is based at Mount Royal University, an undergraduate liberal arts institution in Calgary, Canada. The Institute designs and hosts learning experiences to help students lead transformative change in their communities.

Re-Code

Re-Code is a project of the Montreal-based McConnell Foundation that supports Canadian universities and colleges to increase their social impact. Re-Code brings together individuals in the post-secondary sector to learn from each other and share social innovation practices toward a goal of improving wellbeing within their campuses and communities.

The Trico Charitable Foundation

The Trico Charitable Foundation seeks to close gaps in society by provoking innovation and building capacity in social entrepreneurship

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