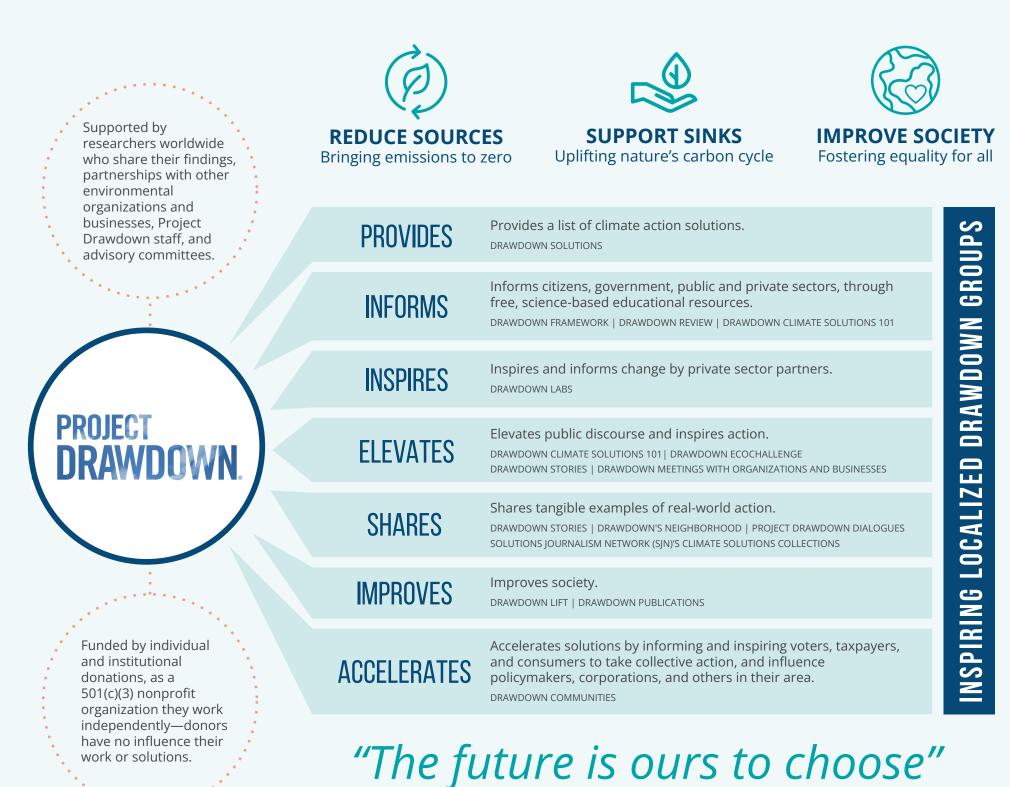
# RESEARCH QUESTIONS

- 1. What are the climate action challenges that need to addressed in the next ten years?
- 2. How can we engage key stakeholders to implement actionable climate change solutions?

#### **Project Drawdown**

To understand the climate action space, we chose Project Drawdown as a case study. Project Drawdown is a non-profit organization working to help the world reach "drawdown"—the point in the future when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline, thereby stopping catastrophic climate change—as quickly, safely, and equitably as possible and building a better future for all.

The Drawdown Framework posits that to understand and advance climate solutions, it is important to understand the sources of emissions and nature's means of rebalancing the climate system. The framework presents three main areas of focus: to reduce sources, support sinks, and improve society (Project Drawdown, 2020).



# Vaves of A CASE STUDY OF DRAWDOWN TORONTO

IN THE CLIMATE ACTION SPACE

Dr. Jonathan Foley, Executive Director, Project Drawdown

# FRAMING THE SYSTEM

We used the iterative inquiry tool to mapped out functions, structure, components, processes, and purposes for each level of Project Drawdown's intervention in the climate action space.

#### 1. MICRO **Project Drawdown existing for** climate action

**Function:** To map, measure, model and describe the most substantive solutions to global warming.

**Structure:** Project Drawdown's core team, researchers, fellows

**Process:** Aggregating researchers, collecting data, incorporating, and making widely available shared research. Provide recommendations to organizations on how they can act in their organization and how to get all stakeholders to become allies.

**Purpose/Context:** Inspiring climate action in communities and organizations

#### 2. MESO The organizations inspired by **Project Drawdown**

**Function:** Empower communities with solutions and resources.

**Structure:** Drawdown Communities,

Labs, Lift, Solutions, Donors **Process:** Fundraising, researching,

Purpose/Context: Providing support and solutions/ techniques (to help them in

their mission) to the different actors

working in the climate action space

#### 3. EXO Impact of those climate plans—Communities and NGOs putting the framework into action

**Function:** Providing Drawdown's global framework, assessment and analysis of climate solutions by defining and describing solution leverage points and enabling environments that are key to scaling each solution.

**Structure:** Organizations that Drawdown inspires, companies that adopt plans, groups working in a specific climate action space.

**Process:** Inside companies, help shift culture by surfacing employee stories that inspire, build, and accelerate climate action. Externally, the combined voice of Drawdown partners that encourage business peers, governments, and policymakers to speed up bold, game-changing climate solutions.

**Purpose/Context:** Ambitious climate action, offering the world powerful—and attainable—ways of addressing the climate crisis.

### 4. MACRO Drawdown reducing carbon emissions to zero (the collective action of involving all

those communities in climate action, includes everyone Drawdown has inspired

**Function:** Get to a point of drawdown—the future point in time when levels of greenhouse gases in the atmosphere stop climbing and start to steadily

**Structure:** Voters, taxpayers, policymakers international NGOS, Multinational Corporations, Governments, Academia

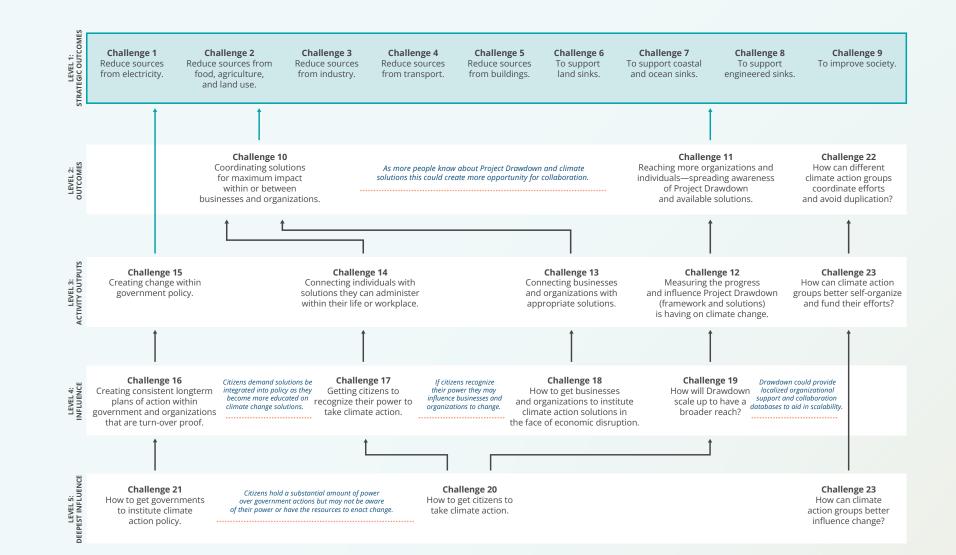
**Process:** Adopt the climate action frameworks and build execution plans for it, incentivizing innovations that lead to sustainable practices and continue to harness energy and products from sustainable

Purpose/Context: Reduce carbon emissions to zero

# UNCOVERING CHALLENGES

We applied an influence map to better understand the areas for potential intervention and address our focus question: What are the challenges facing climate action in the next 10 years?

Challenges were organized from the bottom up to uncover influences and the roles of key stakeholders. At the top, the sectors identified by the Project Drawdown Framework are listed as the overall goals of the system.



# **Key Insights**



Both governments and citizens have high levels of power. However citizens may not be aware of their



Potential in creating long-term turn-over needs to be scalable to proof plans within reach new ears and avoid creating an echo government—reinforced by taxpayer influence. chamber with existing



Need for advocacy about the Drawdown framework for more opportunities for collaboration with communities.

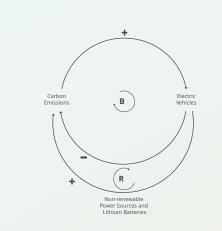
8

22

**Create More Equitable Societies** 

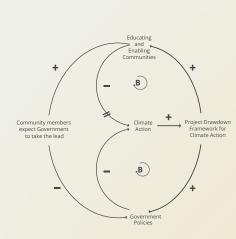
# System Archetypes

These two system archetypes are representative of the recurring malfunctions in the climate action space.



#### **Fixes that Fail**

Often, we find ourselves incorporating changes believed to be for the betterment of the environment only to discover unintended environmental impacts. There is a trade-off and balance that must be struck within many climate solutions. One such example, is electric vehicles (EVs).



#### Shifting the burden

Citizens may shift this burden of responsibility to governments However, citizens have immense influence in the climate action space. Additionally, if the government fails to act, via policy and allocation of funds to climate action, there is an interruption in the loop and climate action slows down or halts completely.

DRAWDOWN TORONTO'S TRANSITION TO CHANGE

Drawdown Toronto as a case study, and consolidating our learnings to suggest strategic interventions that will accelerate

After gaining a comprehensive understanding of the issues surrounding the climate action space, understanding

our journey towards reaching the point of drawdown we used the tool for Transition by Design, based on Geels'

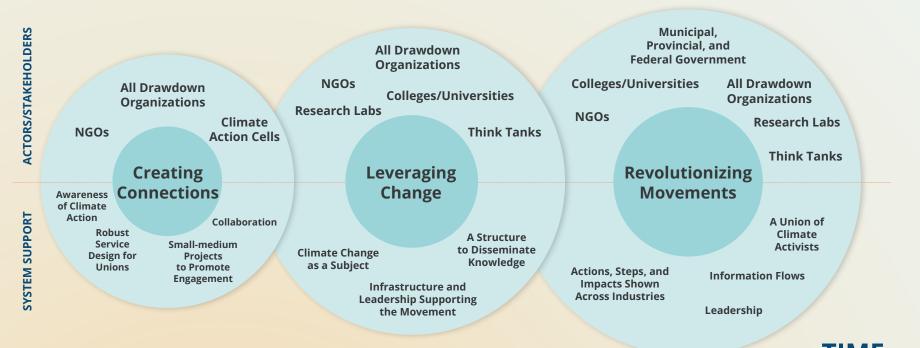
**MESO** 

Multi-Level Perspective, to map the change process in three different stages from the micro to meso to macro level.

At the meso level, Drawdown Toronto can expand their network to engage with other large networks such as universities, research institutes, think tanks that are working in the climate action space. The regional networks that they have built in the first stage help us add value to these collaborations.

#### **MACRO**

At the macro level, Drawdown Toronto can exercise influence and change at a national level and use the leveraged connections to engage with government bodies and policy makers at a national level. At this level, all the key stakeholders that are acting in the climate action space form the leveraged network of Drawdown Toronto and it has become a national movement acting as an intermediary between the civil society and the policy makers.



Regenerative

Architecture

# Proposed Strategic Interventions









**Planned Parenting and** 

**Healthcare for Women** 





**Government Policies Incentivizing** 

Sustainable Practices



Female

Representation

in STEM



Supporting Farmers

**Increase Green** 

Spaces



Invest in Cleantech





Regenerative System Design

**MICRO** 

At the micro level. Drawdown

may be truly impactful at a local

there is an opportunity to engage

influencers in the GTA region who

create momentum at a social level

with climate action leaders and

can serve as a strong catalyst to

and create a narrative around

climate action that is easily

understood by the public.

Toronto needs greater organizational

resources to create a movement that

level. The Toronto chapter is new, so





Circular





5

**Improved** 

Society

Vision (Ideal Future)

Climate

Resilience





**Sustainable Climate** 

**Friendly Agriculture** 



# Vegan and **Sustaible Diets**





# Current Climate Challenges

Unsustainable

~~

Coastal & Ocean

**Sinks Reducing** 

**Population Growth** 



Waste

**Economic Divide** and Instability









**Climate Change** 

٥٥٥

Refrigerants



**Indigenous Belief** 



**Adopting a More Eco-Friendly** 

and Sustainable Lifestyle





Funding for

**Climate Action** 



**Structured Collaboration of** 

**Environmental Groups** 

## SFIN-6011-002: Understanding Systems Team: Aisha K, Neha Saini, Janine Stowe, Sumona Banerji, and Vinit Soneji