

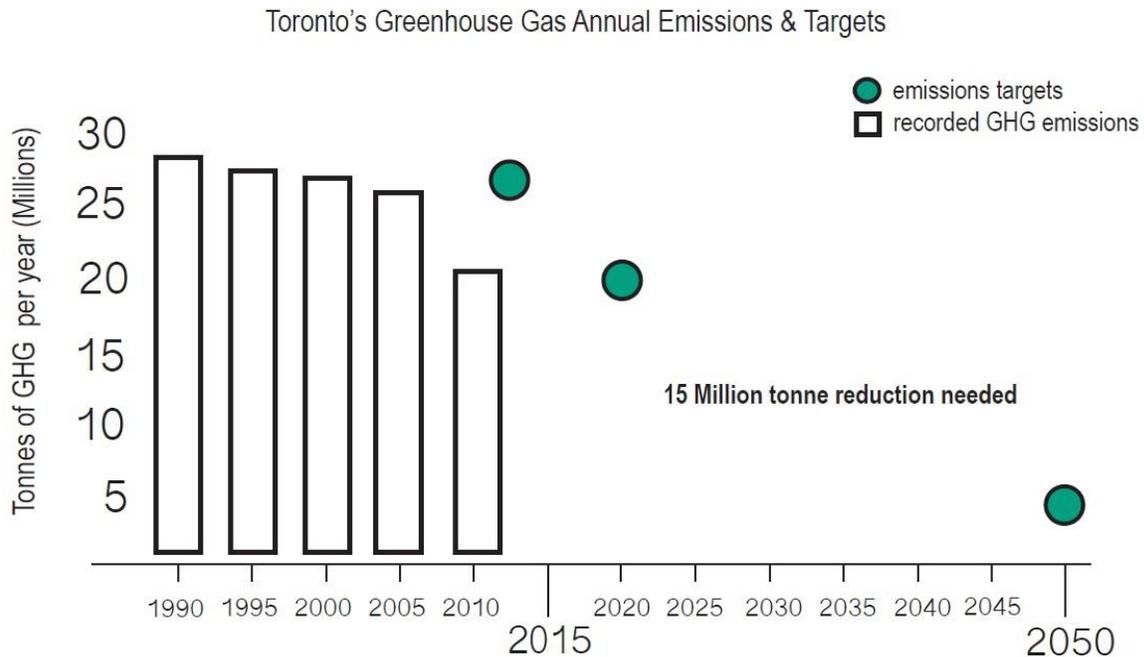
TransformTO

Climate action for a healthy, equitable, and prosperous Toronto

TransformTO will identify how the City can achieve its greenhouse gas reduction goal of 80% by the year 2050, while enhancing our local economy, reducing social inequalities, and improving our health. **We need your big ideas and questions to spark the conversation.**

You can complete this workbook online at:
<http://cityoftoronto.fluidsurveys.com/s/TransformTO>

Toronto City Council has initiated an effort to co-create with all residents a plan to reach our 80% reduction target. **We know the task is significant and urgent. The graph below shows that we've already reduced our greenhouse gas emissions by 7 million tonnes per year since 1990, so we are on the right track. But, by the year 2050 we need to create 15 million less tonnes of greenhouse gas emissions each year than we do today.**



Starting in Fall 2015, the City will host a series of *Talk Transformation!* events, to hear from thought-leaders and community experts about critical ideas, technologies and programs we need to reach our targets. We'll also need to explore the connections and synergies between

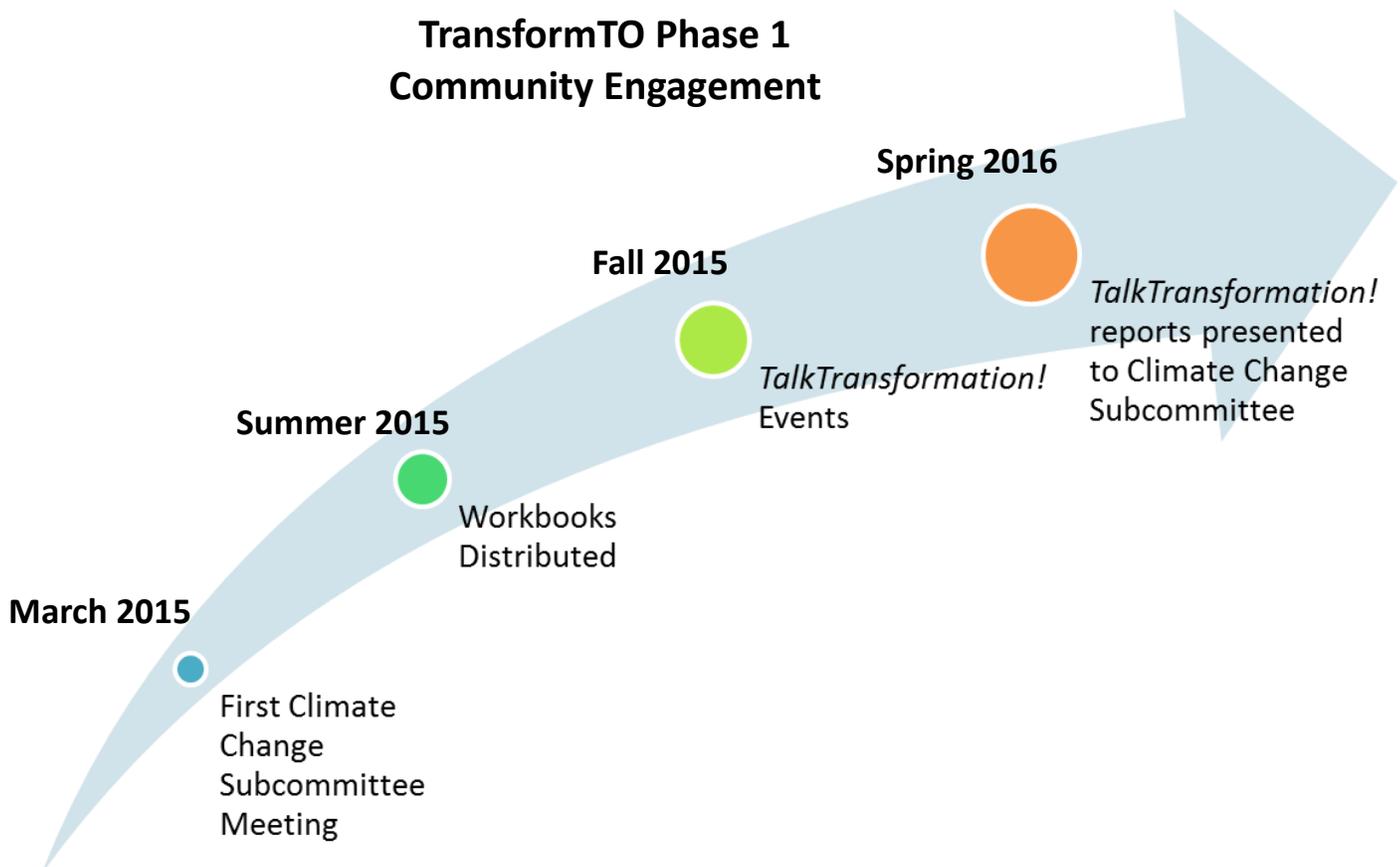
sectors and opportunities to maximize co-benefits of climate action to reduce health care costs, enhance quality of life and grow the local economy.

People living and working in Toronto will be at the centre of this transformation, so we're asking you to help co-create the project at every step in the process. Everyone can attend the *TalkTransformation!* events and listen to cutting-edge ideas on how Toronto can build the future we want and need, and ask questions of the speakers. **This workbook is a chance for you, the community, to provide your ideas and input.**

Each *TalkTransformation!* event will focus on a different aspect of climate change:

- | | |
|---|--|
| 1. Resilience and Adaptation to Extreme Weather | 4. Energy Systems and Buildings |
| 2. Low-Carbon Mobility & Transportation | 5. Sustainable Consumption and Behaviour |
| 3. Green Spaces and Urban Agriculture | 6. Health and Climate Change |

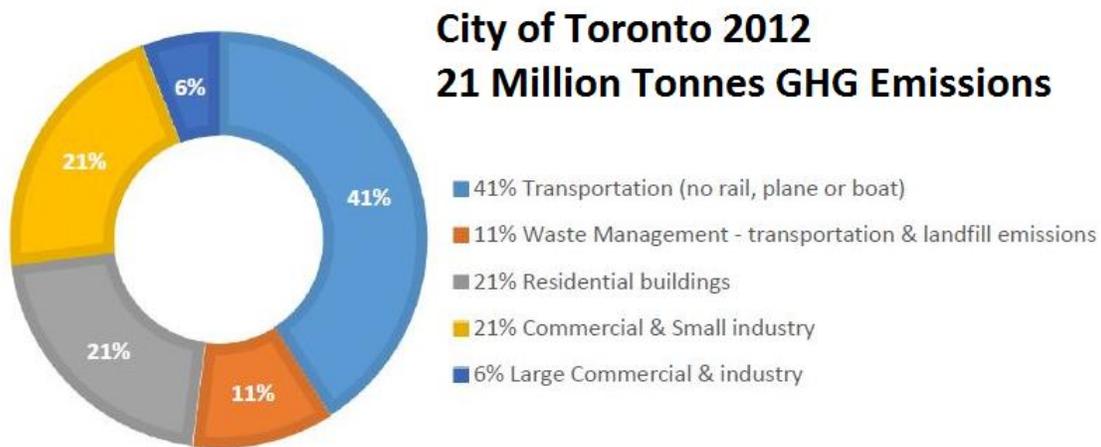
TransformTO Phase 1 Community Engagement



Phase 1 of the TransformTO community engagement process began in March 2015. The *TalkTransformation!* events starting in the fall of 2015 will continue Phase 1 of the community engagement process.

Phase 2 of the community engagement process will launch in Spring 2016 to talk about different ideas and opportunities for climate action based on climate change modelling, expert technical advice, and Phase 1 engagement feedback.

21 million tonnes of greenhouse gases were released in the City of Toronto in 2012. You can see a breakdown of where these emissions came from below.



To reach our 2050 target we will need to make big changes in how we move around, how our buildings operate, and how we handle the waste we produce.

Tell us your ideas and questions for the *TalkTransformation!* events. We'll collect all submissions, post a summary to the project website, and provide it to the speakers to spark the conversation at the events. If we receive your submission after the event we'll include it in the overall engagement summary. **For privacy reasons while answering all questions, please do not include any personal information in your responses.**

Stay tuned to the TransformTO website for other ways to get involved.

Thank you!



1. Preparing Toronto for an Extreme Weather Future

Resilience is the capacity of individuals, communities and systems to survive, adapt, and grow in the face of stress and shocks, and even transform when conditions require it.

– Rockefeller Foundation.

In Toronto, climate models predict that our weather will change a great deal by the year 2050. The maximum amount of rainfall expected in any single hour will more than double, and the average maximum temperature will rise from 33° C to 44 ° C. We'll have 66 days each year with temperatures greater than 30 °, up from 20 days per year between 2000 and 2009.

Toronto is building resilience by planting more trees to increase shade and to clean and cool the air. We're increasing the size of storm sewers and culverts to handle greater volumes of storm runoff and installing permeable surfaces – like paving stones with gaps between that water can move through – to reduce flooding. While resilience is a priority and work is underway we know there is more Toronto residents, businesses and local government need to do.



What is the **one idea you think has the most potential to increase Toronto's resilience to extreme weather?**



How will this idea build Toronto's resilience to extreme weather?



Have you seen an example of this idea in Toronto, in other cities, in other countries? Tell us about it.

A large rectangular area enclosed by a dotted border, intended for writing a response to the question above.



What other ideas and questions would you like to hear discussed at the *TalkTransformation!* Resilience event?

A large rectangular area enclosed by a dotted border, intended for writing a response to the question above.



2. Getting Around in a Low-Carbon Future

Transportation accounts for 40% of greenhouse gas emissions in Toronto, and almost 80% of our transportation emissions come from driving personal vehicles. That's a big problem for us to tackle.

The City's current approach focuses on providing the infrastructure, policies, and programs to support walking and cycling – i.e. "fuel free" modes of transportation - as well as promoting shared transportation such as public transit and carpooling.

Traffic and congestion management continue to be a challenge in Toronto. By re-designing our streets and neighbourhoods we can support efficient transit systems and reduce the need for personal vehicles. Electric cars and bikes are also making their way onto our city roads and introducing less carbon intensive mobility.

Achieving low-carbon transportation through innovations in technology and increased use of fuel free and public transportation, will be essential to reducing greenhouse gas emissions .



What is the ***one idea you think has the most potential to reduce the carbon emissions created by transportation in Toronto?***



How will this idea reduce the greenhouse gas emissions of Toronto's transportation system?

A large rectangular area enclosed by a dotted border, intended for handwritten or typed answers to the question above.



Have you seen an example of this idea in Toronto, in other cities, in other countries? Tell us about it.

A large rectangular area enclosed by a dotted border, intended for handwritten or typed answers to the question above.



What other ideas and questions should be discussed at the *TalkTransformation!* Transportation event?

A large rectangular area enclosed by a dotted border, intended for handwritten or typed answers to the question above.



3. Green Spaces & Urban Agriculture

Toronto – a city within a park.

Green spaces in Toronto are vital places for the community to enjoy recreation and time in nature. There are over 1,600 parks in Toronto making up 12.7% of the land area of the city. Each tree in our urban canopy absorbs greenhouse gas emissions, and urban agriculture can reduce the distance travelled by the food we eat.

As Toronto looks to the future, the way we use and invest in our green spaces will be important to reaching our greenhouse gas emission reduction goals and adapting to our changing climate. Green spaces and the urban canopy reduce urban heat island effects, and moderate rainfall run-off during intense storms.

Investments and innovations in green spaces, and the promotion of urban agriculture are just some of the ways that urban parklands can be climate action.



What is the ***one idea about urban agriculture and/or parks that you think has the most potential to reduce the carbon emissions and help Toronto adapt to our changing climate?***



How will this idea reduce emissions and increase our ability to adapt to climate change in Toronto?



Have you seen an example of this idea in Toronto, in other cities, in other countries? Tell us about it.

A large rectangular area enclosed by a dotted border, intended for writing an answer to the question above.



What other ideas and questions would you like to hear discussed at the *TalkTransformation!* Green Spaces event?

A large rectangular area enclosed by a dotted border, intended for writing an answer to the question above.



4. Carbon-neutral Energy & Buildings in Toronto

Heating, cooling and operating buildings, including residential homes, accounts for nearly 50% of greenhouse gas emissions in Toronto. The natural gas we use to heat our buildings in the winter, and the electricity we use to light and air condition the spaces we live, work, and play in are major contributors to Toronto's carbon footprint.

Toronto is a leader in energy efficiency, with programs such as the Better Buildings Partnership supporting the elimination of 560,000 tonnes of greenhouse gas emissions through energy efficiency investments since 1996. We're leading community energy plans, helping new developments make smart use of energy, and delivering incentives to homeowners to promote energy efficiency improvements and renovations.

On-site renewable energy generation – such as solar panels or geo-exchange technology - is another innovation that reduces greenhouse gas emissions and stress on Toronto's electrical grid. We know there is great opportunity in continuing to promote energy efficient solutions, and creative ideas from the community will be critical to our success.



What is the ***one idea you think has the most potential to reduce the carbon emissions related to building operations – heating and cooling - in Toronto?***



How will this idea reduce the greenhouse gas emissions of Toronto's buildings?



Have you seen an example of this idea in Toronto, in other cities, in other countries? Tell us about it.



What other ideas and questions would you like to hear discussed at the *TalkTransformation!* Energy & Buildings event?



5. Exploring the carbon footprint of Toronto's economy

The greenhouse gases that are released in our city by vehicles, buildings and waste management are estimated each year. In addition to these direct emissions, greenhouse gases are also associated with all the goods and services we buy and use - the food we eat, the furniture we buy, and the clothes we wear all create greenhouse gas emissions when they are manufactured, transported and sold.

Everyone can reduce their personal carbon footprint by making everyday choices. Enabling people to make climate-friendly choices requires systems and structures that make those choices easier. The sharing economy (i.e. car share, tool share, bike share) is an example of how communities are innovating to reduce the per capita carbon footprint.

More ideas are needed to support positive behaviour change and reduce our individual carbon footprints.



What is the *one idea you think has the most potential to reduce the carbon emissions connected to the goods and services that people buy and use in Toronto?*



How will this idea reduce the carbon footprint of Toronto's residents' purchases?

A large rectangular area enclosed by a dotted border, intended for handwritten answers to the question above.



Have you seen an example of this idea in Toronto, in other cities, in other countries? Tell us about it.

A large rectangular area enclosed by a dotted border, intended for handwritten answers to the question above.



What other ideas and questions should be discussed at the *TalkTransformation!* Carbon Footprint event?

A large rectangular area enclosed by a dotted border, intended for handwritten answers to the question above.



6. Health and Climate Change

Climate change is already impacting our health. Whether our focus is on the creeping effects of gradual climate change, or the unexpected and often violent effects of severe weather, serious health implications exist.

In Toronto, potential health impacts of climate change include:

- Increased illness and death related to extreme heat and cold;
- Injury and water-borne diseases from severe weather;
- Increases in vector-borne diseases such as West Nile Virus in mosquitoes and Lyme Disease in ticks;
- Potential food insecurity and food-borne illness from effects on the food system; and
- Heart and lung illness related to poor air quality.

More information on these potential health impacts and Toronto Public Health's plans to address them are available in *A Climate of Concern – Climate Change and Health Strategy for Toronto 2015*.

Efforts to lower GHG emissions and limit climate change have co-benefits for health. Any action that reduces the burning of fossil fuels also reduces emissions of other air pollutants that impact our health. Some actions improve our health in multiple ways. For instance, walking or biking to work instead of driving reduces emissions of GHGs and air pollution. Reducing these emissions is good for our heart and lungs. It also provides physical activity which reduces the incidence of obesity, cardiac problems and diabetes.



How do you think climate change is affecting people's health?

Area for handwritten response to the question: How do you think climate change is affecting people's health?



What action should we take together to reduce the health impacts from climate change?

Large empty rectangular area for writing answers to the first question, bounded by a dotted line on the top, left, and right sides, and a solid line on the bottom side.



What other ideas and questions should the speakers discuss at the *Talk Transformation!* Health event?

Large empty rectangular area for writing answers to the second question, bounded by a dotted line on the top, left, and right sides, and a solid line on the bottom side.

Thank you for your ideas!

Please scan and email your workbook to eed@toronto.ca

Or mail to:
Environment & Energy Division
Metro Hall, Suite 213
Toronto, Ontario
M5V 3C6

Check out livegreentoronto.ca to find out what you can do to make our city greener and reduce greenhouse gas emissions.

Questions? contact: eed@toronto.ca.

