



CASE STUDY | BUILDING RESILIENT, SUSTAINABLE URBAN COMMUNITIES THROUGH COLLECTIVE ACTION

ASTRID ARUMAE

[Sustainable Neighbourhood Action Program](#) (SNAP) is a collective impact program that takes a holistic approach for deep stakeholder and community engagement in climate action and urban renewal at the neighbourhood level. It was developed by the [Toronto and Region Conservation Authority](#) (TRCA) to help municipalities overcome the challenges of retrofitting older urban communities.

What makes SNAP particularly inspiring is that it **connects and aligns technical urban renewal and sustainability objectives with the needs and interests of residents**, thus creating a high level of community engagement for advancing sustainability and moving towards a low-carbon future.

About the Organization

The [Toronto and Region Conservation Authority](#) (TRCA) is one out of 36 watershed-based Conservation Authorities established in Ontario under provincial mandate.

The TRCA's mission is to protect, conserve and restore natural resources and develop resilient communities in partnership with 15 partner municipalities.

The [TRCA's jurisdiction](#) includes nine watersheds in the Toronto Region, covering a population of about 5 million people and a territory of 3467 km². It spans 15 municipalities, including major cities such as Toronto, Markham and Vaughan. The TRCA's position is unique, as Ontario is the only province in Canada with dedicated watershed-based Conservation Authorities (there are 36 in total).

OVERVIEW

The [Sustainable Neighbourhood Action Program \(SNAP\)](#) is a neighbourhood-based climate action program that engages and empowers local communities through collaborative strategy and urban co-planning. Its goal is to transform older neighbourhoods into better and more sustainable places to live whilst reducing greenhouse gas (GHG) emissions, promoting biodiversity and sustainable stormwater management, renewing public infrastructure and building community resilience.

First launched in 2009, SNAP was initiated by the Toronto and Region Conservation Authority (TRCA) and has now grown to over 15 neighbourhoods from nine municipalities in the Greater Golden Horseshoe Region of southern Ontario, led by the TRCA and others. It has also inspired 17 communities in the Netherlands to adopt the SNAP model. In 2020 it received honorable mention in the [Federation of Canadian Municipalities' Sustainable Communities 20 year Visionary Award](#) and was a finalist in 2016 C40 Cities Awards.

KEY TAKEAWAYS

- **Connect planned urban projects to sustainability initiatives** to achieve shared objectives and benefits.
- **Hold space for local interests and needs** and take time to understand and integrate them into all aspects of urban renewal, including planning to implementation.
- **Be creative in the community engagement process.** Get people involved through co-design, offering home energy, water and waste audits; home makeovers; and experimental neighbourhood walks.
- **Make it visual.** Use [mapping tools](#) and other available data and local feedback to plot [community gifts and assets](#) so that everyone can see and understand the local landscape, including what exists and what is being proposed. Use local demonstration projects to inspire and excite people.
- **Unite and leverage the expertise and connections** of a broad range of local community and government stakeholders. Build trust. Seek local advice. Be inclusive.
- **Champion community leadership.** Seek out and build capacity in the local community for leadership and project stewardship for the long term.
- **Measure benefits and co-benefits and show the path from action to impact.**
- **Plan for action now but embrace a long-term outlook.** Pilot projects support community innovation and test out new solutions fast but retrofits, infrastructure renewal and sustainable actions take time to become mainstream and demonstrate impact.

THE SNAP MODEL

By uniting municipalities, local institutions and organizations, Indigenous groups, community leaders, private and business owners and residents, local action plans are developed *together*, and the focus is not just on direct outcomes but also on a broad range of co-benefits such as health and well-being, community connectedness, safety, skills training, arts and culture and local entrepreneurship.

Although a common model is applied, there is no one-size-fits-all approach. Each SNAP project is tailored to the individual interests and needs of each community; however, all SNAPS share these common elements:

- **Neighbourhood scale** – focused on geographical urban areas where multiple sustainability issues, vulnerabilities and urban renewal needs overlap. Developing collaborative hyper-local solutions, leveraging existing community assets, coordinating private and public actions and actors
- **Multi-objective** – designed to achieve diverse environmental, resilience and socio-economic objectives
- **Science-based** – based on rigorous technical analysis, predicting measurable outcomes that build a business case for implementation
- **Demonstration** – showcasing innovative action and impacts
- **Local networks** – partnering with local leaders and organizations to engage an un-engaged public
- **Social innovation & market research** – identifying local motivators for behaviour change

The projects also build capacity for community leadership for the post-project implementation stage. SNAP's [Participant to Leader](#) model seeks out community members among project participants and supports them in becoming leaders.

SNAP's approach helps to advance Sustainable Development Goals (SDG) through the following measures:

- **Home retrofits:** For example, flood protection, sustainable stormwater management, rainwater harvesting, [urban sustainable landscaping](#) and tree planting, GHG reduction
- **Infrastructure renewal:** Maximizing social and environmental outcomes through asset-management projects that create thriving biodiverse green, vibrant public spaces and new grey infrastructure that protects water health and supports the environment
- **Multi-unit residential, commercial and institutional revitalization:** Building retrofits, urban agriculture, community amenities and eco-landscaping
- **Community resilience:** Better social connectedness, neighbours knowing/helping neighbours, [skills building](#), risk reduction, and emergency preparedness

A CASE FOR COLLECTIVE CLIMATE ACTION

Having established relationships with local municipalities, the TRCA was well placed as a field catalyst and integrator to initiate this program and to broker critical partnerships with local governments, institutions, residents, private and business landowners and funders. They also played a vital role as an external third party ensuring a fair consideration of all stakeholder interests.

The SNAP program was initiated because of multiple intersecting challenges in implementing watershed and municipal sustainability plans. There was a critical need to find new ways to renew grey and green infrastructure *and* to improve environmental and human health in older urban communities which were being further impacted by climate risks such as extreme heat and increased precipitation. Municipalities also faced implementation challenges in their sustainability and climate plans. Complex challenges require collaborative solutions, and many partners may be working to advance aligning goals. Therefore, by working together more could be done.

While many cities in Canada have developed strategic infrastructure renewal, sustainability and climate action plans, there is an urgent need to accelerate from plans to action that deliver on multiple objectives. For this, collective place-based action that fosters equity for all stakeholders is key and that is precisely what the SNAP program aims to do.

SCALING BEHAVIOUR CHANGE THROUGH URBAN CO-PLANNING

The SNAP neighbourhood action planning process is truly a collaborative effort which brings the TRCA and municipal government representatives together with a broad range of local stakeholders on all aspects of neighbourhood planning and implementation. It also seeks to develop and apply new approaches and learn about best practices from other practitioners and academics working in this space.

Each SNAP project engages 25-50 different stakeholder groups, coming to a total of 250-500 across all current SNAP projects. Typical citizen engagement rates are very high, including hundreds of residents engaged on an annual basis. SNAP's pilot residential retrofit programs reach between 5 and 15% within the first year of the program and with continued uptake over time. This is another reason why adopting a long-term view for impacts is so important. Reaching a critical mass takes time, as does the widespread adoption of change.

The SNAP engagement process invites input from a diverse set of stakeholders, including local leaders and actors, other organizations and subject matter experts, using a creative approach to engage those already ready to act and the harder to engage groups. SNAP projects are underway in a diverse set of communities, from low- to high-income, and from those with high-rise towers to single-family homes. The urban environment and access to green spaces and nutritious food can also vary drastically from one neighbourhood to the next. Hence why an understanding what each community cares about and needs is so important.

Some examples of successful community engagement approaches used by the SNAP team include the following:

- [Open houses & home makeovers](#) to showcase retrofits, sustainable landscaping such as rain gardens and solutions offered by the program (e.g., rain collection barrels)
- [Demonstration events and parties](#) where experts explain the practicality and science behind solutions, such as electric vehicle demonstrations or home insulation parties
- **Experimental walks** and [innovative ideas](#) to learn more from residents, local organizations and technical staff, and value the heritage of a neighbourhood
- Consumer based local **market research** surveys
- Inspiring [co-design workshops](#) through engaging residents in resiliency planning which identifies [local risks, vulnerabilities](#) and assets, forming a basis for creating a strategy together with the community
- The use of [mapping](#) as a brilliant and visual way to lay out the neighbourhood with houses, buildings, trees, green spaces and even maximum and minimum temperatures, helping everyone involved see the *full picture* and making **community urban planning** fun and interesting
- **Social innovation activities**, such as future visioning and role playing to help community members and staff think outside the box



I liked very much that we were encouraged to have a say and select whatever ideas or dreams that we thought would make a difference to us in the fulfillment of the San Romanoway Revival project. This got us residents on board right from the project launch.

– Comment from resident



AN ABUNDANCE OF POSITIVE IMPACTS

The SNAP project outcomes are truly impressive, as not only do they deliver on environmental and resilience aspects but also on a host of co-benefits, both social and economic, making it a win-win on all fronts.

In addition to the place-based solutions that were implemented, some of the impacts across all SNAP projects include:

- **10,000+ trees & shrubs** have been planted;
- **eight significant green infrastructure projects** have been completed, including [bioswales](#), stormwater ponds, raingardens and wetlands;
- **forty initiatives of green infrastructure** on 14 multi-residential unit properties, 18 on commercial or institutional properties and 8 on public lands;
- **restoration, biodiversity and stewardship** actions to preserve the environment, the **natural heritage and expanded urban forests**;
- better **water efficiency** by reduced residential (homes and towers), institutional and commercial demand;
- improved **energy efficiency** through building retrofits;
- **GHG reduction** through sustainable transport options, energy and water retrofits, waste management, tree planting and urban agriculture;
- [climate change mitigation and adaptation](#) actions; and
- **community resilience** and a wide range of **social and economic co-benefits** from stronger neighbour connections and participation in community projects to [improved local food security](#) thanks to community gardens, harvest sharing and balcony growing initiatives.



Responding to residents' desire to plant and grow food, the TRCA partnered with FoodShare in spring 2014 on a balcony container gardening project. Residents received 60 containers in total and grew more than 500 pounds of fresh

At the [San Romanoway Tower Revitalization](#) project, three apartment towers with three hectares of open space around them were retrofitted, and formal skills training was offered to residents. The project achieved significant impact in GHG reduction, Energy Resilience, Sustainable Stormwater Management, Food Production Habitat and Urban Forest Enhancement.

And in addition, important socio-economic co-benefits were achieved:

- 70% of residents felt safer
- 85% reported a positive impact on their mood
- 61% confirmed they had been inspired to start a small business
- 69% were inspired to fundraise for a community cause
- Every **1 hour** of SNAP programming **generated 19 hours of community volunteerism**

SNAP's home retrofit programs helped to deepen community engagement and assist homeowners take multiple actions:

- In Black Creek, Toronto, 17% of the neighbourhood's 1,750 homes implemented on average three significant actions per home (total of 1,229), such as tree planting, energy and water efficiency measures, flood risk reduction and surplus harvest donation
- In Lake Wilcox, a Richmond Hill community, front yard makeover's side yard soakway and raingarden captured stormwater runoff from 13mm rains which represent 75% of all rain events
- In County Court, Brampton, the Green Home Makeover monitoring demonstrated that local homes could realize 44% energy savings and 41% water savings

In 2019, the TRCA led a [Transition 2050 Project](#) supported by FCM's [Municipalities for Climate Innovation Program](#) (MCIP) in partnership with nine municipalities to apply, learn from and develop recommendations for the mainstreaming and scaling of the **neighbourhood-based model for residential and business zone low carbon mobilization** in municipal climate action plan implementation.

As part of this work, a [Climate Action Co-benefits Project Evaluation Guide](#) was developed in partnership with University of Waterloo [Terrametrics](#) Research Lab to provide communities with an **evaluation framework** that helps to effectively measure, evaluate and report on multiple environmental and socio-economic benefits and supports the business case behind neighbourhood and business zone planning models in order to get the necessary buy-in, funding and support.

SHARED OPPORTUNITIES

As the work of transitioning into more sustainable and equitable communities is underway, there is a need for sustainable funding models that support the critical partnership-brokering and integrated planning efforts to get projects to a fundable stage. There is also an opportunity for municipalities to

adopt a more holistic approach to their funding policies, shifting from a traditional siloed approach to an intersectoral, inclusive, multi-objective and collaborative one. In San Francisco, a [Joint Benefits Authority](#) is being piloted. This is a mechanism for pooling scarce resources among several city departments and partner groups for mutually beneficial public-focused projects, helping overcome silos. A similar model could be applied to the SNAP program.

To move beyond pilot projects and to successfully scale resilience and mitigation efforts in communities, there needs to be **stable, multi-year core funding** available that is **accessible and inclusive** to all types of community groups and organizations working on community climate transition.

It is also important to make space for and **allow innovation to emerge** from the collaborative process and **adopt a learning mindset that embraces failure**.

Finally, there is a need for a **shared targets and accountability framework** (inclusive of GHG emissions reduction, climate adaptation and other sustainability measures) to collect and share data and to measure progress across municipalities in Canada.

CONCLUSION

The SNAP program is an impressive example of what is possible when you gather the whole community and key partners around a common agenda. Its collective, multi-layered and intersectoral approach empowers community leadership, deepens engagement and places environmental stewardship back into the hands of neighbourhoods to nurture and protect their living environment.

Community support and strong industry partnerships are key to the success of the SNAP program and projects. Interested partners are encouraged to contact program staff to explore collaboration opportunities in action planning, engagement, implementation, and evaluation. For more information, please visit the program [website](#).

At the Tamarack Institute, we believe we can all be part of solving problems and building capacity to take action. To learn more about how collective impact for climate action is supporting the work of communities across the country, discover [Tamarack's Community Climate Transitions](#).

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