

Indicator Framework: All Tables

The Indicator Framework includes a total of 34 indicators broken down into 6 categories (agenda setting/strategies, policy/plan formulation, implementation, feedback/evaluation, dissemination, GHG emissions). The Indicator Framework tries to represent climate-related actions undertaken at any given moment by a local government (LG) as either incremental, transitional or transformative. Zooming out to the level of the indicator categories allows the user to assess, along thematic lines, where (and how) things are changing in local government GHG emissions, policy, planning or operations. Indicator categories reflect local government mandates to undertake strategic plans, regulate and operate internally. The indicator criteria have been informed by key concepts embedded in social practice theories, multi-level perspective, and socio-ecological systems thinking.

Click on the Indicators column to read more about each one. Bolded titles refer to the 6 categories, while the numbered headings refer to indicators. Note that there are four tables in total, with the first three showing one category per table, and the last grouping together 3 categories.

Table 1: Agenda Setting and Strategy

Local Government Climate Action Indicator Framework			
Indicators	Incremental Actions	Transitional Actions	Transformative Actions
Agenda Setting and Strategy 1. Strategic Approach Description: How are climate actions framed within the overall strategy of the Local Government (LG)? Is the LG undertaking discrete climate actions to reduce emissions and/or adapt to future climate risks? Does the LG approach climate action as part of a broader sustainability agenda?	Climate-related initiatives/programs are framed as either efforts to mitigate or adapt to climate change.	Climate-related initiatives/programs are seen to contribute to multiple LG departmental strategies.	Climate-related initiatives/programs are framed as vital parts of a more holistic sustainable community agenda/narrative/strategy.
2. Champions Description: Who is providing the leadership vision for climate action? Is the leadership at multiple levels? Are the stakeholders external to the LG, such as citizen groups and the private sector? Are they working closely with internal resources such as the city government and the judiciary?	Sustainability / Environmental manager, supported by loosely organized community activists	Small, impassioned, but dispersed group of social entrepreneurs within LG, supported by developed local network of external stakeholders	Majority of elected officials and senior staff, supported by research/policy/activist networks operating at multiple levels
3. Motivational Drivers Description: What is motivating the LG to act on climate change? Is it simply due to legal requirements or a vision for the future? Do the drivers involve diverse sectors and ongoing actions, such as reduced adaption costs, liveability, and health?	Response to legal requirement or desire for competitiveness or clean environment; vision of ecological modernization	Innovation leading to green jobs, energy independence, and economic diversification and competitiveness	Improved human health and community liveability; improved quality of local environment; reduced adaptation costs
4. Mandate Description: How strong is the alignment of LG roles and responsibilities with existing areas and actions related to adaptation and mitigation of climate change? (e.g. is renewable energy provision outside of the normal service delivery model; is air and water pollution and flood control authority shared with senior levels of government?) If responsibility is too narrow or difficult to attribute, it inhibits action.	Little to no alignment leading to diminished capacity to succeed on meaningful climate action	Active participation in voluntary inter-governmental sectoral (e.g. Water, building codes) committees	LG roles clearly defined within an integrated regulatory framework optimized for climate action
5. Integrated planning and programs Description: To what extent does LG incorporate climate science, adaptation strategies, and mitigation actions into daily practices, decision-making, and long-term plans and investments? How aligned are LG departments regarding climate risks/opportunities, emission sources and magnitude? What are the linkages to departmental services, decisions, and functions?	Lack of agreement leading to weak / uneven consideration of climate principles by departments wrt operational or investment decisions	Environment-related departments understand risks/opportunities and try their best to include principles in their work	Institution understands climate change risks/opportunities integrates these into all local government decision-making criteria

6. Mitigation and Adaptation Description: How closely linked are mitigation and adaptation in identifying LG climate priorities? Typically, the dominant focus among Local Governments (LGs) is on mitigation. Integrating responses to both at the local level is important as vulnerability and adaptive capacity are largely determined by local conditions. What is the degree to which hard approaches to climate (walls, pump stations, etc) are or are not considered alongside soft approaches (wetlands, plants, etc.)?	Adaptation primary focus, with mitigation given only cursory attention	Strategies or plans developed for both, but considered as largely separate issues	Synergies and contradictions of mitigation and adaptation understood by institution and reflected in climate action plans, OCPs and ICSPs.
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Table 2: Policy and Plan Formulation

Local Government Climate Action Indicator Framework			
Indicators	Incremental Actions	Transitional Actions	Transformative Actions
Policy and Plan Formulation 1. GHG accounting and inventories Description: How are LGs accounting for GHG emissions? A standard method that allows for regular, easy updating of inventories is ideal. Keeping inventories updated (by integrating with departmental reporting structures) allows for comparability between local governments, and for evaluation and feedback on climate policy, plans, and actions.	Non-standardized emissions accounting method used; irregular updates (if any) to inventory	Standard accounting method used; comparability possible; regular updates performed, but data highly aggregated impairing policy evaluation; price (\$25/t > X	Standard method used; inventory updated (easily) annually; data highly disaggregated; policy evaluation possible; price (\$75/t > X
2. Community engagement Description: To what extent is the community engaged in the LG's climate policy formulation and climate solutions? Ideal engagement entails providing equitable access to the process, and the creation of safe spaces to build trust among social actors in the leadership of the LG. This also requires actively engaging with diverse sectors, and levels of government for reflection and to build understanding across a broad cross-section of stakeholders, on how climate change and climate protection will affect community development.	Limited set of stakeholder groups consulted; consultation rather one-way in nature	Active, two-way communication; variety of engagement tools used to access general public; prime focus is on traditional stakeholder groups	Two-way learning; active engagement with broad spectrum of community stakeholders; range of tools, rules, and access ways build trust in process
3. Science-policy capacity Description: To what degree does the LG have access to, and make use of, relevant and reliable climate science and policy expertise? What diverse sources are accessed, locally, nationally and internationally? The use of this knowledge is key to establishing the internal policy-making capacity and to increasing a common understanding regarding how climate change will affect a community.	Limited access to relevant climate science, hence, diminished policy formulation capacity	Access to expertise and know-how uneven across LG with respect to quality and quantity; results in uneven departmental policy development capacity.	Climate science related clear and disseminated widely across LG; functional links between policy- and decision-makers and knowledge producers (academia / experts)
4. Direct and indirect costs/benefits Description: When considering the costs of mitigation and adaptation in policy creation, does the LG take into account the direct as well as the indirect costs and benefits (similar to co-benefits), especially when looking at the long term? Ideally, the short and long-term benefits (direct and indirect) are quantified or valued.	Focus on near-term direct costs / benefits, and an uncertain stream of future costs / benefits; paying today more expensive than paying tomorrow.	Indirect (co-) benefits (e.g. Public health, energy security) considered in policy formulation and evaluation.	Policy based on accounting standards and indicators that considers broad range of near and short term benefits of strong climate action today, and quantifying the co-benefits.
5. Climate policy networks			

Description: How much does the LG engage with external expertise, such as research centres of excellence or transnational networks? This can be crucial to access leading-edge climate science, to learn and share knowledge and experience, and to create new norms.	Little value seen in engaging with national or transnational climate research networks.	Passive engagement / participation with national / transnational networks; limited encounters with best practice and diminished dissemination capacity; member of FCM PCP (at or below level 3).	Active engagement with networks and social learning; adopting (experimenting with) and developing (sharing) best practice; member of FCM PCP (level 5 achieved) and other int'l networks (C40, UCLG, etc.)
6. Policy congruence and alignment Description: How aligned is the government, both vertically (among levels of government), and horizontally (across sectors and agencies)? Ideally, there is a system in place to evaluate the synergies and contradictions between intersecting policies.	Misaligned gov't policy results in unclear vision 'mal-adaptation' or 'mal-mitigation'	LG aware of conflicts and trying to mitigate same through strategic partnerships and collaboration with gov't at all levels.	Aligned incentives between gov't levels and across sectoral policy areas; mandatory regulatory impact assessment to include climate change considerations.
7. Integrated planning framework Description: How well is the diversity of community values and needs incorporated into departmental strategic plans? Aspects such as the LG's natural setting, spatial form, and built environments are relatively static but subject to future modification through spatial planning and management, while aspects such as land use, neighbourhood densities, the character of the built environment, parks, and open spaces, as well as public infrastructure and facilities are determined by the LG. To what degree is integrated strategic planning pursued and supported by LG priorities structures and actions, with environmental, social, and economic needs and values considered? For example, integrated land use and transportation planning increases density of developed land. Planning for mixed-use development, and closer proximity to transit and/or destinations can reduce vehicle kms traveled.	No integrated planning framework; planning underpinned by growth assumptions and free-market mechanisms.	Climate / environmental goals incorporated into OCP only; sectoral plans (e.g. waste, land-use, transport, water) non-integrated.	Climate, land-use, transport, water and waste plans and actions integrated and fundamentally congruent/consistent, supported by a regulatory framework.
8.Planning horizon Description: How long-term are the plans for climate change action? Climate change represents a long-term challenge that requires action over both short- and long-term, and therefore planning should reflect this. The timing of climate actions need to align with the length of plans, and vice-versa. Ideally, plans and their accountability transcend political cycles.	Focus on short-term (i.e. 5 yr), with aspirational attention paid to time periods beyond 10 years.	Long-term climate targets set, yet plans are clear only on actions within 2-5 year period.	Plans contain concurrent and sequential actions, with regular monitoring / reporting / updating requirements, throughout duration of plan.
9. Climate Action Description: What is the nature of LG actions? Is the preference for short-term, easy & unlinked actions that leverage maximum external funds, or are they more long-term, priority-based and strategic?	Short-term; focus on low-hanging fruit and quick returns; not joined up.	Short- and medium-term but preference for short-term actions; actions taken strongly linked to government funding that arises.	Actions taken according to priority and strategic sequencing; government funding synergistic vs distracting; experimentation encouraged.
10. Jurisdiction Description: To what degree does the LG's legal authority align with locally relevant climate areas (e.g. local waste management, local water supply and distribution, local energy supply, transport infrastructure, buildings, and land use)? Energy policy is traditionally considered a supra-local issue, one that is controlled at the state/provincial, national, or trans-national level. Because of this, LG has to be strategic with their authority and influence in order to align with outside authorities.	LG lacks jurisdiction over matters that determine their GHG emissions; legal authority resides with higher levels of gov't.	Devolution of authority to LG without matching funding, revenue generating abilities, or sufficient capacity to permit strategic action.	Decision-making powers and financial controls at the LG level in key policy areas in place; LG spheres of influence well aligned with climate areas requiring action.

Table 3: Implementation

Local Government Climate Action Indicator Framework			
Indicators	Incremental Actions	Transitional Actions	Transformative Actions
Implementation 1. Corporate climate actions Description: How are LGs accounting for GHG emissions? A standard method that allows for regular, easy updating of inventories is ideal. Keeping inventories updated (by integrating with departmental reporting structures) allows for comparability between local governments, and for evaluation and feedback on climate policy, plans, and actions.	LG undertakes corp. building retrofits, recycling, H2O conservation, and participation in Earth Hour, Car-Free Day, Bike to Work Week. Signed Prov'l Climate Action Charter & buying market offsets.	Corporate green fleet, van-p/car-pooling, solar panels, green roofs, building retrofit projects and renewable energies. Going toward C-neutrality via carbon fund and internal emission reduction projects.	Restorative/passive new civic buildings, comprehensive retrofit program, E-fleet & 3rd party car-sharing services; Carbon fund in place; C-neutral via internal projects; 100% renewables target of 2030.
2. Partnerships, strategic alliances Description: The extent to which the LG engages in partnerships with other levels of government or parallel agencies to enable or stimulate climate action (e.g. collaborating with regional institutions to address adaptation issues which are typically best addressed at this level). Strategic alliances with researchers, civil society leaders and quasi-institutional organizations.	Partnerships limited to existing regional cooperation models over issues like water and waste management.	LG engaged in partnerships with other levels of gov't, civil society or business to advance strategic climate action.	LG actively engaged in partnership models to take concrete climate actions and deliver more climate-friendly core services.
3. Local government controlled service delivery Description: How flexible is the LG when it comes to adjusting and expanding its service delivery model (i.e. waste, water) to enable climate friendly community development?	LG undertakes traditional delivery of water, waste and other infrastructure services without special regard for climate imperatives.	LG working to raise awareness of climate-friendly ways in which residents can engage with local services (e.g. Water conservation, waste recycling, organics recycling, energy efficiency).	LG expands its role to enable delivery of a climate-friendly service (e.g. E-efficiency housing, bicycle-sharing network, district energy based on renewables) to residents.
4. Rule making - Local Government climate regulations Description: How active is the LG in regulations favouring climate-friendly development? This includes: enforcing regulations from senior levels of government that are related to energy and climate; lobbying senior levels of government for building code improvements; rezoning vulnerable areas to adapt to climate change or to increase housing density; infill development; reuse of buildings; green building checklists; density bonuses for green buildings, development permit areas (DPA) for energy efficiency; building energy efficiency labelling; and mandatory hook-up to district energy systems.	Handful of opt-in programmes offered to residents and businesses (e.g. Sustainability checklist, bldg energy labelling, solar-ready, etc.).	Stretch' code embraced, E-efficiency req'mts in DPA's, min energy performance criteria for new zonings; green building / sustainability checklist mandatory for all new bldg permits.	LG flexibility / autonomy over bldg codes; net-positive bldgs and passive house for new / existing houses; mixed use zoning, compact and transit-oriented development.
5. Experimentation / innovation Description: How broadly does the LG encourage and facilitate experimentation and innovation around climate-friendly policies, practises, or technologies, both in and outside of LG? This includes providing incentives, encouraging risk-taking, and creating safe spaces to innovate, as well as providing technical and financial support from senior levels of government. The results of experimentation are monitored closely and the results are shared widely.	Encouraged within traditional business and technological arenas, but less so in climate domain.	Permits experimentation (in and outside of LG) on climate-friendly policies, practices and technologies, and advertises this modestly; modest to no financial incentives.	LG incentivizing, promoting & underwriting climate experimentation through partnerships; champions / protects niche experiments; disseminates successes.
6. Institutional arrangements			

Description: In the context of delivering on strategic climate priorities, how closely coordinated and aligned are the LG departments on climate mitigation and adaptation, including integrated strategies? What is the degree of shared understandings and ways for moving forward, short and long-term? Are climate actions delivered as project-based initiatives (involving multiple departments and expertise), or are they undertaken as single department-based projects? High-functioning LGs exhibit a common understanding of climate risks and opportunities, respect between departments, shared thinking about operational and capital investment decisions, a healthy science-policy relationship, and a well-developed climate policy and implementation capacity.	Conflicting departmental priorities, incentives; single environment department responsible for climate issues; climate not considered beyond env't dept; lack of structures to coordinate multiple internal dept's	Central coordinating group responsible for climate action across all dept's and for mainstreaming climate goals; or climate group within each climate-relevant dept	Department structures are aligned and mandates reflecting LG climate change areas, principles and priorities are embedded through the LG.
7. Institutional capacity Description: How evenly are resources (financial and know-how) distributed across the LG in order to develop integrated policy formulation, implementation, monitoring, and adjustment? Are the necessary resources in place?	Uneven; climate issues the pervue of sustainability folks.	Limited internal expertise exists; little to no budget for external expertise; full-time Sustainability or Energy Manager in place (# staff linked to size of community); no clear climate mandate for climate-relevant dept's.	Climate policy capacity evenly distributed across LG dept's; climate/sustainability goals embedded in all dept plans; climate action steering group ensures climate/sustainability goals adhered to.
8. Horizontal linkages Description: How engaged is the LG in strategic alliances and partnerships in order to deliver comprehensive climate action? With these partnerships in place, policies can be more widely implemented across the region, and two-way learning occurs. If partnerships are fragmented, this results in implementation gaps, depending on jurisdictions.	LG has few formal relations with sectoral organizations or agencies (e.g. BC Hydro, FortisBC, BCUC) that could help with policy implementation.	LG engaged in formal partnerships with sectoral actors (gov't, Crown Corp's and non-gov't!) to enhance policy formulation / implementation; lessons learned / best practice being shared via partners.	LG well embedded in formal / non-formal sectoral partnership network and climate policies are jointly formulated and implemented via this network. Social learning occurring.
9. Financial support Description: How supported are climate actions, both within and outside of the LG? The policy and regulatory framework developed by senior levels of government plays a key role in questions of financial support. Often, internal funding is not available or is insufficient to permit proper implementation of plans, since LGs are loathe to dedicate tax-based funding to climate actions and, therefore, rely on senior levels of government. This funding model leaves climate action at the LG-level vulnerable to policy misalignments by different levels of government, in addition to vulnerabilities to election cycles and senior government budget dynamics.	LG budget for climate action not part of LG base tax funding; funding from higher levels of gov't sporadic and often unaligned with LG priorities; LG tends to act when gov't funds become available.	Limited budget available (to leverage external climate funds) for climate initiatives in climate-relevant dept's; LG very sensitive to provincial / federal funding, but this is rarely aligned with LG goals.	Climate action' is line item in all dept'l base budgets and budgets for outside climate expertise available. Senior gov't funding programs aligned with each other and with LG needs and vice versa.
10. Vertical policy support Description: How much assistance is available to the LG from senior levels of government? Assistance can be in the form of support for enhanced transfer of climate change knowledge from academics and experts to policy and decision makers. Such coordination can deepen knowledge and lead to strategies that integrate top-down and bottom-up integration, thereby helping climate leaders to create positive climate norms. Key questions for senior levels of government include: has a price been put on carbon? Are climate action and growth seen as an either/or proposition by senior levels of government?	Senior government policy framework is missing or misaligned with LG priorities; senior gov't policy related to energy generation and supply contradicts local climate priorities.	Policy frameworks at prov'l and federal levels incomplete; incentives rarely align due to jurisdictional conflicts, funding cycles. LG climate policies able to exist, but not thrive.	Appropriate devolution of authority with stable funding / capacity; an enabling policy framework exists resulting in linked up policy across all levels of government; two-way learning possible.

Table 4: Feedback & Evaluation, Dissemination, and GHG Emission Reductions

Local Government Climate Action Indicator Framework			
Indicators	Incremental Actions	Transitional Actions	Transformative Actions
Feedback & Evaluation 1. Outcome measurement Description: Are there metrics in place for measuring community GHG emissions? Is the status of climate policy outcomes measured, monitored, evaluated, and reported? The OECD has concluded that LGs are often unable to tie quantifiable mitigation targets with large-scale applications of energy efficient buildings, building retrofits, renewable energies, and transit-oriented development. Thus there is a critical need for fine-grained ways to measure the impact of policy interventions and to identify and quantify the co-benefits of acting.	No metrics identified, and hence policy impacts left unmeasured.	Community GHG emissions inventory (infrequently) available and at a level of aggregation that fails to permit objective policy evaluation.	Metrics agreed upon; these monitored and reported on regularly; emission inventories are disaggregated sufficiently to permit fine-grained policy evaluations.
2. Performance monitoring and evaluation Description: How is the ongoing policy performance measured, and to what extent is this measurement linked to mitigation targets? To what degree is the performance of plans, strategies and actions achieving emissions reduction targets and delivering climate benefits?	No quantifiable metrics to measure policy performance or recommend policy adjustments; irregular inventories available to provide distance to emissions reduction target.	Qualitative policy performance metrics available but not linked to GHG reductions. Inventories more frequent & fine-grained allowing for more frequent policy adjustments.	Evaluation / reporting req'ts on performance established; progress to target and deadlines reported regularly; quantifiable measurements linked to implementatin of policies.
3. Indicators Description: Has the LG developed locally relevant indicators to measure climate progress? If so, to what degree are they measured, evaluated, and reported on? Indicators that are relevant to other local governments can be scaled and used to increase dissemination.	No indicators, beyond CARIP reporting and the provincial CEEI, exist.	LG does CARIP reporting and undertakes own community GHG inventory to help assess climate progress.	LG does CARIP reporting and has developed clear set of climate indicators; these are monitored, measured and reported on annually, and results fed into policy review processes.
Dissemination 1. Information sharing / learning Description: How active is the LG in networks of best practise, experience sharing, peer-to-peer exchanges, or learning? Participating in these networks can inform senior levels of government that LGs are particularly vulnerable to climate risks, and that they have a key role to play in climate action. Through participation with other LGs facing the same challenges, capacity gaps can be filled and risks can be reduced. Social learning is another key outcome of existing and new networks, and can lead to social practise changes.	Information silos exist with little sharing between dept's or with / between external networks / experts. Learning limited to formal staff training, and informal exchanges neighbouring LGs.	Climate knowledge found beyond climate / sustainability staff in other dept's as sharing / dissemination encouraged. Best practice networks referenced by staff in policy development process.	All dept's actively engaged in internal/external sharing networks; influence of lessons learned and best practice high among staff; climate principles well embedded in dept mandates.
2. Sharing networks - Policy & Research To what degree is the LG engaged in local, regional, provincial, national, or transnational networks of climate best practise, as well as in research/advocacy groups that are comprised of experts, non-experts, business groups, NGOs, etc? Networks such as these help to ensure that lessons learned and best practice are widely disseminated. Networks can also inform senior levels of government in more diverse ways than individual local governments.	LG relies on existing thematic networks (e.g. waste, water, parks, development, etc.) to share and receive climate-related best practice advice / information.	LG is member of one network dedicated to exchange of climate-related best practice. This information is used by the environment or sustainability department only.	LG is member of several networks (at various geog scales); uses these to learn best practice and disseminate local lessons learned; all climate-relevant dept's engaged in process.
GHG Emission Reductions 1. Corporate emissions target			

Description: Does the LG have a corporate GHG emissions reduction target? An emission target confirms that an LG understands their contribution to climate change, and it also provides an objective point towards which actions / policies can work.	No corporate target for energy or emissions; corporate carbon neutrality target under Climate Action Charter.	Target set, at least in line with percentages, baseline and dates outlined in Provincial targets (e.g. 30% by 2020, 80% by 2050, below 2007 levels). Carbon neutral target set (via offsets).	Energy target set (100% renewables for city operations by 2030) as well as carbon neutral operations (predominantly via internal reductions, renewables and fuel switching).
2. Absolute change in corporate GHGs (between years 2010 and 2015) Description: Depending on corresponding growth in service levels, this measure gives an indication of the global emissions impact of a LG over a given period of time. It is critically important to set boundaries to determine what emissions are to be counted in total, with international protocols (e.g. WRI/WBCSD Greenhouse Gas Protocol) being an example of a standardized, global approach to corporate emissions counting.	X is less than 5% reduction	X is greater than 5%, less than 10%	X is greater than 10%
3. % change in per capita emissions (between years 2010 and 2015) Description: This indicator gives a formula for dividing corporate emissions by population, in order to normalize emission reduction data and give a single intensity measure. It can also identify the efficiencies gained.	X is less than 5% reduction	X is greater than 5%, less than 10%	X is greater than 10%