



BENEFITS OF CONDUCTING A GREENHOUSE GAS EMISSIONS INVENTORY

GREENHOUSE GAS EMISSIONS BASICS

WHAT IS A GREENHOUSE GAS EMISSIONS INVENTORY?

A greenhouse gas inventory is an accounting of greenhouse gases (GHGs) emitted to or removed from the atmosphere - such as carbon dioxide, methane, nitrous oxide, and fluorinated gases - over a period of time.

An inventory provides important metrics for most broad climate, energy, and sustainability projects and programs and is usually the first step taken by local governments that want to reduce their GHG emissions.

The R2C produced a regional inventory that establishes a consistent baseline, measurements and tracking platform for the 8 counties in the East Central Florida Regional Planning Council boundary.

Source: U.S. Environmental Protection Agency (EPA, https://19january2017snapshot.epa.gov/statelocalclimate/local-climate-action-framework-step-step-implementation-guide_.html)

WHAT'S INCLUDED IN AN INVENTORY?

A GHG inventory typically includes emissions that result from the following sectors:

- Energy from residential, commercial, and industrial buildings
- Transportation (on-road transportation, passenger rail, freight rail)
- Wastewater and solid waste

Source: World Resource Institute (WRI, <https://ghgprotocol.org/greenhouse-gas-protocol-accounting-reporting-standard-cities>)

WHO'S INCLUDED IN AN INVENTORY?

Municipalities often conduct a *community-wide* GHG inventory, which can include emissions from local government operations, to understand GHG emission activity across their community as a whole. Neighboring local government entities can also partner together to estimate regional GHG emissions. This option can be valuable for small communities that may not have the capacity or resources to conduct inventories independently or that may want to collaborate with other communities on the resulting emissions reduction activities.

The R2C partners leveraged expertise in the region to conduct a *community-wide* inventory on behalf of our 8 counties and aggregated the data for a true *region-wide* inventory. In addition, the R2C partnered with Audubon Florida and ICLEI to support 18 R2C partners to conduct their municipal operations inventories, to further the reach of the regional inventory and accelerate understanding and action toward emissions reduction which is a stated goal of the R2C.

Source: U.S. EPA (https://19january2017snapshot.epa.gov/statelocalclimate/local-climate-action-framework-step-step-implementation-guide_.html)

WHY SHOULD LOCAL GOVERNMENTS CONDUCT AN INVENTORY?

YOU CAN'T MANAGE WHAT YOU DO NOT MEASURE

Taking action on climate change begins with a thorough understanding of greenhouse gas (GHG) emissions.

This allows local governments to:

- Determine where to best direct mitigation efforts
- Create strategies to address climate change
- Set emission reduction targets and regularly monitor progress

Source: C40 Cities (<https://www.c40.org/networks/measurement>)

START AT THE BASELINE- 2019 FOR EAST CENTRAL FLORIDA

The immediate benefits of a GHG inventory include the ability of local governments to:

- Identify emission sources
- Indicate the relative significance of each source of emissions
- Determine a baseline emissions year that will be used as the starting point for comparisons of year-over-year trends
- Track progress in reducing emissions

Source: U.S. EPA (https://19january2017snapshot.epa.gov/statelocalclimate/local-climate-action-framework-step-step-implementation-guide_.html)

USE DATA TO INFORM EFFECTIVE DECISION-MAKING AND PLANNING

An inventory can serve as a solid foundation for local governments to begin to:

- Quantify the economic, environmental, and public health benefits of activities that reduce emissions
- Develop a framework from which to set goals and targets that effectively reduce emissions over time and base decisions about future policies and programs designed to achieve them
- Establish a basis for developing an action plan

Source: U.S. EPA (https://19january2017snapshot.epa.gov/statelocalclimate/local-climate-action-framework-step-step-implementation-guide_.html)

DEMONSTRATE LEADERSHIP IN ACTION

By sharing or publishing an inventory, the region can:

- Ensure credible, consistent, and transparent measurement and reporting of GHG emissions by following internationally-recognized GHG accounting and reporting principles
- Showcase the important role that local governments play in tackling climate change, and facilitate regional action and collective impact through benchmarking – and aggregation – of comparable data
- Engage residents and businesses in GHG reduction opportunities
- Help generate interest in a project, promote accountability, improve project management, demonstrate progress, attract political and financial support, and partnership toward action

Source: U.S. EPA (https://19january2017snapshot.epa.gov/statelocalclimate/local-climate-action-framework-step-step-implementation-guide_.html)

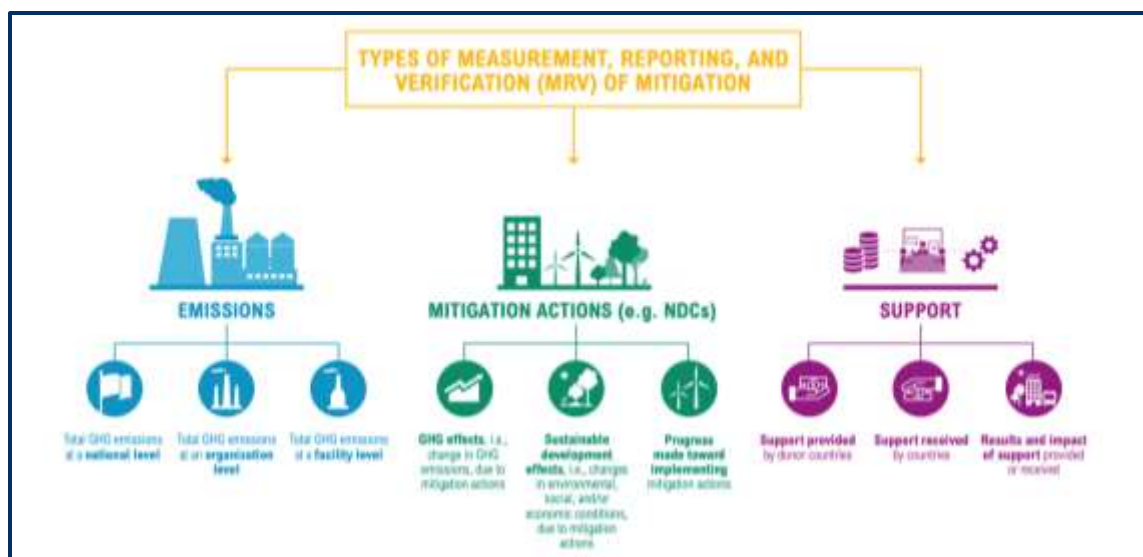


Image source: WRI (<https://ledsgp.org/wp-content/uploads/2016/09/Understanding-measuring-reporting-and-verification-of-climate-change.pdf>)