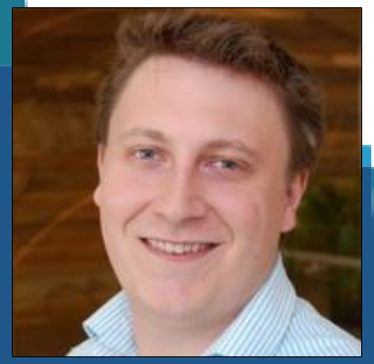
CITY CLIMATE PLANNER PROGRAM

CITY CLIMATE PLANNER



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GBCI®

·I·C·L·E·I Local Governments for Sustainability

WORLD RESOURCES INSTITUTE

Background

- *2014: City Climate Planner program established by the World Bank Group in partnership with World Resources Institute (WRI), C40 and ICLEI.*

- *The City Climate Planner program aims to raise the global talent base of city climate planning professionals through training and professional certifications.*

- *2016: World Bank pilots Urban Greenhouse Gas Inventory Specialist with goal of helping cities produce technically sound / standardized citywide GHG emission inventories.*

OBJECTIVES

- Understand the importance of city-scale GHG Inventories to city climate planning
- Describe how the Greenhouse Gas Protocol for Cities is different than other methodologies
- Understand the Urban Greenhouse Gas Inventory Specialist Credential, and the related training opportunity

WHY CITIES?

Cesar Carreño-Chasin

Why cities?

- *Energy intensive*
- *High population density*
- *High waste production*
- *Massive transportation means*
- *Climatization*

Energy intensive

- *Energy intensive*
- *High population density*
- *High waste production*
- *Massive transportation means*
- *Climatization*

Energy intensive

- *Cities consume roughly 80% of energy in the world*
- *Mixed energy grid*
- *Public lighting and household*
- *Heating systems*

http://www.shareable.net/sites/default/files/styles/blog-header-large/public/blog/top-image/CitiesReportHeader.jpg?itok=ZPf74GEk

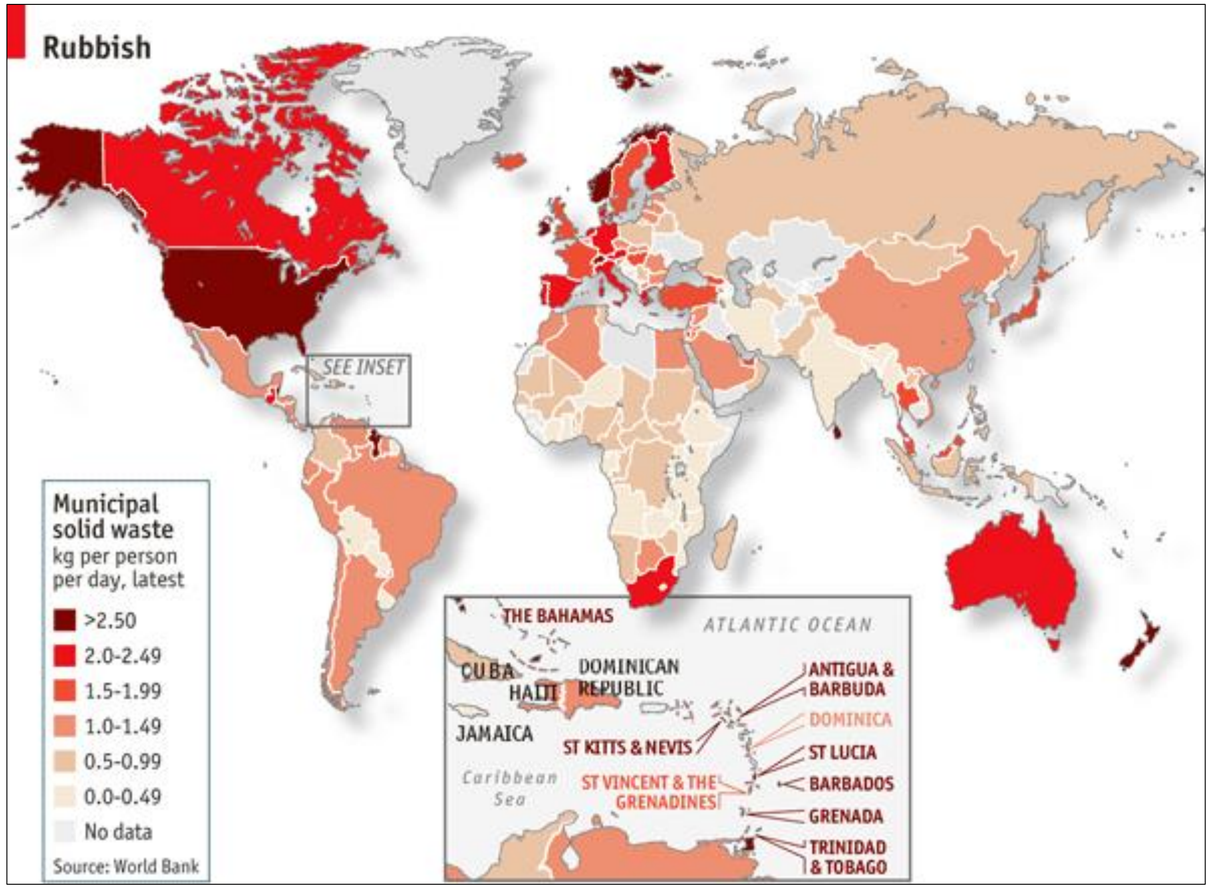
High population density

- *70% of humans live in cities*
- *Jakarta----------> 4300/ Km²*
- *Mexico City---------> 9500 / Km²*
- *Sao Paulo----------> 6400 / Km²*
- *Seoul----------> 10400 / Km²*
- *Tokyo----------> 4300 / Km²*
- *Mumbai----------> 30900 / Km²*

(2012 data)

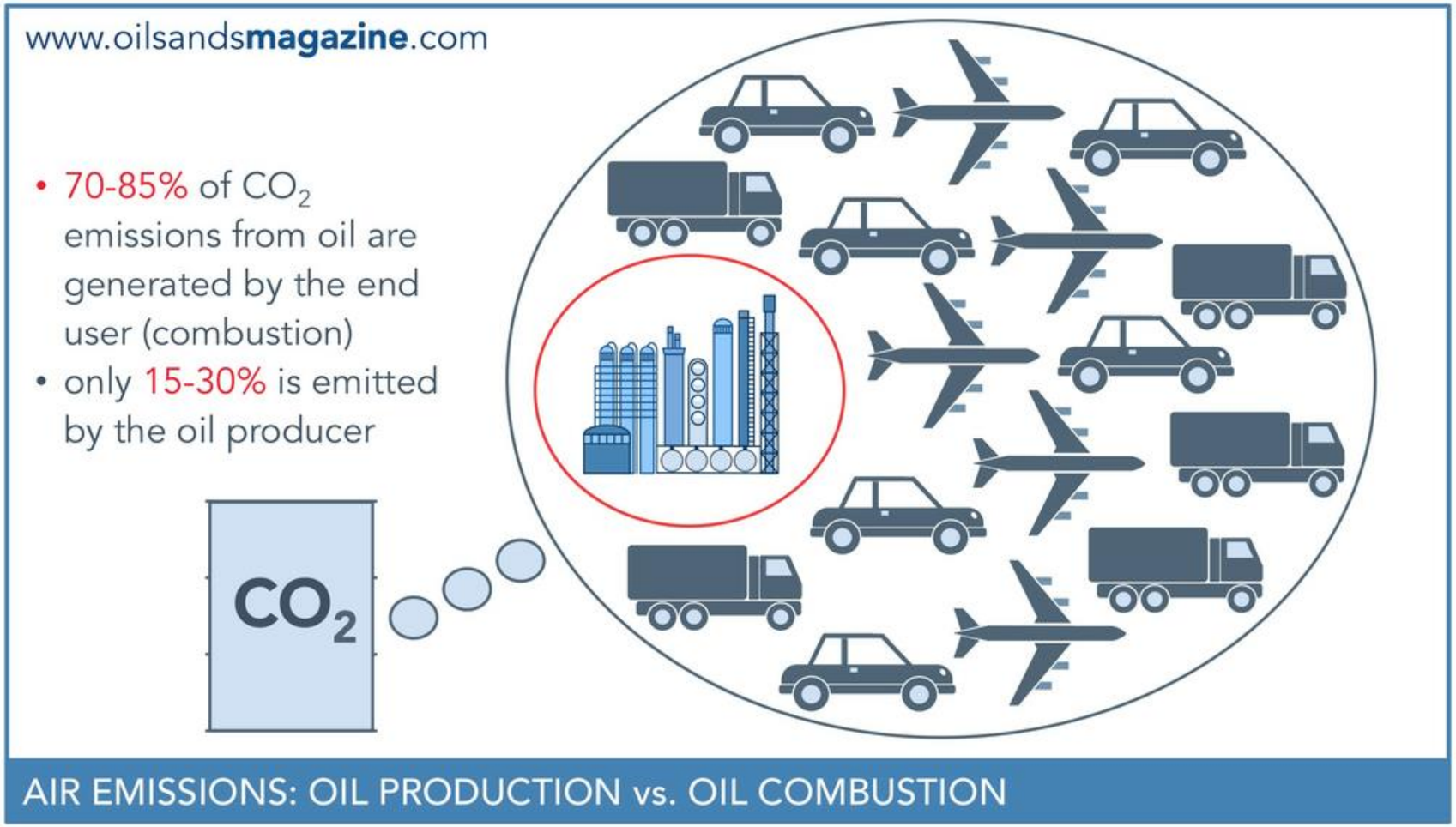
http://www.newgeography.com/content/002808-world-urban-areas-population-and-density-a-2012-update

High waste production



http://www.economist.com/blogs/graphicdetail/2012/06/daily-chart-3

Massive transport means

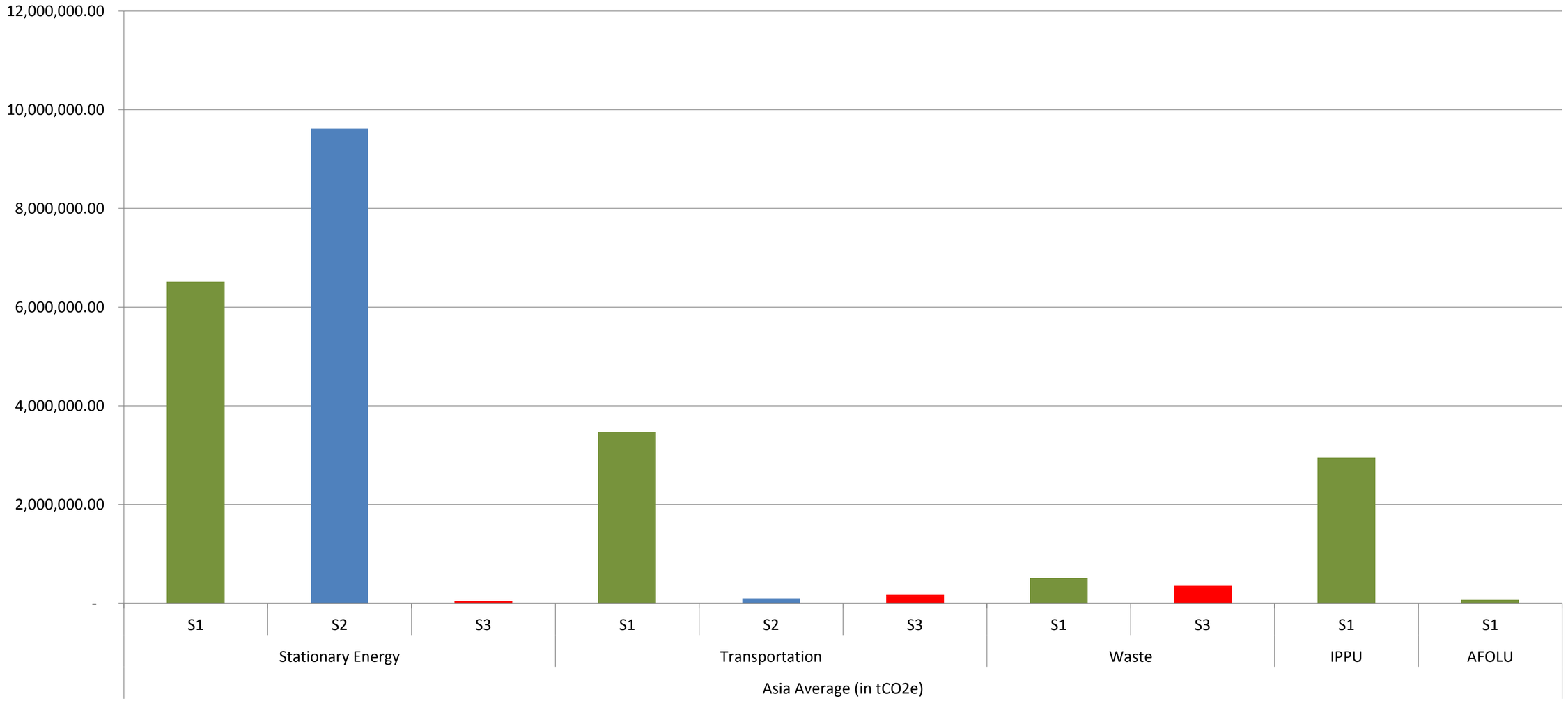


http://static1.squarespace.com/static/52abb9b9e4b0cb06a591754d/t/5321fc2ce4b06ca1805e5861/1394512464883/CO2-CARBON-emissions-from-CRUDE-oil.jpg

Climatization and Industry

http://www.climate-lab-book.ac.uk/files/2016/05/spiral_optimized.gif

What are cities reporting?



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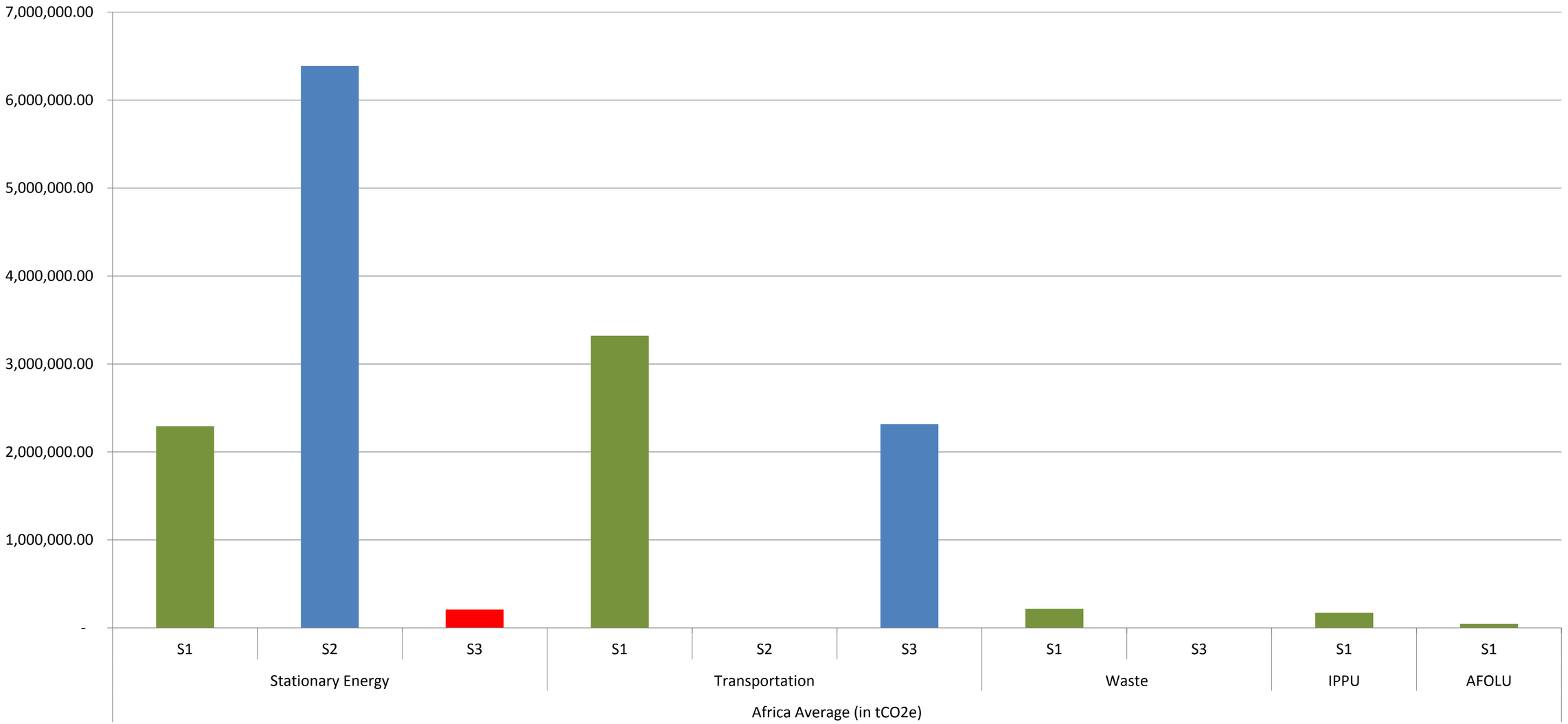

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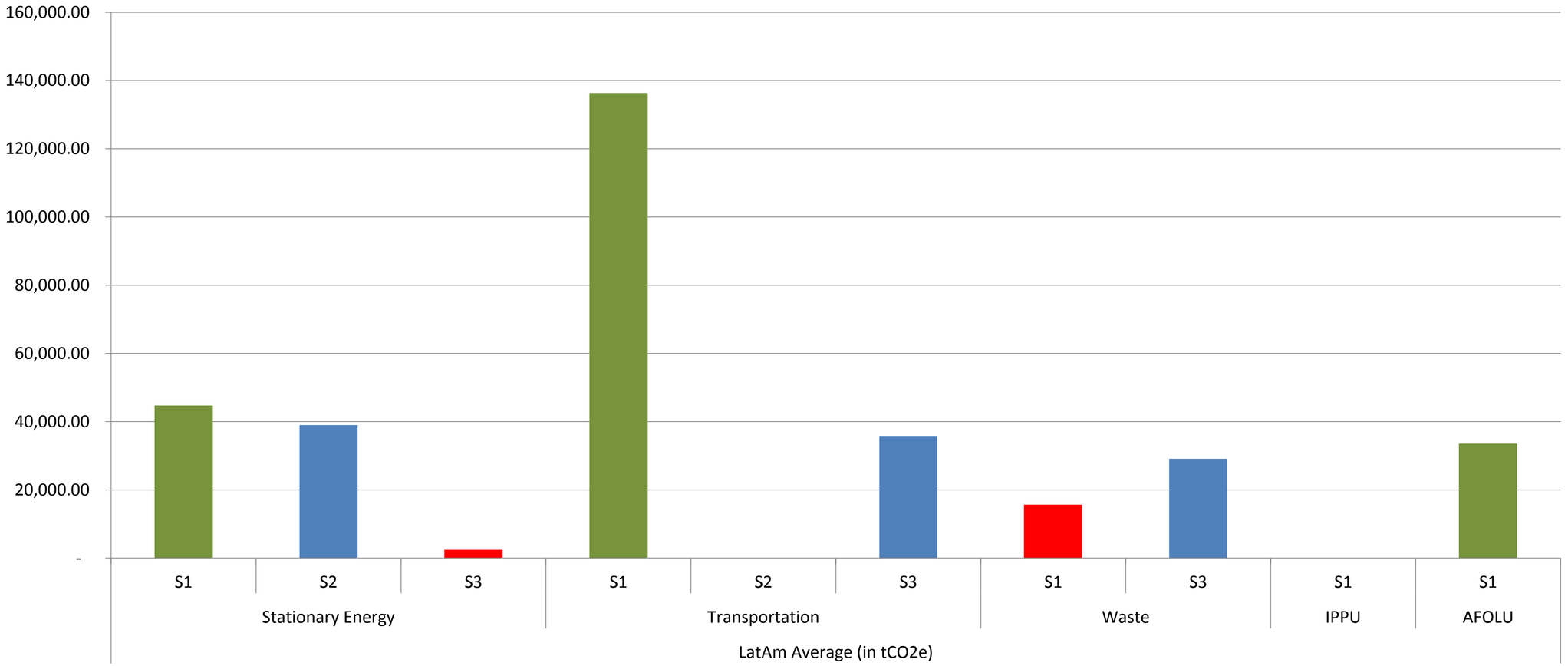

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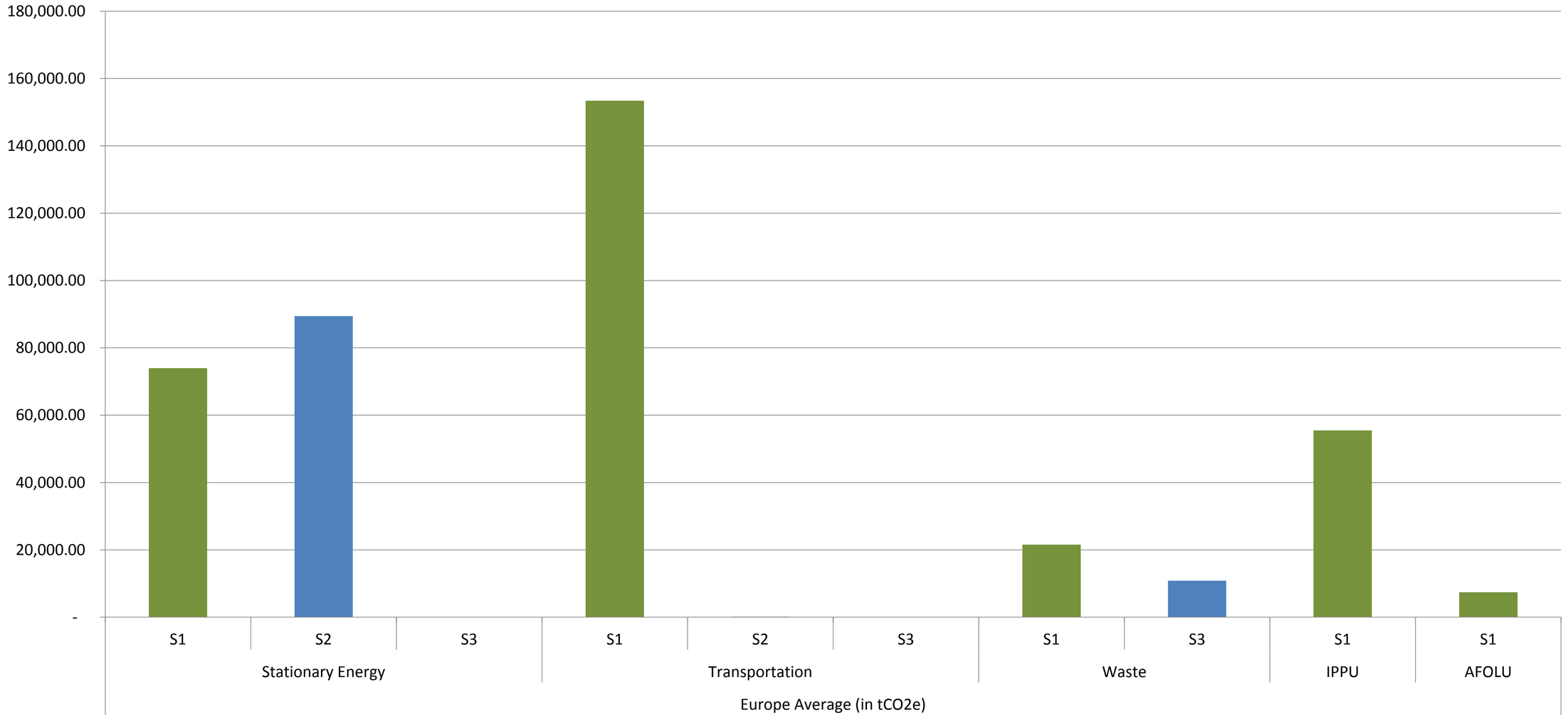

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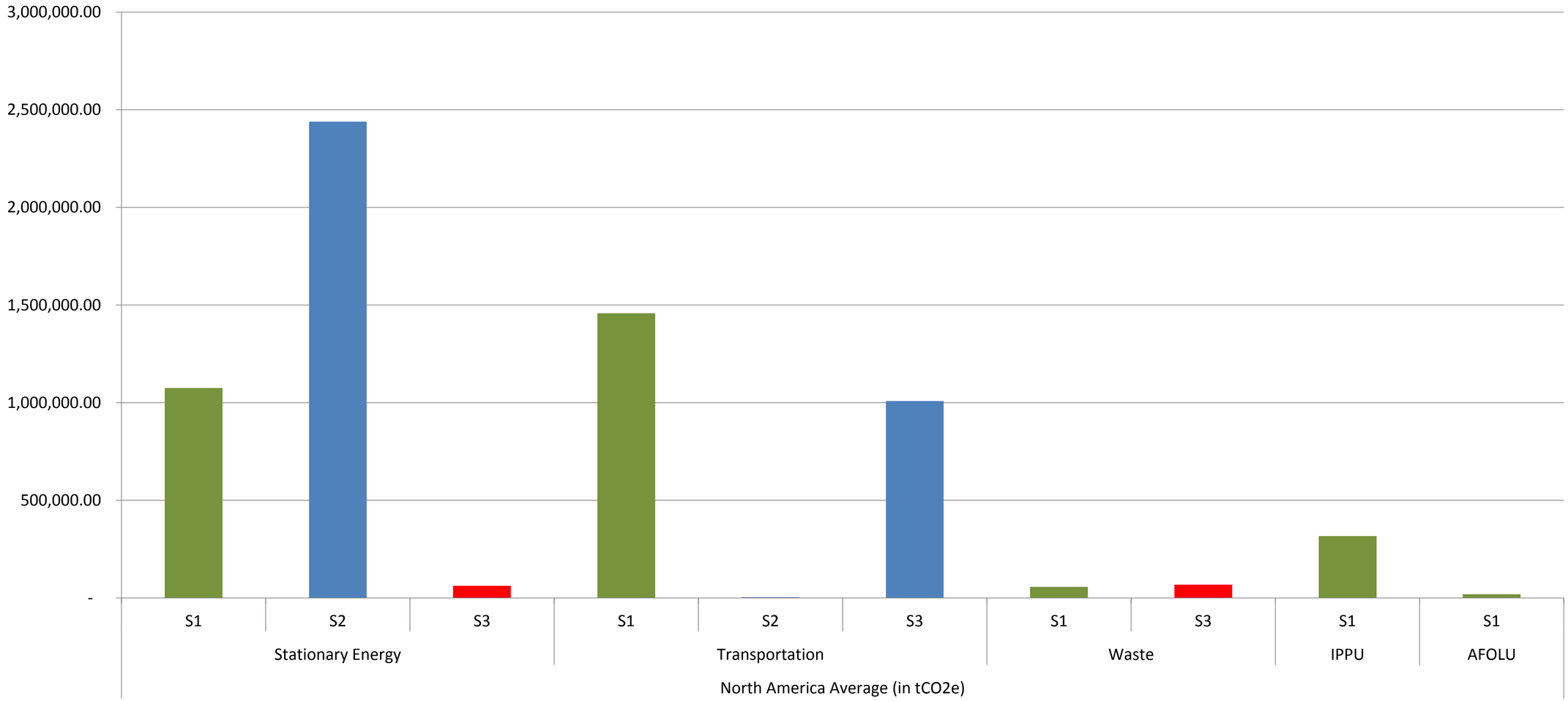
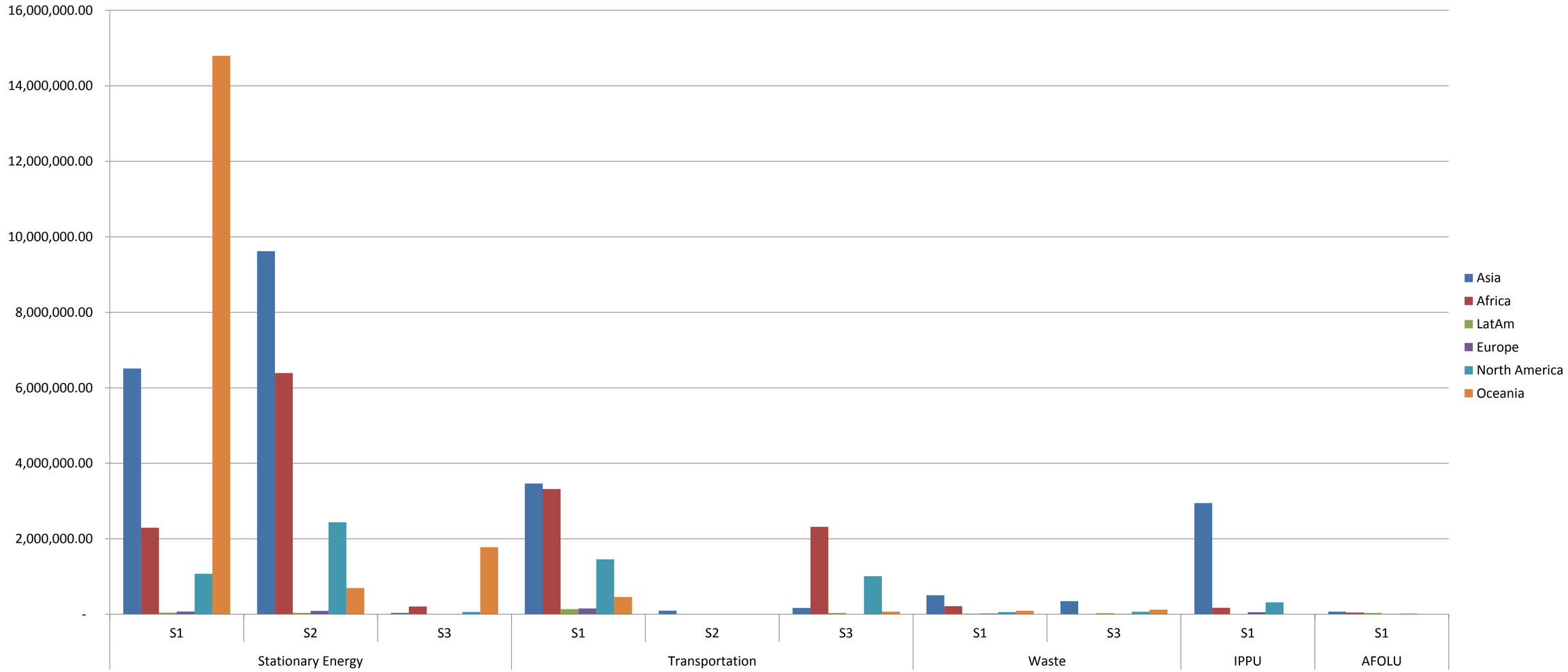


Comparability



Importance & Role

- *A city's ability to take effective action on mitigating climate change, and monitor progress, depends on having access to good quality data on GHG emissions.*

- *Planning for climate action begins with developing a GHG inventory. An inventory enables cities to understand the emissions contribution of different activities in the community.*

- *It allows cities to determine where to best direct mitigation efforts, create a strategy to reduce GHG emissions, and track their progress.*

- *Cities use them to set emission reduction targets, inform their climate action plans, and track their performance.*

Importance & Role

- *In addition, a city-wide GHG inventory can help cities meet legal and voluntary requirements to measure and report GHG emissions data.*

- *Furthermore, it is often a requirement or prerequisite from city project funders and donors that cities measure their GHG emissions using best practice standards.*

Harmonized measuring

1.- The inventory methods that cities have used to date vary in terms of what emission sources and GHGs are included in the inventory

2.- How emissions sources are defined and categorized; and how transboundary emissions are treated. This inconsistency makes comparisons between cities difficult, raises questions around data quality, and limits the ability to aggregate local, subnational, and national government GHG emissions data.

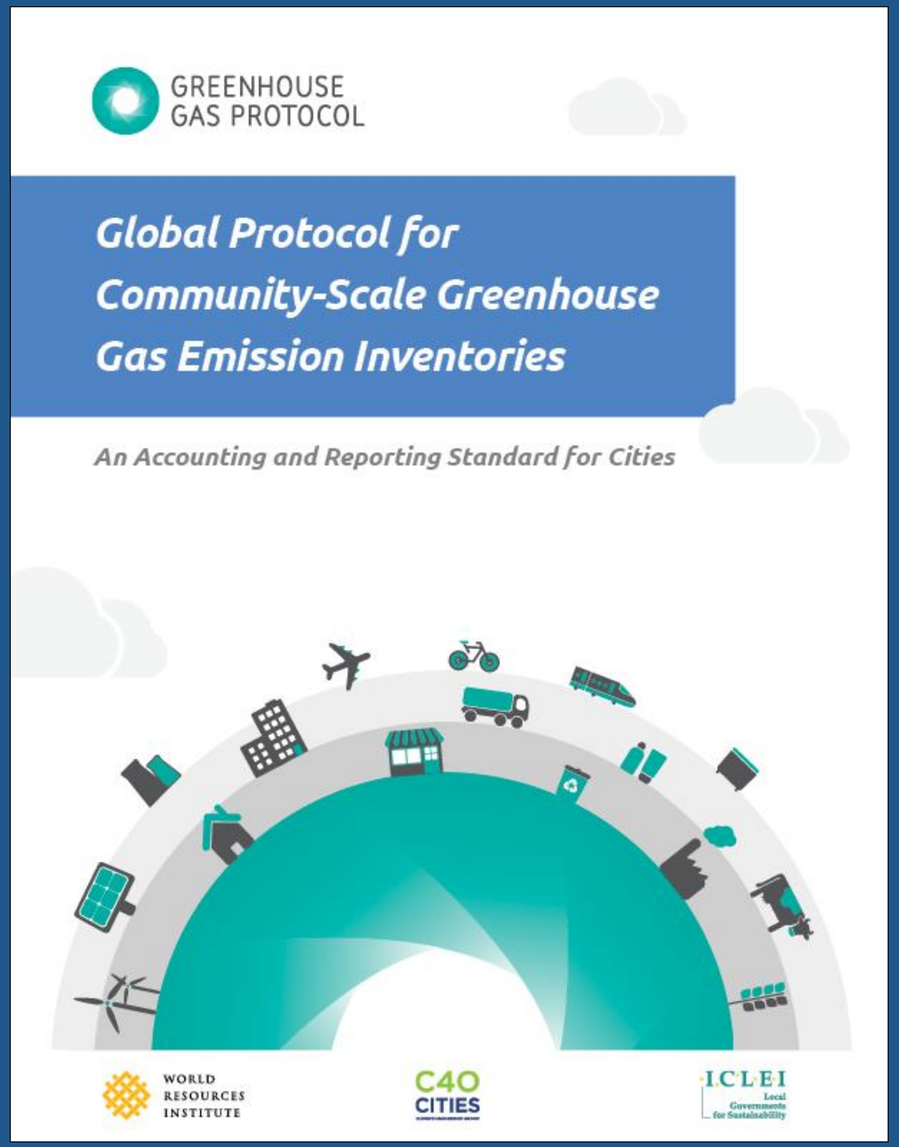
3.- To allow for more credible reporting, meaningful benchmarking and aggregation of climate data, greater consistency in GHG accounting is required.

We need something to responds to this challenge, offering a robust and clear framework that builds on existing methodologies for calculating and reporting city-wide GHG emissions.

WHAT IS THE GPC PROTOCOL?

Carley Chavara

About the GPC



- *A 176-page document*
- *One of the GHG Protocol series of GHG accounting standards*
- *Basis for the City Climate Planner Program Urban Greenhouse Gas Inventory Specialist credential*
- *Download: https://cityclimateplanner.org/resources*

Reporting Framework

Scope Framework

Comprehensively report all GHG emissions from:

- *Emissions from in-boundary sources (scope 1, or "territorial")*
- *Emissions from the use of grid-supplied energy (scope 2)*
- *Emissions from out-of-boundary sources as a result of activities in the city (scope 3)*

City-induced Framework

Report only GHG emissions that attributable to activities in the city:

- *BASIC level reporting:*

  Cover sources that occur in almost all cities and calculation methodologies/data are more readily available

- *BASIC+ level reporting:*

  More comprehensive coverage of emissions sources

Reporting requirements: Inventory information

- *Reporting level*
  - *BASIC/BASIC+*
- *GHGs included*
  - *CO2, CH4, N2O, HFC, PFC, SF6, NF3*
- *Global warming potentials*
  - *IPCC Assessment Report (2nd, 3rd, 4th, 5th)*
- *Overall methodology*
  - *E.g., IPCC 2006 Guidelines*
- *Emission sources*
  - *Stationary energy*
  - *Transportation*
  - *Waste*
  - *Industrial processes and product use*
  - *Agriculture, forestry, and other land use*

Most cities report a BASIC inventory. BASIC should be stated unless all BASIC+ sources that are occurring have been included. **Paris** stated a BASIC+ inventory but had not estimated or confirmed the absence of some BASIC sources so could only report a BASIC inventory.

A BASIC inventory shall report **CO_2, CH_4** and **N_2O**

An explanation should be provided if GWPs from latest IPCC guidelines aren't used. **Tokyo** had to update their 2013 inventory as they had used 2nd AR in their 2012 inventory

A brief **description** is adequate

Stationary energy, transportation and waste are required for a **BASIC** inventory. IPPU and AFOLU are required for a **BASIC+** inventory

Reporting requiremens: Notation Keys

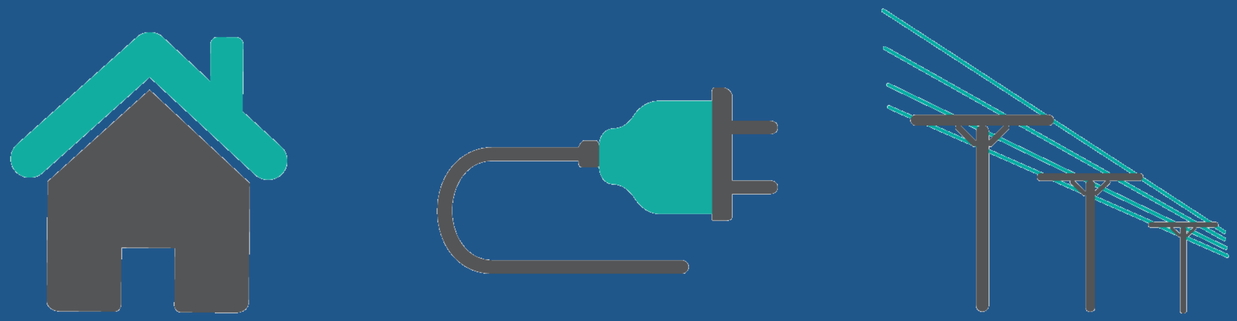
Any specific exclusions of sources, facilities, and / or operations and a justification for their exclusion. Consistent with national government inventory practices based on IPCC and UNFCCC processes, the GPC uses **Notation Keys** so that exclusions can be clearly identified and justified.

NE must NOT be used for BASIC sources

NO can be used for *very insignificant* sources

Notation key	Definition	Explanation
IE	Included Elsewhere	GHG emissions for this activity are estimated and presented in another category of the inventory. That category shall be noted in the explanation.
NE	Not Estimated	Emissions occur but have not been estimated or reported; justification for exclusion shall be noted in the explanation.
NO	Not Occurring	An activity or process does not occur or exist within the city.
C	Confidential	GHG emissions which could lead to the disclosure of confidential information and can therefore not be reported.

Defining stationary energy emissions sources

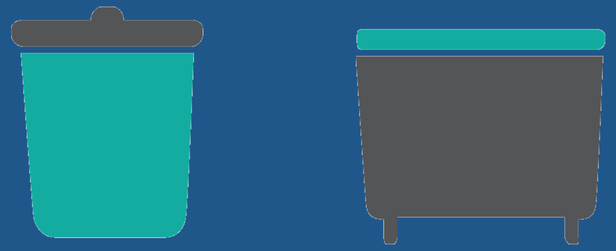


- *One of the largest contributors to a city's GHG emissions*
- *From fuels combusted or released as fugitive emissions*
- *Created in the process of generating, delivering, and consuming energy (including electricity, steam, heating, and cooling)*

Defining Transportation emissions sources

- *One of the largest contributors to a city's GHG emissions*
- *City transportation moves people and goods within and beyond city borders, and in doing so vehicles and other modes of transport generate emissions*
    - *Directly by combusting fuel*
    - *Indirectly by consuming utility-delivered electricity*

Defining Waste emissions sources



- *A smaller contributor to a city's overall GHG emissions but one that cities often have influence over*
- *Waste emissions are generated through solid waste disposal (to landfill), biological treatment (anaerobic digestion and composting) and incineration and open burning*
- *Emissions from wastewater treatment are also reported*
- *CH4 is the most important gas in the waste sector, N2O is also emitted, and CO2 from incineration*
- *CO2 from decomposition of biological material is reported as biogenic CO2 - "CO2(b)"*

Setting a goal

Setting an emission reduction goal can help:

- *Focus efforts on key emission sources*
- *Identify innovative mitigation solutions*
- *Demonstrate leadership*
- *Reduce long-term costs*

There are four different types of goals:

1. *Base year emissions goals*
2. *Fixed level goals*
3. *Base year intensity goals*
4. *Baseline scenario goals*

Tracking emissions over time

Why track emissions over time?

- *Provide information on historical emissions trends*
- *Track the effects of policies and actions to reduce city-wide emissions*

How to track emissions over time?

- *All emissions over time should be estimated consistently*
- *The time series should be calculating using the same methods, data sources, and boundary definition in all years*

Training opportunities

- *City Climate Planner In-person Training and Online Learning and Support*
- *Global Covenant of Mayors Online Training Course*
- *GHG Protocol Calculation Tools*
- *GHG Protocol Scope and Sector Guidance*

URBAN GREENHOUSE GAS INVENTORY SPECIALIST

Nick Firmand

What is Credentialing?

Credentialing is a term that applies to processes used to designate that an individual, program, institute or product have met established standards set by an organization (government, non-government, not-for-profit, etc.).

What is a Personnel Certification?

A process through which a non-governmental entity grants a time-limited recognition to an individual after verifying that s/he has met established criteria for proficiency or competency, usually through an eligibility application and assessment.

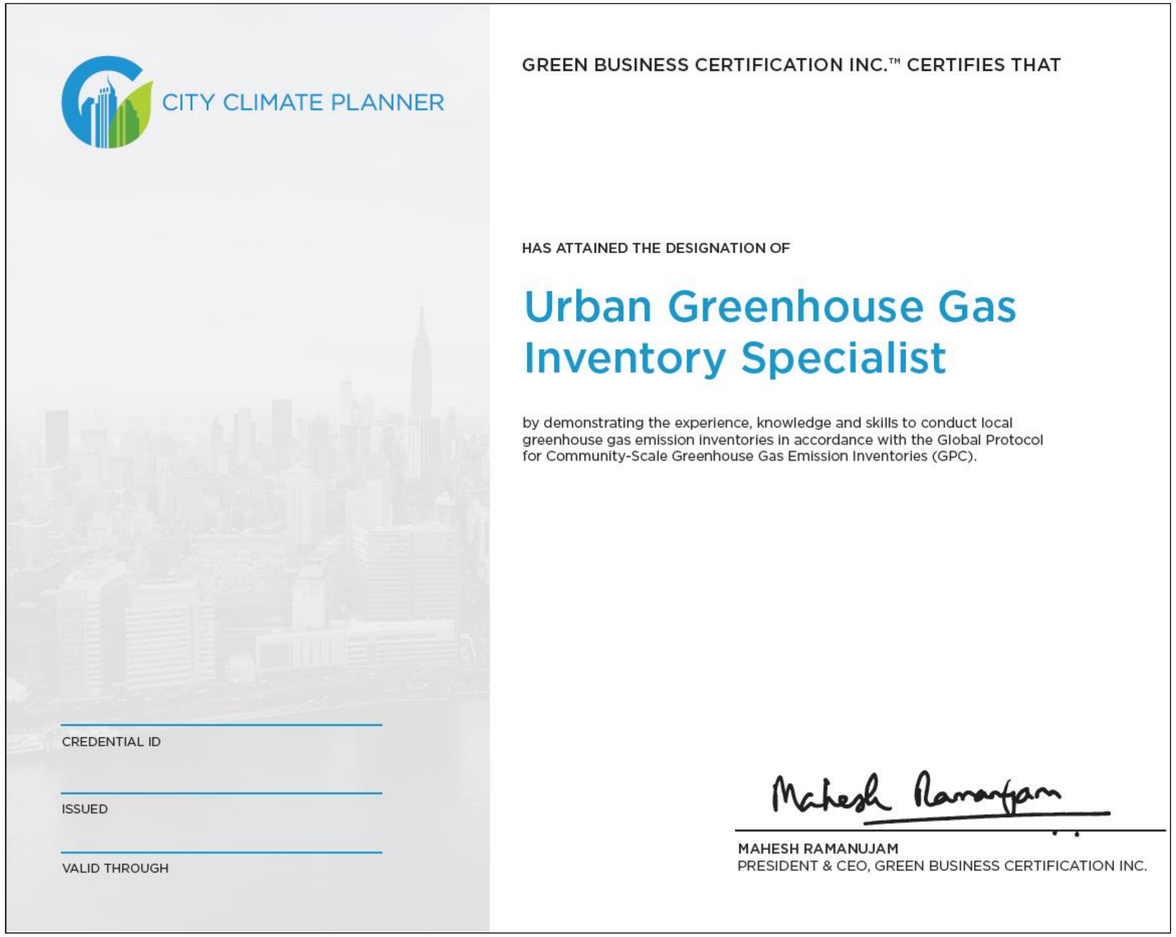
(Source: ASTM E2659-09 Standard Practice for Certificate Programs)

Purpose of Certification

Public confidence and trust.

Why Get Certified?

Urban Greenhouse Gas Inventory Specialist



CITY CLIMATE PLANNER

GREEN BUSINESS CERTIFICATION INC.™ CERTIFIES THAT

HAS ATTAINED THE DESIGNATION OF

Urban Greenhouse Gas Inventory Specialist

by demonstrating the experience, knowledge and skills to conduct local greenhouse gas emission inventories in accordance with the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC).

CREDENTIAL ID

ISSUED

VALID THROUGH

MAHESH RAMANUJAM
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.

Eligibility Requirements

- *Practical experience* in all phases of developing a GHG inventory on a community or national scale. The applicant must have participated in each of the certification scheme elements*

- *A degree in higher education **OR** Five years working in a related field.*

**Practical experience is defined as work performed on a job*

Exam Specifications

KNOWLEDGE DOMAINS

1. *Project Planning*
2. *Defining the Scope of an Emissions Inventory*
3. *Managing Data*
4. *Calculating Emissions*
5. *Synthesizing Emission Inventory Results*
6. *Reporting Activities*

Recertification

- *5-year recertification cycle*

- *Urban Greenhouse Gas Inventory Specialist credential holders may renew their credential in one of two ways:*
  - *Work experience and continuing education,*
  - *Work experience and retake the examination*

CITY CLIMATE PLANNER

The program aims to raise the global talent base of city climate planning professionals through training and professional certifications

CITY CLIMATE PLANNER PROGRAM

QUESTIONS?

Contact us at

https://cityclimateplanner.org/contact