

# CARBON AND ECOLOGICAL FOOTPRINT ANALYSIS FOR ACHIEVING ONE PLANET LIVING

Measuring progress towards a One Planet Region  
Conversations for a One Planet Region  
Victoria, BC, September 28 2017

Presented by:  
Cora Hallsworth

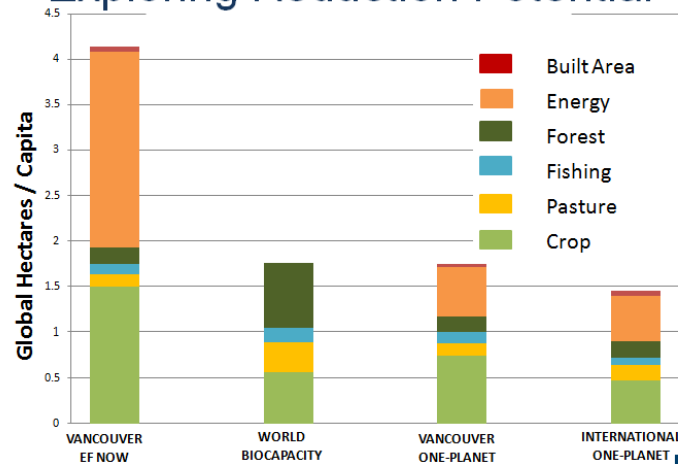


# Overview

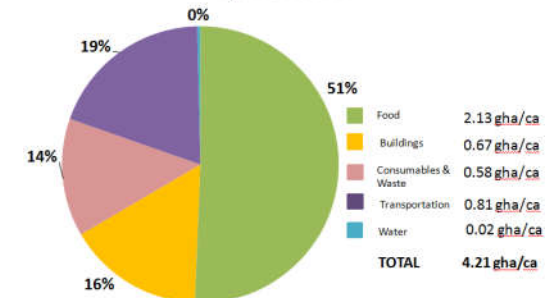
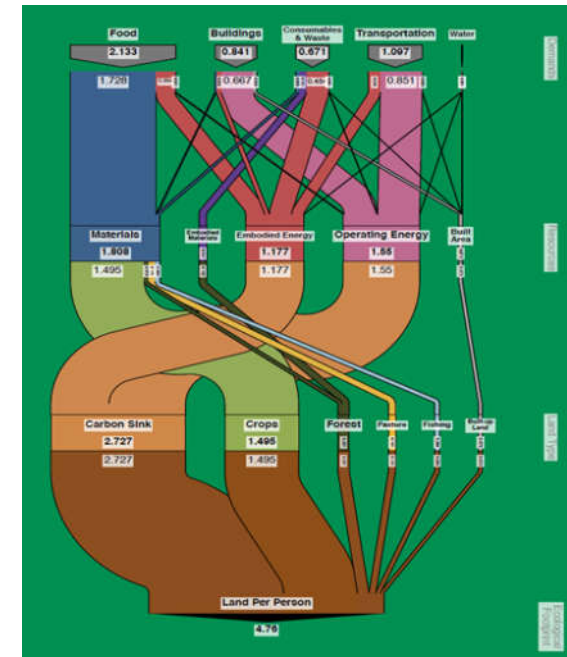
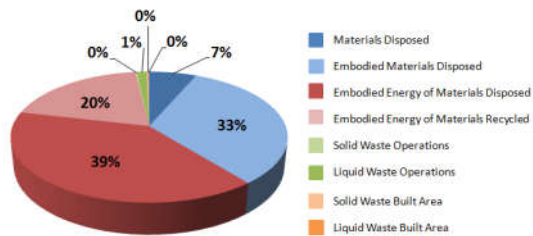
- ecoCity Footprint Pilot in Victoria and Saanich
- Orientation on the ecoCity Footprint Tool
  - Ecological footprint capacity
  - “Consumption Based Emission Inventory” capacity
  - Informing One Planet Living objectives

# Exploring the ecoCity Footprint Tool

## Exploring Reduction Potential

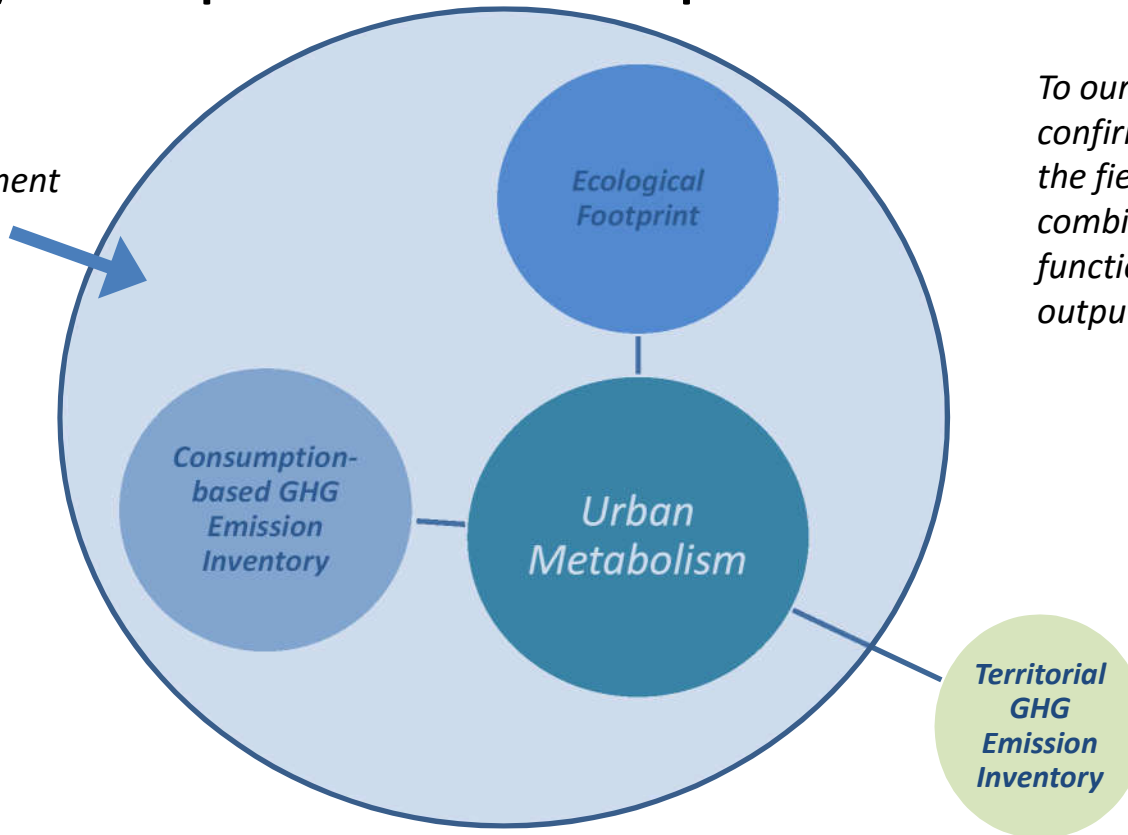


Consumables and Waste Footprint  
(0.58 gha/ca)



# ecoCity Footprint Tool Outputs

*Informed by  
Life Cycle Assessment  
data*



*To our knowledge, and as  
confirmed with experts in  
the field, no other tool  
combines these  
functionalities and  
outputs*

*Territorial  
GHG  
Emission  
Inventory*

# Calculating the ecological footprint

## ~ Two methods

### COMPOUND Method

- Top-down National data
- Input-Output economic tables (i.e. StatsCan)
- Comparable
- Comprehensive
- Not locally responsive

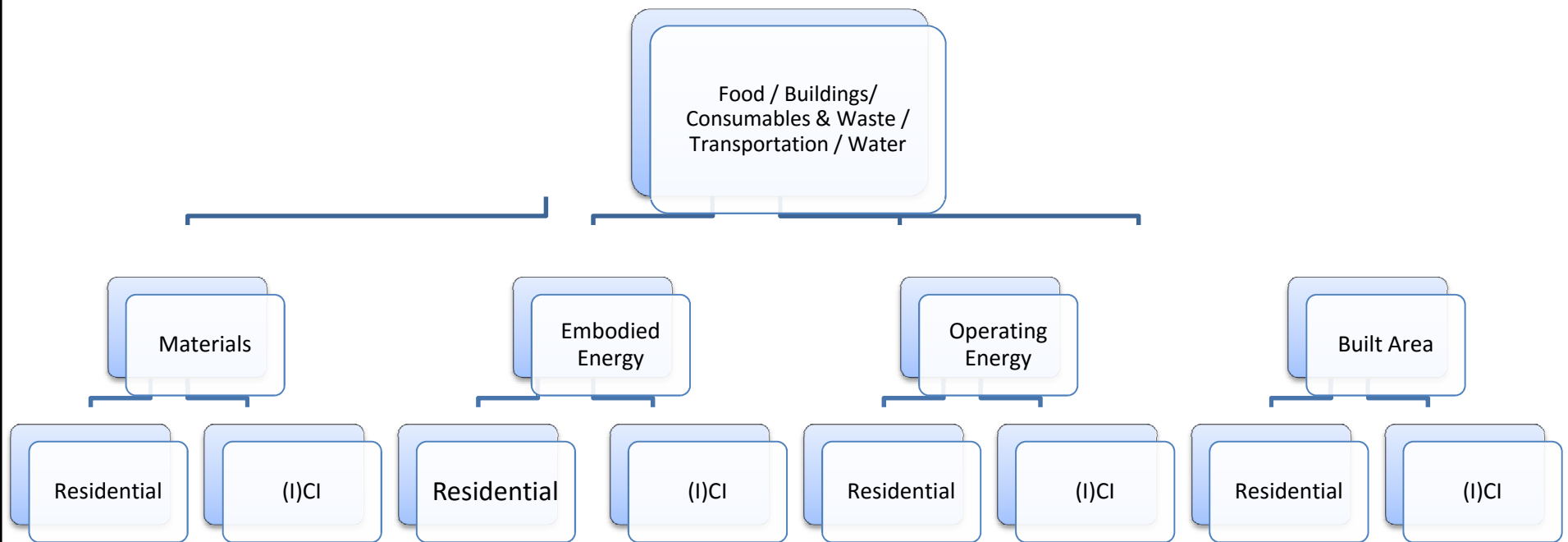
*Global  
Footprint  
Network*

### COMPONENT Method

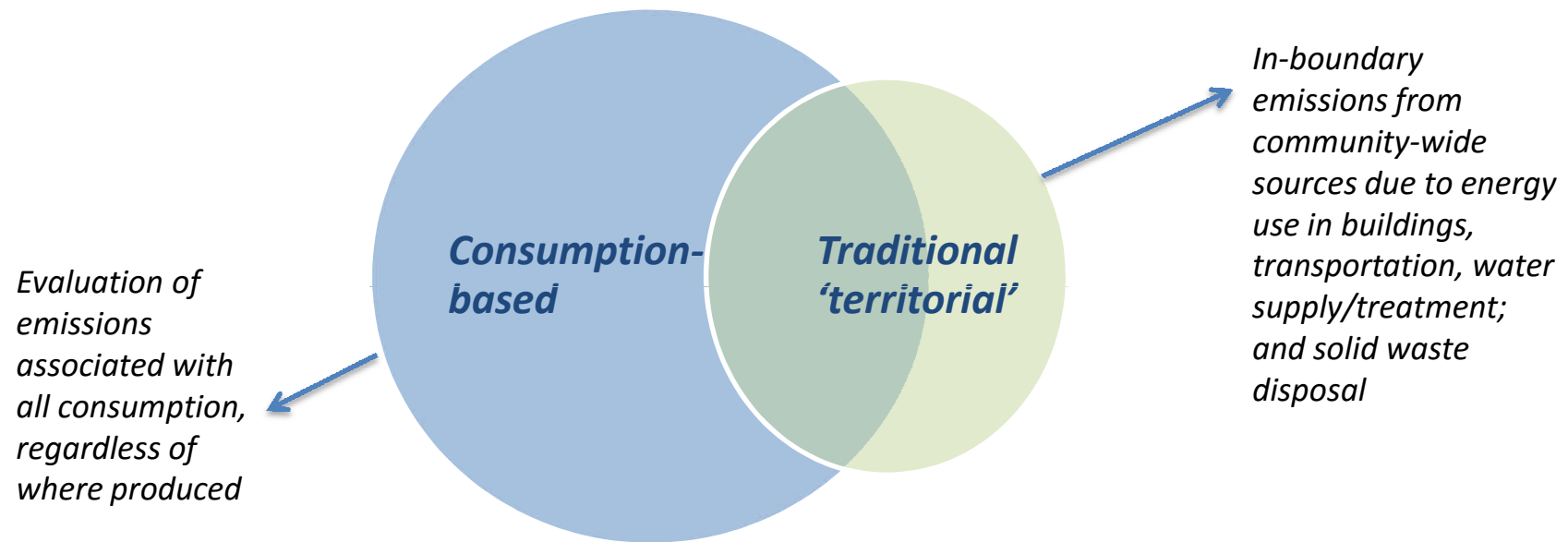
- Bottom-up
- Local data
- Municipal and Regional reports
- Lack of standardization=less comparable
- Data collection can be onerous
- Locally responsive/relevant

*ecoCity  
Footprint  
Tool*

# Schematic of data inputs



## Complimentary GHG Emission Inventory Approaches



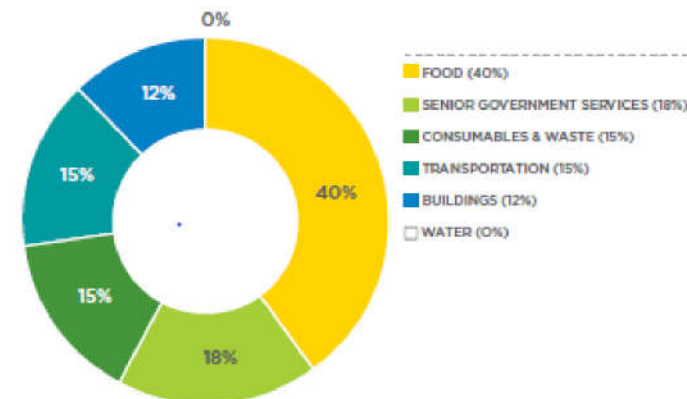
***A growing number of local and regional governments are pursuing consumption based inventories to complement traditional inventories***

# Application in Vancouver



Prototype ecoCity Footprint Tool created City of Vancouver's ecological footprint and consumption-based greenhouse gas (GHG) emissions inventory in 2006.

What's in Vancouver's ecological footprint?

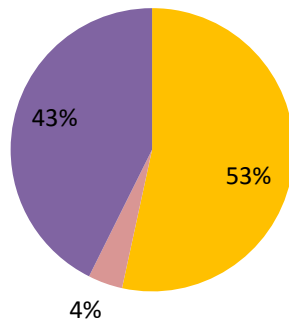


SOURCE: Using data from J. Moore, 2011 (in progress).



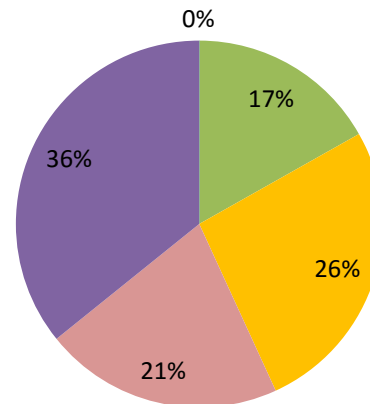
# Comparing Outputs – Vancouver 2006

GHG Emission Inventory  
(based on PCP protocol)



**Total GHGs 2,847,507 tCO<sub>2</sub>e**  
**Per capita 4.9 tCO<sub>2</sub>e**

Consumption Based  
Emission Inventory



**Total GHGs 5,530,605 tCO<sub>2</sub>e**  
**Per Capita 9.2 tCO<sub>2</sub>e**

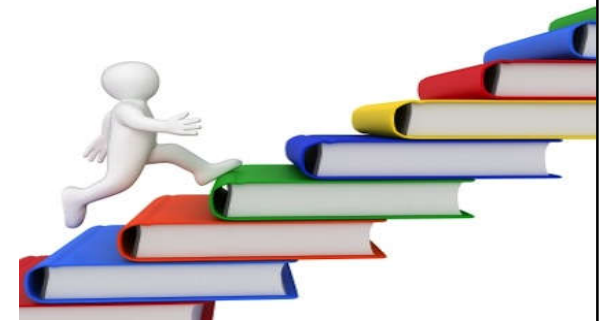


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# 2017 Pilot Project Objectives

With funding from Urban Sustainability Director's Network (USDN):

1. Enhancing, refining, and testing the prototype ecoCity Footprint Tool
2. Creating consumption based emission inventories and ecological footprints for five pilot communities
3. Scoping on-line format of Tool



# Pilot participants and stakeholders

## PILOT CITIES:

*City of Victoria BC*

*District of Saanich BC*

City of North Vancouver BC

City of Vancouver BC

Iowa City, IA

## INTERNATIONAL PILOTS:

Medelline, Columbia

Cusco, Peru

## PROJECT LEADS:

Jennie Moore, BCIT

Cora Hallsworth, CHC

## PROJECT ADVISORS:

Allison Ashcroft, USDN

Babe O'Sullivan, USDN

## OBSERVING CITIES:

Cincinnati OH

Cupertino CA

Edmonton AB

Emeryville CA

Flagstaff AZ

Gaithersburg MD

Kauai OH

Oakland CA

Philadelphia PA

Portland OR

Santa Monica CA

Squamish BC

Chennai, India

San Isidro, Peru

San Jose, Cost Rica

## FUNDING PARTNER:

Urban Sustainability Director's  
Network (USDN)

## STAKEHOLDERS:

Ecocity Builders

Additional USDN members

Additional North American  
municipalities and regional districts

ICLEI

FCM

Province of BC

## Conclusions...Informing actions



Use this knowledge to:

- Influence habits and choices... Tell the whole truth about lifestyle impacts
- Support shift to sustainable consumption with policies and regulations... Provide alternatives



# THANK YOU!

Cora Hallsworth  
Project Manager, ecoCity Footprint Tool Pilot  
cora-h@live.com 778-749-0089

Dr. Jennie Moore  
Associate Dean,  
School of Construction and the Environment  
ecocityfootprint@bcit.ca

