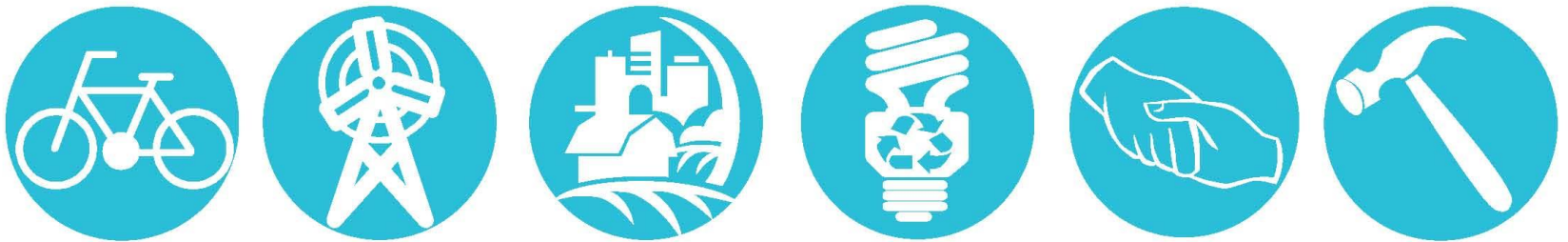


One Coast One Climate



Sunshine Coast
Community Energy & Emissions Plan
(CEEP)

One Coast One Climate Launch Workshops

April 14, 2011

8:30am to 2:30pm

Gibsons and Areas Community Centre
760 Park Road, Gibson, BC



Exploring Opportunities in Green Building, Land-Use & Design on the Sunshine Coast

AGENDA

8:30-9:00am Registration - Coffee & muffins (*courtesy Wheatberries Café*)

9:00am Welcome and Overview of CEEP work

9:30am Claire Beckstead, Pembina Institute

Green Building Leaders: Designing a Renewable Energy Requirement for B.C.

11:00am **Lunch** – *Catered (courtesy Truffles Café)*

11:45am Peter Ostergaard – Fraser Basin Council

Community Energy Planning: Policies and Tools

12:00pm Johan Stroman – SCRDC **Key CEEP Initiatives**

12:20pm Cheeying-Ho, Whistler Centre for Sustainability

Energy Efficient Land Use Practices – Supporting the SCRDC's CEEP

1:50pm **Break** – *Treats (courtesy Truffles Café)*

2:00pm-2:20pm A spectrum of views Activity - Raffle prizes

Special thank you to Wheatberries and Truffles Café in Gibsons for catering this event
Brought to you by your local government: Town of Gibsons, District of Sechelt, shishálh Nation and the SCRDC

Sunshine Coast Community Energy and Emissions Plan

- What it is?
 - A local plan that helps guide our reduction of energy use and emissions
- Why developed?
 - Committed to create a plan as signatory of the 2008 BC Provincial Government's Climate Action Charter



Climate Action Charter



- 179 of 188 signed
- Commit to measure and reporting on community GHG profile and work to make community more compact and more energy efficient via OCP's.

Bill-27 Government Institutions Carbon Neutral by 2012 – in 3 ways

Reduce Emissions

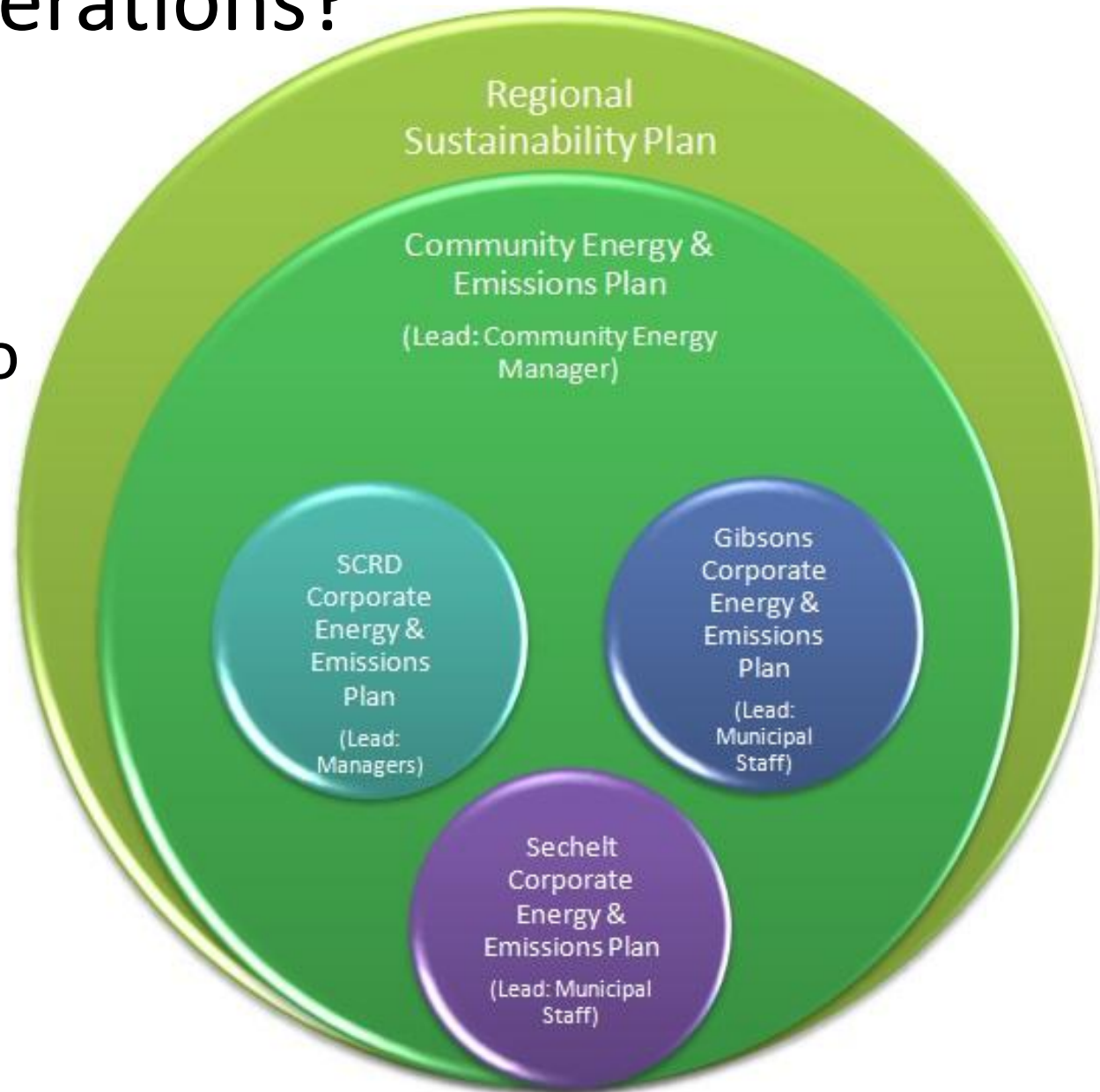
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graph TD; A[Reduce Emissions] --- B[ ]; C[Develop Offset projects] --- B; D[Purchase Offsets] --- B; B --- E[ ]
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Develop Offset projects

Purchase Offsets

Municipal operations?

- Local government committed to be carbon neutral by 2012
- CEEP speaks to all other community emissions generated



Regional Sustainability Plan

Coming soon. Watch for it.



- A forward-thinking framework –
- A compass - to guide our Sunshine Coast efforts toward a more sustainable future.
- An invitation to every organization, household, and individual to endorse and adopt a course of action, to embark on a journey, based on a set of common principles — a tall order, some would say, but one which many of us are already committed to taking.

How could we be relatively sure that we were all on the same journey?

It's development is a collaborative effort of Sunshine Coast Community Services, School District 46, The District of Sechelt, Community Futures, the Town of Gibsons, The Sunshine Coast Community Foundation and the Sunshine Coast Regional District.

BC Municipality Success Stories



Modeled energy demand per unit – 2007 baseline



- Heartland Landfill Project
- Victoria, BC
- Maxim Power Corporation
- 1.6 MW landfill gas co-gen project
- COD: February 2004
- Gas collected from anaerobic bacteria

- The **District of North Vancouver** - multifaceted and comprehensive approach to tackling climate change through long term planning.
- **Hartland Landfill Gas Utilization Project** - A public-private partnership between the CRD and Maxim Power Corp has succeeded in harnessing methane produced at the Hartland Landfill and transporting it to a generation facility to produce enough power for 1600 homes.

BC Municipality Success Stories



- Ucluelet has used zoning tools, alternative development standards and density to cultivate sustainable community growth.
- The District of Houston promotes alternative energy sources - geothermal, solar and biomass energy.
- The T'Sou-ke First Nation community have become the largest solar powered community energy project in BC



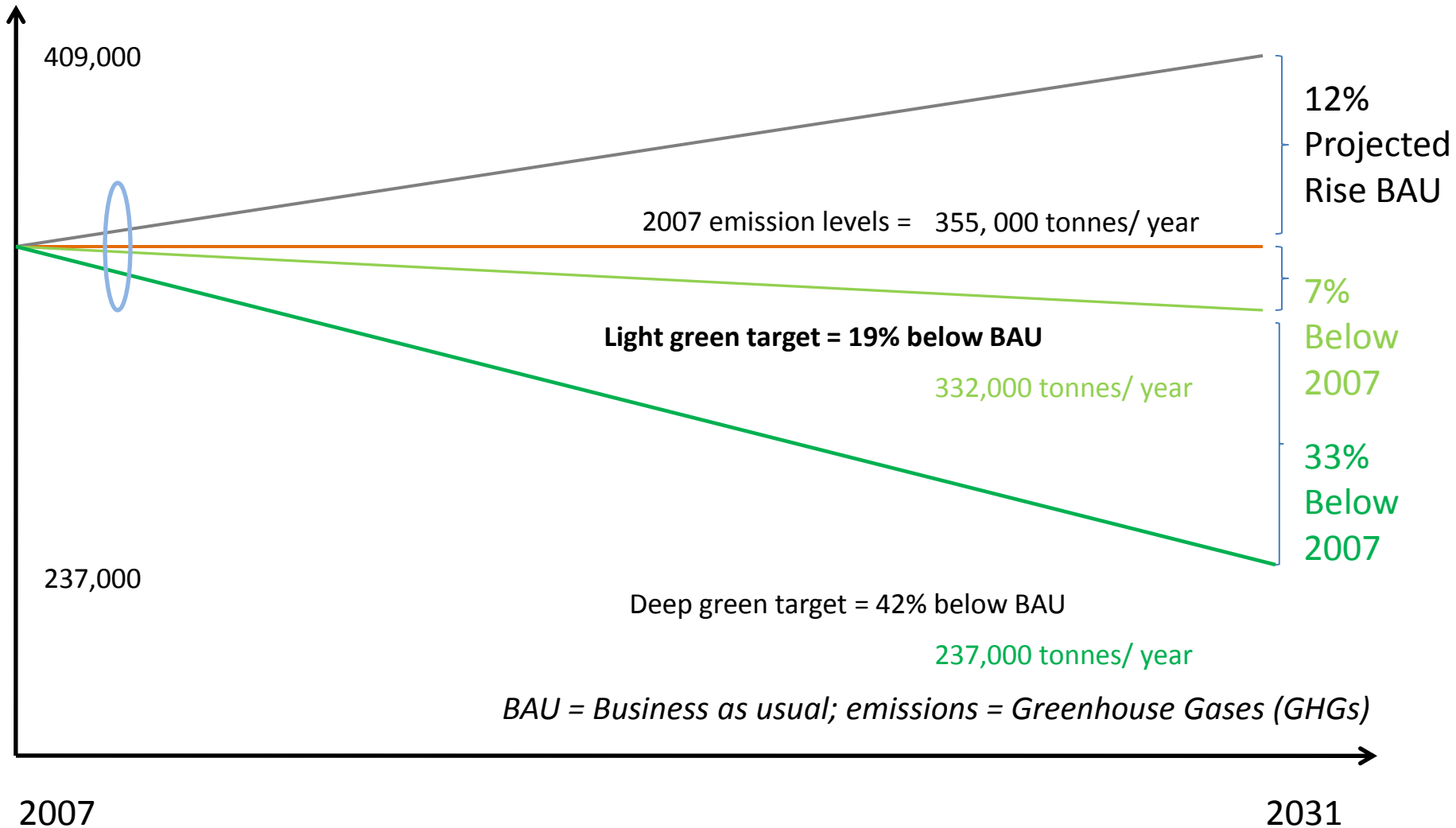
CEEP

- When ?
 - Between 2009-2010
- How was it developed?
 - Public engagement process, 330+ public, 16 different events, 13+ community groups and local institutions consulted

CEEP

- Project Objectives - What does it say?
 - Bill-27 Set GHG reduction targets and measures to be incorporated into OCPs
 - Comply with FCM PCP & BC Climate Action Charter
 - Create local economic development opportunities for renewable energy supply
 - Move away from fossil fuel dependency
 - Set aggressive targets for reducing energy and emissions

CEEP

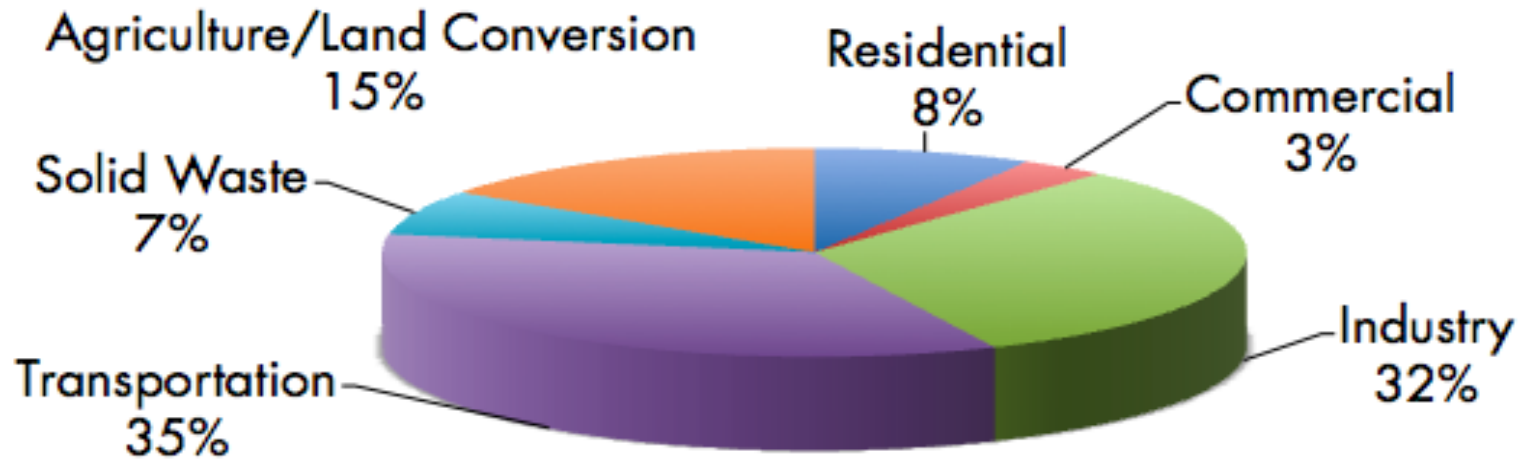


CEEP

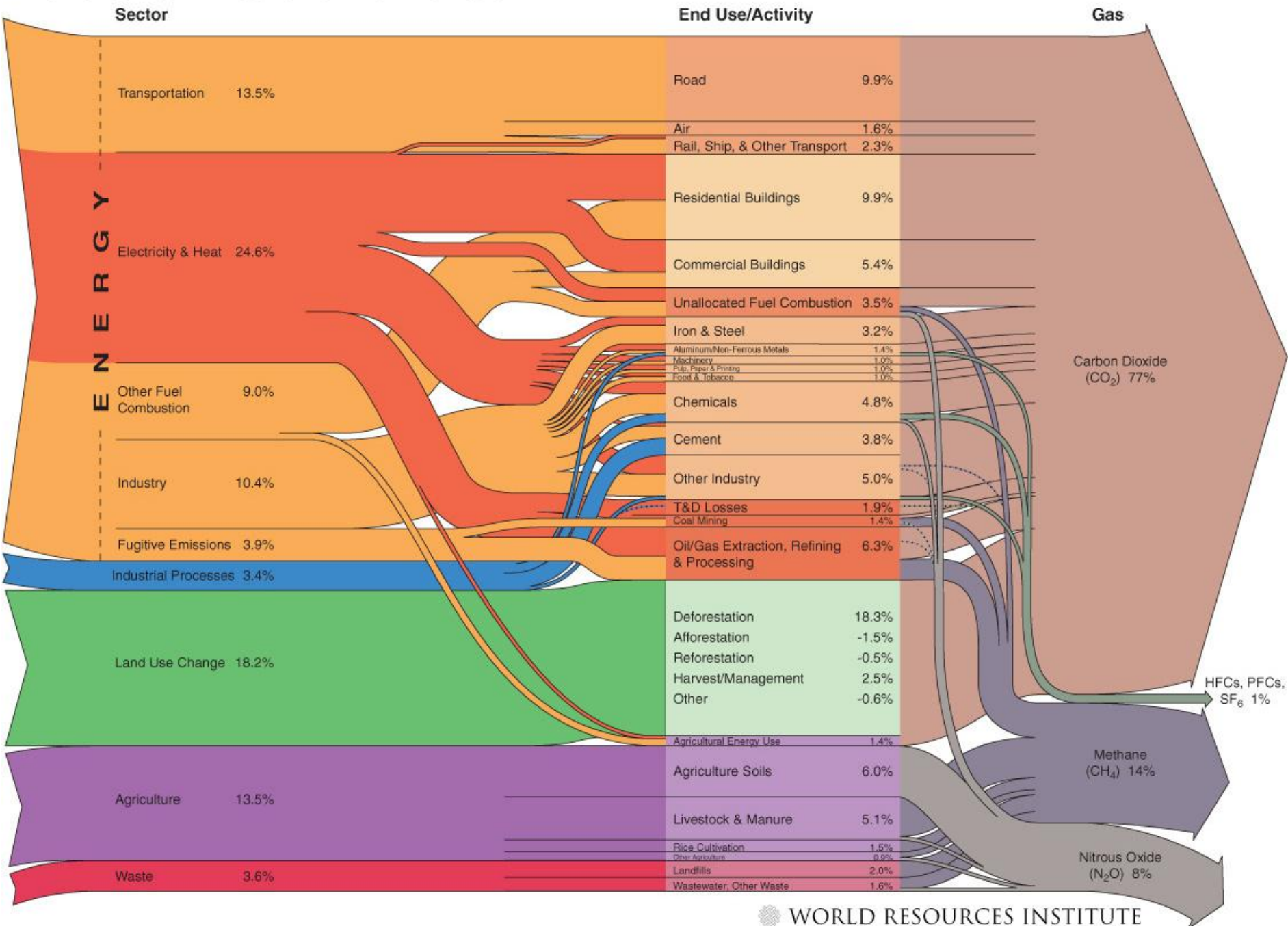
Sunshine Coast GHG Baseline values

SCRD GHG Baseline

Chart Area



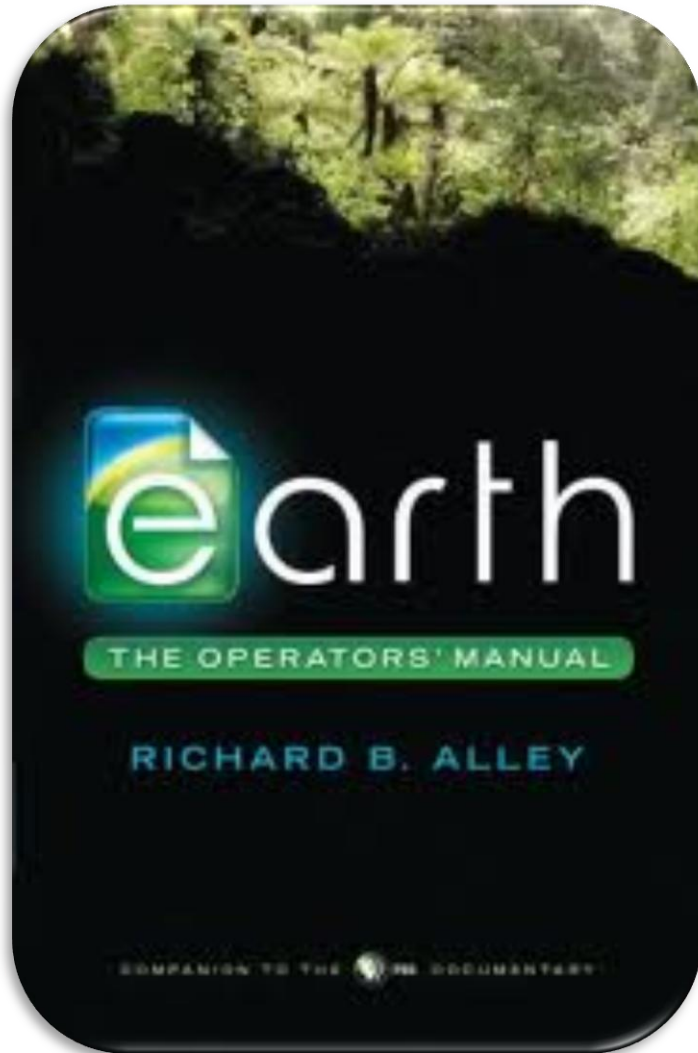
World GHG Emissions Flow Chart



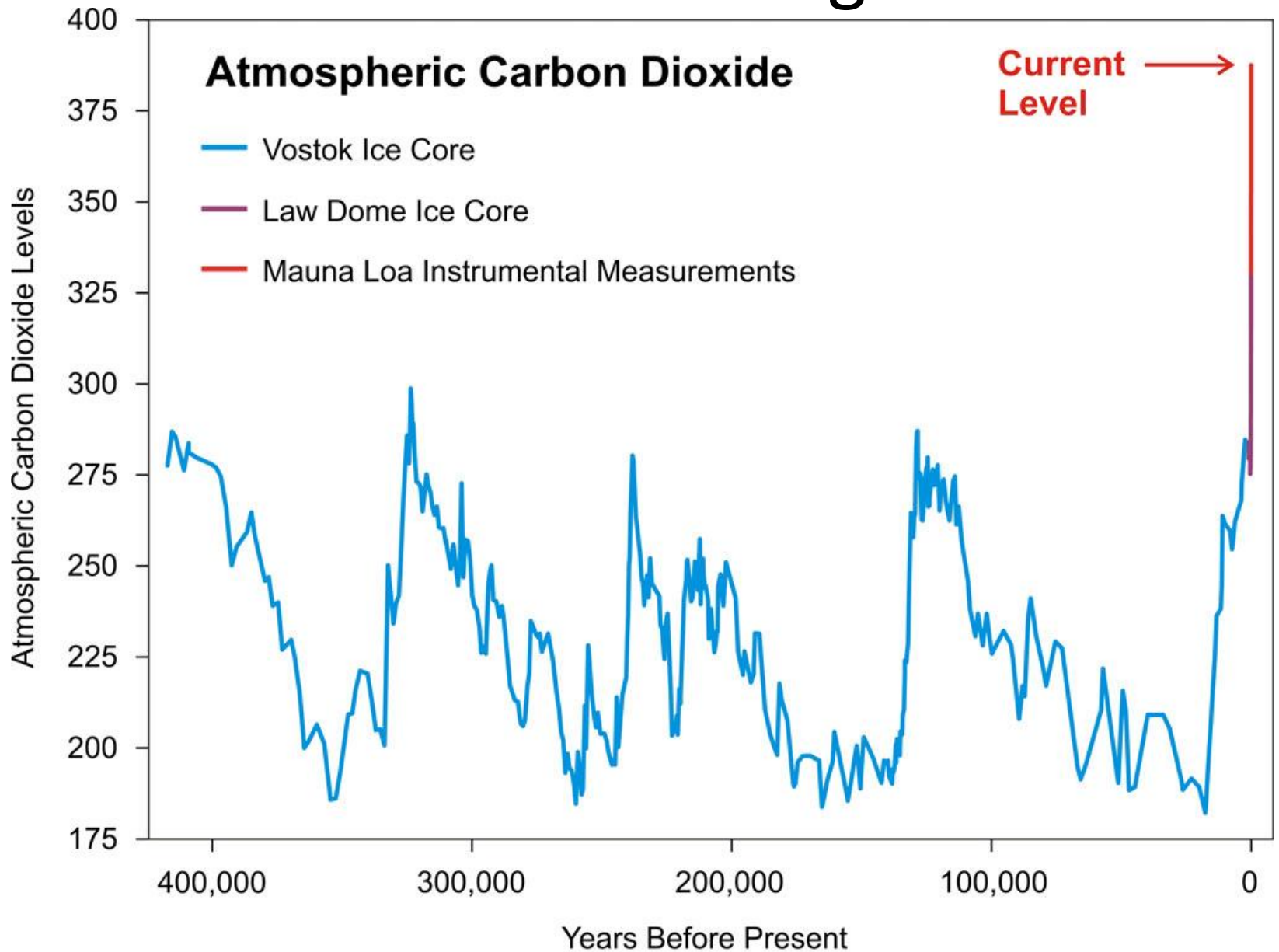


What 's the problem?

ETOM

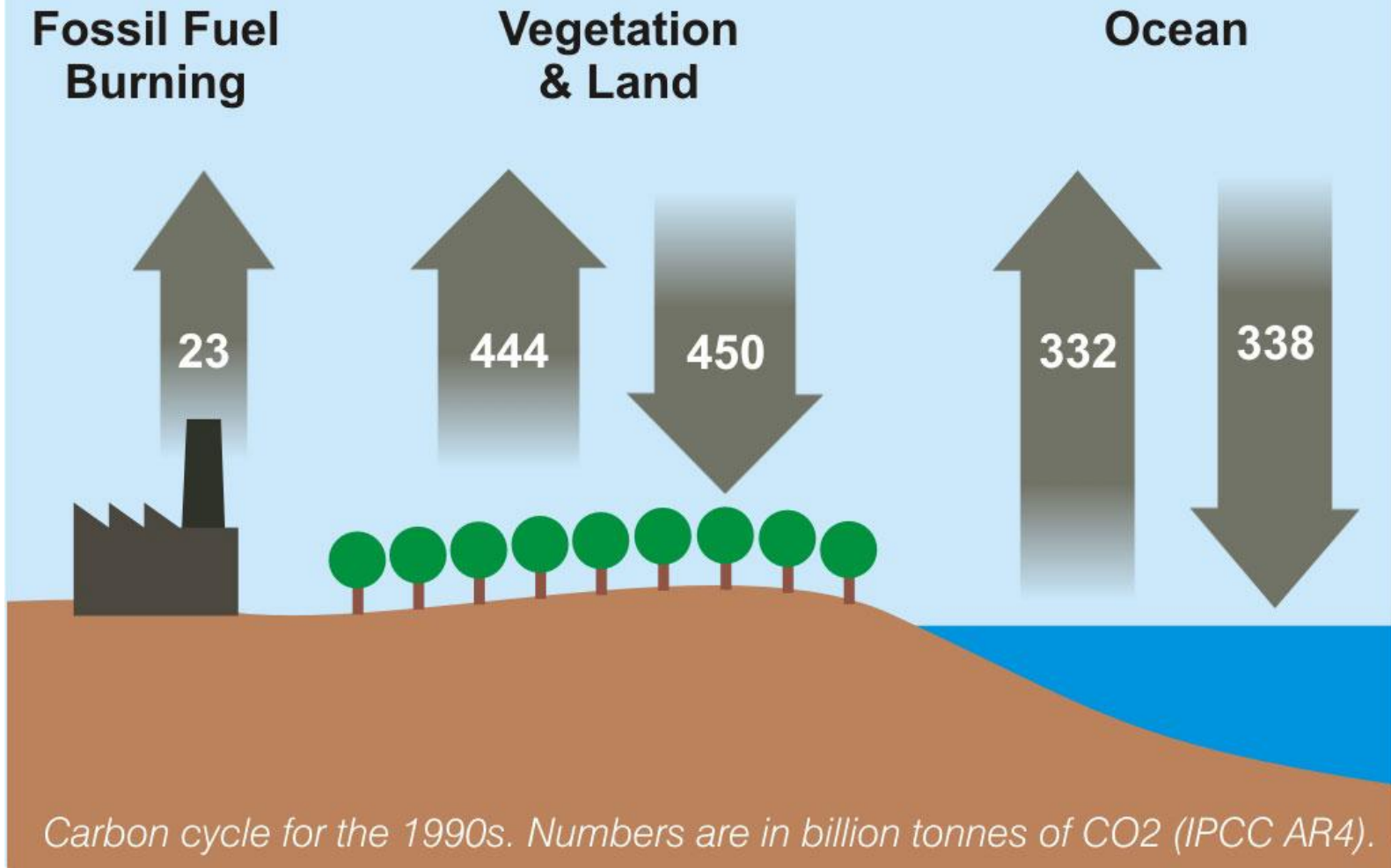


Climate Change



Painting a complete picture...

The complete picture of the carbon cycle



Painting a picture of sorts...

An incomplete picture of the carbon cycle

Fossil Fuel
Burning

23

Vegetation
& Land

444

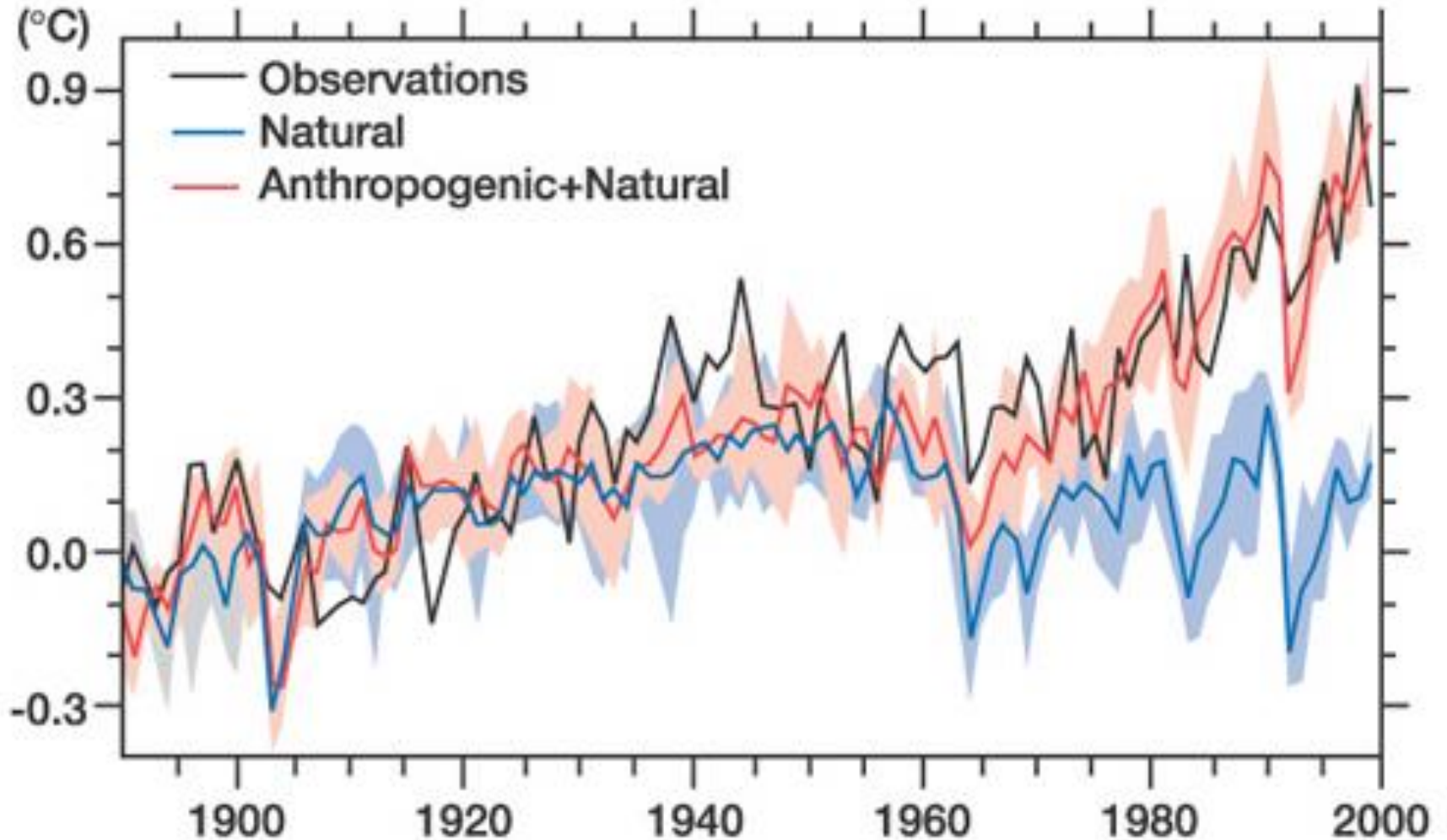
Ocean

332

Carbon cycle for the 1990s. Numbers are in billion tonnes of CO₂ (IPCC AR4).

Global Warming

Natural vs. Human caused



Intergovernmental Panel on Climate Change

(World Meteorological Organization and the United Nations Environment Programme)

“Warming of the climate system is unequivocal, ... Most of the ... warming ... is very likely [$> 90\%$ probability] due to [human] GHG increases”

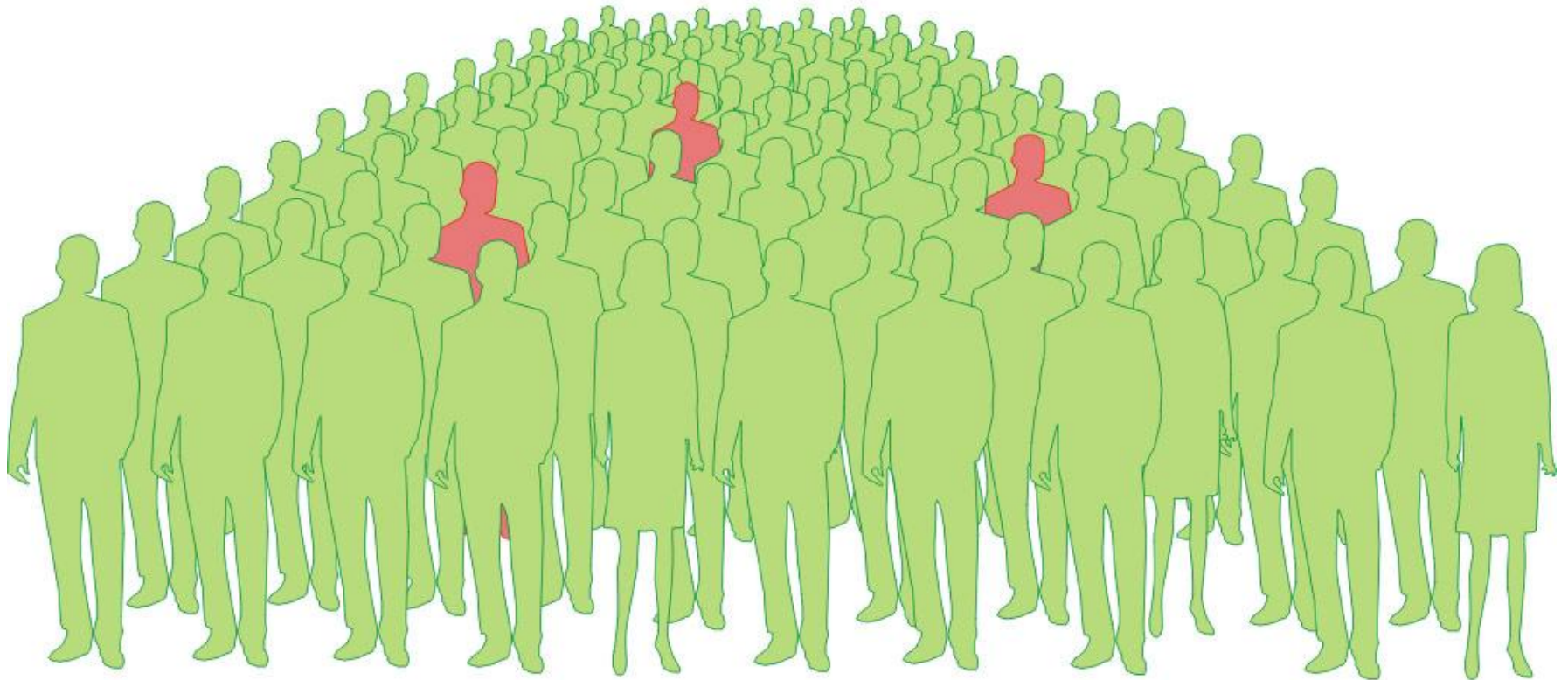
Fourth Scientific Assessment Report, 2008

“Climate change is occurring, is largely caused by human activities, and poses significant risks ... for a broad range of human and natural systems.”

<http://www.ipcc.ch/>

Climate Change

97 out of 100 climate experts think humans are changing global temperature



Doran et al 2009, Anderegg et al 2010



We must achieve **80%** reductions by 2050 to...

keep change below 2°C

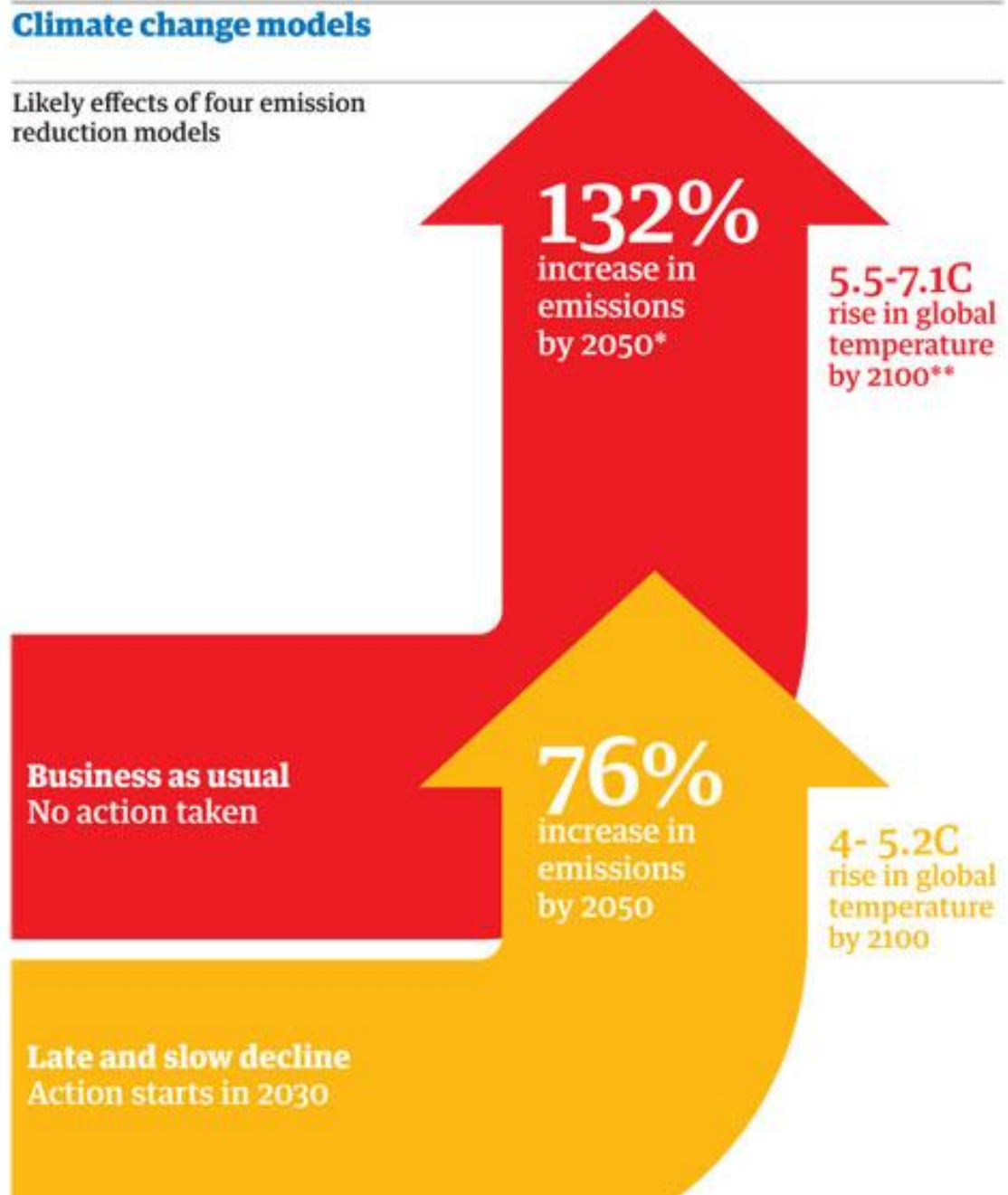
Isaac Stern, Chief Economist, World Bank

www.istock.com

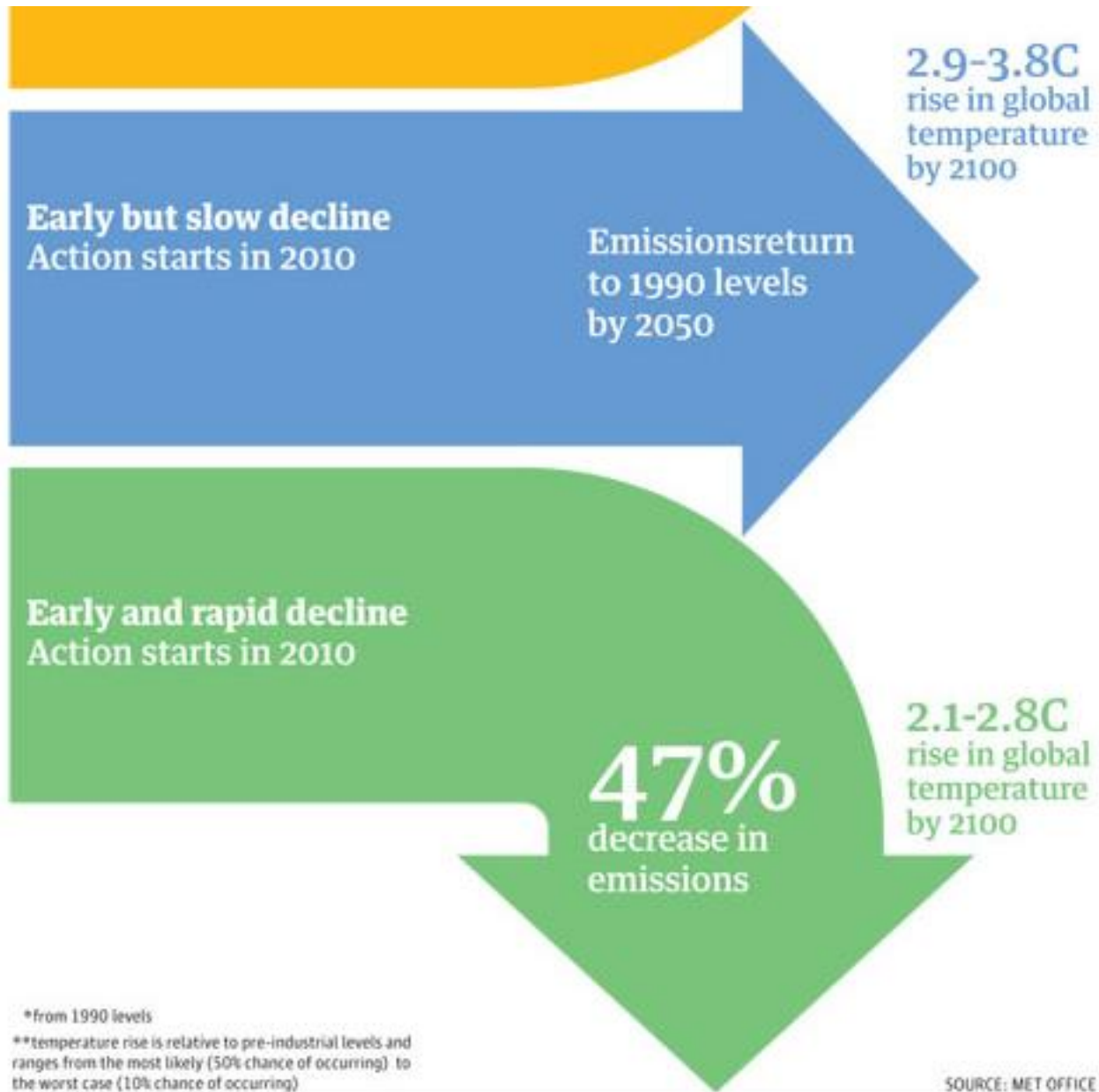
Global Paths

Climate change models

Likely effects of four emission reduction models



Global Paths



Prioritizing Emission Reductions



Net Zero Homes



Or Near Net Zero Homes

