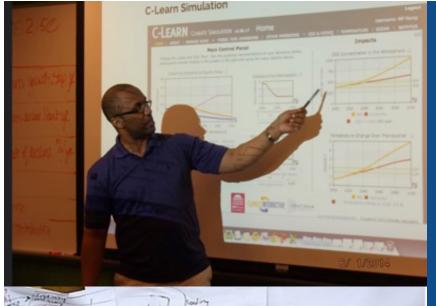
# Multisolving In Climate Policy

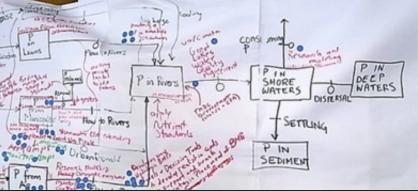
Dr. Elizabeth Sawin • Climate Interactive • 19 January 2016

Exploring Climate Solutions Webinar Series

Governor's Council on Climate Change (GC3)







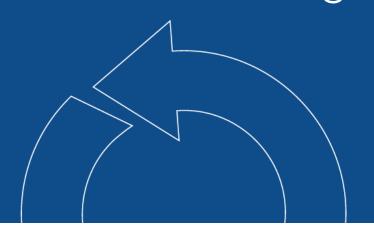




Helping people see what works to address our biggest climate challenges:

- clean energy
- food and water
- resilience

www.ClimateInteractive.org



# **Multisolving Partners**

# The Julis-Rabinowitz Family

# The Keating Family

















Angela Park - Mission Critical



That's Fit to Print'

# The New Hork Times

VOL CLXV ... No. 57,003

NEW YORK, MIONDAY, SEPTEMBER 28, 2015



Pope Francia embraced and clasped hands with prison insustes in Philiadelphia on Sunday, the last day of his United States visit.

#### Boehner's Move Deepens a Republican Chasm

#### A Deft Touch By JUN YARDLEY

and LINERUE GOODSTEEN PHILADELPHIA - Six days

Pope Departs,

After Showing

upo, Prope Francis landed in ington for his first visit to the United States - a country that he did not know and that did not know him. He flew out funday night, having wowed Wash-ington and New York, while leaving behind a downtown Philadeltransformed into a "Francis rille" of pilgrims, families and hawkers selling Francis swag

The Argentine pape, at 78, after to have had fun, ton

"Please know that as I prepare

and JONATHAN MARTIN

WASHINGTON - For from pelling dissent in the Repub-Scan marks, the resignation of Speaker John A. Boelner is inensilfolog the divide that has emand insurpret presidential candidates, leaving a party that prides itself on orderly process in uncharacteristic disarray.

The top three-candidates in the

Dusens of members of the House of Representatives have held their seals only since the 2010 election, and many of them ran on a platform to force a drustic reduction in the role of govern-ment. A new class of billionaire donors, who can contribute un-limited amounts of money to support a candidate, has undercut the power and relevance of the

national party.
While the uplit will play out named in Congress, where Mr. have one thing in common: They it easier to push through a tempo-

government open, the deepening internal Republican rancor will complicate virtually everything the presidential race tool ahead of the first caucus and primary

stream conservatives pushing back, saying the factics demon strated by hard-liners have accomplished nothing except the "The people who keep sering

Continued on Page AM



#### Progress Seen On Warming, With a Caveat

Nations' Goals Still Fall Short, Scientists Say

AND SOMEOUS SENSE PER

The pledges that countries are making to bottle climate change rould still allow the world to beat up by more than 6 degrees Fabr enheit, a new analysis shows, a level that scientists say is likely to produce catastrophes ranging spread extinctions of plant and

Yet, in the world of global climale politics, that counts as

used Monday in New York as a week of events related to climate tange comes to an end. The highlight was an urgest moral appeal at the United Nations on Friday from Pope Francis, urging countries to reach "bandamenta they meet in Paris in December to try to strike a new global cli-

For much of this year, countries have been issuing pirdges about how much emissions they are willing to cut in coming dec adex. With a plan announced by Brazil on Sunday, every major country except for India has new the Puris conference.

An analysis by researchers at Climate Interactive, a group whose calculations are used by American negotiators and by mamerous other governments, is ex-pected to be released Monday and was provided in advance to The New York Times. It shows that the reflective pledges would reduce the warming of the planet at century's end to about 6.3 degreen. If the national commitexpected 6.1 degrees Fabrenheit emit course.

Continued on Page All

#### RUSSIA SURPRISES U.S. WITH ACCORD ON BATTLING ISIS

#### WIDENING ITS INFLUENCE

A Deal With Iraq, Iran and Syria Adds to the Discord on Tactics

By NOCHULEL R. GORDON

UNITED NATIONS - For the second time this month, Resolumewed to enguand its political and military influence in the Sprin conflict and left the United States acrombling, this time by reaching Sumder, with Iraq, Svrip and Iraq

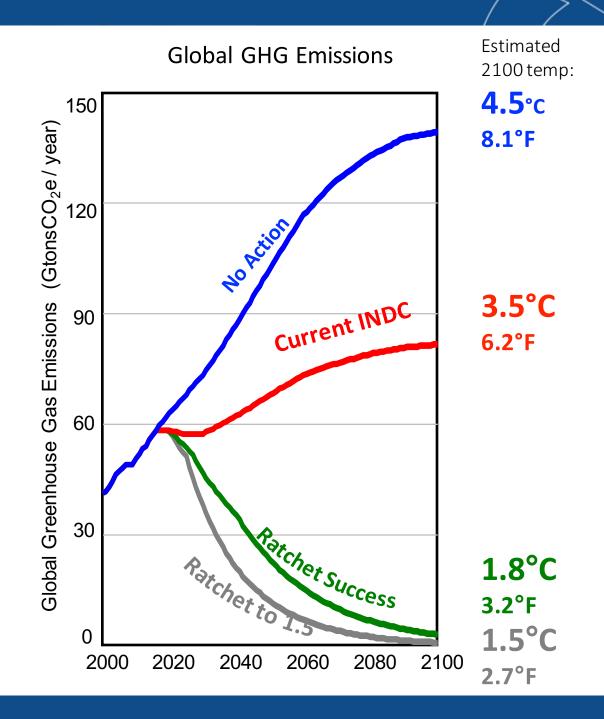
Like Russia's earlier move to balater the government of President Bashar al-Assad by deploy house mear Lutakia, Scrip, the intelligence-sharing arrangement was sealed without notice to the United States. American officials knew that a group of Russian milwhen the fraqi military's Joint the intelligence sharing accord

It was another sign that President Vladimir V. Putin of Russia was moving ahead with a sharply different tack from that of the Obama administration in buttling the Islamic State, also known as val condition that includes from

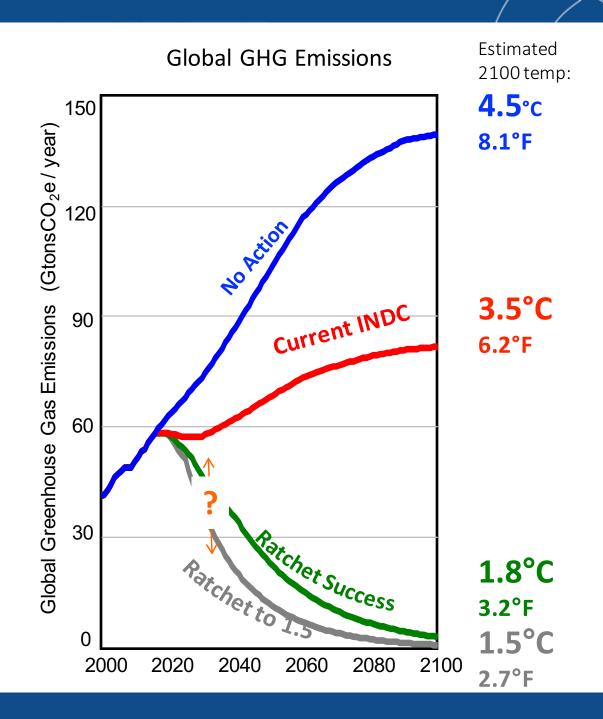
The effort, which Mr. Putin is speech at the United Nations on a position to give military supally in the Middle East, but could also enable the Erendin to influ ence the choice of a successor if Mr. Assad were to eventually

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# The Climate Scoreboard



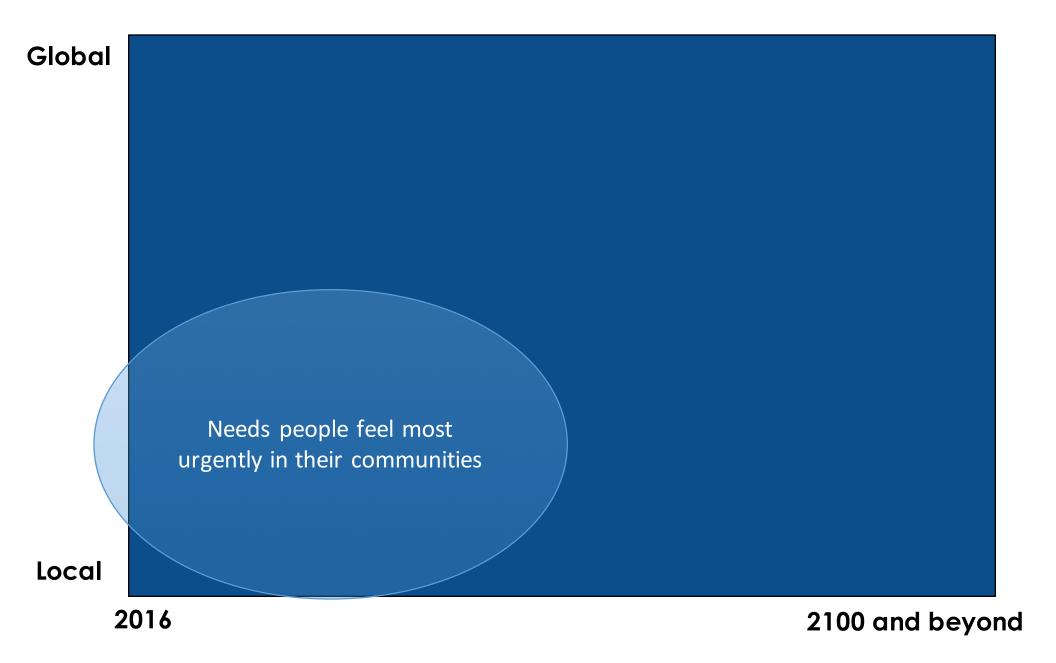




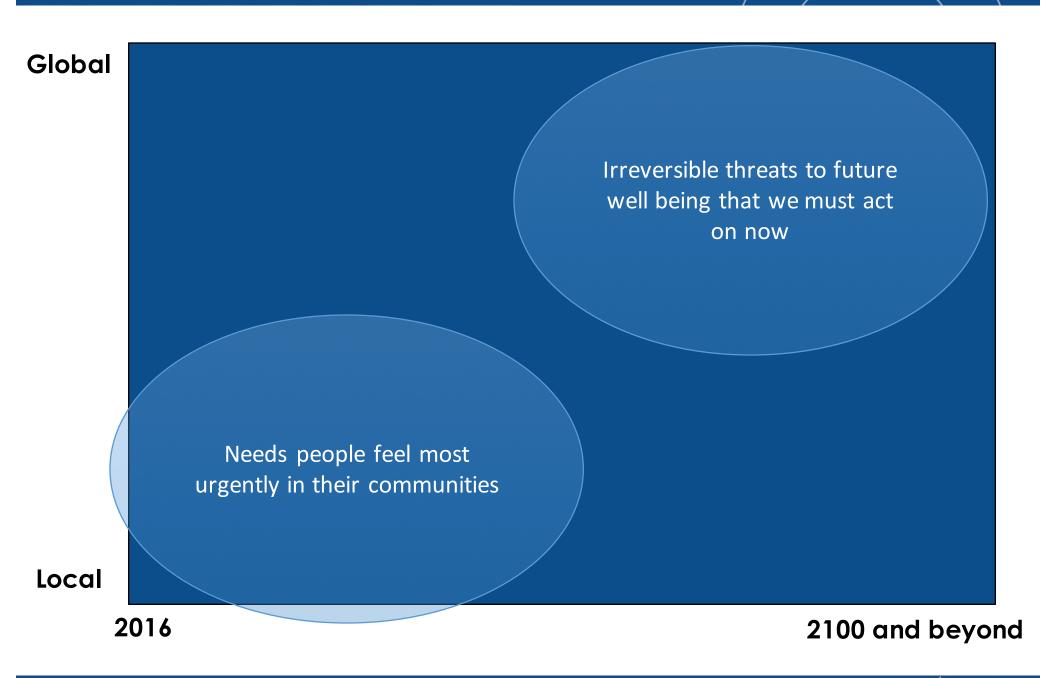














Global Sea level rise Extreme events CO2 Global levels temperature increase Local 2016 2100 and beyond



### When and where do we see benefits of ambitious climate action?

### Global

Sea level rise

Extreme events

CO2 levels

Global

temperature

increase

New Obesity and infrastructure chronic disease

Air quality and Fuel savings associated health impacts

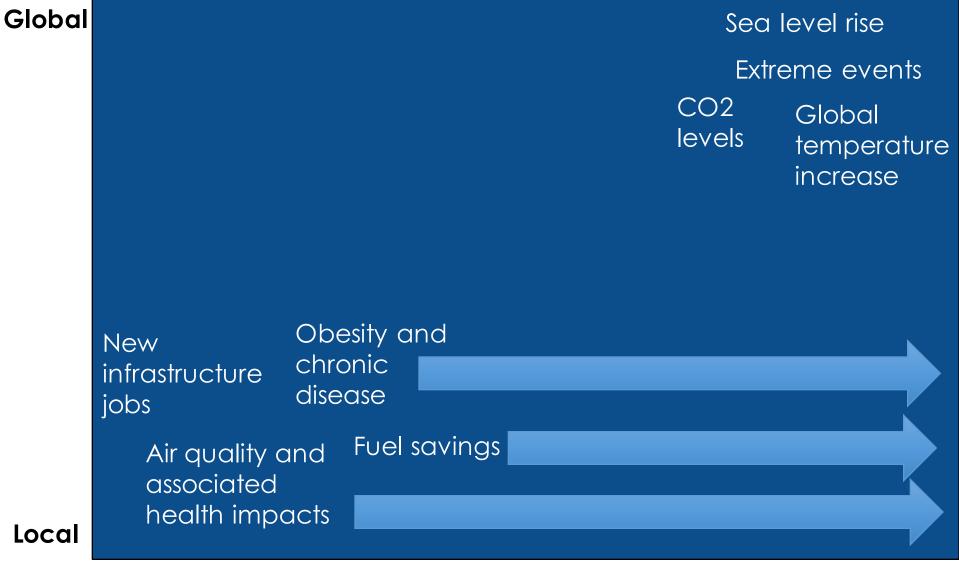
Local

2016

2100 and beyond



### When and where do we see benefits of ambitious climate action?



2016 2100 and beyond







# Four Reasons To Multisolve on Climate

# **Ethics**

People today are suffering from poverty, inequality, violence, poor health and other problems. Even in the face of dangerous climate change these other causes of suffering deserve response.



2

# Financial practicality

Solving multiple problems with the same investment of time or money makes good fiscal sense when budgets are constrained and needs are high.



**Politics** 

A broad, strong base of people committed to climate action has the best chance of overcoming the power of vested interests that hold the current fossil fuel intensive economy in place.



Systems logic

In an interconnected world, designing to optimize a singular goal - such as carbon emissions - can lead to poor systems-level performance.





Thursday, December 03, 2015

# Gov. Malloy Announces Connecticut Signs Onto Climate Agreement Committing to International Carbon Emission Reduction Effort

Connecticut Moves Forward with Emissions Reduction Efforts that Protect the Environment, Build Energy
Security, and Strengthen the Economy

(HARTFORD, CT) - Governor Dannel P. Malloy today announced that as the 2015 United Nations Climate Change Conference, also known as COP 21, meets in Paris this week, he has committed the State of Connecticut to sign onto the Under 2 MOU agreement - a global compact among cities, states and provinces worldwide to limit the increase in global average temperature to below two degrees Celsius (3.6 degrees Fahrenheit).

"Connecticut has set an aggressive goal for reducing carbon emissions to combat climate change - and is determined to do so in a manner that improves our environment and air quality while increasing our energy security, building our economy, and creating jobs," said Governor Malloy. "We are making strong progress on all fronts and our state has emerged as a national leader on climate action. Signing the Under 2 MOU aligns us with other jurisdictions who share our deep commitment to protecting the future of our planet and safeguarding the well-being of every one who lives here."



My goal today: to share our explorations of the scale of the multisolving opportunity and the practices and approaches needed to capture that opportunity.

My hope: that this will provide some language and ideas to help inform and inspire the work of the GC3 and the many Connecticut municipalities, universities, and businesses that will help the state meet its climate goals.



### Multiple Benefits A Topic of Increasing Study

# Climate-Smart Development

Adding up the benefits of actions that help build prosperity, end poverty and combat climate change

THE ROLE OF LOCAL BENEFITS IN GLOBAL ENVIRONMENTAL PROGRAMS

A PRACTICAL FRAMEWORK FOR PLANNING PRO-DEVELOPMENT CLIMATE POLICY

Societal benefits from renewable energy in Latin America and the Caribbean GROWING
GREEN

The Economic Benefits
of Climate Action

Mainstreaming Environment and Climate for Poverty Reduction and Sustainable Development



The Benefits of Solar Home Systems

An Analysis from Bangladesh

Near-term Health Benefits of Greenhouse Gas Reductions:

A Proposed Assessment Method and Application in Two Energy Sectors of China

Low carbon technologies can transform Latin America's bus fleets

Evaluating the co-benefits of low-income energy-efficiency programmes

Health co-benefits of climate change mitigation – Transport sector

Health in the green economy

A Safe Space For Humanity: The Nexus of Food, Water, Energy, and Climate\*

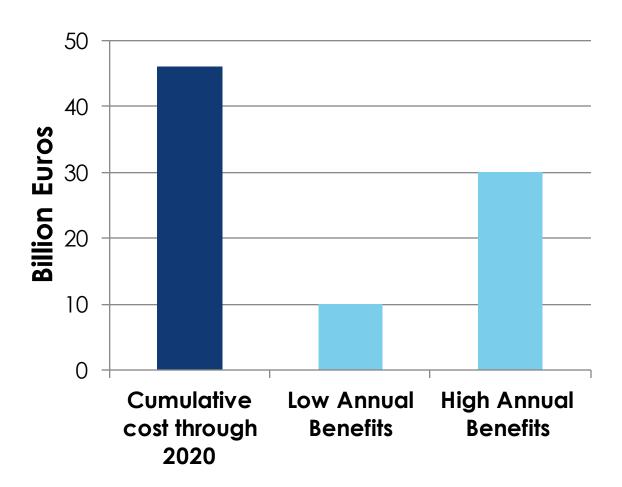
Building Competitive Green Industries:

The Climate and Clean Technology Opportunity for Developing Countries Multiple Benefits of Energy Efficiency: How to increase investments



# **Europe Health Care Savings**

EU moves its 2020 UNFCCC pledge from 20% reduction to 30%



### Annual Benefits in 2020

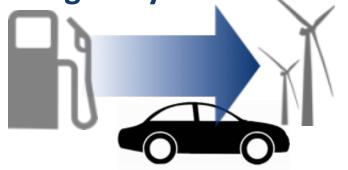
- 140,000 additional years of life
- 13 million fewer days of restricted activity;
- 1.2 million fewer days of respiratory illness;
- 142,000 fewer consultations for upper respiratory symptoms and asthma;
- 3,776 fewer hospital admissions for respiratory and cardiac conditions.





# Climate Smart Development - Transport Scenario

Shifting to hybrid and electric vehicles and low carbon fuels



Shifting from cars to public transit



Increasing gov't investment in transport infrastructure

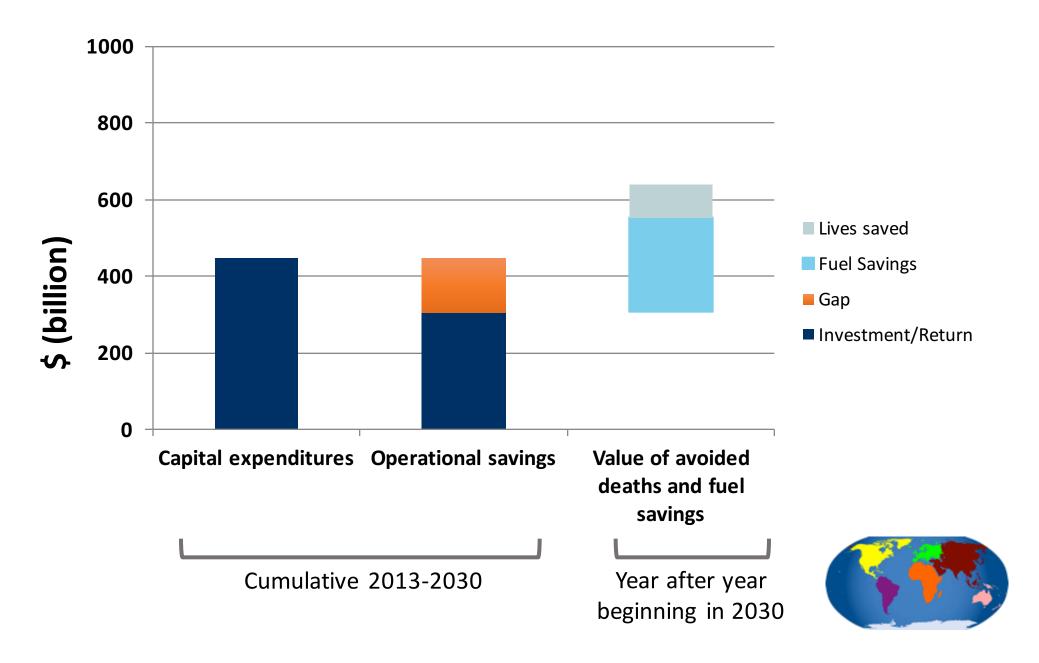


Shifting freight from trucks to trains and ships





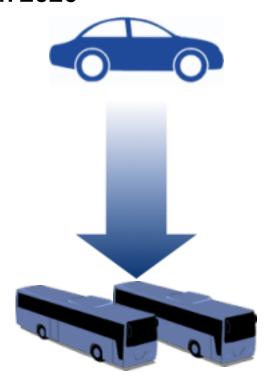
# Transport Scenario – Costs and returns



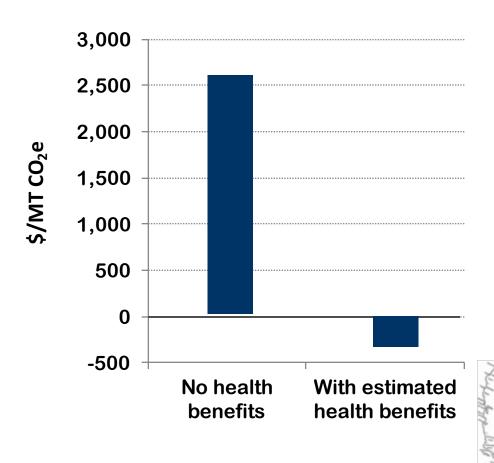


## San Diego Public Transportation

Scenario: Increase the commuter mode share from 5.3% in 2010 to 7.8% in 2020



### **Cost per Metric ton**

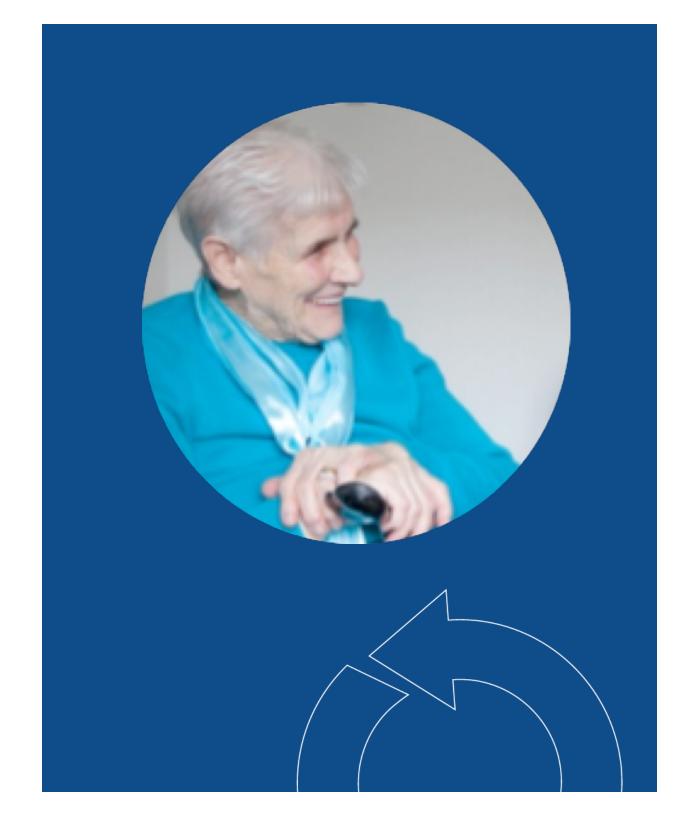




# Boilers By Prescription Hylton Castle, UK

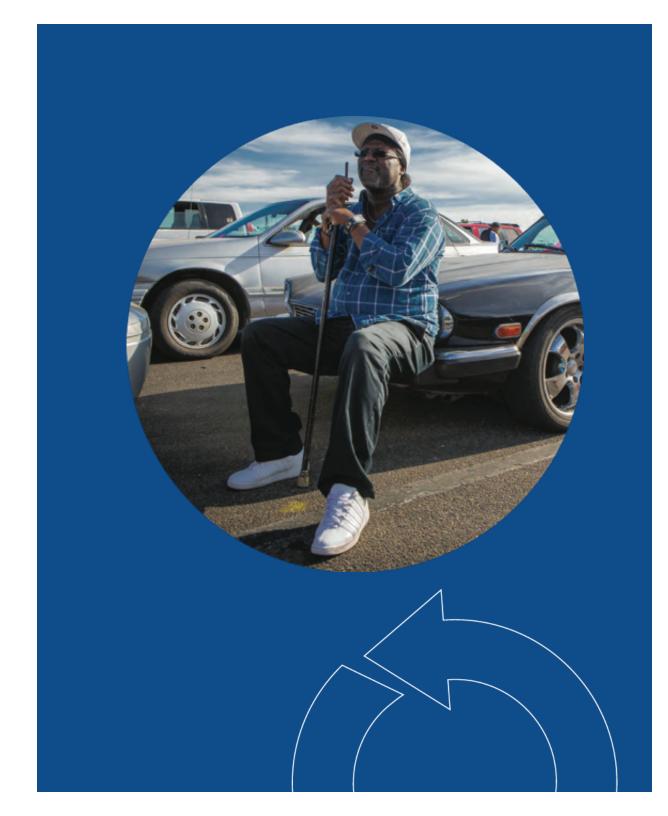
### 2014

- Spent about \$7,00 per home on windows, insulation, boilers via public health budget
- Average temp 5.5° higher
- Saved \$46 per month on energy bills
- Visited GP and emergency room "significantly less"



# Enhanced Fleet Modernization Program San Joaquin Valley - 2015-2016 (pilot)

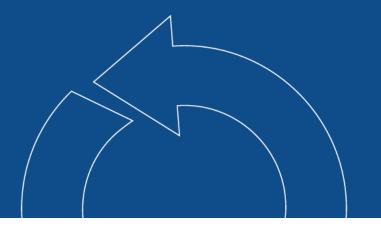
- Goal to replace 600 older polluting cars during 2015-2016
- So far 108 families have been helped to purchase a cleaner vehicle
- Partnerships/Extensions-
  - Health screenings
  - Flu vaccinations
  - Home weatherization



Source Climate Investment Case Studies Report. The Greenlining Institute 2015.

# **But.....**

Not all climate policies or investments are created equal when it comes to co-benefits



# **London Transport Scenarios**

# More efficient engines and fuel switching.

Some car travel replaced with walking and cycling.



Reduction in transport CO<sub>2</sub> emissions:

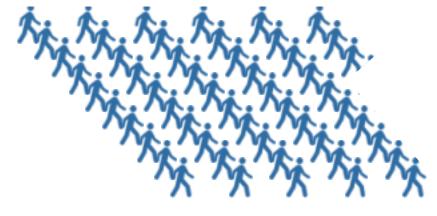
35%

38%

Reduction in premature deaths per million people:



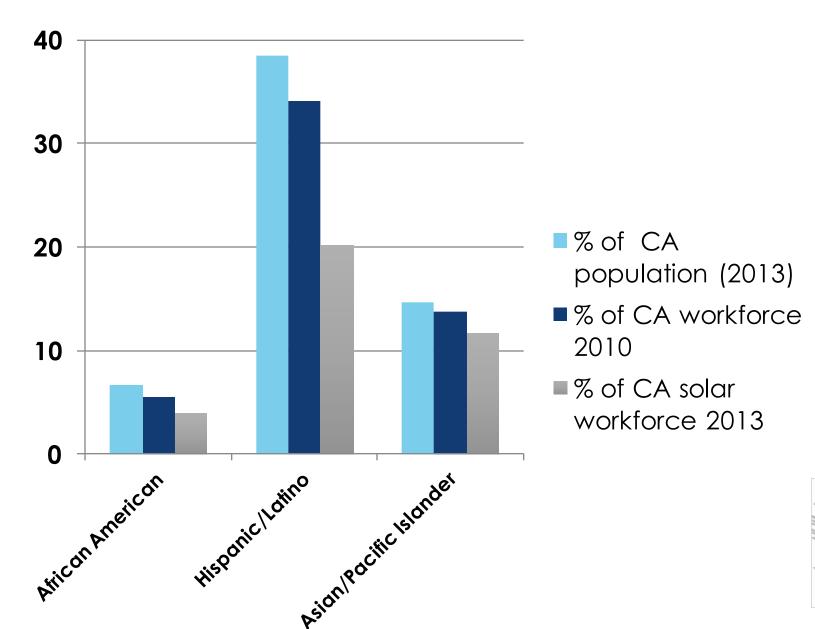
**17** 



530



# CA solar jobs, by race



 Invite diverse perspectives and cultivate curiosity along with 'expertise'

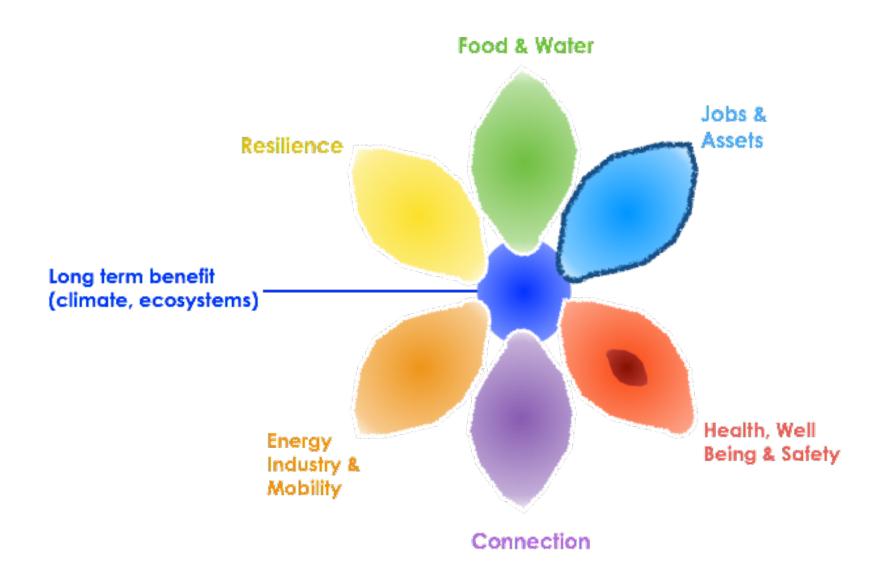
California's Climate Investments: 10 Case Studies Reducing Poverty & Pollution, <a href="http://greenlining.org/wp-content/uploads/2015/10/CAClimateInvestmentsCaseStudies.pdf">http://greenlining.org/wp-content/uploads/2015/10/CAClimateInvestmentsCaseStudies.pdf</a> Climate Leadership: How California's Climate Policy Could Change the World, <a href="http://www.bioneers.org/Bioneers\_ebook\_CA\_ClimateLeadership.pdf">http://www.bioneers.org/Bioneers\_ebook\_CA\_ClimateLeadership.pdf</a>



Corollary: Expect to go slow at first – learning and exploring intersections and building trust and relationships

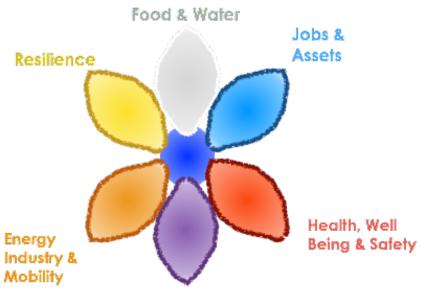


# FLOWER- Framework for Whole-System, Equity-Based Reflection



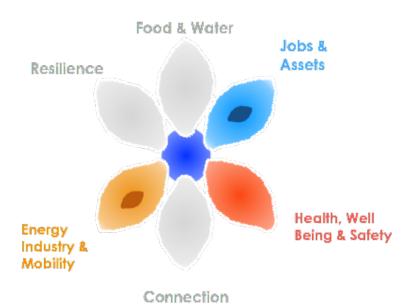






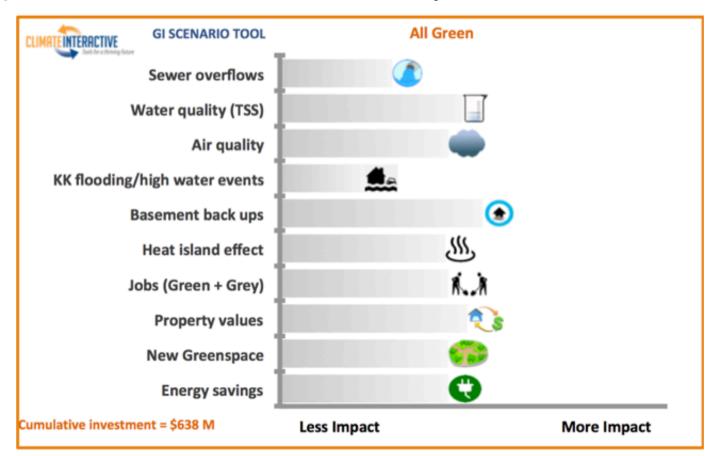
Connection







 Reframe success as the best mix of multiple factors rather than maximizing one (for example carbon reductions)





- Create a checklist to be sure there are policy elements focused on each co-benefit
  - For a renewable energy project
    - Jobs might require a local hiring provision
    - Resilience might require electricity storage
    - Community building might require a local ownership structure





- Be willing to restructure jurisdictional silos
  - Capital expenditures might be from energy or transportation budgets
  - Savings might be in the health budget
  - Arriving at the optimal solution for the whole might require a different way of evaluating the performance of each division





- Allocate significant resources and decision making power to more local levels in the system and don't shy away from questions of justice and equity
  - Intersections are often more apparent at local levels
  - For multisolving one size doesn't fit all
    - Participatory budgeting
    - Small grants





- As you make progress remember to track the cobenefits as well as the climate progress
- Interim targets could include co-benefits as well as GHG reduction

