

# **Regional Greenhouse Gas Emissions Inventory 1990 - 2012**

**Pima County Environmental Advisory Council**

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# Background

## *Tucson*

- **2006: Mayor's Climate Protection Agreement**
  - **Goal:** By 2012, greenhouse gases (GHG) at 7 percent below 1990 levels (community and government operations)

## *Pima County*

- **2007: Board of Supervisors' Sustainability Initiatives**
- **2008: Sustainable Action Plan for County Operations**
  - **Goal:** By 2020, GHG emissions will be equal to or lower than 2007 emissions (government operations)

# PAG Collaboration

- Regional environmental and transportation planning agency
- 2007: PAG's Regional Council Resolution
- Initial inventory in 2008; subsequent inventories 2010/11, 2012 and 2014
- Data contributors: utilities, transit providers, Tucson, Pima County governments
- Jurisdictions use data to develop plans and monitor progress toward reaching GHG reduction goals
- Inventory focus: Emission generation under citizens and/or government operations management

# GHG Inventory Report

## I. Community Inventories

Eastern Pima County: emissions from unincorporated Pima County, Tucson, surrounding towns, tribal areas and their governments' operations

- Subset: Tucson: contains emissions from city and its government operations

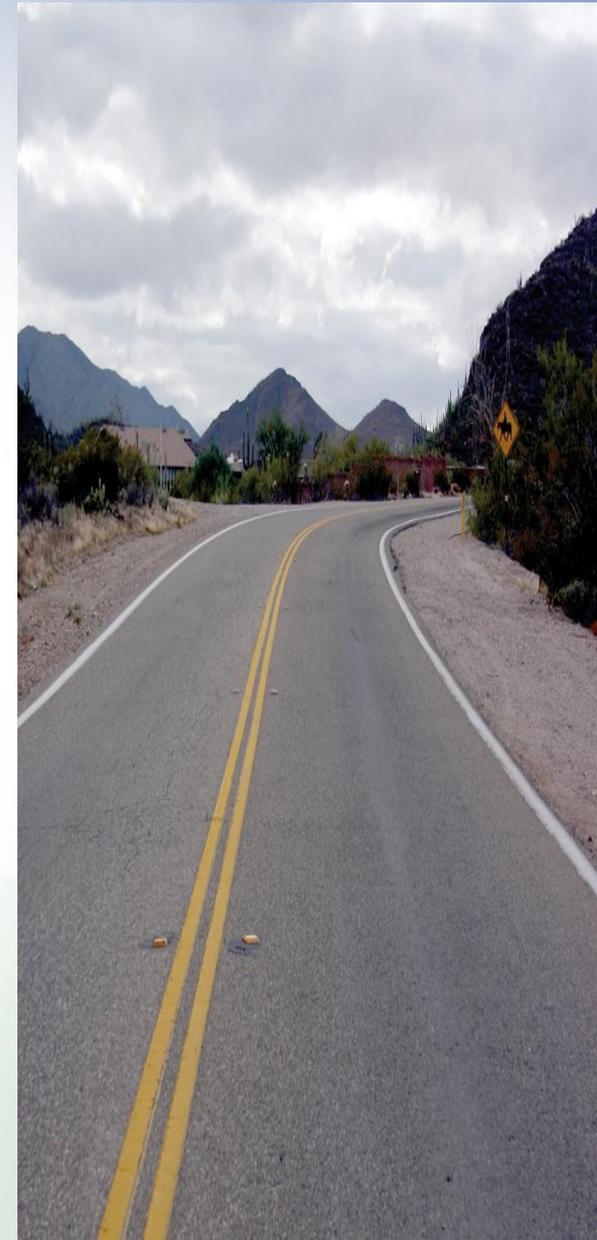
## II. Government Operations Inventories

- Subset: Pima County
- Subset: City of Tucson

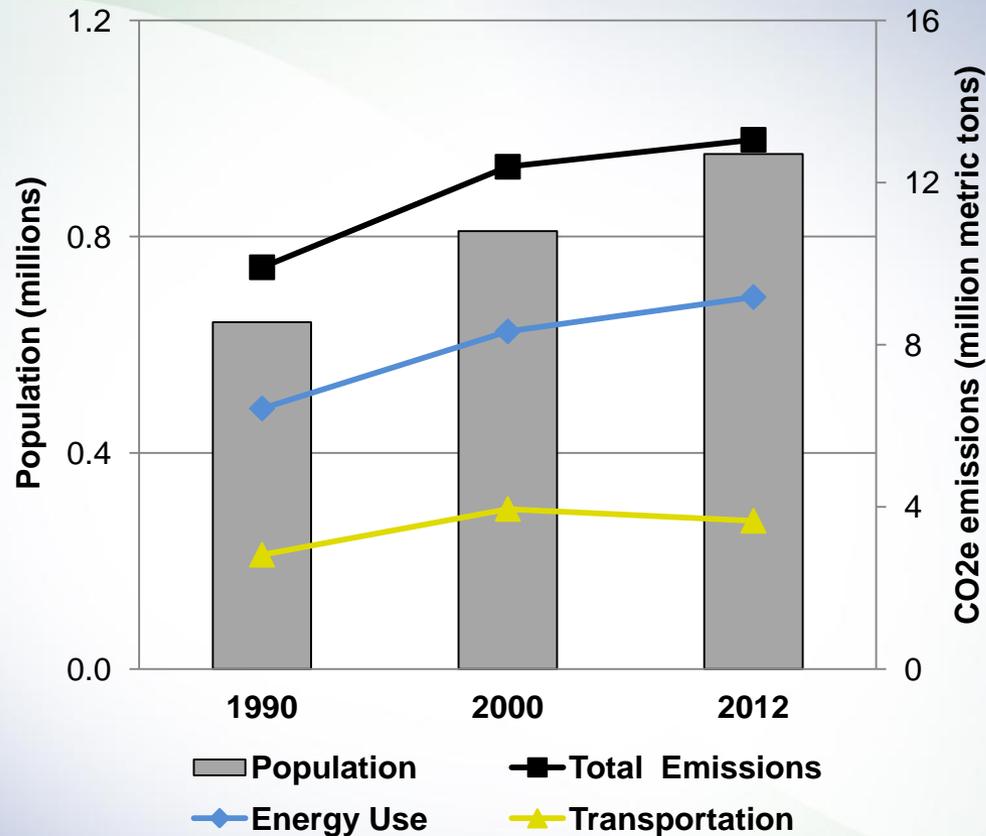


# Community Inventories - Emission Sources

- Electricity and natural gas use
  - Residential
  - Commercial
  - Industrial
- Vehicle travel
  - Private and commercial vehicles
  - Public transit
- Community-generated waste

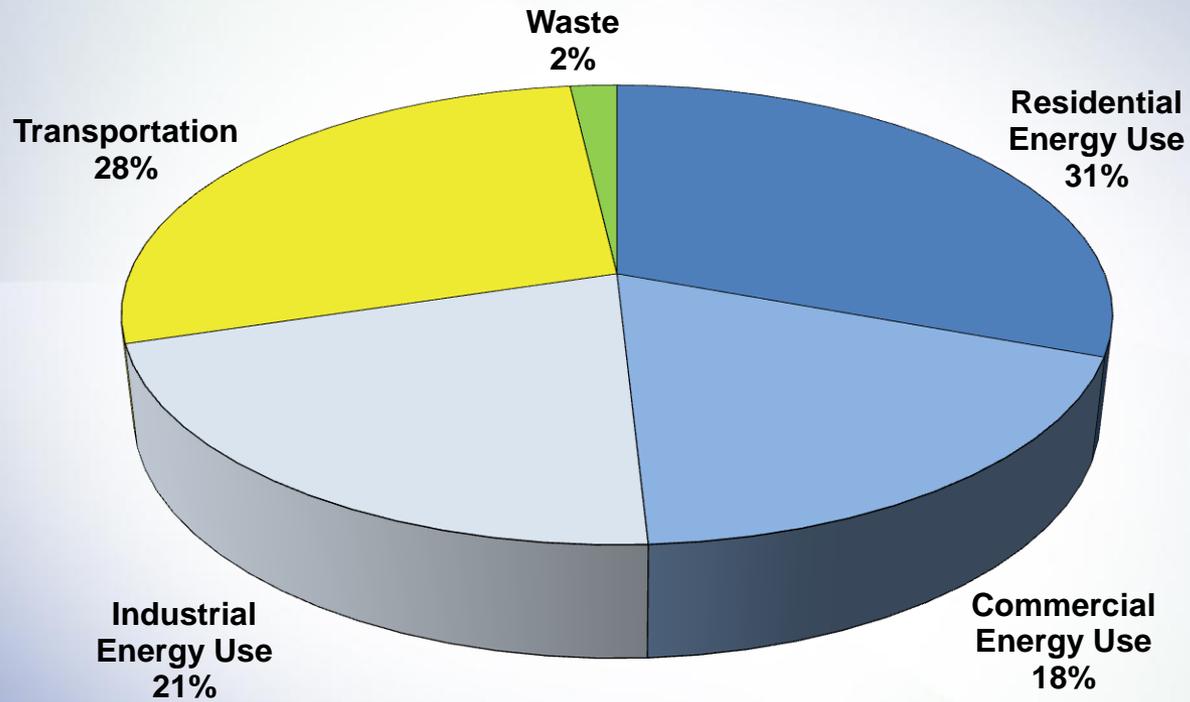


# E. Pima County GHG Emissions 1990-2012

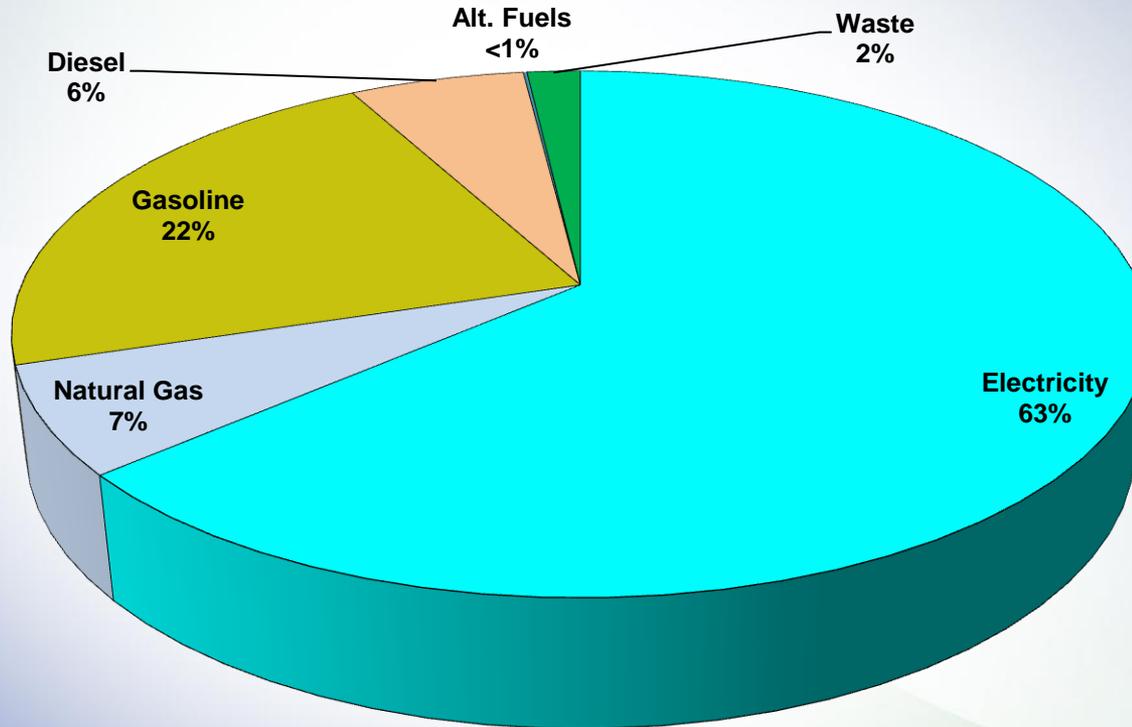


Emissions increase: 32 percent  
Population increase: 48 percent

# E. Pima County GHG Emissions by Sector 2012



# E. Pima County GHG Emissions by Source 2012



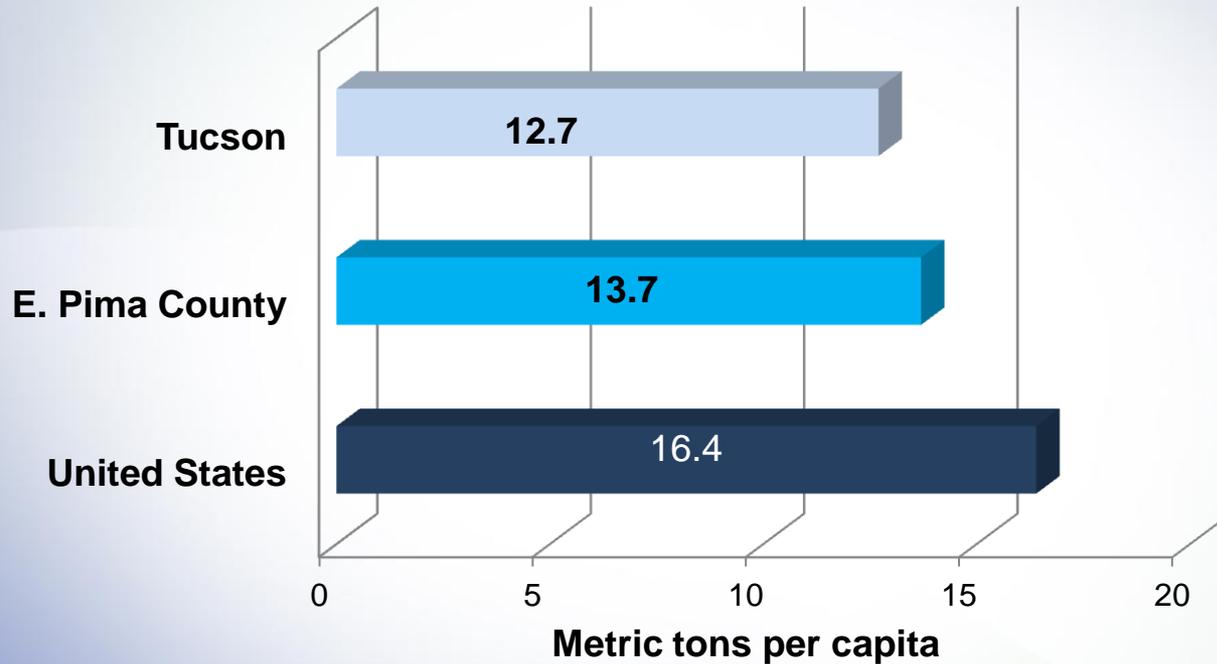
# E. Pima County Community

## Inventory

- 1990-2012: 32 percent increase
- 2010-2012: 3 percent decrease
- Major Sources: Electricity use, gasoline
- Largest Contributors: Residential energy use and private/commercial vehicle travel



# 2012 Per Capita GHG Emissions



Data sources:

Tucson, Eastern Pima County (PAG, 2014)

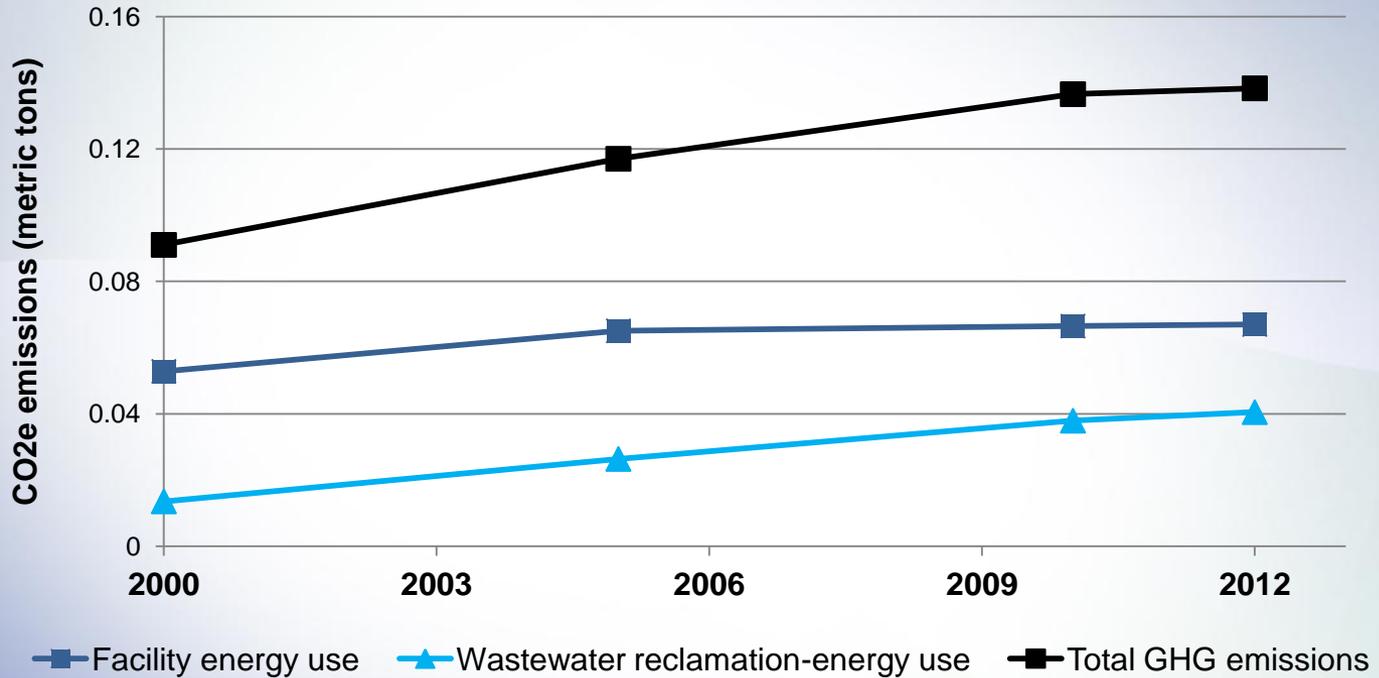
United States (PBL Netherlands Environmental Assessment Agency, 2013)

# Government Inventories: Emission Sources

- Electricity and natural gas use
  - Facilities
  - Water delivery and reclamation
  - Street and traffic lights
  
- Vehicle travel
  - Government fleets
  - Employee commuting
  
- Government-generated wastes

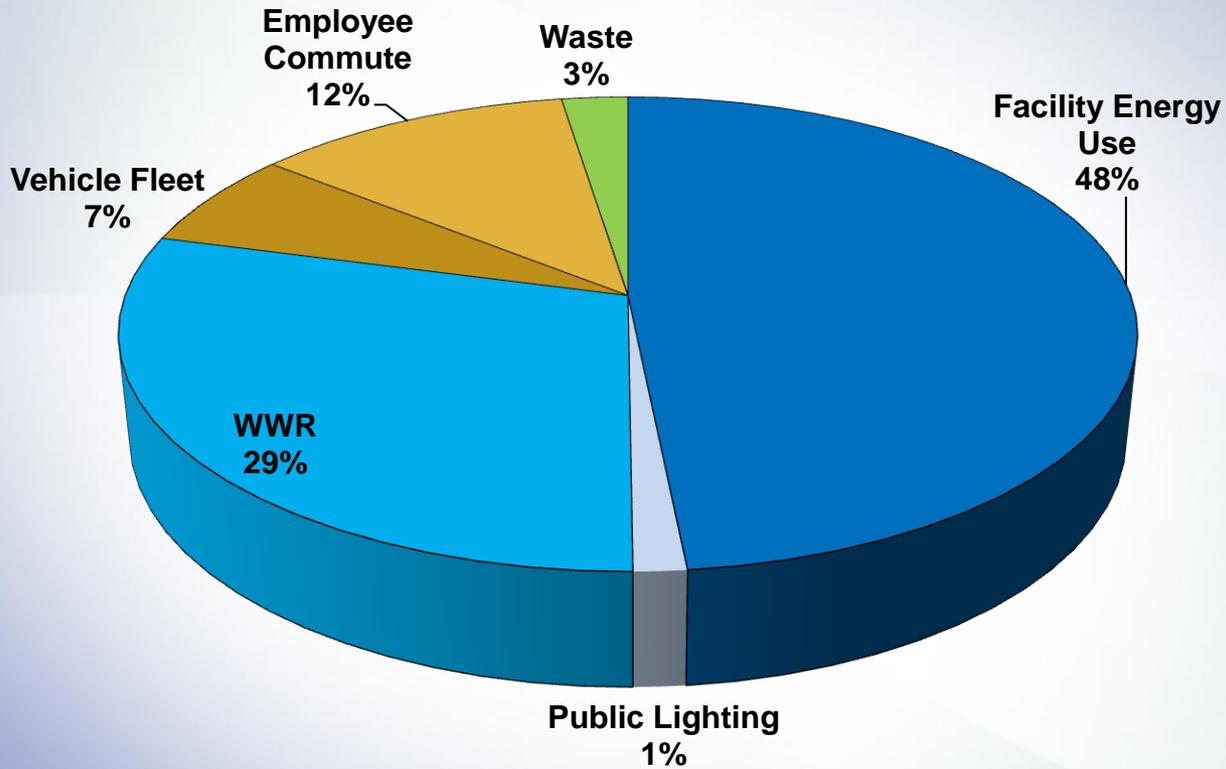


# Pima County Government Operations 2000-2012

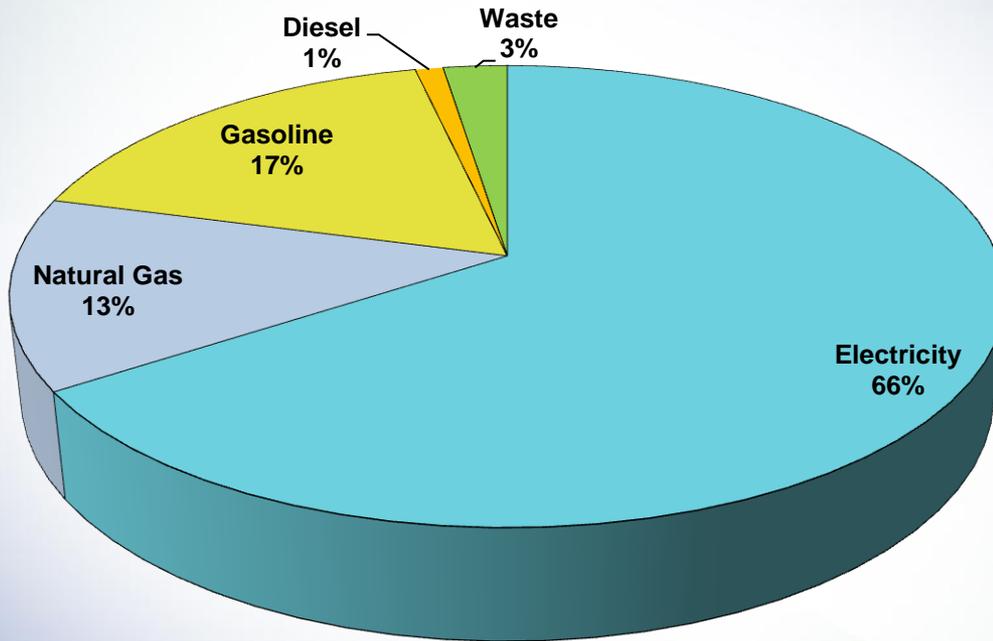


Emissions increase: 52 percent

# County Govt. GHG Emissions by Sector 2012



# County Govt. GHG Emissions by Source 2012



# Pima County Government Inventory



- 2000-2012: 52 percent increase
- 2010-2012: 1 percent increase
- Major source: Electricity use
  - Primarily: Wastewater reclamation, facilities

# Next Steps

## ***Sustainable Action Plan for County Operations: 2014 -19***

- **Baseline:** Fiscal year 2013/14
- **Targets:** GHG reduction in facilities and wastewater reclamation energy use, County fleet
- **Targets:** Renewable energy and energy efficiency in wastewater reclamation, facilities
- **Targets:** Potable water and reclaimed water use, recyclables, waste generation

## QUESTIONS?

### Inventory Report:

<http://www.pagnet.org/documents/Air/GreenHouseGas-2014-Inventory.pdf>

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