

# MITIGATION POTENTIAL IN MEXICO



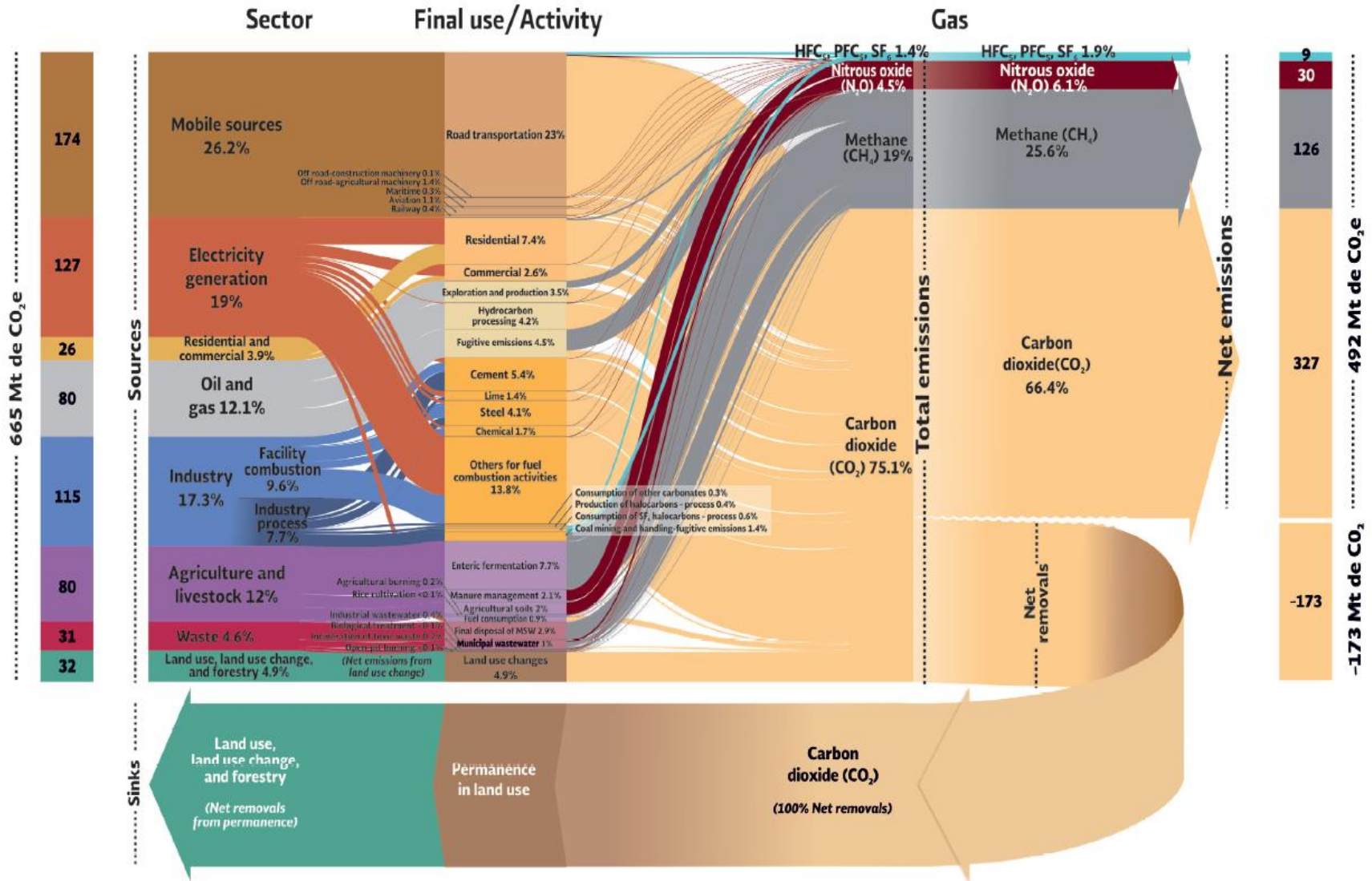
# INECC

INSTITUTO NACIONAL  
DE ECOLOGÍA  
Y CAMBIO CLIMÁTICO

**Claudia Octaviano Villasana, PhD**  
**General Coordinator for Climate Change  
and Low-Carbon Development**

**Emissions Trading Schemes for Mexico**  
**January 25, 2016**  
**Hotel Sheraton, Mexico City**

# MEXICO'S NATIONAL GREENHOUSE GAS INVENTORY



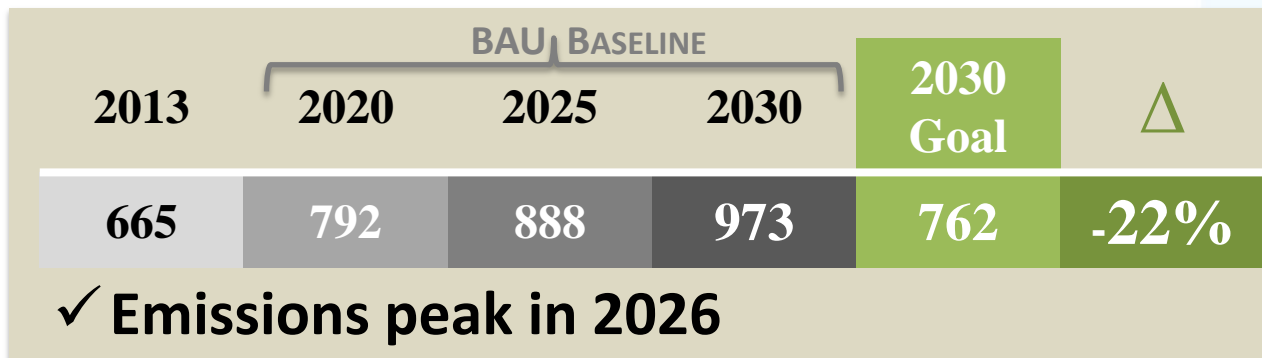
In Mexico, total GHG emissions in 2013 were 665 MtCO<sub>2</sub>e.

# Mexico's INDC commitments: Unconditional

## UNCONDITIONAL GHG

### GOALS

IN Mtons CO<sub>2</sub>e  
FOR THE **2020-2030** PERIOD



## ADDITIONAL UNCONDITIONAL GOALS

- ✓ **51% of Black Carbon** reduction
- ✓ **Adaptation** pledge to increase the resilience of vulnerable municipalities (municipios), infrastructure and ecosystems

## METHODOLOGICAL COMMENTS

- ✓ **Emissions targets vs BAU baseline**
- ✓ **LULUCF baseline not including sinks from land-use** (e.g. forest lands which remain forest lands, etc.)

# MITIGATION GOAL FOR GHG

**-22%**

**-36%**  
Conditional

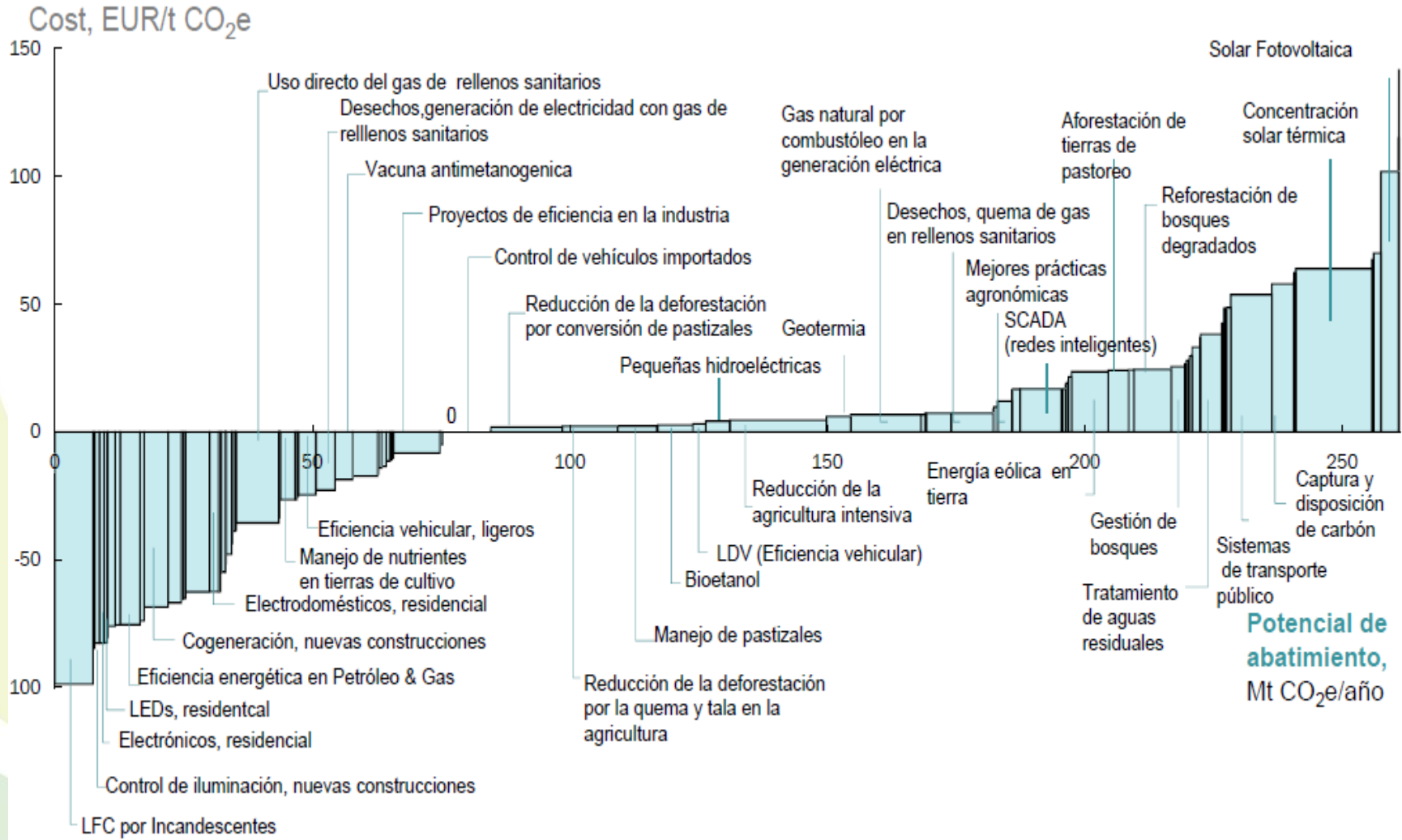
	BAU baseline				2030 GOAL	
	2013	2020	2025	2030	2030	Δ
TRANSPORTATION	174	214	237	266	218	-18%
ELECTRICITY GENERATION	127	143	181	202	139	-31%
RESIDENTIAL & COMMERCIAL	26	27	27	28	23	-18%
OIL & GAS	80	123	132	137	118	-14%
INDUSTRIAL PROCESSES	115	125	144	165	157	-5%
AGRICULTURE & LIVESTOCK	80	88	90	93	86	-8%
WASTE	31	40	45	49	35	-28%
<b>SubTOTAL</b>	<b>633</b>	<b>760</b>	<b>856</b>	<b>941</b>	<b>776</b>	<b>-18%</b>
FORESTRY AND LAND USE	32	32	32	32	-14	-144%
<b>TOTAL</b>	<b>665</b>	<b>792</b>	<b>888</b>	<b>973</b>	<b>762</b>	<b>-22%</b>

NO Condicionada

# By 2020, an abatement potential of ~261 MtCO<sub>2</sub>e was estimated, including 131 mitigation actions in different sectors\*



Curva de costos de abatimiento de GEI para México en 2020



\*Subject to mobilizing climate finance for these measures

## **Energy industries**

- **Clean Energy: 35% to 2024 and 43% by 2030, mitigating 41.7 MtCO<sub>2e</sub> by 2030**
- **Improved efficiency in generation technology (i.e. combined cycle gas turbines, etc.) reducing 14.2 MtCO<sub>2e</sub> by 2030.**
- **Reduce technical losses: 6.6 tCO<sub>2e</sub> in 2030**
- **Replacing fuel-oil with natural gas**
- **35% Reduction in carbon intensity from 493 kg / MWh in 2013 to 319 kg / MWh in 2030**

## **Oil and Gas**

- **Cogeneration in 9 refining and petrochemical complex**
- **15% reduction in emissions of methane (flaring and leaks)**
- **Replacement of fuel oil with natural gas**



## **TRANSPORT**

- **Energy efficiency standards, harmonized with the US and Canada. with CO<sub>2e</sub> emission limits for new cars and trucks, supplied with ultra low sulfur fuel**
- **20% of new vehicles sold in 2030 will be electric or hybrid**
- **Use of natural gas in 50% of urban public transport (≈100 thousand vehicles)**
- **Intercity trains Mexico-Toluca and Mexico-Queretaro**
- **Integrated public transport (15% decline in vehicle kilometers traveled from 13.960 to 11.297 km / year)**
- **Modal shift in domestic freight transport, from 10 to 25% freight movement by rail**
- **Control of imported used vehicles**

- CITIES**
- **Sustainable cities through urban planning for mitigation and adaptation**
  - **Building energy efficiency standards**
    - Improve building envelope thermal performance
  - **Promote the domestic use of solar heaters and cells**
    - Large reduction of gas consumption due to solar water heaters
    - Distributed solar photovoltaic systems for buildings
  - **Recovery and use of methane in municipal landfills and wastewater treatment plants**
  - **Energy efficiency standards for household appliances**



## **AGRICULTURE, LIVESTOCK AND FORESTRY**

- **Sustainable technification of rural areas**
  - Bio-digestors in agricultural and livestock farms with biogas recovery systems
  - Bio-fertilizer use to replace synthetic nitrogen fertilizers
- **Zero deforestation, commercial forest plantations and recovery of natural ecosystems**
- **Grassland recovery**

# Progress and steps forward for economy-wide instruments

- Carbon tax
- Policies that support the design of an ETS in Mexico (e.g. RENE, MOU w/ California)
- 2016 MRV studies and collaborative efforts in LAC
- 2016-2018 Low-carbon technologies and financing initiatives
- Public-private dialogues 2016

# Thank you !

**Claudia Octaviano Villasana, PhD**  
**General Coordinator for Climate Change and Low**  
**Carbon Development**

**[claudia.octaviano@inecc.gob.mx](mailto:claudia.octaviano@inecc.gob.mx)**