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# Technology transfer and the implementation of the Montreal Protocol Experience of UNIDO

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Alessandro Amadio  
UNIDO Regional office Beijing  
[a.amadio@unido.org](mailto:a.amadio@unido.org)



# Mandate

## **UNIDO**

To assist developing countries to comply with environmental agreements obligations

**Montreal Protocol** To protect the ozone layer by eliminating the production and consumption of Ozone Depleting Substances (ODS)



# UNIDO's successful technologies transfer

1. **Hydrocarbon** technology in the **Refrigeration** sector
2. **Liquid CO<sub>2</sub> blowing** technology in the **Foams** sector
3. **Grafting and soil-less media** technology in the soil **Fumigation** sector (Methyl bromide)

These alternative technologies use substances with lower GWP than the Ozone Depleting Substances they replace



# UNIDO's leadership in technology transfer

1. UNIDO has recognized first the **trend** towards hydrocarbon technologies as CFCs replacement
2. The first **cyclopentane** projects as **foam blowing agent** were approved in 1993 and 1994 for Egypt, Jordan and Iran
3. The first **hydrocarbon refrigeration** project (cyclopentane and R600a) was prepared for China in 1994
4. The first **grafting technology** projects for replacement of methyl bromide in soil fumigation were approved in 2002 and 2003 for Honduras and Guatemala



# UNIDO leads new sectors

- 1. Metered-Dose Inhaler (MDI):** approved Egypt 2006 and Mexico 2007, under preparation China, Iran, Jordan and Venezuela
- 2. Phase out of HCFCs** in 28 countries
- 3. Ozone Depleting Substances disposal**



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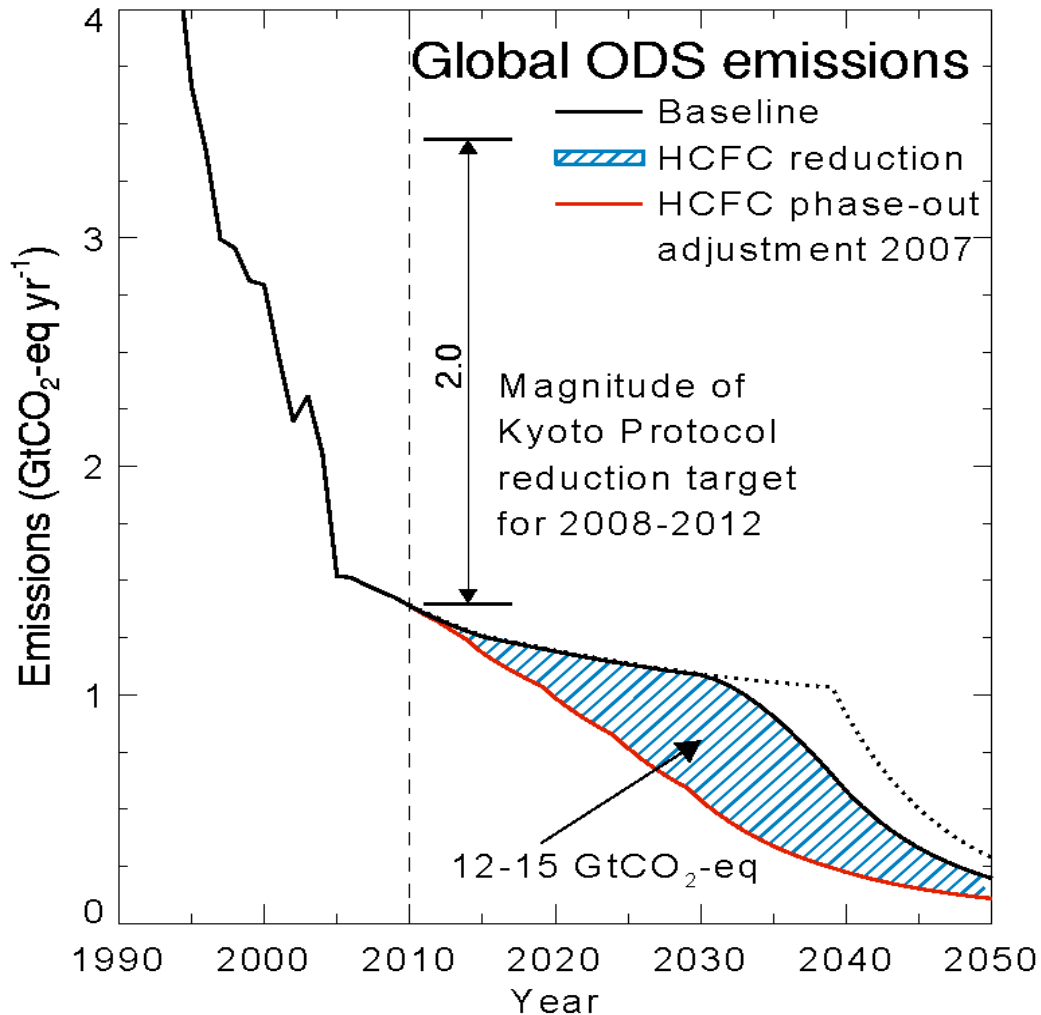
# **The Montreal Protocol**

## **and its**

# **impact on Climate Change**

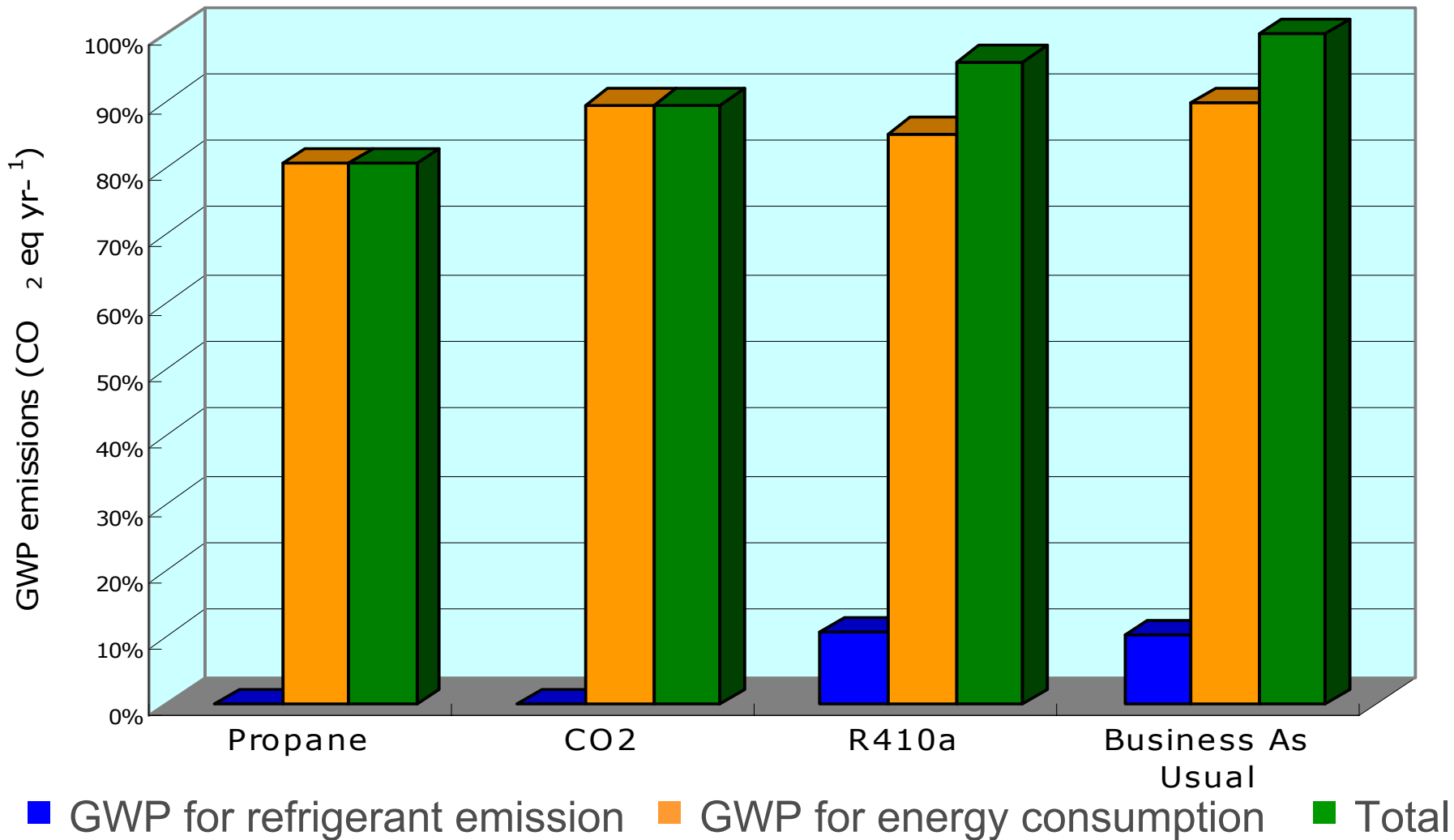


# The climate benefits of the accelerated phase-out of HCFCs





# GWP comparative analysis for HCFCs alternatives in the room air conditioner sector







# Challenges ahead

- **Develop** environmental friendly and sustainable technologies
- **Cost and market** constrains
- Promote and implement environmental friendly **Policy**

# Opportunities

- **Replace** old technologies and equipment with mew ones
- **Select** environmental friendly and sustainable technologies
- Promote environmental friendly development **Strategy**
- Promote and enforce environmental friendly **Policy**



We offer our assistance  
in meeting the  
challenges  
Thank you!