

# CIBO 30<sup>th</sup> Annual Meeting

## Setting the Stage for Energy and Environmental Strategy Development

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## Summary

- Status of Carbon Markets
- Winrock's American Registry
- What CIBO Members should consider



## Carbon Market Volume and Value

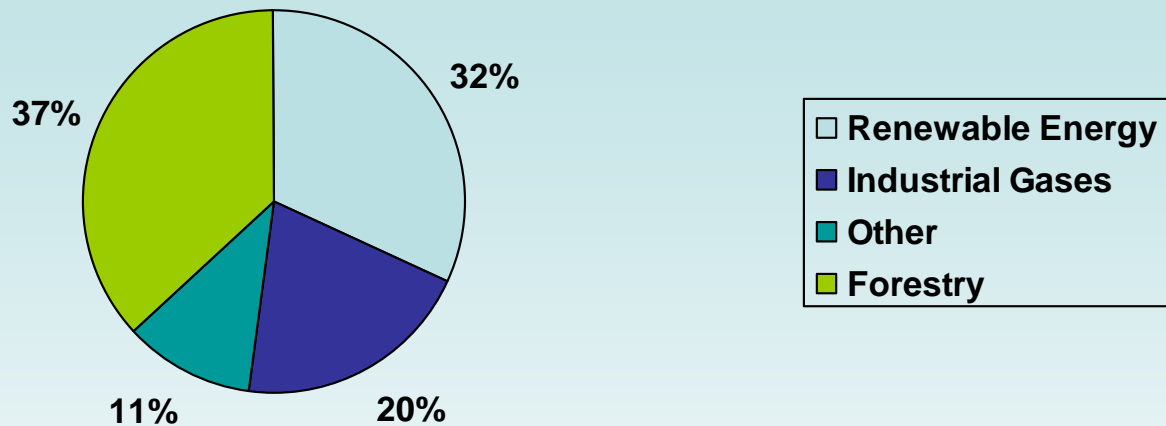
Market	Volume million tCO <sub>2</sub> e		Value million US\$	
	2006	2007	2006	2007
OTC Voluntary	14	42	59	258
CCX	10	23	38	72
<b>Total Voluntary Market</b>	<b>24</b>	<b>65</b>	<b>97</b>	<b>330</b>
EU ETS	1044	2061	24,436	50,097
CDM	562	791	6249	12,877
Other	36	66	366	723
<b>Total Regulated Market</b>	<b>1642</b>	<b>2918</b>	<b>31,051</b>	<b>63,697</b>

Source: Ecosystem Marketplace, New Carbon Finance, World Bank, 2008

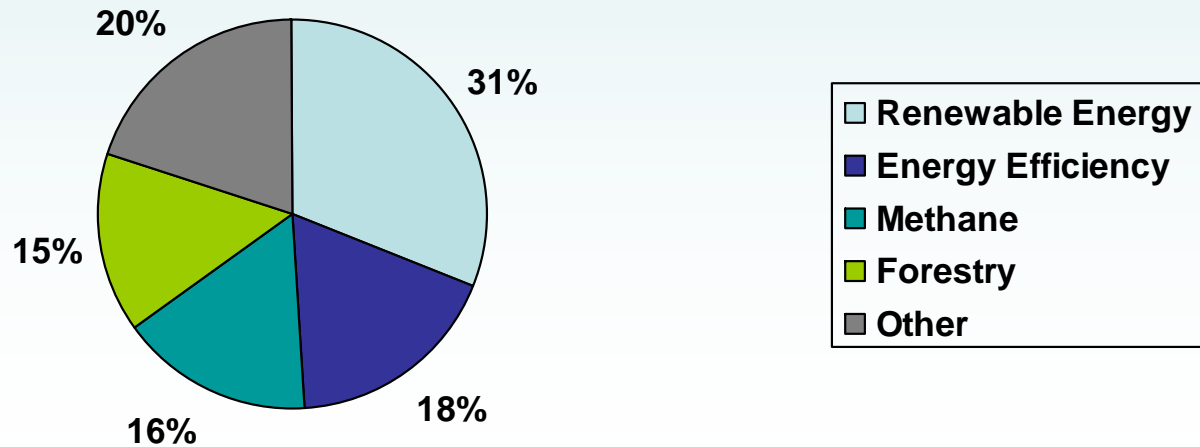


# Sources of Carbon Offsets in the OTC Market

2006



2007



Source: "Forging a Frontier::State of the Voluntary Carbon Markets 2008", Hamilton et al, May 2008.

## Value of a Emission Reductions

Average value of carbon emission reductions (2007):

- Voluntary Market \$5/tCO<sub>2</sub>e
- Regulated Market \$21/tCO<sub>2</sub>e



## Market Prices for Carbon Offsets Vary Widely

Type	Price (\$/tCO <sub>2</sub> e)
CDM	20 – 44
VGS VERs	14 – 29
VCS	7 – 22
VER+ (TUV SUD)	7 – 22
CCX	1.8 - 4.5
Other Voluntary	5 -12

*Price estimates courtesy of:*



Non-profit voluntary registry operated by the Environmental Resources Trust at Winrock International

## Market Trends

- Private businesses purchased more than 75% of the offsets sold in the voluntary OTC market in 2007
- Most offsets are retired to meet voluntary commitments
- ***Forestry projects accounted for about 25% of voluntary OTC offsets in 2007 in the U.S.***
- ***Renewable energy and forestry offsets have received the highest average prices (\$7-8/ton)***
- Around half of voluntary purchases were verified to a third party standard



# Registries

	GHG Reduction Program	Entity Emissions Inventory	Entity Emissions Reductions Inventory	Project Emission Reductions Inventory	Carbon Credit Accounting	Market Exchange
CCX	✓	✓	✓	✓	✓	✓
WWF Climate Savers	✓					
Canadian GHG Challenge	✓	✓	✓			
ERT GHG Registry		✓	✓	✓	✓	✓
California Climate Action Registry		✓	✓	✓		
The Climate Registry		✓	✓	✓		
The Blue Registry					✓	
Carbon Disclosure Project		✓				
US DOE 1605 (b)		✓	✓	✓		



Source: State of the Voluntary Carbon Market, Picking up Steam, July 2007, New carbon Finance



# Environmental Resources Trust

- ERT is a group within Winrock International
- Focuses on direct voluntary action to reduce greenhouse gases by bringing private parties together for their own best interests *and* the environment
- Building the infrastructure for trading systems and facilitating trades of millions of tones of GHG reductions,
- Working with companies, governments, financial institutions, NGOs and local market participants on full range of GHG issues,
- Operates the American Carbon Registry



# How We Create Environmental Assets

- A carbon offset becomes an Emissions Reduction Ton (ERT) when determined that a reduction is real, additional, permanent, ownership certain, and no leakage occurs.
- An ERT becomes a tradable asset once the Registry assigns a unique serial number, and posts the “ERT” in the Member’s account.
- American Carbon Registry accepts only projects verified against the Registry’s published standards, developed by ERT-Winrock.
- Members can choose among specific methodologies – for example, Clean Development Mechanism (CDM), the Voluntary Carbon Standard (VCS) as well as from the California Climate Action Registry (CCAR).



## How then American Carbon Registry Adds Value

- Transparency, clear ownership and environmental integrity drive today's U.S. voluntary and pre-compliance carbon markets.
- Registers only the highest quality offsets on the market.
- Helps members position themselves to earn early action credit towards future federal and international GHG regulatory programs.
- The American Carbon Registry provides the transparency often lacking in today's marketplace with regard to publically accessible registration and reporting of corporate inventories as well as carbon transactions and the standards and protocols used to assess the carbon offsets.



# Winrock's Qualifications & Experience

- Members of Winrock staff include three co-Nobel Peace Prize recipients for their contribution to the Intergovernmental Panel on Climate Change.
- Team members are leaders in afforestation, reforestation, forest management and avoided deforestation as well as scientists, ecologists, economists, climate and energy policy analysts and business professionals.
- In 2005, the U.S. Environmental Protection Agency commissioned ERT to develop the U.S. federal government's guidelines on corporate GHG accounting. The document entitled *Corporate GHG Verification Guideline (2005)* is available for download on the EPA's Climate Leaders Program website.
- Over 25 million tradable offsets have been registered with millions of offsets traded annually.



## Project: Landfill Gas Flaring Project

### Owner: Development Authority of the North Country

All units in metric tons CO<sub>2</sub>-equivalent

Current Cumulative Tradable Balance 0

#### Annual Emissions Tracking

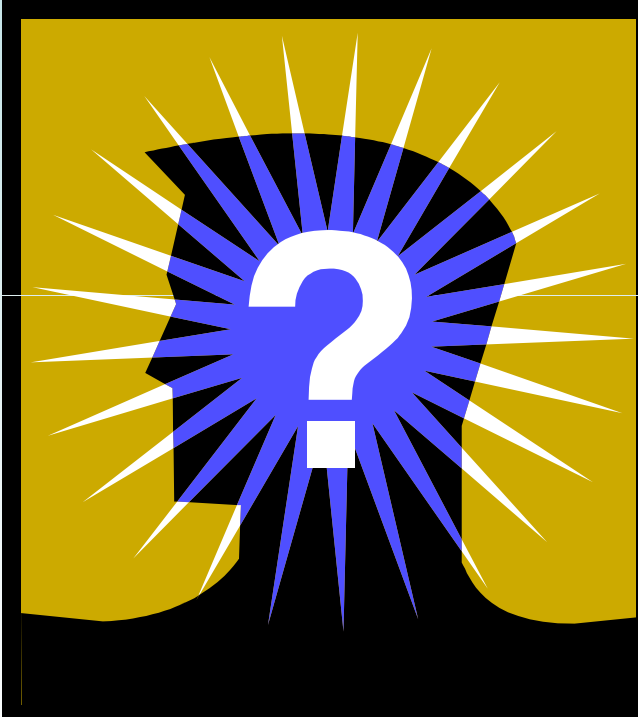
Year	Annual Baseline	Annual Emissions	Annual Reductions	Cumulative Reductions
	$a$	$b$	$c = a + b$	$\Sigma^t c$
2007	136,786	2,909	133,877	476,553
2006	125,328	2,666	122,662	342,676
2005	77,845	1,727	76,118	220,014
2004	77,409	1,751	75,658	143,896
2003	69,779	1,541	68,238	68,238
2002				
2001				
2000				
1999				
1998				
1997				

#### Transaction Tracking

Vintage Year	Tradable Reductions	Aquired (Purchased) Offsets	Total Additions	Transferred Offsets	Retirement of Offsets	Total debits	Annual Tradable Balance
	$j$	$k$	$x = j + k$	$u$	$v$	$y = u + v$	$z = x - y$
2007	133,877		133,877	133,877		133,877	0
2006	122,662	0	122,662	117,662	5,000	122,662	0
2005	76,118	0	76,118	76,118		76,118	0
2004	75,658		75,658	73,158	2,500	75,658	0
2003	68,238		68,238	68,238		68,238	0
2002							
2001							
2000							
1999							
1998							
1997							



# Key Questions for CIBO Member Offset Projects



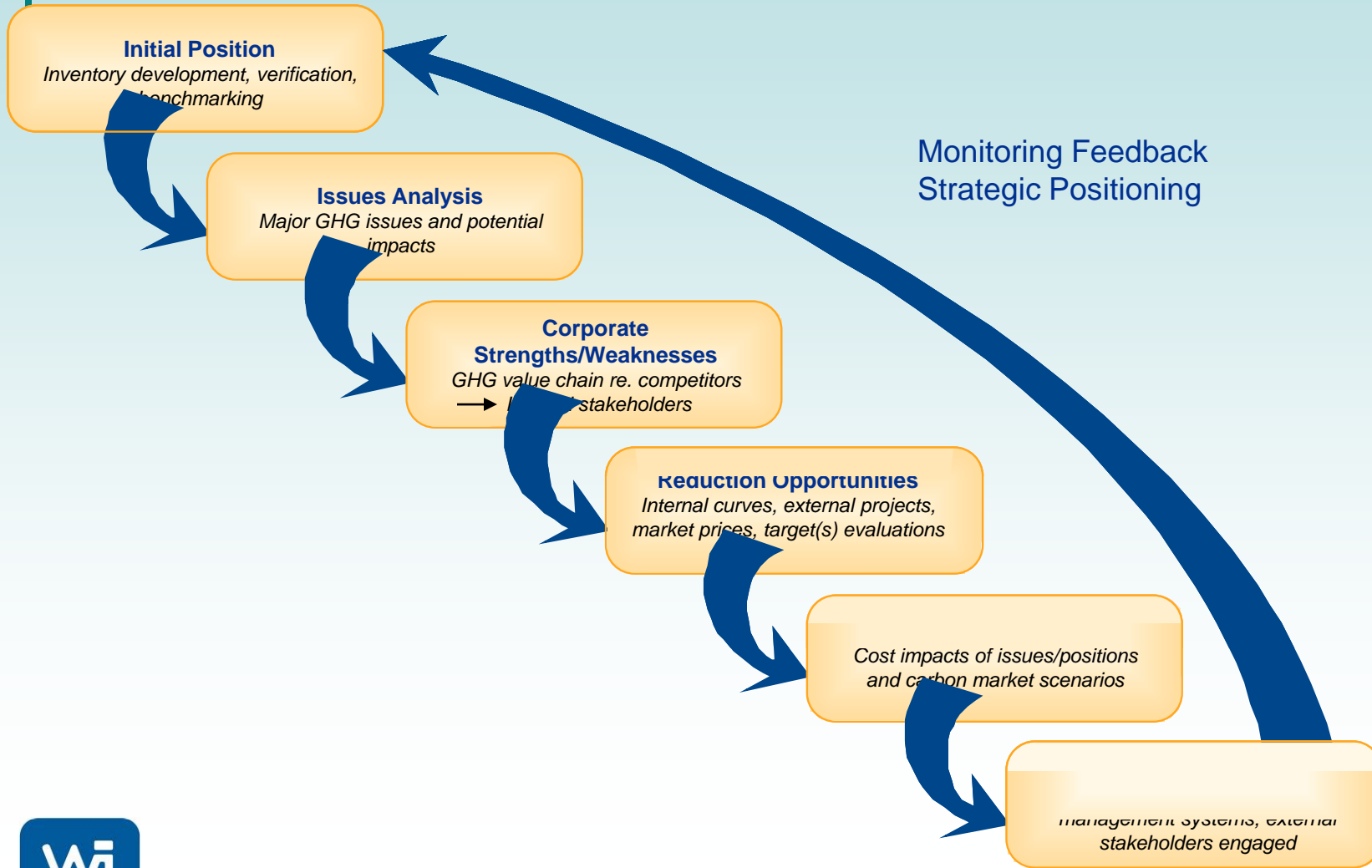
- Is it different from Business as Usual?
- Who owns it? Is title clear or contested?
- Can you measure it accurately?
- When did the project start?
- Does the Project have long term
  - Value
  - Viability
  - Marketability
- Will the project be recognized under current or future
  - Regulatory Cap-and-Trade program
  - Voluntary initiatives



# Corporate Positioning: Issues Analysis



# Strategic Valuation Process





# Fuels and Fire Management

Not all fires are the same



Source of Photos: Dr. Sam Sandberg, USDA Forest Service Pacific Wildland Fire Sciences Laboratory

## Contact info

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