



*wel come to*

# BEYOND SMART CITIES



**BEYOND**  
SMART CITIES

**CERTIFIED DECARBONIZATION  
PROFESSIONAL - CDP OVERVIEW  
ONLINE TRAINING BY KRISHNAJI PAWAR**

LEED AP(BD+C), GSAS CGP, GCP, ISO 14001

**KNOWLEDGE IS POWER**

LEARN . BEYOND SMART CITIES . IN

**BEYOND**  
SMART CITIES

MODULE

**6**

# Carbon, Sustainability, and GHG accounting

KRISHNAJI PAWAR - CEO & FOUNDER

LEED AP(BD+C),GSAS CGP,GCP,ISO 14001

[WWW.BEYONDSMARTCITIES.IN](http://WWW.BEYONDSMARTCITIES.IN)





# **CERTIFIED DECARBONIZATION PROFESSIONAL - CDP OVERVIEW**

Carbon accounting is a complex and rapidly evolving field in sustainable development, influencing decision-making at all levels of society. Its principles and methods share a common framework, but no universal solution exists.

# Learning Objectives

- Introduction
- Climate change and sectoral decarbonization approaches
- Strategies for a decarbonization-built environment
- Building Operational and Embodied Carbon, Kyoto Protocol, and Beyond.
- Professional certification for decarbonization audits
- Carbon, Sustainability, and GHG accounting
- Summary and Resources
- ASHRAE CDP Practice Test V.4.1: Test Your Knowledge!



## INTRODUCTION

- Carbon accounting is a complex field in sustainable development, crucial for decision-making at all societal levels.
- The principles and methods of carbon assessments share a common framework.
- Despite the varying scopes and complexities of carbon assessments, the fundamental principles and methods should share a common framework.
- Carbon accounting is a tool in the fight against climate change, but its value lies in ensuring that decisions made are not the wrong ones.
- Understanding motivations for GHG inventory development.
- Exploring inventory's potential in achieving business objectives.
- Presenting fundamental regulations and principles of carbon accounting.

# GHG PROTOCOLS : INTERNATIONAL CARBON ACCOUNTING STANDARDS



- GHG Protocols, a partnership between WRI and WBCSD, developed the most respected carbon accounting framework.
- The framework underpins various carbon accounting initiatives, including ISO standards, the Climate Registry, and global practices.
- The group's documents and tools should be a primary reference for anyone involved in carbon accounting.
- New and existing methodologies should incorporate the five principles of carbon accounting outlined in the GHG Protocols.

# THE FIVE PRINCIPLES OF CARBON ACCOUNTING

- **Relevance:** Ensure GHG inventory accurately reflects organization's emissions and meets user decision-making needs.
- **Completeness:** Account for all GHG emissions sources and activities within the chosen inventory boundary.
- **Consistency:** Use consistent methodologies for meaningful emissions comparisons over time.
- **Transparency:** Address all relevant issues factually and coherently, based on a clear audit trail.
- **Accuracy:** Ensure quantification of GHG emissions is neither over nor under actual emissions, and uncertainties are reduced.



# BUSINESS BENEFITS OF GHG MANAGEMENT

- Tracking and verifying corporate social responsibility goals.
- Identifying opportunities to reduce waste and costs.
- Benchmarking performance and improving competitiveness.
- Participating in GHG emission markets.
- Providing information to shareholders and stakeholders.
- Participating in GHG reporting programs.
- Assessing liabilities and preparing for future GHG policies.
- The inventory can serve as the foundation for a broader GHG management strategy.
- Not all benefits are equally relevant to every organization.



# CORPORATE RESPONSIBILITY GOALS FOR GHG EMISSIONS

- Organizations set GHG reduction goals or targets related to energy consumption.
- Targets can be absolute reductions (reduction in tons of emissions) or intensity reductions (reduction in emissions per unit of produced goods or services).
- DuPont, a major chemical company, set an absolute target of 65% reduction in GHG emissions from 1990 to 2010.
- DuPont achieved a 60% reduction through an end-of-pipe capture and destroy technique for N<sub>2</sub>O.



# PARTICIPATION IN GHG MARKETS

- Companies seek participation in Kyoto Protocol's Clean Development Mechanism (CDM).
- European Union's Emissions Trading Scheme (EU-ETS).
- Chicago Climate Exchange (CCX).
- Voluntary retail emission offset markets.
- Conducting GHG inventory can identify reduction project opportunities.
- Potential for yielding tradable credits through these markets.



# GHG INVENTORY DEVELOPMENT AND MANAGEMENT

- Benefits companies and organizations through tracking corporate social responsibility goals.
- Identifies opportunities to reduce waste and costs.
- Benchmarks performance for competitiveness improvement.
- Participates in GHG emission markets.
- Provides information to shareholders and stakeholders.
- Participates in GHG reporting programs.
- Assesses liabilities and prepares for future GHG policies.

**BEYOND**  
SMART CITIES



# CARBON ASSESSMENT REPORTING PROCESS

- Accurate recording of all stages of a carbon assessment is crucial.
- No standard reporting format exists due to diverse sectors and organizations.
- Drafting a report considers scale, importance, stakeholders, potential for reductions, and contractual agreements.
- Consideration of these factors is crucial for a comprehensive carbon assessment.



**BEYOND**  
SMART CITIES

**CONTACT US**



+91 6363032722



info@beyondsmartcities.in



learn.beyondsmartcities.in



#55,HMR Layout ,Bengaluru ,India



# THANK YOU

