



Global
Platform for
Sustainable
Cities

Resource
Team

Using GHG data to support decision-making

温室气体清单的应用

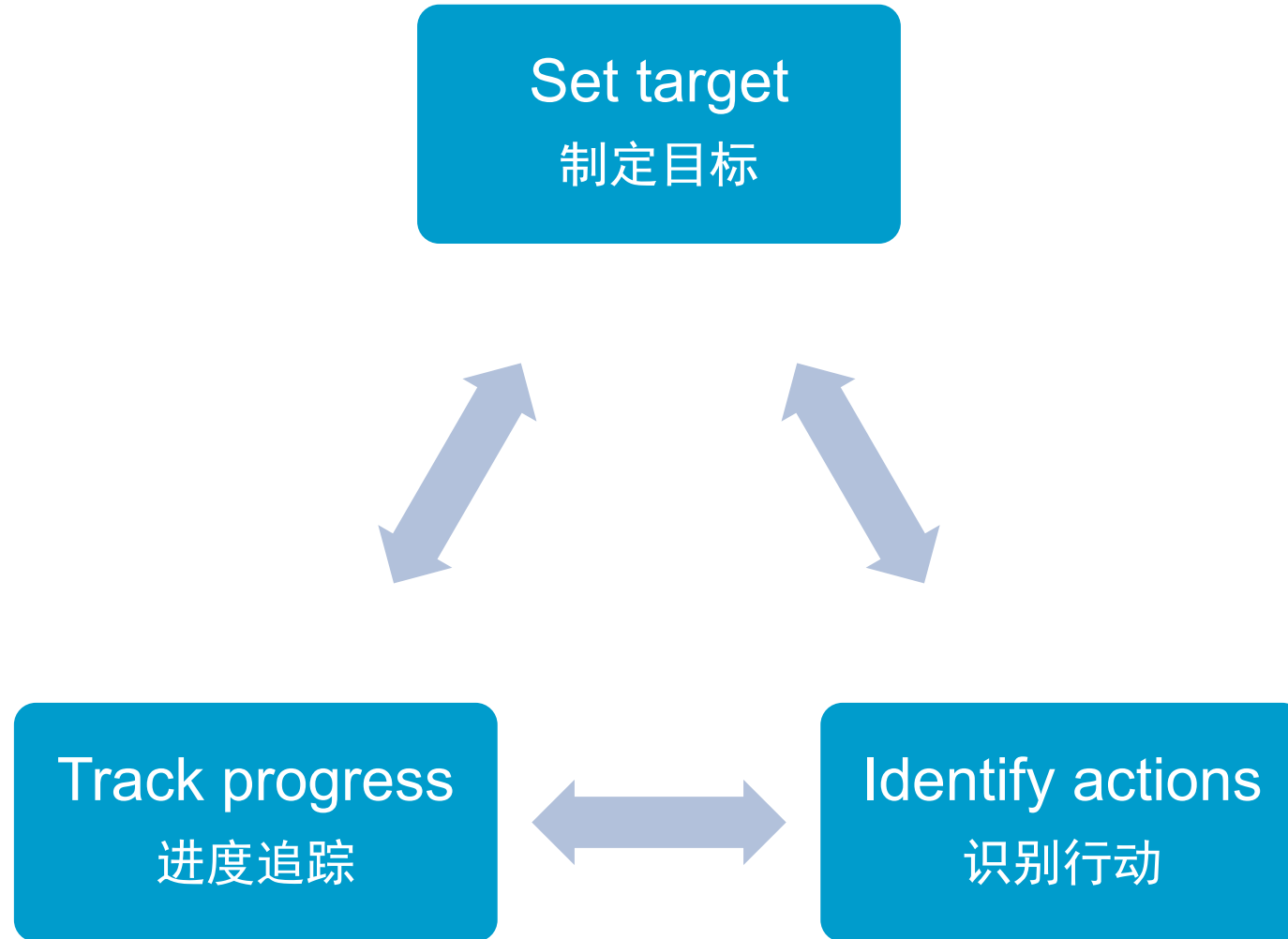


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CENTER



Why developing GHG inventories?

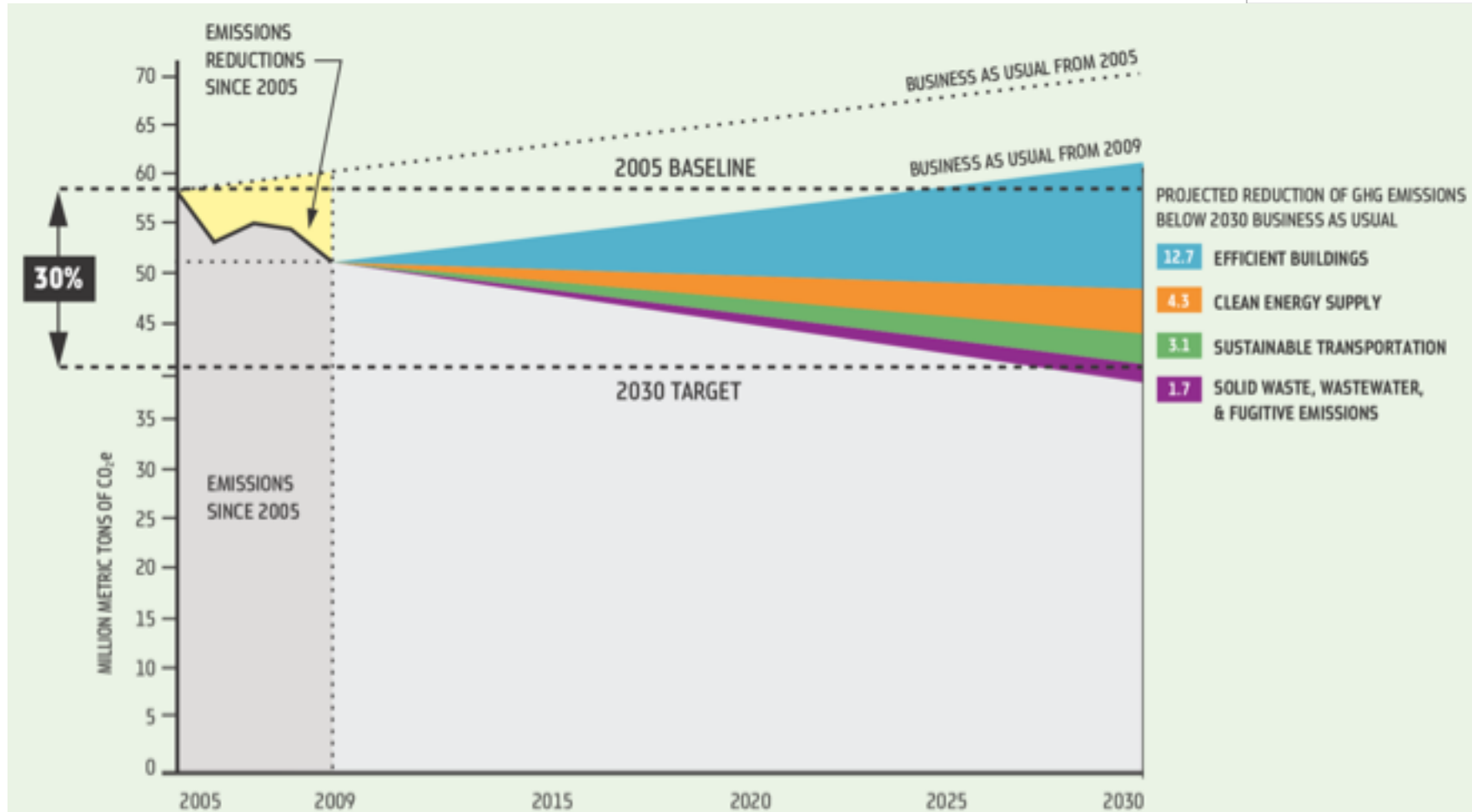
编制温室气体清单的目的



Target setting – scenario analysis

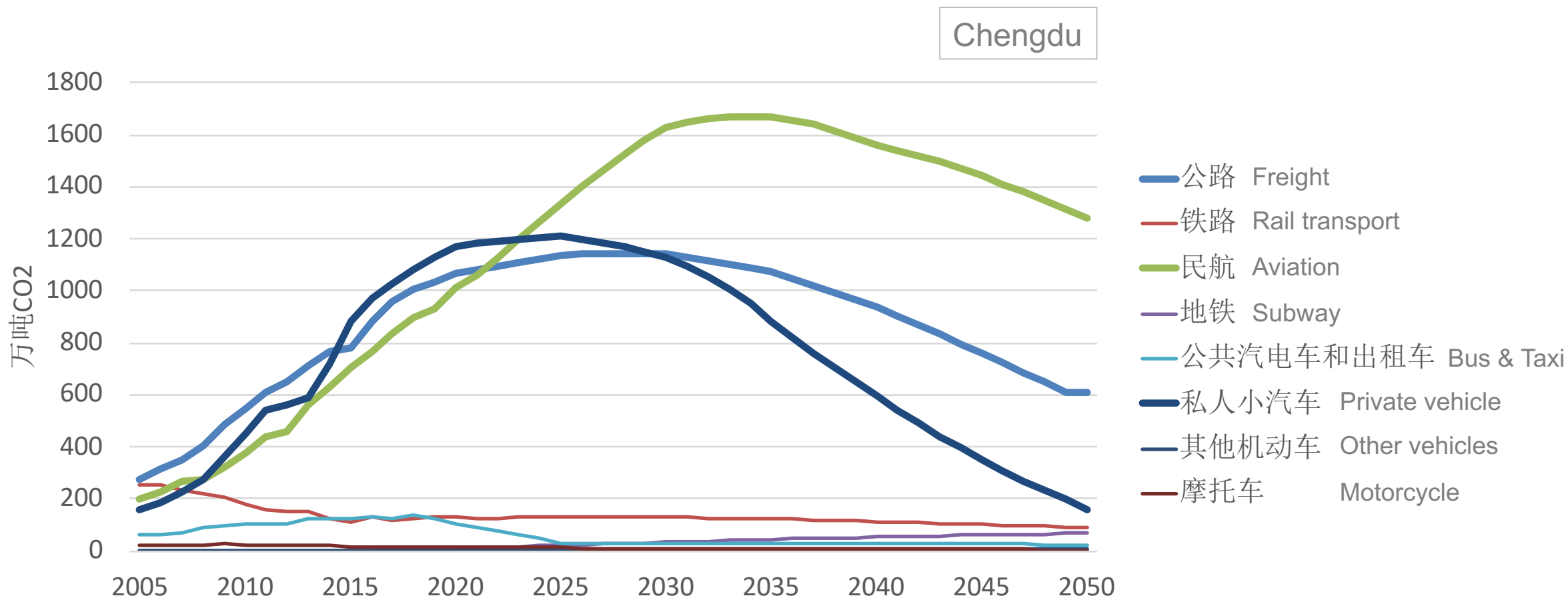
目标制定 – 情景分析

New York City



Target setting – scenario analysis

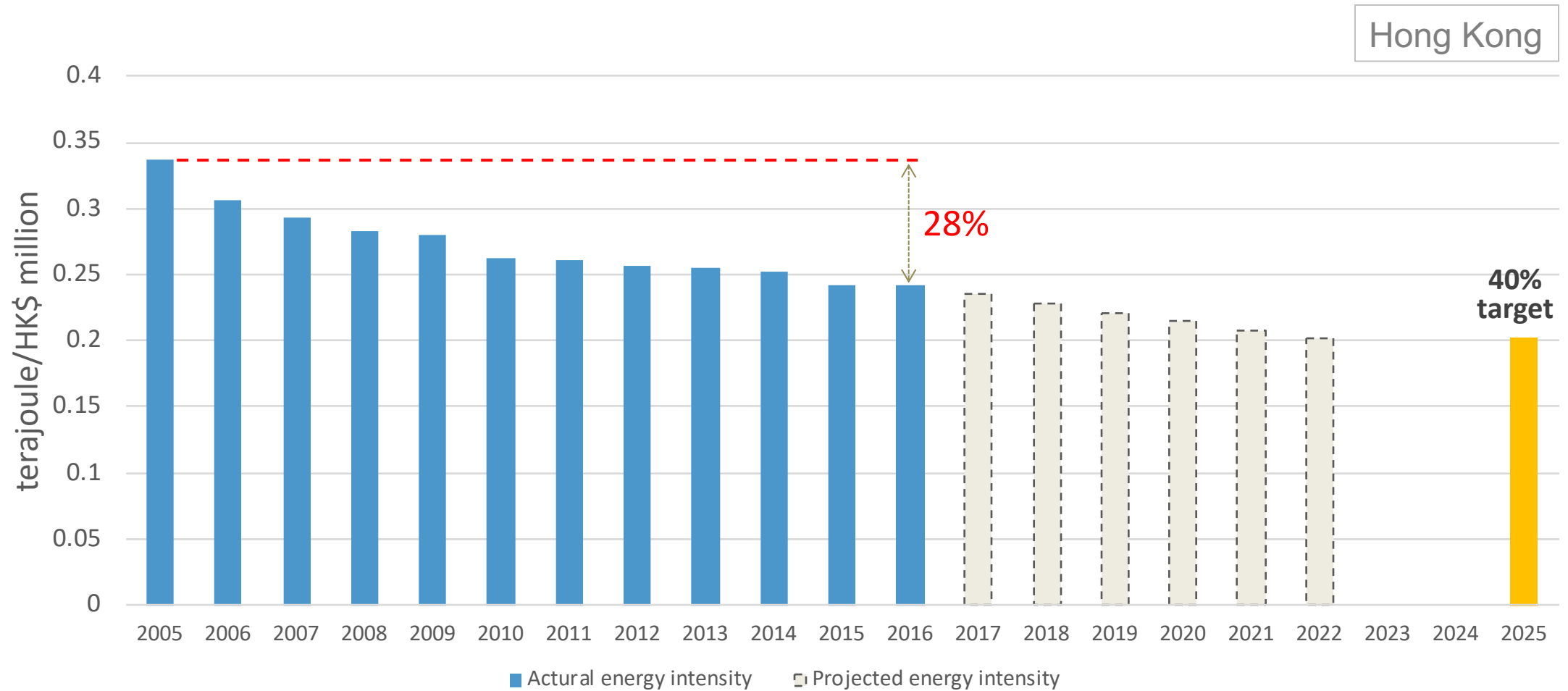
目标制定 – 情景分析



Source: WRI (unpublished)

Progress tracking – progress towards the target

目标追踪和考核



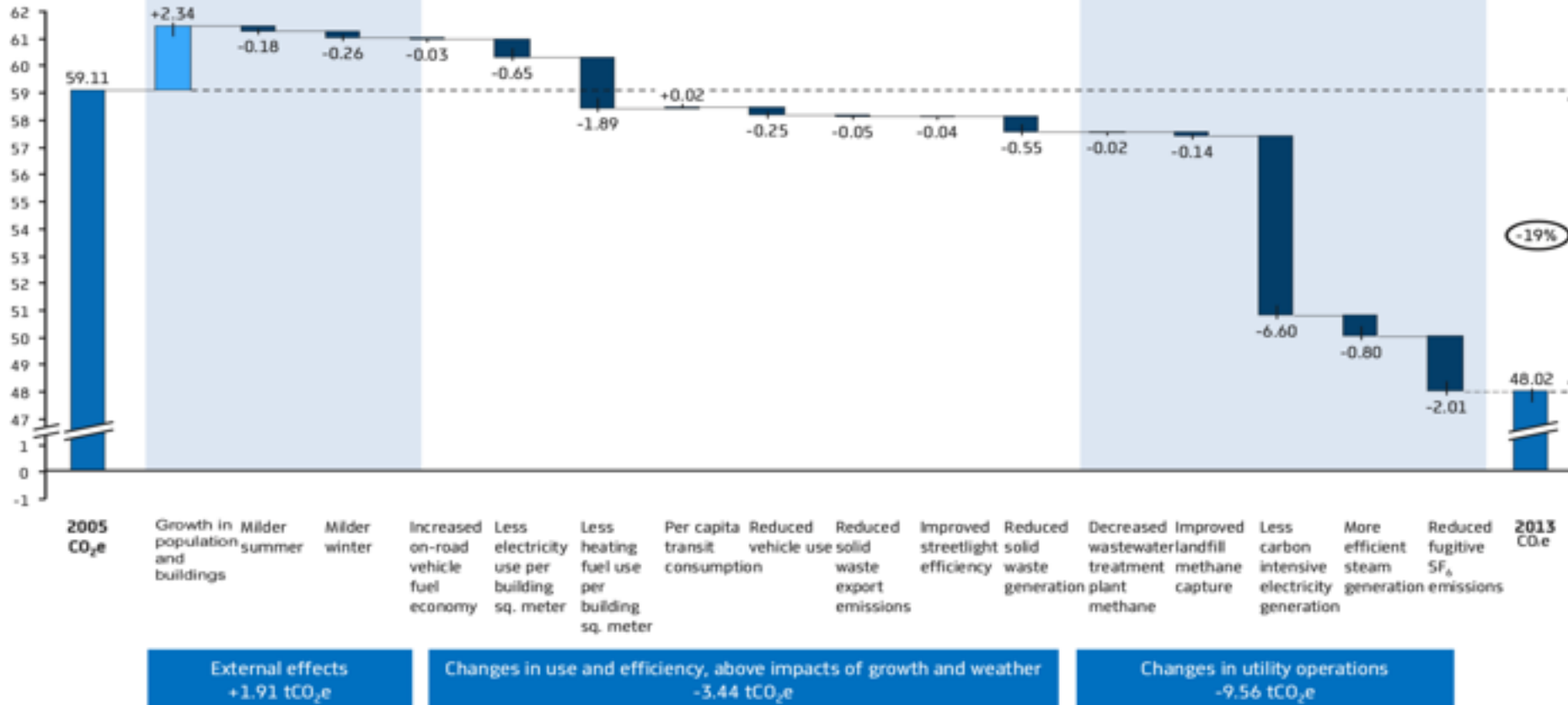
Source: Calculated using data from Census and Statistics Department and the Energy Statistics Annual Report.

Progress tracking – action evaluation

目标追踪 – 减排效果分析

GHG Emissions
(Million tCO₂e)

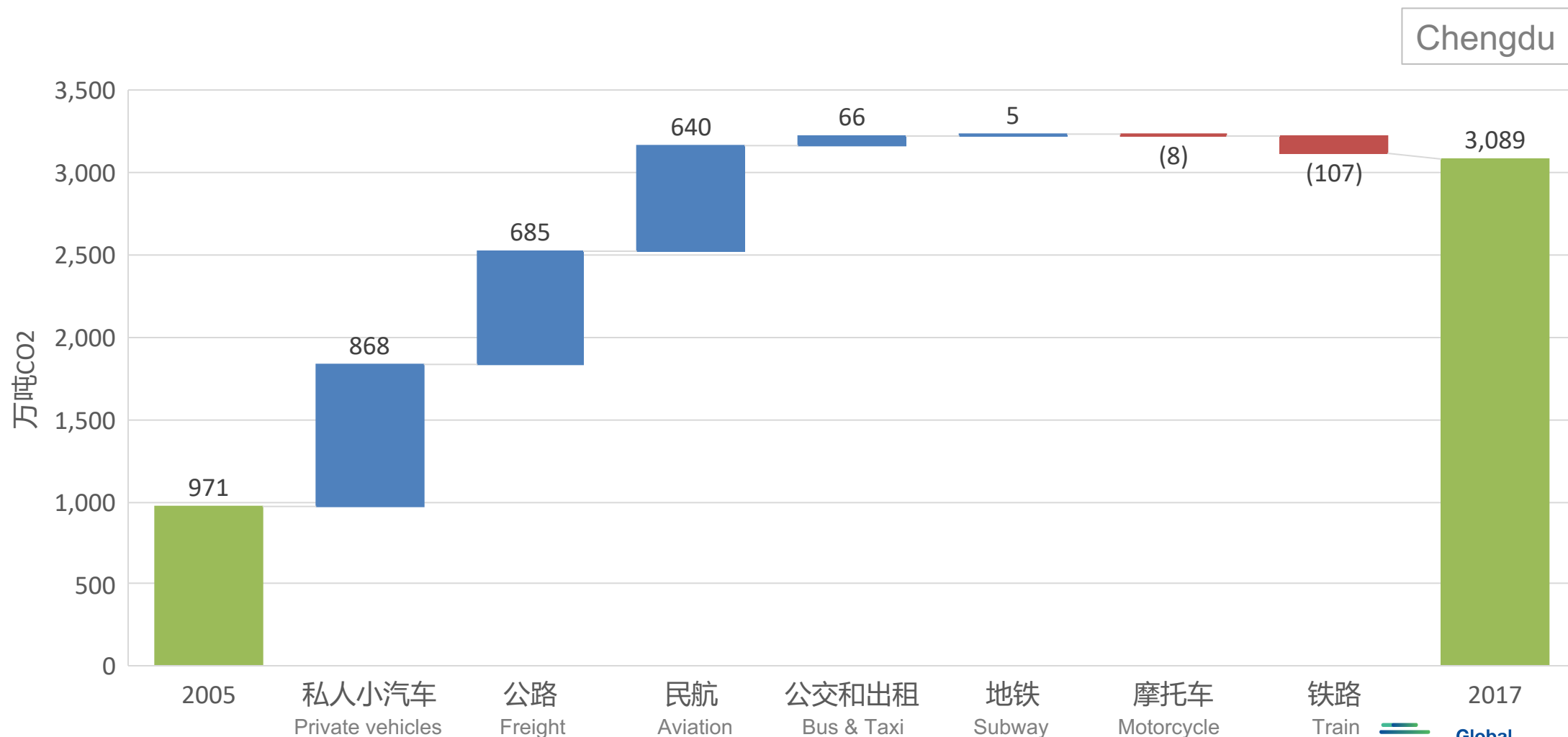
GHG Emissions
(Million tCO₂e)



Source: New York City

Progress tracking – action evaluation

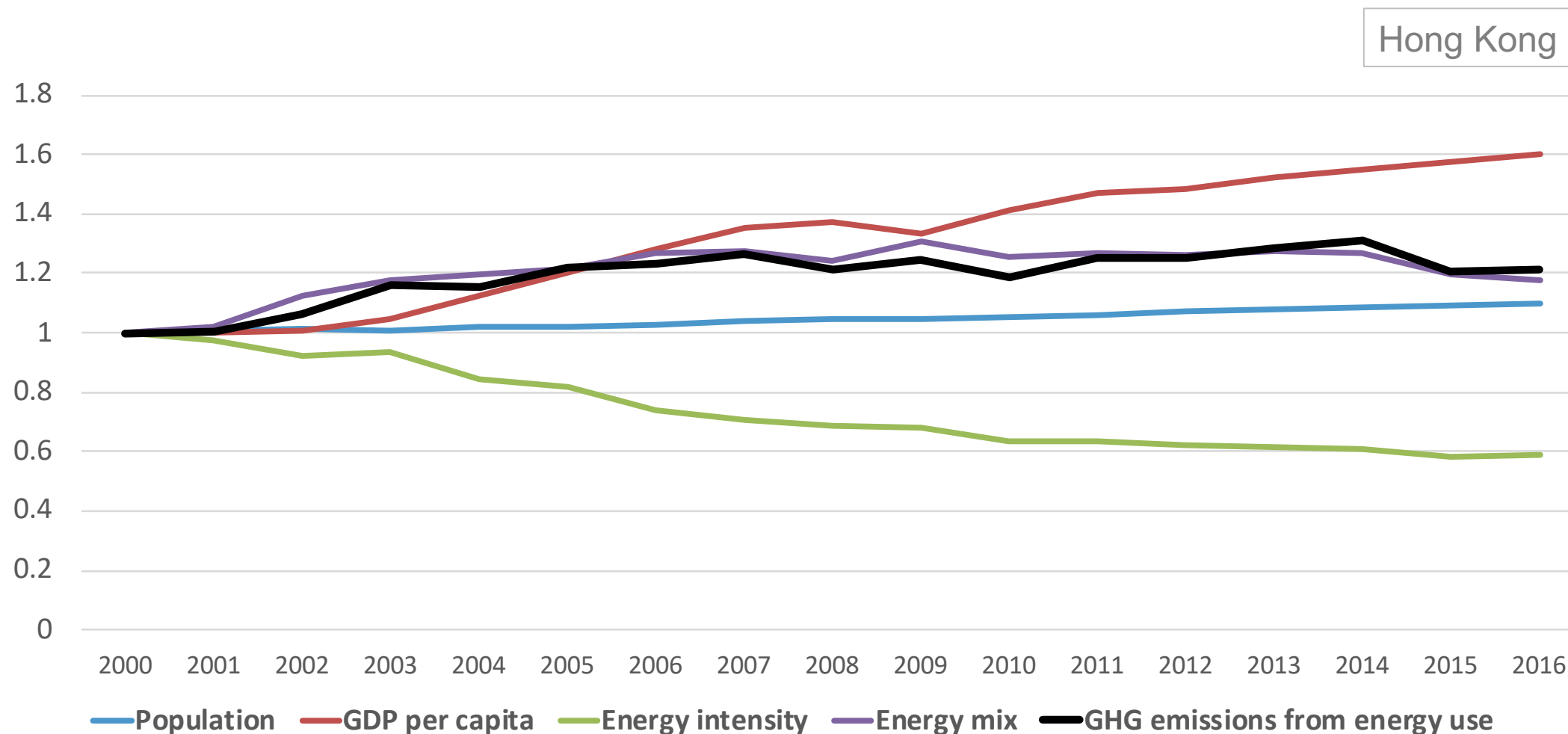
目标追踪 – 减排效果分析



Source: WRI (unpublished)

Progress tracking – Driving force analysis

目标追踪 – 驱动因素分析



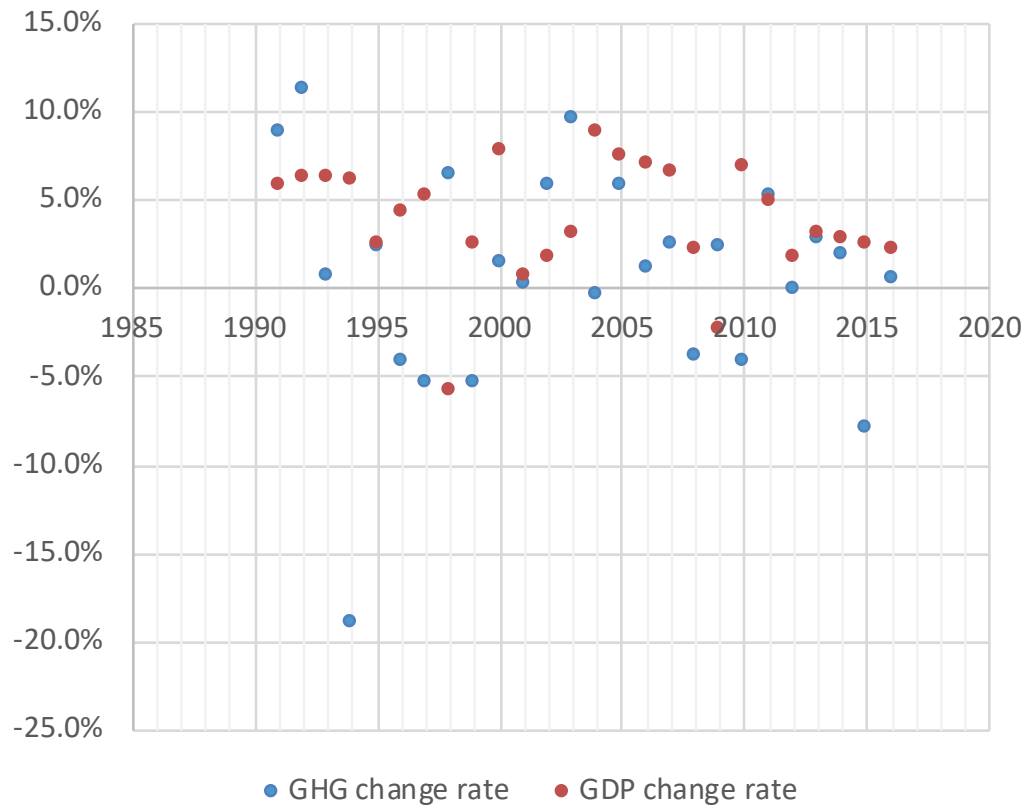
Source: Population and GDP are from Census and Statistics Department, Energy consumption are primary energy consumption data from the Energy Statistics Annual Report, GHG emissions are from Environment Protection Bureau, other parameters are calculated based the above data.

Progress tracking – Carbon decoupling analysis

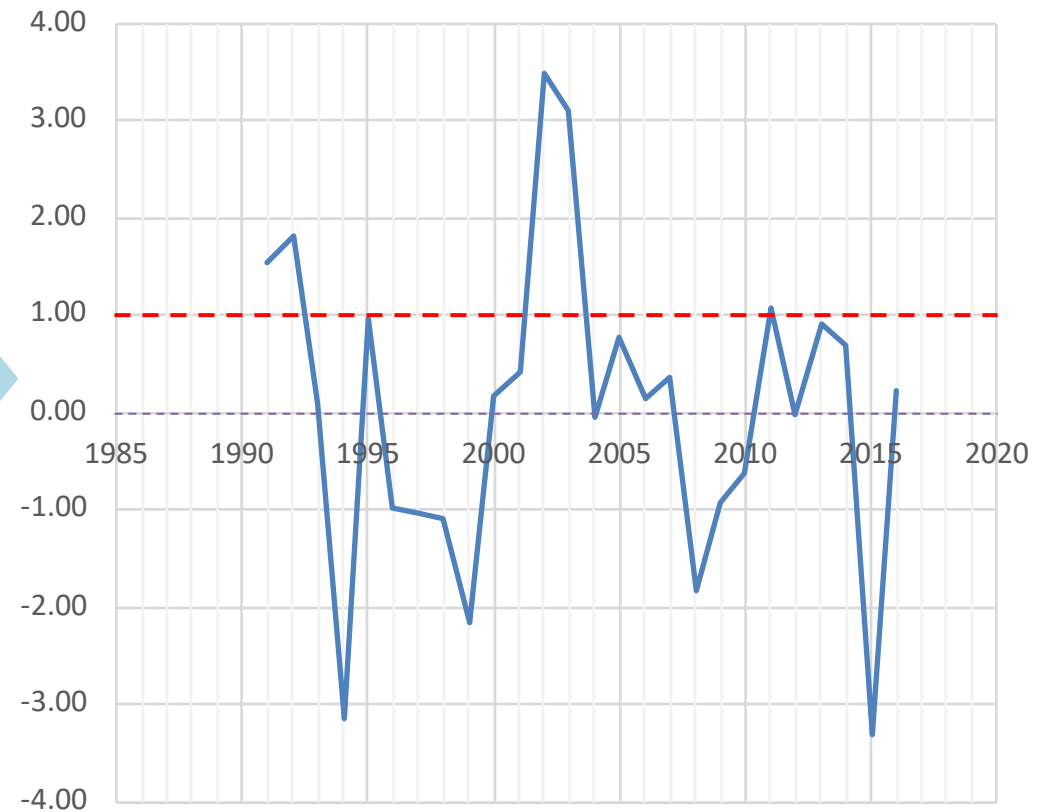
目标追踪 – 脱钩指数分析

Hong Kong

GHG emissions and GDP change



Carbon decoupling index

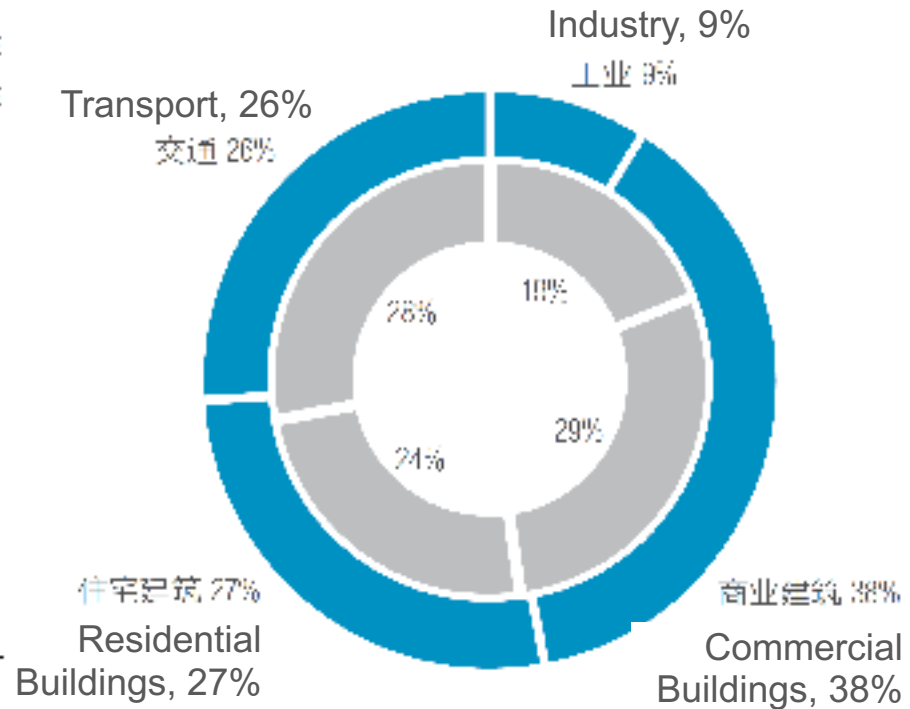
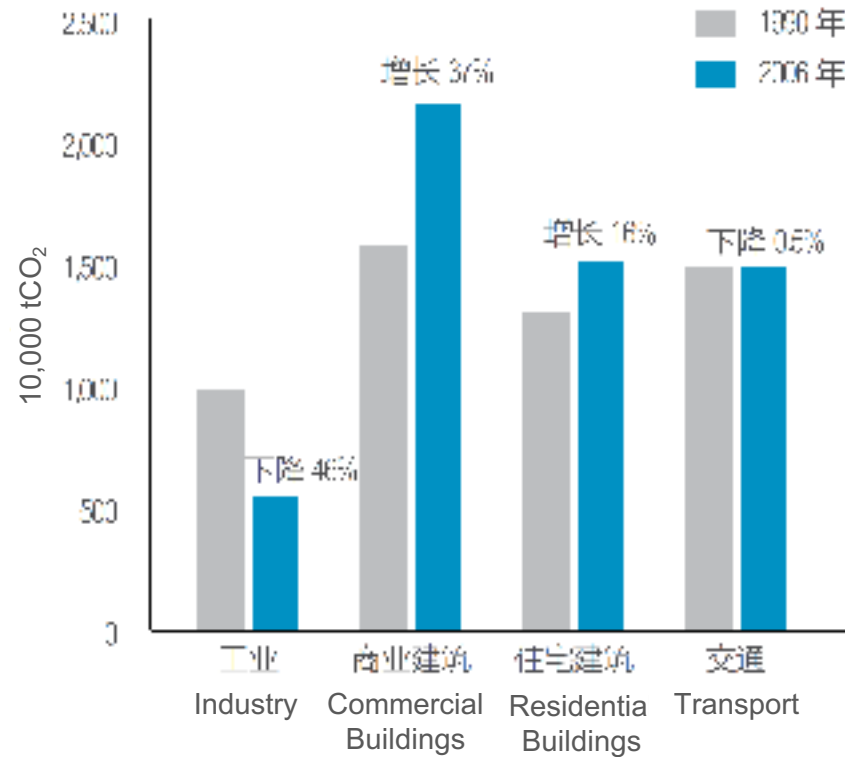


Source: Calculated using data from Census and Statistics Department, Energy Statistics Annual Report, Environment Protection Bureau.

Identifying action – emission hotspots

识别减排行动 – 识别重点排放源

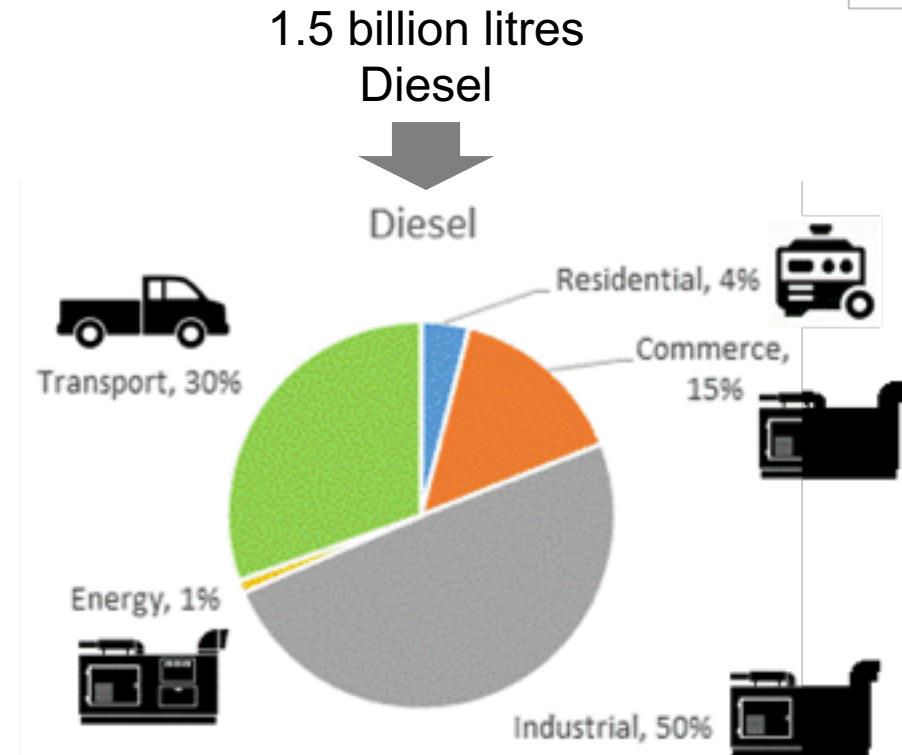
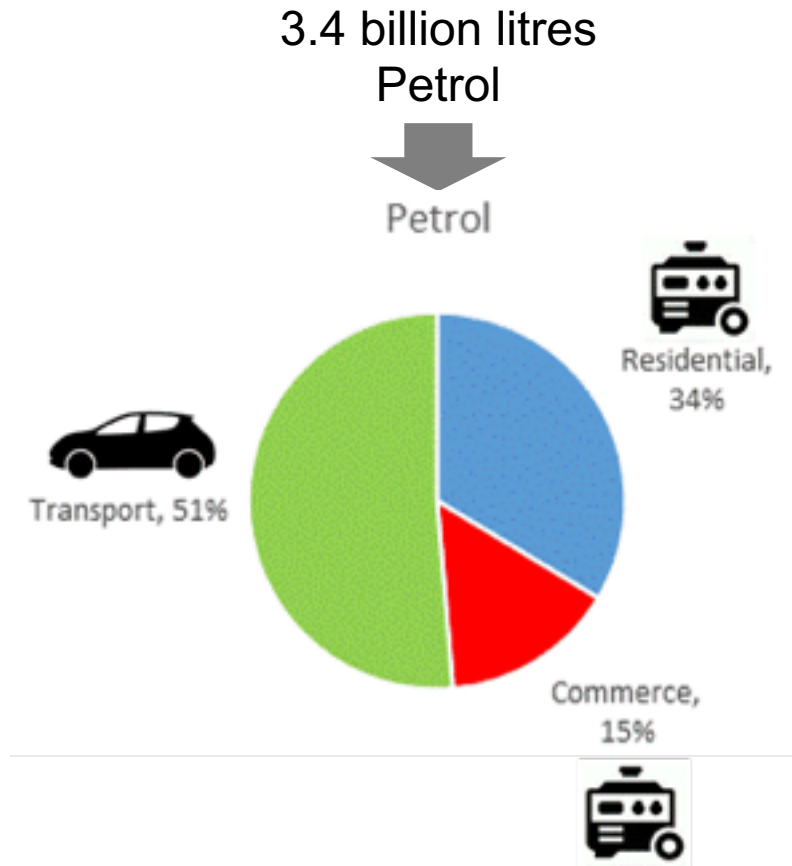
Tokyo



Identifying action – emission hotspots

识别减排行动 – 识别重点排放源

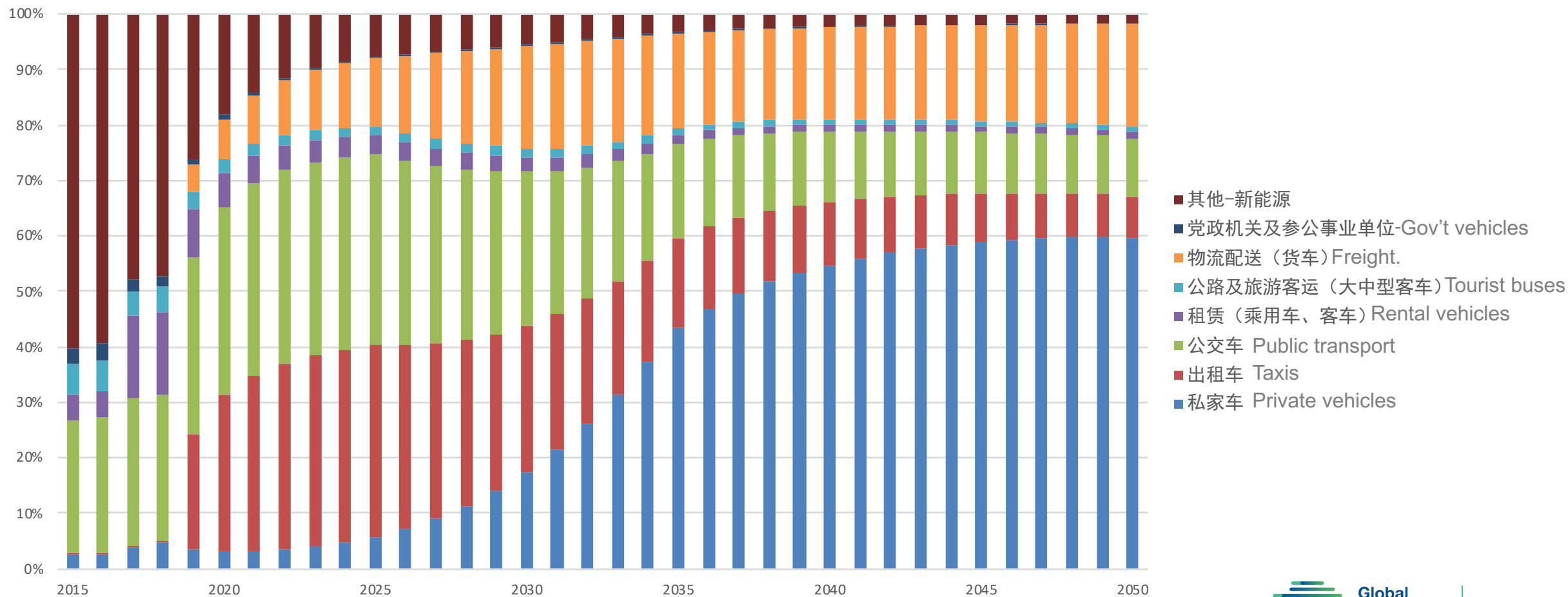
Lagos



Identifying action - mitigation potential analysis

识别减排行动 - 减排潜力分析

Chengdu, Mitigating Potentials of EVs



Source: WRI (unpublished)

Conclusion 小结

How to use GHG data to support climate action planning?

温室气体数据如何支撑低碳决策？

- Scenario analysis 情景分析
- Target setting 目标制定
- Progress tracking 目标追踪
- Identifying action 识别行动

What are required to perform these tasks?

温室气体清单应该具备哪些要素？

- Annual data 常态化编制
- Short time lag 滞后短
- Accurate activity data 活动水平数据科学可靠
- Granular data 精细的数据
- Relevance 反映城市特点
- Consistency 数据一致性
- Data analysis 数据分析和应用

Institutionalizing GHG inventories – Zhejiang case study

清单常态化 – 浙江案例

PROJECT TEAM	LEADING DEPARTMENT	SUPPORTING DEPARTMENT	CONSULTING INSTITUTION
General	Development and Reform Commission	<ul style="list-style-type: none"> Bureau of Finance Bureau of Statistics 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation
Energy Activity	Development and Reform Commission	<ul style="list-style-type: none"> Bureau of Statistics Economic and Information Commission Bureau of Commerce Bureau of Public Security Bureau of Transport Bureau of Agriculture State-Owned Assets Supervision and Administration Commission Bureau of Market Supervision Oil and gas companies 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation Zhejiang Province Development Planning & Research Institute
Industrial Processes	Economic and Information Commission	<ul style="list-style-type: none"> Bureau of Statistics State-Owned Assets Supervision and Administration Commission 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation Zhejiang University of Technology
Agriculture	Bureau of Agriculture	<ul style="list-style-type: none"> Bureau of Statistics 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation Zhejiang Academy of Agricultural Sciences
Land Use Change and Forestry	Bureau of Forestry	<ul style="list-style-type: none"> Bureau of Land and Resources Bureau of Statistics 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation Zhejiang Academy of Forestry Sciences
Waste	Bureau of Environmental Protection	<ul style="list-style-type: none"> Bureau of Statistics Construction committee 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation Zhejiang Institute of Environmental Protection Sciences and Design
City/county Inventory Systems	Development and Reform Commission	<ul style="list-style-type: none"> Bureau of Statistics 	<ul style="list-style-type: none"> Zhejiang Center for Climate Change and Low-Carbon Development Cooperation

Inter-departmental coordination
多部门协调

Institutionalizing GHG inventories – Zhejiang case study

清单常态化 – 浙江案例

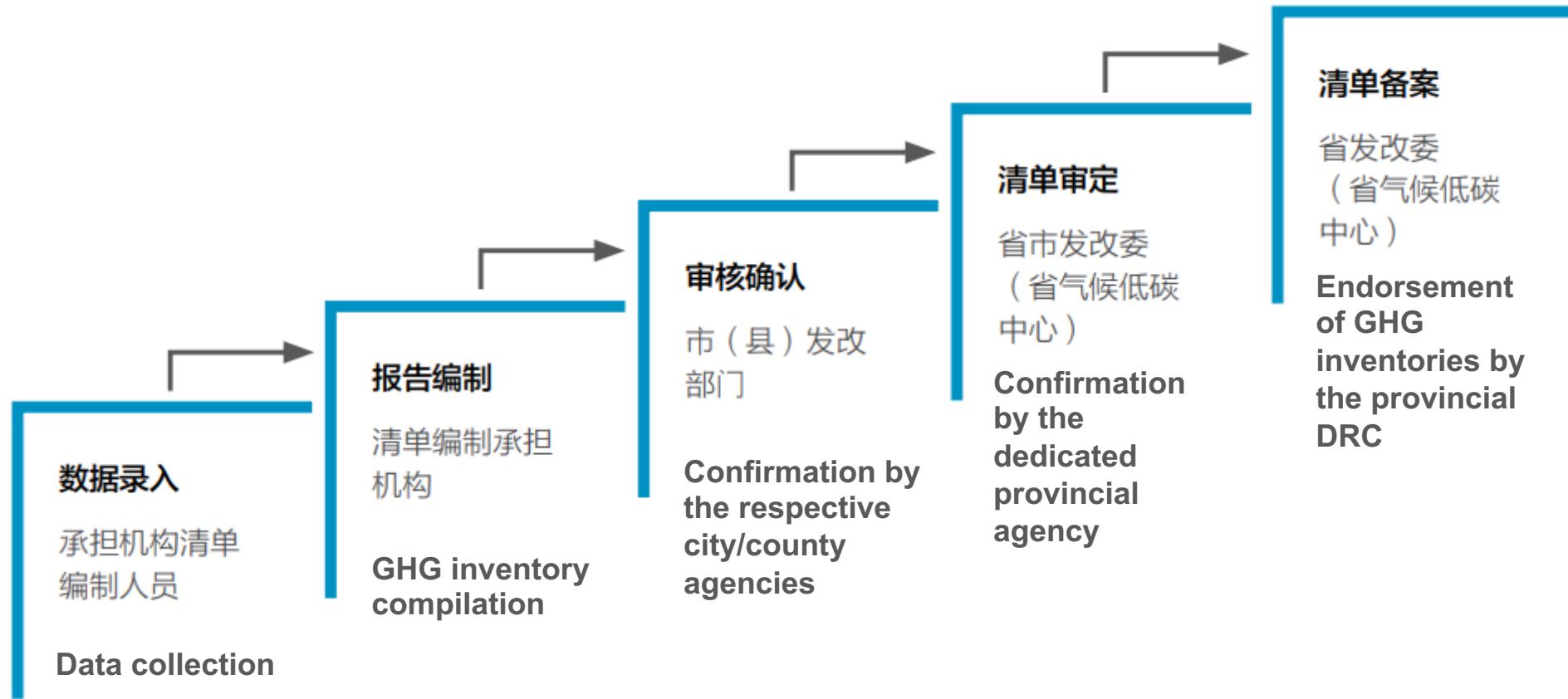
Zhejiang Provincial Guidance for City and County Greenhouse Gas Inventories

<p style="text-align: center;">浙江省市县温室气体清单编制指南 (2015年修订版)</p> <p style="text-align: center;">二零一五年四月</p>	<p style="text-align: center;">目录</p> <p>前言 1</p> <p>第一章 能源活动 3</p> <p>一、概述 3</p> <p>二、化石燃料燃烧活动 7</p> <p>三、生物质燃烧活动 24</p> <p>四、煤炭开采和矿后活动逸散 23</p> <p>五、石油和天然气系统逸散 26</p> <p>六、电力调入调出二氧化碳间接排放 29</p> <p>第二章 工业生产过程 31</p> <p>一、概述 31</p> <p>二、水泥生产过程 31</p> <p>三、石灰生产过程 33</p> <p>四、钢铁生产过程 34</p> <p>五、电石生产过程 36</p> <p>六、己二酸生产过程 37</p> <p>七、硫酸生产过程 38</p> <p>八、一氯二氟甲烷生产过程 40</p> <p>九、其他工业生产过程 41</p> <p>第三章 农业活动 49</p> <p>一、概述 49</p> <p>二、稻田甲烷排放 50</p> <p>三、农用地氧化亚氮排放 56</p> <p>四、动物肠道发酵甲烷排放 60</p> <p>五、动物粪便管理甲烷和氧化亚氮排放 64</p> <p>第四章 土地利用变化和林业 71</p> <p>一、概述 71</p> <p>二、森林和其它木质生物质生物量碳储量变化 73</p>	<p>三、森林转化温室气体排放 82</p> <p>第五章 废弃物处理 87</p> <p>一、概述 87</p> <p>二、固体废弃物处理 88</p> <p>三、废水处理 96</p> <p>第六章 不确定性 106</p> <p>一、概述 106</p> <p>二、不确定性产生的原因及降低不确定性的方法 106</p> <p>三、量化和合并不确定性的方法 108</p> <p>第七章 形势分析及对策建议 111</p> <p>一、形势分析 111</p> <p>二、对策建议 112</p> <p>第八章 市县温室气体清单报告格式及大纲 113</p> <p>一、总报告 113</p> <p>二、能源活动温室气体清单报告 123</p> <p>三、工业生产过程温室气体清单报告 129</p> <p>四、农业温室气体清单报告 133</p> <p>五、土地利用变化和林业温室气体清单报告 137</p> <p>六、废弃物处理温室气体清单报告 142</p> <p>第九章 质量控制 146</p> <p>一、概述 146</p> <p>二、质量控制程序 146</p> <p>三、质量保证程序 148</p> <p>四、验证、归档、存档和报告 150</p> <p>五、温室气体清单数据库系统 152</p> <p>附录一：温室气体清单基本概念 154</p> <p>附录二：市县温室气体清单汇总表 157</p> <p>附录三：温室气体全球变暖潜势值 159</p>
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Institutionalizing GHG inventories – Zhejiang case study

清单常态化 – 浙江案例

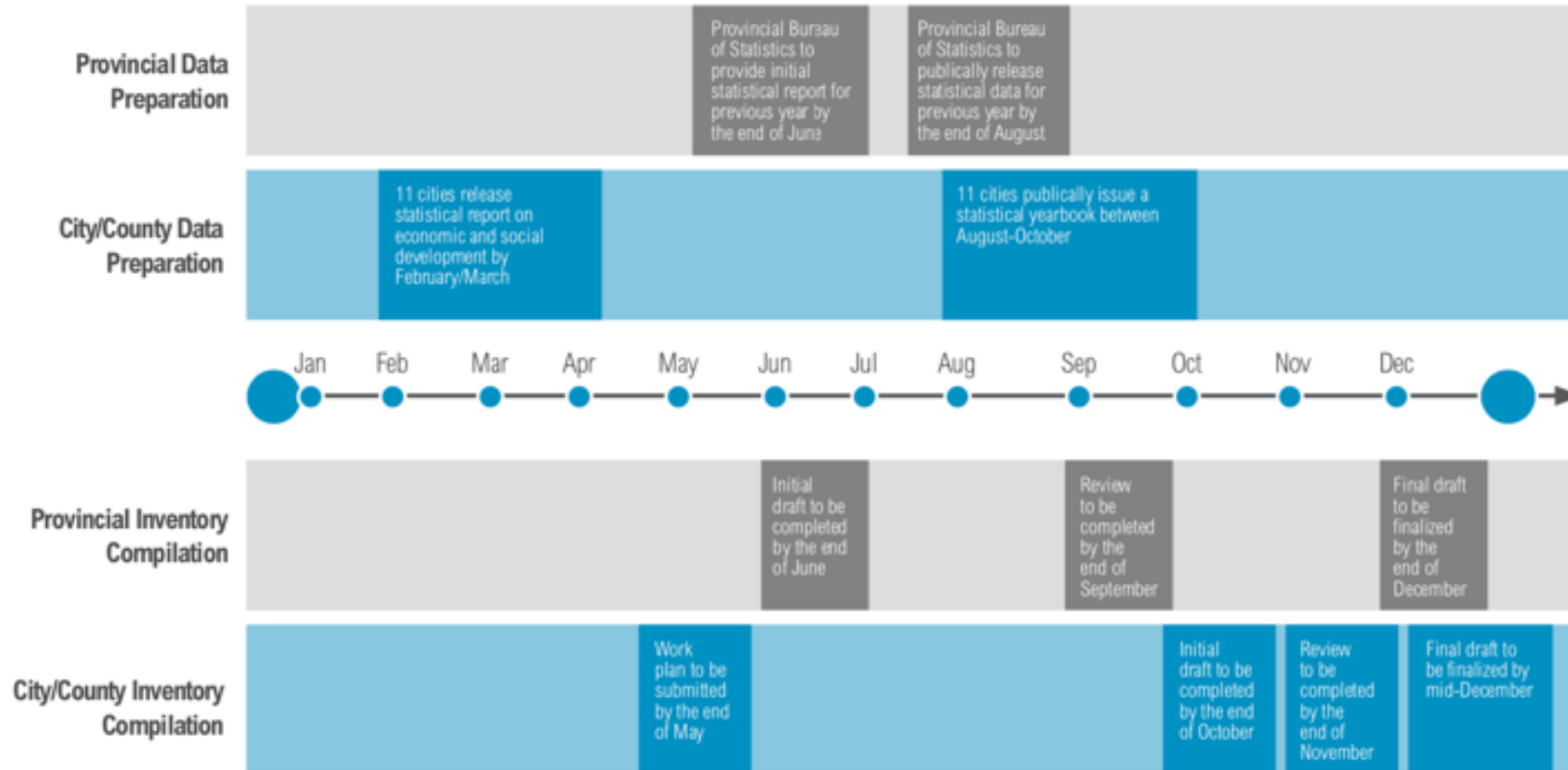
Multi-level approval process 多层评审



Institutionalizing GHG inventories – Zhejiang case study

清单常态化 – 浙江案例

Annual Inventories 年度清单



Institutionalizing GHG inventories – Zhejiang case study

清单常态化 – 浙江案例

Online Data Platform 在线平台



This screenshot shows a data table with multiple columns and rows. The table contains numerical data, likely representing GHG emissions or other metrics, organized by sector or region.

This screenshot displays a detailed data table with a complex structure, including multiple columns and rows. It appears to be a comprehensive report or summary of GHG inventory data, possibly broken down by sector and sub-sector.