Our team's

Japan's future vision

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Presentation Outline

1. **Japan's Background**
2. **Our 2050 Vision**
3. **Energy Snap Shot Tool**
4. **AIM Enduse model**
5. **Conclusion**

Japan's Background

1.Population

- About 120million people

→ begin to decrease from 2006

2.GDP

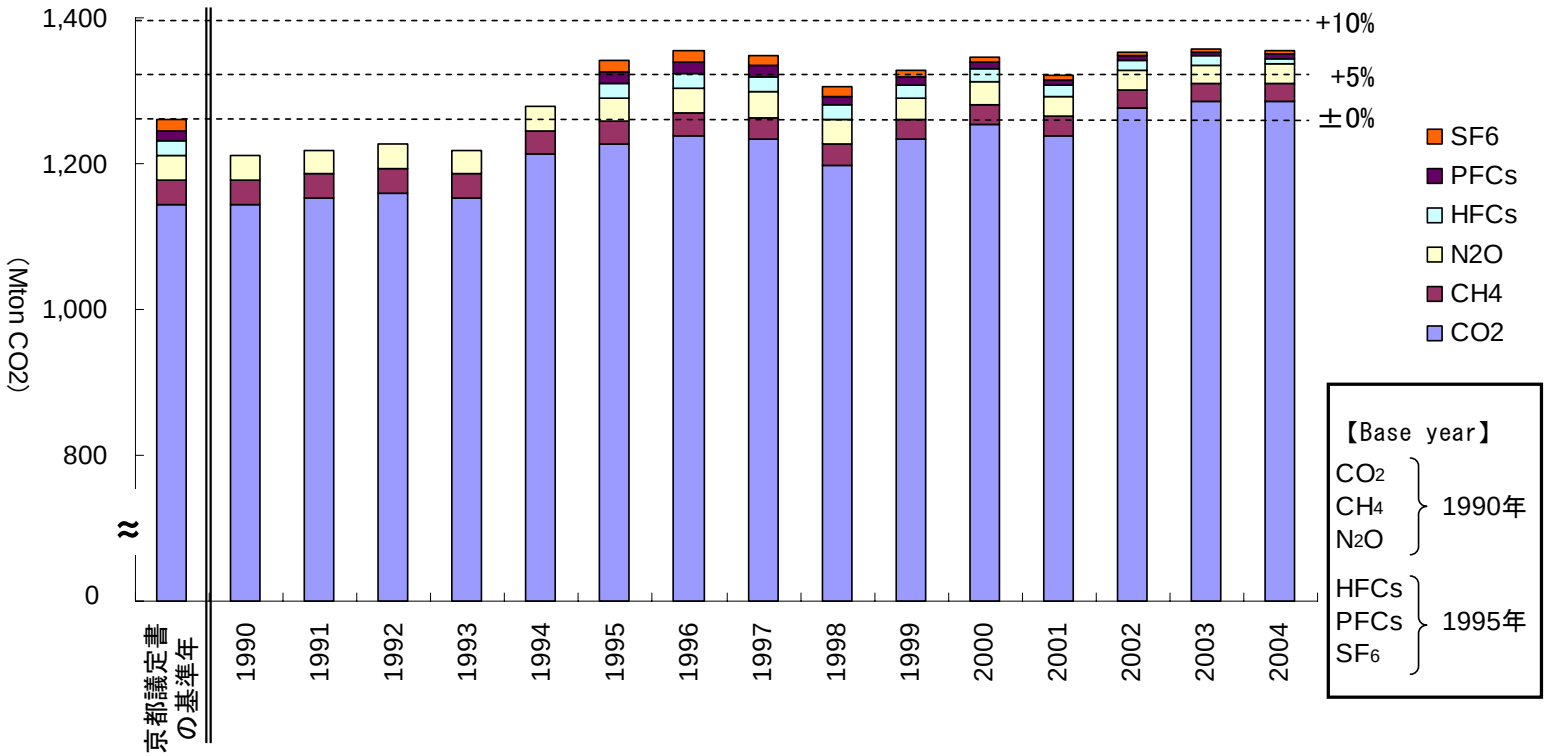
- About 4500billion US$ (2005)

3.GHG Emission

- 338 Mton-C(2004)

→ +7.4% from 1990, Kyoto Protocol

Statistic GHG Emission



Setting of our visions

- First step: We make an axis.

  Technology “Banzai” society

  VS

  Communicative life society

- Based on this axis, we set each characteristics of future image and make two scenario.

Characteristics

	Scenario A (technology)	Scenario B (lifestyle)
Population Distribution	concentrate	disperse
Orientation	market oriented	culture oriented
Ecological Action	high efficiency technology	lifestyle change

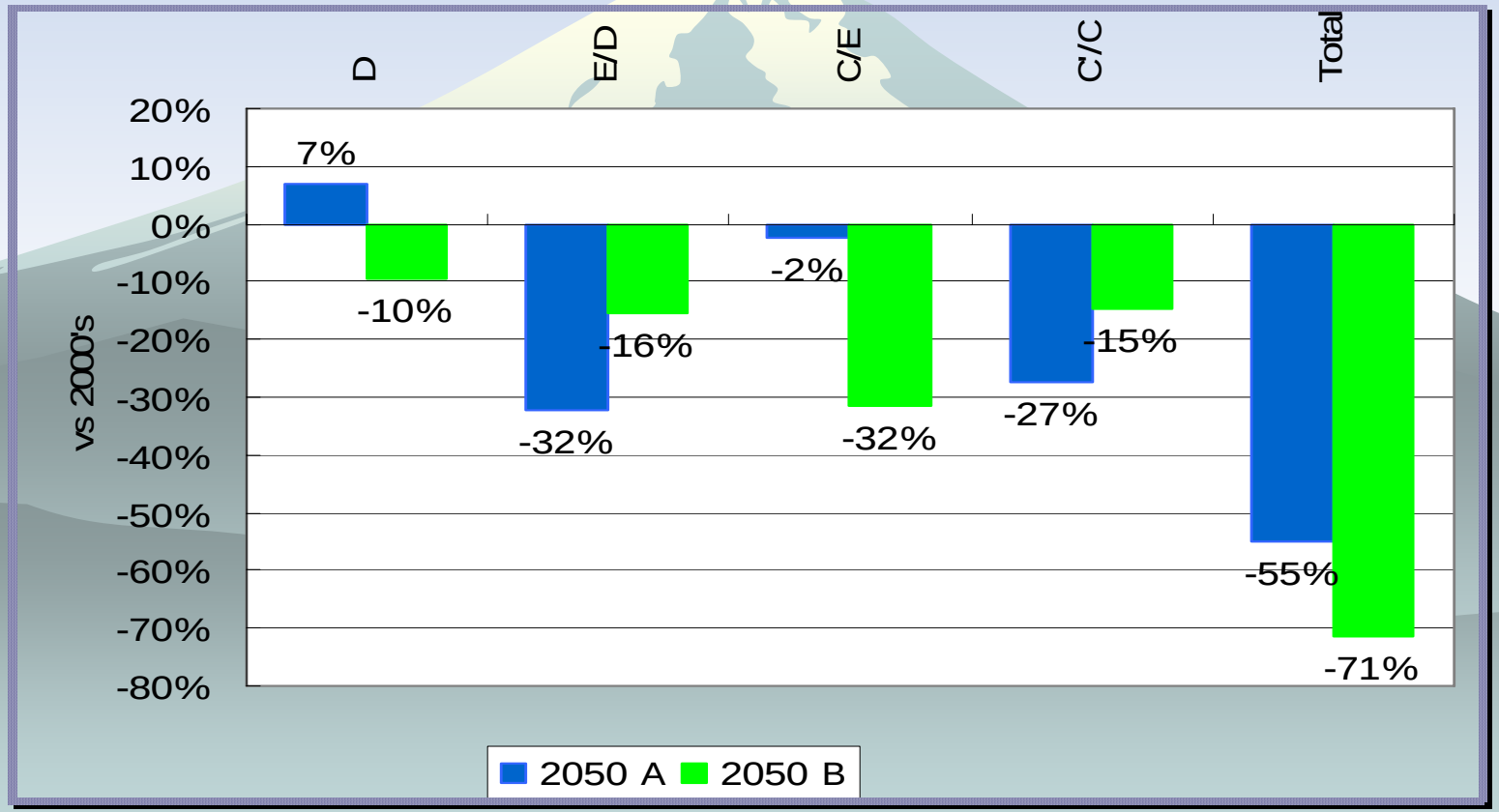
Counter measure case of scenario

	Scenario A	Scenario B
Industry	High investment to R&D	Local production for local consumption
Residential	Frozen foods dominates	Local production for local consumption
Commercial	Tertiary industrialization	Long life-span goods
Passenger transportation	Compact city High density traffic network	Modal shift Intra-area transportation
Freight transportation	Compact city High transportation efficiency Hydrogen vehicle	Modal shift Inter-area transportation

Factor Analysis

- Kaya Identity

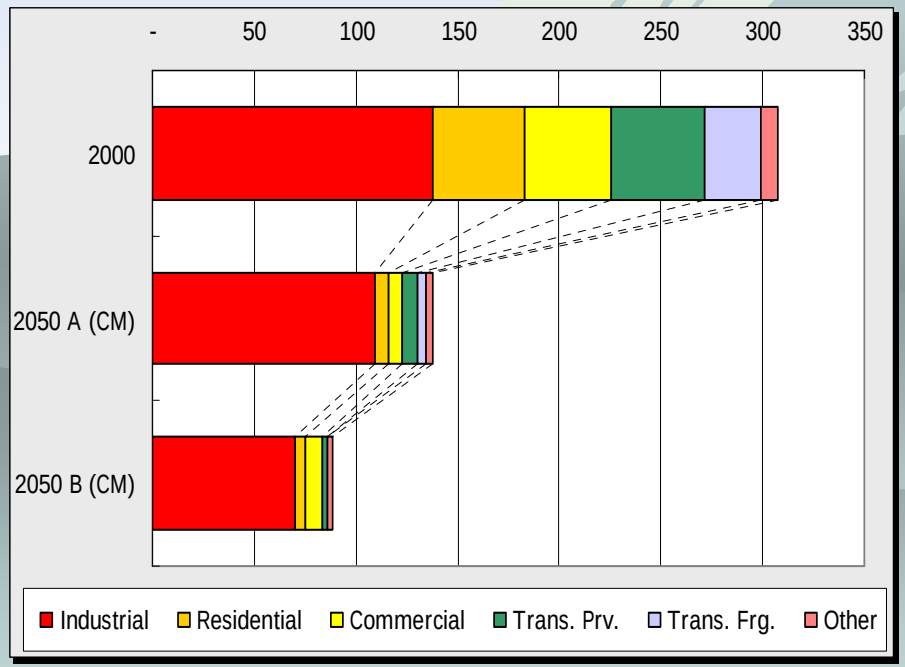
$$\frac{\Delta C}{C} = \frac{\Delta D}{D} + \frac{\Delta(E/D)}{(E/D)} + \frac{\Delta(C'/E)}{(C'/E)} + \frac{\Delta(C/C')}{(C/C')} + Crossterm$$



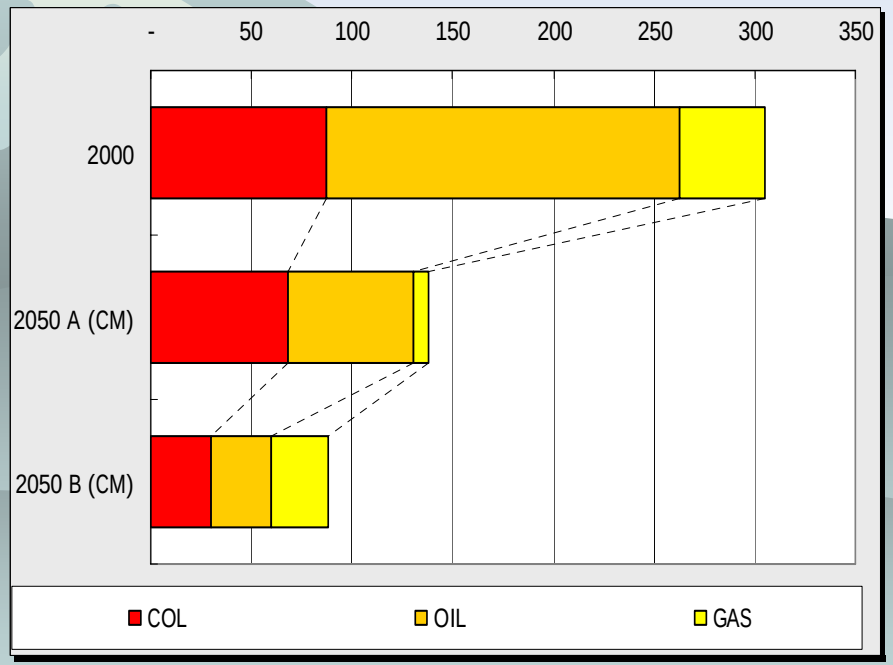
CO_2 Emission

- Scenario A has to make a more effort for building LCS
- Share of CO2 emission by Industrial sector relatively increase.

(Mt-C)



By sector



By fuel

Our assumption for AIM/Enduse model

- Japan's Data (Energy Data, Energy Device Data, Removal Process etc.) has already prepared.
- We set a service demand by ESS tool and calculate counter measure case by taxation.

Tax rate : Carbon tax 30000¥/t-C(from 2007)

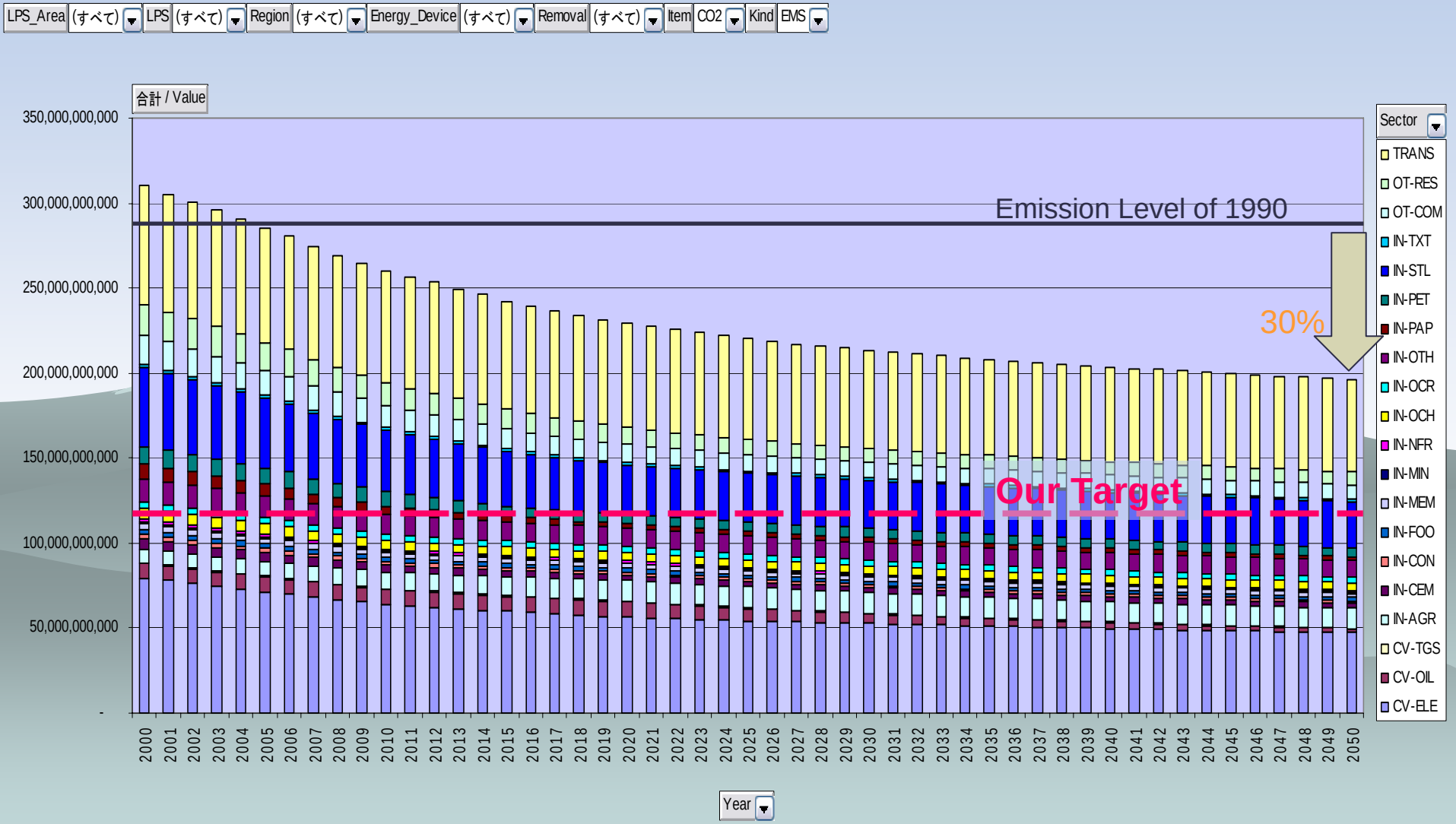
100000¥/t-C(from 2020)

Energy tax (for Electricity) 500¥/10^8kcal(from 2007)

1000¥/10^8kcal (from 2020)

But we can't change data of Energy Device Improvement.

AIM/Enduse Result of CO2 emission



Thank you