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On Creating A Sustainable Low-Carbon Asia

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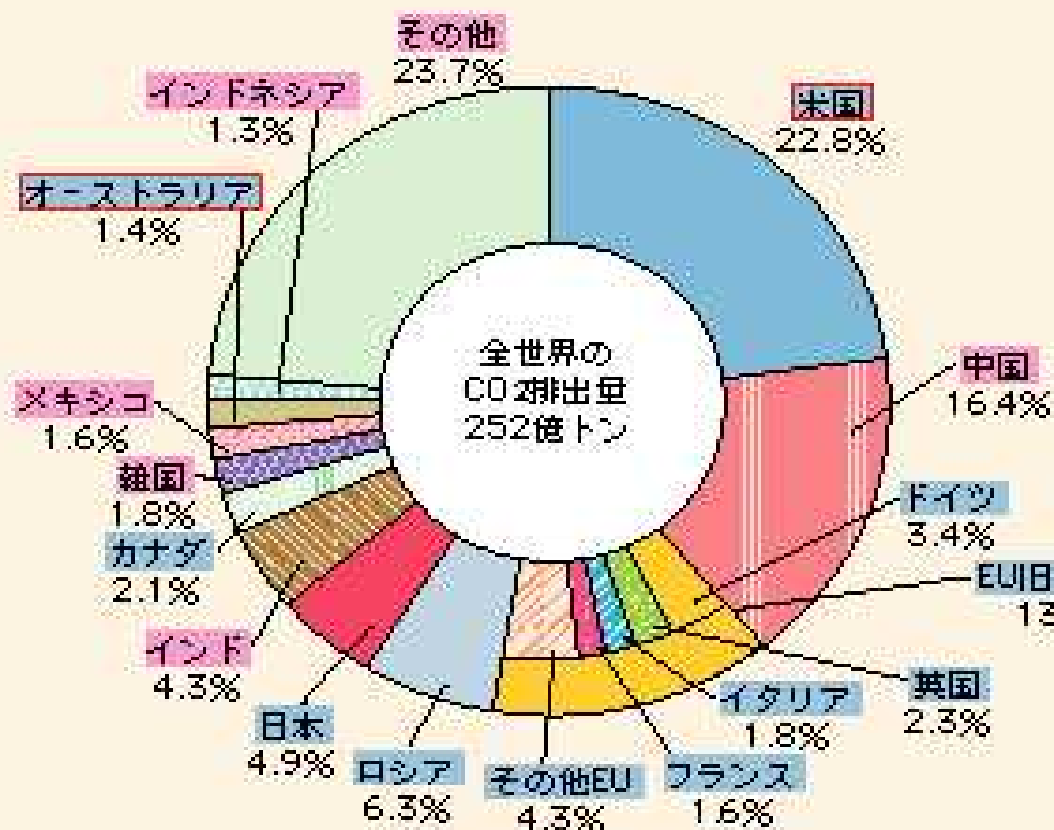
We cannot Escape Global Warming

- **The 4th IPCC Report(2007) concluded that Increasing emission of Greenhouse Gas is chiefly responsible for Global Warming.**
- **We must learn how to limit Environmental Damage before the Resources are exhausted.**
- **A reduction in the emission of Greenhouse Gas and an Adaptation to Global Warming are both called for.**

図1-2-1 二酸化炭素の国別排出量と国別1人当たり排出量

国別排出量（2003年）

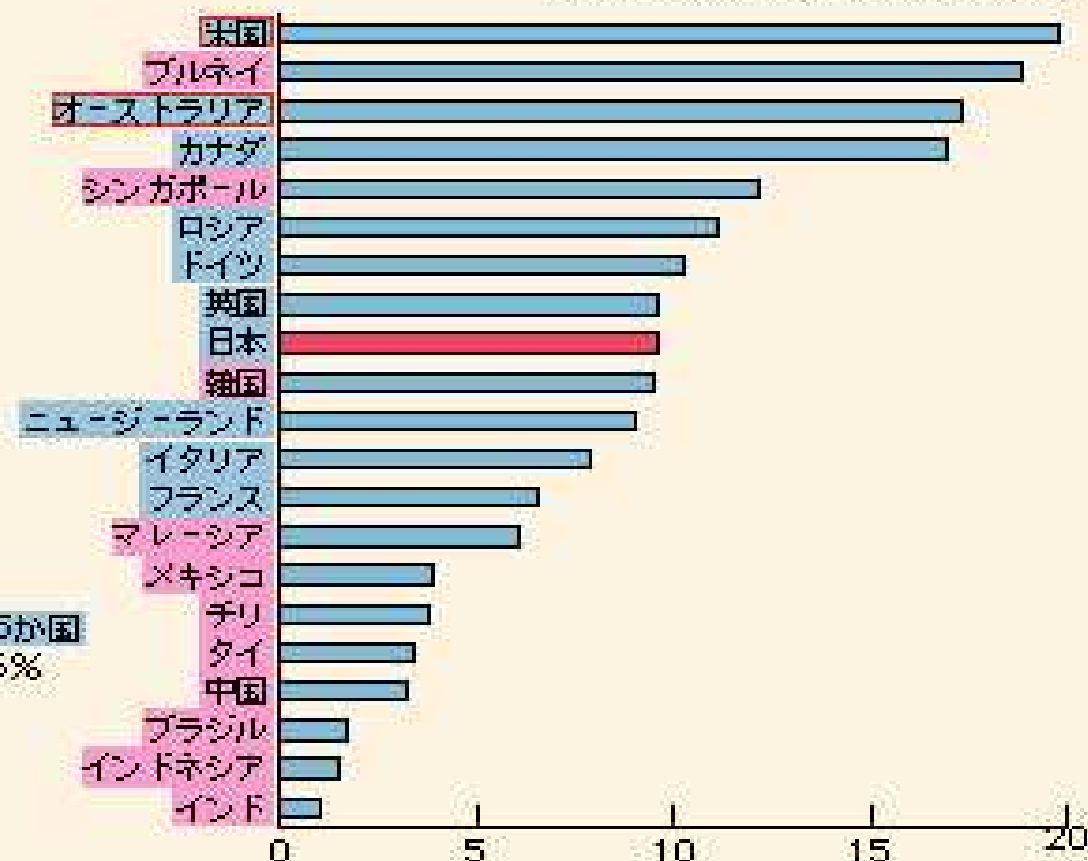
Emission by each Country



国別1人当たり排出量（2003年）

CO2 Emission per Capita

（単位：トン/人（二酸化炭素換算））



主な排出国の京都議定書に基づく2008-2012年の約束期間における温室効果ガスの削減義務について

.....削減義務なし

.....削減義務あり

（注：京都議定書を批准していない国は 青い色で示した。）

資料：日本エネルギー経済研究所編『エネルギー・経済統計要覧（2006年版）』より環境省作成

On Japanese Perspective

- **The Marginal Reduction Cost**
- **The Major Reason for Japan's failure to Reduce CO₂**
- **No Limit Imposed on Japanese Companies**
- **Climate Change Security Framework Law is Necessary**
- **Fukuda's Vision on Climate Change is Possible?**

The Marginal Reduction Cost (Japan)

**Research carried out by The
Economic Research Institute Kyoto
University, in 2007, estimated the
Marginal Reduction of CO₂ would cost
companies about 2200 yen per ton.**

No Limit Imposed on Japanese Companies

- **Kyoto University Economic Research Institute(2006),found that in 2005, only 20% of all companies had Reduction Target and only 4.5% knew their marginal Reduction Cost,**
- **in 2006 increasing up to 58%, 25%,**
- **Obviously, no Limits have been placed on Japanese Companies to reduce Greenhouse Gas**

The Major Reason for Japan's failure to Reduce CO₂

- No Clear Reduction Target in terms of Volumes has been set for each of the main source of emission.**
- Japan has not yet established either Carbon Tax or an Emission Trading System.**
- Obviously, without the concrete target and a workable scheme, Japan will not reach Kyoto Target.**
- This is the drawback of the Council Negotiation Method, when Government nor the National Diet has the Political Will to take the steps that need to be taken.**

Climate Change Security Framework Law is Necessary

- **The Long Range Reduction Target must aim for a 50% reduction by 2050.**
- **Within the Limits set, Reduction must be effected by the CDM**
- **An Emission Trading System with Auction must be established**
- **An Innovative 5-10 years Reduction Target must be worked out and established**
- **An Energy Saving Target must be set for Business and Homes**

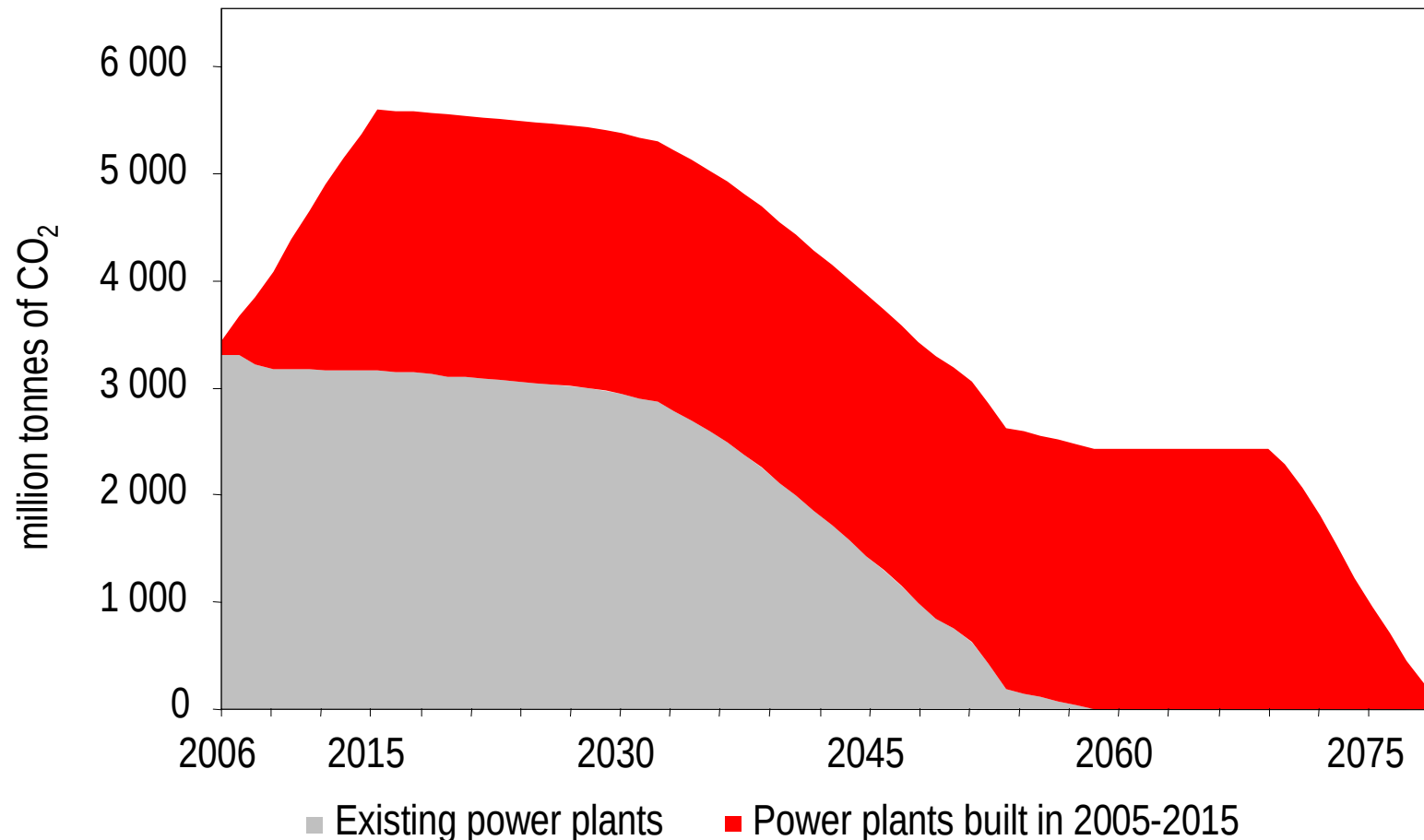
Fukuda's Vision on Climate Change is Possible?

- **Japan Reduction target 60-80% by 2050**
- **at least 14% reduction by 2020 from 2005(but only 4% reduction from 1990)**
- **Experimental Emission Trading in Japan starts this year**
- **Tax Reform for Low Carbon Society**
- **Solar Power 40 times increases by 2030**
- **1.2 Billion \$ Contribution to Multi-Funding against Global Warming**

On Chinese Perspective

- **Economic Growth and Energy Production & Consumption in China 1978–2005**
- **China's Primary Energy Demand**
- **CO₂ Emissions from Coal-Fired Power Stations built prior to 2015 in China & India**
- **The Conditions specific to China that work against a Low Carbon Society**

CO₂ Emissions from Coal-Fired Power Stations built prior to 2015 in China & India



Source: IEA,
WEO 2007

Capacity additions in the next decade will lock-in technology & largely determine emissions through 2050 & beyond on current trends

The Conditions specific to China that work against a Low Carbon Society pointed by Prof. Kunmin Zhang

- **China's Rapid** industrialization & urbanization;
- **The effect of Inertia** (tech, institutional, consumer behavior,) & **locked-in investment**;
- Resource endowment: dominated by **dirty coal**, high fluctuations of hydro & wind resources;
- The Effect of China's growth as a “**world workshop**”, and the final consumption of embedded energy outside China itself;
- **The Lack of** financial & technological capacities.

Beyond Kyoto; Towards a Low Carbon and Healthy Asia

- We have to offer a blueprint for a healthy and Low Carbon Asia that takes us beyond the Kyoto protocol.**
- We should bear “Limitation creates Innovation”, “Necessity is the Mother of Invention”.**
- China, India and other Asian countries must cooperate to create and support a visible Energy Saving Project.**