

Sectoral Approach in Steel Industry

- JISF's Comments from APP Steel Task Force Activity -

International Workshop :

*Sectoral Approach for International Climate Policy hosted
by the IEA, Paris*

Session 2

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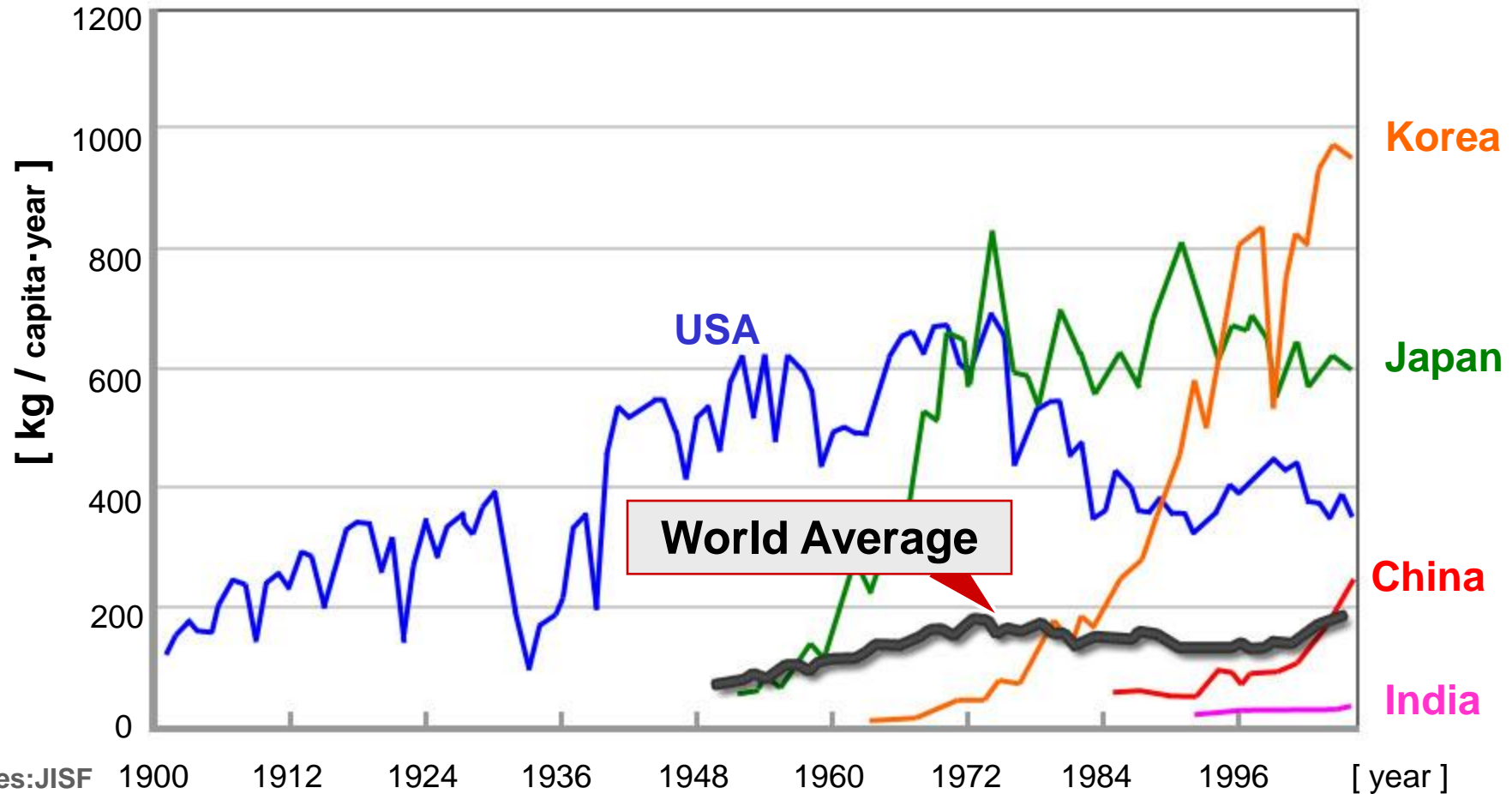
(Sumitomo Metal Industries,Ltd.)

The Japan Iron and Steel Federation

May 14, 2008

Annual Steel Consumption per Capita

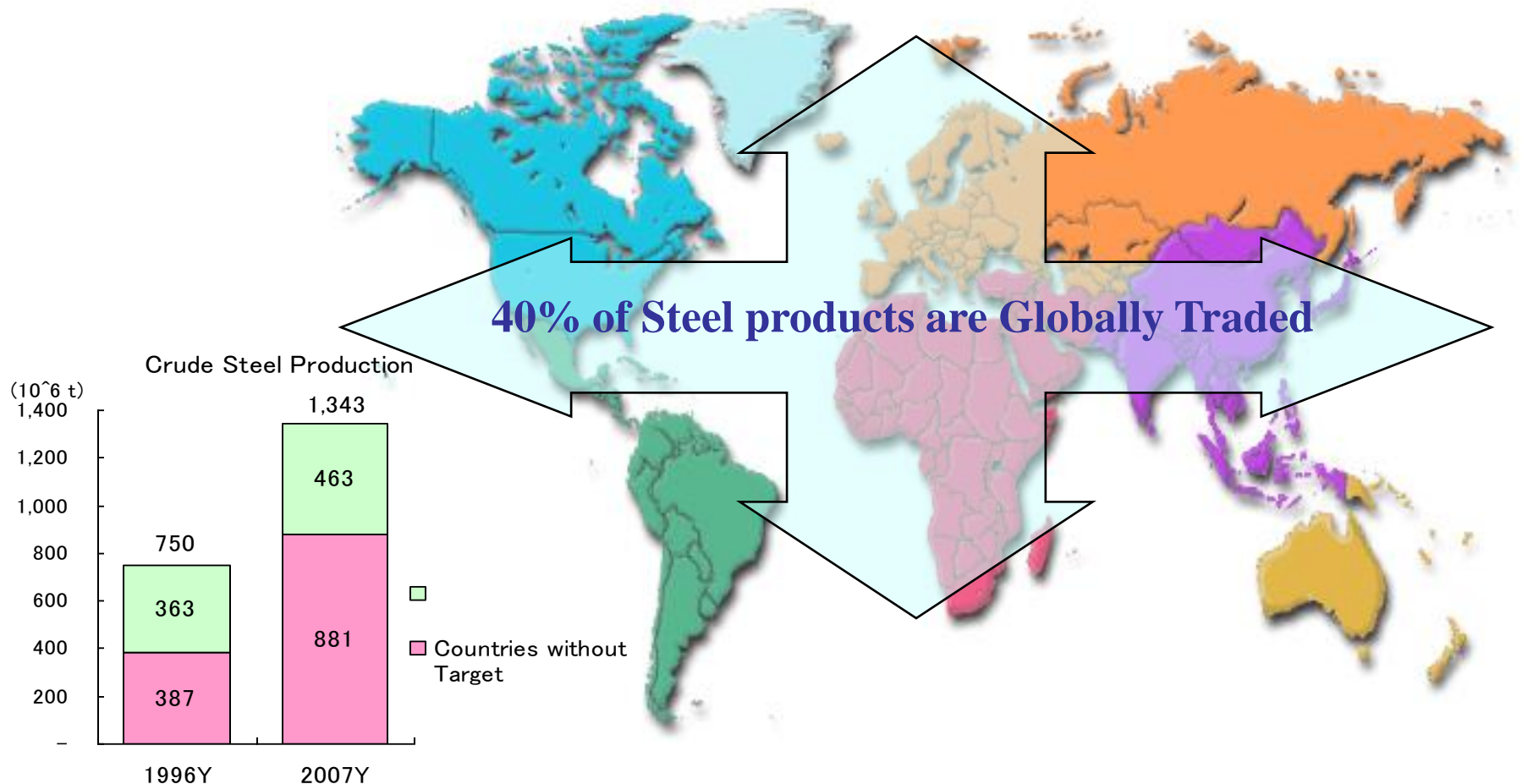
Steel is essential for economic growth and expected to increase its consumption in economically growing countries.



Sources: JISF

The Steel Industry in Global Competition

Regional Cap&Trade System is not effective measure for Steel: It distorts global competition, may cause severe “Carbon Leakage”



CO2 Mitigation in Steel Industry

Energy Efficiency

CO2 / Energy

Activity

$$\text{CO2 Emission} = \frac{\text{Energy Consumption}}{\text{Crude Steel Production}} \times \frac{\text{CO2 Emission}}{\text{Energy Consumption}} \times \text{Crude Steel Production}$$



Approach	Improve Energy Intensity	Energy Source Conversion	Steel Consumption
Short, Mid-term	Deploy existing save energy technology (Large Potential)	Change coal to natural gas, charcoal... (Limited Potential)	Increase due to world economy expansion at developing countries in particular
Long term	Develop new technology for reduction process of iron ore	Develop new technology for alternative reducing agent	

APP Steel TF / Sectoral Approach by Seven Countries

- APP :High coverage / Over 60% of crude steel production**
- :Technology oriented / Experts of steel industry participates**
- :Government – Private collaboration**

Step	Purpose	Action
General approach	<ul style="list-style-type: none"> ● Share state of the art save energy technology 	<ul style="list-style-type: none"> ● SOACT handbook ● Workshop
	<ul style="list-style-type: none"> ● Review current status 	<ul style="list-style-type: none"> ● Diffusion Survey of SOACT ● Energy intensity Survey by common boundary ● Barrier Survey
Model project approach	<ul style="list-style-type: none"> ● Diagnosis on selected site ● Implement flagship project 	<ul style="list-style-type: none"> ● Energy efficiency survey Potential survey Proposal for improvement ● Flagship project selection
Set milestone	<ul style="list-style-type: none"> ● Set ambitious and realistic milestone 	<ul style="list-style-type: none"> ● Possible milestone Application of SOACT Energy intensity Others

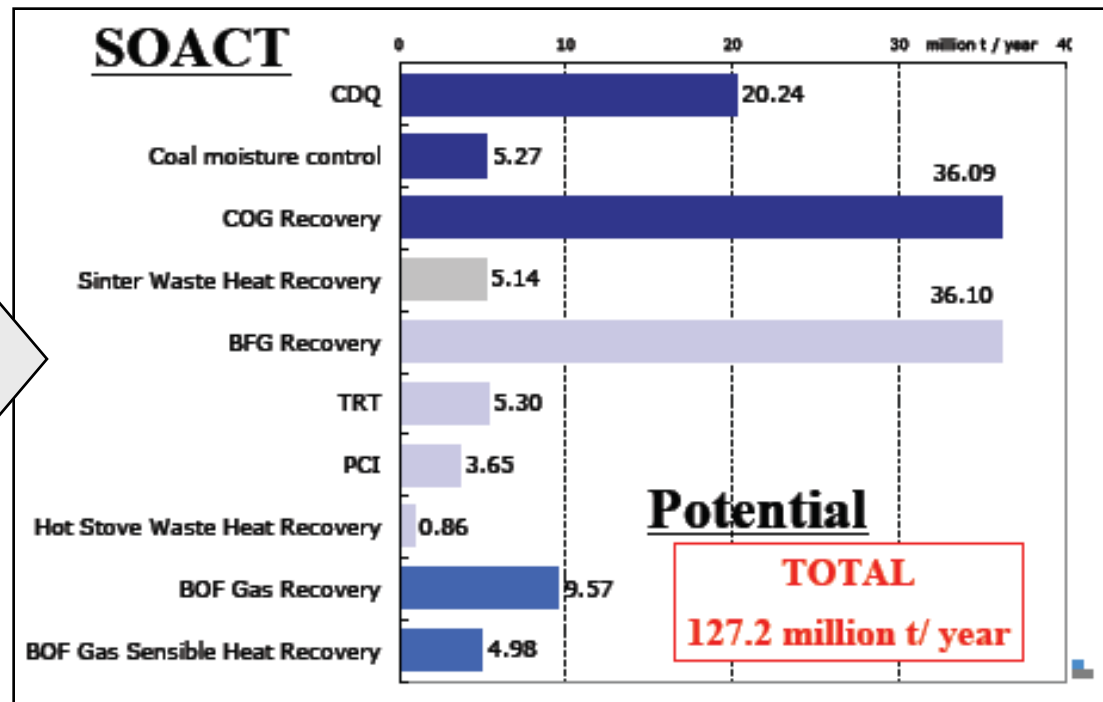
CO₂ Mitigation Potential by technology diffusion (APP)

Widely acknowledged

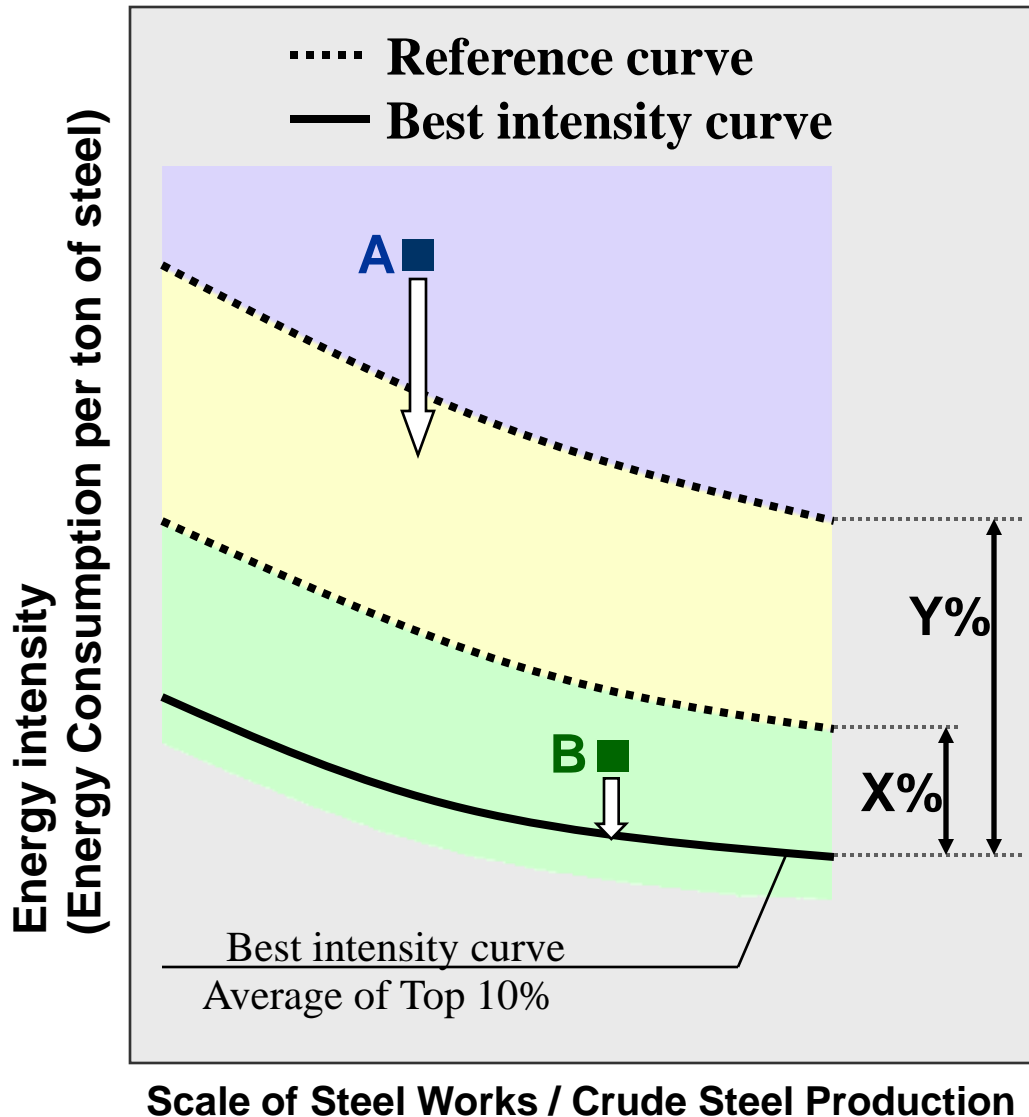
- :Save energy technologies are well established and available
- :Save energy effect and investment cost of these technologies is well analyzed
- :Large save energy/CO₂ mitigation potential is expected by diffusion of these technologies

Estimation of current CO₂ mitigation technical potential from steel industry of six APP countries

APP Fourth Policy and Implementation Committee Meeting
Tokyo, Japan
19-20 July, 2007



Energy Intensity Milestone / Under discussion in JISF



A proposal for intensity target under discussion in JISF.

Reference curve is provided through intense global diffusion and energy intensity survey.

Both “High efficiency” and “Low efficiency” steel producer must improve their energy intensity.

“Low efficiency” producer is to set more challenging milestone of improvement in intensity.

Barriers should be taken into account.

Milestone of steel industry is to be set by dialogue between government and industry at each country.

The Role of Global Sectoral Approach

- Identify efficient save energy technologies
- Identify potential
- Develop standard applicable indicator
- Give guideline to set milestone corresponds to equal efforts
- Give global authorization for evaluation of local efforts
- Give “Level playing field” to steel producers

The Role of Government

- Work closely with industry to support it's SA
- Promote technology diffusion with providing IP-protection scheme and with preparing funding scheme

Thank you very much!