

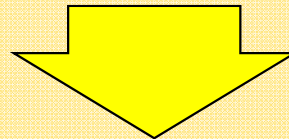
# The Japanese Business Community's Initiative to Tackle Climate Change

Jun.1997

Launched "**KEIDANREN Action Plan on the Environment**"

\* Dec. 1997

Adoption of Kyoto Protocol @ COP3



Jan. 2013

Launched "**KEIDANREN's Commitment to a Low Carbon Society**"

Hiroyuki TEZUKA

Chairman, Working Group on Global Environment Strategy

Committee on the Environment and Safety

KEIDANREN (Japan Business Federation)

# KEIDANREN Action Plan ( = Social commitment )

KEIDANREN Action Plan on the Environment is a self-binding programme to reduce CO2 emissions, proactively participated by 34 industries in industry and energy-converting sectors.

## ➤ Programme-wide target:

*'to suppress the CO2 emissions in 2008-2012 (on average) from industrial & energy-converting sectors below its 1990 level'*

*\* The CO2 emissions of 34 participating industries accounts for 44% of that of Japan's, 83% of that of industrial and energy-converting sectors.*

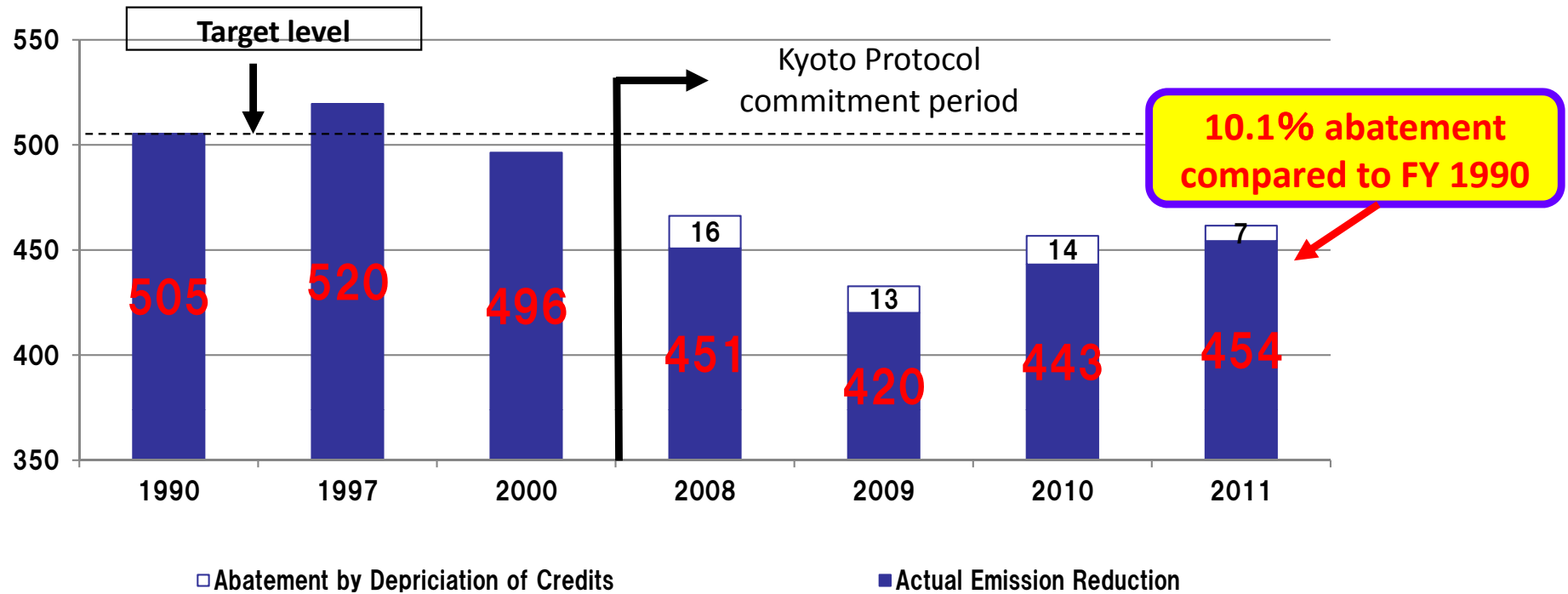
## ➤ Transparent and credible PDCA (Plan-Do-Check-Act) cycle:

*The progress is reviewed annually by a third-party Evaluation Committee as well as the Government Councils (MOE/METI).*

## ➤ Quoted in the Government's Kyoto Protocol Target Achievement Plan (Government Decision: 28 March 2008) :

*Keidanren Action Plan is "playing a central role in countermeasures in the industrial community".*

# Results and Attribution Analysis of the Follow-up



	Comparison to FY 1990
Change in production activity*1	+1.1%
Change in CO2 emission factor*2	+1.7%
Change in CO2 emissions per unit of output (efficiency improvement)	-13.0%
<b>Total</b>	<b>-10.1%</b>

**Efficiency improvement is the driving force to reduce CO2 emissions.**

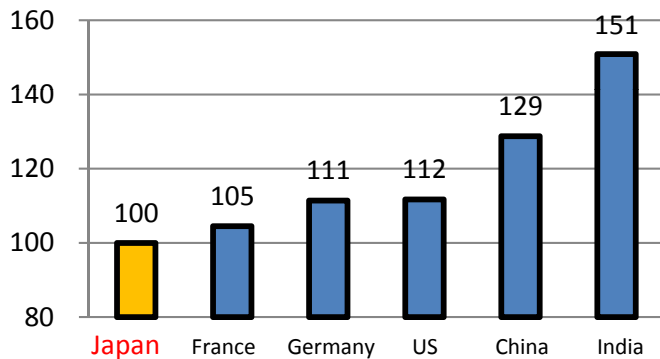
\*1 For change in production activity, the indices with the closest relation to energy consumption in each industry were selected.

\*2 CO<sub>2</sub>/MJ for fuel use and CO<sub>2</sub>/kWh for electricity consumption.

# International Comparisons of Energy Efficiency in Industrial and Energy-conversion Sectors

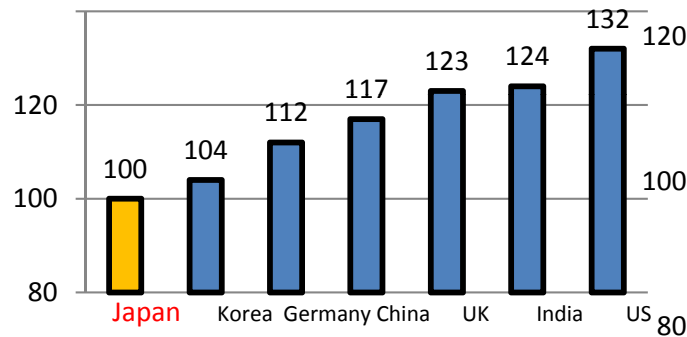
➤ According to the international comparisons of energy efficiency conducted by participating industries as part of the Fiscal 2011 Follow-up, world-leading levels of energy efficiency have been achieved once again in participating industries that carried out comparisons.

Energy required to produce 1kWh of **electricity** through thermal power generation (2009)



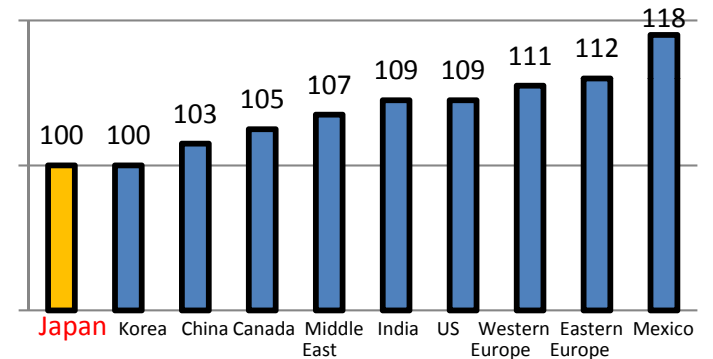
Source: ECOFYS "INTERNATIONAL COMPARISON OF FOSSIL POWER EFFICIENCY AND CO2 INTENSITY" (2011)

Energy required to produce 1 ton of **iron** (2010)



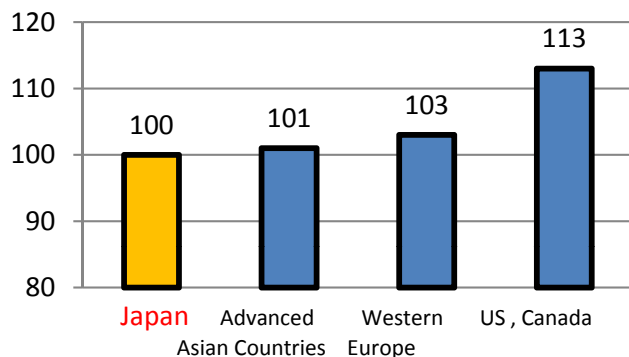
Source: Research Institute for Innovative Technology for the Earth, "International Comparison of Energy Efficiency"

Energy required to produce 1 ton of **electrolytic caustic soda** (2009)



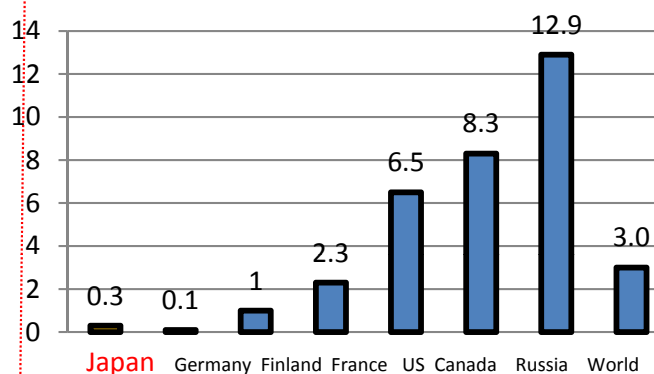
Source: CMAI "Capacity Database" (2009), Japan Soda Industry Association "Soda Handbook" (2009)

Energy required to produce 1 kl of **oil products** (2004)



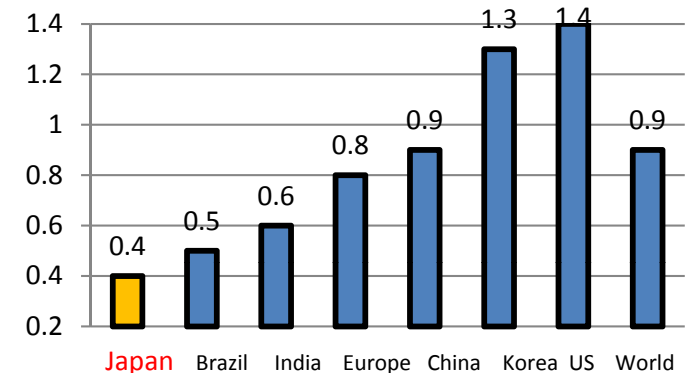
Source: Data from the results of a survey by Solomon Associates Ltd.

Energy saving potential by adopting BAT (**Pulp and Paper**) (GJ/T)



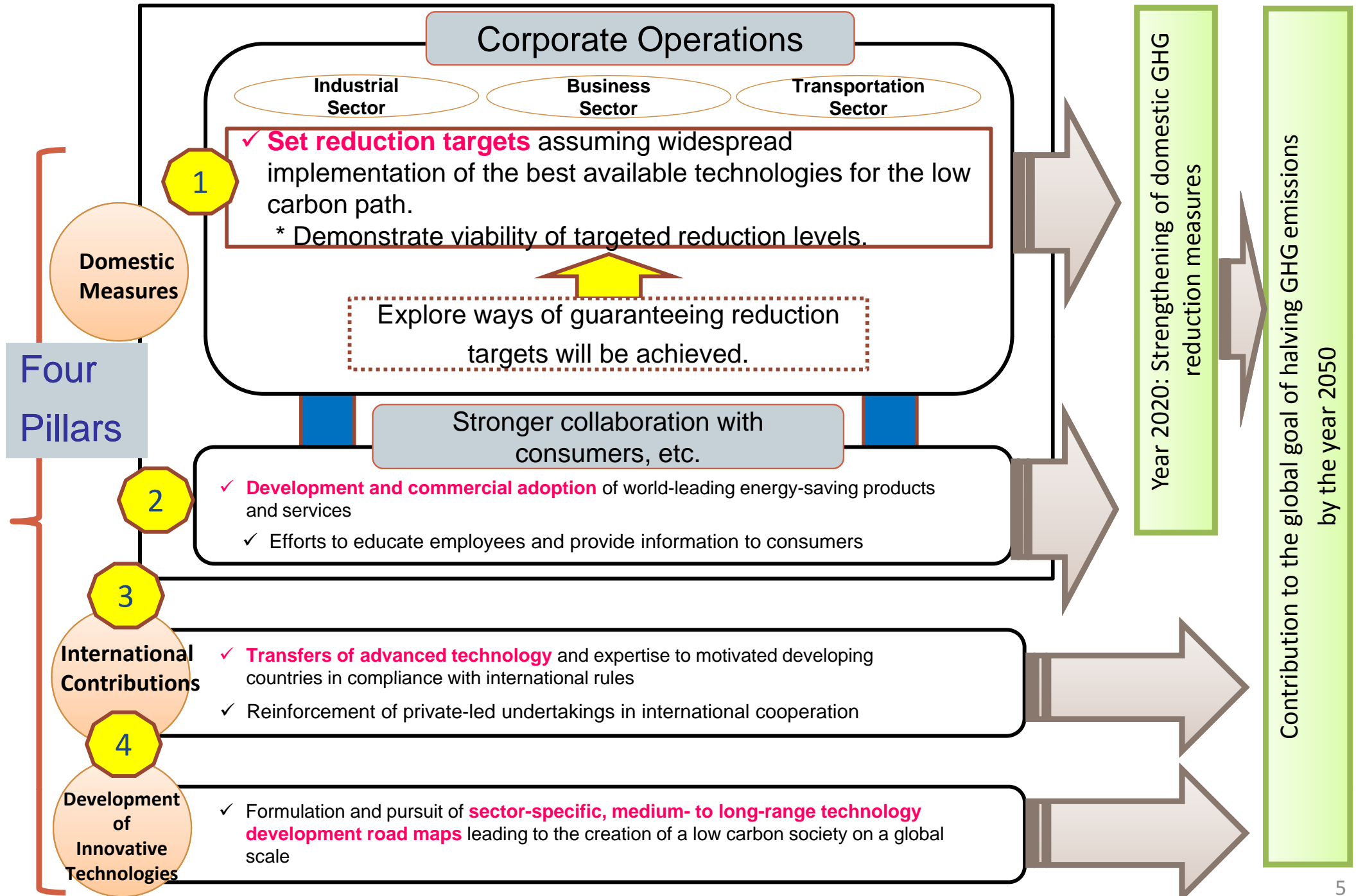
Source: IEA Energy Technology Perspective 2012

Energy saving potential by adopting BAT (**Cement**) (GJ/T)



Source: IEA Energy Technology Perspective 2010

# KEIDANREN's Commitment to a Low Carbon Society



# Expectations on BOCM/JCM

BOCM/JCM is an effective tool to transfer Japanese low-carbon technology and expertise to motivated countries .

## (1) Acceleration and early conclusion of negotiation with prospective countries

[examples of prospective projects]

- Application of operation and management technology/expertise on thermal power generation.
- Diffusion of energy saving technologies in steel industry shared between public and private specialists.
- Usage of bio diesel fuel for construction and transportation machinery at mining.

## (2) Financial support to promote introduction of highly-efficient/energy-saving products or renewable energy

e.g. Strategic use of ODA such as yen loan

## (3) Support for capacity building in host countries

e.g. Planning of policies/systems such as energy saving programme and top runner programme, etc.,  
Human resource training/ capacity development



# Public and Private Collaborative Meeting between Indian and Japanese Steel Industry regarding energy saving and environmental protection

## Purpose

To encourage **Technology Transfer** from Japan to Indian steel industry

## Member (PPP: Public & Private Partnership)



**India**  
The Indian Government  
The Indian steel makers  
(Almost all of blast furnace steel makers)

**PPP  
based on  
Sector  
Initiative**

**Japan**  
The Japanese government  
The Japanese steel makers  
(All blast furnace steel makers)

## Activity

2011-12

2012-13

**1<sup>st</sup> meeting  
(Nov. 2011, New Delhi)**

**1<sup>st</sup> meeting  
(Nov. 2012, New Delhi)**

**2<sup>nd</sup> meeting  
(Feb. 2013, Tokyo)**



**Side events 1**



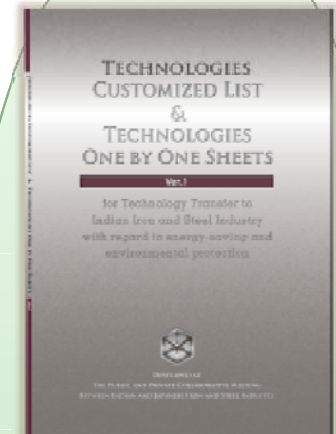
**Site  
Visit in  
Japan**

**Side events 2**



**Technological  
explanatory  
meeting by  
Japanese suppliers  
for BUSINESS**

## Outcome



**“Technologies  
Customized List  
(TCL) Ver.1”**

# Public and Private Collaborative Meeting between Indian and Japanese Steel Industry regarding energy saving and environmental protection

## Outcome

Establishment of “Technologies Customized List (TCL) Ver.1”

### Step 1. Compiled “Full List”

Almost all of technologies in steel industry for;

- Energy saving
- Environmental Protection
- Recycle

No	Title of Technology (SOACT base) [*1]	Technology	SOACT No
5	Exhaust Gas Treatment through Selective Catalytic Reduction	o	
6	Exhaust Gas Treatment through Low-Temperature Plasma	o	
7	High Efficient (COG) Burner in Ignition Furnace for Sinter Plant [*13]	o	
8	Exhaust Gas Treatment Through Additive Injection and Bagfilter Dedusting	o	
9	Sintering machine ignition oven burner (NEDO)	o	
10			

136 technologies

### Step 2. Customized for Indian steel industry

### 1) Technologies Customized List (TCL)

Energy saving technologies Appropriate for Indian steel makers

Title of Technology	A. Effect of Technology Introduction				Public Level	Need for Technology	C. Conditions in India [*2]			
	Energy saving rate of product	CO2 saving rate of product	CO2 saving rate of product	CO2 saving rate of product			Energy saving rate of product	CO2 saving rate of product	CO2 saving rate of product	CO2 saving rate of product

17 technologies

### 2) Technologies One-by-One Sheets

1. Process Flow	
-----------------	--

17 pages

Detailed information for each technologies

#### Point.1

Technological knowledge of steel experts



#### Point.2

Experience of Japanese steel industry



#### Point.3

Considering the circumstances of India



Energy saving effects of 17 technologies on TCL are reliable since these effects were **developed by experts who ACTUALLY operate steel plants in India and Japan.**

**TCL is to be utilized for development of Policies and Measures in India.**