

Technology Transfer

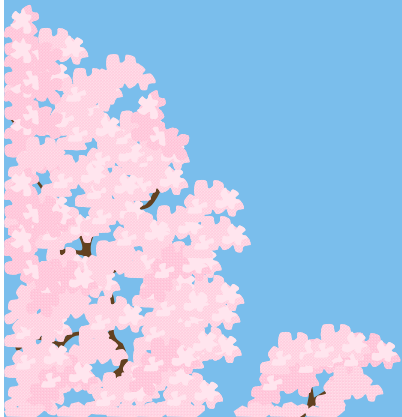
- Fundamentals & success stories -

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Fundamentals

- ***Has technology transfer happened?***
 - ***Yes, in emerging economies, especially China.***
 - ***No, in most LDCs.***
- ***Reasons***
 - ***The size of market or demand***
 - ***The maturity of the manufacturing industry in recipient countries.***
- ***The entity responsible for technology development & deployment is the private sector.***

Example of success (1)

Coke Dry Quenching (CDQ)

- ❖ ***Power generation system using residual heat in ironworks; a large-scale clean technology.***
- ❖ ***The first CDQ was supplied to China in the 1990s for free.***
- ❖ ***A Japanese company and a Chinese company together established a new firm in China for manufacturing & selling CDQ.***



Source: Nippon Steel Corporation

Example of success (2)

Cement manufacturing technology (Kilns)

- ❖ ***Up-to-date NSP kiln technology was developed by a Japanese firm to improve energy efficiency.***
- ❖ ***The technology has been transferred to China.***
- ❖ ***A Japanese company and a Chinese company have jointly established a manufacturing firm.***
- ❖ ***Now China has the capability to produce NSP kilns and export them to other Asian countries.***



Source: Mitsubishi Material Co.

Example of success (3)

Coal-fired power plant technology

- ❖ ***Power generation technology has progressed, leading to improved energy efficiency.***

sub-critical → *critical* →
super-critical

- ❖ ***Each of 3 major Chinese vendors has an alliance with a Japanese or EU company and has received technology.***
- ❖ ***These vendors now have larger production capacity than Japanese companies, and export products to Asian countries.***



Source: Dongfang Electricity Co. website
<http://www.dbc.com.cn/>

Example of success (4)

Small-scale wind power generators

- ❖ ***A Japanese manufacturer exported the first 3 generators to India through an Indian partner in 2006.***
- ❖ ***The Japanese company hopes that the Indian partner will manufacture the technology in India.***
- ❖ ***Technology transfer has begun, and a survey on material procurement in India is underway.***



Source: Shinko Electric Co. Ltd.

Japan's View

- *The major player in technology transfer is the private sector. The role of government is limited; it can only act as a catalyst.*
- *Japanese government and industry have together been one of the major technology transfer contributors in the world.*
- *The Japanese government will strengthen its efforts in this area.*
- *Financial mechanisms for technology transfer should be discussed along with other issues in a comprehensive manner, such as adaptation and deforestation.*