Climate technologies: research results and policy options for development and transfer

Key messages

From COP-16 side-event

Organisers

- ECN, Energy research Centre, Netherlands
- University of Sussex, UK
- SDC
- TERI

Key message # 1

- SMEs are an important segment of economies of developing countries. Strategies to move towards low carbon economy in developing countries must involve development of less carbon intensive SME sector

Contribution of SME sector to India's economy

- 26 million micro, small and medium enterprises (MSME)
- Accounts for 45% of manufacturing output, 8% of GDP
- Responsible for 40% of India's total exports
- Provides employment to 60 million people

Why target SMEs ?

- Large-scale industries have the capacities to deploy modern technologies
- Tens of thousands of SMEs use traditional/ low efficient melting and heat treatment technologies
- Enabling these units to switch to clean, energy efficient technologies would yield substantial energy and CO2 savings

Key message # 2

- CoSMiLE's model for technology development and diffusion is unique in several ways and is useful for feeding into the larger UN processes on enhancing collaborative R&D to promote technology transfer

Development of cleaner technologies

A number of cleaner technology packages developed & demonstrated

- Competencies of international and national partners pooled during technology development
- Energy savings: 25 – 50% lower than conventional technologies

Foundry

Conventional Cupola

Divided Blast Cupola (DBC)

Glass – Pot furnace

Conventional coal fired Pot Furnace

Recuperative natural gas fired Pot furnace

Glass – Muffle furnace

Traditional coal fired

Natural gas fired

Brick

Bull's Trench Kiln (BTK)

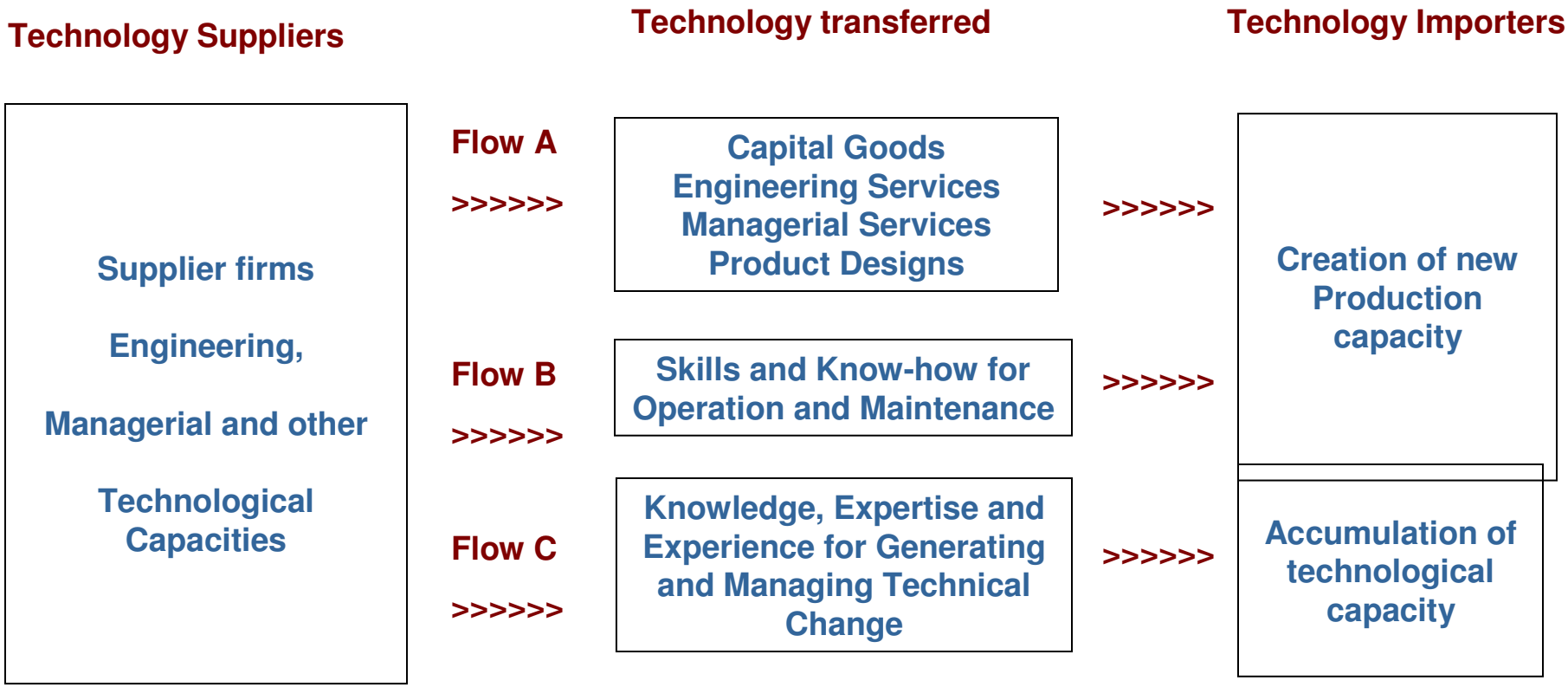
Vertical Shaft Brick Kiln (VSBK)

Biomass gasifier – Thermal applications

Key message # 3

- Strengthening of existing national institutions as technology nodes should be the preferred route for accelerated diffusion and transfer of affordable environmentally sound technologies in the SME sector in the context of the discussion on developing climate change technology innovation centers

The technological content of international technology transfer



Source: Bell, M. 1990. Continuing Industrialisation, Climate Change and International Technology Transfer. SPRU, University of Sussex.

Technological change and capacity building

Collaborative RDD&D will have the highest impact on technological capacity development

Climate Change Technology Innovation Centres

- Avoid creation of new institutions, rather strengthen existing ones
- The Centres should strengthen links across different sectors of domestic economy, especially industry/ academic/ government
- Need for technology development for different energy intensive sub-sectors
- Developed technologies need to be adapted to local circumstances
- Need for technology nodes/centres where experiences around a sector/technology are pooled with linkage to international experts

Thank you

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