

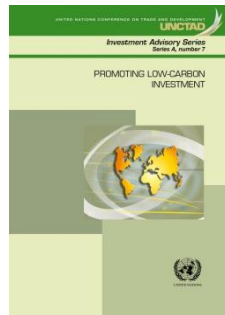
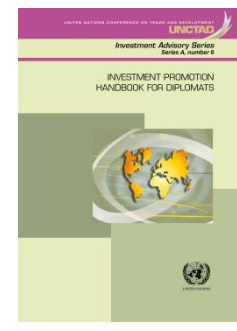
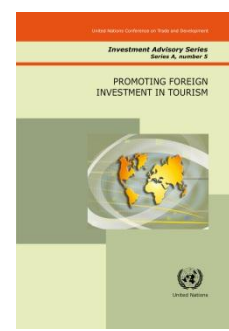
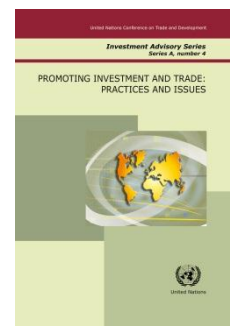
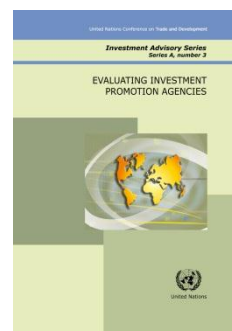
Promoting Low-carbon Investment

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Geneva, 6 December 2013

Work carried out by UNCTAD on low-carbon FDI:

- **World Investment Report 2010** with a focus on low-carbon investment
- The **2010 UNCTAD Awards** for Excellence in the Promotion of Green FDI
- An **UNCTAD survey of IPAs** on low-carbon FDI in 2010
- **Seminars and high-level sessions** on green global value chains and the promotion of green FDI in Doha, Dubai, Geneva and Xiamen
- On-going **data collection** by UNCTAD on low-carbon FDI
- An **UNCTAD Development Account Project** on the promotion of green FDI, which includes publications, starting with a guide on *Promoting Low-carbon Investment*, an online resource and learning centre for IPAs (called *greenFDI*), regional training workshops, and support to selected agencies



New release

UNCTAD's Investment Advisory Series for practitioners in the field of investment promotion and facilitation

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

Investment Advisory Series
Series A, number 7

PROMOTING LOW-CARBON
INVESTMENT



UNITED NATIONS

The publication *Promoting Low-carbon Investment* covers:

- The low-carbon opportunity
- Determinants of low-carbon investments
- The process for developing a low-carbon investment promotion strategy
- Case studies on the promotion of low-carbon FDI from Pernambuco, Brazil; Hong Kong, China; and Copenhagen, Denmark

What is low-carbon foreign investment?

It is the transfer of technologies, practices or products by TNCs to host countries - through FDI and non-equity forms of participation - such that their own and related operations, as well as the use of their products and services, generate significant lower green house gas (GHG) emissions than would otherwise be the case under business-as-usual circumstances.

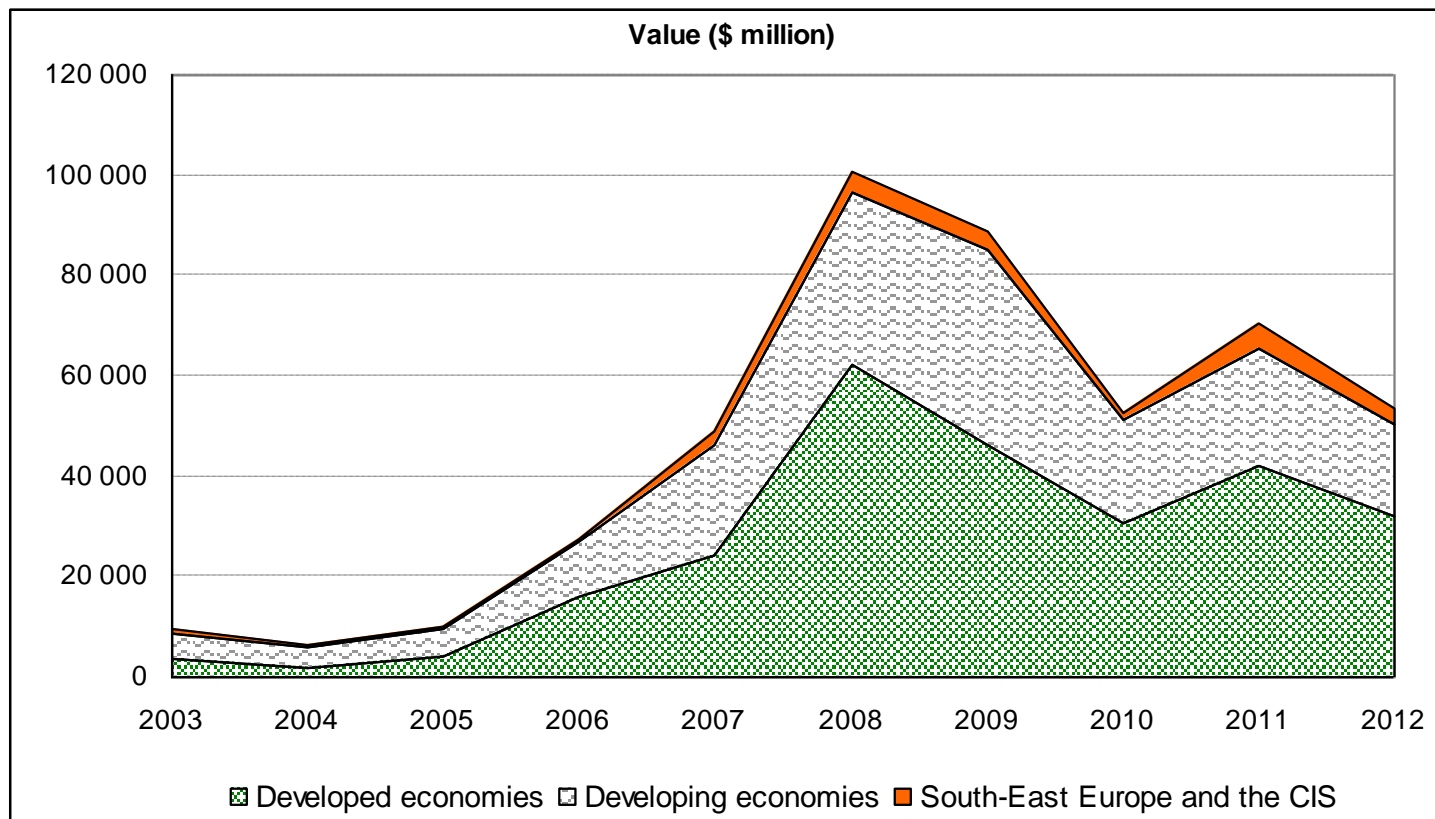
Types of low-carbon investment

Types of low-carbon investment	Examples of investments
Investment in production processes with a reduced GHG impact	<ul style="list-style-type: none"> • Implementation of energy-saving processes • Introduction of processes and equipment that reduces GHG emissions • Use of green construction techniques in buildings
Investment in clean energy generation	<ul style="list-style-type: none"> • Solar energy • Windmill parks • Hydro power generation • Geothermal energy facilities
Investment in research and production facilities to manufacture GHG reducing products and provide related services	<ul style="list-style-type: none"> • Research in energy efficiency and recycling • Production of solar panels, windmills • Production of energy efficient products (electric cars, energy-efficient light bulbs, etc.) • Technology services • Waste management services

Source: UNCTAD.

Inward greenfield projects in selected low-carbon areas (by value)

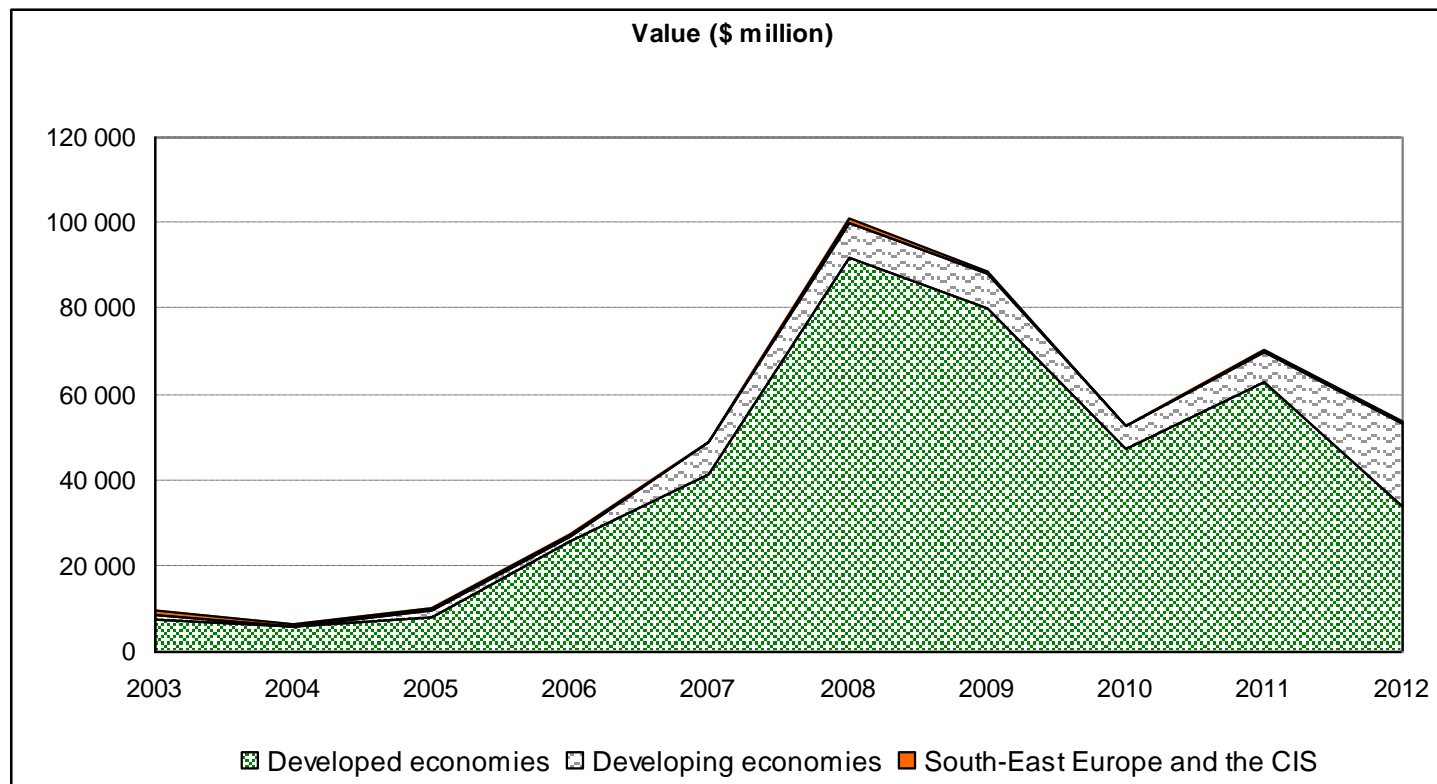
Greenfield projects in selected low-carbon business areas, by group of host economies, 2003-2012



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Outward greenfield projects in selected low-carbon areas (by value)

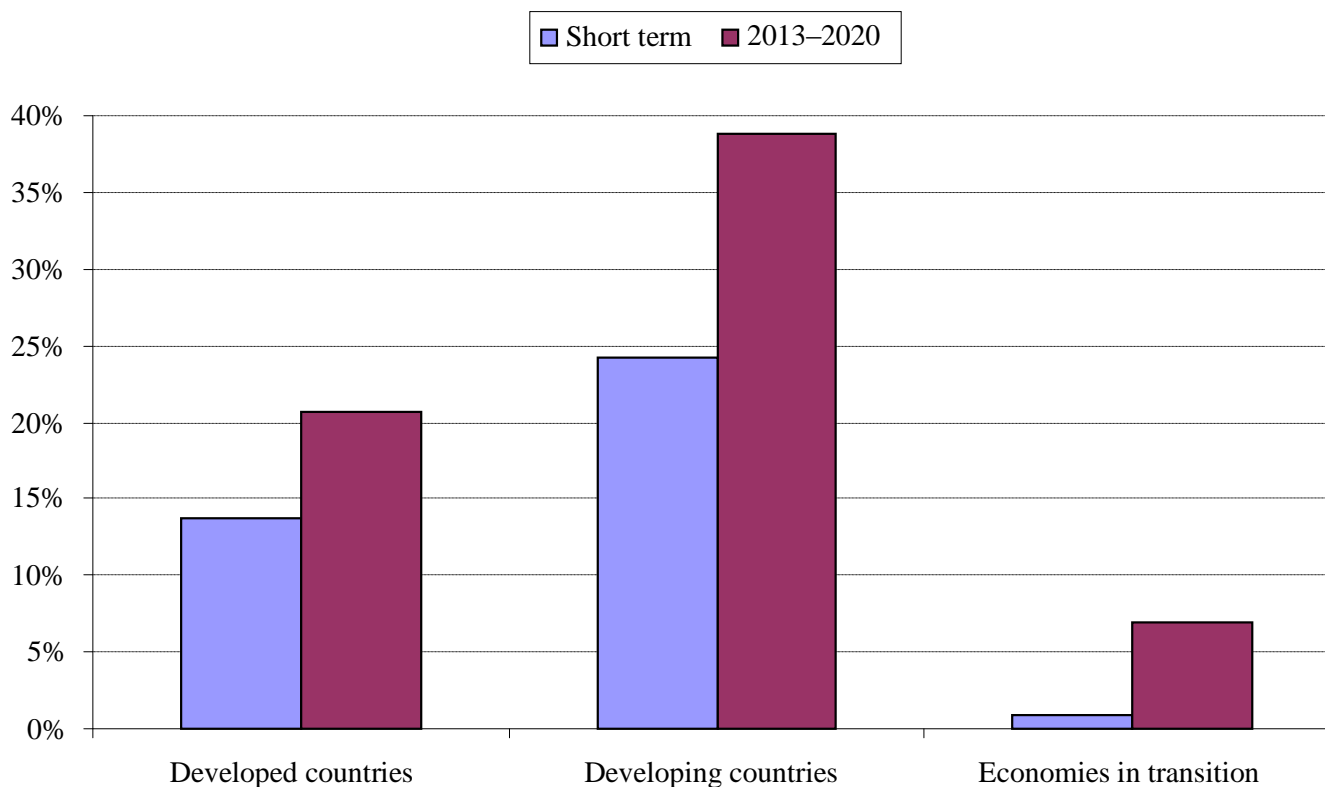
Greenfield projects in selected low-carbon business areas, by group of investing economies, 2003-2012



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com).

Emphasis of IPAs on attracting low-carbon FDI in the short and medium term

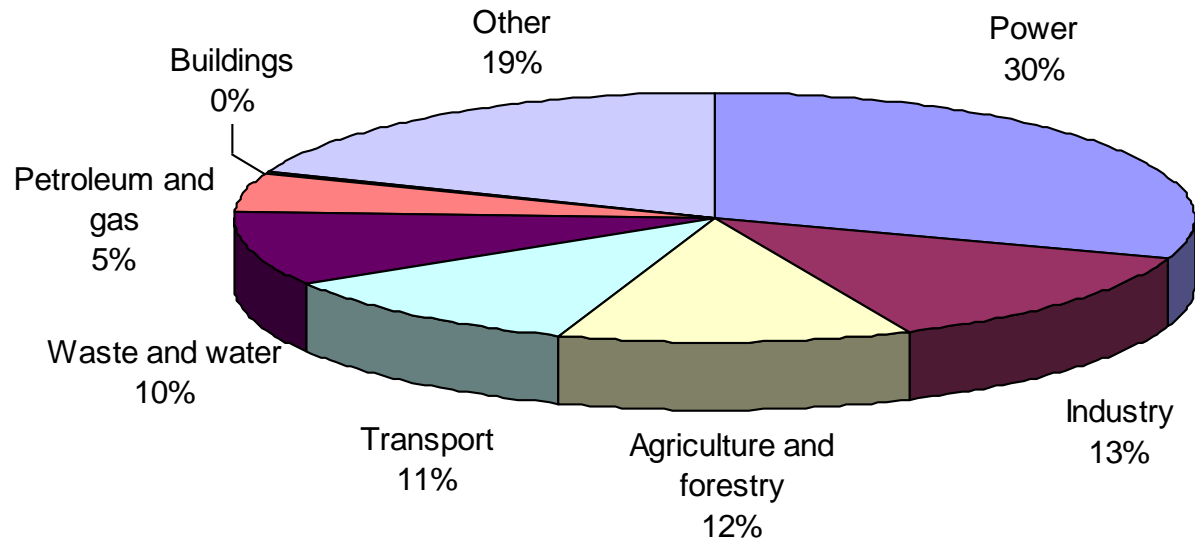
(Percentage of respondents indicating high/very high emphasis)



Source: UNCTAD Survey of IPAs, 2010

IPA target sectors for attracting low-carbon FDI

(Percentage of responses)



Source: UNCTAD Survey of IPAs, 2010

Top 10 TNCs in renewable energy generation

(number of projects)

Top 10 investors of greenfield investments in alternative/renewable electricity generation, 2003-2012

TNC name	World	Developed economies	Developing economies	Transition economies
Iberdrola (Spain)	47	39	8	-
Electricite de France (EDF)	39	37	2	-
Enel (Italy)	37	30	7	-
Acciona (Spain)	27	18	8	1
E.On (Germany)	27	27	-	-
RWE (Germany)	27	25	1	1
GDF SUEZ (Gaz de France)	22	14	8	-
Energias de Portugal (EDP)	20	18	2	-
Tokyo Electric Power (Tepco) (Japan)	15	13	2	-
MEMC Electronic Materials (US)	14	7	7	-

Source: UNCTAD, based on data from the Financial Times, the FDIintelligence database

Top 10 TNCs in environmental-technology manufacturing

(number of projects)

Top 10 investors of greenfield investments in environmental-technologies manufacturing, 2003-2009

TNC Name	World	Developed economies	Developing economies	Transition economies
Vestas Wind Systems (Denmark)	21	13	8	..
Siemens (Germany)	13	7	5	1
General Electric (GE) (United States)	13	3	10	..
Abengoa (Spain)	12	10	2	..
BP (United Kingdom)	12	10	2	..
LM GlasFiber (Denmark)	11	7	4	..
Areva Group (France)	10	6	4	..
SW Umwelttechnik Stoiser & Wolschner (Austria)	10	10
Sanyo Electric (Japan)	9	6	3	..
Alstom (France)	8	..	8	..

Source: UNCTAD, based on data from Financial Times, FDIIntelligence database (fdiintelligence.com).

Why do TNCs engage in low-carbon foreign investment?

Home market and trade conditions	Home government policies
Costs of production	Business conditions

DRIVERS

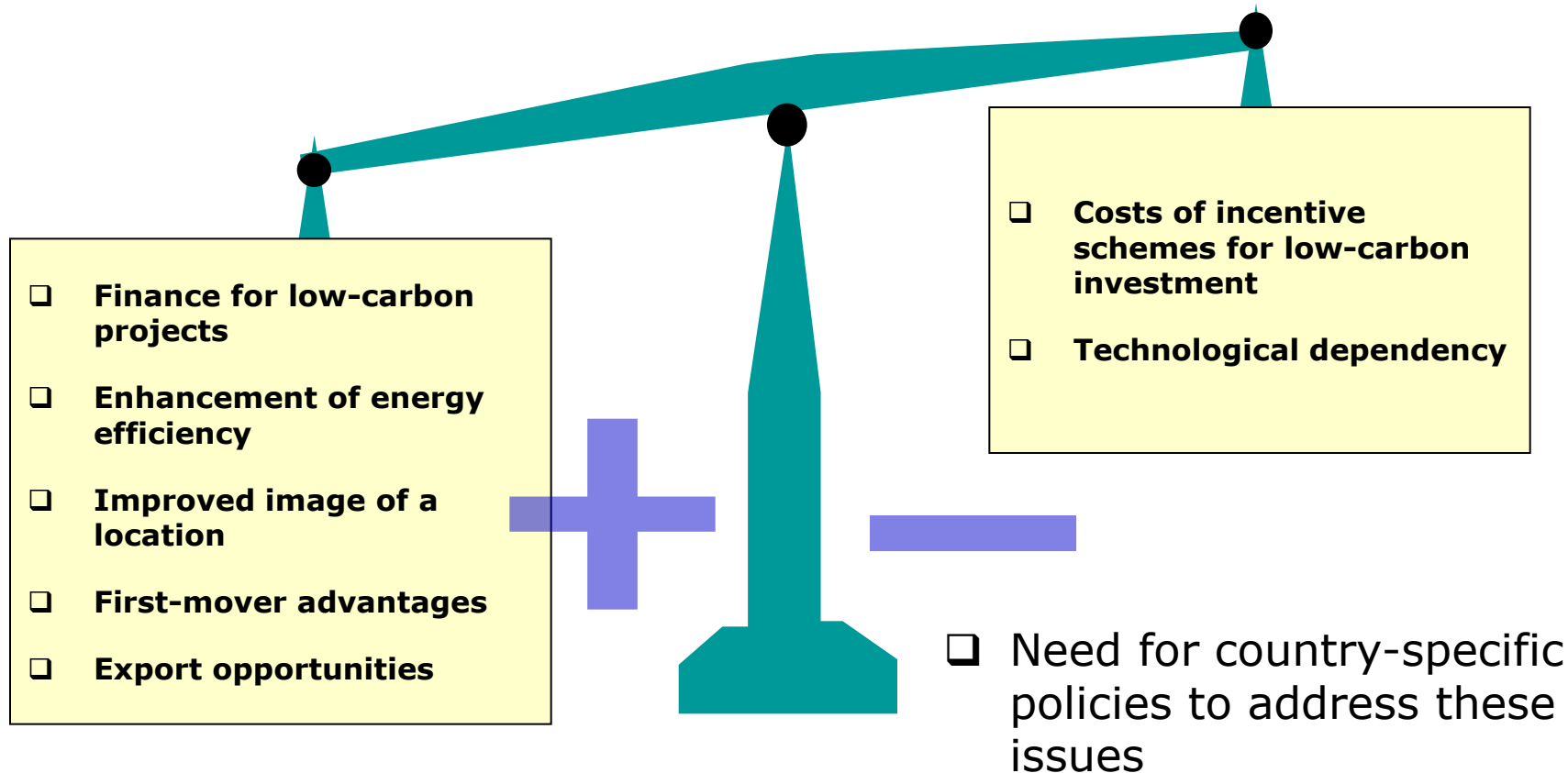
- ❑ Home-country policies, public opinion and shareholder pressure increasingly drive TNCs to invest into low-carbon activities abroad.

LOCATIONAL DETERMINANTS

- ❑ Tailored policy frameworks and business facilitation are important.
- ❑ General factors dominate the economic determinants, but low-carbon investment has some unique aspects.

General policy framework
Economic determinants
Business facilitation

Weighing the pros and cons of low-carbon foreign investment



Promotion of low-carbon investment

Policy tools

- Emission standards
- Product standards
- Taxation rebates on environmental friendly equipment
- Fuel taxes, fuel efficiency standards and biofuel blending mandates
- Subsidies for R&D in low-carbon technologies
- Subsidies for households to install solar panels
- Special credit lines for renewable energy projects
- Feed-in tariffs
- Public procurement of energy efficient products
- Industrial development tools, like green special economic zones, including cleantech parks
- Programmes to promote business linkages in low-carbon industries and foster absorptive and adaptive capacities in domestic firms
- Encouraging corporate social responsibility

Promotion of low-carbon investment

IPA practices

- *Targeted promotion* of low-carbon investment, in which IPAs select and target low-carbon subsectors that match the country's development objectives and for which the location is competitive, e.g., attracting FDI in the manufacturing of solar panels for a fast expanding local market.
- *Facilitation and aftercare* with a specific focus on networking, matchmaking and the forging of partnerships between low-carbon development stakeholders, including international and domestic companies, local authorities and research institutions, e.g., support in the development of cleantech clusters.
- *Policy advocacy*, promoting low-carbon friendly policies and measures for target sectors, e.g., encourage the use of feed-in tariffs mechanisms for renewable energies.

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