

# Preqin Special Report:

Cleantech in Emerging Markets  
November 2010



# Cleantech in Emerging Markets

Global environmental awareness has spawned numerous government-backed, green-focused initiatives worldwide, providing a welcome injection of cash into the cleantech sector. However, additional funding in the form of private investment is required if targets relating to emissions and renewable energy are to be met.

Cleantech investment prospects are global and it is estimated that of the \$95 billion to be invested in the sector in 2010, 45% will be deployed outside of the US and Europe. In emerging markets in particular, a plethora of opportunities to invest privately in cleantech have transpired.

There is a rapidly growing number of “urban mega centres” in developing countries, all of which demand green resources. Lack of, or minimal existing infrastructure makes it quicker and easier to build new, energy-efficient structures in these regions than in more developed areas. Furthermore, while 25% of the world currently has no access to power it is largely accepted that such resources are required to fuel growth, encouraging those in the emerging markets to look to alternative, renewable sources to fulfil their power needs.

It is not just the projects and investment opportunities that are based within emerging markets. Preqin data shows that a significant 19% of cleantech investors are headquartered in countries considered to be emerging markets. Both China and India are increasingly significant cleantech investors, while Israel is fast becoming an important centre of activity for clean technology innovation.

## China, India and Brazil: The Forefront of the Cleantech Revolution

China overtook the USA to become the world leader in cleantech finance and development in 2009 and the country has allocated \$221 billion, four times more than the US, to fund cleantech investments. The country is installing new clean energy generating capacity, both to meet domestic demand and to achieve ambitious mandatory targets for wind and solar power production. The country also aims to build 70 new nuclear reactors by 2020, and work has already begun on over half. In comparison, the rest of the world combined will build about 15 in the same period.

China's investment in cleantech has increased eight-fold since 2004, and in 2010 it is predicted that the country will contribute 25% of total global cleantech investment capital. Tsing Capital, established in 2001 as the cleantech and venture arm of Tsinghua Holdings, was the first cleantech and venture capital management firm in China. The firm manages the China Environment Funds, a series of four funds which aim to improve the environment by reducing, reusing and recycling natural resources in China. The most recent fund in the series, China Environmental Fund IV, was launched this year and is targeting \$250 million

India is the world's fourth largest economy based on GDP purchasing power parity, and is ranked sixth in the world for annual renewable energy investment. As the country seeks to meet the growing energy demands of its swelling population through increasing its provision of renewable resources, a profusion of cleantech investment opportunities have arisen in the region. Additionally, the Indian government has set a target to reduce the country's carbon footprint by 24% by 2020, and is aiming for 5% of grid purchases to come from renewable energy resources, indicating that investment opportunities will continue to multiply in both the short and long term.

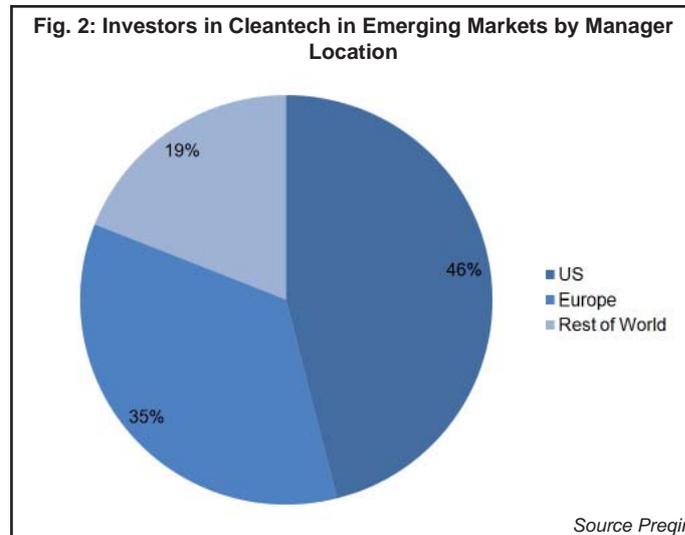
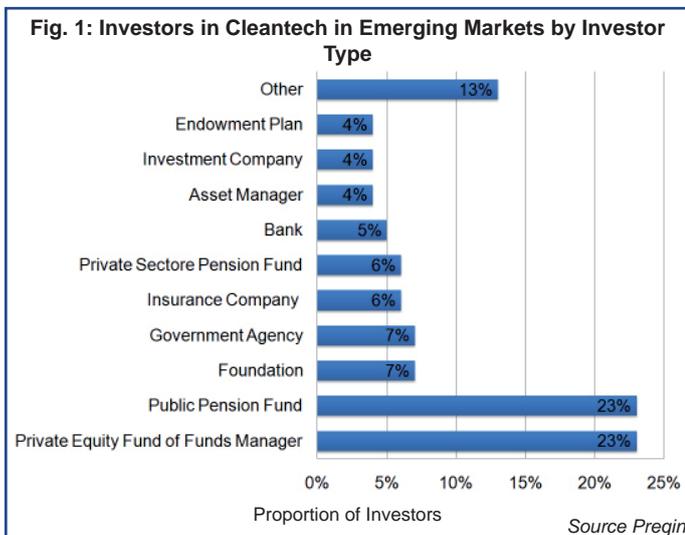
UK-based Berkeley Energy is one firm taking advantage of cleantech investment opportunities in the country. The Renewable Energy Asia Fund was launched in 2009 with a target of €500 million. The fund will invest in a range of renewable energy projects and developmental brownfield projects in the wind, hydro, biomass and solar sectors, primarily in India. Mumbai-based ICE Startups is another firm exploiting the opportunities in the region. The firm launched its Prithvi Sustainability Innovation and Technology Fund in 2009 and is targeting \$150 million. The fund, the first Indian-based vehicle to invest into the domestic cleantech space, will finance companies that provide solutions to address air, water and soil contamination. The fund also focuses on areas such as bio-fuels, air and water pollution management, and renewable energy sectors.

With the second-highest cleantech investment growth rate of all emerging markets, and the sixth largest of the G20 countries, a significant cleantech sector has been established in Brazil. 84% of the country's energy comes from hydroelectricity, there is huge potential for the development of wind power and the country is home to the world's leading ethanol structure, so it is clear that there are plenty of investment opportunities to be exploited in the country. Affirming the country's credentials as a leading cleantech market, the largest ever cleantech transaction took place in Brazil: a \$12 billion joint venture between Royal Dutch Shell and domestic company Cosac, the third largest sugar producer in the world.

San Paulo-based Latour Capital do Brasil is currently raising the Fundo Brasil Sustentabilidade, targeting R\$250 million, which will be invested into bio energy and ethanol companies in Brazil. As well as investing in biodiesel, biomass, second generation bio-fuel producers and renewable energy ventures such as solar and wind power, it will focus on companies which have a potential to generate Certified Emission Reductions, also known as Carbon Credits.

## Breakdown of Investors in Cleantech in Emerging Markets

Almost half of investors in cleantech on the Preqin database are either public pension funds or private equity fund of funds managers. A breakdown of investors in cleantech in emerging



markets by investor type is shown in Fig. 1. Public pension funds investing in the sector include Sweden-based AP-Fonden 2 and US-based Chattanooga General Pension Fund. Cleantech investments are also included in the portfolios of both Australian fund of funds manager ING Investment Management and Germany-based Berenberg Private Capital.

The majority of cleantech managers making commitments to emerging market-focused cleantech funds are based in the US, while 35% are in Europe and the remaining 19% in Rest of World, as shown in Fig. 2.

### Summary

Environmental awareness, population growth and economic development are presenting cleantech investors with a wide range of investment opportunities in the emerging markets. As governments look to fulfil the power and infrastructure needs of their countries even more opportunities are likely to materialise in these regions.

Those already taking advantage of the investment opportunities in emerging markets are investing across the spectrum of the cleantech sector, committing to funds targeting renewable energy, natural resources, bio energy and ethanol projects.

China is leading the way in cleantech development, and its aggressive environment-focused targets across the renewable energy spectrum have created a myriad of investment opportunities for both domestic and international private equity firms to make cleantech investments in the country. These opportunities can only multiply as the country works towards meeting its ambitious short and long term targets.

Opportunities abound for the cleantech investor in emerging markets, enabling those committing to these types of funds to exploit the chance to yield high returns while making environmentally responsible investments.

**Fig. 3: 10 Largest Emerging Markets-Focused Cleantech Funds Currently Raising**

Fund Name	Fund Manager	Target Size (mn)	Target Size (USD mn)	Status	Location Focus
Robeco TEDA Sustainable Private Equity Fund	SAM Private Equity	6,000 CNY	885	Raising	China, Global
SBI Neo Technology Investment Fund	SBI Group	50,000 JPY	537	First Close	Japan, Asia
MEACP Clean Energy Fund	Middle East & Asia Capital Partners	500 USD	500	Raising	Asia
Renewable Energy Asia Fund	Berkeley Energy	200 EUR	252	First Close	India, Philippines, Sri Lanka, Thailand, Vietnam, Asia
DB Masdar Clean Tech Fund	DB Climate Change Advisors and Masdar Capital (Co-managed)	500 USD	500	First Close	United Arab Emirates, Global
AVC Abundance Energy Fund	Abundance Venture Capital	250 USD	250	Raising	Asia
China Environment Fund IV	Tsing Capital	250 USD	250	Raising	China
Clean Resources Asia Growth Fund	CLSA Capital Partners	200 USD	200	First Close	China, India, Indonesia, Japan, South Korea, Philippines, Thailand, Asia
Asia Clean Energy Fund	Korea Technology Investment Corp	200 USD	200	Raising	Asia
BODFEH Cleantech Partners	BODFEH Capital Partners	150 USD	150	Raising	China, Asia

Source Preqin

# The 2010 Preqin Private Equity Cleantech Review

The 2010 Preqin Private Equity Cleantech Review is the ultimate guide to this important and growing sector of the industry, featuring detailed analysis, comprehensive fund listings, profiles for the most important fund managers and institutional investors worldwide, plus much more.

The Review is a vital tool for all those raising funds, and for professionals managing or advising on cleantech assets. This year's edition features a large amount of exclusive information gained directly from fund managers and investors. It is the most comprehensive source of global data and analysis available today.

## Key features of this publication include:

- Detailed analysis examining the history and development of the industry, fundraising trends, performance analysis, fund manager universe, institutional investors, fund of funds.
- Profiles for 470 cleantech-focused private equity firms, including direct contact details, firm investment strategies, recent deals, fund details and more.
- Profiles for over 150 institutional investors in funds, including investment plans, sample investments and direct contact details.
- Listings for all funds raised historically, funds currently raising, performance metrics for over 130 funds, league tables for biggest firms.
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