



# Is corporate China ready for the green economy?

# About this report

This report summarises the ACCA and WWF roundtable held in Beijing on 29 June 2012, one of a series of events addressing sustainability issues relevant to the business community in Asia.

The event was convened to consider the ways in which a changing world is forcing leading economies to deal with problems relating to climate change, biodiversity loss, scarcity of fuel, food and water, and unstable financial systems. It also explored the potential for a new economic system to avoid large-scale global disaster: a system which helps alleviate risks and provides opportunities for growth and prosperity – namely, a green economy.

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# Introduction

A green economy demands the cooperation and collaboration of multiple stakeholders across business, government and civil society. Business, in particular, will have to adapt its approach to governance, risk identification, reporting, product sustainability, resource use, strategy development, metrics and business model creation. As a result, the role of the accountant will evolve into one that both contributes to the greening of economic sectors and that helps manage natural capital. Both aspects require the collection of reliable data so that targets can be set and progress monitored, while investment behaviour will have to adapt to reflect the new risks and opportunities represented by a green economy.

on growth but rather a new engine for development, one that can generate jobs while helping eliminate persistent poverty. There is now the opportunity to build a sustainable economy, while ensuring environmental protection, sustainable infrastructure, resource efficiency, protection of natural capital, and social equity.

It is clear that 'business as usual' is no longer an option and that the world must move from a 'brown' to a green economy, but what must be done to get there, especially in corporate China? Last autumn's Global Green Economy Index, which rated reputation and performance across a range of indicators in 27 countries, included China, Indonesia, Japan and South Korea, with China rating well on its national green reputation and 'clean tech' market opportunities. In addition, the country's 12th, Five-Year Plan (covering 2011–15) includes energy efficiency measures and carbon reduction target opportunities, but there is still a need for more coherent planning in order to achieve real progress. So what does this mean for China? How is the Chinese government preparing and Chinese business responding, and what role can investors and accountants play in ensuring the transition to a more equitable economy?

## THE PARTICIPANTS

The event was chaired by Rachel Jackson, head of sustainability at ACCA, who was joined by:

- Donald Pols, director WWF China for a Global Shift Initiative
- Dr Guo Peiyuan, co-founder and director, SynTao
- Kevin Ao, partner, Golden Rock Capital
- Dr Xu Yugao, vice-president and CFO, CNOOC EnerTech
- Liu Jingwei, vice-president – marketing and communications, Metso
- Sean Gilbert, director – sustainability and climate change services, KPMG Beijing.

Already widely used, the term 'green economy' will become even more familiar after events such as the United Nations Conference on Sustainable Development, or Rio+20, held in June 2012, and the launch of programmes and institutes set up to explore and discuss the issue, such as the Green Economy Coalition. So what does this term actually mean?

Work undertaken by the United Nations Environment Programme (UNEP) has shown that a green economy should not be considered a drag

# Valuing natural capital

Over seven years ago, Donald Pols led the negotiations for the first international agreement between an NGO and a major financial institution in China. After 18 months of discussions with the institution's corporate social responsibility (CSR) team, the two parties had failed to reach an agreement and the impasse was only resolved when the corporate affairs team became involved, at that time a highly unusual move. When it was explained that sustainability measurement could make a real contribution towards corporate management, the partnership was swiftly agreed and is still in place. Since that time, sustainability has definitely moved from CSR towards the core of businesses, and now provides some of the key measurements required by senior management teams.

This is important, given the global context. According to WWF's *Living Planet Report* (a biennial measure of human impact on the globe), every year humanity consumes 1.5 times the resources the planet produces, and it is also clear that although society's impact is absolute, cause and effect are unequally distributed (China's impact is considerably less than that of the US, for example, challenging many current assumptions). There has also been a reduction in biodiversity of around 13% as a result of human intervention, a figure which shows no sign of stabilising, while the overall health of ecosystems continues to decline.

Trends such as these have prompted many organisations, including WWF, to argue for a shift to a green economy, but such a transition has to overcome the challenges of a growing world population, estimated to reach around 9 billion people by 2050, which will increase competition for already limited resources. China, in particular, has a very large and unevenly distributed population, many living in huge cities which themselves pose both challenges and opportunities for the Chinese government.

In this context, in order to green the economy, natural wealth has to be increased by more efficient production and by a reduction in societal impact on natural resources. For WWF, this means a shift to 100% renewable energy as the primary means of reducing the impact of energy consumption on the global carbon footprint, while focusing on reformulating and reusing resources in all industrial centres worldwide.

This vision is shared by WWF and the many NGOs and governments – especially those of developing countries – who attended Rio+20, and who were determined to push for ways to include natural wealth in both financial and political decision-making processes.

Unfortunately, at Rio+20, many western governments were unable to commit to green economic responsibilities. That void is now being filled by new players, including businesses and governments in the developing countries, especially China. Here the government is really committed to sustainability, considering it a necessity rather than a luxury. The 12th, Five-Year Plan includes clear green economic targets such as reductions in the use of fossil fuels and water. The Chinese approach to policy formulation is to set overall targets and then to develop policy further in specific economic sectors, creating a framework for realistic solutions that support wider plans to upgrade the economy in general. China is also focusing on developing its 'clean tech' sector in order to develop the hardware required to reduce CO<sub>2</sub> emissions, including technologies such as windmills, double glazing, and LED lamps. When measured as a share of GDP, China's 'clean tech' sector is currently ranked second worldwide (behind Denmark) and so represents a significant market opportunity.

Yet China also faces challenges. For example, how should it value natural capital, especially aspects such as clean air and its distribution – how to decide who benefits from an increased value and who pays the cost? How should China develop its longer-term policy guidelines, especially when 'hard' solutions (such as technologies) are often prioritised? And how to bring the financial sector into this debate?

WWF is also working with the Chinese government on the development of policies that include measurable targets to be applied to suppliers outside China, thereby improving management across the total supply chain, domestically and globally. This not only means that China can benefit internationally from the innovations it is developing for its own industries, but can also measure and manage its impact even more effectively.

## The green economy and the financial sector

Dr Peiyuan returned to the title of the day's discussion, 'Is Corporate China ready for the Green Economy?', acknowledging that this was a complicated question with a complicated answer, but that it was also important to know which companies are most interested in this issue and where they were operating.

When considering the relationship between the green economy and corporate finance and accountancy, it is clear that many of the leading companies are now 'thinking green': for instance a major bank, which uses its green credentials as part of its advertising strategy, or others that are setting clear carbon-reduction goals. Nonetheless, from talking to his clients, Dr Peiyuan's impression is that despite the understanding that 'being green' is important, action is taken only if monetary value can be gained.

Significant change can, however, be seen in the increasing number of CSR reports now being published, and the wider reporting of non-financial statistics. The first CSR report in China was published in 1999 by Shell China (not even a domestic company); in 2011, over 1,000 reports



Dr Guo Peiyuan, co-founder and director, SynTao

were published. This growth is the result of a number of drivers, including recent government directives such as the requirement for all state-owned enterprises to publish sustainability reports by 2012, and the demands of the Shanghai and Shenzhen Stock Exchanges that all listed companies publish sustainability reports.

China's financial sector is very active in terms of CSR reporting and transparency, and again government directives play an important part in this, especially initiatives driven by the CBRC (China Banking Regulatory Commission). Its recently announced policy on green credit, for example, requires commercial banks to assess the green risks of its borrowers – if a creditor collapses as a result of an environmental issue (damage caused by pollution, for example), then this is a risk for the bank that must be properly accounted for.

Banks are therefore now proactively assessing the green credentials of customers, especially creditors (with internal bank management also coming under increased scrutiny), as the CBRC 'green credit' guidelines require more information on aspects such as organisational structure,

capacity, buildings and so on. This has created a new business opportunity for consultancies such as SynTao, which is now helping banks train their staff in response to these new policies.

A key issue for banks, when applying green economic principles, is how to judge whether a customer demonstrates good or bad green credentials, and as a result, the financial sector is now demanding more information to help firms measure risks and environmental costs. CSR reports are supposed to supply such material information, but in reality few of these reports provide the level of detail required. For example, information on carbon footprint and water consumption – both very important measures – are given in around only 20% of CSR reports, making cross comparison very difficult. Nonetheless, this need represents a significant opportunity for the accountancy profession, which can use its skill and training to ensure that the right information, in the right amount of detail, is available for inclusion in CSR reports. This issue may also be addressed by global moves to integrate CSR, sustainability and annual reports into a single document.

## An investor's perspective

In China, the green economy is made up of two kinds of organisation: companies that need to comply with new green regulations, found in every sector, and 'clean tech' companies. Despite the accepted need for wider adoption of green economic principles, however, many companies find it harder than expected either to develop their business according to these principles, or to find the investment required to help them grow.

Some recent examples illustrate this point.

- A major cement company based in south-west China planned to go public but its investors asked if the company could list on the Hong Kong Stock Exchange, rather than in Shanghai. It was proving too difficult to comply with the environmental regulations imposed by the Chinese government, for improving water quality and reducing emissions, and to achieve such compliance could have delayed listing by up to two years.
- A very profitable chemical company would have been an excellent investment opportunity if local compliance had not been such an issue that potential investors were dissuaded.
- A 'clean tech' company (set up to use waste water to create building materials), could not attract the investment required for expansion because it depended so heavily on government subsidies, which differed across regions and which also had an uncertain future. Profits could not be predicted because the financial base for the company was not yet established and so, once again, investors were deterred.

- A company that converted waste materials into building materials was shown by a potential US investor to be profitable, but only in its city and province. Scalability could not be proved, and future markets could not be protected, and so investment was refused.
- An IPO in China is a different proposition to one in the West as a significant number of regulations must be satisfied, including environmental, and when money is raised successfully there are demands that further investment be made in environmental policies, including the production of CSR reports. Regulation has therefore affected the progress towards IPO for many organisations, and the emphasis on reporting has also resulted in a number of corporate scandals, when companies have been found to have removed evidence of poor practice from CSR reports and have subsequently been punished.

Yet there are still many investment opportunities in China, and especially in the 'clean tech' sector, with companies now working in technologies ranging from renewable energy to energy saving and efficiency innovations such as LED lighting, hybrid cars, and waste-treatment processes. As a result, in 2011, the 'clean tech' sector was ranked third in investment and IPO analyses, clearly indicating the sector's potential.

## Corporate case study: CNOOC EnerTech

Presenting his own opinions on the green economy, Dr Yugao considered the issue with reference to CNOOC, one of China's largest energy companies. Firstly, he noted that companies have to act strategically as they prepare for a green economy, thinking about both reputation building and how to cut excessive emissions and reduce excessive energy consumption, as these are both unnecessary costs. An assessment of the internal and external supply chain also has to come into the equation, and a company has to use the green economic model as a stimulus for the development and marketing of new products and services that might also offer market differentiation.

For CNOOC, the green economy is reflected in the company's sustainability philosophy, which looks at operating income, environmental protection and socio-economic issues. By balancing these three drivers it is possible to generate a wide range of benefits for all stakeholders, from shareholder return to employee satisfaction, while also achieving an ecological balance that preserves biodiversity.



Dr Xu Yugao, vice-president and CFO, CNOOC EnerTech

Undertaking voluntary initiatives is also important to CNOOC, and contributes towards reputation building, such as the company's active involvement in WWF's Earth Hour. The company also ensures compliance with government policy, and has been recognised for its good compliance practices, designed to ensure it meets the targets set in the government's Five-Year Plans.

CNOOC has developed new and more sustainable energy conservation technologies, such as a gas engine heat pump system which, together with the use of geothermal energy, is being used to support and replace existing boilers for heating residential communities. Cost-benefit analyses of these innovations have also been undertaken and show that the initial investment made can be recouped in about six years. The initiative's value-adding benefits include reduction of energy emissions, so that projects making use of these technologies achieve both economic and environmental benefits.

CNOOC is also active in the renewables sector, entering into wind generation in 2006 and now owning 400,000 windmills, and has acquired a battery company, one of the world's top five producers, which supplies the computer and

automotive industries. An additional business area is biofuel, with CNOOC now operating one of the largest biodiesel plants in the world (in Germany), and another highly innovative biodiesel plant in Hainan.

In conclusion, as the trend towards a green economy gathers pace, Dr Yugao advised companies to stay one step ahead rather than one step behind, as this also creates competitive advantage in the form of market differentiation. To do this, senior management must give the firm's employees a clear signal that it supports the green economy. If management is ambivalent then employees will wait to see which direction the company will shift.

It is also important, within a green economy, to adopt new rules for the assessment and approval of projects. Green and 'clean tech' projects are often expensive initially, with payback possibly taking longer to achieve than for conventional projects, with the result that unless new rules are set for project assessment many initiatives will not stand a chance of approval. The green economy is a new way of operating a business, and so demands new business models in order to succeed.

## Corporate case study: Metso

Metso is a global supplier of technology and services to customers in the processing industries, including mining, construction, pulp and paper, power, and oil and gas. Metso's customers face significant sustainability challenges because they operate in high-impact and energy-intensive industries; Metso's aim is to help its customers develop sustainably by providing technologies that enable them to do so. As a result, Metso offers a raft of eco-efficient solutions related primarily to renewable energy, energy-efficient production processes, recycling, more efficient use of raw materials, emission reductions, and process optimisation. The emphasis is on 'reduce, reuse, recycle'.

Metso has developed eco-efficient solutions for every industry sector in which it operates. In the power industry, for example, the company has developed a range of waste-to-energy solutions and multi-fuel combustion systems, as well as cleaning and automation systems, that can deliver significant results. In one example, Metso converted a brown coal-fired power plant to biomass technology and in doing so reduced the carbon footprint of the plant by 200,000 tonnes.



Liu Jingwei, vice-president – marketing and communications, Metso

Metso is a major player in the pulp and papermaking industry, supporting over 50% of the world's producers. Innovations in this sector include environmentally sound pulping and papermaking processes, biomass drying systems, and fibre recycling processes. An emphasis on improved energy efficiency also enables customers to increase their profitability and therefore afford scarcer raw materials.

The recycling industry itself is another focus for Metso: its innovations help recycle 30% of the world's scrap metal, and the company is also involved in major recycling projects in the automotive industry and in construction, with waste material used in a wide variety of applications (including the track bed for bullet trains).

Work in the oil and gas industries is particularly challenging, as this sector features significant workplace and environmental risks with toxic and dangerous substances often being handled at high pressures and temperatures. As well as developing more efficient process and condition monitoring systems to help minimise the

environmental risks inherent in this industry, Metso has also focused on the development of intelligent control valves, which can reduce energy use and give greater levels of control and safety.

The mining industry also benefits from Metso's innovations, including technology to support the mining of less rich and lower-grade ore bodies, which enables the reprocessing of non-renewable ore resources. Initiatives also extend to energy-saving grinding solutions, optimised pumping systems, and safer equipment for unloading, storing and conveying materials.

Metso also invests heavily in R&D, with a focus on energy efficiency, the use of renewable raw materials, improved efficiency of raw materials, and advanced process-control technology. Work is already underway in a number of innovative areas, such as waste gasification (producing energy from waste) and, in a consortium, the development of a biomass-based bio-oil production concept, which uses by-products of the forestry industry to provide a clean energy alternative to fossil fuels.

## The role of accountants

Mr Gilbert looked at the challenge of moving towards a green economy from the perspective of the accountancy profession, asking 'what does the green economy mean' for those working with or in business. When considering the main opportunities for accountants, he first considered accountancy's historic role in the measurement of financial information, and then suggested that the profession can use the same skills to measure business information beyond the financial context, ie information relevant to social and natural capital. Business managers no longer focus on just the financials – CFOs are among the biggest requesters of CSR information, and accountants are ideally placed to gather, measure and assure such information, especially in the context of investment, where the concept of what is 'material' has expanded significantly to encompass not only pure finance but also social and environmental information.

This is important given that natural capital – which includes a stable climate, soil that remains fertile, and clean water – has an estimated annual value of around \$72 trillion and rising. Such figures do not currently feature in company accounts and this means that business growth, using current models, is being built on an environmental debt that will have to be deleveraged in our lifetime.



Sean Gilbert, director – sustainability and climate change services, KPMG Beijing

Accountants can help companies understand what these huge numbers mean to them and how such costs will have to be internalised within a business and a value chain. Discussions at Rio+20 showed that many companies are, in fact, already planning ahead for such accounting strategies, and are looking at ways to price the value of natural capital more accurately.

Companies are also trying to measure and report on a wider set of variables, driven by Stock Exchange and other regulatory guidance. This expansion in reporting requires skills core to the accountancy profession, such as deciding which of these wider variables are most relevant – from use of water to age of workforce – and then articulating a rational reporting response. Information relating to these new variables also has to be monitored and measured, and there is a real need for greater control in the gathering and reviewing of such information, with the aim of achieving a standard equal to the controls currently used when managing financial information. As the green economy becomes increasingly important to business, relevant 'green' information is in great demand and accountancy's expertise in control and review can play a particular role in ensuring it is seen to be of equal value to financial information.

Setting value opportunities is also important, as current barriers to green investment often result from the use of older business models, which

apply methods of assessing payback periods and discount rates that do not apply to green economy initiatives. Accountants can help challenge such models, and can also look ahead and prepare companies for environmental and social change.

When sustainability is added to accountancy's remit a number of roles emerge, from carbon inventory verification to CSR reporting and including assurance and enhancing loan risk assessment. This means there are opportunities for all those involved in the accountancy profession to engage with green economic issues, from the CFO to international standard setters and including auditors, who are needed to assess the information produced. KPMG has been active in developing such opportunities by initiating strategic partnerships with organisations such as AccountAbility and the Carbon Disclosure Project, and by publishing its own proprietary and collaborative research on issues such as climate change and corporate sustainability, which help develop the debate.

# Debate and discussion

Following the presentations, members of the invited audience shared their thoughts and questions with the panel. The following questions were discussed.

For a green economy to happen, a radical transformation is required – what will kick-start this and when?

The panel agreed that the leading company in each sector will play an important role as the shift to a green economy has to be a whole-system change and currently, if proactive change means added cost then no CFO wants to do more than simply achieve compliance. Leading companies face greater competitive pressures and these provide the incentive to take a more radical approach, thereby accelerating change throughout a sector, and there are already examples of this in the telecoms and IT sectors.

In kick-starting a revolution, China is already in the middle of a significant period of transition, with the enormous growth of the 'clean tech' sector providing very hopeful signs for the future. The WWF annual 'clean tech' benchmark survey has consistently underestimated the following year's growth, but it is also clear that the main barrier to even faster progress is the slower development of the required supporting technology. Nonetheless, a 'tipping point' will soon be reached when these practical constraints begin to recede, and when it is clear that 'clean tech' is the way forward then enormous shifts in investment capital should result.



Left to right: Kevin Ao, Donald Pols, Guo Peiyuan and Rachel Jackson

### Are companies engaging with the green economy more for PR than for business reasons?

The experience of WWF shows, especially for energy companies, that the impact of green practices on reputation is certainly important, but managing the volatility of fossil fuel pricing is even more crucial. Long-term planning requires a fixed-term price, which fossil fuels can no longer provide, but 'clean tech' systems may be able to resolve this problem while also revealing new opportunities, for example in the supply of energy to more remote regions at a considerably reduced cost.

In addition, many companies have been asked by their customers to reduce their carbon footprint as a way of lowering that of an entire supply chain, to the benefit of every company in the chain. This is driving carbon reduction throughout the economy – previously the focus was squarely on heavy and polluting industries but now the leading companies in every sector realise the value of natural capital to their business, and their influence on their supply chains will provide a valuable way of reducing carbon footprints overall.

In China, sustainability policies are very much top-down, whereas in other countries there is greater bottom-up activity, with an emphasis on what individuals can do rather than what governments should tell them to do. Is this a luxury only for developed economies? Or should China also encourage bottom-up pressure?

Bottom-up pressure is definitely required, as governments would not take action if popular resistance was expected or feared. Even so, the extent to which individuals can affect big global developments is limited, and it is clear, for example, that all leading 'clean tech' companies are growing as a result of strong government policy initiatives rather than market demand. A balance is therefore perhaps the best approach for all economies worldwide.

In China, bottom-up pressure is harder to generate as the Chinese consumer is both cost-conscious and risk averse – for example, they will pay more for 'healthy' products but not for recycled products or services where there may be a perceived risk (such as recent issues relating to residential communities built on old chemical plant sites). It is also too soon for many Chinese

consumers to adopt concepts common in other countries, such as the rejection of plastic bags. Nonetheless, there is certainly evidence that the Chinese public are now more prepared to protest when serious damage occurs, such as the public response to recent problems at the Dalian chemical plant, with social media tools such as Weibo playing an important role by channelling such protest.

If bottom-up pressure is to be encouraged then more education could be the answer, from primary level through to professional education such as that provided by ACCA. All educational syllabuses should include an emphasis on environmental issues (as in the ACCA syllabus), and educational institutions have a responsibility to make sure this is the case.

It is also useful to remember that poor sustainability is currently represented by an externalisation of cost, whereas good practice internalises cost. For the consumer, such internalisation can mean higher prices, and although there will always be a market sector happy to pay more, this is usually only around 10%–15% of the total; many more either do not want to pay a premium or simply cannot as their budget is limited, preventing them from changing their behaviours. The government needs to legislate to remove such barriers and then individuals will be more prepared, and more able, to support green economic initiatives.



Left to right: Sean Gilbert, Liu Jingwei, Xu Yugao and Rachel Jackson

# Related reading



During 2012 ACCA conducted a series of events addressing sustainability issues relevant to the business community in Asia. The following reports of these events are available online.

- ☞ Is corporate China ready for the green economy?
- ☞ Is corporate Indonesia ready for the green economy?
- ☞ Is corporate Singapore ready for the green economy?
- ☞ Is corporate Hong Kong ready for the green economy?

[www.accaglobal.com/sustainabilitypublications](http://www.accaglobal.com/sustainabilitypublications)

# ACCA technical publications

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In the context of increasing environmental regulation and the need for businesses to identify and manage a more diverse range of risks, the goal of the ACCA Global Forum for Sustainability is to articulate and communicate the relevance of sustainability issues for the business community and the accountancy profession. The Forum monitors international trends and developments in sustainability and leads ACCA's contribution to policy development in this area.

[www.accaglobal.com/globalforums](http://www.accaglobal.com/globalforums)

# About ACCA

ACCA (the Association of Chartered Certified Accountants) is the global body for professional accountants. We aim to offer business-relevant, first-choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. We believe that accountants bring value to economies in all stages of development. We aim to develop capacity in the profession and encourage the adoption of consistent global standards. Our values are aligned to the needs of employers in all sectors and we ensure that, through our qualifications, we prepare accountants for business. We work to open up the profession to people of all backgrounds and remove artificial barriers to entry, ensuring that our qualifications and their delivery meet the diverse needs of trainee professionals and their employers.

We support our 154,000 members and 432,000 students in 170 countries, helping them to develop successful careers in accounting and business, with the skills needed by employers. We work through a network of over 80 offices and centres and more than 8,400 Approved Employers worldwide, who provide high standards of employee learning and development.

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