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Is corporate Asia ready for the green economy?

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There is growing consensus that solutions to the many environmental and social problems facing humankind today depend on reshaping the global economy. The term 'green economy' gained momentum over the past year, and describes an economy that results in improved human well-being and social equity, while reducing environmental risks and ecological scarcity.

This report explores the concept of a 'green economy', and its relevance in Asia, as well as exploring the roles that policymakers, investors, corporates and accountants need to play to facilitate the transition to a green economy.

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Executive summary

This report explores the impact on corporate Asia of growing arguments for green economic governance. It describes the concept of a 'green economy', and its relevance in Asia, as well as exploring the roles that policymakers, investors, corporates and accountants need to play to facilitate the transition to a green economy.

The report has been produced following a series of events that took place in April and June 2012 in four cities across Asia (Singapore, Jakarta, Hong Kong and Beijing). The events addressed the potential for and implications of a shift to a green economy in each of the countries where they were held and brought together experts from the NGO, investment, corporate and accountancy communities. They were held in partnership with the international NGO, WWF.

Asia is at the forefront of many of the global sustainability issues that are affecting the world today. In recognition of this fact, a number of governments across the region have developed policies, regulations and budgets intended to address matters such as climate change and water scarcity. For example, the Chinese government has set ambitious targets for reduction of the carbon and water intensity of its economic activity, while the South Korean government has spent US\$37bn on environmental and low-carbon projects since 2008, representing 81% of its post-financial-crisis economic stimulus package.

The creation of laws and policies that promote sustainability is arguably the greatest driver of responsible investment in Asia at present. Although the responsible investment industry is not as established in Asia as in other parts of the world, the past decade has seen significant growth. In 2000, there were only 30 such funds available in the Asian Market, a figure that has risen to 410 in 2012.

Investors have an important role to play in the shift to a green economy in Asia. Asset owners and fund managers make capital allocation decisions and are key stakeholders in the companies they hold, therefore they are well placed to influence the companies to act in a more sustainable manner.

The business case for sustainability is gaining momentum in Asia and, as a result, leading companies are integrating sustainability into their corporate culture and decision-making processes. The benefits that such companies experience include more resilient supply chains; a lower dependency on natural resources leading to lower input costs; and increased sales, as customers both within Asia and from around the world are now considering sustainability in their purchase decisions. Increased government and investor focus on sustainability is creating new markets and the region has seen a large number of green entrepreneurs establish successful businesses, particularly in the clean energy space.

Accountants have an important role to play in the shift to the green economy in Asia. They will need to develop knowledge and experience in a number of areas that have previously been overlooked by the corporate sector. The core skills and experience of accountants will be valuable to companies seeking to measure and report their environmental and social impacts. In line with companies across the world, Asian businesses will increasingly have to produce sustainability and CSR reports. Accountants are key stakeholders in the process because they are closely involved in corporate reporting, either as report preparers or the providers of assurance.

1. Introduction

On the one hand, the current economic system has been successful: the past 25 years have seen the world economy quadruple, benefiting hundreds of millions of people. This growth, however, has come at a cost. It has led to an unsustainable use of resources, large income inequalities at both the international and national levels, environmental degradation and a greater level of risk – be that risk of financial uncertainty, food insecurity or water scarcity, to name a few (UNEP 2011).

The concept of a green economy necessitates a new economic model – one that simultaneously reduces both inequality and humankind’s impact on the natural world.

This chapter looks at:

- a definition of a green economy
- the green economy in Asia, and
- an overview of this report.

DEFINITION OF A GREEN ECONOMY

In light of the crises in climate, biodiversity, fuel, food, water and the financial system, it is clear that a new economic system needs to be developed to avoid large-scale disaster – an economic system that will help alleviate the numerous risks posed by the crises noted above, as well as providing a number of opportunities for growth and prosperity. The broad term for such a system is a ‘green economy’.

The United Nations Environment Programme (UNEP) has come up with the following definition of a green economy.

‘An economy that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive’. (UNEP 2010)

The concept made up one of two key themes of the United Nations Conference on Sustainable Development, or Rio+20, which took place in June 2012. Like previous summits over the years, the conference brought together a broad range of stakeholders from around the world, including politicians, NGOs, businesses and the scientific community, with the aim of determining how to reduce poverty, advance social equity and enhance environmental protection.

The conference outcome document, The Future We Want (UNCSD 2012), was the result of months of negotiations culminating at the 2012 Earth Summit in Rio. Although the conference outcomes could have gone a lot further in promoting sustainable development, the event did bring the topic up the political agenda and highlighted the scale of the challenges facing the world today. The urgent challenge is to build the political will and support from stakeholders to implement change and take action on the most pressing sustainability challenges.

THE GREEN ECONOMY IN ASIA

Economic perspective

From an economic perspective, the region has gone through periods of significant boom and bust. For much of the late 20th century, many countries in Asia experienced high levels of growth. ‘Tiger’ economies such as Hong Kong, Singapore, Taiwan and South Korea maintained annual growth rates in excess of 7% during the period. The 1997 Asian financial crisis saw a halt to this growth, and raised fears of a worldwide crash due to financial contagion. Rapid growth then returned to the region, with economies such as China growing at annual rates in excess of 10%, but again the 2008 global financial crisis slowed growth in Asia, although it was not affected as badly as many European and North American countries (UNDP 2009).

Green economic governance is intended to reduce the systemic risks inherent in the current system, and could present a solution to the ‘boom and bust’ cycles that have been seen in Asia and around the world.

Environmental perspective

From an environmental perspective, Asia is highly exposed to many global issues, as well as having many country-specific problems to address. According to UN estimates, China is now the world’s largest emitter of greenhouse gases. The country accounts for 24% of global emissions (UNSD 2012). Indonesia is home to the world’s third-largest tropical rainforest, but deforestation and land use change mean that much forest has been lost to

logging and palm oil production. This results in the loss of a vital carbon sink, coupled with significant greenhouse gas emissions as the carbon locked up in the trees and underlying peat enters the atmosphere (Gilbert 2012). More lenient pollution controls and weaker governance and enforcement regimes in the region have meant that many polluting industries have moved in from elsewhere. According to a World Bank study, many of the world's most polluted cities are located in Asia – with 16 of the 20 world's worst areas for air pollution located in China alone (Pickrell 2012).

A transition to a green economy would result in a much greater focus on environmental protection and place higher value on the environment, thus halting the unsustainable trade-off between natural capital and economic capital, which is the root cause of many of the environmental problems facing us today.

Demographic perspective

From a demographic perspective, over 4.3bn people or 61% of the world's population lived in Asia in 2010, with this population rising by 1% a year (UNESCAP 2011). In addition, rising income levels are creating a growing middle class in countries such as Indonesia, China, Vietnam and the Philippines, which are now joining countries such as Japan, South Korea, Taiwan, Singapore and Hong Kong that already have significant middle-class populations (Pilling 2011). These two factors are driving consumption levels because, firstly, larger populations will consume more and secondly,

consumption habits change as people get richer. Rates of urbanisation are high across the region, with many people moving from the countryside into cities for a better quality of life.

The scale and pace of change is enormous in Asia. To manage this change in a manner that addresses existing large-scale environmental and social problems and forestalls others, green economic principles need to be followed.

REPORT OVERVIEW

The shift to a green economy cannot be achieved by any one party alone, and requires the collaborative efforts of a range of stakeholders. To achieve this, governments need to set policies and regulations that promote green growth; investors need to incorporate sustainability into their decision making and capital allocation decisions; companies need to develop products and services that minimise environmental impacts and address social problems in the territories where they operate; and civil society needs to engage with the topic and demand accountability from governments and corporations on environmental and social matters.

In recognition of the need for a multi-stakeholder approach, ACCA hosted a series of roundtables in four Asian cities to discuss the potential for, and implications of, a shift to a green economy. Events were held in Singapore, Jakarta, Hong Kong and Beijing and drew together representatives from NGOs, business organisations, corporations and the

accountancy profession. The events were held in partnership with the international NGO, WWF.

The report draws together key themes addressed at the roundtables, with examples from across the region. It is structured into sections about the roles of:

- policymakers
- investors
- corporates, and
- accountants.

Included throughout the report are the views of a number of experts, who have provided their perspectives on the key challenges and initiatives facing each stakeholder group.

2. The role of policymakers in the shift to a green economy

The policies and regulations made by government and the metrics used to measure progress are instrumental in determining the direction of an economy, as well as directing what corporates value. In the face of large-scale environmental and social problems, from the loss and degradation of productive assets such as fisheries to increasing levels of income inequality around the world, strong public policies are necessary.

Policymakers need to form partnerships that may not have been made in the past. Many of the issues facing countries today are truly global in nature, and therefore governments need to work together to address them. Such problems are highly complex and hence governments should seek input from the scientific and academic communities to formulate policy solutions that are effective.

This chapter looks at:

- the metrics and performance measures, beyond GDP, that governments can use to measure progress
- the tools and policy instruments that governments can apply to influence their economies, and
- a number of case studies from around Asia that demonstrate how governments are formulating policy to enable transition towards a green economy.

METRICS BEYOND GDP

Many of the causes of environmental and social problems can be traced back to economics. In a world where the dominant economic paradigm revolves around the free-market economy, much faith is placed on the market's ability to allocate capital efficiently. As mainstream economists rarely take into account much of the value of natural capital and its links to human well-being, these factors that are so important to the function of society are being degraded over time.

The majority of countries in the world use GDP growth as a means of monitoring the progress and success of their economies. This is a narrow measure concerned only with economic output and has been traditionally applied under the assumption that economic capital can be exchanged for natural capital with no loss of well-being. Such an assumption could be reasonable if human impact on the natural environment were small but, owing to the scale of humankind's impact on the earth's natural systems, this assumption is no longer valid.

GDP also 'positively' measures all forms of economic activity, including those that are in response to negative or unsustainable occurrences, such as redevelopment following climate-change-induced storm damage, or health care provided to address air-pollution-related illnesses.

On a finite planet, it is not realistic to assume that the material throughput of economies can continue growing in

perpetuity, so governments need to develop new metrics for progress that measure more than just economic activity (Green Economy Coalition 2012). New measurements need to take into account human well-being and environmental health, thus providing a more holistic view of how a country is performing (WAVES 2012). The metrics that a government uses to measure progress would also need to be applied at the corporate level, so a similar reformation of corporate accountability standards would also be necessary.

POLICY INSTRUMENTS FOR A GREEN ECONOMY

Governments have a range of policy options that can be used to influence the direction of the economies they are responsible for governing. These generally fall into two categories – command and control measures (CACs) or market-based economic instruments (EIs).

CACs involve setting strict regulations, while EIs include tools such as taxes and permit-trading schemes. Each option can be a valuable tool of social and economic policy in relation to the creation of a green economy, and can be designed in a number of ways that influence both corporate and individual behaviour.

For example, tax policy initiatives can focus on incentives (such as reliefs, credits and market-pricing mechanisms) that reward environmentally or socially beneficial behaviour, or on disincentives (such as higher tax burdens for polluting activities and indirect taxes such as

levies generated from non-renewable energy generation) (ACCA 2012).

The way that a government spends its money, through either public procurement or subsidies, can also be used to influence the direction of an economy. In the majority of countries around the world, governments are responsible for planning large-scale infrastructure projects, which typically involve planning over the long term.

Factoring green economic principles into such decisions is a key means by which governments can drive the transition to a more sustainable economy. For example, governments could make a shift from fossil-fuel-based energy generation to renewables when developing national energy plans and should consider the impacts of alternative investment options on natural capital and human well-being.

EXPERT VIEW

Accounting for natural capital in China and Indonesia

Emily McKenzie, manager – Natural Capital Project, WWF

Governments in China and Indonesia are establishing innovative policies to account for the benefits that nature provides to people, supporting economic prosperity, social cohesion, security and human well-being. An ambitious new policy in China designates 24% of the country's land area as new reserves, called Ecosystem Function Conservation Areas (EFCAs). EFCAs are designed to secure biodiversity, soils and water resources, and to mitigate floods and prevent sandstorms. The EFCAs also have a major social goal of alleviating poverty, particularly in the rural areas of China. In Sumatra and Kalimantan in Indonesia, district and provincial governments are accounting for the value of ecosystems as they develop spatial plans that guide development and conservation. The Province of Jambi has explicitly considered natural capital in the Strategic Environmental Assessment for its latest spatial plan. Local governments have identified appropriate sites for forest carbon projects, water funds and sustainable management of plantations. These provide alternative income to counterbalance the practice of converting natural forests to harvest high-yield products, such as palm oil.

GOVERNMENT CASE STUDIES

There are a number of governments across Asia implementing policies to address environmental degradation and social problems in their respective countries. This section presents examples from across the region.

China's 12th Five-Year Plan (FYP)

China has seen enormous economic growth over the past 40 years, which has lifted millions of people out of poverty across the country. This economic growth has come at the expense of the country's environment, and levels of pollution in many places in China are extremely high. In recognition of this, the Chinese government wants to shift its development model away from one that is reliant on low-quality industry to one that is cleaner and focused on more scientific development.

The government has a five-year planning cycle, and in its most recent FYP (2010–15), there are a number of targets intended to address environmental problems. Targets include reducing the energy intensity of economic activity by 16%, reducing carbon intensity by 17% and reducing water intensity by 30% (CBI China Direct 2011).

In addition to the environmental targets, the current FYP aims to create a large number of green jobs. Particular sectors targeted include the renewable energy sector, where jobs are being

generated in wind power generation and turbine manufacture.

Such an approach is effective in China, because many of its largest companies are state-owned enterprises (SOEs), and the government has significant control over the activities of such firms.

Green stimulus as a means to foster green growth

Following the 2008 global financial crisis, many countries around the world have been implementing fiscal stimulus programmes to assist their economies to recover from the shock. South Korea is no exception, spending \$37bn on its recovery package. Where the South Korean response differs from most is that 81% of this money has been pledged for environmental and low-carbon projects (Watts 2009).

The package is intended to assist the country in meeting the government's ambitious targets of a 30% reduction in carbon emissions by 2020, and the creation of more than 940,000 green jobs. The country has formed a partnership with the United Nations Environment Programme (UNEP), which will be supporting the country's strategy towards a sustainable economic future (UNEP 2009).

This example shows how governments can spend money and allocate capital in a way that green growth initiatives become a driver of sustainable economic growth, which is fundamental when making the transition to a green economy.

Legal measures to halt deforestation

In 2011, the Indonesian government passed a law that banned the conversion of peatland and primary forest for two years. The initiative, which is funded by the Norwegian government, aims to protect 64m hectares of trees from logging in a bid to reduce carbon emissions and to protect the high levels of biodiversity and ecosystem services that are generated by the forest (Kotarumalos 2011).

A year into the project, it is clear that the moratorium has not succeeded in meeting its objective. Satellite images of the protected area have shown that areas of forest that should be protected have been subject to logging activities (Gilbert 2012).

This example demonstrates that it takes more than just legislation to halt deforestation, and that legal measures will work only if sufficient efforts are put into their implementation and enforcement.

3. The role of investors in the shift to a green economy

The OECD has estimated that institutional investors around the world held a total of \$65 trillion of long-term savings in 2009 (OECD 2011). These investors include pension funds, insurance companies and mutual funds.

At the same time, there has been a significant increase in the application of socially responsible investment (SRI) strategies by such institutional investors, with over 1,000 investors representing \$32 trillion signing up to the United Nations Principles for Responsible Investment (UNPRI) since its launch in 2006 (UNPRI 2012). The UNPRI is a network of international investors who believe that environmental, social and corporate governance issues can affect the performance of investment portfolios, and therefore must be considered by investors if they are to fulfil their fiduciary duties (UNPRI 2012).

In the Asian context, the relative size of SRI funds is much smaller than in the rest of the world, although this is changing, owing mostly to the policies of the largest economies in the region.

This chapter looks at:

- the case for responsible investment
- the drivers of responsible investment in Asia, and
- a number of investor case studies from around Asia that demonstrate how sustainability is being factored into investment decisions.

THE CASE FOR RESPONSIBLE INVESTMENT

A recent study commissioned by the United Nations Environmental Programme Finance Initiative (UNEP FI) estimated that the annual environmental costs from human activity amounted to \$6.6 trillion, putting almost 50% of global corporate earnings at risk (Trucost 2010).

Institutional investors, who often have highly diversified and long-term portfolios, are exposed to the risks associated with this damage. A company that pollutes to minimise operational costs may increase its profits, but this pollution will result in higher costs elsewhere in the market or reduce its long-term success if negatively affected by pollution incidents, damages and fines, forced shutdown and/or changing regulations. If investors are well diversified, their portfolio is damaged by this behaviour.

As a result, such investors have an interest in minimising the financial risks associated with environmental damage, and should manage their investments accordingly.

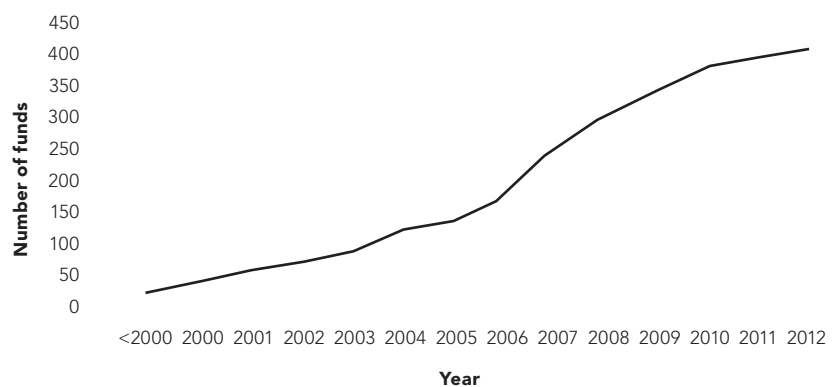
THE DRIVERS OF RESPONSIBLE INVESTMENT IN ASIA

Arguably the most important driver of responsible investment in Asia is government legislation and policy. A number of governments across Asia have set ambitious environmental targets, including South Korea – which has committed to carbon emissions reductions of 30% by 2020 (Norton Rose 2011), or China – which launched a ‘green’ stimulus package in 2009 that promotes alternative energies as a means of fostering economic growth (Qi 2009) as well as including a number of environmental targets in its latest five-year plan.

Stock exchanges across Asia act to promote responsible investment through the implementation of environment, social and governance (ESG) disclosure requirements. Examples include the Shenzhen and Shanghai Stock Exchanges (WFE 2009), which have both issued guidance on ESG disclosure, and Indonesian legislation that requires companies operating in the resource sector to disclose their ESG activities (EIRIS 2011). Other recent examples include the Hong Kong Stock Exchange (2011), which is producing guidelines on ESG reporting.

All these drivers have resulted in the availability of an increased number of SRI funds in the Asian market, as demonstrated by Figure 3.1.

Figure 3.1: The number of SRI funds available in the Asian market



Source: ASrIA 2011

EXPERT VIEW

Responsible investment in Asia

David Doré, research manager, ASrIA

The momentum for Asia's shareholder community to use environmental, social and governance (ESG) criteria in its investment selection and monitoring is accelerating. The Hong Kong Stock Exchange, after approval by the Securities and Futures Commission, released its final conclusions on its ESG Reporting Guide, signalling an expectation for issuers to comply or explain their ESG reporting disclosures beginning in 2015. The guide will be voluntary beginning in 2013. Nine institutional investors representing over US\$2.2 trillion assets under management responded to the consultation. Investors are keen to analyse more ESG information from Hong Kong issuers, and their interest in Hong Kong is emblematic of a wider trend across Asia's listed equity markets of the regulatory and markets forces shaping the region's sustainable and responsible investment industry.

The positive momentum, however, is tempered by the fact that all nine of the institutional investors have headquarters outside Asia. No large pension providers from Hong Kong, for example, publicly participated in the consultation process. Granted, the bulk of the investment and monitoring process takes place out of public view, and there is a steady stream of anecdotal evidence that Asia's sovereign wealth funds, government and corporate pension providers, family offices and foundations are moving beyond considering ESG investing towards active practice. But the pressure placed on investment managers to embrace SRI practices by the region's asset owners is not nearly as assertive as that of their counterparts in Europe and Australia. Asia's SRI industry also encompasses fixed-income and alternative asset classes. For example, New Forest Asset Management's portfolio consists of some 400,000 hectares of sustainable forestland in Australia, the US and Asia, while Colonial First State Infrastructure is notable for its well-defined corporate engagement guidelines for direct investments in the asset class.

In conclusion, Asia's dynamic sustainable and responsible investment industry is growing. It now has a much stronger ecosystem of ESG data and research providers and an increasingly advanced investment management capacity to integrate ESG criteria across asset classes. With global business and investing moving toward a more sustainable model, institutional investors need to position themselves for a future that may look dramatically different from the past.

INVESTOR CASE STUDIES

While the level of responsible investment is lower in Asia than it is in the rest of the world, the region has emerged as a key centre of demand for environmental goods and services, which is creating many investment opportunities (ASrIA 2011). This section of the chapter presents a number of investor case studies from across Asia.

Sustainability as a business opportunity

One of the key services offered by Credit Suisse to help its clients to address sustainability issues is environmental due diligence – both for client organisations and their supply chains. When looking to recommend investment prospects in Asia, the bank seeks substantial demonstrations of corporate commitment to addressing ESG risks, rather than weak management. If a business in Europe invests upstream in its supply chain in Indonesia, and the activities in the country are shown to be unsustainable, this can have significant negative consequences on its domestic operations.

For Credit Suisse, sustainability is not purely about risk management, but also represents a real business opportunity. The bank's well-established sustainability advisory service helps its clients to develop their own corporate responsibility policies, and represents a key source of growth in the Asia-Pacific region.

Cleantech investment in Asia

As governments across Asia adopt initiatives and stimulus packages that promote energy efficiency and renewable energy, the level of investment in 'cleantech' companies has been increasing. This has led to a surge in start-ups and green entrepreneurs who are capitalising on this trend, as well as a number of high-profile listings.

A good example is the Chinese solar panel manufacturer, Suntech. The company was founded in 2001 by the solar scientist, Zhengrong Shi, and listed on the New York Stock Exchange in 2006. Upon listing, Shi had a net worth over \$1.4bn, making him a cleantech billionaire from the outset (Clark 2011). The company has operations around the world, and has been involved in high-profile projects, providing solar modules for the Beijing National Stadium, home of the 2008 Olympic games, and for the Masdar Solar Plant in Abu Dhabi, UAE.

Like many sectors across the world, the cleantech industry has been adversely affected by the 2008 financial crisis (Harrison 2010), but considering the policy initiatives and economic plans of governments in the region, long-term growth is expected. This is bolstered by the focus that international funds, such as the World Bank and Asian Development Bank, are placing on the sector in their lending policies.

Impact investment as a means of addressing social inequality

To address the inequality that persists across the region, the promotion of 'social enterprises' may be the best way to bring social issues into mainstream economic activity.

Social enterprises are mission-orientated, for-profit organisations that have a core focus on addressing issues such as poverty elimination, gender equality and sustainable development. As they have green economic principles at the heart of their operations, such organisations have a real potential for changing current economic models and helping to shift economies onto a more sustainable track.

One problem faced by many social enterprises across Asia is access to finance. This is not due to a lack of demand from investors, as the impact investment market has the potential to absorb between \$400bn and \$1tr over the next decade (J.P. Morgan 2011). Impact investment seeks to generate measurable social and environmental benefits alongside a financial return. It is clear that there is a large supply of untapped capital for such organisations.

An example of how to address this challenge can be seen with the Singapore-based Impact Investment Exchange, which has been established to provide social enterprises with better access to finance. The organisation is in the process of developing a social stock exchange that will connect social enterprises to impact investors, thus allowing much-needed capital to flow to social entrepreneurs, so that they can create sustainable businesses while generating returns for impact investors (Asian Development Bank 2011).

4. The role of corporates in the shift to a green economy

Leading companies are integrating sustainability into their corporate culture and decision-making processes, and are doing so through a desire to contribute towards a sustainable world that stems from an awareness of the environmental and social risks associated with not doing so.

This chapter looks at:

- the sustainability challenges facing corporates
- the growing business case for addressing a company's environmental and social impacts, and
- a number of corporate case studies from around Asia that demonstrate how companies are addressing sustainability.

CHALLENGES TO BUSINESS

Traditional business models have been developed under the assumption that we live in a world of unlimited resources and an unlimited capacity to assimilate pollution and waste. The concept of planetary boundaries – the limits within which humanity can safely operate (Rockström et al., 2009) – is gaining momentum, and it is becoming increasingly clear that for companies to continue growing, they need to decouple growth and resource use.

The challenges facing companies have been demonstrated well by the World Business Council for Sustainable Development's Vision 2050 project, which brought together 29 leading global companies from across 14 industries and sought to develop a vision of a world on track towards sustainability by 2050 (WBCSD 2010). Some of the key challenges identified include:

- incorporating the cost of externalities into corporate decisions, including impacts on climate, biodiversity and ecosystem services, water and oceans, to name a few
- improving resource efficiency to meet the needs of a growing population in the face of ever-increasing resource scarcity, and
- reducing greenhouse gas emissions by 50% (compared with 2005 levels) through a shift to low-carbon energy systems and significant energy-efficiency programmes.

THE BUSINESS CASE FOR A GREEN ECONOMY

The scale of the challenges facing companies is enormous, but this operating landscape does present much opportunity for growth. A recent study by the Harvard Business School has shown that a sample of companies that had adopted environmental and social policies by 1993 had, by 2011, outperformed a similar sample of companies that had not adopted such policies (Eccles et al. 2011). This suggests that incorporating sustainability into corporate culture and decisions presents businesses with a number of benefits, which ultimately create new opportunities for growth.

UNEP has identified a number of green economic benefits to business, which include (UNEP 2011):

- more resilient supply chains
- new investment opportunities
- sales growth, through increased consumer demand for sustainable goods and services, and
- reduced dependency on natural resources.

EXPERT VIEW

Key sustainability challenges facing Asian companies

Holly Lindsay, country director, CSR Asia

Of the range of sustainability challenges for business, which ones present the most risk for Asian companies? In 2012, CSR Asia asked 75 corporate social responsibility experts across the Asia Pacific region what sustainability issues will be the most important ones in the next decade. The top five issues were: human rights, supply chains, climate change, corporate governance, disclosure and reporting, and water.

Human rights and supply chain issues featured at the top of the list in 2012, possibly as a result of the Foxconn labour issues in China and a growing realisation of the potential for international scrutiny of labour-related issues. Climate change came third on the list as companies are increasingly concerned about the increased pace of climate change and the failure of global policies to address the issue. Interestingly, corporate governance, disclosure and reporting came fourth on the list. This is the case as there is an increasing realisation that good corporate governance translates into better-run businesses in the region. Also, more companies are recognising that disclosure and reporting are a core part of this. Finally, water featured in the top five sustainability challenges because access to water and the reliability of supply are concerns for an increasing number of businesses.

As more Asian countries achieve higher GDP per capita over the next decade, companies in the region are witnessing increasing interest in CSR from middle-class consumers. Over time, a growing number of Asian consumers, including those in China and India, are expected to choose products made by more socially responsible companies, provided that they are priced similarly to competitor products. With this pressure from consumers, regulatory authorities and a number of leading companies in Asia have already incorporated CSR into their core business strategies and this trend is expected to continue.

CORPORATE CASE STUDIES

Many businesses across Asia are adapting their business models to address the issues noted above, and to take advantage of the opportunities presented by the transition to a green economy. This section of the chapter presents examples of leading companies from across the region.

New technologies as a source of green growth

China National Offshore Oil Corporation Energy Technology & Services (CNOOC EnerTech) is one of the largest independent oil and gas exploration and production companies in the world. Operating in the energy sector, the company has to prepare for the change to a green economy as a means of building its reputation, as well as cutting excess emissions and reducing energy consumption with a view to reducing cost.

In terms of energy conservation, CNOOC EnerTech has developed new and more sustainable 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 been undertaken and show that the payback period of such projects is around six years. The initiative's value-added benefits include reduction of energy emissions, and the project therefore provides both economic and environmental benefits.

The company is active in the renewables sector, having entered the wind generation market in 2006. The company owns 400,000 kilowatts of wind power capacity, with the company's Dongfang Sigeng and Changma wind power projects qualifying for the United Nations Clean Development Mechanism (CNOOC 2009). An additional business area is biofuel: CNOOC EnerTech now operates one of the largest biodiesel plants in the world (in Germany), and another highly innovative biodiesel plant in Hainan, China.

Education as a means of reducing environmental impacts

City Developments Limited (CDL) is a Singapore-based property developer, and one of the country's largest landlords. The company operates in a high-environmental-impact industry, as the construction industry is a major energy user and carbon emitter at the global level. As a result, CDL aims to challenge the traditional view of property developers as polluters, while also benefiting from the opportunities for market differentiation that are offered by taking a green approach.

CDL is aware that many of the environmental impacts associated with its buildings relate to the behaviours of tenants, and has therefore been collaborating with the Singapore Environment Council (SEC) since 2002 on the Eco-Office project (Singapore Environmental Council 2012). The project targets office workers in Singapore to educate them about eco-friendly practices in the workplace. Workers are taught about energy

efficiency, water use and waste reduction, the benefits of recycling and sustainable ways to commute to work. The scheme operates a Green Office Label Certification scheme and so far 110 offices have received certification.

CDL considers the minimisation of environmental impacts when designing new buildings. For example, when the company designed the City Square Mall, 5% of its construction costs were dedicated to green measures, which have saved around \$4m over the last five years. The building's environmental credentials mean that the development is considered Singapore's first 'eco mall'.

Private sector solutions to forest conservation

PT Rimba Makmur Utama is a private company based in Indonesia that aims to manage 200,000 hectares of lowland peat forest in Central Kalimantan, the Indonesian part of Borneo (Pasquali 2009). The company wants take advantage of government concessions that would provide it with rights over the land for a period of 60 years, on the condition that the trees growing on the land are not felled.

The company aims to generate revenues from the land through the sale of sustainable rattan (for the production of furniture) and from the extraction of rubber from the trees. The project could also generate carbon credits, which could be sold to other emitters who want to offset their carbon emissions.

The environmental benefits of such a project extend beyond the carbon that is sequestered by peat forests, and the carbon emissions that are mitigated through the avoidance of land use change (Indonesia's most significant source of carbon emissions). The area is situated in one of the regions of richest biodiversity, and the forest supports a number of very important ecosystem services (such as the provision of good-quality water), so preserving the trees helps maintain high levels of biodiversity in the region and ensures that key ecosystem services still remain.

The forest supports a number of local communities, who depend on the forest for their livelihoods and for the preservation of their culture.

By undertaking this work, the company is demonstrating how private companies can operate to preserve the environment and benefit local communities, without having to make an unsustainable trade-off between natural and economic capital.

5. The role of accountants in the shift to a green economy

As the business case for sustainability grows, pressure to adopt sustainable business practices is also increasing. This pressure is coming from external sources – consumer demand, government regulations and civil society – as well as from internal sources, such as a company’s employees, investors or management. The growth of green economic awareness means that the concept of ‘business as usual’ no longer exists. This is materialising in the concerns of company directors across Asia, which include increasing energy costs, supply chain shocks and changing consumer demands, as highlighted in PwC’s 2012 CEO survey (Pricewaterhouse Coopers 2012).

A shift to a green economy will require businesses to consider topics that have previously been overlooked by the corporate sector. The accountancy profession has an important role in assisting the corporate sector to make this shift, and the core skills and experience of accountants will be valuable in ensuring that it is managed in a transparent and accountable way.

This chapter looks at:

- the skills that accountants can offer in the shift to a green economy
- the changing role of accountants in supporting businesses to address their impacts on the environment and society, and
- new forms of corporate reporting.

SKILLS FOR A GREEN ECONOMY

The shift to a green economy requires significant change in a number of areas, including the metrics used to measure the progress of economies, the direction and management of financial flows and the greening of economic sectors. Accountants have a number of core skills and areas of expertise that can contribute to this shift.

Traditional measures of national progress and standards of living tend to be narrow in focus: for example, GDP measures only the market value of a country’s final goods and services produced within a given period. Such measures have come under criticism, as they do not consider factors such as the state of a country’s environment or the well-being of its people. This is particularly relevant in the Asian context, as the growth of countries such as Indonesia is largely resource led and high GDP growth can mask significant levels of environmental degradation.

Green economic governance will require the development of new metrics that consider aspects such as natural capital or national well-being; designing systems to collect the relevant data will require the skills and experience of accountants.

Green growth requires significant financial investment, from both the public and private sectors. To facilitate such investment, governments may choose to apply policy instruments such as emission trading schemes or

environmental taxes. These kinds of instrument have a major impact on corporate and consumer behaviour, and their effectiveness is critically dependent on their design.

Accountants have traditionally been involved in the design of such instruments, and therefore have an important role to play.

Much of the debate around sustainability concerns the greening of economic sectors, and consequently the companies that operate within those sectors. As companies can manage only what they measure, this requires the collection of reliable information on a company’s environmental and social impacts. Accountants have significant experience in the design, operation and audit of data management systems, so they therefore have a lot to offer here.

THE ROLE OF ACCOUNTANTS IN SUPPORTING BUSINESSES

The accountant in today's business world faces many challenges and has a job that now extends beyond traditional financial analysis. A CFO not only acts as a steward for the business but also a catalyst, strategist and operator. The CFO is not only concerned with efficiency but is also an agent for change, providing a financial perspective for decision making. The accountant's various roles have to be performed simultaneously. As a result, accountants and CFOs need to understand the complex range of issues facing companies in today's world.

To assist companies to address this complex range of issues, many of the leading accountancy firms have developed new lines of service for addressing sustainability and climate change issues. For example, the Big Four firms have built large teams that provide assurance over non-financial reports (such as sustainability or CSR reports) and advisory services on how companies can manage their environmental and social impacts. Accountancy firms had a strong presence at the United Nations Conference on Sustainable Development held in Rio in June 2012, and have been heavily involved in some of the leading corporate sustainability initiatives, such as PUMA's Environmental Profit & Loss (PUMA 2011).

The services that are offered by such firms are increasingly being taken up by companies across Asia, although the level is not as high as in more established markets such as the UK. This may reflect the fact that the market is still in development and that corporate reporting on sustainability is still relatively low. As the demand for sustainability services is lower in Asia than in other parts of the world, firms tend not to have developed significant resources dedicated to the provision of such services, but this should not act as a barrier. Accountants and auditors can assist companies to develop green economic strategies through, for example, multi-site measurement of carbon emissions or the analysis of supply chain performance.

NEW FORMS OF CORPORATE REPORTING

Accountants are often closely involved in corporate reporting, either as report preparers or as the providers of assurance. Their role has traditionally focused on financial performance but, owing to stakeholder demand, companies increasingly need to disclose their environmental and social policies and performance as well. This is demonstrated by the fact that around 1,500 CSR reports were issued in China during 2010, an increase from just two in 2002 (Schrader et al. 2011).

The concept of materiality presents a key challenge to accountants who are required to report on a company's environmental and social impacts. Where traditional financial materiality has a fairly narrow definition – one concerned principally with the needs of shareholders, investors and other lenders – sustainability reporting has a much broader definition, as it considers a wider range of stakeholders, such as a company's employees, customers, suppliers, the government, local communities and the wider civil society.

Following the emergence of sustainability and CSR reporting, integrated reporting has been developed in recent years. Integrated reporting aims to demonstrate clearly the linkages between an organisation's strategy, governance and financial performance and the social,

environmental and economic context within which it operates. The intention is also to change the focus of reporting away from the presentation of pure historical data to the provision of insights into an organisation's current and future performance.

EXPERT VIEW

Reflections on the green economy in Asia

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Making a rapid transition, or even a gradual evolution, from current methods of economic management to ones that support a green economy represents a major challenge in any region but presents particular difficulties for Asia.

For instance, a feature of Asia's recent economic progress has been the relatively inefficient use of resources, meaning that making improvements in this area to support a green economy may be harder to do here than elsewhere. Furthermore, Asia lacks the pan-continental institutions and modes of cooperation, such as exemplified by the European Union, that could impose the continent-wide regulations that would contribute to promoting a green economy.

These issues place even greater pressure on individual organisations in Asia to adopt green economic models. Much of this pressure on Asian businesses can fall on their accountants, especially in the early stages in the development of their sustainability programmes. This is because accountants occupy a central position at the heart of any company and are being required by boards to take on increasingly business-focused roles.

Accountants have to adapt to these requirements. For instance, they need to use their risk-management experience to bring the board's attention to the strategic imperative of implementing green economic measures and the related opportunities, such as cost reduction and branding advantages, as well as the risks of ignoring it. Accountants need to expand their traditional financial reporting skills to measure value and report on new aspects of performance, such as resource use and carbon emissions. They need communication skills to collaborate with a wider range of business functions and to encourage them to develop processes for the reporting of sustainability-related data and to establish sustainability-based targets.

While the need to adapt to a green economic model may present accountants with many challenges, it also provides them with opportunities to develop new skills and to contribute to their organisations in new ways.

6. Conclusion

It is clear that the development path that has shaped the way in which the world economy functions today has led to a number of economic, environmental and social problems that, if left unsolved, will have widespread negative consequences. The 2008 financial crisis has shown how brittle the financial system can be, and how globalisation resulted in contagion across the world. Climate change has altered weather patterns, resulting in an increased frequency of extreme weather events. Inequality is a persistent problem, one which means that we live in a world where 1bn people go hungry, while another 1bn are obese. The concept of a green economy has been developed as an alternative to the current economic model – one that can improve human well-being and social equity while reducing environmental risks and ecological scarcities.

Asia is a region that is changing very rapidly and, if this change is not managed carefully, the problems noted above will be accelerated and compounded. At the same time, this change represents a significant opportunity to put green economic principles into practice and ensure that Asian economies develop in a sustainable manner.

This report has sought to demonstrate that the shift to a green economy cannot be achieved by any one party alone, but requires actors from all areas of society to work in a collaborative manner. It has shown how some governments in the region are developing policies and laws that protect the environment and create new 'green' jobs; how some investors are developing new services and even asset classes intended to manage environmental risks and promote social development; and how some companies are changing their operations both to reduce their environmental footprints and to save money. It has also highlighted the role that accountants can play in the shift to a green economy and the range of issues that accountants need to be aware of if they are to achieve this.

While there are some leading examples in Asia, the next few years will be critical for the acceleration of the shift to a green economy. The scale of the challenge is enormous and will require a change in the way progress and value are defined. A critical issue is how to ensure that the policies and statements made by both governments and corporates translate into actions. This is not only important for those living in the region, but for people all over the world.

References

- ACCA (Association of Chartered Certified Accountants) (2012), *Carbon Taxation and Corporate Behaviour* (London).
- Asian Development Bank (2011), *Impact Investors in Asia: Characteristics and Preferences for Investing in Social Enterprises in Asia and the Pacific* (Mandaluyong City).
- ASrIA (Association for Sustainable & Responsible Investment in Asia) (2011), *Asian Environmental Markets Report* (Hong Kong).
- CBI China Direct (2011), 'China's Twelfth Five Year Plan (2011–2015) – The Full English Version' [online article] (May) <http://cbi.typepad.com/china_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html>, accessed 17 September 2012.
- Clark, P. (2011), 'Pinstripe Greens', *Financial Times* <<http://www.ft.com/cms/s/2/2d12cf38-05b7-11e1-a429-00144feabdc0.html#axzz271zFlxgF>>, accessed 12 September 2012.
- CNOOC (China National Offshore Oil Company) (2009), *Alternative Energy* <http://en.cnooc.com.cn/data/html/english/channel_137.html>, accessed 19 September 2012.
- Eccles, R. et al. (2011), *The Impact of a Corporate Culture of Sustainability on Corporate Behaviour and Performance* (Boston).
- IRIS (2011), *State of Responsible Business – Asia* (London).
- Gilbert, N. (2012), 'Indonesian Deforestation Ban Makes Slow Progress', *Nature* (May) <<http://www.nature.com/news/indonesian-deforestation-ban-makes-slow-progress-1.10762>>, accessed 28 September 2012.
- Green Economy Coalition (2012), *The Green Economy Pocketbook – The Case for Action* (London).
- Harrison, S. (2010), 'Cleantech Investment In Asia', *Financier Worldwide* (online journal) (February) <<http://www.financierworldwide.com/article.php?id=5920&page=1>>, accessed 26 September 2012.
- Hong Kong Stock Exchange, (2011), 'HKEx Publishes Consultation Paper on Environmental, Social and Governance Reporting Guide' (online text) (December) <<http://www.hkex.com.hk/eng/newsconsul/hkexnews/2011/111209news.htm>>, accessed 18 September 2012.
- J.P. Morgan, (2011), *Impact Investments* (London).
- Kotarumalos, A. (2011), 'Indonesia Imposes Cutting Ban for 2 Years', *Bloomberg Businessweek* (May) <<http://www.businessweek.com/ap/financialnews/D9NB77400.htm>>, accessed 15 September 2012.
- Norton Rose (2011), *Asia Pacific Climate Change Policy Series: Republic of Korea* (Sydney).
- OECD (Organisation for Economic Co-operation and Development) (2011), *Fostering Long-term Investment and Economic Growth – Summary of a High-Level OECD Financial Roundtable* (Paris).
- Pasquali, V. (2009), 'Indonesia's Climate Push', *All Voices* (online journal) <<http://www.allvoices.com/contributed-news/4761030-indonesias-climate-change-push>>, accessed 25 September 2012.
- Pickrell, J. (2012), 'Ten of the Most Polluted Places on the Planet', *ABC Environment* (online journal) (July) <<http://www.abc.net.au/environment/articles/2012/07/23/3549975.htm>>, accessed 26 September 2012.
- Pilling, D. (2011). 'Asia: The Rise of the Middle Classes'. *Financial Times* (4 January) <<http://www.ft.com/cms/s/0/5841236e-183a-11e0-88c9-00144feab49a.html#axzz271zFlxgF>>, accessed 14 September 2012.
- Pricewaterhouse Coopers (2012), *15th Annual Global CEO Survey* (London).
- PUMA (2011), 'PUMA Completes First Environmental Profit and Loss Account Which Values Impacts at €145 Million', <<http://about.puma.com/puma-completes-first-environmental-profit-and-loss-account-which-values-impacts-at-e-145-million/>>, accessed 21 September 2012.
- Qi, Z. (2009), '\$30bn Set Aside for Green Stimulus to Double Alternative Fuel Use'. *China Daily* (25 May) <http://www.chinadaily.com.cn/business/2009-05/25/content_7937667.htm>, accessed 19 September 2012.
- Rockström, J. et al. (2009), 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity', *Ecology and Society*, 14 (2): 32 <<http://www.ecologyandsociety.org/vol14/iss2/art32/>>, accessed 27 September 2012.
- Schrader, A. et al. (2011), 'Business and Sustainability in China – Company Responses to a National Priority', *The Conference Board* (New York).
- Singapore Environmental Council (2012), 'About Project: Eco-Office' [online text] <http://www.ecooffice.com.sg/index.php?option=com_content&task=view&id=16&Itemid=45>, accessed 17 September 2012.

Trucost (2010), *Universal Ownership – Why Environmental Externalities Matter to Institutional Investors* (London).

UNCSD (United Nations Conference for Sustainable Development) (2012), *The Future We Want* (New York).

UNDP (United Nations Development Programme) (2009), *The Global Financial Crisis and the Asia Pacific region – A Synthesis Study Incorporating Evidence from Country Case Studies* (Colombo).

UNEP (United Nations Environment Programme) (2009), *The Republic of Korea and UNEP Pledge Growth Partnership* (Seoul/Nairobi).

UNEP (2010), *Green Economy: Developing Country Success Stories* (Geneva).

UNEP (2011), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication* (Geneva).

UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific) (2011), *Statistical Yearbook for Asia and the Pacific 2011* (Bangkok).

UNPRI (United Nations Principles for Responsible Investment) (2012a), *Investing in the Sustainable Economy* (London).

UNPRI (United Nations Principles for Responsible Investment) (2012b), 'About us' [online text] <<http://www.unpri.org/about/>>, accessed 23 September 2012

UNSD (United Nations Statistics Division) (2012), 'Millennium Development Goals Indicators' [online database] (July) <<http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749>>, accessed 21 September 2012.

Watts, J. (2009), 'South Korea Lights the Way on Carbon Emissions with its £23bn Green Deal', *The Guardian* (21 April) <<http://www.guardian.co.uk/environment/2009/apr/21/south-korea-environment-carbon-emissions>>, accessed 23 September 2012.

WAVES (Wealth Accounting and the Valuation of Ecosystem Services) (2012), *Moving Beyond GDP: How to Factor Natural Capital into Decision Making* (Washington DC).

WBCSD (World Business Council for Sustainable Development) (2010), *Vision 2050* (Geneva).

WFE (World Federation of Exchanges) (2009), *Exchanges and Sustainable Investment – Markets for Environmentally Sustainable and Socially Responsible Investment* (August) <<http://www.world-exchanges.org/sustainability/m-3-0.php>>, accessed 18 September 2012.

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