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# A Green “New Deal” for Asia?

How Asia-Pacific countries are expanding the Green sector in their economies

## A Green “New Deal” for Asia?

*Amidst the economic gloom, governments world-wide are pursuing fiscal stimulus measures, recalling President Roosevelt’s “New Deal” fiscal programs which helped America recover from the Great Depression of the 1930s. One of the main avenues for this will be to expand the production and development of eco-friendly technologies – the so-called Green sector. Many Asia governments are rolling out ambitious plans to nurture “Green-collar” jobs in their economies, from assembling hybrid cars to cultivating bio-fuels. Spire examines what governments in Asia and the emerging world are doing to promote the Green sector - and the business risks and opportunities that are being created.*

### **The Greening of Government spending**

Since the United States Green movement began 20 years ago with the Green Committees of Correspondence (GCoC), founded in August 1984, Green thinking has entered the mainstream of public policy. In the face of today’s global warming crisis, the debate among the world’s governments has shifted decisively away from whether to take drastic steps to conserve the environment, to how.

The world’s attention is now converging on the Copenhagen conference to be convened in December 2009. This event will decide the shape of a new emissions reduction treaty to replace the Kyoto protocol, which is due to expire in 2012. The expectations surrounding this event are reflected in the United Nations’ “Seal the deal” campaign: “Delegates and NGOs have been stamping ‘Seal the Deal’ on a banner that, with other banners collected at events around the world, will be presented at the Copenhagen Climate Change Conference in December. In addition, participants are being asked to sign an on-line petition calling for an effective climate deal at [sealthedeal2009.org](http://sealthedeal2009.org).”<sup>1</sup>

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<sup>1</sup> UN website

***Increasingly, the needs of ecological conservation and economic growth are converging rather than conflicting.***

Amidst this massive diplomatic pressure, as well as considerable public pressure in their own countries generated by citizens groups and domestic NGOs, the governments of Asia have been cultivating their own Green credentials.

And increasingly, the needs of ecological conservation and economic growth are converging rather than conflicting. Public policy in Asia is recognizing that growing the Green sector is a key thrust necessary for sustainable economic growth.

In the USA, elements in the Democratic Party<sup>2</sup> have long sought a “Green New Deal” whereby government support for the Green technology sector helps reinvigorate the US economy and create millions of new “Green collar” jobs. Emerging countries are determined not to be left behind, foreseeing that Green jobs will help to take economic value-added and job creation to the next level. Their advantages include vast talent pools of university graduates, access to abundant natural resources and clusters of supporting industries enabling highly efficient R&D and production.

Take China and Singapore as examples of how ambitious Asian governments can be in promoting the Green sector. It is well known that China's vehicle fuel-efficiency standards have been (until recently) higher than those in the United States. The Chinese government has gone further, to launch a pilot program of energy-efficient vehicles to be rolled out to the public transport sector in 13 cities. On top of that, the world's first “sustainable city”, at Dongtan in Shanghai, China, is being developed. It promises to house urban ecological parks and world class leisure facilities.

The China government has also unveiled the Sino-Singapore Tianjin Eco-city, a joint project between Singapore and the People's Republic of China (PRC). The project is an attempt to develop an entire township on the basis of highly reduced net carbon emissions while enshrining biodiversity conservation. This venture signals the importance both countries attach to the notion of sustainable development.

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<sup>2</sup> The Democratic Party in the US now controls the Presidency, the House of representatives and the Senate, the latter by a filibuster-proof 60-seat majority

The remainder of this article will focus on the sectors where Governments are doing the most to promote the Green agenda, so as to assess the resultant risks and opportunities for companies operating in Asia. These would be:

- 🌐 Road transport
- 🌐 Consumer durables
- 🌐 Building
- 🌐 Waste management
- 🌐 Utilities

## **Road transport**

The transport sector accounts for 15%<sup>3</sup> of man-made CO<sub>2</sub> emissions worldwide<sup>4</sup>. Road transport<sup>5</sup> contributes two-thirds of total emissions from the transport sector (see graph 1 on 'CO<sub>2</sub> emissions' below) – this is forecast to rise to 75% of total transport emissions in 100 years' time.

Particularly in large urban areas and where weak emissions standards are enforced, vehicular pollution can foster major public health problems such as higher incidence of respiratory ailments like asthma. Vehicular transport also increases dependence on imported oil from the Middle East, posing a potential national security challenge. This is aside from the obligation to meet internationally mandated emissions targets.

Governments can use a broad array of tools to control the environmental impact of the road transport sector. These include:

- 🌐 forcing the automotive industry to increase fuel efficiency standards

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<sup>3</sup> Environmental News Network, Cars Warm Up, Ships Cool Down, 25 January 2008

<sup>4</sup> National Academy of Sciences, Climate Forcing from the Transport Sectors, 5 October 2007

<sup>5</sup> The road transport sector is defined here as encompassing passenger cars, two-wheelers like motorcycles (a large part of the vehicle population in emerging countries) as well as commercial vehicles such as trucks, lorries and vans.

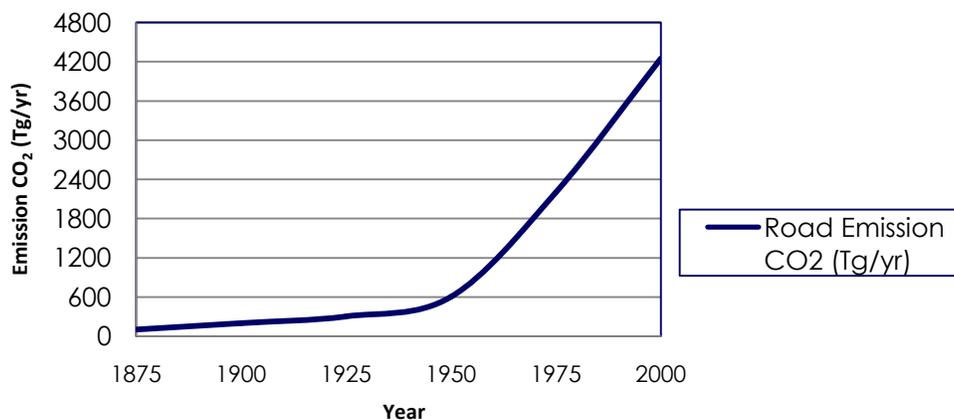
- regulating engine and petrol specifications to make them less pollutive
- promoting public transport over households owning their own vehicles
- advancing the usage of cleaner fuels such as bio-fuels and Compressed Natural Gas (CNG)

Many emerging countries in Asia are posting tremendous rates of growth in the motorcycle and car population – in particular, the population giants of China, India and Indonesia. Some governments have been very successful in tackling the environmental fall-out from this – an outstanding example would be how the authorities in Delhi, India curbed vehicular emissions in the 1990s. However, many others are still struggling.

India, China and Taiwan offer good examples of road transport Greening in action. India and China are examples of emerging countries with giant urban centers and exploding vehicle populations. Taiwan is a middle-income country with high vehicle ownership and relatively high public awareness of environmental cum public health issues.

**Graph 1:**

**CO<sub>2</sub> emissions from Road Transport**



Source: National Academy of Sciences, *Climate Forcing from the Transport Sectors*, 5 October 2007

## India

India launched the Global Environment Facility sustainable transport project in 2008. It is aimed at reforming the country's transport system. This program includes assisting states and cities to implement "Green transport projects." These four-year projects are to be rolled out in nine cities, with Pune as the pilot city.<sup>6</sup> Under this program, the transport system in each city is to be reformed to encourage citizens to switch their mode of transport to either public transport or non-motorized transport such as bicycles.

The Pune Municipal Corporation has noted that public transport only accounts for 15% of total vehicle kilometres travelled in the city. Hence improving public transport to encourage commuters to switch away from private vehicles is a key priority. In addition, construction projects, such as the building of cycle lanes, will be implemented to encourage people to switch from two-wheelers to bicycles. Over 20,000<sup>7</sup> crores (US\$ 4.1 billion) have been budgeted for plans<sup>8</sup> to increase public transport usage and reduce traffic congestion during peak hours.

## China

***China will introduce zero-emission vehicles into the public transport sector in 13 cities. Wuhan was chosen as the pilot city.***

As a collaborative project between Renault-Nissan and the Ministry of Industry and Information Technology, China has pledged to introduce electric cars on its roads by 2011. The China government will introduce these

zero-emission vehicles into the public transport sector in thirteen cities. Wuhan was selected as the pilot city<sup>9</sup>.

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<sup>6</sup> The other 8 cities are Ahmedabad, Ajmer, Hyderabad, Indore, Jalandhar, Mysore, Naya Raipur and Thiruvananthapuram.

<sup>7</sup> Pune Municipal Corporation, Environment Status Report 2007-2008, 2008

<sup>8</sup> The plans are: the Comprehensive Mobility Plan, the Pune Redevelopment Project and the Pune Metro Project.

<sup>9</sup> Nissan, Renault-Nissan Alliance Partners with Ministry of Industry and Information Technology of China for Zero-Emission Mobility, 10 April 2009

## Taiwan

In Taiwan's Economic Vitalization Package<sup>10</sup> to deal with the current economic crisis, subsidies have been disbursed to encourage people to purchase electric-powered and low-polluting vehicles. A NT\$ 25,000 (US\$ 753) subsidy is given with each purchase of a dual-fuel vehicle. The use of Liquefied Petroleum Gas (LPG) fuel is subsidized at NT\$2 (US\$ 0.06) per litre. This is expected to result in 128,000 dual-fuel vehicles being sold by 2012. In addition, a NT\$ 15,000 (US\$ 452) subsidy is given for purchases of electric motorcycles. This in turn is expected to generate sales of 100,000 electric motorcycles between 2009 and 2012.

Business opportunities abound as a result of all these initiatives. Manufacturers and suppliers of bicycles, electric vehicles, clean motor fuels and systems used in public transport all stand to benefit. The writing is on the wall for manufacturers of low fuel-efficiency vehicles using diesel or petrol fuel.

### **Consumer durables**

Consumer durables are a vast and broad field spanning product categories such as consumer IT, appliances and audio-visual products. The production and use of consumer durables can be "Greened" in many ways.

Products can be made more energy efficient in terms of electricity consumption. The promotion of energy efficient durables has traditionally focused on categories that guzzle the most electricity – namely refrigerators, air-conditioners and, to a lesser extent, washing machines and dryers. However energy efficiency standards are also commonplace among computers, printers and even televisions.

An additional issue concerns the disposal of durable products into landfills, which is ecologically unsustainable. Many governments - including those of Japan and Korea within the Asian region – have enacted regulations or laws that require manufacturers to collect back discarded durables for

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<sup>10</sup> Council for Economic Planning and Development, Plans for Implementation of the Economic Vitalization Package, 2008

proper recycling. This has spawned an entire industry focused on e-waste recycling. The sector is well-established in Europe where such regulations have been in force for some time, but is gaining ground rapidly in Asia. To some extent, the trend is driven by the possibility of running a commercially viable business extracting valuable commodities from e-waste, such as gold and glass.

One advantage facing promoters of Green consumer products is that they help consumers reduce utility bills, unlike Green thrusters in some other categories. This has been a theme of campaigns promoting Green consumer durables.

### Japan

The production of eco-friendly durables (“eco-production”) is a significant sector in Japan. In the 2009 stimulus package, the Japanese government allocated a significant budget for:

-  subsidizing consumers to encourage the domestic consumption of Green consumer products
-  protecting the eco-friendly production environment in Japan

*Under these programs, Japanese consumers are entitled to up to 5 per cent of rebate on their purchases of household electronics such as refrigerators and air-conditioners. The rebate is awarded in the form of “eco-points” which can only be redeemed for later purchases.*

Under these programs, Japanese consumers are entitled to up to 5 per cent<sup>11</sup> of rebate on their purchases of household electronics such as refrigerators and air-conditioners. The rebate is awarded in the form of “eco-points” which can only be redeemed for later purchases.

There is a relatively large base of factories in Japan producing Green products using environmental friendly production methods. Many have been established in the Kansai region around Osaka. This region is estimated to have attracted 1 trillion yen (US\$10.5 billion)<sup>12</sup> worth of

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<sup>11</sup> The Information Company Private Limited, Japan links consumer subsidies for purchasing green products news, 8 April 2009

<sup>12</sup> Kyodo News, Eco-oriented high-tech plants blossoming in Kansai region, 12 September 2008

investments from electronics manufacturers making flat-panel televisions and other electronics products. Sanyo Electric, Daikin Industries, Sharp and of course Panasonic (Matsushita Industrial Electric) are some of the companies producing Green consumer products in that region.

## Taiwan

The government has allocated over NT\$2 billion (US\$ 60 million)<sup>13</sup> of its stimulus package to provide subsidies to encourage domestic consumption of Green consumer products such as solar water heaters and washing machines in 2008 and 2009.

“Greening” consumer products has not always been a key priority for emerging country governments. Such programs won a new lease on life when oil prices soared in 2008, prompting governments to promote energy-efficiency for deficit-reduction purposes. But with oil prices having dropped by half from their 2008 highs, this has once again fallen down the priority list. Moreover, consumers in emerging countries often have little appetite for more expensive<sup>14</sup> but energy efficient Green products, given the extent to which electricity prices are subsidized in such countries. Finally, geographic dispersion, patchy literacy and the urban-rural divide can impede campaigns to “buy Green.”

Nonetheless, larger emerging economies like China are still promoting Green consumer durables at their own pace. Tellingly, China's government recently implemented a program to compel local governments to place eco-friendly and energy saving products on a priority list for future public purchases.<sup>15</sup> This is meant to encourage more suppliers to list Green products on their catalogs, providing critical mass to realize economies of scale.

Going forward, regional governments are clearly moving in the direction of mandating manufacturers of durables to exercise product life-cycle responsibility. In other words, durables manufacturers will need to

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<sup>13</sup> Council for Economic Planning and Development, Plans for Implementation of the Economic Vitalization Package, 2008

<sup>14</sup> PricewaterhouseCoopers, Sustainable products in perfect storm to move into consumer mainstream, 20 June 2008

<sup>15</sup> Procurement Leaders, Public procurement goes green in China, 16 April 2009

implement product take-back and recycling programs. In addition, Green production techniques will increasingly be mandated and enforced at the factory level.

Business opportunities abound in this trend – from the growing e-waste recycling industry to reverse logistics (transporting used and discarded products back to recyclers) and eco-friendly manufacturing technology at the point of production.

## **Buildings**

31%, 22% and 19% of global energy usage was allocated to the industrial, residential and commercial sectors respectively in 2008<sup>16</sup>. A large proportion of this would comprise electricity consumption by and within buildings, on categories such as lighting and heating/ventilation/air-conditioning (HVAC) systems.

It is well-known that massive reductions in electricity consumption can be brought about by seemingly small changes in building design – such as using fluorescent or LED lighting over incandescent bulbs, or raising the ambient temperature by one or two degrees to reduce air-conditioning power. On top of this, modern architecture now embraces green building design, leveraging natural sunlight to reduce electric lighting use for example, or building in solar panels and rainwater collection devices.

Projects to improve the energy efficiency of buildings have been carried out in many countries. Part of the reason building initiatives are so popular is that tighter building standards are relatively easy to enforce and tend to cost relatively little vis-à-vis the cost reductions generated.

The following are examples of initiatives that have been noteworthy in the Asian region.

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<sup>16</sup> Energy Information Administration, Annual Energy Review 2008, 2009

## Australia

The “Energy Efficient Homes” project is being implemented under Australia’s A\$42 billion (US\$ 33.9 billion) stimulus package. The key focus of this project will be investment in the ceiling insulation of around 2.7 million houses<sup>17</sup>, which will reduce carbon emissions by an estimated 49.4 million tonnes by 2020.

## Japan

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## Singapore

Singapore’s Building and Construction Authority (BCA) implemented the Green Mark Scheme in January 2005 to encourage the construction of environmentally friendly buildings. Under this scheme, S\$20 million (US\$ 13.7 million)<sup>19</sup> worth of incentives is allocated to buildings that adopt Green Building design and technologies within the period 2006 to 2009.

In 2009, the BCA implemented a second Green Building master plan with the aim of bringing up to 80%<sup>20</sup> of the buildings in Singapore to the Green Mark standard by 2030, yielding savings up to S\$1.5 billion (US\$1 billion) in energy spending. S\$93 million (US\$63.7 million) worth of incentives will be spent in the second master plan. Singapore is not the only country implementing such systems. Similar schemes include the Leadership in Energy and Environmental Design (LEED) scheme in the United States and the Green Rating for Integrated Habitat Assessment (GRIHA) program in India.

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<sup>17</sup> Prime Minister of Australia, Energy Efficient Homes - Ceiling Insulation in 2.7 Million Homes, 3 February 2009

<sup>18</sup> The Economics Times, Asia govts dangle carrots to attract green money, 21 April 2009

<sup>19</sup> Building and Construction Authority, BCA Green Mark, 2006

<sup>20</sup> Australian Broadcasting Corporation, Singapore unveils green building plan, 30 April 2009

The Green building sector is widely seen as a growth industry. “Green buildings” tend to be seen by governments as one of the low-hanging fruit in the Green “to-do” list. In the short-term, Green technologies and designs will be most widely adopted in new buildings, given that the cost of retrofitting such systems onto existing buildings can be prohibitive.

There are risks and opportunities inherent in this Green building trend – especially for building contractors, architects and suppliers of building systems such as lighting and HVAC. The choice they face would be to incorporate the Green dimension into their products and services or pay the price in terms of lost business in the not-too-distant future.

### **Waste management**

The quantity of solid waste produced in the world has been growing over the years. China, the largest waste producer in the world, is expected to generate over 480 million tonnes of municipal solid waste by 2030 which is more than double the 190 million tonnes recorded in 2004<sup>21</sup>.

Most emerging countries are disposing of solid waste in landfills. Again, China's example is instructive - it sent only 16% of its solid waste to incinerators. The rest went to landfills, which implies land usage sub-optimization and eventual ecological damage as potentially toxic wastes seep into the soil and water supply.

Hence, the promotion of more efficient waste management processes have become a governmental priority in Asian countries like China and Hong Kong.

#### China

The Chinese government allocated 350 billion yuan (US\$51 billion), in addition to the 1 trillion yuan (US\$146 billion) that was allocated in the 11<sup>th</sup> 5-year plan (2006-2010), on clean water and waste management. The private sector is also investing in the waste management sector. Hong

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<sup>21</sup> The Straits Times, Waste firms seek out China, 12 May 2009

Kong-based firm Enviro-Pro, for example, is investing 130 million yuan in a recycling plant in Jiangsu's Shuyang City.

The first foreign-operated electronic-waste recycling plant was established in the Suzhou Industrial Park in 2008 by Fuji Xerox.<sup>22</sup> It boasts an annual processing capacity of 15,000 used printers and 500,000 toner drums.

With the increased usage of electronics products nationwide, there are bound to be more opportunities to establish recycling plants in China. (See graph 3 below on 'Estimation of obsolete main electronic appliances in China')

**Graph 2:**

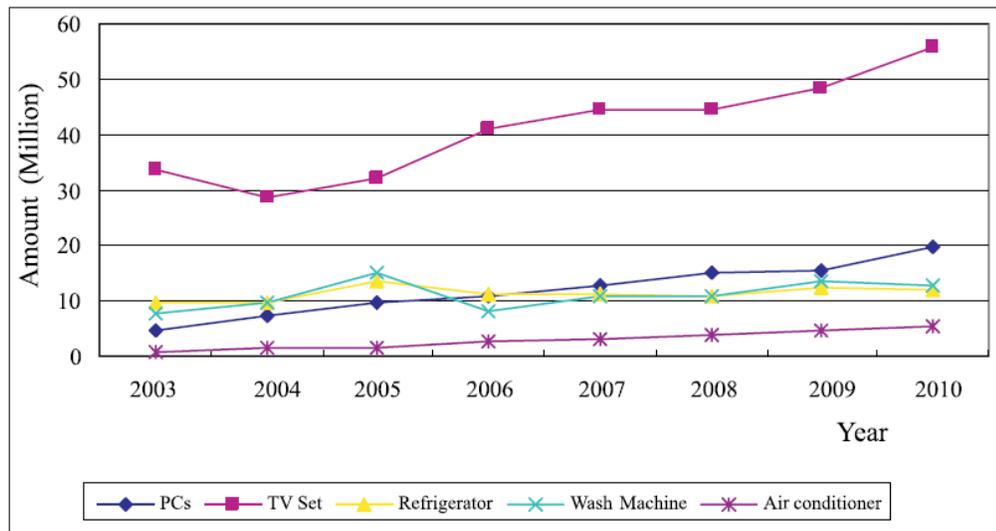


Fig. 3: Estimation of obsolete main electronic appliances in China.

Source: Waste Management and Research 2006

### Hong Kong

In its "Policy Framework for the Management of Municipal Solid Waste (MSW) (2005-2014)"<sup>23</sup>, the government of the Hong Kong Special Administrative region (SAR) aims to fulfill three objectives:

<sup>22</sup> China Economic Review, Fuji Xerox opens e-waste recycling plant, 16 January 2008

<sup>23</sup> Legislative Council Panel on Environmental Affairs, Update on the Progress of the Key Initiatives in the "Policy Framework for the Management of Municipal Solid Waste (2005-2014)", 27 April 2009

- reduce 1% per annum of MSW by 2014 as compared to 2003
- increase the recovery rate of MSW to 50%
- minimize MSW disposal into landfills to less than 25%

A landmark characteristic of the new framework was the adoption of the “polluter pays principle”, where economic incentives are provided to the public to encourage reduction and recycling of waste. This policy will shift responsibility up the value chain, to manufacturers and wholesalers.

***Beneficiaries from this waste management revolution would include companies offering municipal services such as the management of waste collection and recycling logistics, waste incineration, anaerobic decomposition of food waste and, of course, municipal waste recycling itself.***

As the volume of solid waste increases in future, the market for Greener waste management will see a major boom, driven by government programs to reduce landfill use. Beneficiaries from this waste management revolution would include

companies offering municipal services such as the management of waste collection and recycling logistics, waste incineration, anaerobic decomposition of food waste and, of course, municipal waste recycling itself.

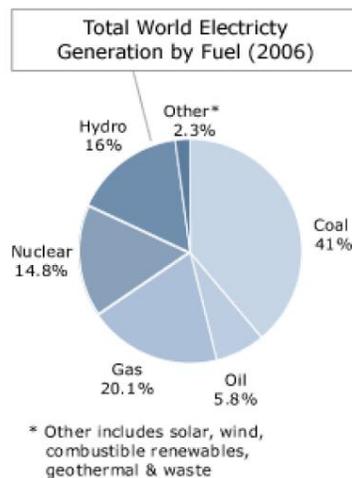
It is likely that the recycling sector will increasingly differentiate itself according to the different types of waste streams which require different recycling technologies – for example paper waste, food waste and e-waste.

## **Utilities**

Utilities, which include power generation and water supply, play a critical and often underappreciated role in our daily lives. The quality and cost of utilities are also critical factors underpinning investment levels in any economy.

However, power generation is one of the main contributors to greenhouse gases, accounting for 25%<sup>24</sup> of global CO<sub>2</sub> emissions. Carbon Monitoring for Action (CARMA) found that coal-fired power plants emit the most CO<sub>2</sub> gases as compared to hydro and nuclear plants. The 12 biggest CO<sub>2</sub> polluting plants in the US, for example, are coal-fired power plants<sup>25</sup>. Unfortunately, coal-generated power accounts for 41%<sup>26</sup> of global electricity supply (See graph 4 below on 'Total World Electricity Generation by Fuel (2006)').

**Graph 3:**



Source: World Coal Institute

 South Korea

**The South Korean government is investing US\$38 billion in Green projects over the next four years in sectors such as energy efficiency and renewable energy.**

The South Korean government is investing US\$38 billion in Green projects over the next four years in sectors such as increasing energy efficiency and developing renewable energy resources. Waste

recycling and forest conservation will also be addressed under the four-year plan.

<sup>24</sup> Carbon Monitoring for Action, 2007

<sup>25</sup> ScienceDaily, Carbon Dioxide Emissions From Power Plants Rated Worldwide, 2007

<sup>26</sup> World Coal Institute, Coal Statistics, 2007

## India

In India's Eleventh Five Year Plan (2007-2012), a total addition of 68,869 MW of electricity is planned to be brought on-stream, with hydro and nuclear power accounting for 15,585 MW and 3,160 MW respectively. The Asian Development Bank is also disbursing US\$ 1.7 million for the development of renewable energy and energy efficiency projects in rural regions. The Madhya Pradesh government will contribute the equivalent of US\$ 400,000 for such projects in its state.

## China

China plans to increase investment in cleaner forms of power generation, primarily nuclear power and natural gas-fuelled plants, while also investing in increasing power distribution and internal plant efficiency.

The expansion of the Yangjiang Nuclear Plant in Guangdong and Qinshan Nuclear Plant in Zhejiang, for example, will cost approximately 95.5 billion yuan (US\$ 14 billion). In addition, China plans to close down small coal-fired power plants<sup>27</sup>.

To take another example, investment in the West-to-East Natural Gas Transmission Project (phase two) is expected to reach 93 billion yuan (US\$13.6 billion). The entire project involves building a 20,000 km<sup>28</sup> pipeline that stretches across 13 provinces to provide access to natural gas across that region. The second phase of the project will account for 8,700 km of pipeline and will distribute up to 30 billion cubic metres of natural gas annually.

Furthermore, the Chinese government plans to spend 350 million yuan (US\$ 51 million)<sup>29</sup> on ecological projects in several cities.<sup>30</sup> There are signs of inadequate water supply to some 400 cities across China, including

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<sup>27</sup> Xinhua News Agency, Officials promise: China's economic stimulus plan won't compromise environment, 23 May 2009

<sup>28</sup> General Electric Company, China's Milestone West-to-East Pipeline, One of the World's Largest Gas Transmission Projects, Again Turns to GE Oil & Gas Technology, 25 March 2009

<sup>29</sup> Cleantech Group, China's stimulus package boosts water desal, recycling, 20 January 2009

<sup>30</sup> These cities include Shanghai and Beijing as well as cities in the provinces of Qinghai, Guangdong, Jiangxi, Liaoning, Inner Mongolia, Shandong and Jilin.

Beijing and Shanghai, with Beijing expected to experience water shortages by 2010 when its population hits 17 million. With respect to this, the Beijing government is investing 13 billion yuan (US\$ 1.9 billion) in wastewater treatment and solar power projects in the next three years.

Opportunities will abound not only for suppliers of nuclear, natural gas and hydroelectric power generation systems but also suppliers of efficiency-enhancing technology to the electrical distribution and power plant sector.

## **Conclusion**

The adoption of Green technologies may be associated with higher costs to consumers in short-run, monetary terms. However the benefits, in terms of reduced risk of global environmental disasters like flooding, will be felt by consumers as well. And it can be expected that in a relatively short time, economies of scale will lead to drastic reductions in unit costs.

The greatest short-term impact will be seen in land transport, consumer durables, buildings and power generation. In these fields, governments world-wide have, for the most part, already taken steps to reduce or phase out the most ecologically unsound technologies and practices. More developments can be expected in the next 3-5 years, all collectively amounting to a dramatic change in the business landscape for these industries.

***In the next 5 years or so, the evolution of Green technology will be pushed forward by one dominant factor – government mandates.***

In the next 5 years or so, the evolution of Green technology will be pushed forward by one dominant factor – government mandates. The Kyoto protocol, and undoubtedly the successor treaty that will gradually

emerge from the Copenhagen conference in December 2009, aim to broaden the adoption of Green technologies by force of government mandates. The hope is that this will help these technologies find critical mass and hence nurture the economies of scale needed to dramatically lower costs.

In one sense this is no different from the dynamic behind the mass adoption of seat-belts and air-bags in cars. However, in another sense it is radically different.

***This competition among governments for Green-collar jobs is already doing more than any other force to grow the Green technology sector.***

Alongside the collective aim of arresting global warming, governments will also pursue the aim of growing their individual economies through expanding the Green sector. Witness the bold

plans announced by Thailand to manufacture hybrid cars, or Hong Kong and Guangdong province to develop solar cell R&D and manufacturing, or Malaysia and Indonesia to nurture biodiesel production. Their enthusiasm is not hard to understand. To take one example – France was an early adopter of nuclear power generation technology. France is now one of the leading exporters of nuclear power generation technology world-wide. With growing demand for nuclear power amidst rising oil prices, this has been enormously beneficial to the French corporate sector and economy.

This competition among governments for Green-collar jobs is already doing more than any other force to grow the Green technology sector.

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