

# Solutions for Asia's Cities



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## EXECUTIVE SUMMARY

The future of Asia's countries lies in its cities. Asian cities are experiencing huge growth in population and wealth; they have the potential to become centers for an increasingly sophisticated workforce and consumer markets with growing purchasing power. Cities are high-productivity centers that generate much of a country's wealth. But if urban growth is not managed well, cities will suffer from overcrowding, traffic congestion, worsening pollution, and pressures on infrastructure. The deterioration or improvement of the capacity and quality of life in urban areas depends largely on whether cities can solve these urgent challenges. However, governments that are traditionally responsible for tackling these challenges are faced with budget constraints and more demanding citizens. Businesses should become more involved—their stakes in urban growth are high. These opportunities are large and can be profitable, and businesses have the requisite skills and experience. In short, businesses enjoy an unparalleled opportunity to solve significant problems. Businesses can and should develop and finance investment projects that are strategically focused on building cities that are accessible, energy-efficient, clean, skilled, connected, and livable.

## INTRODUCTION

Asian cities have experienced astounding growth in recent decades. Their aggregate populations have almost doubled in the past 15 to 20 years. About half of the world's most populous cities are located in Asia,<sup>1</sup> and by 2030, more than half of the world's urban populations will live in Asian cities. Since 2000, some 20 million people have migrated to major cities in China every year. Today, China has 236 cities with more than half a million residents, and is expected to add at least 100 cities of this size by 2025.<sup>2</sup> Cities have also traditionally been the centers of wealth for countries, and the World Bank says that as much as 80% of the future economic growth of the developing world will come from its cities. This is undoubtedly happening in Asia, with its major cities like Shanghai, Mumbai, Tokyo, Seoul, and Singapore spearheading the region's economic growth. Cities will continue to grow in importance—as economic, political, cultural, social, and technological centers of Asia—and potentially in global influence in terms of urban planning, sustainability practices, and consumer trends.

But with this growth comes tremendous challenges. World Bank statistics indicate that nine out of 10 of the world's most polluted cities are located in Asia—in China, India, and Indonesia. There are shortages of housing, energy, sanitation, and jobs. Large numbers of new migrants are flooding to cities, including millions of unregistered migrant workers in Chinese cities and unskilled seasonal workers in Indian cities. Income inequalities have become more pronounced. Slums and squatter settlements are growing. What are the solutions to these challenges of urban Asia? What role can businesses play?

Asian governments are rolling out policies that promise to spur growth while managing problems. However, governments cannot be the sole change agents. The speed of urban expansion has outpaced most government forecasts and existing plans for future development. Public budgets are constrained, and with bureaucratic processes and politics involved in bringing about change, implementing appropriate and adequate solutions takes years. Current government programs will be inadequate in meeting the many needs of urban residents and facilitating their role in urban life as consumers, workers, and students. Looking back to the 1970s and 1980s, many great cities in North America and Europe fell into a state of urban decay, as governments were unable to fix the growing problems in these areas. If Asian governments mismanage this transition, one scenario could be over-urbanization and deteriorating living conditions. Another could be de-urbanization and population flight, while large unemployed populations, abandoned buildings, and desolate infrastructure remain in city centers.

But this does not have to be the destiny of Asian cities. Asian cities can grow as vibrant global hubs. For that to happen, businesses must find ways to intervene and make large positive contributions where governments cannot, to encourage urban growth and renewal rather than urban decay. They should become involved because their interests, in terms of customers, employees, and investments, will be increasingly tied to the prosperity of cities.

## **A MORE ACTIVE BUSINESS ROLE**

So what can businesses do to improve Asia's cities? The Asia Business Council has identified six high-potential areas for businesses to invest their capital and expertise to meet the goals of expanding urban capacity and improving life for city residents, and that have the potential to be profitable business opportunities. These areas include transportation and mobility; electricity management and energy efficiency; waste/water treatment and pollution control; education and training; connectivity and new consumer behavior; and development and preservation. Each of these areas is discussed below, with case studies demonstrating potential solutions to various urban challenges.



## TRANSPORTATION AND MOBILITY

Growing numbers of vehicles on urban roadways will put huge stress on the urban transportation infrastructure and on the environment. The number of vehicles in Asia is expected to increase from 150 million in 2000 to 350 million by 2020, with cities in China and India accounting for the biggest growth.<sup>3</sup> According to IBM's survey of motorists in 20 cities, 96% of all respondents in New Delhi and 95% in Beijing say that traffic congestion has negatively affected their health; a majority of respondents in these cities also say it has negatively affected work or school performance.<sup>4</sup> Expatriates surveyed in major cities around Asia regard traffic congestion as their biggest problem.<sup>5</sup> In addition, the

increasing numbers of vehicles and prolonged traffic wait times will also lead to more fuel consumption. In the period 2005-2030, more than half of the world's increase in fuel consumption will come from transportation; transport-related carbon dioxide emissions are expected to increase 57%, with developing Asian countries contributing 80% of the increase.<sup>6</sup> Therefore, Asian cities need better systems to manage road traffic, increase capacity of public transport systems to move people within and between cities, and promote sustainable, fuel-efficient vehicles. The business sector can both devise technological innovations and invest in infrastructure projects in these areas.

### CASE: INTELLIGENT TRAFFIC MANAGEMENT SYSTEMS

Intelligent systems that employ information and communication technologies for traffic management have been rolled out in a number of Asian cities.<sup>7</sup> Singapore was the first city to implement an electronic road pricing (ERP) system in 1998. ERP established the principle that all drivers can be charged for driving into the city center. It increases the tolls for cars entering the city during peak hours so as to encourage more drivers to alter their driving habits and times. Since then, road traffic has decreased by nearly 25,000 vehicles per day on average during ERP operational hours, and average road speed has increased by about 20%.<sup>8</sup> Private companies that are heavily involved in Singapore's ERP operations include Cisco with its smart transportation pricing engine that implements "pay as you drive" pricing to reflect real driving distances and

vehicles' environmental impact rather than charging flat fees for road use;<sup>9</sup> Steria Asia with an e-TrafficScan system that provides drivers with real-time information about their speeds on major roads;<sup>10</sup> and ST Electronics which provides a fully automatic toll-collection system.<sup>11</sup> Cisco is now working with Seoul to conduct a smart-transportation pricing project to create a next-generation urban infrastructure incorporating devices installed in each vehicle that can track the time and place it is driven, in order for traffic police to centrally monitor the speed and direction of traffic and reroute vehicles and avert gridlocks.<sup>12</sup> IBM is helping to reduce traffic congestion in Ho Chi Minh City by using cell phone data to track users' locations, so as to predict and diffuse traffic bottlenecks up to an hour ahead of time.<sup>13</sup>

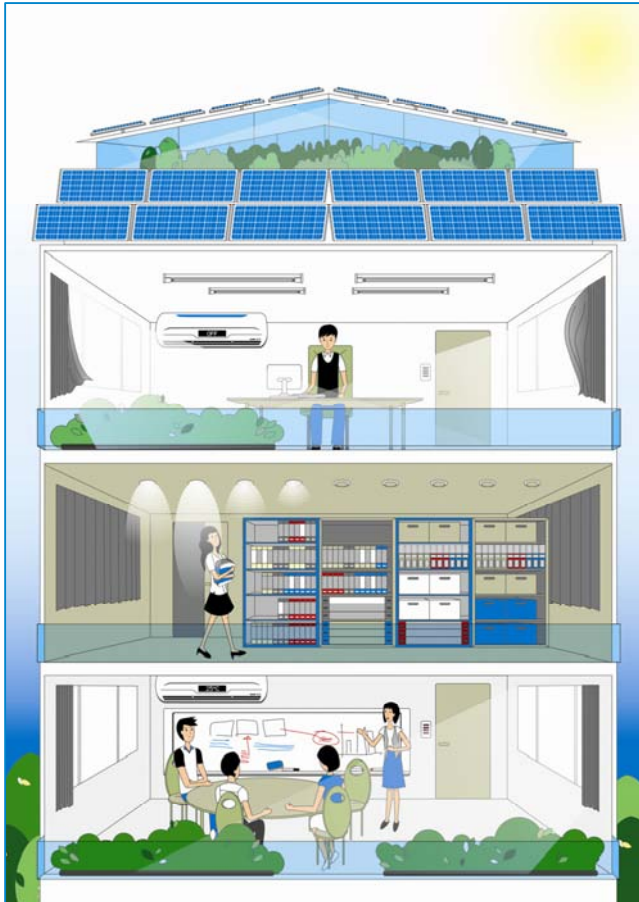
### **CASE: RAPID TRANSIT LINKS**

Well-designed and efficient railways can reduce car ownership and road traffic between and within cities, and also help transport commuters and business travelers as cities expand and integrate (e.g., the Pearl River Delta region). This year, Malaysia's Khazanah Nasional Bhd. and Singapore's Temasek Holdings Ltd. are jointly investing in the development of a proposed rapid transit link between the southern state of Johor and Singapore to be completed in 2018, which will help the 80,000 Malaysians traveling daily to work or school in Singapore.<sup>14</sup> Japan, China, Taiwan, and South Korea already have high-speed railways to link big cities, and China plans to build an additional 10,000 miles of high-speed rail by 2020.<sup>15</sup> In India, about 5,000 miles of metro and subway tracks will need to be constructed by 2030, according to the McKinsey Global Institute.<sup>16</sup> Japanese companies including Toshiba, Hitachi, and Mitsubishi are investing in upgrading India's transportation infrastructure through financing and constructing road and rail links for a proposed Chennai-Bangalore corridor and a Delhi-Mumbai industrial corridor.<sup>17</sup>

### **CASE: ELECTRIC VEHICLES**

The Asian market for electric vehicles (EV) and electric bicycles (e-bikes), which are economical and clean alternatives to traditional cars, is growing rapidly. E-bike sales in China grew from 40,000 in 1998 to 10 million in 2005. More than 1,000 companies are already in the e-bike business in China, many of them clustered in eastern coastal provinces such as Guangdong, Jiangsu, and Zhejiang. According to recent figures published by Chinese local media, an estimated 120 million e-bikes are on the roads in China.<sup>18</sup> In Malaysia, Motosikal Dan Enjin Nasional Sdn. Bhd. (MODENAS), the national motorcycle company, has spent about \$300,000 on research and development to create its own e-bike to be sold in both domestic and global markets in 2010.<sup>19</sup>

In addition, many Asian automobile companies (including Nissan, Toyota, Mitsubishi, Hyundai, Tata, and BYD) are focusing on developing vehicles that use clean batteries and convenient charging infrastructure in order to save space and reduce emissions. For example, the Tata Nano EV to be launched in late 2010 is part of Tata's initiative to supply low-cost and environment-friendly vehicles for cities. Built on the existing Tata Nano platform, the car uses polymer lithium ion batteries that can be stored for a month or two without significantly losing charge and whose shapes can be adapted to fill otherwise wasted space so that car sizes can be reduced.<sup>20</sup> In addition, battery recycling technologies will be a key growth area. Currently, the only recycler of lithium is Toxco, a U.S. company that received a \$9.5 million grant from the U.S. government in 2009 to expand its battery recycling operations.<sup>21</sup> China's BYD has also announced that one of its goals is to make batteries without heavy metals that are 100% recyclable.<sup>22</sup>



## ELECTRICITY MANAGEMENT AND ENERGY EFFICIENCY

Asian cities are expected to see more serious electricity shortages over the next 25 years.<sup>23</sup> Demand for electricity has been increasing more rapidly in developing Asian economies than anywhere else in the world, growing 2.4% annually, more than double the global rate.<sup>24</sup> The investments in many Asian countries' electric grids in previous decades mainly focused on building excess capacity in the system in order to meet increasing demand. However, there was limited common management and coordinated control to direct electricity to the right place at peak hours. With rising energy consumption and higher costs, cities in Asia must be able to anticipate changing usage patterns to manage supply and demand. The

smart grid uses digital technology to communicate with facilities and appliances to understand usage patterns and deliver electricity more efficiently, thus helping to save energy, increase reliability, and reduce costs.<sup>25</sup> Huge growth is expected—the smart grid global market is estimated at about \$15 billion to \$20 billion today, rising to about \$120 billion annually by 2030.<sup>26</sup>

Energy-efficient buildings with green architectural design features and technologies are another high-potential opportunity that can yield as much as a 50% reduction in energy consumption for buildings in Asia; savings could be even higher in cities with tropical climates.<sup>27</sup> A rapidly growing number of new buildings in Asia are adopting energy-efficiency features based on the internationally recognized Leadership in Energy & Environmental Design (LEED) standard or national green building standards, particularly in lighting, heating, and cooling. In addition, small operational changes such as setting higher office temperatures and encouraging employees to dress for the right temperature can help companies save electricity costs. In Japan, a green initiative called Cool Biz incorporating these guidelines resulted in an estimated 1.14 million-ton reduction in carbon dioxide emissions in a year.<sup>28</sup>

### CASE: SMART GRID IN SEOUL

South Korea is planning to invest more than \$20 billion on smart grid development that could reduce more than 200 million tons of greenhouse gases over the next 20 years. A major smart grid

project on Jeju Island south of Seoul backed by the Korean government involves Korea Electric Power Corporation (KEPCO), along with a consortium of Korean firms, including LG, SK Telecom, and KT. The project began in 2009 and has a budget of \$200 million, \$150 million of which is private investment.<sup>29</sup> The development starts with constructing the smart grid infrastructure, and then connecting buildings and transportation systems to the grid. Following that, the plan is to connect renewable energy sources to the grid and provide new electricity services. Key characteristics of these services include variable pricing based on demand to reduce electricity consumption, smart meters to provide guidance to consumers on energy usage, and information and communication technologies (ICT) sensors allowing utilities to monitor the grid system in order to improve control of the electric distribution grid.

#### **CASE: ZUELLIG BUILDING IN MANILA**

The Zuellig Building in Makati City in Manila is a 33-story high-rise scheduled to be completed in 2011. It is the first green office building in the Philippines achieving pre-certification at the Gold level under the LEED green building standard. The Zuellig Building has a number of green features and sustainable technologies to save energy and water, among which are a daylight dimming system relying on photocells to maintain the necessary lighting levels in common spaces; carbon dioxide sensors in occupied areas, so that the outside airflow will be modulated according to the estimated number of occupants in the space; variable speed drives for chilled water pumps to reduce energy consumption during off-peak hours; and water conservation efforts including the efficient management of potable water, selection of efficient fittings and fixtures, the capture of rain and condensate water, use of water-saving surface materials, and the installation of state-of-the-art drainage and irrigation systems. Compared to a “non-green” building built in compliance with international standards, the Zuellig Building is expected to achieve 15% in energy savings and 47% in water savings.<sup>30</sup>





## WASTE/WATER TREATMENT AND POLLUTION CONTROL

Ensuring a safe, reliable, and affordable water supply as well as clean air rank as a top current concern for leaders and urban planners of world cities.<sup>31</sup> The rapid economic and population growth of cities will strain and exhaust scarce water supplies. This problem is intensified as Asia has one of the world's lowest per capita availabilities of fresh water,<sup>32</sup> more than a billion people with inadequate access to clean water,<sup>33</sup> and a serious lack of water infrastructure capacity. By 2030, Asia faces an estimated 40% gap between water demand and supply. As 80% of Asia's water is used today to irrigate agricultural lands, anticipated shortages could

ultimately threaten the food supply.<sup>34</sup> Aquifers that extract groundwater in Bangkok and Jakarta are overdrawn, polluted, or contaminated by salt.<sup>35</sup> Cities such as Mumbai will have to add about 100 million gallons per day of additional water supply every five years to ensure water sufficiency.<sup>36</sup> Some 70-80% of sewage is expected to be left untreated in India's cities.<sup>37</sup> In China, less than 40% of municipal wastewater is treated.<sup>38</sup>

Air pollution, mostly industrial, prematurely kills two million people a year, the majority in the developing world. Of the most polluted cities in the world today, 16 of the 20 are in China.<sup>39</sup> Cities are plagued by black rivers, dark skies, and poisoned land. The urgency for solutions to this problem was demonstrated by Beijing's \$17 billion anti-pollution efforts ahead of the 2008 Olympics.

Business opportunities to implement solutions include expanding clean water supplies, recycling treated sewage or waste, and producing pollution reduction technologies. Many of these will take place in partnership with city governments. For instance, in the next three years, the Asia-Pacific Economic Cooperation (APEC) will select up to 20 low-carbon model cities in Asia as test beds for technologies to reduce pollution and dependence on oil.<sup>40</sup>

### **CASE: SELLING TREATED SEWAGE WATER**

Treated sewage water has catalyzed a strong business opportunity for Hitachi. In the past decade, ongoing drought and increasing fresh water demand have resulted in a 65% decline of flows into dams for cities like Perth in Western Australia (located near iron ore mines). Ore-transporting ships typically traveled from Australia to Japan fully loaded, but return empty, taking on seawater as ballast. Recently, Hitachi's Plant Technologies division and two cities in Japan began selling treated sewage water, which was sent to Australia as ballast instead of sea water, to an iron ore mining company in West Australia. This treated sewage water was then used in industrial processes instead of drinking water, hence saving energy, reducing waste, and creating a valuable international commodity.<sup>41</sup> Another Japanese company Mitsui & Co. has established a joint venture with Singapore's Hyflux to acquire water treatment, wastewater treatment, and water recycling plants in eight Chinese provinces to capture opportunities in the expanding water infrastructure market in China.<sup>42</sup>

### **CASE: GREEN CEMENT**

The shrinking lifetimes of Japan's landfills and the difficulty of finding new landfill sites presented a business opportunity for Taiheiyo Cement, the largest cement manufacturer in Japan. Taiheiyo's eco-cement burns urban waste such as incinerator ash and sewage sludge at high temperature during the cement manufacturing process to remove environment-polluting dioxins and recover useful metals. In 2001, Taiheiyo constructed the world's first eco-cement plant in Ichihara in Chiba Prefecture, an area with a high volume of disposed incineration ash in landfills. In 2006, the Tokyo eco-cement plant began operations, taking in municipal waste incinerator ash from 25 cities and one town within Tokyo Prefecture.<sup>43</sup> In another plant in Hidaka in Saitama Prefecture, Taiheiyo uses all of the city's municipal waste every year to manufacture cement. These practices have reduced landfills, prevented the depletion of natural mineral resources, and reduced air pollution while saving raw material costs.<sup>44</sup>

U.S.-based Indian venture capitalist Vinod Khosla has invested about \$50 million in Calera Corp., a company which seeks to combine carbon dioxide with seawater or groundwater brine to make cement. By turning carbon into building materials for pavements, the manufacturing process can be carbon-negative.<sup>45</sup> Khosla argues that this technology can meet the "Chindia" price and thus can be viable without subsidies and legislation.<sup>46</sup> If this technology is scalable, its use in Asian cities can become significant.



## EDUCATION AND TRAINING

Rural or foreign migrant workers make up an increasing proportion of the workforce of many Asian cities, such as those of Shenzhen, Mumbai, Singapore, and Hong Kong. For instance, Mumbai is experiencing the arrival of 500 newcomers a day.<sup>47</sup> However, the supply of educated workers is still low relative to the demand of Asia's growing knowledge-intensive, high-tech industries. As employers put more emphasis on employees' reasoning skills, IT abilities, and creativity, a growing number of companies in Asia complain about the difficulty of finding qualified workers. Part of the problem is that the top-tier tertiary institutions in Asia have limited capacity, while second-tier institutions do not prepare graduates well in terms of

the business skills and creativity required for success in top companies. In India, for instance, fewer than 10,000 students enter the prestigious Indian Institutes of Technology (IIT) each year out of 320,000 who take the entrance exam—a lower matriculation rate than those at the top Ivy League universities in the U.S. Millions of Indian students graduate each year but employers complain about the graduates' lack of workplace and innovation skills.<sup>48</sup>

Businesses could establish their own corporate education centers to train employees, or engage local universities or tertiary institutes to design specific programs oriented toward developing employment skills. Given the right government policies, privately owned universities could also be established to train talent in foreign language skills and technical skills such as engineering and design, to meet the needs of multinational companies operating in Asia as well as Asian companies expanding globally. These solutions allow companies to increase local worker quality at a lower cost and larger scale than sending people overseas for training.

### CASE: INFOSYS GLOBAL EDUCATION CENTER

In an effort to enhance employment training and job performance, Infosys established its Global Education Center (GEC) in Mysore in 2005. The GEC was expanded in 2009 to create a training complex covering a total area of 1.44 million square feet and capable of accommodating 14,000 new recruits. Infosys invested over \$450 million in the GEC complex, with the majority of the

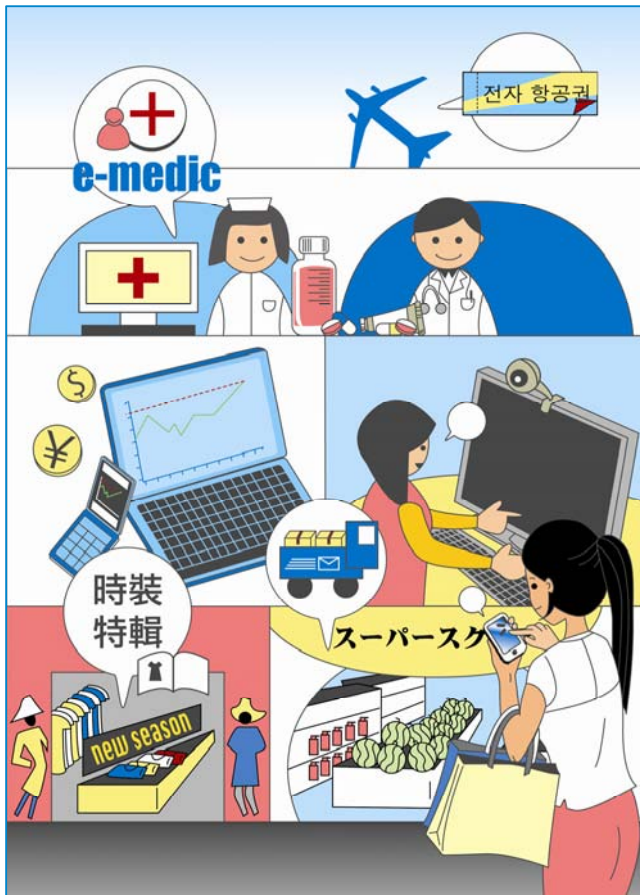
investment going toward education programs and training-related infrastructure. The GEC is modeled after a university campus, and has 147 training rooms, seven food courts, and two libraries with a combined collection of 140,000 books. The Center offers a required 14-week intensive training program for new hires as well as skills workshops for more experienced employees.<sup>49</sup>

In addition, Infosys engages 510 Indian engineering colleges to design academic programs oriented toward employment at the company. Infosys' Campus Connect program trains faculty in business skills and software engineering so that they can include such skills in their curricula.<sup>50</sup> Moreover, the Infosys Foundation, established in 1996, aims to support the underprivileged in society as well as increase workforce education and skills in India. The Foundation has made a contribution to several self-employment courses at the post-graduation and post-matriculation levels at the Nrupathunga Educational Institute in Hyderabad, and has set up libraries in Hubli and Bangalore focused on ICT and electronic engineering.<sup>51</sup>

#### **CASE: PRIVATE UNIVERSITIES IN CHINA**

Higher education in China has benefited from private participation since the Chinese government opened up the sector in 2002. Since 2003, a number of private universities based on joint partnership between China and the United Kingdom have been established, including the University of Nottingham Ningbo, China (UNNC) in Zhejiang province; United International College (UIC) in Zhuhai in Guangdong province; and Xi'an Jiaotong-Liverpool University (XJTLU) in Suzhou in Jiangsu province. These universities are focused on training students in English and practical business skills to prepare them for employment at international companies operating in China. In the case of XJTLU, lessons are conducted only in English starting from the second year of study. Students are also able to transfer to the University of Liverpool to complete their degrees. Around 400 XJTLU students are currently studying there.

The privately owned Jiangxi BlueSky University in Jiangxi has nearly 15,800 students from throughout China. More than 95% of 2009 graduates have found jobs,<sup>52</sup> which is much higher than the average national employment rate of new graduates (72% in July 2010).<sup>53</sup> Some 2,000 of these graduates have been employed by multinational and large local companies in Dongguan in Guangdong province.<sup>54</sup> Graduates of the privately owned Beijing City University have been employed by companies such as the Beijing University Founder Group, Tsinghua Tongfang, and Lenovo.<sup>55</sup>



## CONNECTIVITY AND NEW CONSUMER BEHAVIOR

Digital connectivity is becoming a necessity rather than a mere convenience for urban living. In China, the Internet penetration rate is 45% in urban areas and only 15% in rural areas.<sup>56</sup> Currently, almost 60% of urban Internet users are under the age of 30.<sup>57</sup> These young urban populations conduct their daily interactions largely through the Internet, including paying bills, reading the news, mapping locations, conducting work meetings, shopping, and organizing their social lives. For broader populations, living in increasingly crowded cities will also mean that the existing systems delivering basic services like healthcare and banking will be strained. Processes like accessing

and standardizing medical records, responding quickly to health emergencies, and processing banking transactions are less efficient and more prone to error if technology is not optimized to expand these systems in conjunction with growing populations.

Because of the scope of these new demands, cities have great potential to become prime centers for smart technologies. There are tremendous commercial opportunities for businesses to embed services and applications into a variety of consumer devices like mobile phones, computers, or household appliances, so that they can understand, predict, and respond to users' daily needs. Estimates are that the number of smart phone users in Asia will reach 347 million by 2015, from 120 million in 2007.<sup>58</sup>

Asia already has rapidly growing mobile networks providing the infrastructure for these developments. By 2011, Asia will be home to more than half of the world's mobile connections. China, India, and Bangladesh will account for 77% of Asia's mobile connections growth.<sup>59</sup> These networks will not only connect people, but enable a wide variety of objects or services to be interconnected. A speech by Chinese Premier Wen Jiabao in August 2009 encouraged the rapid development of the "Internet of Things" technologies—sensors and actuators embedded in physical objects linked through wired and wireless networks that can track consumer behavior and predict their needs. Guangzhou has since established a goal to become a key Internet of Things

hub by 2013 and the city plans to spend almost \$15 million annually on building the required infrastructure.<sup>60</sup>

### **CASE: MOBILE BANKING**

More Asian consumers will be using their mobile phones to check balances and make payments. Mobile phones have allowed wider dispersal of banking services without relying on traditional facilities, especially for the urban poor who normally have limited access due to lack of banking facilities in their areas. Research firm Gartner estimated that 42 million mobile users in Asia used their devices to make payments in 2009, and this number is expected to hit 63 million (58% of global users) by the end of 2010.<sup>61</sup>

In India, mobile banking is set to explode. About 15% of total urban Indian mobile phone users used mobile banking services in 2009.<sup>62</sup> Urban mobile banking subscribers are expected to reach 65 million by 2012, from 23.5 million in 2009.<sup>63</sup> As access to physical banks is inadequate, mobile phones can act as bank branches that offer easier access to banking services.<sup>64</sup> Research shows that mobile banking is popular among subscribers below the \$7,000 annual income bracket (about 54% of the total users), which indicates that mobile banking is more popular among lower urban income groups as well as among the younger generation. Account balance viewing is the most popular banking service used by urban Indians (with 40 million users), followed by checking the three most recent transactions (28 million), and the status of checks (21 million); these are basic but essential financial services for the urban poor.<sup>65</sup> ICICI bank plays a leading role in mobile banking—42% of all mobile banking users bank with ICICI, followed by HDFC (25%).<sup>66</sup>

### **CASE: SOCIAL NETWORKING**

Consumer-generated media, or social networking, is the most popular form of online activity in Asia, with 96% of Korean Internet users and 75% of Japanese Internet users participating in media such as blogs, networking sites, and tradable videos. Internet company Ameba has capitalized on the new prevalence of smart phone technology in Japanese cities, where more than three-quarters of the country's population lives. Over a third of Ameba's registered users live in the 10 largest cities. Over seven million customers have their own blog on Ameba, which has become the country's most popular social media website.<sup>67</sup> After viewing the success of American micro-blogging company Twitter, which allows users to post and follow status updates, links, and pictures, Ameba's parent company Cyber Agent launched its own version of the service, called Ameba Now.<sup>68</sup> The new service has opened up a new form of revenue for the company, which earns its profits based on Internet advertising and online foreign exchange trading. Advertising sales for the third quarter of 2010 reached \$160 million, up 32% from the same period last year.<sup>69</sup> With the launch of Ameba Now, Cyber Agent has begun to recruit celebrities to "tweet" endorsements of products on their blogs, which are followed by millions of consumers.<sup>70</sup>



## DEVELOPMENT AND PRESERVATION

A growing influx of urban residents is aggravating housing shortages that already exist in many large cities. A government study in India predicted a shortage of 27 million homes in urban areas by 2012.<sup>71</sup> The Philippines has an acute shortage of housing, estimated at over one million units.<sup>72</sup> On the one hand, there is a shortage of quality mass housing for middle- to high-income urban residents. The result is urban sprawl as people move to the outskirts of cities. On the other hand, informal settlements are springing up, making the planning of public facilities and delivery of services more difficult.<sup>73</sup> In Mumbai, 60% of the population lives in shantytowns, which cover only 6%

of the city's land.<sup>74</sup> Despite efforts by national governments and international organizations like the United Nations to move people out of poor living conditions, almost 280 million urban dwellers in East and Southeast Asia still live in slums, which are defined as rundown areas of cities with substandard housing and inadequate sanitation.<sup>75</sup> A new approach to growth is needed, to build housing capacity and to make cities more livable.

Businesses need to attract workers and consumers to live in cities where they have operations and markets. While government urban planning decisions determine land use, the availability of publicly funded housing, and surrounding infrastructure, businesses can contribute in two major ways. First, businesses can finance and develop larger-scale metropolitan projects that increase housing stock. Second, they can redevelop existing neighborhoods to help build residential capacity while keeping spaces vibrant and interesting.

With continued globalization of cities, urban neighborhoods will play an increasingly important role in citizens' personal, cultural, and social identities. Issues like the displacement of current residents and deterioration or demolition of local heritage property need to be resolved. The perceived conflict between property development and conservation has often hindered the redevelopment of neighborhoods of fast-growing cities in Asia. Government, business, and the public must reach common ground on how to increase residential capacity while keeping the

collective memory of neighborhoods alive. Businesses should become involved in conservation efforts because culture and heritage are key to a city's competitive advantage; they are what make a city unique and attractive to investors, employees, and customers. New and diverse populations, ranging from global executives relocating to the region to rural workers seeking employment opportunities in cities, will also be looking for a sense of place and identity as they establish new roots.

### **CASE: TIANJIN ECO-CITY**

One of Asia's and the world's first planned major low- to no-carbon city projects is the Tianjin Eco-city, which is being jointly developed by the Chinese and Singaporean governments. Located on a 3,000-hectare plot 25 miles from Tianjin's city center, the Tianjin Eco-city plans to house 350,000 residents in the next 15 years. The developers lay out dual goals of providing quality housing for varying income levels and ensuring a sustainable urban environment. While previous Chinese efforts including the Dongtan project near Shanghai have failed, developers say this one will succeed. Factors in favor of the eco-city include existing transportation and electric grid infrastructure, an established recycling industry cluster nearby, and more than 150 global and Chinese companies registered to operate in the eco-city.<sup>76</sup> A distinct feature is that while residential and commercial buildings will achieve high environmental performance standards in accordance with Singapore's national green buildings rating, the Green Mark Scheme, the project aims to be commercially viable and primarily focused on affordability for Chinese residents, rather than on showcasing expensive, cutting-edge technologies.<sup>77</sup> The performance of the city on key principles—"practicable, scalable, and replicable"—is to be tracked to measure success. It attracted total planned investments of over \$6 billion from Chinese, Japanese, and Taiwanese companies in less than a year after it broke ground in late 2008.<sup>78</sup>

### **CASE: SINGAPOREAN EFFORTS TO PRESERVE HERITAGE**

Singapore's example shows how the government, the public, and businesses can jointly contribute to conservation efforts. When Singapore's redevelopment took place after independence, many of the city's historical sites were bulldozed to make way for skyscrapers. But in the past two decades, the government has promoted the search for cultural identity and collective memories. Rather than confining decision-making to the government, the Urban Redevelopment Authority (URA) conducted extensive public consultation on its urban conservation plan. Of 35,000 people visiting public exhibits of potential heritage sites, 97% of those submitting feedback endorsed the government's proposed plan, and 87% suggested additional sites.<sup>79</sup> In 1995, the URA launched the annual Architectural Heritage Awards to recognize business efforts to conserve buildings. A number of new private developments have preserved original features. For instance, CapitaLand turned the iconic 1950s Asia Insurance Building, which used to be the tallest building in Southeast Asia and a symbol of Singapore's aspiration to become a financial and commercial hub, into a high-end serviced residence called Ascott Raffles Place. The developer preserved the 1950s Art Deco architecture and original interior features such as a Travertine marble and brass mail chute. Another residential development called Citylights built "heritage townhouses" from shophouses, hybrid buildings from the colonial era that have shops on the ground floor and residences upstairs.<sup>80</sup> Both developments won URA Architectural Heritage Awards.



## CONCLUSION

Forward-thinking businesses are already acting on the immense business opportunities associated with urban growth in Asia. Rather than waiting for governments to act, businesses can proactively seek out ways to provide solutions to unprecedented urban challenges, alone or in concert with governments. With their expertise and resources, they can fundamentally change how cities in Asia work and how billions of people live.

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