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# Business & Technology

REPORT



## KOREAN **PEACE BUILDER** **HONORED**

PRESIDENT LEE'S  
VISIT TO INDIA

SAUDI'S WOMAN  
ENTREPRENEUR

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# KOREAN PEACEBUILDER RECOGNIZED BY FRENCH FOUNDATION

INTERVIEW

BY STAFF REPORTER

D

r. Jae Kyu Park, President of Kyungnam University in Korea, recently received the prestigious Chirac Foundation Special Jury Prize for Conflict Prevention in November 2009. Asia-Pacific Business & Technology Report caught up with Dr. Park to ask him about the recent honor.



**Question: Congratulations on receiving the Chirac Foundation's Special Jury Prize for Conflict Prevention. How do you feel about being selected?**

Answer: First of all, I feel extremely honored to have received such an award. I was contacted back in early October and told I was to be the recipient of the Chirac Foundation's Special Jury Prize for Conflict Prevention. It certainly caught me by surprise. I had no idea that I was even being considered for such an award.

**What was behind the Chirac Foundation's decision to award this prize to you?**

Well, over the years I have been primarily making academic exchanges with countries surrounding the Korean Peninsula and especially with the United States. In fact, it was completely unexpected to receive this recognition from France, which is the political center of Europe. In that sense, I feel that it is an even greater honor to have received this award.

The Chirac Foundation indicated consistency and non-political nature on being awarded. Over the decades, I have contributed to the efforts of striving for peace on the Korean Peninsula by consistently continuing my research on North Korea. I was evaluated on the establishment of the Institute of Far Eastern Studies (IFES), which was established for the purpose of furthering research on North Korea. I was also evaluated on the establishment of the University of North Korean Studies (UNKS), which was established to cultivate North Korea specialists. In addition, my service as the active minister of unification at the time was also given consideration.

## Reconciliation is still a bumpy road and a work in progress.

**Why did you create the IFES and UNKS?**

Well, after returning to Korea from America and completing my military service, instead of heading back to my doctoral studies, I realized there was important work to do back home first. Part of that meant rebuilding Kyungnam University into a modern institution for higher education. So in early 1972, we began to expand the university and also offer more specialized education. As a component of that development, IFES was established.

UNKS wasn't established until 1997, but basically it was

**What are your thoughts on receiving this award?**

Above all, the award is personally meaningful in terms of being recognized internationally for the 40 years of work that I have carried out, without ever veering from my original purpose – that is, trying to bring peace and reconciliation to the two Koreas. The award is a source of new encouragement.

**How did you become so interested in North Korean Studies?**

Actually, back in the 1960s, I had received a scholarship to attend graduate school in America and so I eagerly went. In my first term there, I signed up for a lecture being taught by Peter Wiles, a well-known professor visiting from the London School of Economics. He noticed me and requested that I write a report on the North Korean economy. I was quite honored to have gained his notice and so I went right to work on the report. It must have impressed him because he later suggested that I go to LSE on scholarship to study about North Korea. From that moment onward my interest in North Korea grew deeper and deeper.

built with the same purpose in mind: to provide expert knowledge on North Korea and inter-Korean relations so as to promote a global understanding of the North and likewise peace on the peninsula. Its overall goal is to provide students with the practical training and theoretical knowledge that will help them play active roles in future peacemaking and unification processes. The school has grown over a short time and I'm quite proud of what it has achieved thus far.

**The Chirac Foundation Prize in part recognizes your achievements in organizing the historic first ever inter-Korean summit in June 2000. What was it like to play such a big role in the summit and what is its lasting significance?**

I wouldn't say that I played a big role, but I'd like to think that I did contribute in a small way to its success. On Christmas Eve 1999, President Kim Dae Jung called me and asked that I take on the job of Minister of Unification. I did, and in the process leading up to the June 2000 summit and afterward, I was fortunate to have had the president's support and trust in my opinion and analysis of North Korea. If you know and understand anything about the history of modern Korea, then you'll know how exhilarating it was to have witnessed firsthand the leaders of the two Koreas shake hands and engage in serious dialogue.

As for the summit's lasting significance, that's fairly obvious. After fifty years of enmity, the two Koreas are now moving forward with a cooperative spirit to reconcile their differences and build a future of friendship and peace. I'm honored to have had the opportunity to play a part in such a critical juncture in Korea's history.

**The Chirac Foundation Prize is an honorable award to receive as a Korean but at the same time, the prize magnifies the severity of the inter-Korean conflict, even today. If you were to review 2009's inter-Korean relations in terms of conflict and reconciliation, what would be your verdict?**

Well, as I said, the climate on the Korean Peninsula has changed markedly from what it was decades ago. Reconciliation is still a bumpy road and a work in progress. But inter-Korean relations have improved in countless ways. The current deadlock has eased considerably, but it is difficult to say the two Koreas have achieved normalization. The nuclear issue has not yet shown any visible changes, therefore the opportunity for inter-Korean relations to progress has not been provided. Partial working-level talks and reunions of separated families have been held, however meetings between government authorities to promote the cooperation and progress of inter-Korean relations have not been held yet. The exchanges and cooperation of the private sector is at the moment quite static. Nevertheless, since last August, we can see a more positive attitude between the two governments, emphasizing the practical need for exchange and dialogue.

**What roles might Asian countries like India and those of ASEAN play in helping find solutions to the problems on the Korean Peninsula?**

Well, broadly speaking, from a Korean perspective, it is important for Korea to diversify its relationships. From an economic viewpoint, Korea's relations with countries like India are growing and becoming quite robust. At the same time, we would like to enhance other Asian countries' understanding of the security issues on the Korean Peninsula from a perspective of world peace. Their enhanced understanding of the issues from such a perspective might help them find suitable roles in the future.

**What do you see as your role in global peacemaking?**

I don't really see myself as having a role, per se. Like anyone, I just want to contribute to the promotion of peace – that's the universal task of all mankind. I was inspired to pursue my beliefs, and overcome the obstacles in front of me, with enthusiasm and spirit. All I try to do is my best, every day, and try to instill courage and confidence in others. Hopefully, my best can in some way help lead to reconciliation between the two Koreas. That, I believe, will help promote peace in the world.

I think that the fact I was awarded the Chirac Foundation prize shows that North Korean issues are not simply of regional concern, but also issues of considerable interest to the international community. So I think the scope should



be expanded to the international level from now on. In particular, many European specialists whom I met at the award ceremony asked me to make efforts to raise awareness about North Korean issues in Europe. Although we have conducted exchanges with the European countries, the activity has not been as large as it is now. With the award as momentum, I will try to vitalize exchanges with European countries, among others.

**What's your plan for the future to prevent conflict on the Korean Peninsula?**

Well, the award becomes a source of new encouragement and momentum for assuring myself that I should redouble my efforts. So I have reestablished my resolve to try to do more. Especially, I will redouble my efforts to encourage IFES to carry out more research activities and to nurture expertise in the field through UNKS. I can only hope that one day I will see all people from both sides of my divided homeland join hands in true reconciliation and peace. A-P

# PRESIDENT LEE'S VISIT TO INDIA



BY S.P. SINGH

**T**he Korean president's visit to India is full of symbolism. Since both countries established diplomatic ties in 1973, this will be the first time the Indian government has invited a Korean president to be a state guest at India's Republic Day functions in New Delhi, which takes place on Jan 26.

This is India's annual republic day function, to which only a close top world leader is invited as a chief guest. The very fact this Indian government decided to invite President Lee Myung-bak says something of Korea's emerging importance in India's strategic and economic status. Also, this is the third visit of a Korean president to India in the last 13 years. Not many other East Asian countries can claim to have this kind of political exchanges with India in recent years. India-Korea ties seem to have a force of their own.

Apart from the symbolism, an economic and business element was attached to President Lee's visit to India. The visit comes at a time when Asian economies are facing a financial crunch and are going through very critical economic and structural adjustments. Asia's traditional economic ties with the United States and Europe are weakening and intra-Asian trade and economic exchanges are growing at a fast pace. India, who traditionally had stronger ties with the West, is looking east and is engaging with East Asia like never before. It is estimated, with the current rate of engagement, that India's economic exchange with the region will cross the \$500 billion mark well before the end of 2020.

Bilateral trade between India and Korea has seen unprecedented growth in recent years. As an example of this, the trade volume between the two countries was just over \$2.52 billion US dollars in 2001. In less than eight years it has reached more than \$18 billion in 2009. For the last few years, trade is said to have grown 100 percent every year. The current phase of trade growth between the two countries is expected to reach \$100 billion in next decade.

The recently signed CEPA is expected to give a big boost to the growth of trade ties between the two countries. It is being sold as the biggest milestone in the

Apart from economic cooperation, they have also been getting closer in the political and security fields. High-level political and diplomatic visits of top leaders have been growing between the two countries in recent years.

To make sure political ties grow alongside economic ties, both countries have established a "Long-term Cooperative Partnership for Peace and Prosperity." And to give further boost to security ties, an India-ROK Foreign Policy and Security Dialogue was established to promote exchanges and interactions in the defense field, including the safety and security of international maritime traffic, cooperation between their navies, coast guard and related agencies.

Current global peace and security-related issues like terrorism, sea piracy and global warming are also bringing the two countries together like never before. Since the early days of the war against terrorism, Korea has been playing a very important role as a regional ally of the U.S. It sent its forces to both Iraq and Afghanistan. Both countries are finding themselves as natural partners.

It is playing a very active role in both Afghanistan and Iraq. There has very high potential for cooperation between India and Korea in the fight against terrorism. Sea piracy and the security of sea lanes of communication is also emerging as an important area of cooperation between the two countries. Korea has a very high stake in the peace and security of the Indian Ocean. Cooperating with India will ensure Korean ships have unrestricted sea lanes in the Indian Ocean.

The changing strategic balance of power scenario is also emerging as a factor in the relationship between the two countries. Korea, who has been looking for an outlet to avoid the emerging tussle between an emerging India and the United States, find in India a natural ally who is also concerned with the bad impact this power struggle will have on the stability of the region. Both India and Korea are trying to strengthen multilateral institutions to maintain peace in the very volatile and fast-changing region.

India has been looking towards the East for two decades now. But, so far, its focus was only on economic and trade ties. With the changing times it has started changing where it looks and has widened its perspective lately. A-P

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# PIRATES & IRON: China has Problems

The De Xin Hai is photographed here in Qingdao, after making it back safely.

BY MATTHEW WEIGAND

**C**hina is supposed to be a huge player on the international stage and, especially, a major power in the Asia-Pacific region. But the country not only has long-standing domestic unrest problems, but also shows difficulties in relating with the outside world in a meaningful manner. While the Chinese ruling elite seem to be pretty good at keeping their various Chinese internal factions in check, they seem to not be able to relate well with non-Chinese events outside their borders. Two recent examples of this are the Chinese government's resolution to a captured Chinese cargo ship by Somali pirates, and its failed play at hardball in the iron ore negotiation arena, which have left analysts scratching their heads in confusion. What is China trying to accomplish?

The De Xin Hai, the cargo ship seized by Somali pirates in October, was released Dec. 27 and was escorted safely home by Chinese warships in the area. While the official Chinese statement issued Dec. 28 confirming the ship's release made no mention of any ransom payment, a spokesman for the pirates said Dec. 27 that a helicopter dropped US\$4 million onto the ship to facilitate the release of the 25 crew members and the ship. The crew

is reportedly safe, and the De Xin Hai made it back to China.

The bulk carrier ship owned by a unit of China Ocean Shipping was hijacked Oct. 19 while traveling from South Africa to India, roughly 700 nautical miles off the Somali coast. The Chinese government immediately responded by threatening to launch a naval rescue mission. Beijing saw the hijacking as an opportunity to demonstrate its growing naval strength and

dispatched the two guided-missile frigates patrolling the Indian Ocean, the Zhoushan and Xuzhou, subsequently replaced by the Maanshan and Wenzhou as part of China's anti-piracy patrols. They raced to cut off the De Xin Hai before it reached the Somali coast.

Neither the Zhoushan nor the Xuzhou was close enough to intercept the captured ship before it reached port, however, rendering talk of a rescue operation moot. Carrying out a successful rescue operation to save ships hijacked by Somalis is hard enough at sea and is rarely attempted. The much-publicized rescue of the captain of the Maersk Alabama took place under unique circumstances. The difficulty of conducting rescue missions once a ship has reached port increases exponentially because the pirates are in familiar territory in which they possess superior geographic knowledge, which allows them to dig into more easily defensible positions.

At the same time, Somali pirates rarely execute their hostages, as their goals are not ideological but financial. The choice for a country that has to deal with a hostage situation involving Somali pirates, therefore, is one that pits a high-risk rescue operation against the option of paying a ransom, which by now has a proven track record of success for the return of cap-

tives unharmed. Countries, therefore, almost invariably choose the latter.

As such, the fact that the Chinese paid up in the end should be seen as Beijing adhering to the status quo. Even the United States could well have chosen to make payment had the hijackers made it back to Somalia with the Maersk Alabama; the immense tactical problems of such a rescue attempt are difficult to overstate.

However, it is noteworthy that the price reportedly paid by China was high. While any figure stated by the pirates is suspect, \$4 million would represent an extremely high price for a coal ship such as the De Xin Hai. Beijing has thus gone from an initial desire to send a message to Somali pirates that Chinese ships are not to be touched (as the naval rescue operation would have conveyed), to sending the opposite message – Chinese ships will fetch a high ransom.

This end seems to not have been anticipated or considered by the people involved in the operation. The end result, of course, is that Chinese ships are more valuable and more at risk when traveling near Somalia. This is a high-cost move that can have bad repercussions later on down the road.

## Iron Brings its Own Problems

Iron ore is another arena in which China has been acting strangely. China, the world's biggest iron ore consumer, has begun its annual negotiations over iron ore pricing, which often carry on until May. This year, China is trying to wrap them up as quickly as possible, with a push to finish by the end of January. But China appears not to have learned the lessons of its iron and steel industry headaches over the past year, making 2010 likely to be another year of setbacks and dubious successes.

Worldwide, more than 95 percent of mined iron ore goes toward the production of steel, which cannot be made without it. Hence there is a heavy dependency built into the relationship between iron ore mining companies and steel producers, which often stand at odds. Mining companies face volatility in their work: the amount of iron ore extractable from a given rock varies widely, making output relative to costs unpredictable and, thereby, adding risks to the mining enterprise. Meanwhile, steel producers face a supply bottleneck, since their most important raw material is produced by a handful of companies. Steel companies must compete with each other for scarce supplies while swallowing the costs that iron ore pro-

ducers push onto them.

**\$4 million would represent an extremely high price for a coal ship such as the De Xin Hai.**

economy in order to maintain high employment levels and job creation rates. Economic growth has become a prerequisite for social stability in a country with a massive population and deep rifts between rich and poor and urban and rural. Without growth, instability could spread and eventually threaten Communist Party rule. With economic growth paramount and the steel industry a major driver of that growth, a great deal of demand for iron ore is built into the system. This has become especially true since Chinese steel companies began shifting toward imports and away from domestic iron ore, which is low quality and difficult to transport. Beijing cannot arrest the growth of the steel industry.

These underlying facts have become all the more important to the Chinese leadership amid the global recession, prompting Beijing to surge fiscal spending and bank credit to pick up the pace. China's economy has maintained a high rate of growth thanks to this boost in public demand and easy credit. Now, with global recovery uncertain, Beijing's steel production is plowing ahead and soaking up ever greater quantities of iron ore in the process. The World Steel Association estimates that, while global steel use fell by about 8.6 percent in 2009, it would have fallen 24.4 percent without China.

As the world's biggest steel maker and consumer of iron ore, China has attempted to wield influence over the major iron ore producers – namely, Australia's BHP Billiton, British firm Rio Tinto and Brazilian firm Companhia Vale do Rio Doce (Vale). In 2008-2009, Beijing aggressively tried to take advantage of the ailing global economy by investing in or purchasing assets or equity stakes from iron ore mining companies. It also attempted to use its massive demand for iron ore as a lever against iron ore producers by uniting all of China's steel companies under a single negotiator (the state-run China Iron and Steel Association, or CISA) and getting them to ask for price cuts of 40 to 50 percent.

The plan backfired. The iron ore companies were not as desperate for cash as Beijing thought, and governments chose to protect national assets from Chinese acquisition. As the holders of the iron ore, producers deeply understood that it was they, not China, who held the cards. As for the price negotiations, they dragged on fruitlessly for months until they collapsed. The CISA was a state organ, not the usual corporate bargaining partner,

and it refused to compromise on its demands for massive price cuts.

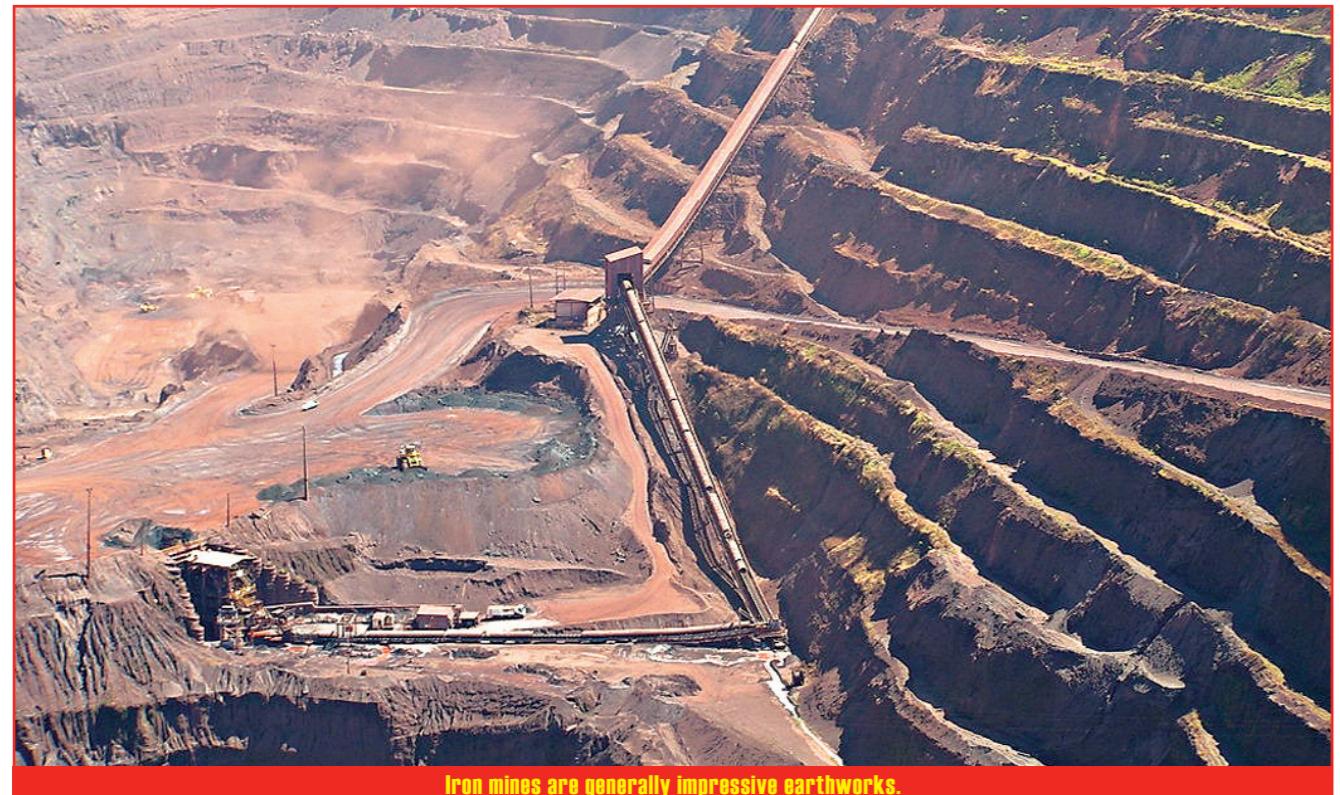
The failure of negotiations left China without an agreement for the year's benchmark prices. By that time, the major Chinese steel companies had broken ranks with the CISA and signed contracts of their own with foreign suppliers based on the Japanese benchmark price of about \$63 per metric ton. This forced the remaining steel companies to fend for themselves on the spot market – where risks and costs are higher – for the remainder of the year. In fact, spot prices rocketed up to well over \$100 per metric ton in the months following the failed negotiations; the six-month average was \$96 per metric ton. Relations between the iron ore producers and Beijing hit rock bottom when Chinese authorities

out to Brazil for a closer working arrangement with Vale, in hopes of breaking the powerful iron ore triangle of BHP Billiton, Vale and Rio Tinto. Meanwhile, China is attempting to prevent closer coordination between Rio Tinto and BHP, who have set up a joint venture in Australia. Incensed after the failure of China's own bid for a partnership with Rio Tinto, Beijing is threatening to use anti-monopoly laws to fight the joint venture and block its imports into China.

So far, however, these plans do not appear to hold much promise. The one positive for China is that Baosteel, rather than the CISA, appears likely to head the newest round of negotiations, after harsh criticism of CISA for mishandling the 2008-2009 negotiations as an out-of-touch government

the fact that it needs the iron ore. Last but not least, China's detainment of the Rio Tinto executive has not helped it win friends in the industry.

Fundamentally, China's bargaining position with its iron ore suppliers has worsened, not improved. Chinese demand is growing ferociously, and Beijing, unwilling to inflict economic pain upon itself, cannot credibly threaten to boycott the iron ore majors. Producers recognize this and will not relent from their position, which grows stronger as global demand recovers and iron prices rise. Much remains to be seen in the iron ore negotiations now underway, but the bottom line is that Beijing has not come to terms with the greater dependence on outside sources of iron ore that is inherent in the frantic growth of its steel industry.



Iron mines are generally impressive earthworks.

conspicuously arrested Rio Tinto's top iron ore salesmen in July on charges of espionage and bribery related to the negotiations (the leader of the team has still not been released).

Yet, China hardly appears to have changed its tack despite this year's lessons, and the negotiations for 2009-2010 could get ugly again. China's plans are clear: settle a benchmark price as quickly as possible. Time is of the essence because iron ore prices are set to rise this year given the stronger global demand, and Beijing wants to avoid buying on the spot market. China is also seeking to diversify its iron ore suppliers to enable greater bargaining power, mainly by investing in smaller producers more susceptible to Chinese influence, and is reaching

entity with no experience in the world of trade. The marginal benefits that Vale is willing to offer in iron ore prices will not offset the massive costs associated with China's investing in deep ports and ultra-large shipping capacity to make trade with Brazil cost effective. Once China builds the capital-intensive infrastructure, it will gain long-term customers, but will not prevent Vale from driving hard bargains on prices in the future. Nor is Vale necessarily hostile to the other iron majors – Beijing's attempts to drive a wedge between Brazil and Australia are obvious and not particularly effective. China also has not gotten international support for its accusations of monopoly against Rio Tinto and BHP, and its threats to block imports belies



### Wrong Way Around

The end results of two of China's actions have lately been the wrong way around – pirates like the ships of this country more, while its trading partners like the country less. The people who will disrupt shipping are encouraged to do so more strongly, while those with whom the shipping is heading to and from will send less. Aside from a humorous suggestion that this is part of China's long-term strategy to starve the Somali pirates, both results seem to be counter-intuitive to sound long-term planning. This just goes to show that when it comes to events outside of China, the government is not as savvy as it could be. China is like a bull... a shop of fragile things. [A-P](#)

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# APPLE'S iPhone. WHAT IT CAN DO FOR YOU

BY VINTI VAID

**W**hen the iPhone was launched by Apple in 2007 in the United States no one realized what a storm this palm-sized device was going to stir up. A breakthrough in mobile phone technology, the iPhone offers its users a range of features including medical advice for elders and wireless phone applications for the military. This article discusses the various applications for the iPhone and its uses for people from all walks of life.

## iPhone for the Frequent Traveler

The iPhone is a perfect partner when traveling abroad if one examines the usability of the app which reveals to the user the emergency services contact number based on the device location. The user may know the emergency number of his home country, but not necessarily that of another. This emergency app makes travel safe for all.

Talking about travel to foreign locales, the iPhone even helps people learn languages. The **iStart Japanese** app is an innovative interface very much like a teacher who gives private lessons. The only difference being the expense, which is far less compared to a real teacher. Full audio tutoring in the form of dialogues imparts spoken Japanese knowledge. Training also includes explanations to write the script with animated stroke order diagrams. This app would surely help frequent travelers to Japan in acquiring some basic knowledge of the language.

While visiting foreign countries, many travelers face the problem of reading road signs and the problem only compounds when trying to eat in a restaurant that has menu cards printed in the local language. Now this app lets the iPhone user shoot a picture of foreign text and get the translation immediately. **Babelshot** brings cheers to frequent travelers to foreign locations.

## Business as Usual

No doubt the iPhone makes business travel easier, but it also takes care of maintaining business contacts. The **Business Card Reader** enables instant and secure business card recognition. The user has to click a photo of the business card and within seconds the phone will show recognized contact information. The recognition is done right on the iPhone. The information then has to be verified and contact details submitted to the iPhone Address Book.

Businesses have benefitted a lot from the iPhone. The latest being CaesarStone, a quartz surface manufacturer. The **MobileGallery** iPhone application launched by the

company enables consumers and designers and dealers to browse and order samples from a lineup of countertops and surfaces displayed on their iPhone.

Gone are the days when consumers had to peer at brochures and sample cards to select their preferred color and texture. The pictures in the MobileGallery gives a clear idea of what to expect from the real thing, which goes a long way in helping people decide on purchases, especially when it is impossible to see several samples in one location.

Recently, India-centric online auction house for fine-art Saffronart launched an iPhone application which allows auction participants to bid for art works and jewelry from the mobile device. This enables art lovers the world over to participate in an auction without leaving their rooms or while traveling. This allows them to be productive by being at work and still attend the auction as well as reducing travel requirements and, hence, their carbon footprint.

**Saffronart** promotes the market for modern and contemporary Indian art by offering easy access. The iPhone application will feature all facilities seen on the website and users will have access to the auctions. The application features color-coded bid status indicator and proxy bidding capabilities. It also provides information on current bid amounts, bid histories and post auction results. The entire auction catalogue can be previewed by the iPhone user.

To give a good idea about the items on auction details like size, surface, medium, estimates, images, lot number, artist or designer name, material or type of jewelry are available on the iPhone. Collectors have to pre-register before bidding. All login details and bids are transmitted securely via optimized technologies.

## iPhone for Fun

The iPhone is not only a military or business or travel accessory, there is more to the device as an entertainment tool. The **App Store** ([www.apple.com/iphone/apps-for-iphone/](http://www.apple.com/iphone/apps-for-iphone/)) is continuously churning out games and music applications as well.

For 3D flight simulator lovers, there is **Sky Racer** with versions that boast of complicated stunt routes, amazing visuals, stunning lakes, rivers and mountains.

Or the game can be simple, like **Monkey Jump**. The gamer has to help the monkey collect all the bananas by jumping from side to side. A jump costs energy and the gamer loses energy if the monkey hits an enemy. The game is over when all the energy is lost.

Memory match, Sudoku, gambling, poker, tic-tac-toe, marble games, cards and many others are available for indoor game lovers. If the iPhone user is the outdoors type, then they can play football, ping pong or basketball on their palm top. Be a detective, go to the casino, or even go on a treasure hunt. Whatever the user fancies, he can indulge in it without moving a step. The iPhone apps keep boredom away from people waiting in airport lounges or stranded without any company.

Pursuing hobbies without all the paraphernalia usually required is yet another offering from iPhone. There are apps to keep you busy during your free time. It could be grilling, bird watching, shopping or even painting. This helps frequent travelers to catch up on their hobbies enroute. Such fun pastimes are necessary to break the monotony of work. The iPhone helps achieve this by balancing work and play.

Now artists can put their thoughts on canvas using an iPhone app even while traveling. **Inspire** is the latest addition to painting applications on the App Store. Inspire lets users simulate wet oil paint on canvas, which helps produce paint blending effects with four different kinds of brushes.

The iPhone offers an e-reader option for people who love to read. Although this service may not be available in all countries it will soon become a reality when avid readers need to carry only the iPhone and treat themselves to a virtual iPhone bookshelf of favorite titles.

Golf addicts can get in a good game of golf via **Golfshot GPS**, which makes the round easier with details like yardage distances, identifying parts of the game that need improvement, and tracking the score, stats and drives. Golfers will surely enjoy their game more if the problem of battery drain is solved.

It comes as no surprise that the iPhone also offers bird watchers a hand at their favorite hobby. The **iBird Explorer Pro**, an iPhone app field guide provides searchable bird descriptions, pictures, maps, and even plays bird songs. This aids bird location and identification. The **iSpyCams** app lets users keep an eye on animals in zoos and shelters via web cams and finance their upkeep as well. Instead of keeping a physical pet, this also helps conserve wildlife like the endangered Pandas.

## iPhone in Medicine

After tackling iPhone apps for travel, business and play, it is time to look at some physical fitness and medical



apps. **iFitness** offers workout routines for weight loss, muscle building and strength building. This healthcare and fitness app helps maintain a business travel workout routine. It allows logging of workouts and helps users learn to do exercises properly.

The **Oxford Concise Medical Dictionary** for the iPhone contains about 12,000 entries including every aspect of medical science. It was written by medical experts and the entries are the latest, most accessible and concise and are most useful for medical students and also for home reference. It covers medical ethics, medical governance, pathology and emergency medicine.

It offers medical terms and surgical terms associated with anatomy, physiology, biochemistry and pharmacology.

Then there are apps on the iPhone that allow patients to be monitored remotely, especially if they are the elderly living alone. Apps also help with clinical data, check drug interaction, identify pills by appearance and give drug information. The **Snellen Eye Chart** on the iPhone is an eye chart for testing visual acuity.

After providing apps for any and every aspect of daily life, for many there are still more innovative ideas to be tapped. **MyAppIdea** is an app that collects ideas and proceeds by internal selections of the best ones for actual development. A voting mechanism included in the app allows users to validate the originality and usability of the proposed app for the iPhone.

The best idea gets into the o and is developed by professionals. The person who proposed the idea also gets a share of the revenues realized from the application. So if an idea is incubating in your head, it is time to monetize it on the iPhone App Store.

## iPhone in the Military

Recently, Raytheon, a defense technology company in the United States, announced the release of a military-oriented wireless phone application for the iPhone. It will pack in new wireless phone applications designed for military missions and will have content-centric networking, disruptive tolerant networking and augmented reality capabilities. Also featured will be security safeguards for tactical operations.

According to company's sources, the various features developed for the iPhone including global positioning systems, compasses, accelerometers, WiFi, 3G networks and multitouch screens will make the iPhone an optimized war-fighting tool. (And we thought the iPhone was only a mobile communication device.)

This military application is taking things in the reverse order. Previously technologies developed for the war zone and for space research found their way into the consumer appliances like the smoke detector. But this military app for the iPhone is a consumer technology adapted for the battlefield. This only talks about the versatility of the device. **A-P**

# FEMTOCELL THOUGHTS

BY RAJANI BABURAJAN

**F**emtocells are small cellular base stations designed to extend communications service coverage indoors, especially where access would be limited or unavailable otherwise. Femtocell connects to the service provider's network via broadband (DSL or cable). ABI Research predicts that by 2012, 36 million femtocells will be in use by 152 million users around the world.

Femtocell technology can be deployed on all communications standards including GSM (which includes UMTS, HSPA and WCDMA), CDMA2000, TD-SCDMA and WiMAX. However, the GSM family is dominating the femtocell market today with several femtocell vendors including Ubiquisys, Alcatel-Lucent, ZTE, Samsung and others offering support to GSM technology. In April, the Femto Forum, along with the Third Generation Partnership Project (3GPP) officially announced the first WCDMA femtocell standard with specifications that cover network architecture, radio and interference, management and provisioning and security.

## Benefits of a Femtocell

Femtocells promise attractive business opportunities for service providers. They open up opportunities for new services apart from offering increased capacity and coverage. In turn, femtocells reduce both CAPEX and OPEX. Femtocells are also viewed as an alternative to deliver fixed mobile convergence (FMC). Femtocells allow users to leverage existing broadband and IP technologies to deliver low-cost, high quality mobile services using a single handset. While the existing FMC services require dual-mode handsets that work with the unlicensed spectrum wireless access points in the home or enterprise, a femtocell-based FMC works with existing handsets, but requires a new access point that uses the licensed spectrum.

## Femtocell Deployments in Asia-Pacific

The Asia-Pacific region is characterized by a diverse economy with diverse mobile ecosystems, so demand for in-building wireless solutions differs in different markets. While some of Asia's leading mobile operators have stepped into femtocell trials, others are involved in rigorous plans for femtocell deployment. However, there are certain markets in the APAC region, where femtocell is not considered to be a feasible option for quite some time. For example, India is one of the fastest emerging mobile markets in the world; however, operators in the country are not ready to adopt femtocell due to a number of reasons including low broadband penetration and infrastructure-related challenges. In such countries, femtocell may initially emerge as a viable in-building wireless solution for enterprises or public utilities where broadband services are highly available and network coverage is crucial.

In 2008 ABI Research had predicted that femtocells would generate revenue of nearly \$5 million that year from device shipments in the Asia-Pacific region. This figure, though not a huge sum in global terms, is significant because "it comes from a market that barely exists, and as such, it represents quite satisfactory early growth," according to ABI Research. Already several suppliers in Greater China and South Korea have vowed to commercially launch femtocells, with many of them ready to release their



first generation of products.

Ubiquisys, the leading developer of 3G femtocells, recently introduced an outdoor femtocell designed to serve as a mini outdoor base station that supports a small number of users, but over a greater range than indoor femtocells. Ubiquisys developed the technology along with Softbank, a leading UMTS/HSPA operator in Japan. The product connects to an IP Multimedia Subsystem (IMS) core network. SoftBank is deploying the femtocell in rural areas as a means of extending its 3G footprint, company officials said. They plan to eventually expand the technology to urban areas. SoftBank Mobile was the world's first operator to announce a mass-market commercial launch of 3G femtocells using Ubiquisys' ZoneGate device and IMS infrastructure from NEC Corporation.

In South Korea, two leading mobile operators SK Telecom and KTF are looking to develop 3G femtocell-related technologies. The companies have collaborated with China's Huawei Technologies. SK Telecom has developed Mobile WiMax Business Femtocell, which according to the company is a 'super-tiny base station' that offers wireless high speed Internet by accessing the core network through SK Telecom's exclusive network. KTF, the country's leading WCDMA provider, also teamed up with Huawei to develop technology that could reduce the use of outside base stations and cables. The technology can lead to resource and cost saving, and eventually achieve carbon emissions reductions too, say company officials.

In 2008, Starhub, Singapore's fastest growing mobile services provider, announced the first commercial 3G femtocell service in Singapore. Here again, Huawei has helped the company by providing end-to-end solutions for the deployment. The launch of the service was also marked by a number of value-added features. At the time of the launch, the company announced that outgoing and incoming local voice/video calls and SMSs are free for Home Zone subscribers, though other GPRS-related functions such as MMS, Internet surfing and downloading of content via the Web are still chargeable at published rates based on the user's mobile plan. Along with this, the company also announced other bonus offers to appeal to the masses.

China Unicom recently launched their femtocell solution called 3G Inn service with Huawei's femtocell solution. The service offers 3G mobile phones direct connectivity to a fixed broadband network. The service delivers better indoors 3G experience with quicker internet download speeds of around 7.2MB/s. The company has launched it across Beijing for now and plans to provide the service on a nationwide scale in the future.

## Deployment Challenges

### Cost Factor

Femtocell deployments face a number of challenges. According to market research firm Ovum, the price of femtocell is a major concern for operators. While femtocell can result in significant cost savings by offloading a macro network, it still poses a challenge, mainly due to the increased price of deployments. The current price of a femtocell base station varies between \$150 and \$200, which they think is too expensive for initial deployments. Only when the price drops to nearly \$100, femtocell will provide them a business case, Ovum said. The benefits of femtocell can only be realized when there is high penetration and demand for mobile data services, which is not the case even in developed markets like Hong Kong, Singapore and Japan, Ovum researchers said. Further, operators are forced to subsidize the service to accelerate the initial deployments. This would further reduce the ROI, many argue.

'Femtocell-on-a-chip' is a new concept that supports femtocell cost reduction. The integration of software on silicon reduces the number of components and lowers development costs. Integrating femtocell technology into set-top boxes or DSL modems also provides a cost-effective alternative. Scalability is another concern for low-cost femtocell deployment. As an emerging technology trend, femtocell may not see mass adoption at least in the near future. If there is large-scale adoption, operators can avoid the cost of building and maintaining expensive macrocells, thereby making significant cost savings.

## Femtocell as Software

Femto-Engine from Ubiquisys is the world's first software femtocell. The product separates femtocell functionality from the underlying hardware foundation. Simultaneously Ubiquisys also introduced G3-mini, the first Femto Engine-powered femtocell in the industry. Manufactured by SerComm, G3-mini is capable of offering performance of up to eight simultaneous calls and HSPA+.

This development is a revolutionary step forward for the femtocell industry, says ABI Research. This evolution of the Femto concept will enable almost any electronics manufacturer to make femtocell-enabled devices, the agency said. The technology enables device manufacturers to embed femtocell technology in multiple device types and form factors at a breakthrough price point for mass-market commercial adoption.

Femto-Engine software is tested with hundreds of mobile devices and hardened through commercial deployments in networks such as SoftBank and SFR, according to the company. The company is also offering the "Engine-Ready" program to OEMs to fast-track the production of commercial-grade femtocell hardware. Through this, Ubiquisys provides a complete hardware blueprint certified for use with its software, and takes care of selecting the key components, including the baseband modem and RF chipsets.

## Standardization of architecture

Absence of a single, industry-standard architecture is a major concern affecting femtocell adoption among carriers. Currently, there are two broad categories of network architectures: UMTS-based and SIP-based, and there are more than 15 different femtocell architectures being popularized for all technologies including GSM, CDMA, WCDMA and WiMAX. This diversity, according to officials, will result in complications in interoperability and ultimately increased rollout costs. An open standard will be critical at this juncture to create an economy of scale that would enable the OEM and semiconductor vendors to meet the cost challenges and encourage a femtocell market, experts say.

Femto Forum, an independent industry association dedicated to supporting femtocell deployment worldwide, has initiated programs designed to standardize femtocell network architecture and develop a common standard for the future. According to officials at Femto Forum, the common standard will "not only encourage interoperability and increase economies of scale, thereby helping

keep costs low, but it will also help to support far-reaching new femtocell applications."

### Minimizing radio frequency (RF) interference

RF interference is a cause of worry because it can degrade network capacity and quality of service. Femtocells work in the licensed spectrum. Interference happens when the macrocell and femtocell network utilize the same frequency band. Interference can also occur within each femtocell network, especially in crowded dwelling units such as apartments or condominiums. One viable solution for this issue is to deploy femtocells on a radio frequency that is different from that of the carrier's macro cellular network, but in such a case, the cost of spectrum acquisition becomes a concern for many. Another alternative is to utilize the mode-2 fixed power option available in the 3G configuration parameters, which, according to experts, would prevent mobile unit power from increasing and causing interference. "Smart radios" is another innovative concept, which addresses the interference issue by adjusting signals based on their environments. However, this technology may pose certain operational challenges, as it would require the carrier to configure the femtocells centrally.

## Customer Concerns

Femtocells, commonly referred to as home base stations, are sources of hazardous radiation, many think. The industry is keen to educate people about the safe use of femtocells. There is a widespread concern among the providers that customer worries regarding the safe use of femtocells could hamper the progress of the technology even before it takes off. In a paper entitled "Femtocells and Health," the Femto Forum has tried to address the potential health and safety concerns related to femtocells. It states that femtocells must comply with the same safety limits applied to other wireless devices such as mobile phones and antenna sites. The Forum concludes, "There are no established health effects from exposure to radio waves below the limits applicable to wireless communications systems."

Security is another concern that may arise when femtocell mass deployment occurs among residential customers. Femtocells rely on residential IP broadband connections, so they are connected via cable modems or DSL routers. Using the Internet as a backhaul raises a number of security challenges such as protecting the integrity of the operators' core networks from the public environment of the Internet, and protecting the integrity of users' traffic, while ensuring seamless transitions between the macro and femtocell networks.

## Regulatory issues

According to ABI Research, regulatory complications may also pose a major challenge in femtocell deployments in Asia. Softbank Mobile in Japan had a tough time getting regulatory approval before it could begin commercial femtocell rollout. In South Korea, the government is working on a fixed-mobile convergence policy. Unless it is finalized, the chances of femtocell rollout are unlikely. In India and China, the femtocell deployment mainly depends on the 3G license development, says the agency. China has already initiated femtocell deployments across the country. With no sign of a 3G spectrum auction in the coming months, India is nowhere in the femtocell market picture.

## Controversy

The ultimate beneficiary of femtocell technology is the cellular provider because the technology enables them to improve cellular coverage without further investing in their infrastructure. The user, on the other hand, is liable to provide and pay for an Internet connection to route the femtocell traffic. The service also incurs additional service charges for maintaining a quality network. In other words, the customers are paying for the equipment as well as a monthly charge to the carrier just because the carrier is not able to provide them the service that they are already paying for. Here comes the controversy – whether the customer should be charged for the service or not. With femtocell deployment expected to pick up over the coming years, this issue needs a little more attention. □

# DTH IN INDIA TIME FOR A RETHINK ON CONTENT AND COST



BY RAJANI BABURAJAN

**D**espite several efforts made by direct-to-home (DTH) operators in India, the industry has not picked up the desired momentum. Cost remains as the major concern preventing mass adoption of DTH services in India. Unless DTH providers revise their content and cost strategy to make the service appealing to middle-income households, they are not likely to gain from the market and put an end to the monopoly of cable operators.

Dec. 22, 2005 is a significant date in the history of the Indian television industry. On this date, with the launch of INSAT-4A, India set an important milestone in the direct-to-home (DTH) revolution. With 12 Ku-band transponders, INSAT-4A became the first Indian satellite to meet the requirements of DTH television services.

India is one of the largest television markets in the world. The number of television households in India is approaching 130 million, with approximately 80 million having access to cable and satellite connections. It is worth noting that the television households in India comprise only about 60 percent of the total households in the country. Currently, 10 percent of the total TV households have access to DTH services. This represents only a meager portion of the total TV viewers and, hence, indicates there is huge potential for DTH services.

## Why DTH becomes attractive

Television broadcasting is probably the strongest customer-driven industry in India. The revolution in digital media has enhanced the TV viewing experience of customers worldwide, not just in India. The economic growth of the country further complemented this growth, with new households adopting TV as the main medium for entertainment, as well as multiplying the number of TVs in existing TV households. With the introduction of high-resolution TV technologies, people are now given the option to watch TV in a better way.

Because of the superior quality and convenience in terms of TV viewing and interactivity, DTH services are the most suitable entertainment option for TV viewers who want to spend their quality time watching quality TV programs in a quality way. Users have the control to watch programs at anytime according to their convenience. DTH service also allows them to record programs and watch them at a later time. There is more focus on regional content, which is not usually the case with a cable service. An attractive feature of DTH is the DVD-quality picture and CD-quality sound with stereophonic effects. Unlike cable services, DTH services have less frequent channel blackouts.

Apart from offering high-quality content and advanced technology, DTH service is also becoming a viable option for many Indian households. Due to accelerated deployments, setup costs and service delivery are becoming cheaper. Further, the reduction in the cost of set-top boxes has made DTH a cost-friendly option to them. With the mandated conditional access system (CAS) on cable networks, cable services are becoming more expensive. This would give an extra advantage to DTH. DTH services also avoid the intervention of a middleman like a cable operator. DTH operators deal with the end user directly, so it eliminates unnecessary intervention and malpractice by agents.

## Current DTH Market Scenario in India

Since its commercial launch in 2003, DTH has remained upbeat without any signs of slowing down. Despite recession,

the DTH market in India has been highly dynamic with a lot of investments made over the past several months. According to Tony D'silva, chief operating officer of Sun Direct, the growth is surpassing all the calculations and forecasts and proving the trade pundits wrong. "The services are received well by the customers because of its mass customization appeal," he said.

DTH service in India has surpassed 12 million customers, with the number tripling in 2008 over the previous year. According to new research from RNCOS, 1 "Indian DTH Market Forecast to 2012," the industry is expected to add nearly 500,000 subscribers per month during 2009, with the number of DTH subscribers forecasted to grow at a CAGR of around 30 percent during 2009-2012. "With over 130 million TV homes, India offers large room for growth in DTH services as the technology can be used to offer DTH services in remote locations, where setting up of cable networks seems impossible or is highly expensive," say researchers at RNCOS. "It is forecasted that DTH will capture over 21 percent of TV homes in India by 2012, up from around 10 percent now."

Currently the market is ruled by five key players: Dish TV – Essel Group, Tata Sky, Sun Direct, Reliance Big TV, Airtel Digital and Videocon D2H. Dish TV and Sun Direct account for a major share of the current DTH market in India. According to Dish TV officials, the company holds a more than 40 percent share of the market with over 5.6 million subscribers. Sun Direct currently carries about 4.8 million customers. Sun TV plans to increase it to 5.5 million-6 million subscribers by the end of the current fiscal year. Other key players such as TATA Sky, Big TV and Airtel DTH are far behind their rivals.

## Challenges

### COST

Despite the promising growth figures, the DTH industry in India faces several challenges. The enormous size of the market gives them equally huge challenges. Firstly, the companies are spending hugely on advertisements and awareness campaigns to make people aware of the benefits of the service. Early providers like Dish TV and Tata Sky have invested hugely on this, whereas latecomers like Sun Direct, Airtel and Videocon have gained from this opportunity as they didn't have to focus more on creating awareness. Rather, they spend on advertisements to pull the first-time subscribers towards them.

Says D'silva of Sun Direct, "We initially launched the services in the four southern states where we had a strong brand recall, and by the time we moved into the rest of India's markets, our competitors, who made the early move, had already spent money and time raising awareness about DTH services. We spent time on studying the customer and designing packages as per their taste."

Sun DTH has succeeded in meeting customer expectations mainly because of the regional appeal of the content. The service also includes an affordable package to suit every category of viewer. "We have packages that start at Rs.99 to high end HD set-top boxes to cater to the niche," says D'silva.

"The most important offering that we consider is the value for money proposition, i.e; the innovative packaging, pricing and bundling of channels and the strength of our distribution network." To an extent, Sun DTH has created a revolution among middle-class TV households.

However, there's a widespread concern that DTH services are not affordable to middle-income families in India. To an extent, it is true. Currently, a subscriber who is paying Rs.100-150 per month for cable service, is able to watch 150-200 channels. There is no extra cost involved in the service. On the other hand, for a basic DTH service, they will have to pay setup charges, equipment cost, plus monthly charges of a minimum Rs.100 (as per the current market offerings). The basic DTH package does not include many of the popular TV channels, so shifting to DTH would mean sacrificing the numerous options available on cable TV. To subscribe to their favorite sports channels or movie channels on DTH, they will have to pay an extra amount each month. In such a scenario, DTH providers are not likely to gain unless they work out a new content strategy that appeals to the average Indian households.

#### IPTV – A VILLAIN?

Internet Protocol TV is emerging as a new entertainment option for the tech-savvy Indian TV viewers. With broadband penetration reaching 7 million, India offers a niche market for IPTV services, though not highly prospective in rural areas. Both DTH and IPTV are relatively new to Indians, but IPTV is comparatively cheaper for a customer who is already a broadband subscriber from the same service provider. Because the service is offered as a combined package along with broadband and/or landline, the company gains on operational expenses and they are able to offer the service for a lesser price.

#### GOVERNMENT REGULATIONS

There are a large number of untapped households that do not have access to cable services due to the non-viability of cable because of geographic circumstances. In such areas government recommends DTH service. The government has set certain guidelines for DTH services. It mandates that only Indian satellites be used for the service. The government has introduced a 49 percent cap on foreign investment and imposed a heavy licensing fee along with revenue sharing clauses. The service strictly bans adult content. Among other things, the government also recommends open architecture set-top boxes. All of these clauses will have a direct impact on the profitability of DTH companies and, hence, on the countrywide rollout of DTH.

#### OFFERS! BONANZA!

DTH providers are trying to grab the potential market through attractive introductory offers and discounts. Companies like Sun TV offer a free dish and STBs and convenient packages for installation and activation charges. Annual subscription packages with multiple benefits lure many customers to adopting DTH services from providers like Tata Sky. These are a few examples illustrating the tough competition prevailing in the DTH segment. The initial results, however, reveal that the market is likely to be divided among these key players who have already established their presence in the market by grabbing a significant number of customers.

D'silva says the DTH market in India has surpassed all calculations and forecasts, proving the trade pundits wrong. About the offerings from Sun DTH, he said, "We have done tremendously well and have redefined everything in the DTH industry by adopting state of the art MPEG4 technologies, affordable pricing and



**Tony D'silva – Chief Operating Officer of Sun Direct**

1. RNCOS. "Indian DTH Industry Remains Upbeat Amid Recession." Created on 02 July 2009. Accessed on 29 December 2009. <[http://www.rncos.com/Press\\_Releases/Indian-DTH-Industry-Remains-Upbeat-Amid-Recession.htm](http://www.rncos.com/Press_Releases/Indian-DTH-Industry-Remains-Upbeat-Amid-Recession.htm)>

attractive packaging, offering customer premises equipments free and now launching HD services. We are the fastest growing DTH player in India and out of every 10 new connections, four are Sun Direct."

#### Key Trends

##### VALUE ADDED SERVICES

Major DTH providers are offering value added services (VAS) as an innovative strategy to lure customers. Popular VAS offered by DTH include on-demand movies, matrimonial services, job search, travel planning, mobile services, TV banking, astrology and many more. Dish TV is the popular value added services provider for mobile services. The company partnered with Indiatimes.com to offer mobile services under the name 'Mobile Active.' The service allows users to preview ring tones, wallpapers, text alerts and contests on their TV and download it on their mobiles.

##### PARTNERSHIPS WITH MOVIE/VIDEO DISTRIBUTION COMPANIES

A major share of Indian entertainment content comes from Bollywood and regional films. Hollywood movies create another big opportunity to make revenue. Eyeing this opportunity, DTH providers are entering into partnerships with movie/video distribution companies. Recently, Reliance forged alliances with UTV Communications and Star India to acquire the rights to two Hindi films. Last month, the company also forged a strategic marketing alliance with Fox Star Studios for the India release of 'Avatar.' Such partnerships are integral to a healthy competition among DTH players. In the future, major partnerships are expected with major publishers as well as TV content providers.

#### HIGH-DEFINITION SERVICES

Technology has no limits. With a large number of options available to view channels across the world on the new high-end television sets, now the focus will be to add quality to TV viewing. High-definition is the latest mantra in TV entertainment. DTH providers have started offering HD services in India. Recently, Sun TV launched the first HD DTH service in India. Samsung Electronics telecommunications systems division manufactures the HD set top boxes for Sun Direct. Sun TV is expecting to add over 45,000 subscribers to this service by March 2010. According to company officials, the average annual cost to a subscriber at present stands at around Rs.2,500.

#### LOOKING BEYOND

DTH in India has many miles to go. Although there are several issues regarding content and quality of service offered by the cable service providers, most of the TV households in India still prefer cable service to DTH. In such a scenario, DTH operators have no option but to offer the service at the lowest cost possible to pull customers towards them. This would encourage mass subscription and result in increased ARPU. Currently, the market is dynamic with a lot of introductory bonanzas and free offers from companies like Sun TV. If other DTH players are ready to compromise a little of their profits and offer simpler packages targeting the average Indian households, the industry will become more competitive and achieve its goals. AP

# RTIC NURTURING INNOVATION



BY S.P. SINGH

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technology incubator is an economic and social development entity that focuses on business creation for new technologies. It is created to select, establish and accelerate the growth and success of new, technology-based entrepreneurial businesses through a comprehensive technical and business assistance program.

Riyadh Technology Incubation Center (RTIC) is the technology incubator established by King Saud University (KSU) to create, encourage and support an environment of innovation and entrepreneurship that will stimulate economic activity, generate employment and leverage ICT to achieve the greater vision of creating a knowledge-based economy.

Since its inception in June 2008, RTIC has created several primary contacts with potential markets, partners and start-up financiers and assisted in foreign relations and seed funding including the arrangement of angel investors. The first success story of RTIC came from

within the corridors of KSU itself, where a student, with RTIC's assistance, developed an innovative product called "E-Calling System" – a system that systematically and securely ensures the pick up of children from school. The product is in the pilot-testing phase. The product is well acknowledged and is likely to have bright future.

RTIC is the first incubator in the Kingdom to become a member of the National Business Incubation Association (NBIA). RTIC is successfully creating strong partnerships between the government, private industry and KSU. RTIC provides state of the art facilities, which

include, among others, professional office space, high-tech equipment, excellent meeting room facilities and a team of qualified professionals always available to assist clients. RTIC also provides access to KSU's huge laboratory infrastructure for its clients.

With a well-defined market and stakeholders, promising deal-flow, a resourceful board of directors and mentors, cooperation from the community, government and players, RTIC has every ingredient necessary to be the leading technology incubator in the region. AP

Web Link: <http://rtic.ksu.edu.sa>



The Claridges Surajkund — Delhi, India

# A Unique Experience with WORLDHOTELS

BY MATTHEW WEIGAND

**I**t goes without saying that doing business in Asia includes a lot of hotel stays. And for many people, traveling to a foreign place brings with it many different anxieties about the quality of service and accommodations available. However, having an assurance of quality often comes at the expense of originality in chain hotels, because while they can guarantee your experience, they can only guarantee one generic experience. Wouldn't it be great if there were one hotel organization that could guarantee an excellent quality of service, while maintaining the originality and character of individual hotels scattered throughout the world?

Yes, it would be great, and WORLDHOTELS does that. Recently, the WORLDHOTELS group added the Seoul Palace Hotel to their ranks and explained more about their organization to Seoul-based media at the same time. They explained that while they do create a worldwide network of hotel prop-

erties that work together, they also retain the originality of each property and help it to keep its unique charm.

The organization already counts 80 hotels in the Asia-Pacific region as part of its network. What that means exactly is that each of the hotels keeps its own name brand, but WORLDHO-



Roland Jegge  
— Vice President Asia Pacific  
of WORLDHOTELS

TELS provides them with new technology, e-commerce solutions, sales and distribution systems. It also helps them with marketing and public relations, shopping coordination, strategic partnerships and even pricing advice. It offers independent hotels the benefits of collective strength.

The WORLDHOTELS' expansion into Seoul in December is not a surprise, because the Asia-Pacific region is the fastest growing geographical area for the organization. Additionally, the region is estimated to account for approximately 20 percent of the revenue experienced by WORLDHOTELS this year. The growth and expansion of international business is obviously good for hotel businesses as well.

WORLDHOTELS is based in Europe, where it was founded in 1970 in Frankfurt, Germany. It includes nearly 450 unique hotels worldwide, which together offer over 100,000 rooms. They are located in over 250 destinations in over 65 countries — a truly world-spanning organization.

## Well-awarded Properties

Earlier in 2009, the organization was commended by Travelocity Asia Pacific for its strong sales perfor-

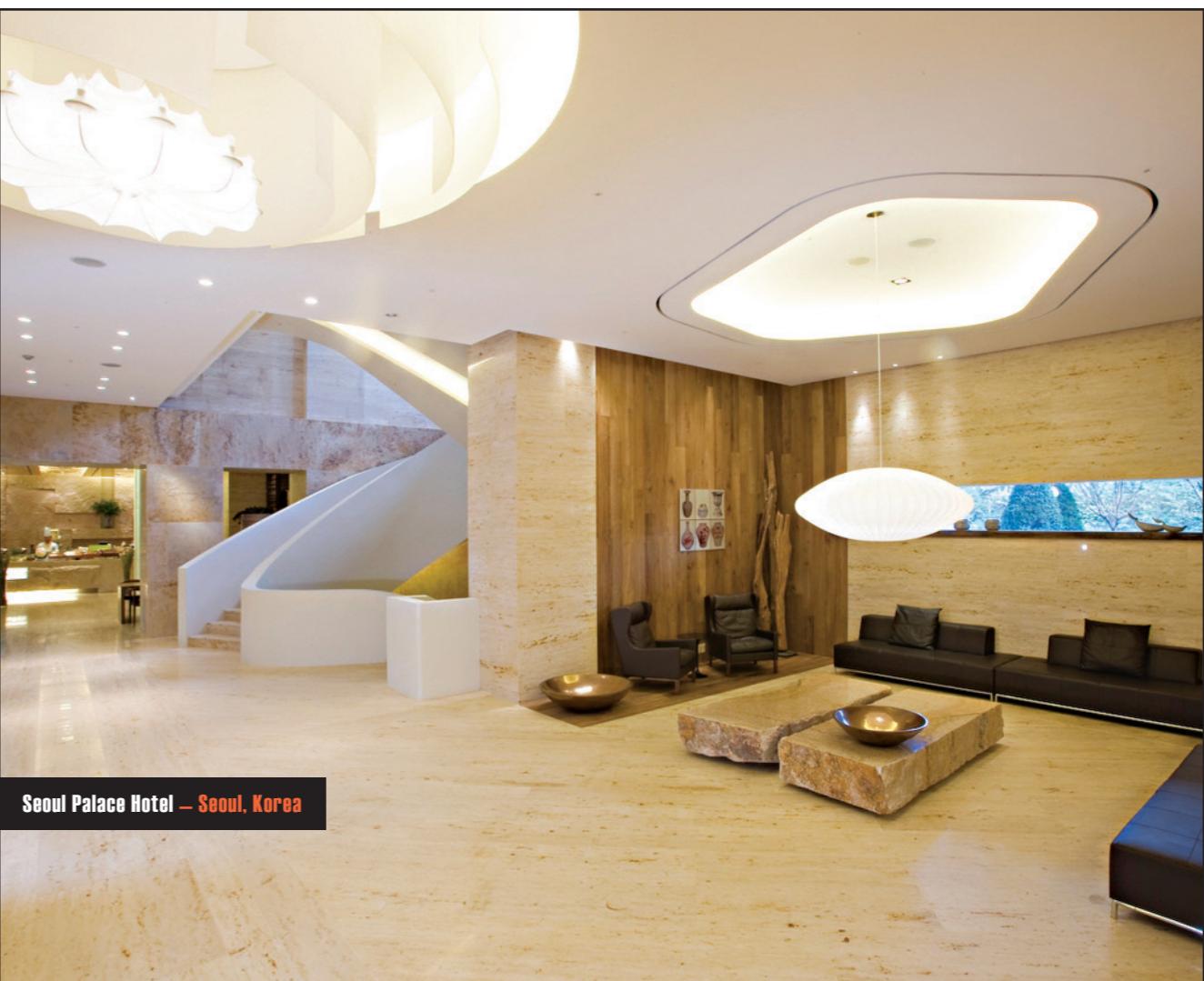
mance across a broad range of online channels in the Travelocity group. The recognition was given at a Travelocity event in Hong Kong in March. WORLDHOTELS affiliate Hotel Jen was also separately commended for its stellar performance through the Travelocity group of channels. "We are delighted with this result, which is evidence of WORLDHOTELS commitment to helping our affiliate hotels get the maximum benefit from the all-important online channels, which are rapidly growing in importance as a source of business," said Roland Jegge, Vice President Asia Pacific of WORLDHOTELS.

WORLDHOTELS locations often get other awards as well, including

five star and platinum ratings. This is because the group has a 1,900 point list that each hotel must qualify for before joining the organization. Also, annual mystery guests visit each hotel randomly, and the group awards its own ratings to the best hotels within its collection. Also, the group maintains its strict standards with a program called Unlimited Training, in which hotels can send an unlimited number of staff to all training sessions offered by WORLDHOTELS for a one-off nominal fee. In 2010, the academy will offer over 300 training courses in over 40 international destinations, which is sure to keep standards high.

## Help When Its Needed

The company provides a number of technical services for its member hotels to solve the problems common to all hotels. In an interview, Vice President Jegge explained by saying, "Our technology products include Gateway, a state-of-the-art CRS [Central Reservations System] interfacing with all major hotel PMS systems. We also offer Resmaster, a multilingual booking engine for the hotel website, Nexus, a sales automation tool to link our hotels to 30 sales offices around



Seoul Palace Hotel — Seoul, Korea



Lotte Hotel – Seoul, Korea



Harbour Grand Kowloon



The Claridges New Delhi



Ripa Hotel Rome

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Indigo Pearl Phuket

the globe, and Mediaserve, the world's most sophisticated platform for distribution of images and content." He said that these products belong exclusively to WORLDHOTELS, and are provided by their sister companies Trust International, Nexus and VFM Leonardo. These technological solutions help to give independent hotels an edge over their competition.

The hotel organization is very dedicated to technology. They believe that innovation in the forefront of technology has been one of the main reasons why they get higher returns in business and revenue for their 450 affiliated hotels. "The fact that our technology is developed in-house makes us faster to develop new and tailor-made solutions for the hotels," explained Jegge. "Also, through frequent user meetings and conferences we are gathering feedback from hotels and hotel groups on how to enhance these systems." The company prides itself on releasing updated versions of their CRS program at least twice a year. They are very dedicated to technological superiority.

The company is most excited about recent technological development of their Internet booking services, with their custom-designed Resmaster In-

ternet Booking Engine (IBE). Jegge said, "Resmaster was developed over 18 months by our teams in Germany and Ireland and with an investment bill of over 2 million euro. We started to roll it to our hotels in January. Since installation, it has generated a 32 percent increase in revenue for the hotels that changed from the former IBE."

### The organization already counts 80 hotels in the Asia-Pacific region as part of its network.

Resmaster includes a number of innovative features. For example, it allows for multiple room bookings and easy room reservations for families with children. In addition, the new booking engine enables travel agents and corporate clients to book their own negotiated rates via an individual sign-in process. It is fully integrated with WORLDHOTELS' Central Reservation System, allowing hotels to easily manage their daily inventory, avail-

ability and rates. Room nights and revenue generated by Resmaster are automatically included in reports and are available to the hotels online.

These technological advances have been able to give WORLDHOTELS a recession-proof lead over its competition. Developing these new technologies has been part of the Impact 2009 strategy, which also included initiative schemes for corporate clients and MICE agents. This resulted in growth in 2009 when most other organizations were experiencing stagnation, or even downsizing. But WORLDHOTELS has been pulling ahead of the competition in this difficult economic time.

The WORLDHOTELS banner is "Unique Hotels for Unique People." For nearly 40 years, the company's mission has been to offer business and leisure travellers easy access to a wide range of accommodation options with a strong emphasis on hotels of character and distinction. When asked for some parting advice for Asian business travelers, Roland Jegge said, "Asia offers a wide variety of cultures and flavors. Don't be afraid to go local and try out a different experience." And with WORLDHOTELS, you definitely don't have to be afraid to follow his advice. A-P

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**WORLDHOTELS**

# CUSTOMER RELATIONSHIP MANAGEMENT IN ASIA

BY ANURAG AGNIHOTRI

**C**ustomer Relationship Management (CRM) is a process or methodology that gives businesses valuable insight into customer needs and behaviors. Based on this, businesses can design solutions for the development of stronger, long lasting relationships with customers.

CRM encompasses various technological components and can be thought of as a process that combines all details regarding customers, sales, marketing effectiveness, responsiveness and market trends. CRM helps businesses leverage technology and human resources to gain knowledge about customers and also weigh the value of these customers.

Providers of CRM solutions promise their clients ways to define problems, identify solutions, harmonize the business process and implement it using proper delivery methods. Most CRM companies manage CRM projects starting from the defining of the problem to end-user training. It is up to the client to select the correct application based on parameters such as total cost of ownership, functionality, vendor comparisons and technology comparisons.

## CRM and its Uses

CRM software helps in sales force automation by contact management and lead management. Contact management software stores, tracks and manages contacts and leads of any business. Lead management software helps businesses manage, track and forecast sales leads.

eCRM or Web-based CRM is a form of self-service software that enables Web-based customer interaction, automation of e-mail, call logs, campaign management and Website analytics.

On-demand CRM solutions help businesses strengthen their sales, service and marketing personnel to efficiently serve customers, to close a deal fast and to ensure their loyalty. Such solutions are easily deployable and are available as a Web-based subscription service. The CRM solution enables an organization to improve sales effectiveness, target the right customer with the right message and enhance the quality of customer service.

Sales representatives can look into sales order history and customer-specific pricing, which allows them to make accurate quotes, make predictable delivery commitments and gain orders quickly, thus reducing time between order and payment.

Using CRM implementations sales personnel can keep track of and manage all sales activities, generate accurate quotes and also leverage the analytics dashboard to track sales performance. The tools offered by the CRM solutions are knowledge-based management and rule-based distribution of service.

## CRM Scene in Asia

Springboard Research studies reveal that the Software-as-a-Service or SaaS



CRM market in Asia is growing at a compound annual growth rate of 61 percent from 2006 to 2010. The SaaS CRM market is expected to reach \$460 million by 2010 from just \$69 million in 2006.

This growth in CRM adoption is due to the acceptance of CRM solutions by large enterprises, although it has been in use by smaller businesses for some time. CRM providers are offering proprietary SaaS CRM applications, which have attracted large enterprises who have been implementing them for some years now.

The report also said that Australia, Singapore, Hong Kong, South Korea, India and China are major SaaS CRM markets in the Asia-Pacific region.

Following the collaboration of ERP, human resource applications and others, the expenditure on SaaS CRM solutions occupies a large part of application expenditure in most enterprises in Asia.

Recently IDC released the results of a study titled "China CRM (exCC) Market 2009-2013 Forecast and Analysis: Developing Status and Road Map." The study shows that the CRM applications market has great potential in the country in spite of the economic crisis facing the world.

According to Emily Brian, senior software analyst at IDC China, this emerging economy is set to experience four major developing stages in the near future: information collection, process management, refined sales, and strategy decision support.

Brian told the press that most CRM (exCC) system users are at stages 1 and 2 in the Chinese market. Some of the pioneer enterprises do attempt to deepen the application of their CRM (exCC) system to achieve refined sales. IDC said that China still needs some time to achieve the CRM (exCC) application at stage 4 considering the overall IT establishment level of the Chinese market.

## Asian CRM Market and Challenges

Although Asia holds a good growth opportunity for CRM vendors, the results will be slower in the coming months. Research firm Datamonitor predicts that

CRM vendors from Europe and America will face stiff competition from Indian and Chinese local CRM providers. Also, in this market, pricing and local business knowledge are more important requisites than functionality in almost all cases except maybe in outsourcing.

The Asia-Pacific market is characterized by its high fragmentation. Asia can be viewed as a set of separate national markets that are in varying states of development and are displaying different political, cultural and economic environments.

CRM providers who are desirous of doing business in Asia should research how their products will cater to the needs of the country's market where they plan to do business. Also, the method of sales is important and the vendor has to examine if selling directly is possible in that particular country.

There is no one strategy to follow in Asia as each country exhibits different risk factors and it is imperative to study the market to succeed in business. Malaysia, China and India show great promise and more growth potential compared to other Asian countries. India's CRM market is characterized by call center technologies. Malaysia offers a small but stable CRM market while China offers a large and active market to CRM vendors.

Indonesia, the Philippines and Thailand are small markets, but are growing to be viable markets for CRM implementations.

## CRM Consultants in Asia

CRMAsiaSolutions.com and its alliance partner Zoho offer CRM solutions, CRM training and Web-based business solutions for various business sectors in Thailand.

Zoho's Web-based survey solutions are tailored for small and medium businesses owing to the on-demand nature and pricing. Ringzero CRM Solutions of Thailand offers businesses all details regarding its customers in an easy-to-use format, which can be leveraged to improve relationships with customers.

CRM solution vendors have to develop varying strategies according to individual Asian countries. Opportunities available in each country have to be assessed along with localization costs and sales investments required. Based on the market requirements, the CRM solution has to be determined so as to get an idea about where to employ resources.

Sage Software India offers CRM solutions for small and mid-sized businesses. Similarly, many CRM providers design solutions according to the size and needs of the company. These solutions have to fit the business requirements of such clients.

The Institute for Customer Relationship Management Malaysia (iCRM Malaysia) acts as the coordinating office for all Southeast Asian operations. iCRM Malaysia provides KPO/BPO, research, marketing & CRM consulting services to national and multinational companies in the region like Panasonic and Telekom Malaysia.

Nester Consulting Asia's Rapid CRM

Product Suite helps businesses handle sales enquiries and customer complaints, supports tracking and incident management as they require an effective system to manage, archive and organize. The product suite is available as an on-site application, SaaS edition and includes three main modules in the CRM product suite for sales, marketing and customer service.

Headquartered in Malaysia, Nester serves Singapore also and has offices in Phnom Penh, Cambodia and in Vietnam. Soon the consulting firm will open office in Hong Kong, showing the increasing popularity of CRM solutions in this part of the world.

## Utility Metering and CRM

The utility metering market is entering into a fast growing phase in Asia and has been predicted to grow steadily for the next five years in line with economic growth, rising energy demand and increased consumption despite the energy reforms being implemented. This market is worth billions of dollars and offers opportunities to meter suppliers and CRM solution providers who are rapidly developing suitable solutions.

Metering, Billing/CRM Asia 2009 was an event held in Thailand in May 2009, which saw the attendance of 267 metering industry professionals from 32 countries. Next year, the participants will include senior level executives from among the utilities and regulators of Asia. The event, which will take place in Kuala Lumpur, Malaysia, is expected to throw light on issues like metering, billing and the CRM industry.

The issues that will be discussed include the future of metering, billing, CRM in Asia, smart metering, smart grids, energy efficiency, energy management, emerging technologies, billing systems, roll-out of prepayment meters and strategies to reduce technical and non-technical losses.

The Asian utility sector will be able to optimize secure, cost-efficient and customer-friendly delivery of energy and is expected to pave the way for next generation electricity distribution utilities in Asia. Similarly, several other applications using CRM solutions will soon be implemented.

CRM solution providers are striving to deliver solutions according to the needs of clients. Such solutions will help organizations manage their business systems and build long term relationships with customers. The CRM provider and client work together as partners and aim to achieve the set business goal. An efficient solution will help make business challenges into competitive advantages. CRM consultants generally offer solutions that will revolutionize the internet businesses of clients and take them towards accelerated growth and profitability. A-P

# POST RECESSION HIRING STRATEGY

BY ARPAN BANERJEE

**T**he signs that the economy is starting to turn around are obvious. The organizations that were running a lean structure for the past 18 months may be considering issuing those offer letters again. During the economic upswing, the best candidates are picked up by corporations that have the financial muscle power to pay a premium.

## Advantage of recession times

Recession brings a chance for small businesses to pick up quality employees within an untapped market. Hiring the best workers is a challenge for small businesses even during boom times. Hiring bright, energetic and loyal young employees during a recession means your business has a better chance of riding the hard times out, as these hires will reward you with loyalty.

Moreover, small businesses get the chance to instill the right work ethic that will serve both the employee and the business well when the economy gets rolling again. The efforts of these bright people will help build a strong customer base. Moreover, the sentiments will favor the company that hired during tough times when everyone starts hiring again.

## Avoiding Common Mistakes is the key

During recessions, quite a few businesses make the common mistake of treating their employees as if they were expendable. The mentality that an employer can easily replace any employee is detrimental to a business and is simply bad for morale. This leads to a feeling of insecurity that can lead employees to vent their frustrations in ways that can lead to a loss of customers. If a business gains a reputation for treating employees insensitively, the word spreads in due course even to the customer level, as we have seen in practice.

Times will change again and you want to make sure you keep the good people you found while they had to look for you. There's no better time to hire good employees than during a recession, as that is the time when you get the real quality at a bargain. There is also no better way to ensure that your company keeps moving forward with your new recruits when the economy does.

Assuming we agree that now is the time to start hiring with momentum, let's look at a few finer point of choosing the right candidates for your company.

## How to hire the best fit for your business

It's time for that crucial decision once again. While there will be some excellent candidates looking for you, there will be many more who do not fit the bill. Any business veteran knows the fact that quite a few of the business problems they face are due to bad hiring.

The fact is, not all entrepreneurs are the best at the art of hiring. There is the possibility one may be overly optimistic and hire not-so-good candidates who are merely excellent at interviewing. Many a times, simple tough questions are missed and the candidate gets away with it. Reference checks are an integral part of the interview process, which is also overlooked at times.

Another important reality is, great employees come with a price tag, sometimes more than we can afford.

There are cases where one is forced to hire less-experienced employees without the right track record and credentials due to the affordability factor.

There are times when people grow in an organization by merit of their achievements until they reach a level where their contributions are no longer commensurate with the company's growth plans. Then they would hit the saturation level and stop getting promoted. Today in similar situations they get laid off, downsized or right-sized, whatever jargon one prefers.

Now, not all who get laid off are incompetent. They would not have been working for the company in the first place if that were the case. It's just a case to the point that in the dynamism of today's business world, what works today may not work tomorrow. Both the employee and the organization have to continuously realign themselves to fit into the new architecture of the business mould or find themselves losing out.

## Let's look at some interesting criteria to look at while hiring:

### 1. Attitude, energy and intelligence versus experience

Experience is something people pick up over a period of time. It is acquired. But people cannot be trained in attitude, energy and intelligence. They are born with it. Either they have it or they don't.

These are the key attributes that will make the star performer stand out in the long run. The experience will help win the sprint in the short term, but the marathon will be won by the one with the right attitude, energy and intelligence.

### 2. The hungry versus the starving

Hire the prospective employees who are hungry for your company's opening. They will be more focused, more energetic and will walk that extra mile in their excitement to excel. The starving, on the other

hand, will take the first thing they can get and they will jump ship the second a better suited, better paying job comes their way.

### 3. History repeats itself

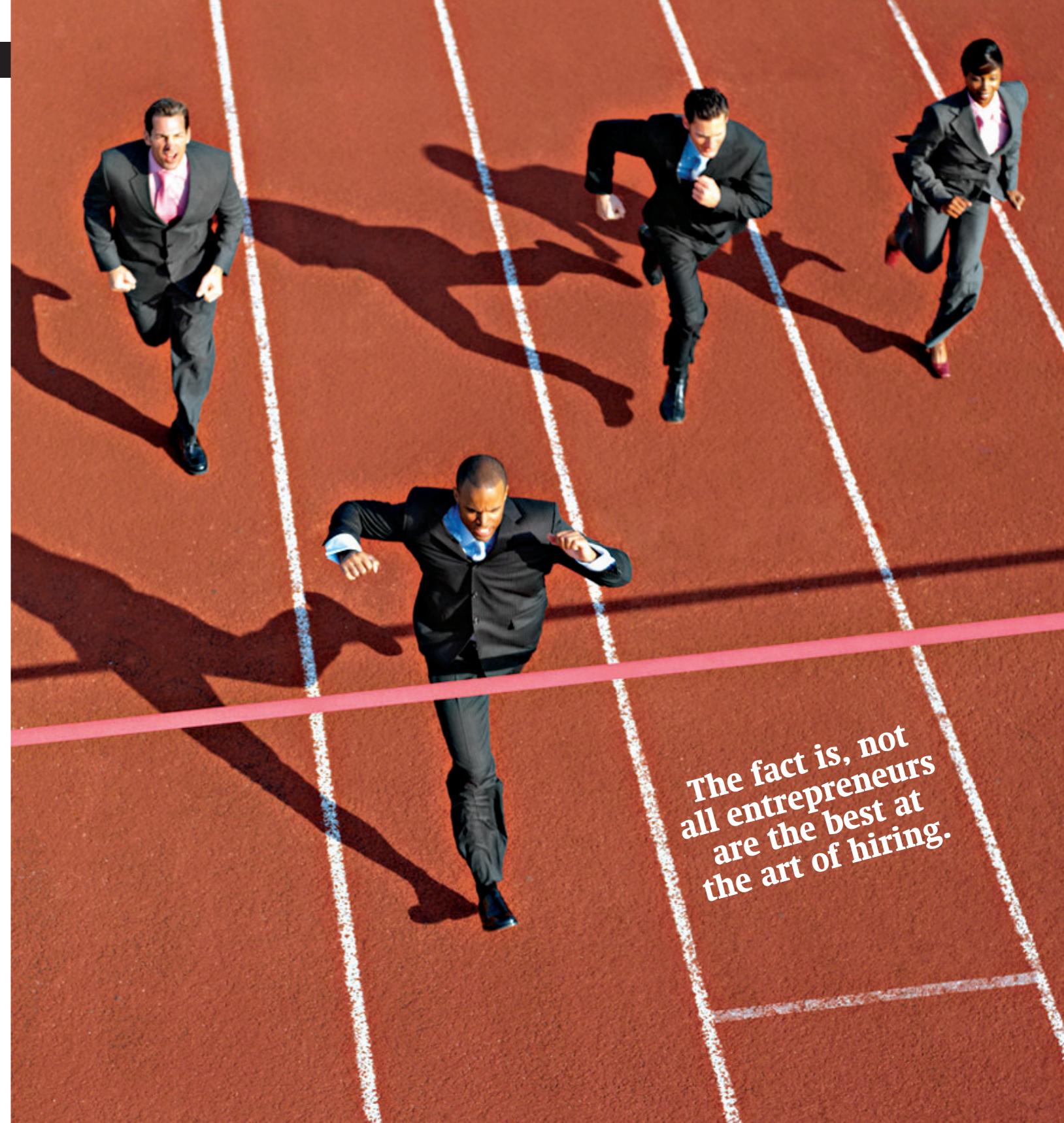
Real experiences in life can be a real guiding factor towards determining one's corporate world behavior. Understand a candidate's school and college likes and dislikes, his relationship with teachers, his relationship with his co-workers and bosses in his earlier jobs and his performances throughout.

Is there a pattern emerging about his corporate behavior? History repeats itself – he will be the same in your organization.

### 4. The big pond fish

This is the time when you get those experts from the large companies who have tried and tested skills and a good track record, for a bargain. The treat for them is the opportunity to take up leadership positions, and for you they bring in the best

The fact is, not all entrepreneurs are the best at the art of hiring.



practices of the large and successful organizations. But do remember point two when you go for experienced hands.

Finally you may find the best of talent and experience all yours for the taking, but be advised and prepared for the economic upswing where retaining the talent and experience will become the challenge. The good news is, there is still some time to gear up for creating the ideal atmosphere to nurture your prized catches. It's time to get going! A-P



# COPENHAGEN: DEAL OR NO DEAL?

BY RAJANI BABURAJAN

The “heat wave” that swept Copenhagen in the first weeks of chilly December is the true indicator of the degree of global warming. The heated discussions and

arguments at the summit were much more furious than expected. Apparently it looked like an effort made by each national leader to oppose any carbon reduction policy at the best of his/her ability so as to avoid criticism in their home country. According to the participating countries, the much awaited

climate summit could not bring the desired results because of the ambiguity in financial support and lack of transparency in the proposed mitigation measures. World leaders, under the obvious leadership of U.S. President Barack Obama, argued over and again, finally to go home after “taking note” of the



U.S. officials say they have succeeded in reaching a "meaningful agreement" with the developing countries, and the summit is a "historic first step forward" in the world's action on addressing climate change.

At Copenhagen, the United States signed a non-binding agreement with the BASIC countries – Brazil, South Africa, India and China. A global climate change mitigation target was set to limit warming to no more than 2 degrees. The five-page document was hailed as the successful outcome of the Copenhagen summit because there was a general consensus among the world leaders that carbon reduction is the need of the hour, and the document marked a new beginning for further negotiations among them. However, the summit could not spell out any significant global emission targets for 2020 or 2050 that were expected as major outcomes of the meet.

Developed countries also agreed to give developing nations \$100 billion in assistance from 2020 to help them deal with climate change, but the summit has not yet designed any specific payout plan for that. The United States has also promised to contribute \$3.6 billion in climate funds for the 2010-2012 period while Japan and the European Union offered \$11 billion and \$10.6 billion respectively during the same period.

Barack Obama stole the entire show at Copenhagen while Chinese Premier Wen Jiabao was quoted as the villain in the historical climate meeting. At the end of a week-long drama where a series of protests signaled the red flag, Obama barged into a meeting held by the BASIC countries. "We really need a deal," he said adamantly. "It's better that we take one step forward rather than two steps back. I am willing to be flexible."

The U.S. and China, accountable for 40 percent of global greenhouse gas emissions, were the main negotiators of the deal. However, Obama was keen to appease other members of BASIC as well, as he sensed an unusual tone of cooperation among those countries for the first time in the history of climate change negotiations. It was the need of the hour to bring all of the key players onto the playing field. Along with Chinese Premier Wen Jiabao, the one-hour long meeting was also attended by Indian Prime Minister Manmohan Singh, Brazilian President Luiz Inacio Lula da Silva and South African President Jacob Zuma.

At the end of the meeting, a draft agreement was signed between the U.S. and BASIC countries. According to official reports, the draft has received the approval of the European Union, secretariat of the UN Framework Convention on Climate Change (UNFCCC) and 25 other countries. Official reports say a few countries, including small islands like Maldives and Tuvalu, and many African and Latin American countries, opposed the deal, so it could not be formally approved. At the end of the meeting, the Accord was simply "noted" with many countries having different opinions regarding the deal.

After the summit, Obama conceded the deal is "not sufficient" to prevent the ravages of climate change in the future. There is "much further to go," he said. In real terms, the Copenhagen Accord was just "noted," and not accepted by all the participating members, so the authenticity of the Accord remains questionable. However, experts have a view that since the Accord has received backing from the influential countries including the U.S. and the European Union, it would become a standard for upcoming talks on climate change.

As always, the diplomatic approach of the U.S. succeeded in Copenhagen, too. Climate watchers say, "The West got away with what they did not want to – a legal binding for carbon reduction or enforcing the acceptance of a historic responsibility."

China and India, along with other developing countries, were fighting with the rich nations to get them to accept the emissions targets set by the second phase of the Kyoto

Protocol that would begin in 2013. Ironically, the new Accord exempts developed countries from legally binding emissions cuts, so developing countries now fear that the new deal would ultimately do away with the Kyoto Protocol. Developing countries favor the Kyoto Protocol, and they demand that even if the new agreement gets another name, it should preserve the essential features of Kyoto.

The Kyoto Protocol had established legally binding obligations for developed countries to reduce their greenhouse gas emissions, while it allows developing countries to implement national mitigation actions on a voluntary basis.

In an effort to continue talks along the Kyoto line, developing countries insisted on the two-track approach – under the UNFCCC and Kyoto Protocol – under which developed countries committed themselves to a collective greenhouse

is that in a sense we have agreed that we will live to fight another day. We have both the tracks, which are very important to us, entirely in place for the post-Copenhagen part."

According to Saran, the Copenhagen Accord is a significant outcome of the summit because it would further lead to negotiations on two tracks. The Copenhagen Accord has, Saran said, "Touched upon all the major outstanding issues before the negotiations and, in a sense, represented a very broad consensus of the international community." He hopes that negotiations that were supposed to end with a Copenhagen outcome and could not succeed will now be continued with the same mandate as before.

Indian representatives at the Copenhagen summit faced wider criticism at home, especially from the opposition parties in Parliament. They argue that the Copenhagen Accord



gas emissions target of 5.2 percent lower than 1990 levels by 2012. At Copenhagen, the interests of the industrialized countries became apparent. They wanted to dodge the mandatory obligations set by the Kyoto Protocol and force developing countries to shoulder more responsibilities than they have now.

Djemouh Kamel, chairperson of the African group, lashed out that "to kill the Kyoto Protocol was to kill Africa." He reminded the developed countries that they had agreed in Bali two years ago on the two-track negotiation mechanism. The strong stand adopted by the developing countries could, to an extent, direct the talks in the double-track way.

Despite these, experts think the new Accord will eventually replace the Kyoto Protocol. Upon asking whether the new deal would replace the Kyoto Protocol, Shyam Saran, the Indian Prime Minister's special envoy on climate change, said in a television interview,<sup>1</sup> "That it opens a window, and that possibility is there of course. But that depends on how we take the negotiations forward. What I am trying to point out

will eventually replace the Kyoto Protocol, which contains a better set of obligations to prevent carbon emissions. The only possibility to revive the Kyoto Protocol is to continue future negotiations on that track, but there are chances that if the majority of countries do not wish to follow that, the entire protocol will become extinct on its own."

Saran still thinks Copenhagen was a success because the Accord has succeeded to, in his words, "endorse the view that the developed countries have a responsibility to engage in absolute emission reductions while the major developing countries have the responsibility of mitigating the rise in their emissions."

According to R.K. Pachauri<sup>2</sup>, chief of the intergovernmental panel on climate change, the Copenhagen Accord is a "huge diplomatic challenge" for the BASIC countries. He also said the smaller developing countries including the small island states and low lying countries should not feel alienated from the state of the BASIC group, because they too face huge the diplomatic challenge to carry all small countries with them.

## Can it be called a success for developing countries?

India, along with other developing countries, did not succeed at Copenhagen on the climate front because they could not get a 'legally binding agreement' that would mandate the developed world to reduce emissions. On the contrary, the developing countries agreed to conduct negotiations on the basis of the Bali Action Plan. This would mean nothing but the starting of another series of conflicts between the developing world and the developed world.

Another debatable development that transpired at Copenhagen was the agreement that allows for "international consultations and analysis" at various stages of development in the developing countries. These consultations and analyses are meant to verify whether these countries are following the protocol set by the international climate council. Developing countries consider these "checks" as an intrusion to their domestic affairs and asserted they would not accept any kind of intrusive scrutiny into their national interests. China has expressed openly their view that they would not allow any infringement in their sovereignty and that there is a lot of ambiguity in the depth of the consultations and analysis presented in the clause.

India has not, so far, raised any such objections, though. Saran, the representative from India, said the country agreed to consult in terms of whatever they have put forward as information on their actions. "If there are any doubts which are raised about, for example statistics we give, any kind of data we give, that is something we are willing to clarify," he said in the interview. "Whatever be the basis on which such consultation and analysis is carried out is also subject to agreed guidelines," Saran continued. "That means unless we sit down and negotiate what is the basis on which this analysis is going to be carried out, this consultation is carried out, there will be no consultation and analysis."

## An Unexpected Gain for the Developing World

A significant positive outcome of Copenhagen favoring developing countries was the unconditional cooperation and support sprouted among the BASIC countries. Saran hopes that this acquaintance, which began with the common understanding on climate issues, will grow further to different levels of international cooperation and partnerships. The unified voice of these four nations will be echoed in future climate change negotiations as well. Many think that BASIC countries would emerge as a new influential force in international relations because they share some common interests, and they also face some common challenges.

Of all the friendships, the relationship between India and China was noted with international interest. As the world watched, both leaders held their hands together, probably to indicate that the ice that has accumulated over centuries on the border has begun to melt. Wen told Singh, "I admire you very much. They will try to split us, but India-China unity should hold." Singh responded, "Mr. Premier, India will certainly stand by you." Yes, India and China have a common goal to fight – a fight for survival on the earth. To win, they need to unite. Thanks Copenhagen. □-P

### Footnote:

<sup>1</sup> The word "Carbon scandal" was reverberating in the air at Copenhagen. Who will win the Carbon deal at the end? Wait and see.

<sup>2</sup> Thapar, Karan. "Devil's Advocate: 'West wasn't let off at Copenhagen.' I BN Live. <<http://ibnlive.in.com/news/devils-advocate-west-wasn-t-let-off-at-copenhagen/107826-3-p1.html>>. Published on Dec. 27, 2009. Accessed on Dec. 28, 2009.

<sup>2</sup> Sify News. "Copenhagen Accord huge diplomatic challenge for BASIC countries: Pachauri." <<http://sify.com/news/copenhagen-accord-huge-diplomatic-challenge-for-basic-countries-pachauri-news-national-jmxp0dhacc.html>>. Created on Dec. 23, 2009. Accessed on Dec. 28, 2009.



# INDIA: REELING UNDER GLOBAL WARMING

BY NITHYA KAMAKSHI PRADEEP

Climate change has been a major concern since man started to make life easier and it's a known and oft stressed concept in most of the conventions and protocols. It is known to have brought widespread misery and huge economic loss worldwide, severely disturbing public health, agriculture and natural resources. This scenario might reach a stratospheric height if we maintain our current lifestyles and propel greenhouse gases into the air. As our mother earth fumes further, we may face days of drastic weather changes thus affecting agriculture and causing water scarcity and pandemics.



The world today faces two major challenges to deal effectively with the situation. The first is to reduce carbon dioxide emissions drastically by moving to renewable technologies. The second is to equip ourselves to deal with the impacts of climate change that are already inevitable due to existing levels of greenhouse gases in the atmosphere and cannot be averted even if the world stops emitting carbon dioxide immediately.

In developing countries like India, climate change could represent an additional stress on ecological and socioeconomic systems that are already facing tremendous pressures due to rapid urbanization, industrialization and economic development. With its huge and growing population, a 7,500-km long, densely-populated and low-lying coastline, and an economy that is closely tied to its natural resource base, India is considerably vulnerable to the impacts of climate change.

The share of agriculture in India's GDP is around 19 percent, supporting a much larger share of the total population. According to a national survey, the proportion of the rural population who are self-employed in agriculture constitutes 38 percent while those who work as agricultural laborers constitute 31 percent. Thus, the proportion of rural population dependent on agriculture is around 70 percent. The economic lot of India's population, therefore, depends heavily on agriculture.

Extreme temperatures and heat spells have already become the norm in northern India, often causing death. Medical science suggests that the rise in temperature and change in humidity will adversely affect human health in India. Heat stress could result in heat cramps, heat exhaustion and heat stroke, and damage physiological functions, metabolic processes and immune systems.

Climate change has had an effect on the monsoons too.

India is heavily dependent on the monsoon

tion. Any change in rainfall patterns poses a serious threat to agriculture, and therefore to the country's economy and food security. It is predicted by scientists that global warming could make this already fickle weather system volatile. Agriculture will be adversely affected not only by an increase or decrease in the overall amounts of rainfall, but also by shifts in the timing of the rainfall. Pre-monsoon showers in May and June are vital to ensure adequate moisture in fields for rice crops. Worse still are the coastal regions of Gujarat and Maharashtra where inundation and salinization pose a major hazard. Changes in the soil condition, pests and weeds brought by climate change will also inversely affect agriculture in India. For instance, the amount of moisture in the soil will be affected by changes in factors such as precipitation, runoff and evaporation.

The plight of Indian farmers are flashed across every news channel as India's monsoon rains have failed to arrive and farmers in the worst hit regions resort to suicide to stave off the huge loans they have taken out. Food prices are set to escalate and the predicament of the country's poorest farmers are becoming a big concern.

Apart from monsoon rains, India uses perennial rivers, which originate and depend on glacial meltwater in the Hindu Kush and Himalayan ranges. Since the melting season coincides with the summer monsoon season, any intensification of the monsoon is likely to contribute to flood disasters in the Himalayan catchments. Rising temperatures will also contribute to the raising of the snowline, reducing the capacity of this natural reservoir and increasing the risk of flash floods during the wet season. Increased temperatures are expected to impact agricultural production. Higher temperatures reduce the total duration of a crop cycle by inducing early flowering, thus shortening the "grain fill" period. The shorter the crop cycle, the lower the yield per hectare.

A trend of sea level rise of 1 cm per decade has been recorded along the Indian coast. The research also claims sea level rise due to thermal expansion of sea water in the Indian

**The plight of Indian farmers are splashed across every news channel.**

to meet its agricultural and water needs, and also for protecting and propagating its rich biodiversity. Scientists at IIT Delhi have monitored subtle changes in monsoon rain patterns. According to their study, India will experience a decline in summer rainfall by the 2050s, which accounts for almost 70 percent of the total annual rainfall over India and is crucial to Indian agriculture. Relatively small climatic changes can cause large water resource problems, particularly in arid and semi-arid regions such as northwest India. This will have an impact on agriculture, drinking water and on the generation of hydroelectric power.

In India, the arrival and performance of the monsoon plays a significant role in agriculture, as most of the states in the country largely depend upon rainfall for irriga-

Ocean, which is expected to be about 25-40 cm by 2050. This could inundate low lying areas, drown coastal marshes and wetlands, erode beaches, exacerbate flooding and increase the salinity of rivers, bays and aquifers. The Delta belt will be threatened by flooding, erosion and salt intrusion. Loss of coastal mangroves will have an impact on fisheries. The major delta area of the Ganga, Brahmaputra and Indus rivers, which have large populations reliant on river line resources will be affected by changes in water regimes, salt water intrusions and land loss.

Alongside these forecasters of doom, are "cooler-headed coalitions" who take a more sober view of the climate. There are some who think that global warming may not continue indefinitely. The phenomenon we are experiencing is merely a phase of "climate change" that is unlikely to follow a linear trend indefinitely. Whether the "global warming" school of thought or the "cooler heads" are right, only time can tell, but it remains that all living things will be called upon to brave an epoch of unprecedented suffering and adjustment.

Not many in the country had even heard the word tsunami till it struck. The situation might be better in comparison with "global warming" and "climate change," but that is about all. India is as unprepared to meet the challenge of global warming, which is on its way, as it was the hour before the tsunami struck. Unless the wheels of the state turn quickly, the failure of nature could well turn into a man-made tragedy. **A-P**



# KOREA: ENVIRONMENTAL PROBLEMS & SOLUTIONS

BY CHRISTOPHER SANDERS

**D**uring the 1970s, under the reign of dictator Park Chung-hee, South Korea developed rapidly. Industrial output and infrastructure were major areas of concern, and great strides were made, along with great sacrifices. Heavy industry became a major source of income as exports grew quickly in the late 1970s until the financial crisis in 1998.

Along with the meteoric rise in industry and development came hidden costs. Safety standards were not enforced, leading to tragedies like the collapse of the Seongsu Bridge in 1994, which left 32 dead, and the collapse of Sampoong Department Store in 1995, which left more than 500 people dead and more than 1,000 injured. Likewise, protection of the environment was a distant second to economic development. Air quality in the Seoul capital region and the surrounding Gyeonggi-do province worsened during the period of rapid industrialization. Other forms of pollution – overuse of water resources, loss of animal habitat, and all manner of modern environmental damage – were commonplace as Korea emerged as a leading Asian Tiger economy.

More recently, as South Korea shifts from a developing to a developed economy, priorities are shifting as well. Local grassroots organizations have formed over the past decade to raise awareness of environmental problems. Recent administrations have proposed major initiatives to offer cleaner energy and improve air quality and encourage a green economy. Korea has shown a serious commitment to combating environmental

problems and to slowing climate change. As just one example, though not required to reduce emissions under the Kyoto Protocols due to their developing economy status at the time of the negotiations, efforts to lower greenhouse gas emissions were undertaken voluntarily. According to the United Nations Environmental Planning Executive Director Achim Steiner, "The Republic of Korea's [economic stimulus] strategy cuts across a wide swathe of sustainability challenges from renewable energy and waste to transport, freshwater and forestry; fostering a green recovery and transforming it into a vision of green economic growth and underlining a new and dynamic strategic direction and journey that we are delighted and excited to share."

## The Case of Saemangeum

Sleepy farming towns and fishing villages dot the northwest coast of Jeollanam province. Buan, Gimje and Gun-



san districts overlook Gunsan harbor, where two large rivers, the Dongjin and Mangyeong, empty into the Yellow Sea. For thousands of years, along the banks, people have pulled shellfish and crabs from the rich, muddy tidal flats.

The mixing of fresh and saltwater, the nutrient rich soil washed down by the river and the shallow waters are all factors that make estuaries places that teem with life. Crabs scuttle along the muddy banks looking for a meal. Shellfish burrow into the silty soil during low tide. Thousands of kinds of animals and plants live in these complex ecosystems. For migrating birds, estuaries are ideal places to stop and rest during their long journeys. These areas are rich in foods and safe places to sleep for the exhausted birds. Of the estuaries that birds migrating through Asia use as stopover points, Saemangeum was, arguably, one of the most important.

This place is unique, not just to Korea, but to all of Asia. During the spring and fall, more than 25 different bird species stop at Saemangeum, in groups of more than 150,000, in a single day. However, in 1991, a project began that would destroy the estuary and alter the shape of Korea for generations to come.

Spanning 33 kilometers, The Saemangeum Seawall is one of the world's longest. It extends out into the Gunsan harbor, enclosing an area of about 400 square kilometers. The government's plan was to use the water flowing down from the Dongjin and Mangyeong rivers to create new farmland and a water supply for the area. By damming the area, river sediment would slowly fill the area behind the seawall and create a stable landfill. Once filled, the river mud would be ideal for planting a variety of food crops.

The importance of the Saemangeum estuary for migrating birds was something that the Korean government was either unconcerned with or chose to ignore. The government chose to consider only the economic benefits the area would bring to the region. Indeed, Jeollabuk province is one of the poorest in Korea, and anything that might spur economic development is considered seriously.

Several environmental groups went to court to stop the project from being completed. The groups were concerned that not enough planning had been done to provide the birds that stop off at the estuary with areas nearby to land. Also, most of the environmental impact studies that were done by developers were then made very difficult to access. The government countered, publicly, that environmental concerns were groundless and that the birds would simply move to the nearby Geum estuary. Recently, a new government initiative has also proposed damming the Geum estuary, as well.

The Saemangeum seawall was completed in 2006 and the estuary began to fill up with soil brought down by the river. Unfortunately, the water coming down from the rivers was so polluted from farms upstream that the idea of using the water as a local water supply is unlikely. The toxins from chemicals and animal waste also saturate the soil filling up the estuary, making rice farming impossible. In a document that models runoff projections from the two rivers, it is estimated that no fewer than 28 wastewater treatment plants as well as entirely new sewage systems for the three districts will be needed to sufficiently clean the water. The Korean government has recently been looking to private contractors for alternative ways to use the newly created land. Everything from a racetrack to a spaceport has been suggested.

None of this makes environmentalists happy. Birds that once came to this food-rich estuary are now starving to death on the muddy plains. Some birds, on journeys of over 20,000 kilometers from Asia to Alaska and Russia, including two critically endangered birds, stop at Saemangeum estuary. Without food on the now-toxic wasteland of polluted sediment their chances for survival are reduced dramatically.

## The Four Rivers Restoration Project

There are many environmental projects proposed or under-

way in South Korea. The most prominent currently is the Four Rivers Project. This massive initiative was put forward by President Lee Myung-bak in 2009. It is billed as a major economic and environmental measure to boost tourism and restore the rivers. Lee had campaigned with a pledge to construct an ambitious series of canals across the peninsula. The original plan was widely unpopular and led to considerable fighting in the National Assembly. In December 2009, Lee vowed to abandon the project in the face of widespread opposition and technical infeasibility. Much of the technology for moving ships up and down from the varying elevations in the mountainous peninsula does not currently exist, and the environmental impact of cutting through mountains was seen as too devastating by many conservationists and scientists.

Lee was quoted as saying that the UN Environment Program "regards the four-rivers project as a model for responding to climate change and seeking green growth at the same time. Korea is now a powerful country that exports nuclear power plants, the world's largest semiconductor maker, an advanced automobile producer, and a country that prepares to launch satellites. Dredging rivers is not nearly as difficult as those things."

The project, which officially broke ground in November, is slated to cost US\$19.2 billion and take three years. Lee says the project will spur job creation as well as reduce flooding concerns and increase water supply. Among the components of the project are reservoirs and hydroelectric stations and over 1,000 miles of bike paths. The four rivers involved, the Han, Nakdong, Kum and Youngsan, are among the most polluted in Korea, and those who live near them are some of the strongest supporters of the project.

Many environmentalists have lodged complaints against the project. "You can't improve water quality by building more dams," environmentalist Park Mik-yong told the New York Times. "It's best to let the river flow its natural course."

As mayor of Seoul, Lee's most enduring legacy was the restoration of an urban stream. The Cheonggyecheon project raised considerable opposition at the time of its proposal, as it cut a wide swath of shops and gritty industrial facilities out of the city's center. Today, the urban stream is one of Seoul's most important landmarks and a major tourist attraction. Cheonggyecheon's success propelled Lee into the president's office. Only time will tell whether or not the Four Rivers Restoration Project will be seen so favorably.

## Focus on Nuclear Power

In recent years, South Korea has emerged as an innovative nuclear energy producer. This status was greatly enhanced with the announcement in December that a consortium of South Korean firms won a US\$20 billion contract to build civil nuclear power plants in the United Arab Emirates. The consortium, led by Korea Electric Power Company (KEPCO), will be responsible for the design and production of several power stations throughout the UAE at sites to be determined in the coming months. The first reactor will go online in 2017, with the remaining units slated to go live by 2020.

The reactors for the UAE deal are based in part on American-designed Westinghouse reactors first constructed in South Korea in the 1970s. At that time, agreements between Korea and Westinghouse allowed the Asian nation to develop their own models of the original Pressurized Water Reactors. Since the initial development of a civil nuclear industry three decades ago, Korea has matured their domestic capabilities considerably.

The Korean government has taken many steps to bolster the domestic nuclear energy market. Knowledge Economy Minister Choi Kyung-hwan announced plans for a "Nuclear Day" and a graduate school focused on nuclear energy studies. By 2020, the nation hopes to be drawing more than 50 percent of its energy needs from nuclear power, and a smaller percentage from renewable sources like wind and hydroelectricity. A-P



# GREEN TECHNOLOGY AND SUSTAINABLE DEVELOPMENT IN INDIA AND SOUTH KOREA

BY ANURADHA SHUKLA

**I**ndia and South Korea, known for their collaboration efforts in various fields, have now embarked on a mission to implement environmentally friendly projects by reducing carbon emissions and enforcing strict adherence standards for their industries.

In this context, India has announced energy efficiency measures to fight against the ills of climate change with South Korea following suit by announcing that it will fix carbon emissions targets to be achieved by 2020.

India plans to save 10,000 MW of power through energy efficiency improvements by 2012 as part of its climate change plan. South Korea has set targets like most European countries and the United States, however there is no clarity as to the quantum. It could be allowing only an 8 percent increase compared to 2005 levels, or maybe a 4 percent reduction. The country may choose to maintain present levels also.

## South Korea's Green Initiatives

Being a fast growing economy in Asia, South Korea saw immense increases in carbon emissions, which almost doubled between 1990 and 2005. South Korea is serious in its endeavor to curtail its fossil fuel dependence in order to become a promoter of green technologies in the region. It has innovated on hybrid cars such as that of Hyundai's, which combines an engine capable of running on LPG with an electric motor.

The country announced a green action plan and laid out a budget of \$84 billion to support it, which will help cut car emissions and improve the energy efficiency of buildings and

houses. This is expected to make the country a green nation by 2020.

The South Korean government plans to invest \$193 million for the development of alternative sources of energy – a 60 percent increase compared to previous years. The investment will cover solar, wind and biofuels, which will increase the domestic supply of renewable energies and also reduce the import of oil. The green measures will receive 2 percent of the country's GDP from now to 2013 and will also create 1.56-1.81 million jobs, according to official figures.

The five-year plan will encompass energy efficient transport options, green buildings and new technology. Public transport usage will be promoted and vehicles will have to cut down on their emissions. This will be followed by environmental-energy towns with better methods for water usage and renewable sources of energy including biomass.

Private firms will be roped in with green bonds and carbon savings to help them go green. The government will develop international markets for LEDs, solar cells and hybrid



cars. Carbon emissions trading will also form part of the new strategy and will be implemented by 2012, said official sources.

South Korea, in its bid to climb the industrial ladder as a socially responsible country, has planned to invest in green technologies like renewable energy, energy efficiency and other environmentally friendly initiatives.

The huge government funded project from South Korea will spruce solar and wind power generation, enact carbon trading systems and also offer initiatives for the development of biofuels, hybrid cars and other green technologies.

The aim is for South Korea to become the world's seventh most competitive country by 2020 in terms of energy efficiency and ability to adapt to climate change, according to a presidential statement.

Leveraging the growing global green market, South Korea also plans to create 1.81 million new jobs. Its minister for policy coordination, Kwon Tae-shin, said that besides reducing greenhouse gas emissions this initiative will serve as a growth engine to drive the country to greater prosperity.

Further, the rise in energy demands and the price of electricity, which went up 9.8 percent last year, makes it imperative to take green initiatives seriously. Korea Electric Power Corporation is already sagging under a huge deficit. The new funding effort by the government is seen as a way to create new business opportunities for engineers and entrepreneurs to involve themselves in more research efforts to arrive at optimized, innovative green solutions. The development funding will be offered with tax benefits for small and medium-sized businesses that develop green technologies.

## India's Part in the Green Revolution

In India, major industrial private sector firms have formed an Alliance for Energy Efficient Economy (AEEE), similar to the American Council for an Energy Efficient Economy (ACEEE). The alliance aims to save 2,000 MW of energy by 2012 by promoting energy efficiency measures in both homes and businesses. The focus will be on the Information Technology (IT) industry where savings of 10 percent can be realized in three years flat.

The AEEE is essentially an industry-led initiative which strives to create awareness and highlight issues involved in energy efficiency and carbon mitigation projects.

"AEEE brings together industry on a common platform to work with the Government to reduce the energy intensity in the country and address climate change concerns," said Hema Hattangady, CEO of Conzerv, who led the initiative.

Indian Prime Minister Manmohan Singh and U.S. President Barack Obama have jointly launched a Green Partnership during the former's state visit in November 2009. This is expected to strengthen cooperation between the two nations on several climate and environment initiatives.

India will form a National Environmental Protection Authority (NEPA) as a part of the initiatives. This aims to enhance the authority of Indian environmental agencies, improve public information and transparency, demonstrate progress in environmental compliance and enforcement and, thereby, improve environmental quality for all Indian citizens.

Infosys, the IT giant in India, aims to become a carbon-neutral company by 2012. It involves investing in projects that remove carbon dioxide from the atmosphere and those for nullifying the effects of carbon dioxide emissions generated by the company's normal business operations. Reducing the carbon footprint in all activities such as air travel, vehicle usage, air conditioning and even machinery and computers will be part of this endeavor.

Also, India has in place an eco-labeling scheme called 'Ecomark' for identification of environmentally-friendly products. The mark, resembling an earthenware pot, is awarded to consumer goods that meet environmental criteria, which encompasses raw material extraction, manufacturing and disposal.

## Joint Efforts by India and South Korea

Being members of ASEAN, the Association of South East Asian Nations, both South Korea and India can work in tandem towards the region's economic development. Korea is helping member countries like Vietnam, Laos, Cambodia and Myanmar to eliminate poverty. It will offer financial assistance through the Economic Development Cooperation Fund to Vietnam, India, the Philippines and Cambodia between 2009 and 2012.

With more emphasis on regional cooperation, Korea will develop ASEAN's natural resources taking cooperation with member states to new heights. The East Asia Climate Partnership is a carbon-trading market for developing countries and also for conducting research on green technology. The Korean government supports its companies functioning in ASEAN countries.

In India, efforts are made by The Central Leather Research Institute to develop technologies that will add value to the quality of leather as well as reduce environmental pollution. The CLRI has been striving to develop ways to use enzymes in place of harmful chemicals in processing hides and skins for improving the grain structure of leather. The leather process, called "eco-friendly wet blue manufacturing," replaces chemicals to some extent and this technology is being promoted to other nations like Korea.

Some years back, new roads were laid in Delhi using Korean eco-friendly road construction methods. The technology is known as Darin Asphalt Modified Additive and features an additive of asphalt with pores. Branded as Ecophalt, it has an additive packaged in eco-friendly ways and leaves no residue after use. Even the bag containing the additive will melt along with the bitumen mix and other materials.

Quite popular in South Korea, Singapore, Thailand and Hong Kong, this eco-friendly technique prevents the road from becoming slippery, increases durability and gives a silencing effect as water is absorbed.

The reduced green cover, lost ecology and depleted bio diversity are having adverse effects on the earth's climate and contributing to global warming. People are losing their livelihoods and this requires a shift back to natural and organic farming methods. Dr. Hu Cho-han from Korea promoted the concept of low-budget agriculture using natural inputs to attract microbes besides using cooked rice, jaggery water and pulses to improve soil fertility.

Fermented plant juice is used instead of insect pesticides. This will actually attract insects living within 15 feet of the top soil to act in friendly ways to the farmers. Dr. Hu worked with a firm in Bangalore, India to implement his schemes after research in a micro-lab established in Tirupati, India.

The Asia-Pacific Partnership for Clean Development and Climate (APPCDC), formed in 2005, is an association that includes India, China, the United States, Japan, South Korea, Australia and Canada. Technology is considered a fundamental transformation agent in tackling climate change by this group. The association looks for ways and means to reduce greenhouse gas emissions through the transfer of technology and development of new technologies.

South Korea and India are working towards green solutions for a better tomorrow through such joint initiatives. Whether it is in the field of micro farming or in making hybrid cars and revamping the power distribution system, collaboration between the two countries goes a long way. A-P



# KOREA SEES ITS NEW MIRACLE IN GREEN INDUSTRY

BY KO KI-WAN

**G**reen is a color of nature. It represents life. When we were young and would draw mountains, we picked up green crayons. But today, the number of the young who put green on mountains is dwindling because they think that nature has turned gray.

It is really natural to embrace the importance of being green in a time when technology is often regarded as something that spoils sky, soil and water. The world now tends to worship being green as warnings come out on the safety of the Earth. South Korea is no exception.

The Land of Morning Calm is one of the distinguished countries leading the movement to "save the planet." In November 2009, President Lee Myeong-bak declared that the Korean government would reduce the emission of CO<sub>2</sub> by 30 percent from the level of 2020 BAU, the highest in the developing countries.

Korea's green policies are being led by the government instead of the civilian side, as it has done in other fields since the 1960s when Korea began its economic rebirth from the ashes of the Korean War. This is something that triggers the denouncement that the Korean economy is a government-driven economy.

Saving rivers is what President Lee has focused on since

his inauguration in 2008. In Lee's New Deal, the government will pour 61 trillion won over five years not only to save the polluted rivers, but also to create 70 thousand jobs. For the commander-in-chief, Saving Rivers is not merely an environmental initiative. It is a more complicated one to make anticipations rise regarding Lee himself, a CEO-turned President with a can-do spirit.

His idea started with a blueprint to build a canal linking Seoul to Busan and Gwangju through the central inner areas of the peninsula. To this end, he needs to deepen the bottom of the rivers so that ships laden with containers can pass through. From the environmentalist's point of view, Saving Rivers is more akin to killing rivers by leaving the lives in and on the bottoms of the rivers on the brink of extinction. Controversy is still growing whether or not the rivers have long been near death in the aftermath of pollution.

President Lee and people in the affected regions have shared the same feelings that the rivers won't survive without imminent help from man. The government's priority is on a certain level of water to keep the rivers alive. As a matter of fact, rivers in Korea go through entire seasons without any water, or if there is any, it is only ankle deep. After almost two years of confrontation with NGOs and opposition parties who say no to the project, the ruling party passed the budget bill for the 'Save the Rivers Initiative.' President Lee said that the initiative would revive the lives of the rivers instead of killing them.

Korea is also making laws to support green industry and energy. This move is designed to meet the needs of climate change actions coming from the outside. It is common sense that if there are no laws regulating the green industry and en-

**It has decided to put 3 trillion won into the nine candidates including solar and wind energy and LED.**

ergy, the unmitigated revival of other industries can make the nation worse in terms of the emission of CO<sub>2</sub>. In Korea there have been worries that if laws fall behind from what's happening in real time, costs to undo the damage would skyrocket.

For the green industry, the government has set up a list of priorities in which assets should be invested. It has decided to put 3 trillion won into the nine candidates including solar and wind energy and LED. In the near future, they will become decisive factors for countries to survive in the fierce race for cutting-edge technology. To encourage the private sector to invest in those areas, the government has decided to put some projects into force to create supply. Thus by 2020, the government will have helped companies produce bio energies from the seas so that Korea can reduce CO<sub>2</sub> emissions. With the energy available, it is estimated that about 1 million homes can use the total electricity of 5,260 GW/hour.

R&D investment is waiting to be spent. The government announced that it would invest 12 trillion won into property rights and access to future technologies. Korean think tanks have reached a conclusion that Korea, with no natural resources, has no choice but to get property rights on some cutting-edge technologies for the nation's survival in the global competition. President Lee knows that investment should be made in a time of economic downturn.

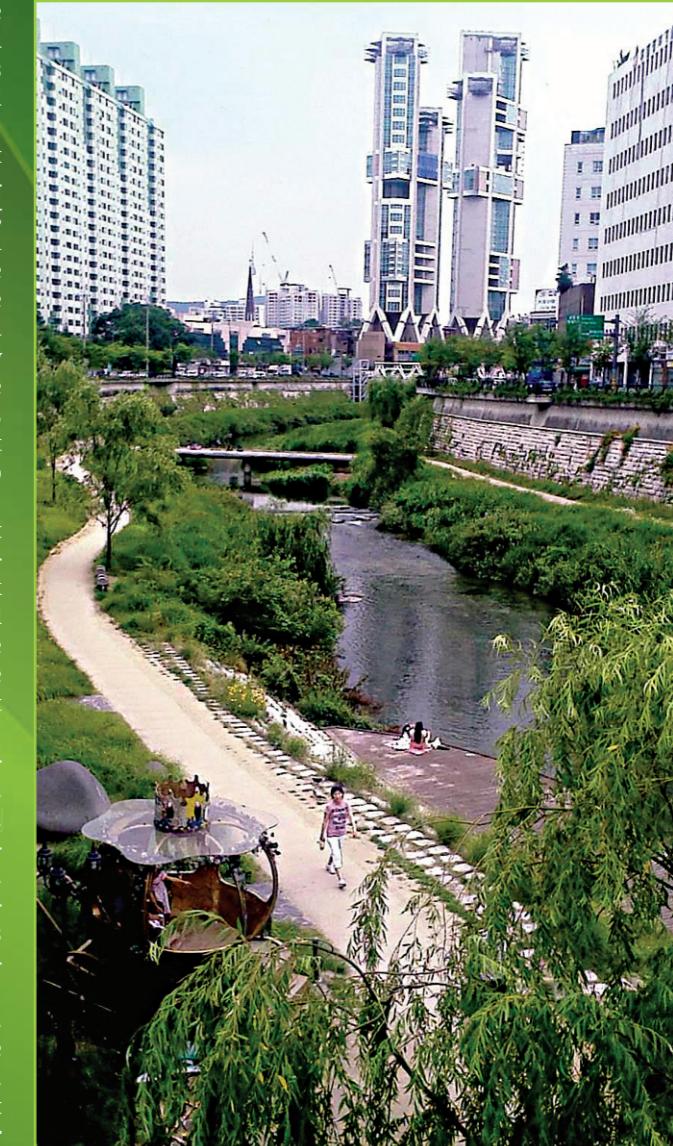
In the auto industry, money is pouring into the development of green cars, hydrogen cell batteries and hybrid cars. Hyundai and KIA are spearheading the race for green cars. Some prominent auto manufacturers in Germany have welcomed lithium cell batteries made by Korean companies. Hyundai and KIA hope to dominate the future auto market for green vehicles, a field where all auto manufacturers around the world should enter wholeheartedly for the continuation of their business.

Design is a new target for which Korea has high hopes. As the growth rate for design reached 92 percent during the past five years, the design industry was added to the list. It is because design emits no green gas at all. Otherwise it gives an added value to cell phones, computers and other electric devices. It is our conclusion that when design and technology are combined, cash cows can be born in Korean industries that depend on trade.

Creating jobs will be the results of the green value chain. The government plans to create 960,000 new jobs in the green industry over 10 years.

Energy efficiency is a long-lost area for South Korea. According to its road map, energy efficiency will go up 46 percent by 2030. This does not mean the use of less energy. Industries and buildings should adopt some guidelines to manage energy efficiencies respectively. Fossil-fuel dependence also should be reduced from the current 83 percent to 61 percent by 2030. New and renewable energy will be expanded from 2.4 percent to 11 percent by the same year. For this purpose, 7 trillion won will be provided in the government's budget.

Shipbuilding, steel and semi-conductor areas are fields in which green should be added. In the course of manufacturing steel, for example, POSCO, the world's largest steel provider, adopted "FINEX" engineering to reduce the emission of air pollution elements by 90 percent. Kim Young-hak, a vice minister of the Knowledge and Economy Ministry once said that the defensive attitude toward greenhouse



**The restoration of Cheonggyecheon.  
5.8kms of freeway back to a river.**

gas emissions reductions and the move toward the global campaign for the preservation of the Earth will bring disaster to the economy in the long run. "Those who are ready for the green issues can enjoy prosperity in green industries, which have begun to blossom," noted Kim.

It is true that the pressure from green activists will get stronger as time goes by. It's not an issue only for the developed countries in terms of the political arena. Green will be what can feed you. Green will determine which level you have reached so far in technology. No developing countries have possessed that level. Green is not a political issue, but an economic issue. Being green is not only a way of preserving nature, but also a way of upgrading one's economy. Korea, in this sense, is well equipped both in mind and in industries. More fortunate for Korea is that it has a president who is well aware of what business is and what the future will be like. Mountains in Korea will maintain their green color even in times of global crisis. A-P



BY AMANDA MIN CHUNG HAN

**S**outh Korea is poor in natural resources, producing neither oil nor natural gas. However, it was believed that the country was rich in water until recently, though not anymore. There is a Korean saying about spending money like water, meaning that a person who throws away money often has to be reminded that he is spending too much. This old saying shows how abundant water once was in Korea.

There is also a very old and interesting story called 'Bong-I Kim Sun Dal.' He was someone who, one might say "could sell the Brooklyn Bridge," although he simply sold water.

One day Bong-I had a drink with the water deliverymen who drew the water from the Daedong River (in North Korea) for wealthy upper-class people. At the gathering, a brilliant idea came to him.

He gave certain amount of money to each of the water deliverymen and asked them to pay a portion of it back the next day when he was standing near the Daedong River.

As the water deliverymen were queuing up to pay money to Bong-I, people were wondering what was going on and why the deliverymen paid money to Bong-I.

One of the upper-class people, a so-called 'yangban,' asked him why the water deliverymen paid him for the Daedong River.

Bong-I replied that he inherited the Daedong River from his late parents who in return inherited the river from their ancestors for generations already.

The noble man thought of the river as a bottomless fountain of wealth. He began trying to persuade Bong-I to sell him the river. Bong-I pretended that he did not want to sell the river since it was inherited from his parents. After tedious and long hours of bargaining, Bong-I agreed to sell the river to the nobleman.

The very next morning, this nobleman stood in front of the river and waited for the water deliverymen in order to collect his money. However, none of these water deliverymen paid him a dime. Furious and upset, the nobleman asked one water deliveryman for his money only to learn that he was conned by Bong-I. The water deliveryman clicked his tongue. "Tut, tut. The river does not belong to anyone; there is no such owner. You're pathetic." The nobleman tried to catch Bong-I, but it was too late to take the money back. Although Bong-I told a lie to the nobleman, people were impressed by the idea of selling the river, which belonged to no one.

For such a long time, rivers have been considered no one's business in Korea. Anybody could jump into the rivers on hot summer days; women washed their laundry in them while the men went there for fishing. Everyone used the water, but no one cared about it since there were so many rivers. Now, things are different. The global shortage of water makes people think about the importance and finitude of water. Rivers are every-

# WATER MANAGEMENT IN KOREA

one's business and we are the common owner of rivers.

According to the fifth world water forum in 2009, only 2.5 percent of the total water on earth is potable. Moreover, a majority of this potable water is contained in Antarctic and Arctic glaciers. Therefore, less than 1 percent of the earth's water is drinkable. Every 15 seconds one child dies from water-related disease while more than 3 million people die from water-related disease annually. Also, 884 million people lack easy access to safe drinking water.

Water experts predict that the availability of drinking water will become scarce if we spend water as if there's no limit. The National Intelligence Council in the United States said that the half of the people on earth would live in countries suffering water shortages in 2015.

Many experts also warned that in 52 countries, 3 billion people would suffer from water shortage in 2025. The Organization for Economic Cooperation and Development (OECD) also foresaw that 3.9 billion people, or half of all humankind, would suffer from water shortage constantly. The World Economic Forum (WEF) expected that worldwide grain production would decrease 30 percent due to lack of water.

The alarm has sounded already in many places. According to a recent McKinsey report, India, a country short of water, would need 1.50 trillion metric tons of water in 2030, though the current supply is only 740 metric tons. Argentina, a breadbasket for the world, has seen 20 percent of its farmland turn to wasteland due to drought.

Korea is no exception. Residents in Taebaek city had a nightmare in early 2009. Taebaek City was famous for its abundant and clean water, but last winter was very different. There was no rain for weeks, which brought the water level at the dam very low. From Jan. 6 to April 2, for 87 days, water was available only three hours per day. Even worse, the water supply was restricted for 1,327 household hillside residents during the time. Everyday, these hillside residents had to go down



the hill to get water from the water wagon.

It shook the Korean society and their belief about water. The incident proved that Korea could become one of the water shortage countries in the future as a few institutes have previously warned. Water is not an unlimited commodity, but is a finite resource like oil. Korea uses only 27 percent of its annual rainfall because the majority of the country is mountainous. To avoid the worst-case scenario, Korea has started regenerating polluted water and seawater into drinking water. The Korean government encourages using gray water and supplies various water saving equipment to avoid wasting water.

Generally, the cost to get water is from less than 0.1 USD/1m³ to 0.5 USD/1m³, depending on the area. If the area is rainless for days, it will cost more to produce water. Even worse, if there are no rivers or streams nearby, there will not be many options for getting water. One of the most promising ways to get water in drought is through desalination. Due to high demands for desalination plants, the technology is seen as a next generation growth engine – not to mention the fierce competition among countries to develop new desalination technologies.

The worldwide market size for desalination is likely to be 3.3 trillion won by 2015 while the size was a mere 6.0 trillion won in 2005. Especially, the traditional water shortage area of the Middle East has been pouring oil dollars into desalination projects to get water. The Korean government has also announced it will invest 9.491 trillion won into water-related industries by 2012. The government included water management projects as one of 17 future growth engines and earmarked 688 billion won for commercial desalination service.

In the desalination plant, seawater becomes freshwater through many procedures. Seawater goes through pretreatment, desalination, post treatment and supply steps before it is freshwater. The water is drawn from the sea and initially sent

to a plate of iron treatment to remove alien substances. Then, the water is sent to a water tank for sinking floating matter in order to remove smaller alien substances. The next step is removing the salt from the water, the core process of desalination. The most common desalination processes are distillation and reverse osmosis. Distillation obtains fresh water through boiling seawater and cooling its steam. Reverse osmosis uses an osmotic action in which water goes to a high concentration. Salt removing water goes through post treatment that adds some caustic soda and carbon dioxide to become drinking water. Currently, the most popular desalination process is reverse osmosis, as distillation is less attractive due to high oil prices. Roughly half of the new orders for seawater desalination plants adopt the reverse osmosis process.

At present, many countries throughout the world use desalination plants to solve water shortage problems. In the southern part of Israel, the desalination plant desalinates 100 million metric tons of seawater into drinking water per year. Saudi Arabia recently announced that it would build the world's largest power and desalination plants in Riyadh, the capital of country, to supply water and power to the city in three years. This project is believed to cost US\$9 billion for initial spending, according to Bloomberg.

Korean companies are also leading players in the seawater desalination plant market. Doosan Heavy Industries and Construction produced and shipped seawater desalination facilities in Nov. 2009 for the first time from its Vietnam plant, which was inaugurated in May 2009. Doosan Vina, the company's Vietnamese affiliate, is Doosan's second production base after the Changwon plant in Korea. Doosan Vina produced and installed a vaporizer at Phase 2 Shuweihat Seawater Desalination Plant in the UAE. Prior to this, the Vietnamese affiliate shipped the first installment of power generation facilities supplied to the Pecem Power Plant in Brazil in September 2009.

Cho Bongjin, head of Doosan Vina, said, "We were able to produce core facilities for seawater desalination by integrating Korea's advanced technology." He continued, "Going forward, Doosan Vina will serve to become a pillar of Doosan Heavy Industries and Construction's global production system."

Doosan also won the Phase 3 Shuaibah Seawater Desalination Plant project for US\$850 million in late 2005, and has been conducting the project in a package deal from the engineering and procurement phases through construction, encompassing the entire process of production, installation and test operation. The company aims to complete the facility soon. The seawater desalination plant under construction at a site about 100 km south of Jeddah, is capable of churning out 880,000 metric tons of fresh water a day, the largest in scale in Saudi Arabia for now, which is enough to supply 3 million people a day. Notably, the project is playing a major role in easing water shortages in the Jeddah region, the driest region in Saudi Arabia.

Doosan has supplied seawater desalination plants that supply a combined 1.61 million metric tons of fresh water – enough for 5.5 million people – per day, beginning with the Parajan project in 1978 to the Shuaibah Phase 3 projects. Additionally, the company is constructing a Jeddah seawater desalination plant capable of supplying 240,000 metric tons a day.

Doosan also plans to construct a test bed for a seawater desalination plant in Busan from January 2010 with a daily capacity of 45,000 metric tons, enough for 150,000 people, by 2011. So far, only small-scale plants with daily capacities of 1,000 tons or less have been operating in Korea, primarily on islands.

Yoon Sik Park, head of the Water BG at Doosan, said "Through the seawater desalination plant, we will develop an 8MIGD (36,000 ton) -class reverse-osmosis facility technology, the world's largest, and develop major equipment including high pressure pumps with homegrown technology. On the basis of these efforts, we expect to be able to attain plant engineering exports worth 10 trillion won up until 2020." A-P

# INDIA-KOREA COOPERATION IN EDUCATION SECTOR

BY ARPAN BANERJEE

The demands of the world economy are changing. The 21st Century demands a new brand of cooperation on education. Several countries have put education at the top of their national agendas. An emerging trend is observed in the collaboration between various nations in the field of education to meet global challenges.

Collaborations in education sectors represent opportunities to establish joint research programs and other activities that link academics from both countries in a genuine and mutually beneficial partnership. They are intended to enable both sides to learn from each other's experience and to strengthen links and strategic collaboration that supports the development of national higher education and enhances excellence in teaching, learning and research.

The benefits for students in a collaboration program are that they are saved from intellectual claustrophobia. A university is supposed to be part of a live universal community of scholars and students, and it is distance education that realizes that aspiration for the otherwise isolated students.

They talk daily to the world on focused issues and ideas and practices regarding the field of education. Interaction with foreign students and faculty broaden their perspectives greatly. Other benefits include the facility to join a class that would otherwise not be viable and the opportunity to receive input from external experts when they get a chance to participate in programs from universities and corporations from another country. The rich experience that can be gained from the collaborative activities will deliver valuable benefits to the governments and higher education sectors of both India and Korea. Both countries should recognize the crucial role of education in developing employable, enterprising citizens who play an active role in society. They should recognize the challenges facing both countries in developing skilled workforces, developing curricula and teaching styles, and molding entrepreneurial and creative learners. Both countries should support projects on employability and entrepreneurship.

A first step than can be taken is to hold a forum for practitioners from government and educational institutions to enable the exchange of ideas, experiences and expertise between the two countries. Thereby, both countries should explore the signing of a Memorandum of Understanding for further cooperation. An Indo-Korea Um-

brella Agreement can be signed with the purpose to:

- Strengthen educational, scientific and technological capabilities, including engineering, to broaden and expand relations between the extensive scientific and technological communities of both countries;
- provide opportunities to exchange ideas, information, skills and technologies, and to collaborate on scientific and technological endeavors of mutual interest;
- accord priority to collaborations that can advance common goals in research and education;
- Cooperation between Indian and Korean scientists in government agencies, private sector, and in academia is expected to accelerate in such areas as: basic sciences, space, energy, nanotechnology, health and information technology that will advance understanding and benefit all our people.
- As a part of the understanding, a joint forum should be formed between the two countries that will facilitate certain activities. This forum will lay down the principles of the Indo-Korean strategic partnership in education that seeks to advance solutions to the defining global challenges that these two countries face. This forum should take initiatives to collaborate in the field of education, such as the following:
- Building of a tradition of educational exchanges with joint scholarship programs to Korean and Indian students who want to pursue higher studies in the other country.
- Combined funding and scholarships to increase university linkages and support junior faculty development between Korean and Indian universities.
- Launch of an Indo-Korea Research and Deployment Initiative, supported by Korean and Indian government funding and private sector contributions. This initiative will include joint research centers operating in both Korea and India to foster innovation and will facilitate joint research, scientific exchanges and the sharing of proven innovation and deployment policies in the education field.
- Launch an e-learning program that will allow Indian and Korean universities to collaborate on the development, evaluation and delivery of a wide range of e-based teacher training modules and the training of e-tutors. The aim will be to share experience in the use of Information and Communication Technologies (ICT) for distance and flexible learning and to develop and pilot innovative distance education courseware in selected

subject areas.

- Develop bilateral links between leadership organizations in the two countries, evaluate current programs and explore joint leadership development programs for senior university leaders and leaders at other levels within institutions.
- Create dual-degree programs. In these programs, Indian institutions will continue to offer their regular degree programs as per the Indian curricula and give Indian degrees after successful completion. Simultaneously, Indian institutions in collaboration with Korean universities will supplement their existing curricula with the additional curricula of Korean universities. Students who successfully complete the existing curricula and the additional curricula will be given degrees by Korean universities and vice versa.

- Instill a strong global dimension into the learning experience of all the students of both countries. An important element in this process is to encourage more young people to gain a first-hand experience of living and working in each other's country and to develop a better understanding of what globalization means for both countries. To facilitate this, the Indo-Korea Education forum should work towards creating job opportunities for Indian students in Korea and Korean students in India proactively.

Finally, global education partnerships are a dynamic and exciting approach to global citizenship. We hope India and Korea will walk miles together to create such a partnership that will enrich the lives of millions of students and faculties of both countries. [A-P](#)



# WOMEN FRIENDLY Seoul

BY DONALD KIRK

In a male-dominated society, women in South Korea complain they are treated as second-class citizens. Now Seoul's civic leaders, both in and out of government, seem determined to do something about it – setting an example and a precedent for the rest of the country and possibly the entire region. Thus, Korea's thriving, cosmopolitan capital is awakening to a reality that most people have long realized, but have done little to combat.

No matter how far Korean women have advanced since the Japanese colonial era in terms of education, income and careers, many of them are increasingly annoyed by the priority given to men in so many ways. Park Hyun-kyung, president of the Seoul Foundation for Women and Family, puts the reality and the solution frankly. "In terms of the urban environment, there is still a lack of respect and consideration for women," she has written. "Women have always been at the forefront and center of urban collaboration, but society has failed to consider them accordingly."

That reality, Park earnestly hopes, is changing as the city "focuses on the safety and convenience of women when using urban space in everyday life."

Nowadays this sprawling metropolis of approximately 10 million people is advertising itself as "women-friendly," and that's not a come-on to the millions of men to whom the term might have quite another connotation. In a culture where men dominate offices and women by tradition are relegated to home and family, or bars and brothels, Seoul's metropolitan government has outlined "visions and challenges for a women-friendly city" with plans for a dozen categories ranging from "women-friendly restroom" to "women-friendly workplace."

"We have developed a new paradigm for urban policy, a women-friendly policy," is the bold claim of the city's deputy mayor, Ra Jin-goo, who happens to be a man, but isn't letting that detail interfere

with his sense of mission. "For the first time, we have introduced women-friendly policies in all areas of design." Ra, at a forum sponsored by the city that drew several hundred women from foreign countries, said his government, having established "a women-friendly matrix," now wants "to make certain we do not leave any loophole open."

For all the fine words and deeds, however, women question how broad the reforms are, and whether Korean society can ever shed the image of a macho culture. Korean women respond with guarded skepticism to the elaborate program enunciated by the metropolitan government, whose mayor, Oh Se-hoon, is hoping women will support him if he runs for president in the next election in 2012. Oh is the author of a grand plan bearing the promising name, "Happy Women, Happy Seoul," dedicated to investing more than 100 billion won to making life easier for women in search of such amenities as clean restrooms and parking spaces big enough for them to be able to maneuver babies out of cars without fear of other cars running into them.

The question, always, is how much of the program is for show and image, and what will be its real impact on the lives of most women? "Women's rights are talked about mostly by activists," says Shin Hei-soo, a professor at Ewha Woman's University, whose 10,000 students make it the world's largest all-female institution of higher learning. "Of course, there is the political ambition of Mayor

Oh. And there are different perceptions between what men see and what women want."

In fact, the role of women outside the home has increased immensely over the generations since the Korean War ended in July 1953. Women fill offices and campuses, as they never did a century or even half a century ago, but the figures still suggest pervasive problems. "Women get 64 percent on average of what men earn for the same job," says Shin, and 300,000 women in this country of 48 million are estimated to work in hostess bars, massage parlors and "barbershops" despite widely publicized police crackdowns on dozens of red-light districts in Seoul and other major centers.

Lee Ji-won, international coordinator at the Seoul Foundation of Women and Family, questions whether a law passed three years ago to protect the rights of women is making much difference. "Institutionally we have the relevant law," she says, "but in our daily life the pattern is not really changed." She says the law "protects women from sexual violence and discrimination," but for many women the right to work means they really have two jobs. "We have to work in the labor force," she adds, "but traditionally we have the same roles as daughters and mothers, cooking and cleaning and taking care of the home."

No doubt about it, the Seoul metropolitan government is serious about addressing women's concerns when it comes to every day issues like restrooms



and parking areas. "Today's urban environment must improve in order for women, as living beings, to receive satisfaction," according to Park Hyun-kyung.

That's by way of introduction to plans for the convenience of women that seem to leave nothing uncovered. "Provide enough numbers and area for practical use of toilet and improve inconvenience to wait longer than necessary," begins the official English translation. "Avoid odd situations to face each other in front of the bathroom between different gender by placing the entrance in different direction." The injunctions on restrooms seem to cover just about every contingency, winding up with advice on "remodeling decrepit restroom" and installing "comfortable sanitary equipment."

Then it's on to "women-friendly parking area" with plans, among other things, for "women privileged parking lot," "security and alarm system," "comfortable underground parking area" and, of course, "women-friendly restroom in parking lots." The injunctions there appear as clear and definite as those on restrooms. "A parking lot with more than 30 parking spaces should provide women privileged parking zone in an area with easy access to the entrance, stairs and core," says one requirement. "Women-privileged parking area has to be recognized easily," says another. And, at public facilities, "provide the valet service for women drivers...."

Almost invariably, women claim that they rarely see widespread use of the numerous plans drafted to make life easier for women. The "women-friendly" program, they say, exists largely in the imagination of city planners – and in showcase parks and neighborhoods. For Korean women who have grown up overseas, immersion in the culture and society of their parents and grandparents can be a shock regardless of superficial changes.

"When I got here, certain parts of life here were not so friendly," says Linda Behk, raised and educated through college and graduate school in New York. The problem, she says, goes far beyond the elaborate plans envisioned in guidelines from Seoul City Hall. "People are more self-conscious about how people see them," she says. "And there is some bias in work. There are certain age limits. Some places feel a little down on women, and women feel self-conscious about them."

For all such sensitivities, attitudes are shifting. "In my generation, women were always intimidated by aggressive men," says Won Hyeon-suk, showing a group of foreign women around the Kyongbuk Palace complex on a tour that emphasizes the historic role of women. "Now, my son says he's intimidated by aggressive females." As evidence of the change, she notes that 36 percent of those who passed the rigorous Korean bar examina-

tion this year were women in comparison with less than one percent when she was in college 30 years ago. She spends extra time on the tour visiting the palace of a king whose wife, Queen Min, died tragically in a vicious 19th-century power struggle. Suspecting her of plotting with Russians, Japanese murdered her in one of the royal palaces in 1895 – a precursor to Japanese defeat of the Russians and takeover of South Korea a decade later.

At Seoul City Hall, Cho Eun-hee, assistant mayor responsible for "women and family policy," is confident "Korean men are changing." President Lee Myung-bak, a former mayor of Seoul, "gives more meaning to the empowerment of women," she says. "Old men cannot change their minds, but men under 60 have changed already. Korea is changing rapidly." The goal is "to make Seoul the happiest place in the world," says Lee Kong-suk, former president of Sookmyung Women's University, another major women's institution here. "If women do not feel happy in the city, the city is not viable." All such efforts, she assures

## Why did Korea rank 61st out of 93 nations in gender empowerment?

the foreign women visiting Seoul, "are the key to open the doors for women around the world."

Inevitably, questions abound. Why did Korea rank 61st out of 93 nations in "gender empowerment" in a survey conducted in 2009 by the United Nations Development Program? And why did President Lee tell an emergency meeting of his economic council that "the most urgent issue on our hands is to create jobs for the heads of households," a category that includes virtually none of the country's women?

The answer, say many women, is that the president, who rose to become chairman of Hyundai Engineering and Construction before entering politics, unavoidably retains the mindset of the aggressive male in an era of rapid economic growth.

While Korea continues to grow, Seoul's Metropolis Women International Network, working closely with the metropolitan government, observes that "major global cities are shifting their focus from material growth to culture, art and design and turning themselves from 'hard city' into 'soft city.'" In the course of this "great transformation," says the network, "women's creative and sensi-

tive energy is emerging as main driving force behind the development of the city." Could it be that the gentle feminine tough is toning down the rough outlook of the men at the forefront of Korea's rise as an economic powerhouse?

Cho Eun-hee at City Hall is positively euphoric about the possibilities. She acknowledges that "most of the local governments in Korea have tended to passively execute the policies" of the central government "rather than actively laying out their own, original plans." But Seoul's Women-Friendly project, she believes, stands as a notable exception under the slogan, "Active Gender Mainstreaming in City Policies." The result, she says, has been "a new paradigm for establishing gender-sensitive city policies on the local government level." At the heart of this campaign has been "the establishment of gender governance as a primary strategy to enhance women's participation in the policy-making process of the city."

Concerns about safety for women tend to dominate "women-friendly" discussions. "Once they get out of the house, women usually face dangers and inconveniences in the city," says Koh Insuk, director of the metropolitan government's transportation headquarters. He cites numerous projects to "make the city a safer place for women" including "women-friendly streets, call taxis, public bathrooms and parks, all aimed "at enhancing the quality of women's everyday life," each project with a distinctive brand name "based on specific targets." He even cites "plans to construct an underground road system," greatly reducing "ground traffic and road demand," allowing "more space for pedestrians, bike-riders and public transportation on the ground" as part of the effort to "make Seoul a more humanitarian and endowment-friendly city" – and thus more women-friendly too.

If a society is to be truly "women-friendly," though, it's necessary to combat violence against women everywhere from the home to the streets. "Now is the time to effectively put the laws into practice," says Lee Mik-young, former director of the Korean Sexual Violence Relief Center. "First and foremost," she says, all governments "should focus their efforts toward making a society where the protection of victims' rights and the punishment of offenders is common sense." Violence against women has long been a problem in Korea.

Lee Mik-young believes "a systematic education about human rights and small, everyday practices of gender equality by the people should be part of public and private school curriculums and public campaigns." The goal, she goes on, is for all to "become conscious of a society where women are respected and guaranteed to live free from the fear of violence." A-P

# SAUDI ARABIA'S WOMAN ENTREPRENEUR

Her Highness Princess Haila bint Abdulrahman Al Saud

BY EMANUEL YI PASTREICH

The doors of opportunity in education and business have been opened for the women of the Kingdom of Saudi Arabia to an unprecedented degree as part of the drive to make the Kingdom a modern knowledge economy spearheaded by King Abdullah bin Abdul Aziz. Yet, as the opportunities increase, so also does the need for effective role models for a new generation of women who stand poised to play a vital role in the nation's future. As Saudi Arabia gains in its significance in the G-20 era, its young women are growing in confidence. Women entrepreneurs are increasing their leadership role to meet this vast demand. One woman who stands as an eminent figure is Her Highness Princess Haila bint Abdulrahman Al Saud.

A member of the Saudi royal family, Her Highness Princess Haila bint Abdulrahman Al Saud puts great emphasis on her role as a mentor and pioneer for women and girls from all walks of life as they strive to set goals for themselves and pursue them wholeheartedly. As the Chairperson for the Arab Association for Human Resources Management she has the opportunity to argue for this position.

Princess Haila stands out as an experienced entrepreneur with extensive experience in investment, management and long-term financial planning, working with a wide range of business concerns. She also plays a leading role in the business community as the Director for the Women's Section of the Riyadh Chamber of Commerce and Industry.

Within Saudi Society, the Women's Section of the Riyadh Chamber of Commerce and Industry is a leading institution for finance and business, which is officially part of the government and serves as something like a ministry of commerce in its own right. The Women's section includes portfolios for global investment worth many hundreds of millions of dollars and brings Princess Haila face to face on a daily basis with many of the largest funds in the Kingdom.

The economic size of Riyadh should not be underestimated. With a total GDP equal to the entire UAE put together, it is the low-key giant of the Middle East economy, and Princess Haila has helped to guide it with her steady hand.

Princess Haila has devoted much of her effort not only to



**Women's Section of the Riyadh Chamber of Commerce and Industry**

forming effective networks for strategic coordination between Saudi women investors and business women, but also to creating a new environment in which women can play an enhanced role in the Saudi economy. She embodies King Abdullah's calls for reform and openness, working to dispel myths about Saudi women.

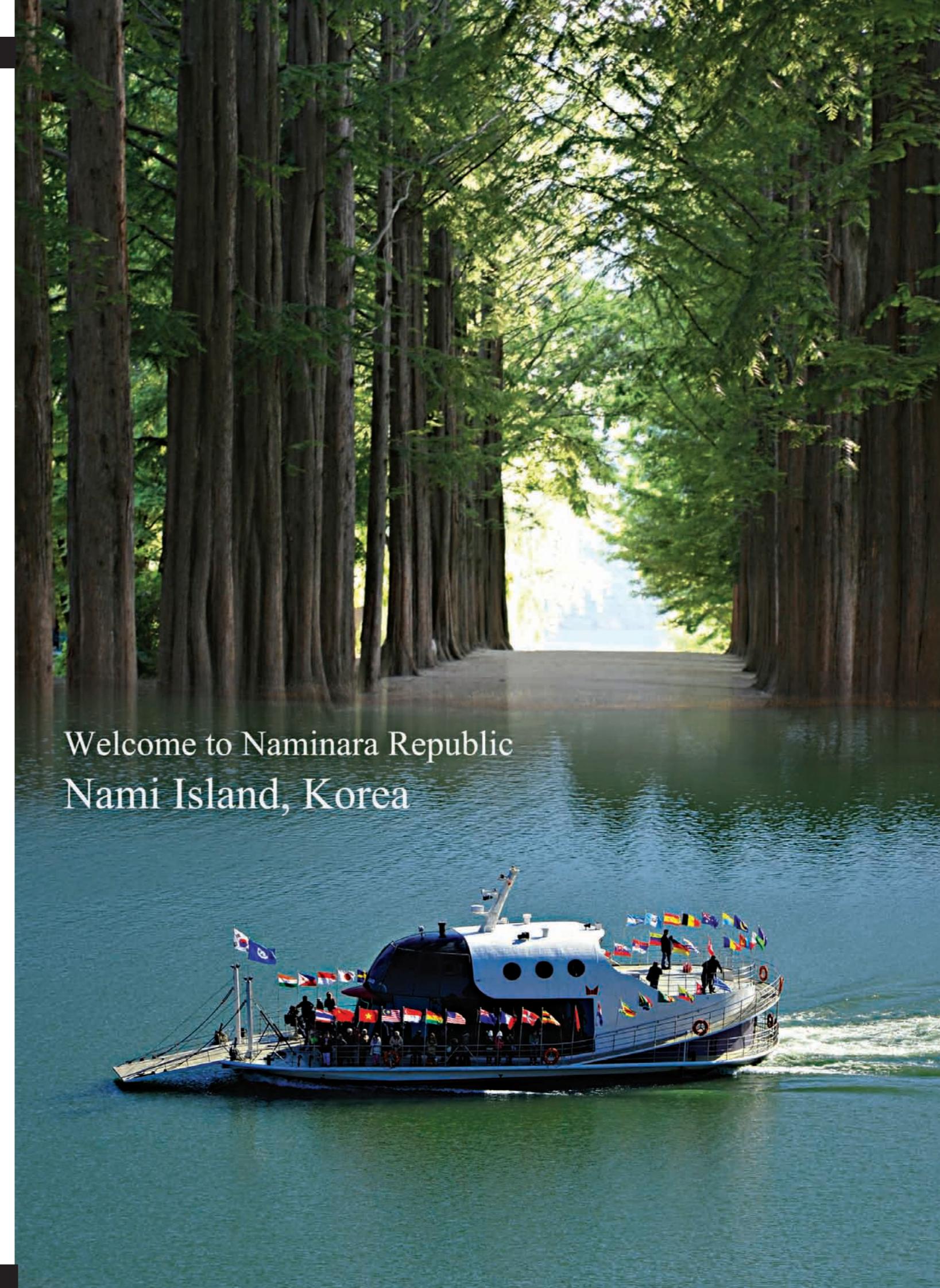
Princess Haila plays a national and international business role as Chairperson for the National Women's Council of Saudi Chambers of Commerce and Chairperson of the National Committee of Business and Technology Incubators. In the latter role, she has been a pioneer in bringing R&D into the Kingdom and encouraging new business models. She also chairs the Saudi Management Association affiliated with King Saud University.

Her efforts in entrepreneurship go beyond her business and investment savvy. She has a keen concern for creating a working environment in the Kingdom wherein Saudi woman can realize their full potential. Princess Haila considers that although the teachings of Islam do suggest different paradigms for how women can engage in business, there are great advantages for the Islamic woman entrepreneur.

"In the West, women in business are constantly struggling to make themselves heard in a men's world. My heart goes out to them," she said. "But in our culture, women can start their business in an environment surrounded by supportive women who understand the value of the female perspective and support each other." Her model for Islamic women's entrepreneurship holds great significance far beyond the Kingdom.

Princess Haila is legendary for her enthusiasm, leadership and compassion as evidenced by her involvement with a number of associations and committees. She serves as Chairperson for the Disabled Children's Association, the General Saudi Charity for Autism, the Commission on the Welfare of Prisoners and their Families and the Society for Down's syndrome. A-P

*Princess Haila received her bachelor's degree in English Literature from King Saud University.*



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