Writing in the *Indian Foreign Affairs Journal* of July–September 2010, Oliver Stuenkel of the University of Sao Paulo in Brazil rightly observed that ties between Brazil and India remained largely insignificant during most of the cold war. Their inward-looking, protectionist policies based on strategies of import substitution as well as sharp disagreements over the decolonization process of the Portuguese enclaves in India, mainly Goa, cast a pall over their bilateral relationship. Even though they often took common positions in international fora such as UNCTAD and G77, and Indira Gandhi’s historic visit to Brazil in 1968 (the first ever by an Indian Prime Minister) was generally well received, Brazil’s geo-political ties to the United States and India’s somewhat left-leaning, non-aligned policy kept their contacts sporadic and low-key.

Yet, during the decade-long military government in Brazil (1964–1975), a good number of Indian scientists and engineers worked on various nuclear, space and metallurgical research projects in that country without much fanfare. These were the days when Brazil held views very similar to those of India over the inequitable nature of the NPT regime. However, following India’s “peaceful nuclear explosion” (PNE) in 1974, American pressure on successive Brazilian democratic governments appears to have dissuaded the latter from employing more Indians. In addition, consequent upon the restoration of democracy, Brazil went through a period of great economic turmoil with hyper-inflation decimating its currency; this, too, appears to have discouraged further influx of qualified Indians. With Brazil preferring regional cooperation within the framework of MERCOSUL (established in 1991) over the uncertainties of pursuing an independent nuclear policy, the need for Indian cooperation in space and nuclear research virtually came to an end.

*The Author is a former Ambassador of India to Brazil. The article is a revised and updated version of a presentation made at the International Conference on India-Brazil Dialogue at Goa University on 28–30 October 2011.*
In the words of Stuenkel, “The end of the cold war brought fundamental change to the geopolitical landscape, allowing Brazil and India to make a fresh start.” The collapse of the Soviet Union and the first Gulf War exposed the limitations of India’s licence-permit raj, and the economic crisis of 1991–92 drove India into a dramatic opening up of its economy and made it more responsive to the demands of the marketplace. The period also witnessed Brazil emerging out of the disastrous lost decade of the 1980s and embracing more sustainable economic policies. It was the Sao Paulo-based brilliant sociologist, Fernando Henrique Cardoso, who, as President Itamar Franco’s Finance Minister during 1993-1994, devised the so-called Plano Real that pegged the Brazilian Real to the US dollar. This along with a host of socio-economic measures placed Brazil on its path to recovery.

Not surprisingly, as President of the country during 1995–2002, Cardoso played a pioneering role in establishing Brazil-India ties. The current upswing in Brazil-India relations clearly had its genesis in President Cardoso’s historic state visit to India in 1996. Even though in the absence of any direct shipping or air connections and inadequate knowledge of each other’s potential, India-Brazil trade was slow in growing, Cardoso’s Health Minister, José Serra, took the lead in encouraging Indian pharmaceutical companies to first export generic drugs to Brazil and later set up manufacturing plants there, primarily to help combat HIV/AIDS. (Later, under the auspices of the IBSA Dialogue Forum, the socio-economic grouping of India, Brazil and South Africa set up in June 2003, the three countries went on to start cooperating in their common fight against the three scourges of HIV/AIDS, malaria and tuberculosis.)

**President Lula da Silva and the True Founding of Bilateral Cooperation**

While Cardoso’s visit opened up the prospects of potentially beneficial links between Brazil and India, it was under his successor, Luiz Inacio Lula da Silva, popularly known as Lula (2003–2010) that Brazil-India relations really took off. Lula came from a background very different from that of the privileged Cardoso. Born of poor parents in the impoverished north-east of Brazil, Lula had to give up school and start working as a machine operator at an early age to support his family, which after his father’s desertion had to migrate to Sao Paulo in search of livelihood. The indomitable Lula overcame his handicaps to found the Brazilian Workers’ Party in the 1980s and as an indefatigable campaigner contested presidential elections four times before winning in 2002, in which year Brazil also won its fifth FIFA World Cup.
championship. Belying investor fears that the Lula administration would usher in wildly left-wing populist policies, the pragmatic new President preserved much of the fiscal and monetary measures of his predecessor, but won over the masses with his well-targeted poverty alleviation programmes of Fome Zero, or Zero Hunger, and the improved version of Bolsa Familia, or Family Allowance, first introduced by the Cardoso government. Lula’s moderate socio-economic strategy and non-confrontationist foreign policy made Brazil the darling of foreign investors and ushered in a new era of prosperity and a higher level of equity than ever seen before.

In his inaugural speech on 1 January 2003, President Lula identified India along with China, Russia and South Africa as priority countries with which Brazil intended to develop special relationships. In three state visits to India (2004, 2007 and 2008), the Brazilian leader took his country’s bilateral relationship with India to a level never before attained. Prime Minister Manmohan Singh’s state visit to Brazil in 2006, the first by an Indian Prime Minister a full thirty-eight years since the visit of Indira Gandhi, also helped consolidate the process. The two leaders also met several times at the World Economic Summits, on the margins of the annual UN General Assembly September meetings and the first BRIC summit in Yekaterinburg in Russia in 2009.

During the relatively short period of Lula’s two presidential terms, India and Brazil became active members of the IBSA Dialogue Forum (a grouping of India, Brazil and South Africa launched in the very first year of the Lula presidency), of the G-20 in the WTO negotiations, of the G-4 (Brazil, India, Germany and Japan) in seeking UN Security Council reform, of G8+5 in the World Economic Summit and, above all, along with China and Russia, of BRIC, an acronym of the first letters of the names of the four constituent countries, first conceived in 2001 by the economist Jim O’Neill of Goldman Sachs to designate countries whose combined GDP would overtake that of the US and EU combined by 2050. Since China is already the second-biggest global economy, and India is the fourth-biggest in PPP terms, with Brazil and Russia not far behind, the BRIC countries are likely to fulfil their destiny well before the scheduled date, especially since South Africa, too, subsequently joined this group to make up the current BRICS.

**President Dilma Rousseff and the Strengthening of the Strategic Partnership**

It is a matter of great satisfaction that in the two years that President Lula’s protégé and successor, President Dilma Rousseff, has been in office since
2011, the strengthening of India-Brazil strategic partnership has continued unabated. Besides interacting with the Indian Prime Minister at the BRICS Summit in Sanya (April 2011), the IBSA Summit in Pretoria (October 2011), and the G-20 Summit in Cannes (November 2011), the new President had a very successful state visit to India during 27–31 March 2012, when she also attended the Fourth BRICS Summit in New Delhi. The major thrust of the bilateral visit was a number of MoUs on Scientific and Technological Cooperation, with special emphasis on biotechnology, agricultural research, information technology (IT) besides a path-breaking agreement on extending Indian support for the Brazilian programme “Science without Borders”, which would provide for placement of Indian and Brazilian students and scholars in each other’s institutes of excellence.

**Brazil’s Economic Potential**

Brazil is not only by far the largest country in South America but is also the fifth-largest country in the world and the fifth most populous. It has the world’s seventh-largest economy as per nominal GDP and the eighth-largest in PPP terms. In a recent paper published by the Council on Foreign Relations (CFR), New York, the emergence of Brazil as a significant global power offering enormous opportunities has been reconfirmed. The Council has highlighted the unique position of Brazil as a country with surplus food and energy at a time of growing global concern over food and energy security.

For instance, Brazil is the leading exporter of staples like soy, sugarcane, coffee, orange juice and beef, making it the fourth-largest exporter of food globally. It is also a major producer of tobacco, cellulose, cotton and cashew. With a landmass two and a half times that of India and a sixth of India’s population, Brazil enjoys a huge land-man ratio advantage. Since Brazil’s urbanization is significantly greater than that of India, the country has to support a mere 10 per cent of its population on agricultural land against over 65 per cent for India. Brazilian agricultural holdings, often running into several thousands of hectares, lend themselves well to large-scale industrial farming. Brazil also has the potential to bring more land under cultivation than any other country in the world. In the Amazon and its other major river systems, besides vast subsoil aquifers, Brazil has the advantage of possessing 18 per cent of the world’s freshwater reserves, an endowment that leaves both China and India far behind. Without doubt, Indian entrepreneurs would do well to invest significantly in Brazilian agri-business, which can meet
our fast growing food and agricultural raw materials needs in the current century and beyond.

With estimated reserves of 50 billion barrels of oil in its territorial waters, 167 million barrels of annual ethanol production and plans to increase output to more than 400 million barrels by 2019, apart from owning the world’s sixth-largest proven uranium reserves, Brazil is poised to become a significant exporter of diverse energy products. According to the CFR report, the Brazilian energy matrix is among the least carbon-intensive of the major economies and has one of the highest shares of renewable energy in power generation in the world. To top it all, Brazil’s vast water resources enable it to produce 75 per cent of its electricity needs through hydropower. Prior to the construction of China’s Three Gorges Dam, it was the Brazilian Itaipu Hydroelectric Project, located on the Parana river at the tri-junction of Brazil, Argentina and Paraguay, that was globally the largest of its kind. It may be of interest to note that Itaipu has not caused the kind of severe environmental damage that The Three Gorges Dam is widely reported to have done.

Given the strengths of the Brazilian economy, the country’s external trade has been growing exponentially. In 2010, Brazilian exports amounted to (US)$201.9 billion and imports to $187.7 billion. Its main trading partners were China, USA, Argentina, the Netherlands, Germany and Japan. The export items ranged from soybeans, coffee, sugar, beef and orange juice to paper, footwear, transport equipment, machinery, iron ore, steel, automotive parts, electrical equipment and airplanes. The main imports comprised electrical and transport equipment, electronic goods, chemical products and refined oil products.

India-Brazil Trade – Slow but Steady Growth

Even though India is still a relatively small trading partner of Brazil, their bilateral trade has been increasing steadily over the last decade and has grown from a mere $828 million in 2000 to over $9.28 billion in 2011. During President Rousseff’s visit, the two sides agreed in principle to increase the bilateral trade level to $15 billion by 2015. India has had traditionally a positive trade balance with Brazil, primarily because of export of diesel besides cotton and polyester yarns. The only exception in recent years was in 2009 on account of large-scale import of sugar from Brazil by India. The situation has reverted in India’s favour since 2010 when its exports made a quantum jump of almost 94 per cent. Table 1 gives an idea of how commercial relations between the two countries have grown in the recent past.
India-Brazil Strategic Engagement - Possibilities for the Future

Table 1
India-Brazil Bilateral Trade 2007-2011 (in US$ million)

<table>
<thead>
<tr>
<th>Year</th>
<th>India’s Exports</th>
<th>India’s Imports</th>
<th>India’s Balance of Trade</th>
<th>Total Trade</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2169.27</td>
<td>957.85</td>
<td>1211.42</td>
<td>3127.13</td>
<td>29.6</td>
</tr>
<tr>
<td>2008</td>
<td>3564.31</td>
<td>1102.34</td>
<td>2461.96</td>
<td>4666.65</td>
<td>49.23</td>
</tr>
<tr>
<td>2009</td>
<td>2190.90</td>
<td>3415.04</td>
<td>-1224.14</td>
<td>5605.94</td>
<td>20.12</td>
</tr>
<tr>
<td>2010</td>
<td>4242.37</td>
<td>3492.35</td>
<td>750.02</td>
<td>7734.72</td>
<td>37.97</td>
</tr>
<tr>
<td>2011</td>
<td>6080.99</td>
<td>3200.69</td>
<td>2880.30</td>
<td>9281.68</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Source: Ministry of External Affairs, Government of India.

India climbed from the thirteenth to eleventh position as Brazil’s trade partner between 2009 and 2010, when Brazil’s exports to India formed 1.86 per cent of its total exports, and imports from India constituted 2.1 per cent of its imports. While percentage-wise these figures are small, they nevertheless represent a significant improvement from a historical perspective. For instance, in 2000 Brazilian exports to India formed only 0.39 per cent and imports from India 0.49 per cent of its exports and imports respectively. However, when compared with the figures for China, the principal Asian competitor of India in the Brazilian market, the challenge for India seems truly daunting. With a total two-way trade of $57.35 billion as against India’s $9.28 billion in 2011, China, as Brazil’s largest trading partner, enjoys a market share nearly six and a half times that of India.

The bulk of Brazil’s exports to India are made up of crude oil (35.9 per cent), raw sugar (28 per cent) and copper (11 per cent) followed by laminates of iron and steel, and soy oil. The bulk of India’s exports are concentrated in a few products like diesel (41 per cent), cotton and polyester yarns (9 per cent), coke, lignite or peat (3 per cent) and equipment for wind energy (3 per cent). Given the wide range of products that Brazil and India can meaningfully exchange, the current basket of traded goods is indeed very limited.

In 2004, a trade agreement was signed between India and MERCOSUL, which came into force in 2009. The agreement, however, covers only 450 products on each side accounting for only a tiny percentage of the products traded between them. Talks are taking place to expand the list significantly by almost five times. While this is an important first step, the process of liberalization obviously needs to be carried forward much further.

With a view to foster greater bilateral trade, the two sides have taken a
couple of important initiatives. In June 2007, an India-Brazil CEO Forum led by Jose Gabrielli, President of Brazil’s oil giant, Petrobras, and the Tata Group Chairman, Ratan Tata, was set up to work act as a catalyst for intensifying exchanges in areas like bio-fuel, information technology, pharmaceuticals and transportation. Unfortunately, the Forum has achieved little so far on account of the other preoccupations of the two leaders of the Forum. The Forum is likely to be reconstituted, with the Indian side having nominated K.V. Kamath, Chairman Infosys, as Co-Chair. The second initiative has been the setting up of a bilateral Trade Monitoring Mechanism at the Commerce Secretaries’ level that has had three meetings so far between 2009 and 2012.

**India-Brazil Investment – Still Modest Despite Potential**

With the importance that the Indian Ministry of Commerce attaches to the Latin American region as a whole and to Brazil in particular, there has been a significant increase in visits by Indian business delegations and various export councils in recent years. The Focus LAC programme, initiated in November 1997 and renewed periodically until March 2014 as of now, has made it possible for many small and mid-level Indian businessmen to participate in these delegations as well as in the various Brazilian trade fairs. In this connection, particular reference may be made to the “Made in India” Show sponsored by the Confederation of Indian Industry (CII) and held in Sao Paulo in March 2011 in which over sixty Indian companies participated.

The immense opportunities that Brazil offers both as the second-largest market in the Western Hemisphere and as the cornucopia of agricultural and mineral resources have been attracting massive foreign investments. Among the leading Indian companies present in the country today are TCS, Wipro, APTECH, Zydus-Cadila, Mahindra-Satyam, Dr. Reddy’s Laboratory and Sree Renuka Sugars. However, the combined annual investment of all the Indian companies in Brazil is small as compared with investments from countries such as the Netherlands, USA, Spain, Germany, France, Japan, etc. Table 2 gives an idea of the relative magnitude of Indian and global FDI flow into Brazil between 2001 and 2009. It is clear from the table that despite the small size, Indian investments in Brazil were steadily rising till the commencement of the global economic crisis in 2008. With the growing familiarity of Indian companies in doing business in Brazil, we can hope for investments to pick up significantly as the crisis abates.
Table 2
Relative Magnitude of Indian and Global FDI in Brazil

<table>
<thead>
<tr>
<th>Year</th>
<th>India (in US$ million)</th>
<th>Total (in US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>3.38</td>
<td>21,041</td>
</tr>
<tr>
<td>2002</td>
<td>4.00</td>
<td>18,778</td>
</tr>
<tr>
<td>2003</td>
<td>7.43</td>
<td>12,902</td>
</tr>
<tr>
<td>2004</td>
<td>14.14</td>
<td>20,265</td>
</tr>
<tr>
<td>2005</td>
<td>7.91</td>
<td>21,521</td>
</tr>
<tr>
<td>2006</td>
<td>17.55</td>
<td>22,231</td>
</tr>
<tr>
<td>2007</td>
<td>28.16</td>
<td>33,704</td>
</tr>
<tr>
<td>2008</td>
<td>20.22</td>
<td>43,886</td>
</tr>
<tr>
<td>2009</td>
<td>16.23</td>
<td>30,443</td>
</tr>
</tbody>
</table>

Source: Embassy of India, Brazil.

Incidentally, during the same period total Brazilian investment in India was a mere $14 million against vastly larger amounts that Brazil had invested in Africa, Europe, Latin America and the Caribbean. Brazilian companies present in India currently include Marco Polo (automobiles), Vale (the country’s largest mining company), Stefanini (IT), and Gerdao (steel). The reticence of Brazilian companies coming into India needs careful examination. Besides distance, the absence of direct sea and air connections and language and cultural barriers referred to earlier, neither India nor Brazil is considered an easy country to do business with, given the numerous regulations and bureaucratic red tape all potential investors have to tackle. Obviously, both the governments and the private sectors of the two countries should go into the difficulties being faced by Brazilian investors in some detail and find mutually acceptable solutions. Brazil, in turn, needs to recognize that Asia has become the new pole of economic growth and that India is not only the second fastest growing economy in the continent but is shortly poised to overtake even Japan as the second-largest economy in PPP terms. Brazilians ought to take full advantage of their excellent bilateral ties with India to position themselves in the vast Asian market. The effective harnessing of India’s entrepreneurial and management skills to further the expansion of Brazilian economy can create a win-win situation for both.

A Few Case Studies of Indian Companies in Brazil

In trying to understand how Indian investment has grown in Brazil over the years, this article will now briefly cover the experiences of four major Indian companies that have invested in Brazil in areas of great promise. These sectors are IT, generic drugs, transportation and biofuels: the Indian companies involved are Tata Consultancy Services, (TCS), Zydus-Cadila, Tata Motors, and Sree Renuka Sugars.

TCS Brazil started its activities in 2002 by combining Indian IT know-
Amitava Tripathi

how with market knowledge of Brazilian needs and the competence of Brazilian professionals. According to a survey carried out by IDC and A.T. Kearney, TCS Brazil currently ranks among the top ten IT services exporters in Brazil. The two TCS Brazil centres in Sao Paulo and Brasilia are both CNNi Level-5 certified, the highest quality standard of the industry. They currently engage over 1500 professionals and offer development and maintenance of applications, IT outsourcing, software production, implementation and integration of ERP systems, IT consulting and business process outsourcing. Through its global, academic interface programme, TCS has alliances with Brazilian technical institutions and has trained and provided employment to more than 400 technology students in Brazil. It is understood that TCS has recently won a five-year, $200 million contract from ABN Amro Bank in Brazil.

The Indian pharmaceutical major Zydus-Cadila (ZC) marked its presence in Brazil initially in the pure generics market. Through its two mid-sized, privately held companies acquired in Brazil, ZC has been posting multi-million dollar sales annually over the past several years. ZC’s first Brazilian unit was in Sao Paolo. Through its acquisition in 2006 of the second Brazilian pharma company, Nikkho, headquartered in Rio de Janeiro, ZC has been able to enter the Brazilian branded generics market as well. Today, the company has a product basket comprising a wide range of therapies covering general medicine, paediatrics, gynaecology, neurology, and dermatology among others.

Tata Motors, India’s largest automobile company, formed a 51–49 joint venture for the building of bus bodies with Marco Polo of Brazil. This JV manufactures and assembles fully built buses and coaches targeted at developing mass rapid transportation systems. While Tata Motors provides the technology and expertise in chassis and aggregates, Marco Polo contributes know-how in processes and systems for bodybuilding and bus-body design. The JV’s manufacturing facility in Dharwad, Karnataka, has launched a low-floor city bus that is currently widely in use in cities such as Delhi, Mumbai, Lucknow, Pune, Chennai and Bengaluru.

Sree Renuka Sugars (SRS), India’s largest sugar refiner and ethanol producer based in Mumbai, signed a deal with the Brazilian Grupo Equipav in early 2010, giving the Indian company a controlling equity stake in the sugar-ethanol manufacturing units of the Brazilian conglomerate. With its estimated $330 million investment, SRS has created one of the largest sugar-ethanol groups in Brazil. Equipav AA consists of two very large and modern sugar-ethanol mills with integrated co-generation facilities in Sao Paulo state having a combined cane-crushing capacity of 10.5 million tonnes per annum and a power co-generation capacity of 203 MW. SRS plans to expand these
capacities shortly to 12 million tons of cane per annum and to 295 MW of power generation. In March 2010 SRSL also acquired a sugar-ethanol production company located in Parana state. Its two facilities have a combined cane-crushing capacity of 3.1 million tons per annum. With these two Brazilian acquisitions, SRSL has become a leading presence in the sugar-ethanol markets of the world.

The companies cited above are among the leaders in their respective fields but there are several other Indian majors in Brazil today. In the area of IT, for instance, Mahindra-Satyam has two design centres in Brazil and engages 900 local employees, while WIPRO’s BPO setup in Parana state provides services to AmBev, a leading local brewery. Among the pharma companies, Cellofarm (a joint venture between the South African company Aspen Pharma and the Bengaluru-based Strides Arcolab) was the first to start its Latin American operations in 2001 with focus on the hospital sector. It currently owns one plant each in the states of Espirito Santo and Rio de Janeiro and is one of the largest Indian firms in this sector.

**Brazilian Experience in India – Hesitant Moves**

Other significant areas of cooperation have been in the energy and air transport sectors. ONGC Videsh Ltd (OVL) and Petrobras entered into a swap deal on offshore oil blocks in 2007. According to available information, OVL has made an investment of $412 million in five offshore blocks off the coast of Espirito Santo in the Campos Basin. Unfortunately, Petrobras pulled out of the block allocated to it in ONGC’s Krishna-Godavari basin, off the coast of Andhra Pradesh, in April 2010 over the Indian Government’s delays in issuing it the licence for deep-water exploration. Embraer SA, a Brazilian aerospace conglomerate, started doing business with India by selling four of its Legacy 600 executive jets to the Indian Air Force (IAF) and one to the Border Security Force (BSF) between 2005 and 2006 for VIP use. It is currently seeking to provide Airborne Early Warning & Control (AEW&C) systems to the IAF. The maiden flight of an Indian AEW&C system on an Embraer aircraft was successfully carried out in early 2012. The Joint Defence Committee of the two countries is also exploring possible cooperation in joint venture projects in areas such as space, nuclear propulsion, cyber defence, shipbuilding, etc.

It is clear from the foregoing discussion that though Brazil and India rediscovered each other only after the cold war, there has been creditable, albeit slow, progress in their engaging each other over a range of sectors of critical importance. The growth in trade and investment could have been still
greater but for concerns, both real and imaginary, over distance, language barriers and regulatory hurdles. It is hence necessary that the excellent political understanding achieved by the two sides is maintained so that the difficulties being faced by the two business communities are attended to at the governmental level on a sustained and timely basis. Of course, governmental support alone will not lead to the fruition of this relationship and the private sectors of the two countries have to take bold initiatives in building on the foundation that has been laid. The current global economic difficulties should not act as a deterrent to greater bilateral trade and investment since the two countries have relatively young and dynamic populations with wide-ranging needs and growing purchasing power that ought to sustain significant annual growth for years to come.

The Way Ahead

Given the dominant role that Brazil and India play in their respective regions, they could work out strategies that would not only bring in bilateral benefits but also provide substantial impetus for growth in their respective regions. The IBSA Dialogue Forum offers a ready platform for India, Brazil and South Africa as well to work on common projects having significant impact well beyond their own boundaries. The rich biodiversity of the two countries is another important area for collaboration between the Brazilian Embrapa and the Indian Council for Agricultural Research (ICAR) with potentially significant economic spin-offs. While there have been some exploratory contacts between the two, a careful strategy needs to be devised to give real substance to this relationship. Brazil’s hosting of the Football World Cup in 2014 and the Summer Olympics in 2016 will involve multi-billion dollar investments in logistical upgrades and even Greenfield projects. During President Rousseff’s visit, the two sides spoke of exploiting the vast tourism potential of each other and, in particular, emphasized the desirability to operationalize the Bilateral Air Services Agreement signed in March 2011 as this would provide desirable air connectivity between India and Brazil via South Africa.

Finally, the enormous pull of Brazilian football and samba and Indian yoga and Bollywood music for the youth of the two countries should be harnessed to raise greater awareness of the immense market and creative potential of the two giant economies. The runaway success of the telenovela, Caminho das Indias, aired by the Brazilian TV channel O Globo a few years ago, is evidence of immense possibilities for collaboration that exist in media-related fields.
Brazil is a country of superlatives, but it is its Amazon River system and the massive Amazon rainforest that gives it a special standing in the world. It was, therefore, truly remarkable to read a news item, published in end-August 2011, that yet another river of approximately the same length as the Amazon itself (some 6000 km) flows underground at a depth of 4 km in the same region. Interestingly enough, the discoverer of this “underground river” is Indian-born Dr. Valiya M. Hamza, who started his career at the National Geophysical Research Institute in Hyderabad in 1966, migrated to Brazil in 1974, and is currently head of the Geothermal Laboratory of the National Observatory at Rio de Janeiro. The locating of the so-called Hamza River is based on complex geothermal measurements for mapping groundwater flows. This dramatic development underscores the huge potential of mutual benefits the two countries can derive through their all-round collaboration.