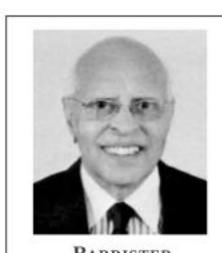
## **BOTTOM LINE**

## Security dialogue with Washington



BARRISTER HARUN UR RASHID

HE second security meeting between Bangladesh and the US began in Washington on April 9. The first such dialogue took place in Dhaka on April 12, 2012.

It is reported that the Bangladesh delegation is being led by the additional foreign secretary and the US

delegation by Assistant Secretary for Political-Military Affairs Andrew J. Shapiro.

We live in an era of change due to the ongoing power shift and power diffusion. The balance of power is moving toward Asia-Pacific region. The pattern of alliance has changed and

tant partners on political, strategic and economic considerations. On the economic front, Bangladesh needs to enhance trade, promote investment, and

increase migration of people to other coun-

tries, and economic diplomacy needs to be

countries look increasingly to regional or dis-

vigorously pursued to attain the goals. The US is a major development partner of Bangladesh. Over the next five years from 2012, the US is reportedly committed to invest \$1 billion to help Bangladesh improve the lives of its citizens.

Terrorism by extremists is a constant worry for the security of many states including Bangladesh. Besides national security, threats to security of food, energy, water and climate change pose a danger to internal stability.

The frequency of natural disasters has increased in Bangladesh due to impact of global climate change. Although they cannot be prevented, they can be managed through increasing the capacity of community preparedness with latest technologies.

In the context of geopolitical developments in the Asia-Pacific region, the following issues assume importance in the security dialogue with the US:

- Increased cooperation in security matters;
- · Review of strategic and regional affairs; Counter-terrorism and regional peace;
- Disaster management;
- Regional cooperation in the security of the Indian Ocean:
- · Increased representation of Bangladesh personnel at the UN/Agencies

Bangladesh needs to maximise human and natural endowments in pursuing cooperative policies with countries in the region and beyond, including the US, to address the above issues.

On the other hand, Bangladesh is important to the US because it is the only Muslim-majority country

which is surrounded by non-Muslim majority states and its interactions with them are friendly and cooperative.

Bangladesh shares borders with India and Myanmar, and is a neighbour to China, Nepal and Bhutan. Bangladesh is a bridge between South and South East Asia, and espouses regional connectivity through all modes of transport. It could be connected to a "new Silk Route" from Turkey to China.

Since 2009, the Bangladesh government has been



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determined to root out terrorist elements from the soil of Bangladesh. As part of the effort, the government has continued to address the problems of money laundering and weak border controls to ensure that Bangladesh does not become a safe haven for terrorists.

Bangladesh nationals in the thousands have settled in America and, as of 2012, there are about 150,000 Bangladeshi-Americans in the US. Most of them are skilled professionals. They contribute to the interactions between the academics of the two nations. In Michigan State, a Bangladeshi-American was elected to the state assembly and more are expected to be representives in state assemblies in the near future.

Bangladesh's direct access to the Indian Ocean is strategically important for the US since, under a new US strategy, the Pentagon has decided to shift its focus and resources away from Europe to Asia-Pacific.

The Indian Ocean hums with traffic of half the world's container ships, just under three quarters of global petroleum products and increasingly with immense tonnages of raw materials from Australia, Africa and South East Asia, bound for China, India, Japan and South Korea.

At the western end of the Indian Ocean, from Somalia to the monarchies of the Persian Gulf to Iran and Pakistan along the shores of the Arabian Sea, lie the main sources of Islamist extremism. Furthermore,

> non-military maritime threats including piracy, gun-running, trafficking of women and narcotics and oil spillage endanger coastal security.

> US author Robert D. Kaplan, in his book Monsoon (2011), states that it is in the Indian Ocean that the interests and influence of India, China and the United States are beginning to overlap and intersect. It is here, Kaplan says, that the 21st century's "global power dynamics will be revealed."

Strategic observers say an American-Indian-Chinese cooperation of sorts may eventually develop while pursuing their shared interests in securing safety of sea lanes in the Indian Ocean, and Bangladesh may play its due role in achieving this objective. The US Seventh Fleet Commander arrived in Dhaka for a three-day visit on April 6 to discuss maritime issues.

The US has reportedly reshuffled its security strategy in the Indian Ocean. When President Obama visited Australia in November, 2011, he and Prime Minister Ms. Gillard announced an increased US presence in Australia. An increased rotation of up to 2,500 US Marines in northern part of Australia and increased access by US navy ships and submarines in Western Australia had been agreed.

United States military aircraft, including drones undertaking surveillance operations over the South China Sea, could be based in Australia's Cocos and Keeling Islands in the Indian Ocean.

On wider security, many strategists suggest that the US is interested in constituting a kind of security (not military) alliance to confront North East Asia's instability with India, Australia, Philippines and Japan. Bangladesh could also be included in the loop.

The relationship between Bangladesh and the US has evolved from one of aid dependence to that of strategic partnership. Bangladesh needs to develop with the US a truly modern partnership, one that is practical, open and engaged to meet the global and regional challenges of the 21st century. The strength of the relationship relies on the capacity to adapt to changing circumstances for mutual benefit.

The writer is a former Bangladesh Ambassador to the UN, Geneva.

## The best friends I never met



HESE days we all love people we don't actually know. A man with no internet connection secretly hooked up his

computer into an unsecured Wi-Fi signal elsewhere in his apartment block. He used it sparingly at first, then threw caution to the wind and started downloading when he described as "extremely large files." which I assume were life-sized photos of Kim Jung Un in Speedos or something equally irresistible.

But the neighbour noticed. He passwordlocked his hotspot and changed its name to: 'Get your own internet.' The signal-stealer, having no choice, did. He called his own hotspot: 'Look I did.' The neighbour then changed the name of his Wi-Fi signal to: 'Good I'm proud of you.

To this day, neither of the residents know who the other is.

This true story was forwarded from Gawker.com by reader Ricky Chou, who offered it as a follow-up to an item in this column about hotspot names which discourage neighbours from stealing your Wi-Fi capacity. "The most thief-proof name ever came from one guy who called his hotspot TROJAN32.EXE," he said.

I agree. No computer user would ever click on the name of a virus so powerful that it wipes out your hard drive, empties your beer-cooler and sleeps with your spouse.

But the cruelest tale came from a mischievous man who found a neighbour's unlocked Wi-Fi signal and renamed it himself, calling it 'Live streaming porn.' If that doesn't make you rush home and password-protect your hotspot, nothing will.

Yes, these are whole new ways people who've never met interact with each other.

I gave up lecturing my kids against talking to strangers when I realized that several of my best friends are people I've come to know only through the web.

I love it: I can talk to these folk every day, but never have to buy them birthday presents, eat their horrible cooking or pretend I like their vile children. And vice versa.

(Only joking. My cooking and children are faultless.)

## Nuclear power: Look before you leap

QUAMRUL HAIDER and M. HARUN UZ ZAMAN

HE declining reserves of fossil fuels and their detrimental effects on the environment has thrust nuclear power into the limelight as a promising option to energy-starved economies around the world. However, in the countries with a history of using nuclear power, this technology has long been mired in controversy and dispute. Proponents argue that the tiny carbon footprint of nuclear fuel, the significantly low operating costs and relatively low life-cycle costs, and the emergence of a new generation of nuclear reactors with improved safety designs justify the use of nuclear power. Opponents warn that the health and environmental risks of nuclear radiation, the possibility of catastrophic reactor accidents, the increased risks of nuclear arms proliferation and terrorism, and the lack of agreed and well-tested radioactive waste management procedures are sufficient reasons to put the brakes on building new nuclear power plants (NPP) and shut down the old ones.

In May 2009, Bangladesh signed a Memorandum of Understanding with Russia to build a two-unit NPP at Rooppur. Subsequently, the two countries signed a series of agreements, the most recent being in January 2013, to consolidate the plan for building the NPPs. As Bangladesh enters the final phases of its plan to build NPPs, there is a need to critically examine the related issues and concerns. In this article, we focus primarily on the safety issues.

A good way of understanding the safety of an NPP is to consider the likelihood and the potential consequences of a nuclear accident. According to latest estimates, out of the 437 reactors currently operating around the world, one of them is likely to have a major accident in the next 20 years. The corresponding probability of an individual reactor suffering an accident during its lifetime of 35-40 years is about 0.4%. Although this likelihood appears to be small, the astronomical magnitude of the consequences, which include large scale radioactive contamination of air, soil, water, and the biosphere, and many adverse health effects, makes this likelihood nontrivial, if not unac-

ceptable. There are many possible event sequences

ble sequence is: the control mechanism (which regulates the rate of energy production) fails, causes the reactor to suffer a runaway chain reaction, overheats and melts the core, and evaporates the coolant. The molten core full of radioactive materials seeps through the bottom of the reactor, enters and contaminates the

ground, the vegetation, rivers and water systems, and underground water tables. Furthermore, if the emergency heat removal systems also fail, overheating can build up excessive pressure inside the reactor and lead to a breach of the containment barrier, resulting in a release of radioactive gases into the atmosphere.

The most serious accidents in descending order of severity occurred at Chernobyl (Ukraine, 1986), Kyshtim (Russia, 1957), Fukushima (Japan, 2011), Three Mile Island (USA, 1979) and Seversk (Russia, 1993). The worst known reactor accident is the Chernobyl disaster. Inadequately trained personnel conducting unsafe tests on reactors (RBMK class) with a history of safety and

to fail. The resulting sequence of events led to a partial core meltdown.

After the accident, radioactive material spread over a large portion of Eastern Europe causing several short-term casualties and such long term adverse health effects as cancers and cardiovascular diseases. Those living in Bangladesh around the time of this accident might remember that the government banned the import of milk products from East-European countries because they were contaminated with radioactive mate-

rial. A 1996 study on the Probabilistic Safety

that constitute a reactor accident. One possi- Assessment of Russian Reactors done by ECONET Consulting for the Office of Environment, Nuclear Safety and Civil Protection of the European Commission notes that Russian "operating reactors were found to have significant safety deficiencies, both in design and operating practices." The report further adds: "A comparison of the



The fallout from a nuclear accident at Rooppur will affect not only the people in its immediate vicinity, but also the rest of Bangladesh and the neighbouring Indian states. Because of such global ramifications of a nuclear mishap, the government will also be accountable to the citizenry of the world.

design flaws caused the control mechanisms core damage frequency of the Soviet designed reactors considered in the report with some selected Western Water Pressurized Reactors shows that in general the risk of core damage is less at plants in Western countries."

> Besides RBMK, the other reactors built in Russia are the VVERs, Russian acronym for Water-cooled, Water-moderated Energy Reactor. The reactors planned to be built at Rooppur are VVER-1000s. The VVER-1000 reactors, first introduced in the 1980s, are operating now mostly in Russia and former Soviet Republics. Although improved safety features were added to the VVER-1000 reac

tors, controversy still surrounds them. Hungary cancelled the order of two VVER-1000s to meet a precondition for joining the European Union in 2004. After reunification in 1990, Germany discontinued construction of power plants in "East Germany" that were to use VVER-1000s. As Bangladesh is moving forward with a

plan to introduce nuclear power into its

energy mix, an important question to ask is whether the VVER-1000, with significant safety concerns, is the best choice among alternative reactor designs. If the answer is yes, then the following questions need to be answered well before the first neutron hits the first uranium nucleus.

Will there be enough trained manpower with the work ethic, the discipline, and a wellinternalised culture of safety required for operating an NPP? What's the status of creating an independent regulatory agency to enact and implement safety regulations for the NPP, which is absolutely essential before an NPP begins operations? In the event of an accident or radiation leak, is there a viable plan to contain

the damage and the exposure, and to evacuate millions of people to a safer area? How secure will be the reactors and spent fuel facilities from terrorist attacks, political upheavals, and natural disasters? Do the citizens know the risks of living near a nuclear power plant? What is the plan for decommissioning the reactors after their useful lives of 35-40 years?

Unlike the hot ashes left over in a coalburning furnace that can be cooled by dousing with water, radioactive "hot ashes," in the form of fission fragments and actinides produced in the spent fuel of a reactor, cannot be cooled by water. They rid themselves of

the excess energy on a time scale determined by their half-lives, the time it takes for half of their radiation to dissipate. Nuclei with halflives less than a year do not pose waste disposal concerns because they become harmless in short order. Those with very long halflives, e.g. millions of years, are also of little concern because they emit radiation at a negligible rate. The radioactive nuclei with half-lives somewhere between these broad limits are the ones that need to be addressed in any waste disposal scheme.

The half-life of one highly radioactive nucleus in the spent fuel, Plutonium-239, is 24,360 years. As a rule, it generally takes about ten half-lives for a radioactive nucleus to be considered safe. For plutonium, this is 243,600 years! What plan does Bangladesh have for the safe storage, transportation, and disposal of long-living and extremely hazardous radioactive wastes?

It is possible that the Bangladesh government has addressed the above issues and has answers to the above questions. But the citizens of Bangladesh, apparently, are not in the know.

Whenever a new technology is introduced, it should be done with full sensitivity to the risks it imposes on the citizenry and with their input and consent. Bangladesh government should, therefore, do a critical self introspection before jumping onto the bandwagon of NPP nations. The government should also engage a broad spectrum of its citizens in an informed debate about the pros and cons of nuclear power. Otherwise, the government will be held accountable by its citizens if it fails to contain a nuclear mishap effectively with minimal loss of human life and limited damage to the environment.

A nuclear mishap has ramifications which can extend far beyond its place of occurrence. For example, the fallout from a nuclear accident at Rooppur will affect not only the people in its immediate vicinity, but also the rest of Bangladesh and the neighbouring Indian states. The food and other goods exported from Bangladesh to other countries might also be affected by the fallout. Because of such global ramifications of a nuclear mishap, the government will also be accountable to the citizenry of the world.

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