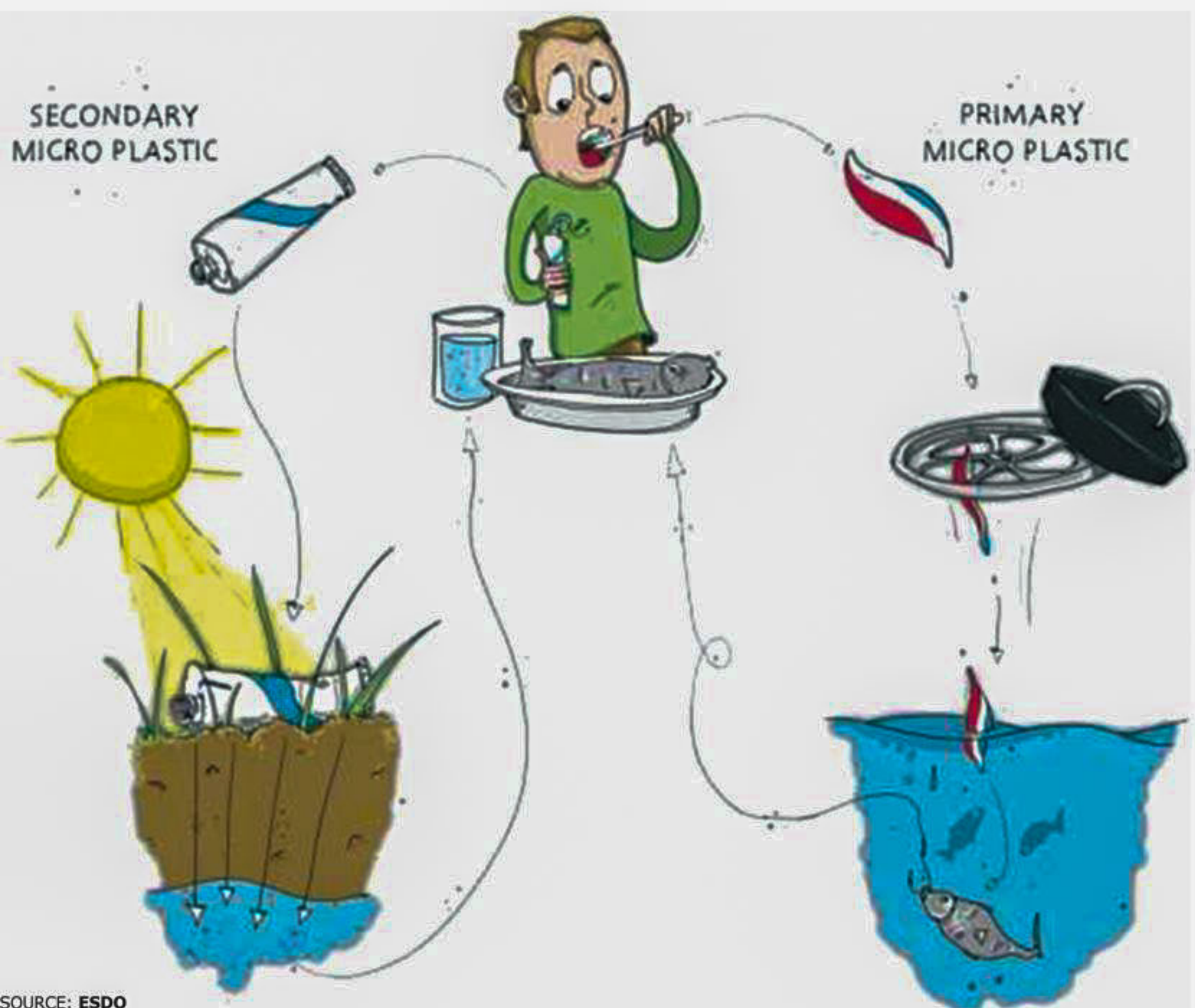


# Tiny plastic, huge risk



SOURCE: ESDO

**FROM PAGE 1**  
toxins are released from the plastic. All sorts of organisms living in or off the sea take in plastic debris and microplastic for food, says the Plastic Soup Foundation, a Netherlands based organisation working to raise awareness about the issue.  
Microbeads are too small to be separated by the filters at the sewage treatment plants.  
The study also shows face wash used by both males and females is the major source of microbeads pollution in Bangladesh.  
Detergent is the next major source of the pollution. About 50 percent of the households in Bangladesh use detergents containing microbeads.  
Toothpaste amounts for up to 25 percent of the total pollution, says the study, adding a portion of the microbeads remain in the mouths and bodies of users.

ESDO Secretary General Shahriar Hossain said they examined 100 fish samples of five species -- catfish, rui, katla, mrigal, hilsa, and sarputi -- and found microbeads in them.  
"Our team members have done the test. But the presence of microbeads in fish can be noticed even with bare eyes."  
Asked, he said consuming such fish might have adverse impact on human health.  
The study says the plastic particles are linked to heart disease, brain deterioration, cancer and obesity. They also cause harm to the skin and teeth.  
Mentioning that the UK government has announced plans to ban microbeads used in cosmetics and cleaning products by 2017, the ESDO demanded that the Bangladesh government formulate a law to ban products with microbeads in the country.  
UN Environment Programme

(Unep) urges a precautionary approach towards microplastic management, with an eventual phase out and ban of their use in personal care products and cosmetics.  
Prof Mohammad Shoeb of Dhaka University said microbeads are harmful for the health and environment as these small plastic particles are pollutants.  
"As microbeads flow to the water bodies through the drains, they affect the marine lifecycle and contaminate the water. Small aquatic organisms eat microbeads that ultimately affect their digestive system and affect the ecosystem adversely," he said.  
There are natural sources of scrubbing and exfoliating agents like groundnut shells and salt crystals but over the years cheap plastic microbeads have replaced the biodegradable alternatives.

# The 'brobot' that sweats

**FROM PAGE 14**  
Researchers at the University of Tokyo were searching for a strategic way to add a cooling system to their 123 pound, 5 foot 7 inch tall humanoid.  
However, this robot was already "stuffed with the brim with structural components, circuit boards, gears and motors", making it impossible to make room to add an active water cooling system.  
The team realised the robot's structure could be modified to function as the entire system in a way that would cool it down similar to human skin.  
"Usually the frame of a robot is only used to support forces," lead author Toyotaka Kozuki told IEEE Spectrum in an interview.  
"Our concept was adding more

functions to the frame, using it to transfer water, release heat, and at the same time support forces."  
Kengoro's skeleton, or metal frame, is made of aluminium and each "bone" was printed using a laser that sintered the powdered metal, reports Evan Ackerman with IEEE.  
This process lets developers select the permeability of the metal, as some parts of this humanoid are solid and others are similar to a sponge.  
The bones were designed with a porous honeycomb-like layers that retain water.  
Water is released when the robot is working hard and begins to overheat.  
As water releases from a pump in the inner porous layer of the 'bones', it travels to a more porous region near

the surface of the frame -- here it evaporates, instead of leaking onto the floor.  
One cup of deionised water can keep Kengoro powered for half of the day without overheating and it can do push-ups for 11 minutes straight.  
But just like humans, this robot needs to keep itself hydrated for the cooling system to function properly.  
The researchers found that this new human-like system works three times better than air cooling and significantly better than just circulating water through the interior channel.  
However, the team says it is not as effective as using traditional radiators or fans, which is found in many machines.

# Need is 'policy of balance'

**FROM PAGE 1**  
relations yesterday said, during the visit of Chinese Premier Wen Jiabao in April 2005, the two countries established a "Comprehensive Cooperative Partnership" featuring long-term friendship, equality and mutual benefit.  
Both sides also declared the year 2005 as the "Year of China-Bangladesh Friendship" to celebrate the 30th anniversary of diplomatic relations.  
During Prime Minister Sheikh Hasina visit to China in March 2010, the two countries issued a joint statement to build a "Closer Comprehensive Partnership of Cooperation."  
Again in June 2014 during Prime Minister Sheikh Hasina visit to Beijing, Bangladesh and China agreed to further expand and raise their partnership of cooperation.  
And this time (Oct 14-15, 2016), on the Chinese President's visit, the two countries issued a joint statement on "Establishing Strategic Partnership of Cooperation."  
So, the Ambassador said, both sides are continually working on improved relations since the establishment of diplomatic relations in 1975.  
Asked whether Dhaka's current bonhomie with Beijing will have any geopolitical nuance that might concern New Delhi, the foreign affairs expert said India and other regional powers centering the Indian Ocean have nothing to worry about from this closer relationship as the two countries reiterated their commitment for a peaceful, stable, open,

inclusive, and developing and prosperous South Asia.  
Former Ambassador Humayun Kabir said, this strategic partnership has goals with a long term perspective in wide range of areas.  
He said some quarters in India might look at the Bangladesh-China growing relationship as a challenge or concern. "But given the level of confidence and current relationship between Bangladesh and India, I think they can look at the ties very positively."  
The Chinese economic support on the mega projects will improve economy in Bangladesh, bring out people from poverty, build infrastructure, expand market, and explore new areas of development, that would also benefit India, he said.  
As India and Bangladesh are moving forward with connectivity and expanding trade and investment, this cooperation with China would also contribute to those areas. He said, Bangladesh, China, and India can move together to achieve greater economic development in the region.  
"If Bangladesh can handle or manage things with keen practicality, the Chinese investment may be win-win for all in the South Asia and South-East Asian region," Humayun Kabir said.  
Noted security and strategic affairs analyst Major Gen (Retd) Abdur Rashid said the huge Chinese investment in Bangladesh's mega projects are important opportunities for Bangladesh to reach its goal of becoming a middle-income country by 2021 and a devel-

oped country by 2041.  
"None but China came forward with the billion dollar economic support. We must not dour up this strategic relation with security and geo-politics because China is investing and giving financial support in our infrastructure, power and energy, information and communication technology, investment and blue economy," he said.  
In this context, he pointed out, India is also receiving China's support for their economic development. So India has no reason to be concerned at the turn in Dhaka-Beijing relation.  
However, General Rashid suggested that Bangladesh must be careful and maintain a balance among the power-houses and players in the region so that none feel aggrieved. Bangladesh should maintain a policy that will benefit its own economy and not hurt ties with others.  
A senior official at the Foreign Ministry said, "I am not seeing any particular change or elevation of Bangladesh-China relations. Rather, I see Bangladesh-India relation is strengthening, not only politically, but also socially and culturally."  
The relation with China, he said, is basically economic. "The other dimension is international politics where Bangladesh counts on China's support."  
"With India, it may be less of defence, but more with security and that is in line with USA. Bangladesh's interest in the US State Department is largely supported in India," the Foreign Ministry official observed.

# Designed to be a game changer?

**FROM PAGE 1**  
"China-Bangladesh bonhomie: India needs to re-strategise as the Dragon woos this neighbour" wrote about Bangladesh-China's agreement to jointly advance the idea of building new Silk Road under One Belt, One Road Initiative.  
"It is an essential component of China's concerted move to woo India's neighbours and drive a wedge between them," he wrote in his article posted on CatchNews on Friday.  
After his two-day state visit, Xi left Dhaka yesterday morning for Goa, India, to attend BRICS Summit.  
Apart from signing government-to-government deals worth \$24.45 billion during his visit, Dhaka and Beijing upgraded their relations to strategic partnership. In addition, private Chinese companies pledged \$13.6 billion in investment in Bangladesh.  
"Even as Prime Minister Narendra Modi welcomed BRICS leaders who began arriving in Goa on the eve of the Summit, China threw in the usual hoopla with President Xi Jinping making a strategic stopover in Bangladesh," said The Tribune, an English daily in India, yesterday.  
"Xi's Dhaka visit is strategically placed since Bangladesh has traditionally been a close ally of India and for China, it is another nation in the South Asian region where it wants a bigger footprint," it said.  
Last year, Modi had announced a

\$2 billion credit line during his visit to Dhaka, but Chinese generosity has dwarfed that, the report added.  
"His [Xi] trip comes at a time when Indian Prime Minister Narendra Modi is leading efforts to boost ties with neighbouring countries, from Sri Lanka to Nepal, by offering them a share of India's fast-growing economy," said a Reuters report published in the Times of India on Friday.  
The Chinese investment with the aim of building Silk Road has empowered Pakistan to counter Indian's offensive against it.  
After the Uri attack in which 18 Indian soldiers were killed and for which India blamed Pakistan, India has been pursuing a strategy to isolate Pakistan globally and also in the South Asian region.  
It has been successful as most Saarc members last month refused to attend Saarc summit scheduled for November in Islamabad. After India declined to attend the summit, Bangladesh, Afghanistan, Bhutan and Sri Lanka came up with the same decision, citing a lack of atmosphere conducive to join the summit. Their pulling out was viewed as a significant step in that direction for the grouping.  
Since then, India has moved to build a new sub-regional group with members of the Saarc, excluding Pakistan. It has planned to strengthen BIMSTEC, a regional group of countries in South Asia and South East Asia.

At the invitation of the Indian PM, heads of the states and governments of other Saarc member countries are attending a BRICS regional outreach. Pakistan has not been invited by India, host of the summit.  
BRICS has a tradition of having an outreach event with the region where the host country is located. This time, instead of the Saarc countries, which includes Pakistan, Delhi has decided to invite the BIMSTEC countries -- Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal.  
Pakistan did not remain silent. Islamabad is exploring the possibility of creating a greater South Asian economic alliance to counter India's controlling hold on the Saarc, said a report in the Dawn, a leading English newspaper of Pakistan, on last Wednesday.  
"A greater South Asia is already emerging," said Senator Mushahid Hussain Syed. "This greater South Asia includes China, Iran and the neighbouring Central Asian republics," said the Dawn report, quoting the Pakistani senator who was visiting Washington last week.  
In this initiative, Pakistan's strength is the good relation with China and huge Chinese investment deals worth \$46 billion inked between the two countries during Xi Jinping's visit to Islamabad last year to build China-Pakistan economic corridor.

China's relations with Pakistan may also frustrate India's move to use BRICS summit to rebuke Pakistan.  
"While BRICS is an economic forum, India will use this opportunity to try to push forward its own agenda on terror. Sources say India will try to convince each nation to issue statements condemning terror in an effort to globally isolate Pakistan. But China is expected to play the usual spoiler," said The Tribune in a report yesterday.  
Russia also may not agree with such an Indian move as Moscow has evinced interest in selling fighter jets and other military hardware to Islamabad. Last month, Russia and Pakistan had conducted military exercise.  
The Chinese leader's visit to Dhaka has been viewed by the Indian media as significant.  
China may put renewed pressure on India to join its idea for building the Silk Road trade routes during the BRICS summit as most of India's neighbours in South Asia are falling in line with the Chinese ambitious initiative, according to a leading English daily in India.  
The Chinese president will surely take the opportunity of his interactions during the BRICS summit to impress upon India and Prime Minister Narendra Modi that by not joining the BRI [Belt and Road Initiative], New Delhi is missing out an opportunity for economic develop-

ment," said the Hindustan Times yesterday.  
The Chinese leader's visit and subsequently upgraded ties between the two countries would not only boost the role of Bangladesh in the region, but also give it an edge in BRICS-BIMSTEC Outreach summit, said China.org.cn, an official web portal of China.  
"When Shiekh Hasina comes to Goa, fortified by the new partnership with China, she would be setting Bangladesh on a bold, new course with a clear-cut strategy for balancing relations between neighbours (meaning India) and global powers (read, China)," said the web portal in the article styled "Xi creates webs en route to BRICS."  
Nepal, a Saarc member, seems willing to join Xi's ambitious project.  
A few months back, the Nepalese government was considered as close to China. But the new government is known close to India. Following the change in the political landscape, Xi Jinping has delayed his visit to Nepal.  
Now, Nepalese foreign experts recommend the Nepalese government to use the BRICS Summit to ensure Chinese President Xi Jinping's visit, said a report by The Himalayan, an English daily of Nepal, on Thursday.  
Former foreign secretary Madhu Raman Acharya said Prime Minister Pushpa Kamal Dahal should talk

about the purported visit while he would meet the Chinese head of the state in India, said the report.  
In the last three years, Xi visited many countries along the ancient Silk Road, and Beijing signed many deals with the countries, promising to invest billions of dollars in different sectors, particularly for infrastructure development.  
Under the "One Belt, One Road" initiative comprising the Silk Road Economic Belt and the 21st Century Maritime Silk Road, the Asian giant is focusing on building a trade and infrastructure network for connecting Asian countries with Europe and Africa along the ancient Silk Road routes.  
China, the world's largest exporter of goods since 2009, needs such a network to maintain its double digit growth by opening new markets for its consumer goods and to increase its dominance over the region in a peaceful manner in the name of trade, say analysts.  
Beijing looks to garner international favour through a massive investment effort in Europe and Asia to surpass the US on the world stage, said Sputnik in a report on June 3.  
In recent years, China planned infrastructure projects involving over \$200 billion for construction, and \$1 trillion for other projects are on the horizon, dwarfing US foreign investment by several orders of magnitude, said the Russian news outlet.

# See you in Goa

**FROM PAGE 1**  
escorted the plane out of Bangladesh's airspace.  
Xi flew to Goa to attend the two-day BRICS Summit.  
Earlier in the morning, the Chinese president paid tributes to Liberation War martyrs by placing a wreath at the National Memorial in Savar.  
Liberation War Affairs Minister AKM Mozammel Huq received Xi there around 9:00am. The president signed the Visitor's Book and planted a sapling on the premises of the National Memorial.  
**PM TO JOIN BRICS SUMMIT**  
Our diplomatic correspondent adds: Prime Minister Sheikh Hasina is due to depart for Goa at 8:00am today to attend the BRICS-BIMSTEC Outreach Summit.  
She will lead an over 50-member delegation. The foreign minister and senior officials from the Prime

Minister's Office and foreign ministry will be part of the delegation.  
The theme of the Summit is "A Partnership in Opportunities".  
On the sidelines of the Summit, Hasina will hold a meeting with Indian Prime Minister Narendra Modi at 9:00pm today.  
The Outreach Summit is being organised on the sidelines of BRICS Summit which would be attended by 11 heads of state of BRICS (Brazil, Russia, India, China and South Africa) and BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) member countries.  
Members of the BIMSTEC are Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand. The two-day BRICS Summit ends today.  
As per the programme schedule, Hasina will attend a retreat with BIMSTEC leaders at 3:45pm today.

There will be a joint ceremony of the BRICS and BIMSTEC leaders at 4:35pm.  
The seven leaders of BIMSTEC countries will then join the Outreach Meeting, which will be addressed by the PM.  
During her two-day visit to India, Hasina is also expected to hold bilateral meetings with several heads of state and government, including the Russian and South African presidents, and prime ministers of Bhutan and Nepal.  
She is scheduled to return home tomorrow.  
**ROAD TO THE EAST?**  
The BIMSTEC meet could unveil a roadmap for a regional Motor Vehicles Agreement to ensure connectivity among South Asian and Southeast Asian nations.  
Diplomatic sources said Bangladesh, which has established road connectivity with four South

Asian countries under BBIN (Bangladesh, Bhutan, India and Nepal), is now eager to establish such connectivity with South-East Asian countries through Myanmar and Thailand.  
Currently, a plan is underway to establish a tri-nation highway among India-Myanmar-Thailand. Bangladesh is considering joining the highway of the three BIMSTEC member countries.  
BBC Bangla quoting Bangladesh High Commissioner in New Delhi Syed Moazzem Ali said Bangladesh has already established road connectivity with India, Nepal and Bhutan in South Asia and now time has come to expand this connectivity in South-East Asia.  
Host India also said its connectivity with Bangladesh will reach a new height and soon Myanmar will join the communication circle.

**FROM PAGE 14**  
Seeing the tea potential unlocked in his part of the country, Nazrul went for tea venture in Dinajpur.  
He says that tea bushes grow with little effort. "In the last year I have applied organic fertiliser twice. Apart from that, the garden need only be watered regularly."  
Nazrul has planted neem trees at intervals to protect the tea bushes from direct sunlight.  
"Nazrul Islam is the pioneer tea grower in Dinajpur district," says Mostafizur Rahman, an official of the agriculture extension department in Birganj.  
"Tea has bright prospects here as the local geography and climate are favourable, especially because it is not too far from the Himalayas."  
Mostafizur believes the area's rural economy can be transformed by tea cultivation.  
Indeed Nazrul's efforts have already

inspired many. Azad Ali, a farmer from nearby Palta Ashrayan village, is enthusiastically following in his footsteps.  
Azad planted tea saplings on two acres in early February this year.  
"Initially, I planted 3,500 tea saplings on my land, hearing about Nazrul's success. I have spoken with the department of agriculture extension officials in Birganj and am now determined to convert my paddy land into a tea garden."  
Thus far, Azad has harvested 300 kilograms of leaves.  
Dinajpur's farmers have proved themselves adaptable in recent years, achieving success with several new crops including oranges, maltas and dragon fruits. Nowadays, with many other local farmers considering the merits of Nazrul's tea cultivation, it looks as though tea production has the potential to become the district's newest agricultural success.

# Dinajpur tea!