

# Climate change myths: What do we really know?

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**F**LASH forward to the future. The sea has risen and drowned out much of coastal Bangladesh. Migrants by the millions have flocked to Dhaka and the city is on the verge of collapse. Cyclones such as Sidr and Aila are striking the country every other year and salinity from the bay has intruded into the delta making agriculture nearly impossible.

This is the vision of climate change in Bangladesh that you've probably come to know. You'll find it in documentaries, newspaper articles, on TV, and even in official development reports.

What if I told you, that while climate change is very real and terrifying, these images perhaps paint a somewhat misleading picture of how climate change will affect Bangladesh?

You'd probably think I was a climate sceptic - denying the overwhelming amount of scientific evidence, which suggests that humans have indeed caused changes in the atmosphere. And given that I am no expert in the field, you'd have no reason to believe me.

But there is a substantial amount of academic literature that supports a more complicated and nuanced version of climate change. One that takes into account the many changes and processes occurring in the country - from how the Bengal river system works to the complex reasons people choose to migrate.

Take sea level rise, for instance. The popular understanding is that contour by contour, southern Bangladesh will be eaten up by the Bay of Bengal. You've likely seen those maps that show the country inundated in 2050 and 2100.

The problem with these maps - and this understanding of sea level rise - is that they do not take into account the fact the country is located on a dynamic river delta shaped by a long history of human interventions (i.e. embankments and polders).

As Hugh Brammer, ex-director of the Food and Agriculture Organization in



SOURCE: GREENAFRICADIRECTORY.ORG

Bangladesh, has argued for the better part of the decade: as the sea level rises, billions of tonnes of sediment from upstream will continue to flow through the delta. Sediment will interact with sea level rise, and land will both continue to erode as well as emerge.

Data from the Center for Environmental and Geographic Information Services shows that there has been a net increase in land of more than 450 square kilometers in the Meghna estuary since 1984.

Not to mention the sea level will rise relatively slowly, giving the government more than enough time to intervene.

"Many people say 17 percent of Bangladesh's coastal area will be submerged," explained Professor Ainun Nishat at a seminar earlier this year, but "it's not a fact."

And since the coast probably won't

drown to such a great extent, there probably won't be a mass exodus of "climate migrants" rushing to Dhaka city either. Sure, people will probably continue to migrate to Dhaka - a city of 15 million that was only about 400,000 in 1950 - but this is a pattern that is already well-established.

Most scholars even argue against using the term "climate migrant" (hence the quotation marks) because people migrate for a variety of reasons, from needing economic opportunities to wanting to live closer to family, and it is impossible to establish climate change as the main motivation.

Research also shows that migration in response to disasters is usually short term, within a short distance and mostly done by the men in the household while the women stay behind. At times, the women and

children are even rendered immobile or trapped, and won't be able to migrate.

Now the case with cyclones is tricky: they are projected to become more intense (due to the oceans warming), but there is less certainty about the frequency.

Professor Myles Allen, head of the Climate Dynamics group at the University of Oxford, suggests cyclones may even become less frequent under climate change because the atmosphere is a complex system.

And very little scientific evidence links either cyclone Sidr in 2007 or cyclone Aila in 2009 to climate change. This is because cyclones have always occurred in the Bay of Bengal, and it might be some time before the role of climate change is more acutely determined.

Aila was not even a very intense

cyclone (by peak wind speed or tidal surge height); it caused so much damage in large part due to embankments illegally weakened by shrimp farmers, and poor sluice gate management.

Finally, the issue of salinity intrusion. This is one of the most misattributed phenomena to climate change. While climate change will have some impact on salinity intrusion into the delta, much of the current high salinity levels are due to India's dams that are diverting freshwater away from Bangladesh (allowing salt water from the bay to seep in) and industrial shrimp farming (that has increased soil salinity in the region since the 1980s).

That's why Professor Nishat explained to the *Dhaka Tribune* a couple of years ago: "If we got more water in the Ganges basin, the coastal rivers would have got more sweet water and thus, over a period of a few years, the excess salinity could be washed away from agro-land."

None of this is to say climate change isn't real. Of course it is. Just ask the millions of farmers in Bangladesh who no longer experience the growing seasons they used to; or take a look at the glaciers up in Nepal that are melting at a faster rate than ever before, affecting the entire Ganges river basin.

But if we are going to get frustrated at climate sceptics for not believing in human-induced climate change, then we have to allow for a more nuanced, scientifically backed version of climate change - one that takes into account the context of all the changes occurring in the country.

Otherwise, we risk every disaster being labelled a climate change disaster. And while climate change may play a role, whether in the recent floods in the northeast or in child marriage as some international news outlets have reported, it is important not to forget everything else.

The writer works at the International Centre for Climate Change and Development.

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## The 'Camelback Silk Road'

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**T**HE gala ceremony of the Belt and Road Summit held in Beijing on May 14 and 15, in the presence of 29 heads of states and important delegates from many countries, was the firework of a global initiative by China, which is gradually awakening and making her soft presence felt everywhere. With an investment pouch of USD 500 billion, the logo of ancient 'Camelback Silk Route' is the measured paddling for global connectivity.

China's immediate concern remains landlocked Central Asia. China is also strengthening links through the Shanghai Cooperation Organization (SCO) that brings China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan together. The SCO, however, has not yet developed enough clout. The Belt and Road initiative, along the ancient beaten camel track, will have to address security concerns before embarking on the vast landmass gains momentum. Landlocked and cash starved Central Asian states eager to trade their energy resources can give impetus to this initiative.

Historically, China is more a trading nation, quietly pushing business in global diplomacy. It worked for 350 years to build the Great Wall to save its people from Mongol barbarians, and now is in the seventh decade of waiting for Taiwan to merge with the mainland. It is willing to wait in 'time and space'

without compromising its strategic visions.

Russia's primary focus will still be Ukraine, the Middle East and the expanding NATO in Eastern Europe. It is under pressure due to its aggressive policy in Ukraine and Syria. Hurt by economic sanctions at a time when energy prices are low, it needs China to ease economic constraints. And China needs both energy and technology from Russia. A stronger economic corridor in the South East of Russia will allow Putin to bargain harder with the West. The Silk Route initiative by China offers a breathing space in the backyard, in the grand design of President Putin.

Nothing happens in the globe without the participation of the US. President Donald Trump appears happy to sell beef to China as the US needs its help to tackle North Korea, and thus is refraining from an immediate reaction to the Silk Route initiative. The US is sending a strong delegation to observe the initiative rather than take any stand. It needs to boost exports to manage its mounting trade deficits. And China is aware and willing. Therefore, the new trade pact worth USD 100 billion comes to play. The Silk Road initiative is still in an embryonic state. There is a possibility that giant American oil corporations, which have sunk billions of dollars in Central Asian Republics without headway, may get their money back through the Chinese corridor. But the sudden surfacing of warlord Gulbudin Hekmatyar in Kabul and NATO's push to



SOURCE: BE2C2.COM

deploy 5,000 additional troops in Afghanistan is mysterious.

The European Union (EU) is embroiled in Brexit and many other centrifugal concerns. Their immediate concern is the German election which will decide the fate of Chancellor Angela Merkel as well as the fate of the EU. Election of President Emmanuel Macron of France is reassuring, but the fate of the EU remains under cloud, until the consequence of Brexit is well managed. EU members are viewing the Chinese initiative more through an individual window at this stage rather

than in a cohesive manner. The United Kingdom is in a precarious condition: on one side, the Brexit negotiation is getting tougher and on the other, Scotland is asking for another round of referendum. No matter how the Silk Route initiative goes, the UK has quickly realised that China, with a staggering USD 500 billion investment, can energise the fading Great Britain with fresh investments. The visit of the Chinese PM in July next will hopefully be rewarding for the UK.

India raised the concern of sovereignty as an excuse to not attend

the summit, as the road linking the port of Gwadar in Pakistan with China pass through the disputed territory of Kashmir in Ladakh region. India's hope for an energy pipeline of Central Asian republics coming down to India via Afghanistan and Pakistan has taken a further dip. Energy is already diverting towards energy-hungry China from some Central Asian republics. Trade will obviously follow the black gold.

That is the immediate concern for India and far-reaching concern of the West. Pakistan is enthusiastic that the USD 57 billion worth of infrastructure development for economic corridor extended up to the Port of Gwadar in Baluchistan, thereby ushering a new era of cooperation. China is already a trusted friend, collaborating strategically in military and economic fields. Drifting away from western allies due to their conflict with India, China is Pakistan's only hope for military stability and economic cooperation.

Small countries can't design international policy but can participate on a selective basis. Many countries are already trading partners of China, and have gone to Beijing to maintain protocol and enjoy the Chinese hospitality. Rightly so, they need not be unnecessarily enthusiastic in big power play. Connectivity in the name of Silk Route revival, encompassing all modes of communication for goods and services, is the latest sign that China is rising.

The writer is an ex DG of SSF.

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### A WORD A DAY

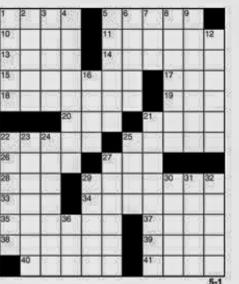


**EUVRE**  
noun

The works of a painter, composer, or author regarded collectively.

### CROSSWORD BY THOMAS JOSEPH

- |                                  |                      |                                    |
|----------------------------------|----------------------|------------------------------------|
| <b>ACROSS</b>                    | 27 Fish eggs         | 8 Put through the paces            |
| 1 Basketball's O'Neal, for short | 28 Opposite of "yup" | 9 Treat derisively                 |
| 5 Suit pieces                    | 29 Set free          | 12 Spirited horses                 |
| 10 Bean curd                     | 33 Used a shovel     | 16 Gifts for kids                  |
| 11 Visitors from space           | 34 Pirate's place    | 21 Furniture between full and king |
| 13 Boo-boo, to a tot             | 35 Go by             | 22 Sex                             |
| 14 Foundation garment            | 37 Auction nods      | 23 Shoulder ornament               |
| 15 Bug's kin                     | 38 Store business    | 24 Famous London prison            |
| 17 Golf peg                      | 39 Border            | 25 Barber symbol                   |
| 18 Cross-reference direction     | 40 Sea birds         | 27 Pushes away                     |
| 19 Nine rock                     | 41 Title paper       | 29 Violinist's need                |
| 20 Tourney pass                  | <b>DOWN</b>          | 30 Stage comment                   |
| 21 Campus area                   | 1 Puts away          | 31 Grassy plant                    |
| 22 Trait carriers                | 2 Comic Mandel       | 32 Moved slowly                    |
| 25 Finishes a golf hole          | 3 Burning            | 36 Golf goal                       |
| 26 Fencing sword                 | 4 Hive VIP           |                                    |
|                                  | 5 Leave empty        |                                    |
|                                  | 6 Wed in secret      |                                    |
|                                  | 7 Knight's title     |                                    |



### YESTERDAY'S ANSWER

CARATS HOPS  
AZARALEA AOCHE  
BUNTED GAOL  
ARGON MANED  
LEES CYRANO  
ALOE DIM  
LUXURY TAX  
BAT BEER  
ARISES ASHE  
GALAS RIPEN  
EMIT PATENT  
LIZA ATONCE  
SEEN CARTER

### BEETLE BAILEY



### BY MORT WALKER



### BABY BLUES



### BY KIRKMAN & SCOTT

