ODAY is "World

Oceans Day,"

a day observed

WORLD OCEANS DAY

Our oceans: The ultimate sump



worldwide to raise our awareness of the crucial role the oceans play in sustaining life on Earth. It is also a day to appreciate the beauty of the oceans that "brings eternal joy to the soul."

The oceans are among our biggest resource and also our biggest dumping grounds. Because they are so vast and deep, many of us believe that no matter how much garbage we dump into them, the effects would be negligible. Proponents of dumping even have a mantra: "The solution to pollution is dilution." Really! In case they don't know, garbage dumped into the oceans is continuously mixed by wind and waves and widely dispersed over huge surface areas.

There is a zone in the Pacific Ocean, called The Great Pacific Garbage Patch, which is a gyre of marine garbage twice the size of Texas. The garbage, mainly microplastics, were carried there by strong currents from other parts of the ocean. This is not the only floating garbage in our oceans. The Atlantic and Indian Oceans have their own garbage patches. Worse yet, the sheer size of the patches is making clean-up efforts an extremely difficult task.

Surely, human activities are impacting the oceans in drastic ways. Some of the anthropogenic environmental issues that are affecting the oceans are plastic pollution, oil spills, climate change and noise. One of the most dangerous threats the oceans may face in this century is radioactive pollution.

Each year, we dump nearly eight million tonnes of plastic-mostly grocery bags, water bottles, yogurt cups, drinking straws and plastic utensils-into the oceans. Recently, plastic has been discovered in the deepest part (11 kilometres) of the world's oceans, Mariana Trench in the Pacific Ocean. Extremely elevated concentration of PCBs, an environmentdamaging chemical banned in the 1970s, have also been found within the sediment of the trench.

While it takes hundreds of years for plastics

to decompose fully, some of them break down much quicker into tiny, easy-to-swallow particles that can easily be ingested by marine species causing choking, starvation and other impairments.

Pollution of the oceans by oil spills has been one of the major concerns for a long time. The primary source of spill is offshore drilling. The process is inherently dangerous and thus, is prone to accidents. When accidents happen, and they do happen without warning, they cause massive damage to the environment—aquatic and shore—that persists for decades to come. Some oil spills happen when tankers transporting petroleum products have accidents.

If the layer of the oil is thick enough, it smothers creatures unable to move out from under it. Besides, swimming and diving birds become covered with oil, which mats their feathers, reducing their buoyancy and preventing flight. The insulative value of feathers is also lost and the birds quickly die of exposure in cold water.

The world's largest oil spill was not an accident; it was the result of the Persian Gulf War in 1991. The second worst disaster was the spill by BP's Deepwater Horizon offshore rig in the Gulf of Mexico in April 2010. Both incidents killed tens of thousands of birds, marine mammals, sea turtles and fish, among others. Land and oceans together absorb slightly

more than half of all the carbon dioxide emissions, with the oceans taking a greater share. When carbon dioxide dissolves in water, it forms carbonic acid. Various studies estimate that if we keep on pumping carbon dioxide into the atmosphere at the current rate, then by the year 2100, the water of the oceans could be nearly 150 percent more acidic than they are now. Such a large increase in acidity would upset the productivity and composition of many coastal ecosystems by affecting the key species at the base of the oceanic food webs. It would also reduce calcium carbonate, which is essential for building the shells and skeletons of creatures like mussels, clams, corals and

Because oceans absorb more than 90 percent of the heat that is added to the climate system, sea level is changing, albeit unevenly.



The oceans are among our biggest resource and also our biggest dumping grounds.

It is changing unevenly as oceans do not warm uniformly across the planet, with the southern oceans warming at a faster rate. In addition, global reef systems are slowly migrating poleward as oceans around the world continue to warm.

The single most significant contribution to rising sea level is from the thermal expansion of water. Melting ice makes the second most important contribution, but only melting of land-based ice—glaciers, ice caps and ice sheets—is significant. Ice that is already floating in the water—iceberg makes essentially no change in sea level when it melts, because the greater density of water offsets the volume of ice that is not submerged. Other factors that contribute to the rise in sea level include wind and ocean circulations, depth of the oceans, deposition of sediments by river flows and alteration of the hydrologic cycle by humans.

According to some studies, global sea level rose by about 18 cms during the last century. In the worst-case scenario, sea level could rise by two metres by the end of the year 2100. Arguably, rising sea level is among the potentially most catastrophic effects of human-caused climate change. The oceans are no longer "The Silent

World" of the famous oceanic explorer Jacques Cousteau. Today, they are being acoustically bleached by noise from seismic blasts used for offshore oil and gas exploration, marine traffic and military sonar. Unlike plastic pollution, noise pollution

does not have the visual impact that is needed to spark an outcry and force action. It is an invisible menace that is drowning out the sounds of many marine animals, including fish, use for navigation, communicating with each other, finding food, choosing mates and warning others of potential dangers. Whales and dolphins are particularly

vulnerable to noise pollution. The deafening seismic blasts and the ping of sonar are responsible for the loss of their hearing and habitat, and disruption in their mating and other vital behaviours. The disappearance of

beaked whales in the Bahamas in recent years have been attributed to testing of US Navy sonar systems in the region.

From 1946 through 1993, nuclear countries used the oceans to dispose of radioactive wastes. The United States alone dumped more than 110,000 containers of nuclear material off its coasts. Russia dumped some 17,000 containers of radioactive wastes and several nuclear reactors, including some containing spent nuclear fuel.

It is highly likely that radioactive wastes would eventually leak out of the containers because of poor insulation, volcanic activity, tectonic plate movement and several other geological factors. Indeed, last month, UN Secretary General Antonio Guterres confirmed that a Cold War era concrete "coffin" filled with nuclear waste is leaking radioactive material into the Pacific Ocean. Since radiation from nuclear wastes remains active for hundreds of thousands of years, their dangerous effects will linger for a long time and will have lethal impact on marine life.

Furthermore, six nuclear submarines—4 Russian and 2 American—lost as a result of accidents are lying at the bottom of the oceans. They represent serious threat of radioactive contamination of the oceans, too.

One of the biggest contaminations due to radiation was caused by a series of nuclear tests conducted by the USA on the sea, in the air and underwater at Bikini Atoll in the North Pacific between 1946 and 1958. The French nuclear tests carried out during 1966-1996 in French Polynesia are responsible for other cases of intense radioactive pollution of marine ecosystems.

Clearly, we are using the oceans as the ultimate sump, partly because their very immensity seems to preclude any long-term effect, and partly because they belong to no one. This cannot continue indefinitely because in order for us to survive, we have to protect the oceans. Lest we forget, life emerged from the oceans and the source of most of the oxygen we breathe are the oceans. They have been an endless source of inspiration to humankind

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Duel at the Shangri-La dialogue: Implications for us all



CHOWDHURY

HE Annual Jamboree of global defence leaders at the Shangri La Dialogue in Singapore is much more than just a talkathon. Amidst the wining and dining, and in the chambers and corridors, policymakers and

thought leaders get the opportunity to interact with one another intensely over a weekend. They try to make sense of how the regional critical security and related issues are evolving, against the backdrop of a rising Asia and a burgeoning superpower competition in what is now being increasingly viewed as the "Indo-Pacific Region". Over the last several years the United States seemed to enjoy a walk-over vis-à-vis the agenda in the absence of senior Chinese protagonists. It invariably resulted in a spot of "China-bashing", and a consequent erosion of its significance, the high quality of discourses notwithstanding.

All that changed during this year's dialogue, between May 31 and June 2. The not-quite sleeping dragon decided that it was about time it showed up to spew some fire to display its potential might. So Beijing despatched a very high official, indeed its Defence Minister General Wei Fenghe to take on the US Acting Defence Secretary Patrick Shanahan. On the verbal battlegrounds of Shangri La, it was finally, the Greek meets Greek, and as is said when that happens, then comes the tug of war!

The Shangri La Dialogue provides for some superb conferencing. The London-based Institute of International and Strategic Studies organises it and the Singapore government provides the deliberations a gentle stewardship so as to be able to yield fruitful results. If in the past China's absence caused the upshot to appear somewhat lopsided, this



China's Defence Minister Wei Fenghe (left) and acting US Secretary of Defense Patrick Shanahan (front second right) attend the opening of the IISS Shangri-La Dialogue summit in Singapore on May 31, 2019. PHOTO: AFP

time round Prime Minister Lee Hsien Loong himself took care to lay down the groundrules of the discussions in a masterful analysis of the regional and global situation at a postdinner tour d'horizon on the opening night.

He did not fight shy of the problems that dot the world in our times, offered some pragmatic solutions while circumspectly avoiding taking sides. He concluded by urging: "we must work together to maximise the chances that countries will have the wisdom and courage to work together... will have the wisdom and courage to make the right choices, opt for openness and integration, and so preserve and expand the progress we have made together."

It was not that Singapore was simply punching above its weight. His rational words

31 Court

32 Pigs Noses

calmed nerves. They helped to round off the sharp edges of the inevitable US-China debate that was at the core of this year's programme.

Nonetheless, some sparks did fly. A restrained Shanahan, without mentioning China, iterated that States that "eroded rulesbased order", were a "threat to the region". Despite the perplexity of some in the audience, who could have thought the remarks could have applied equally to Shanahan's own country, the US, Wei Fenghe accepted the fact that China was the target. Almost coinciding with Shanahan's speech, The US Department of Defence released a report referring to China as a "revisionist power" seeking regional hegemony in the near, and global preeminence in the longer term.

To many analysts though, it could have

seemed like the pot calling the kettle black. For didn't it resemble the pattern of behaviour of the US itself, not so long ago? So, is the US now looking to inherit the pristine purity of behaviour of the proverbial Caesar's wife? In a laconic riposte worthy of Julius Caesar's famous "I came I saw I conquered" message, Wei Fenghe shot back at his perceived rival: "A talk, yes? A fight, ready. Bully us? No Way"!

He reiterated that China was ready to fight the US to the end, but confined the rhetoric, for now at least, to the sphere of trade! He might as well have quoted the old limerick: "We don't want to fight, but by jingo if we do, we've got the men, we've got the ships, we've got the money too!" For the participants of other countries, the apprehension understandably was the same that faced the grass beneath the elephants, doomed to be trampled upon, whether the giant animals made love or locked war!

Happily the prospects of a war are far beyond the rim of the saucer. The US and China, much unlike the US and the Soviet Union of the yesteryears are much too interdependent. They are the largest trade partners, and China owns an estimated USD 1.18 trillion US debt (as of April last year, though the figures pared down somewhat since). Though strategically the US is far ahead in terms of conventional and nuclear hardware, China already possesses the capacity to wreak absolutely unacceptable damage upon the US. Also, while Soviet leaders, not just Lenin, Stalin and Trotsky, but also those that followed were committed to destroying the capitalist system and building anew, the Chinese took the pragmatic line of working to change within the system and weaving the differences philosophically within the dialectical process.

Despite the oft-cited mention of the Thucydides syndrome, named after the Greek historian who said when Athens grew strong there was great fear in Sparta, serious current

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thinkers have pretty much ruled out an allout war. In a recent tome entitled "Destined for War; Can America and China escape the Thucydides Trap?" the strategic writer Graham Wallace argued that, yes, they can. What he meant was "yes, they must". He stated that research showed such avoidance was possible, but it called for imaginative but painful steps.

But this does not mean we are not headed for a long-term Sino-US rivalry, within the model of a rising power challenging a sated one. The trade gap with China has, for the US, grown to a record USD 419.2 billion. Competition for influence in the Asia-Pacific region, where the powers collide directly is fierce. The age of the US as the only hyper-power was short lived. The two current superpowers, led by both Mr Donald Trump and Mr Xi Jinping are subordinating multilateral institutions to suit their purposes. The global state-system is now very much the "anarchical Society" as described by the theoretician Hedley Bull in a classic study of the same name.

In a situation where each State is more or less on its own, the need for each to focus on its own security and development increases manifold. For a country like Bangladesh it would entail expanding product and services markets through innovative initiatives like bilateral and pluri-lateral Free Trade Agreements, rather than say, being dependent on global bodies like the World Trade Organization. Also, bolstering its own defences with smart procurements rather than depend on the platitudinous resolutions of the United Nations. Perhaps the easy life of a policymaker is a thing of the past. It amply proves the veracity of the axiom that fitness to survive perhaps must remain a perennial societal goal.

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ANAIS NIN (February 21, 1903 – January 14, 1977) FRENCH-CUBAN AMERICAN DIARIST, ESSAYIST AND NOVELIST

Life shrinks or expands in proportion to one's courage.

CROSSWORD BY THOMAS JOSEPH

30 Song sung singly

ACROSS 1 Costume store offerings wimp!" 10 Skilled pub

5 Evergreen trees 9" Stop being a 12 Lead-in need 14 Dark drinks in a 16 French affirmaive 17 Bears' lairs 18 Right away 21 Poem of praise 22 Marsh birds

23 Farm bird

29 Menace

24 Accelerated

26 Research site

34 External 37 Santa's crew 38 Mall business 39 Tie the knot 40 Football play start 41 Mineral sources **DOWN** 1 On the FBI's list 2 Chant 3 Wise teachers 4 Location 5 Way off

6 Lupino of film

7 Do some city

8 Teapot parts

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planning

15 Vegan Sandwich filler 19 Grating sound 20 Lowdigit 22 Musical finish 23 "My word!" 24 Cries 25 Nucleus part 26 Home of the "Mona Lisa" 27 Changes 28 Popular cow name 29 "Terrible" age 30 Sun-powered 33 Nautilus captain 35 Period of history 36 GOP member

9 Botch

11 Half of a sextet

YESTERDAY'S ANSWER

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WHAT DO

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AND THE BOY? FOUR HUNDRED AND THIRTY-TWO MONTHS.

