



F-16, claims and proof

Did India shoot down an F-16 of the Pakistan Air Force? Pakistan says no, U.S. weighs in. Where does the truth lie?

DINAKAR PERI

The story so far: In the early hours of February 26, the Indian Air Force (IAF) conducted precision air strikes on a Jaish-e-Mohammad (JeM) training camp at Balakot in Pakistan. In response the next day, Pakistan Air Force (PAF) jets targeted Indian military installations across the Line of Control (LoC), but the attack was thwarted by IAF jets. In the engagement that followed, a MiG-21 of the IAF, piloted by Wing Commander Abhinandan Varthaman, was shot. India claimed that Wing Commander Varthaman, before he came down across the LoC, had brought down an F-16. Pakistan denied that an F-16 was targeted, and early this month a report in *Foreign Policy*, a prominent American magazine, said a U.S. count of the F-16s with Pakistan had found that none of them was “missing” and all the fighter planes were “accounted for.” Following this, the IAF released two radar images to support its claim that the F-16 was, indeed, shot down.

What happened on February 27?

On February 27, PAF fighter jets, comprising F-16s, JF-17s, Mirage-2000s and Mirage III/Vs, tried to drop precision munitions on Indian military installations in the Naushera sector along the LoC. IAF officers claimed 24 PAF planes were involved, of which 11 were F-16s. However, they were intercepted and engaged by the IAF’s Su-30MKIs, Mirage-2000s and MiG-21 Bison fighters guided by ground radars and the Airborne Warning and Control System (AWACS) aircraft. This resulted in an engagement between the IAF and PAF jets. The IAF

had stated that a PAF F-16 was shot down by a MiG-21. The Army managed to recover the tail units of the H4 glide bombs and pieces of the AMRAAM (Advanced Medium Range Air to Air Missile) fired by the F-16s. Among the PAF fighter fleet, only the F-16s can fire AMRAAMs.

What do Pakistan and others say?

Pakistan has denied losing any F-16 and released an image showing four missiles which it claimed as proof that the MiG-21 flown by Wing Commander Varthaman did not fire any missile. However, IAF officers stated that for one of the missiles in the picture only the front seeker and the end tail portion were present which means that the missile had hit the target, and the explosive had detonated. Last week, *Foreign Policy* quoted an unnamed U.S. defence official as saying that the U.S. had physically counted PAF F-16 planes and “all aircraft were present and accounted for.” Responding to questions on the issue later, a U.S. Defence Department spokesperson said they “weren’t aware” of any such investigation.

What has IAF claimed so far?

The IAF has consistently maintained that the PAF deployed its F-16s against India and fired AMRAAMs. Earlier this week, Air Vice-Marshal (AVM) R.G.K. Kapoor, Assistant Chief of Air Staff, Operations (Space), said there was “irrefutable evidence” to prove that the PAF had used F-16s and that an IAF MiG-21 Bison shot down a PAF F-16. The IAF released two images recorded by the AWACS. These show the tracks of the PAF jets and one IAF jet in combat and a PAF jet disappearing. AVM Kapoor had stated that the analysis of electronic emissions picked up by the AWACS and radio transcripts indicated F-16s in the area in front of Wing Commander Varthaman’s aircraft. The IAF said the F-16 that was hit fell in Pakistan-occupied Kashmir. Explaining the technicalities, IAF officers said the radar of a jet has a distinct signature. By comparing electronic signatures, the aircraft could be identified. The IAF said Indian Army posts in the vicinity of the LoC in the Jhangar sector sighted two separate parachutes, the first in the Sabzkot area and the second in Tandiar, both separated by 8-10 km. Further, AVM Kapoor said the IAF had more credible information and evidence that the PAF lost one F-16 but that could not be shared in the public domain owing to “security and confidentiality concerns.” Details of the bombs and the AMRAAM have been shared with the U.S.

What are the implications?

For Pakistan, the use of F-16s and the AMRAAMs is governed by the end-user monitoring agreement that the U.S. signs with all countries to which major weapons and weapon systems are sold. While Pakistan has claimed it targeted Indian positions in self-defence, it has so far shied away from formally acknowledging their use against India. However, the exact terms of use is not known. For India, shooting an advanced F-16 with a relatively less advanced and end-of-life MiG-21 and Su-30s evading several AMRAAMs is a shot in the arm for its tactics and the skills of the pilots, and also for its Russian equipment.

Will the El Nino factor impact the monsoon?

Why we need to watch out for the weather phenomenon synonymous with the Pacific Ocean, which is generally known to suppress rainfall

VINSON KURIAN

The story so far: The forecast of a below average monsoon in 2019 on the back of a prospective El Nino that is often associated with less rainfall has come from a private agency, Skymet. Its managing director Jatin Singh says the Pacific Ocean has become strongly warmer than average. Even as things may get clearer after the India Meteorological Department’s forecast, we look into the weather phenomenon called El Nino and its impact on the monsoon.

What is it?

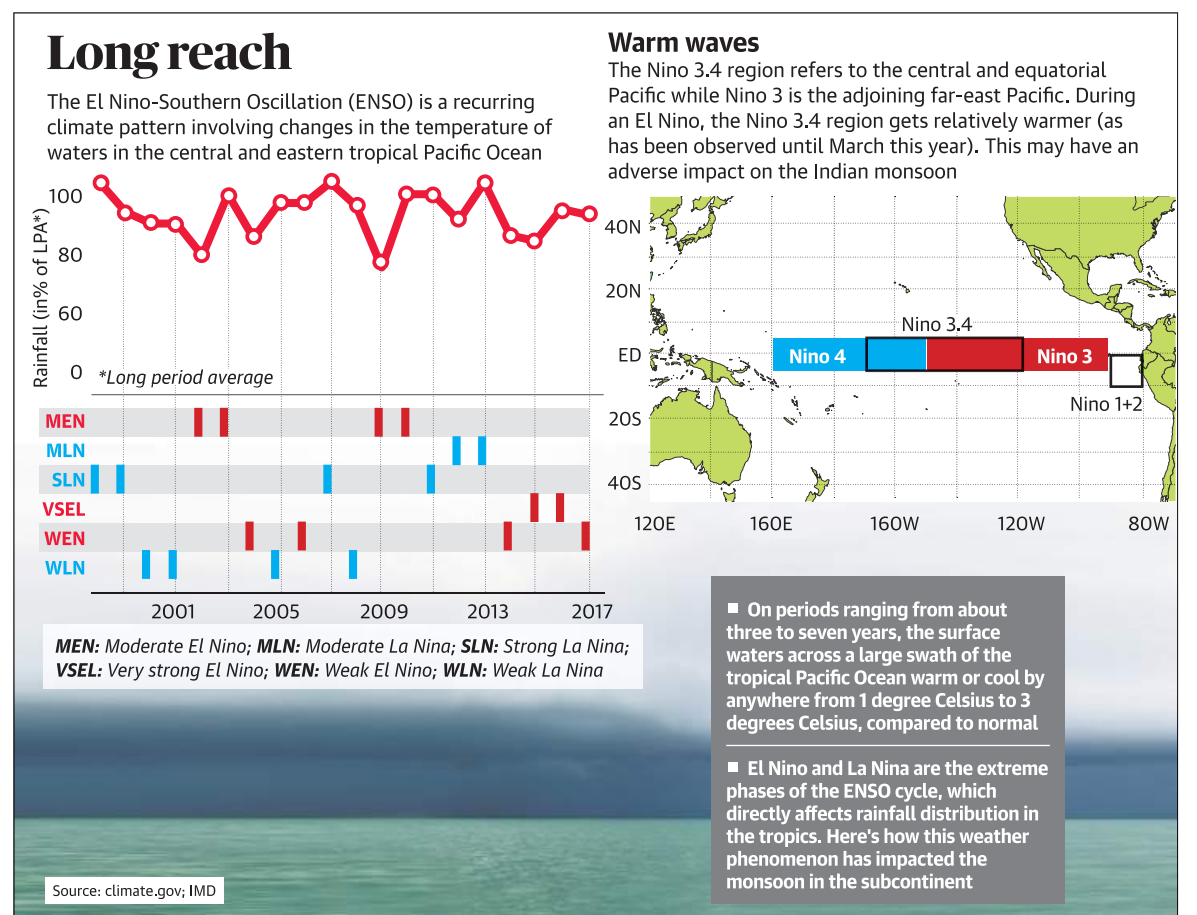
El Nino is synonymous with the Pacific Ocean that covers as much as one-third of the planet. There is no bigger stage for it to unfold in which the vast ocean and the atmosphere combine perfectly, only to send out associated bad tidings half a world away and even beyond.

El Nino is a phenomenon in the equatorial Pacific, in which sea-surface temperatures rise over a threshold of +0.5 degree Celsius (and cools by the same margin during alter ego La Nina). These are averaged over five, three-month sessions on a trot across a stretch of water designated as the Nino 3.4 region (see graphic) to arrive at the Oceanic Nino Index (ONI). There are a few other acronyms which one comes across while tracking El Nino. For instance, the Southern Oscillation Index, or SOI, that gives an indication of the development and intensity of El Nino or La Nina. The SOI is calculated on the basis of the atmospheric pressure differences between Tahiti (South Pacific Ocean) and Darwin (Australia), separated by 8,569 km. Sustained positive SOI values are indicative of La Nina conditions while negative values suggest El Nino conditions. Another acronym is the ENSO (El Nino Southern Oscillation) which refers to the oscillation between the El Nino and the La Nina. ENSO shifts irregularly back and forth between El Nino and La Nina every two to seven years. Each phase triggers predictable disruptions of temperature, precipitation, and winds disrupting large-scale air movements in the tropics, triggering a cascade of global side effects. Under ‘normal’ conditions, though, the west tropical Pacific is warmer than its eastern basin. The warmer area of the ocean is also a source for convection and is associated with cloudiness and rainfall. During El Nino years, the warmth shifts to Central and East Tropical Pacific (Nino 3.4 region), and along with it, cloudiness and rainfall.

How did it come about?

El Nino was observed as far back as in the late 1800s when South American fishermen noticed the warming up of coastal waters around Christmas. They referred to it as “El Nino” (Spanish for the boy child), since it appeared around Christmas. Sir Gilbert Walker, a British mathematician, discovered the Southern Oscillation (SO), or large-scale changes in sea level pressure across Indonesia and the tropical Pacific. However, he did not recognise that it was linked to changes in the Pacific Ocean or El Nino. It wasn’t until the late 1960s that Norwegian-American meteorologist Jacob Bjerknes and others realised that the changes in the ocean and the atmosphere were connected. This was how the coinage ‘ENSO’ came into existence.

As already mentioned, El Nino has been found to impact almost half the world triggering droughts in Australia, India, southern Africa and floods in Peru, Ecuador, the United States, the Gulf of Mexico, and the Colorado River basin. If Sir Gilbert found in the 1920s that many global climate variations, including monsoon rains



One of the strongest El Nino years of the century (1997-98) produced a monsoon season with above-average rainfall for India

Why does it matter?

India has not had a particularly productive monsoon since 2014 (save a tolerable 2017), with weak El Nino events unfolding on either side of the strong 2015-16 El Nino, a trend forecast to continue into this year. This comes on the back of a deficient post-monsoon season last year. After all, the south-west monsoon (June-September) accounts for over 70% of the country’s annual rainfall and irrigates over half of the crop land. The rain-fed kharif crops are heavily dependent on the monsoon and the quantity of rainfall determines agricultural production. Agriculture accounts for around 15% of the GDP and normal rains rejuvenate the farm sector and help the government deal with rural stress. Normal rains can boost sentiments, raise farm production, perk up rural demand, and tame inflation to some extent.

But what perplexes scientists and researchers is that no direct correlation between the ENSO events and the monsoon has been established yet. From 1950 to 2012, there were 16 La Nina years, with the monsoon rains ending up above or around average nearly every time. El Nino brought in five droughts during this period but on 14 other occasions, monsoon performance ranged from being well below-average, average, or even above-average. To top it all, the 1997-98 El Nino, among the century’s strongest, went on to stand conventional logic on its head; far from heralding a drought, it generated above-average rain. Likewise, 2002 proved to be one of the driest monsoons despite it being a weak to moderate

in India, were correlated with the SO, the credit of linking it with El Nino as part of ENSO involving both the ocean and atmosphere, goes to Bjerknes. But it took until the 1980s or later for ‘La Nina’ or even the ‘neutral phase’ (neither El Nino or La Nina) to gain currency.

El Nino year. It only helped bust another myth: the strength of an individual El Nino event may not necessarily have its imprint on monsoon performance.

What lies ahead?

El Nino has been generally known to suppress monsoon rainfall in India while La Nina increases it. El Niño years tend to be drier than average, but one of the strongest El Nino of the century (1997-98) produced a monsoon season with above-average rainfall for India (see table). Researchers also believe that even the location of the warming in the Pacific may possibly have an influence on the monsoon. Anomalous warming in the Central and East Pacific (Nino 3.4 region) could have a more profound adverse impact on the monsoon than when the warming shifts to the adjoining far east Pacific (Nino 3. region). Current conditions (March, 2019) suggest that the warming is pronounced (+0.98 degree Celsius) in the Nino 3.4 region than the far east Pacific (+0.74 degree Celsius), which could suggest a weaker monsoon this year. Already, a couple of private forecasters as well as a few international agencies have sounded out the possibility. The official forecast from the India Meteorological Department (IMD) is eagerly awaited. Scientists claim there may be other factors that combine with the prevailing Pacific conditions to decide the fate of the monsoon. Progressive heating of the land during April-May-June is one. The extent of the Himalayan/Eurasian snow cover is another. Less snow cover means a warmer subcontinent, which can help to intensify the monsoon circulation and bring more rain. It is worthwhile in this context to recall that north India has had an extended winter earlier this year. Last but not the least is the ‘dipole’ effect nearer home, wherein the Indian Ocean mimics El Nino-La Nina in which the western and eastern basins warm up relative to each other every few years with associated impact on the monsoon. Warming up of the west Indian Ocean boosts a prevailing monsoon, and vice-versa. International and domestic weather agencies expect that this year, the Indian Ocean dipole could be either ‘neutral’ or weakly positive. It remains to be seen how this could reflect in the monsoon’s performance.

Capturing the image of a black hole

How astronomers clicked a picture of one of the most secretive objects in the universe

JACOB KOSHY

The story so far: In 2017, a consortium of institutions around the world decided to pool the scanning abilities of eight telescopes – from Hawaii to the South Pole – and focus on getting a picture of a black hole. By definition, a black hole can’t be seen. As a cosmic gobbler of all matter on its periphery, these sinkholes have gravitational fields so powerful that even light cannot escape them, rendering its contents invisible. Because the concept of black holes (the cemeteries of spent stars above a certain mass and massive cosmic objects) followed from Einstein’s theories of general relativity, scientists have had intricate mathematical descriptions and speculation of how they look, how many of them exist, how they behave, where they might be located and their relationship to the universe. Based on this, there have been a plethora of visual and artistic descriptions of black holes. However, there has never been visual confirmation of their existence, until now.

What has been discovered?

On April 10, astronomers shared an image, now christened on Indian Twitter as a ‘giant meduvada in the sky’, from the black hole at Messier 87 or M87. It was a blurred, yellowish orange frame surrounding a black centre. While this wasn’t vastly different from how astronomers and artists have visualised black holes for decades, it’s still great to see reality correspond to imagination. The black hole measures 40 billion km across – three million times the size of the earth – and is 55 trillion light years from earth. (A light year is about 9.46 trillion km). It is bigger than our entire solar system and a scientist described it to the BBC as “the heavyweight champion of black holes in the Universe.” The image has been analysed in six studies co-authored by 200 experts from 60-odd institutions and published on Wednesday in *Astrophysical Journal Letters*.

Why is it important?

Since the 1970s, astronomers have known that there are ‘super massive’ black holes (about a billion times heavier than the sun) in the Milky Way or galaxies close to it. While black holes themselves are invisible, the region around them – the luminous frenzy of charged particles from matter in their vicinity – is, in theory, ‘visible’. The bigger a black hole, the greater the odds of it having a



massive event horizon – the fiery periphery of a black hole – and the better our chances of observing wisps of radiation from it. After the discovery of a super massive black hole in M87 (a ‘neighbouring’ galaxy about 55 trillion light years away) and one in our Milky Way, astronomers formed a network of ultra-sensitive telescopes – called the Event Horizon Telescope – to dedicatedly train their sights towards trying to capture some radiation from them and hopefully, snap a real picture from the black hole’s periphery.

How did the scientists image it?

Because black holes are the result, mostly, of heavy stars collapsing in on themselves, radiation emitted by particles within the disc are heated to billions of degrees as they swirl around the black hole at close to the speed of light, before vanishing into them.

The astronomers used a technique known as interferometry, which combines radiation from eight telescopes from around the world in a way that it appears as one single telescope capture. What this virtual telescope would capture were traces – electromagnetic radiation – from jets of particles spewed from the event horizons of the black hole. This faint radiation, in the form of mostly radio waves, would have travelled trillions of kilometres and for the telescope to observe them

The data generated will help scientists understand how the jets of luminosity that enabled us to see the black holes actually work and behave

would be the equivalent of trying to snap a picture of an ant from the moon.

The EHT team observed M87 and Sagittarius A (Sgr A), the black hole at the centre of our Milky Way, over five nights in April 2017, using eight radio telescopes that are sensitive to the wavelengths of a millimetre. The telescopes they used stretched from Hawaii to Arizona, Mexico to Spain, and Chile to the South Pole. The data generated were so voluminous that they couldn’t be transmitted on the internet and had to be recorded on disk and shipped to the Massachusetts Institute of Technology, Boston. It took nearly a year for data from the South Pole to be shipped because of inclement weather. A total of 4 petabytes were recorded – the equivalent of 8,000 years of MP3-format music played non-stop – and was crunched in supercomputers by teams of scientists working 16-18 hour shifts. A report in *Science* said four independent teams duplicated the data processing to eliminate biases and over four days of observations of M87, the shape and size of the shadow was consistent with theoretical expectations. The team did not report results from Sgr A because the picture quality from M87 was better.

What does it mean?

Coupled with the momentous discovery of gravitational waves, generated by two black holes, in 2015 by the Laser Interferometer Gravitational-Wave Observatory, the black hole image of M87 is a testament to engineering skills. It will help to form international collaborations to pool the capabilities of disparate scientific instruments and perceive phenomena that cannot be comprehended by individuals. It also underlines that international scientific collaboration is now essential to scientific advancement. The image and the data generated could better illuminate black holes, how they work, how the jets of luminosity that enabled us to see them, actually behave. An actual image also confirms a century of theoretical work that has built up over the years, premised on the assumption that black holes are indeed real objects and not the fantasy fallout of abstruse mathematical equations. It allows scientists greater confidence to proceed with more involved questions such as the surface of the regions around black holes, how they rotate, how quickly their characteristics vary and how earthlings need to shift and shape their instruments accordingly to learn more about them.

Looking for oneself

ANIMA SAHU

Discipline is a virtue that has been respected and adored for years. It has been a part of our culture. Deeply ingrained in our minds is the belief that we ought to lead a disciplined, worthy life.

However, there is a fine line between discipline and boredom, which can become inconspicuous most of the time. I have been striving to achieve discipline in my life, ever since I understood the meaning of discipline. However, it has now turned into borderline boredom.

Every morning as I make my morning tea and my so-called healthy bowl of cereal, I have had the same thought over and over again: "What am I doing with my life? Is this something I really want?" The answer is pretty straightforward: No. But the problem is that I don't have the faintest idea what I really want in life. This is a struggle faced by many of the millennial generation who society would assume are well-settled.

We have a great job and enough money to live satisfactorily. However, our vision for the future is clouded and diminished by the tangles of disciplined boredom and the fear of keeping our own safety net intact.

Over the past three decades of my life, most of which was spent within the confines of our educational system and our cultural mindset, I have tried achieving all the notable aspects of a disciplined life. I would have to say I have mostly succeeded in my attempts. I now have a job that most people might consider respectable. I am an engineer and earn well, above average. In no way can I consider myself to be leading a bad life. But lately, I have been pondering whether I am leading a good life. I would like to address these thoughts to be the pangs of early midlife crisis.

Early midlife crisis is quite similar to the so-called midlife crisis, only it happens about 15 years earlier, give or take five. Being in this phase of my life, I have started questioning my apparently insignificant accomplishments in life, the long bucket list of tasks and items that remain and how there is no time for to complete them. There is lack of excitement and a feeling of resentment towards the life choices I have made so far.

Keeping up with my own generation here, I searched for the above symptoms and I had this moment of epiphany. Self-actualisation. This is the top-tier need as per Maslow's hierarchy of needs. We have achieved all the other basic human needs, physiological, safety, love/family, self-esteem. My generation is probably the first that is dealing with the need for self-actualisation on a large scale and at an earlier age, as compared to previous generations.

Wow! Is this something to be proud of? Well, how can I tell, I am still struggling to actualise myself. If only there was an app. Sigh!

animal221@gmail.com



ILLUSTRATION: J.A. PREMKUMAR

Much more than just TAXI TATTLE

It would appear that all they need is an ever-so-mild provocation, to let off steam and give vent to it all

SARASWATHI NARAYANAN

The cab we ordered to take us to the airport arrives on time. Before getting in, I nod imperceptibly at my husband. It's supposed to be a reminder of our resolve made earlier that come what may, we will not exchange a single word over any issue concerning politics in the driver's presence. In response, my husband shakes his head cynically and chooses the seat beside the driver to avoid my watchful eye.

Our past experience in many a taxi ride has taught us that even one chance remark shared between us about current affairs in and around us is bound to elicit an unsolicited response from the driver. No problem

there, since all of us share the same concerns as citizens, but it's not likely to stop with that. Soon one-liners would lead to extended dialogues, and thereafter a talkathon session till we reached our destination.

Given our penchant for viewing everything from a political angle, it could become worse in an election season when our grievances reach a peak. Understandably, the driver is also tempted to proffer his opinion from the elemental level based on what he's seen or heard from others, although his total attention should be on the road. Our road conditions being what they are, with pesky potholes and chaotic traffic, this two-pronged distraction could well be a perfect recipe

for a road disaster – for which some passengers might also be equally responsible.

Last time, in another cab, the driver got so carried away by the intensity of his tirade against the system that he took a wrong route despite the GPS and almost hit a roadside median, just missing it by a few inches. It took quite a while for us to regain our composure and we decided to keep mum during subsequent rides.

Today's cabbie appears quiet and reserved. Once the OTP is given to him, we are on our way. The cab breezes along an arterial road in silence for the first half hour. There's a certain meditative lull inside, which enables me to recollect clearly whether I'd remembered to

switch off the gas and lock the front door properly. I relax, fingers crossed.

Well, what we resist persists anyway! Before you know it, the restless feeling disappears along with a rude squeal of tyres. The cab stops abruptly somewhere in the middle of the road though there's no traffic signal. A train of vehicles is also behind us honking impatiently. Now, what? A few stray cows are calmly crossing the road, in slow, measured steps. While we are waiting for them to pass by, it begs the question, "Why did the cows cross the road?" As in the case of the chicken, here too there's no logical answer. However, one can always take a guess in the present-day situation. A standard one is that,

maybe the cows found a poster on the opposite side juicier as the political party figuring in it is offering more freebies than the one in the poster, on this side of the road.

The driver lets out an exasperated sigh. My husband mutters, "Oh-ho!" in a show of solidarity. Stray animals are not a new phenomenon on our roads, but unknowingly they could trigger a meltdown in a hitherto patient cabbie. Just as I feared, he goes full force, venting his frustrations with the usual questions. Why's our civic management so hopeless? Do we deserve this after seventy years of Independence? Where are we headed? And so on.

Thankfully, in a few minutes the airport comes into view. As

we get down with our bags, the driver still fumes, "What's the use of complaining, anyway? Nothing will change!" I tend to disagree, though.

Long ago, in Shakespeare's play 'Hamlet', a palace guard tells his comrade that something is rotten in the state of Denmark. Perhaps, the sensitive authorities there, after watching the play, took note of it and sought to wipe off that impression about their country, no matter even if it's fictional.

Today Denmark is one of the happiest places to live in the world. So I suppose, it might pay to complain about our plight but not inside a moving taxi.

saraswathi100@yahoo.com

The guest as god, no less

Total strangers often go to make good friends in the great Indian tradition of hospitality

V. RAMASUBBAN

Indians have a unique tradition of "hospitality" inborn in them and extend it to guests when they call on us. We greet them with a "please come in" or a *namaskar*, as a part of our culture. This comes to us spontaneously. When we call at a friend's house we are immediately requested to sit down and are offered a glass of water to quench our thirst. And within minutes a cup of hot tea is offered, too. This is the Indian tradition and this continues even today.

Thoughtful help

In December 1945 my elder brother and I, then 12 years of age, accompanied our father to a small hill station called Palampur in what is today Himachal Pradesh. In the afternoon we decided to walk along the road from our lodge enjoying the weather: it was shivering cold for us. The scenery was enjoyable.

And suddenly we were pelted by hail and we ran in search of some cover to protect our head and body. We took shelter under a tree with thick foliage and this did give some degree of protection. Within minutes, a group of teenage boys came to us with thick cloth sheets which they held above our heads and escorted us carefully to a building nearby. Before we could say a



word they brought us hot cups of tea and ensured that we drank it down before we sat down comfortably on chairs they provided.

We were told the building we were in was a hostel for a school next door. They had seen us walking leisurely and when the rain came down in a heavy downpour with hailstones, they knew we would be in need of help – and we were! We left soon afterwards. Our father thanked

the boys and blessed them.

In 1952, I was a hostel student in Chennai, then Madras. For my summer holidays I went to Kandla. The train journey was interesting: Madras Central to Bombay V.T. and then to Bombay central to Virangam to Navlakhi. Thereafter by ferry to Kandla port. Since I was travelling with a free rail pass I relied on railway canteen food and this was noticed by the Gujarati family tra-

velling with me. I was persuaded to join them for dinner which I did. It was one of the most unforgettable vegetarian meals that I ever had.

For the first time I tasted real *dhokla*, the taste of which is still fresh in my memory even now, after 65 years.

Debt repaid

Later in 2005 I happened to see a Hindi film titled *Swades* in which Shah Rukh Khan acted as a NASA employee. In the story he was brought up by a lady and he returns to meet her and entreat her to go with him to the United States. She meanwhile asks him to go to a village where a villager who owed her a large sum of money lived.

SRK with an escort reached the village and he was shocked at the poverty in which the villager lived. In spite of his inability to pay back the money owed, he, his wife and two children gave up their lunch to feed SRK and his escort. This part of the film was so touching it brought tears to my eyes. I was about 70 years old then and shed tears. This was the real show of Indian hospitality, *athithi devo bhava* – the guest is god! The scene was so touching and real it still strikes me to be a true Indian.

Long live Indian hospitality.

hemram1229@gmail.com

The water woes

P. SABANAYAGAM

People in several parts of India are facing the problem of lack of enough drinking water. Women are forced to fight to collect and carry it in pots. Even cattle don't get sufficient water. Many villagers have stopped farming and deserted their villages. Governments and NGOs are doing what is possible to alleviate the suffering.

Rain brings water, which flows as rivers. When there is deficiency in the rivers, people in the region through which they flow eagerly naturally extract as much as possible from it for their survival. Consequently, regions downstream are deprived of water to that extent and people there suffer. They then turn against their neighbours. Given the steady population growth, whenever rivers become deficient, per capita water availability drops.

Population growth in India has been phenomenal over the past several decades. At the time of Partition in 1947, the figure was 300 million, and today is about 1,300 million. Large numbers of skilled and qualified people are unemployed; sufficient health care facilities are not available. For want of other neces-

sities people face difficulty but they manage. But when water becomes scarce, it is difficult to survive.

It is everyone's responsibility to conserve water. Before the rain comes, people should ensure that all reservoirs, lakes and other water-bodies, are maintained properly. Lakes face sewage inflow, garbage dumping and encroachments.

Simple math shows that when population increases and rainfall decreases, per capita availability is cut. It is the responsibility of every citizen, not just that of the state, to take steps to try and ensure that per capita availability does not get reduced.

So what should be done? Every married couple should decide to have no more than two children: the rule would be, "We Two Ours Two". Thus population growth rate can be reduced and the per capita availability of water increased.

In this election season, when large crowds gather at rallies and meetings, it is an opportune moment to carry forward the campaign. The serious situation that is emerging owing to water scarcity makes it imperative for every Indian to fulfil the responsibility.

It is her and his duty to the nation.

secy@sreesumangala.com

Trauma re-lived: a victim's first-person account

She was sexually assaulted as a teen and the experience has left her scarred. How many more wake-up calls do we need?

I was sexually assaulted between 10 and 13 years of age. Given the incremental nature of the abuse and, most important, owing to my lack of understanding (was ignorance my fault?), it took me a long time to even realise that I was being subjected to something inappropriate. I never had the habit of reporting everything to my parents, nor did they ever try to understand what was happening to me. It was easy for them to attribute my new irate self to the arrival of adolescence. Gossipy relatives called me a spoilt child.

Why would you ever do that to a kid? Even my friends left me. I had no support system. I withdrew myself from everybody and slept through all of it.

I didn't speak to anyone about this, didn't know for an embarrassingly long pe-

riod of time that I could seek help to cope with it, never looked around to see if there were more like me. I couldn't sleep properly because of distress, and when I fell asleep due to exhaustion, I would wake up, sometimes sweating, sometimes in tears. But I told myself each morning that everything happening to me was only a bad dream. I had carried out this morning ritual so religiously for so long, I had to force myself out of it a few years later. In the early years after that, the sole aim of all my decisions on what I would study and whom I would befriend was to avoid being asked about my past.

I chose a discipline in college which girls rarely chose because I thought girls were nosy and guys just didn't care. I made no friends in college, only acquaintances.



ILLUSTRATION: SREEJITH R KUMAR

Slowly, this tactic of isolation and negation appeared to have worked well. The past appeared buried for good, I wouldn't be perturbed as much as before and related nightmares became a rarity. And then I

moved to a foreign country for higher studies, made a couple of Indian friends and formed a support group for general survival purposes.

As we got closer and closer, one of my friends started opening up about the abuse

she had undergone as a kid and how it still affects her. There was no running away from her; I had to be there, listening, consoling. Just as I was trying to get over it, out came another friend with yet another story; I was still there, silently listening.

The bubble of isolation that I had created around myself over the years had been burst. Despite my efforts, I am now re-living my own traumatic past quite intensely. Having formed the habit of not speaking much about myself voluntarily to anyone, I find it almost impossible to string my vocal cords to be in tune with what I am going through.

If you happen to meet me, I will be a pleasant person; not silent even, if you get me talking. I am chirpy, I am funny, I am caring, I am driven, I want to explore the world

and I want to be happy. But there is a sulking heart within me. Even you will know there are many many 'me's. I am perhaps the every other young person you meet. Isn't this far too many sulking hearts to make up a healthy society?

Why, then, do we not see enough age-appropriate awareness messages in the kids' sections of newspapers? Why do we not see enough related television advertisements and programmes aimed at children? Is the social media faring any better in this?

Are all parents aware and talking to their kids about this? How many more wake-up calls do we need? Don't you think you and I and all should do a lot more, at least now?

The author's identity is not revealed



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Towards Pax Technologica?

We need a new manifesto to deal with technology and democracy side by side
SATWIK MISHRA

Dadaji and the dog

A life's lesson on why you don't ever kill a puppy for its mischief
KUNWAR JUNG BAHADUR

The gym-goers

Coping with the sheer weight of a healthy resolve to stay slim
RANA PREET GILL

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