

## SHRINKING GLACIERS- A CONCERN

According to the study, 21 glaciers out of 46 natural world heritage sites will disappear by the year 2100, including the Khumbu Glacier in the Himalayas. Los Glaciares National Park, located in Argentina, contains some of the largest glaciers on Earth; about 60% of these glaciers are expected to lose ice by the year 2100. If adequate steps are not taken to limit carbon emissions, two-thirds of the glaciers in the Hindukush Himalaya could melt by the year 2100 and the rising water could cause floods in major rivers. The Hindukush Himalaya is the third largest ice field after the North and South Poles and has been continuously affected by global warming since the 1970s. Scientists have warned that two-thirds of the Hindukush region's glaciers could melt by 2100 if pre-industrial global efforts to limit global warming to well below 2 degrees Celsius fail. If appropriate measures are not taken regarding global warming, it may have adverse effects in the future. These glaciers have great importance for the coming generations in the field of drinking water, agriculture etc., hence saving them is a big responsibility of today's generation.

## Pupil-Teacher Ratio and Quality Education

**SUNIL KUMAR**

One of the key factors responsible for providing quality education in schools is the number of the teachers in the school for the given number of students and is calculated as Pupil-Teacher Ratio (PTR). PTR is the average number of students per teacher at each level in a school. As per the RTE Act, 2009, PTR at primary level should be 30:1 and at the upper primary level it should be 35:1. It means if a primary school has 30 students, it will be provided only one teacher. If there are 31-60 students, two teachers will be provided. Similarly, there will be only one teacher for teaching classes 6th-8th if these classes have up to 35 students; and two teachers if the number of students is 36-70. Being a teacher, it is very difficult and confusing for me to see justification before this PTR. A primary school has 5 numbers of classes (1st to 5th). Let's assume that the school has 30 students in a single class. In such a case, there seems some possibility for the teacher to teach the students in a better way as she has to teach only 4-5 subjects while she has 6 periods of 40 min duration. But, how to teach a total of 30 students of 5 different classes by a single teacher? Is it possible to teach 23 subjects in 6 periods by a single teacher? She has to teach an average of 4 subjects in each period. And teaching 4 subjects of 4 different classes in a single period means devoting only 10 minutes for each subject. In such a case; how can we expect quality? Remember, she also has to maintain Mid-day-Meal and other official records everyday in addition to filling data on online portals. The same problem may be there in upper-primary (with primary section) schools. An upper primary school with 40 students reading in 8 different classes is provided with only two teachers (as per the provision of RTE Act, 2009) who have to teach about 40 subjects. It means each teacher has to teach an average of 20 subjects in 6 periods. Now, when the NEP-2020 is all set to be implemented in JK UT, one more wing, that is, ECCE has also been added in the schools. This will be adding even more burden on teachers who are already overburdened due to shortage of teaching staff. NEP-2020; no doubt has come up with a number of landmark recommendations like bringing ECCE in the pattern of formal education, new 5+3+3+4 curricular structure, focus on vocational education and coding right from Class 6th onwards, holistic report card and much more. But, how to implement all this without a sufficient number of teachers? As far as PTR is concerned, the policy (NEP-2020) has recommended almost the same criteria as set by RTE Act, 2009. As per NEP-2020; a pupil-teacher ratio (PTR) of under 30:1 will be ensured at the level of each school while in the areas having large numbers of socio-economically disadvantaged students, the aim may be 25:1. So, the problem is again the same. In implementing such a PTR, teaching 30 students at primary/upper-primary level is somewhat possible for a single teacher if all the students belong to a single class as the teacher has to teach only 4-5 subjects. But, providing quality education to 30 students of multiple classes by a single teacher is almost impossible and will be a total injustice with the future of the children.

In my opinion, there is a need to modify the criteria set to determine PTR. Instead of considering PTR at primary/upper-primary level, it should be considered at class level. Every class with 1-30 numbers of students should be provided 1 teacher and with 31-60 students should be provided 2 teachers. Suppose an Upper-Primary school (with primary section) is running classes 1st to 8th. And there are less than 30 students in each class; then there should be a minimum of 8 teachers in the school. If a class has 31-60 students, then one extra teacher should be provided and so on. Similarly, assuming that each class has 1-30 students; a primary school must have a minimum of 5 teachers i.e. one teacher for each class. What if a primary school has a total of 15 students with 5 different classes? Should there be only 1 teacher as per the PTR norms set by RTE Act-2009 and NEP-2020? If it is so, then in this case, PTR is 15:1 which is there in a large number of schools in J&K; and is much better than average PTR at national level. In such a high PTR, many of us may wrongly expect better learning outcomes without looking the same through another perspective. Such a situation will increase the workload on the teacher as she has to teach all subjects of 5 different classes in addition to other official assignments. As the students will not get proper time to study all the subjects regularly, this situation may adversely affect their studies which may force them to drop schools in the long run. In short, quality education is not possible without giving sufficient time and sufficient number of teachers to students. There is an urgent need to think over it on priority.

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# Fighting Deepfakes: Combating The Threat To Truth And Trust

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In an era dominated by technological marvels and artificial intelligence, the rise of deepfakes has become a matter of significant concern. These synthetic media files, seamlessly blending fabricated content with reality, have ushered in an era where distinguishing truth from fiction has become an intricate puzzle. With the potential to reshape public perception and sow seeds of discord, the implications of deepfake technology demand our attention and scrutiny.

At the core of this digital revolution lies deep learning, a powerful subset of machine learning that harnesses neural net simulations to analyze vast datasets and create remarkably convincing fake content. From forged images to fabricated videos and manipulated audio recordings, deepfakes have evolved into sophisticated tools capable of mimicking the likeness and voice of individuals with unnerving precision.

One of the most unsettling aspects of deepfakes is their ability to fabricate events or speeches that never took place. Through the intricate application of machine learning algorithms, deepfake creators can seamlessly graft one person's likeness or voice onto another's, blurring the lines between reality and fiction. The consequences of this manipulation extend far beyond the realm of entertainment, infiltrating the delicate fabric of our social and political landscapes.

As deepfake technology advances, the once-discernable discrepancies that hinted at artificiality are becoming increasingly elusive. The danger lies not only in the creation of realistic fake content but also in the potential for misuse. Public figures, whose images and voices are easily accessible, become vulnerable targets for malicious actors

■ ER. KANWAL J.S.SOODAN

Guru Gobind Singh who baptised five Singhs (Pyaras) and laid the foundation of Khalsa Panth on 13th of April 1699, had four sons namely Baba Ajit Singh (Mother Mata Sundri) Age 17 Yrs, Baba Jujhar Singh, (Mother Mata Jitto) Age 13 Yrs, Baba Zorawar Singh, (Mother Mata Jitto) Age 9 Yrs, Baba Fateh Singh (Mother Mata Jitto) Age 6 Yrs.

In very early stage of life Baba Ajit Singh was cared, nurtured and trained by Bhai Jeta Singh and Maha Singh for horse riding, weaponry etc. Hilly Chiefs attacked Taragarh Fort, when Baba Ajit Singh at the age of 13 yrs fought with great courage and bravery. Juber Khan was captured alive after fierce fighting and handed him over to his father Guru Gobind Singh Ji. Baba Jujhar Singh, Baba Zorawar Singh, Baba Fateh Singh were cared and nurtured by their grandmother (Mata Gujar Kour ) as their mother Mata Jitto had left for heavenly abode. In 1699 on the Baisakhi day under the guidance and support from Mata Gujri all four grandsons were baptized to the fold of Khalsa Panth.

Establishment of Khalsa Panth and their growing fame and number; frustrated Aurangzeb whose force with the active support of hilly chiefs, encircled Anandpur Sahib Fort in 1704 December so as to capture Guru Gobind Singh. Since the Mughals could not enter the Fort during 7 long months besiege, they entered into a treaty swearing over the holy book of Quran that if the Sikh force vacates Fort, they will be given safe passage. Based on this treaty the Guru Gobind Singh Ji decided to vacate the fort and move to Kiratpur.

No sooner the Guru Ji with his family and 40 Sikhs came out of the Fort the Mughal forces and those of Hilly Chiefs launched their attack breaking all the promises and pledges and there was a fierce battle at Chamkora Sahib. Guru Gobind Singh Ji's two elder Sahibzadas Baba Ajit Singh and Jujhar Singh attained martyrdom while fighting with 10 lakh army of Mughals and Hilly Chiefs. In Memory of this Shaheed Gurudwara 'Katalgarh Sahib' and 'Garhi Sahib' are still there at Chamkor Sahib. Guru Ji on the order of 5 Piyaras moved to Maehhi wara.

Guru Ji's family was scattered



(Martyrdom of Mata Gujri and her four Grandsons)

while crossing Sirsa River and younger to Sahibzadas Jorawar Singh and Fateh Singh alongwith Mata Gujri Ji reached village Saheri where they met their old cook Gangu Ram. Mata Gujri requested him to take them to Kiratpur but instead he took them to his own home and later handed over to Mughal forces after snatching their valuable belongings. Mughals arrested Mata Gujri and two younger Sahibzadas and kept them in Morinda Kotwali on 24th December 1704 where Gurudwara Kotwali Sahib still exists.

Suba Wazir Khan asked the Sahibzadas to adopt Islam but the Sahibzadas refused. He tried to lure them by offering with most attractive offerings but they did not accept anything. Finally they were buried alive in the wall though it was anti Islamic Act as told by Nawab Malerkotla to Subedar Wazir Khan. Both these Sahibzadas and Mata Gujri attained martyrdom on 28th December, 1704.

Yogi Allah Yar Khan writes. "Bus ek hind me Tirath hai yatra ke liye.

Kataye Bache Baap ne jahan Khuda ke liye"

(There is only one pilgrimage in India where father has sacrificed his own sons for the sake of righteousness and religion.

In conclusion the Martyrdom of four sons and their grandmother was the turning point in Indian Sub continent which is unparalleled in the history till date. Their contribution and recognition which is highest of the times and even today for the cause of truth, righteousness, honesty, integrity compassion of the times to build.

Next side Mata Gujri along with younger grandsons' Baba Zorawar Singh and Baba Fateh Singh

reached the village "SAHERI" where Mata met their old cook Gangu Ram" Mata requested Ganga Ram to lead them to Kiratpur Sahib to meet his son Guru Gobind Singh.

When Ganga Ram see some valuables with Mata 'g' of He got greedy then he said when Mughal forces got away I will lead you to Kiratpur Sahib. Till then you stay away with me at my place. At night he stole away all their belonging, But Mata sees all with her own eyes. Next day Mata narrated the night scene to Gangu ram. He got frustrated and furious. In retaliation Ganga Ram informed the Incharge of Suba-Sirhind at "Morinda". That Guru Gobind Singh's Mother and younger son are with him.

After some time the soldiers arrested all of them and imprisoned at Morinda Kotwali for a night (Next day they were taken to Sirhind. Saba-e-Sirhind was very happy to see them all. He ordered his soldiers to imprisoned all of them in high tower in open on 24th December 1704.

The treaty on the pages of Quran on 22nd December 1704 was written. They appealed Guru Gobind Singh to leave Anandpur Sahib you will be given safe passage. Then Guru Ji ordered all their men to move towards Kiratpur Sahib, Mother of Guru Gobind Singh ji, wife, four sons, and forty Singhs left the fort for Kiratpur Sahib. On their way to Kiratpur Sahib, Mughal army breaking all their promises made Guru Ji to surrender or all of your were killed, so with full faith and strength Baba Ajit Singh and Singhs decided not to surrender them. A battle was fought on the banks of River Sarra and when the river was over flowing and all their family separated from each other.

Guru Gobindji along with two elder sons Baba Ajit Singh, Baba Jujhar Singh and remaining Singhs reached Chamkor Sahib.

Mata Gujri and younger sons Baba Zorwar Singh Ji and Baba Fateh Singh reached Village Saheri. Guru Gobind Singh wife and Bhai Mani Singh reached Delhi. Guru Gobind along with elder sons and 40 Singhs reached Chamkor Sahib. Next day long battle was fought with Mughal forces under the leadership of Wazir Khan with 10 lakh soldiers whole battle was seen from the top by Guru Gobind Singh , Baba Ajit Singh requested his father to sent him to battle field. Bhai Daya Singh requested Guru to move to some safer place form the battle field with their sons as there is no comparison for the enemy force of 10 lakhs. Guru replied what one you talking about all Singhs are my Sahibzaadas. Everybody will fight till their last breath. Fierce battle fought forwhole day with enemy forces till sunset and both their sons Baba Ajit Singh, Bab Juzar Singh Martyred. After sunset remaining Singhs requested Guru to leave as their leadership is much required for the Panth and people to lead. The 5 Singhs ordered Guru Ji to leave the field Guru left with 03 soldiers towards Machiwara Jungles.

All the remaining Singhs fought with full courage and bravery and attained Martyrdom.

Wazir Khan ordered not to give them any food and water and whosoever do that he will be punished severely. Bhai Moti Ram Mehra a cook in the Mughal forces was very fond of Guru Ji when he hear the news about all this he got very upset. Then defying the wazir order; he gave them hot milk for 2 nights and when the news reached Wazir Khan he executed the whole family of Moti Ram Mehra by crushing them in rolling wooden logs.

On 25th of December 1704 both sons Baba Zoarawar Singh Ji and Baba Fateh Singh were taken to the court of Wazir Khan. While entering the Courtroom both Sabizada's presented themselves with great spirit and courage ( Jo Bole So Nihal, Satsriakal) Guru name is the only truth. Nawab Sucha Nand asked both to bow down in front of Wazir Khan they denied that they only bow before "God".

Wazir Khan got furious on seeing all these happenings. All the people in the Courtroom got damaged to see

all the happenings in the Court. Wazir Khan told them that all your family have been killed in the battle. Better to be in the fold of "Islam" or you will be killed. We will spare your life if you embrace "Islam" But or no anvil. They sent them again to Mata Gujri at Cold high tower prison. They narrated the whole story of courtroom to Mata. Mata held both of them by her arm and told them kept the spirit of your grandfather and father alive. GOD bless you both with spirit of righteousness and courage. little one's promised Dadi not to worry.

On 20th of December again they were taken to courtroom where certain privileges were promised if you converted to "Islam" Then Wazir Khan said, what you do if you were set free. They said we again reassemble the Singhs's and fought against the oppression Mughal forces for the cause of Panth and people. On hearing there Wazir Khan got furious. Courtroom was full of peace to see amazing events happen. Then Nawab of "Malerkotla" appealed to Wazir Khan spare them. This is against the spirit of Islaam. What is their fault. Your animation is with their father But of No Anvil.

Wazir Khan ordered to buried them alive in brick wall. When brick wall was progressing. Again Wazir Khan asked them to Bow down to "Islam" fold they denied. Then he ordered to cut off their heads. "Jallad" denied that it is against "Islam". So they called the imprisoned Sashe lBeigh, and Bashed Beigh" to cut off their heads. Moti Ram Mehra who was there to see all the events run away to inform Mata Gujri Ji about all this, but she already have taken journey to heaven.

"Diwan Todar Mal" played a pivotal role in acquiring the land for the dignified and honourable burial of Mata Gujri Ji, and grandsons. Wazir Khan laid a surprised demand to put Gold coins in vertical position instead of horizontal position for acquiring the land for burial. The price was paid by Diwan for an amount of 2 Billions (50 Crores) making it most expensive land purchased to date for such and small area. Sikhs Bow their heads and holds Dewan Tadmarn in the highest regards and acknowledge his Supreme generosity displayed by him for acquiring the land for Burial of great Martyr.

## Untenable mimicking of the Constitutional post

■ OMKAR DATTATRAY

It is very disturbing and unfortunate that a law maker has done mimicking of the Top constitutional post of vice-president Jagdeep Dhankhar and it has aroused needed criticism of this bad act .No one has the inborn right to perform mimicking and that too of the constitutional post of the vice-president .But this unwarranted and deplorable act has taken place in our parliamentary history when Trinamool Congress MP Kalyan Banerjee performed mimicking of vice -president and rightly this issue snowballed into a major controversy with president Droupadi Murmu and prime minister Narendra Modi expressing their disapproval to the act publicly .Congress leader Rahul Gandhi ,who was targeted by the BJP for filming Mr.Banerjee's act on his phone ,hit back by saying that he shot the video of MPs sitting outside parliament and asked why there is no discussion in the media over 150 opposition MP's being thrown of the august house .Mr Banerjee derisively mimicked Mr Dhankhar during the oppositions protest on the stairs of parliament against the suspension of MP's drawing strongest condemnation from the ruling BJP .In a rare public comment on a developing public debate Mrs Murmu ,in a post on X ,said she was dismayed to see the manner in which vice-president was humiliated in the parliament complex. "Elected representatives must be free to express themselves but their expression should be within the norms of dignity and courtesy. That has been the parliamentary tradition we are proud of and people of India expect them to uphold it'

'Ms Murmu said .The vice presidents secretariat also put out a post on X to inform that Mr Modi had called Mr Dhankhar to express "great pain over the abject theatrics of some honorable MP's and that too in the sacred parliament complex .He told me that he had been at the receiving end of such insults for 20 years and counting but the fact that it could happen to a constitutional office like vice president and that too in parliament was unfortunate ,"Mr Dhankhar was quoted as saying in the post .Both the sad and unbecoming act of the parliament member Banerjee as well as the en-masse suspension of 150 MP's are both undemocratic ,unprecedented and should not have happened .The suspension of MP's is anti democratic ,anti constitutional and amounts to murder of democracy and it hints towards the destruction of democracy .Oppositions disruptive behavior ,mimicking vice president ,is a strategic way of walking out, says expert .Relations between the opposition and treasury benches have hit an unprecedented low as a result of the suspension of 143 MP's marking a historic with one in five Lok Sabha MP's currently under suspension .This contentious episode originated from the oppositions demand for Home minister Amit Shah to address the parliament on security breach incident .A video of TMC MP Kalyan Banerjee mimicking vice president Jagdeep Dhankhar sparked a parliamentary uproar ,leading to protests by NDA Rajya Sabha MP's during the question hour .President Murmu expressed dismay over the incident. Political analyst Desh Ratan Nigam com-

mented on the situation, stating that the oppositions disruptive behavior ,such as mimicking the vice President ,is a strategic way of effectively walking out .It is so extreme that TMC ,MP Kalyan Banerjee ,whose mimicry of vice-president Jagdeep Dhankhar sparked controversy asserted that he will persist in mimicking him ,referring to it as an art form. The TMC ,MP Kalyan Banerjee ,whose mimicry of vice president stirred a row ,imitated Dhankhar once again on Sunday and said that he will continue to mimic him ,terming it as an 'art form ".Most unfortunate that Banerjee said that he would do it a thousand times and that he had a fundamental right to do so .He further said I may be kept in jail .I will not step back .But the hard fact is that all the fundamental rights have to be exercised within limits and decency and one cannot take the shield of enjoying fundamental rights and offend others and more so the person holding a constitutional post .Better sense should prevail on the law makers and especially on the arrogant Banerjee and he should desist from taking the bad recourse to mimicking of the vice president .At the same time the chairman of the Raj Sabha and the speaker of the Lok Sabha should see reason and not suspend the law makers and allow the democracy to function because the destruction and obstructing of democracy should not be allowed .Moreover the fact is that the suspended MP's do represent the people of the country and suspending them results in dishonoring the large chunk of the people who voted for the opposition members .This fact should not be overlooked by the people holding the

presiding officers post in the both houses of parliament .It is unprecedented in the parliamentary history of the country that the members of the parliament are suspended en mass as 150 MP's were thrown out by the chairman of the Raj Sabha and the speaker of Lok Sabha .At the same time the opposition MP's should realize that their role is fundamental for the successful working of the legislatures and in fact for the working of the functional democracy and therefore they should conduct themselves in decorum and show discipline for constitutional norms and not indulge in showing disrespect to the constitutional posts .The opposition members of the parliament should do constructive and positive criticism and abide by the rules and regulations of the parliament and desist from doing anything which amount to showing disrespect to the constitutional heads .Thus both the treasury and opposition benches should conduct themselves in a dignified manner so that the functioning of the parliament is not disrupted but goes in smoothly in the interests of the country and its people .It follows that the ruling MP's and those of the opposition parties should work in tandem and realize their responsibility and help in the smooth functioning of the temple of democracy that the parliament is .In short both the houses of parliament should be allowed to run smoothly so that the business of the houses are conducted in a fair and impartial way and the working of the parliament is not disturbed.

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seeking to spread misinformation or engineer public opinion.

One pressing concern is the potential for deepfakes to depict public figures engaging in inflammatory rhetoric or inappropriate behavior. The persuasive nature of these synthetic media files amplifies the risk of tarnishing reputations and influencing public sentiment. In a world where trust in media and public figures is already fragile, the rise of deepfakes adds another layer of complexity to the ongoing battle against misinformation. Addressing the challenge posed by deepfakes requires a multi-faceted approach that combines technological innovation, legislative measures, and heightened public awareness. Technologically, there is a need for the development of advanced detection tools capable of identifying subtle traces left by deepfake algorithms. This arms race between creators and detectors underscores the urgency of staying ahead in the technological curve to safeguard the integrity of digital content. Legislation must also adapt to the evolving landscape of synthetic media. Clear guidelines on the creation and dissemination of deepfakes, along with stringent penalties for malicious intent, can act as deterrents and legal safeguards. However, striking the right balance is crucial to avoid encroaching on the freedom of expression and creativity that the digital age has afforded us.

Furthermore, public awareness plays a pivotal role in mitigating the impact of deepfakes. Education on the existence of synthetic media and the potential consequences of its misuse is essential. By empowering individuals to critically evaluate the content they encounter, we can foster a society that is resilient to the manipulative tactics employed by those seeking to exploit the vulnerability of our digital age.

The responsibility also falls on technology companies and social media platforms to take proactive measures in combating the proliferation of deepfakes. Developing and implementing robust content moderation policies, coupled with investments in cutting-edge detection technologies, can help mitigate the spread of synthetic media on these platforms. Transparency about the steps taken to address deepfake-related concerns is equally crucial to maintaining user trust. While the dark side of deepfakes is undeniably concerning, it is essential to acknowledge the positive contributions that artificial intelligence and deep learning can bring to society. From medical research to creative endeavours, these technologies hold the potential to revolutionize various fields for the better. Striking a delicate balance between embracing innovation and safeguarding against its misuse is the key to navigating the intricate landscape of synthetic realities.

In conclusion, the advent of deepfakes raises profound questions about the intersection of technology, ethics, and societal resilience. As we grapple with the challenges posed by these synthetic media files, it is imperative that we collectively forge a path forward that preserves the integrity of information and protects the fabric of trust woven into the tapestry of our digital age. Through a collaborative effort encompassing technological advancements, legislative measures, and informed public engagement, we can aspire to navigate the murky waters of synthetic realities with wisdom and resilience.

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