Melting Realities : Glaciers and The Fight Against The Climate Change

DHARITRI

DEPARTMENT OF GEOGRAPHY

ADITI MAHAVIDYALAYA

UNIVERSITY OF DELHI

12th Issue

2024-2025

CONTENTS

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University of Delhi

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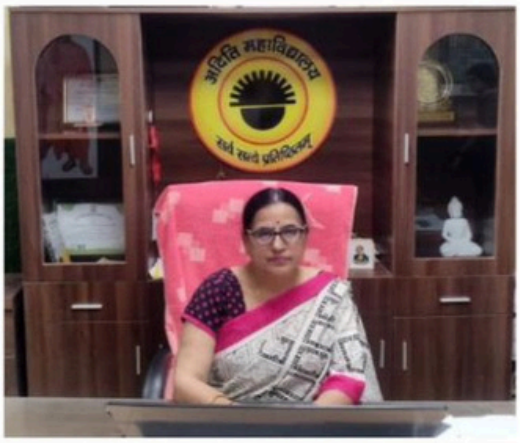
MESSAGE

My good wishes on the publication of the twelfth edition of Dharitri, the Annual Magazine of the Department of Geography, Aditi Mahavidyalaya. The focal theme "Melting Realities: Glaciers and the Fight Against Climate Change" could not be more timely. As we cope with the vagaries of climate change in the Anthropocene, we are conscious that glacier melts are one of the changes that have a domino effect, impacting lives in myriad ways. Attendant to this is the knowledge that those most marginalized, those on the peripheries, face the major brunt of climate change and climate injustice. It is these communities that must be centered in the search for solutions.

I wish the students and faculty associated with Dharitri the best of deliberations.

Anindita

ANINDITA DATTA



Principal's Message

It gives me immense pleasure to present the twelfth issue of Dharitri, the annual magazine of the Department of Geography. This year's theme, *"Melting Realities: Glaciers and the Fight against Climate Change"*, is not only timely but also critically important in today's rapidly changing environmental landscape.

Glaciers, the silent sentinels of climate history, are retreating at an alarming rate. Their melting is more than a visual of vanishing ice — it is a stark indicator of the urgent challenges humanity faces in the age of global warming. By dedicating this issue to the cryosphere and the broader climate crisis, the Geography Department has once again demonstrated academic foresight and deep environmental commitment.

What sets Dharitri apart is its ability to merge scientific inquiry with creative engagement. Through articles, artwork, interviews, and research-based narratives, this edition seeks not only to inform but also to awaken a sense of collective responsibility in its readers.

I congratulate the editorial board, faculty mentors, and the student contributors for curating such a thought-provoking and aesthetically rich publication. Your dedication reflects the essence of geographical education — to connect human understanding with the planet's pulse.

Let this issue inspire conversations, actions, and commitments — both inside and beyond the classroom — toward a more sustainable and climate-resilient future.

Warm regards,

Rathi

PROF NEELAM RATHI
ACTING PRINCIPAL
ADITI MAHAVIDYALAYA

MESSAGE FROM THE TEACHER-IN-CHARGE

It is a matter of immense pleasure that the Department of Geography is publishing its 12th edition of annual magazine "Dharitri" on the focal theme "Melting Reality: Glaciers and the Fight Against Climate Change". The theme is very much suitable as climate change is one of the major global challengesof the 21st century. Dharitri is a valuable platform for enhancing interdisciplinary nature of our subject.

Like every year, this year also our department has taken a theme inspired from UN declarations for "Geo- fest" and "Magazine",which provides an opportunity to students to understand and show creative ideas and writing skill through various ways about the issues of international concern of the contemporary world.

United Nations has declared year 2025 as "International Year of Glaciers Preservation" (IYGP 2025) to highlight the important of glaciers. United Nations has also celebrated first 'World Day for Glaciers' this year on 21st march.

Glaciers are dynamic and fragile ice mass on the earth surface, known as "Water Tower" of world. Glaciers play a vital role in human life. It is crucial for regulating the global climate. Glaciers reflect Sunlight, keeping the earth cool; they grow and shrunk in response to changing climate. Over the last few decades climate change has made an impact on the glaciers. Melting glaciers are indication of climate change. As per a recent report over 18000 glaciers with 50 UNESCO world heritage sites are experiencing rapid melting. Glacier's melting means threat to water security. There is an urgent need to raise awareness about the climate change and critical role of glaciers in the climate system.

I believe, the present volume will fulfill the objective of creating awareness among the students and readers about impact of climate change resulting glacial melt, so that we can take the responsibility for preserving the most vital ecosystem for future generation.

I congratulate to the members of editorial board, faculties, and dear students for the determined efforts in bringing out this academic work.

We must preserve glaciers for preservation of humanity!!

With Best Wishes

Dr. Anju Singh
Teacher-in-Charge
Department of Geography
Aditi Mahavidyalaya

MESSAGE FROM THE EDITORIAL BOARD

"The glaciers are melting, the sea is rising, and so are we."
— Alexandria Villaseñor, climate activist

Dear Readers,
It gives us immense pleasure to present to you the twelfth edition of Dharitri, the Annual Magazine of the Department of Geography. The theme for this year — "Melting Realities: Glaciers and the Fight Against Climate Change" — reflects both a scientific urgency and a human responsibility.
Glaciers, the Earth's ancient reservoirs of life, are receding at an alarming pace, silently narrating the story of our warming planet. This issue seeks to amplify those silent warnings and place them in the context of human experiences, environmental justice, and collective resilience.
At a time when climate change is no longer a distant threat but a lived reality, especially for vulnerable communities, this magazine brings together voices of awareness, protest, creativity, and action. Through research-based articles, evocative poetry, and visual storytelling, our contributors explore climate change not just as an environmental phenomenon, but as a socio-political challenge intertwined with inequality, displacement, and the need for sustainable development.
We are especially proud to showcase the perspectives of young geographers and writers who have engaged deeply with issues ranging from glacial melt to women's leadership in climate activism. Their reflections and insights remind us that climate action is not the domain of a few, but a shared responsibility of all.
We thank all contributors, faculty mentors, and the editorial team for their hard work, vision, and commitment to excellence.
We hope this edition provokes thought, fosters dialogue, and ignites a sense of purpose. Let this not just be a document of what is, but a vision of what can still be.

Warm regards,

The Editorial Board
Dharitri – Department of Geography

EDITORIAL BOARD

Right to Left : Dalenaaz, Mansha Verma, Dr. Sheetal Sharma (Editor-in-Chief), Prof. Neelam Rathi (Principal), Ridhi, Adeeba (Hindi).

"In every glacial stream that runs freer and faster, there is a warning. Nature does not act without cause; the retreat of ice is its way of speaking to us. To ignore this message is to blind ourselves to the chain of consequences—species lost, landscapes transformed, lives uprooted. The fight against climate change begins with listening to the language of a melting world."
— Rachel Carson (Silent Spring)

"Glaciers are melting faster than our words can keep pace. Science has shouted, yet silence has prevailed. If we allow this to continue, future generations will inherit not wonders, but wounds—seas rising where cities stand, rivers swelling where fields once fed us. Fighting climate change is not only about survival; it is about safeguarding the poetry of Earth that glaciers have long written in ice."
— Greta Thunberg

DEPARTMENT OF GEOGRAPHY

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Dr. Punyatoya Patra
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Dr. Anju Singh
Associate Professor
(Teacher-In-Charge)

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Dr.Sheetal Sharma
Assistant Professor

Mr. Jag Mohan
Assistant Professor

Dr. Shadab Khan
Assistant Professor

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Dr. Mansi Malik
Assistant Professor

Dr. Gopal Sonkar
Assistant Professor

Dr. Prastha
Assistant Professor

Dr. Prem Prakash
Assistant Professor

ANNUAL REPORT : 2024-2025

Department of Geography

ORIENTATION PROGRAMME

Department of Geography, Aditi Mahavidyalaya organised a **Departmental Orientation Programme for batch 2024-28** on August 2024 in GIS Laboratory. All were invited for an interactive session. The Orientation Programme marked the beginning of the academic year for B.A. (Hons.) Geography students. The students were briefed by Dr. Anju Singh, Teacher-In-Charge along with the faculty members of department about the structure of New Education Policy, curriculum, internal assessment, code and conduct, varied college committees, examination pattern, field activities, and the overall structure of the Geography Department. An interactive session with the freshers helped them to integrate into the department's academic environment with clarity and enthusiasm. Most of the freshers were shared their personal experiences to reach the college on first day.

TEACHER'S DAY CELEBRATION

The Department of Geography, Aditi Mahavidyalaya, celebrated Teachers' Day on 5th September 2024 in the GIS Laboratory in the department. More than 40 students joined the celebration. The program started with the address note by Principal madam Prof. Mamta Sharma followed by a cake cutting ceremony. The students of the department enjoyed the delicious cake with blessing of entire faculty. The students celebrated Teacher's Day to express their gratitude and admiration toward the faculty. The event featured poetry, short speeches, and handwritten messages shared in a warm and joyful atmosphere. Students personally designed cards and small tokens of appreciation, making it a heartfelt tribute to the educators who guide them. Greeting cards were given to each faculty member as a token of gratitude to acknowledge and recognize their dint of hard work.

ONLINE WORKSHOP ON "REMOTE SENSING AND GEOSPATIAL ANALYSIS"

The Department of Geography, Aditi Mahavidyalaya, in collaboration with Swastik Edustart Institute, conducted a two days online workshop on "Remote Sensing and Geospatial Analysis" on 8th and 9th November 2024 at Google Meet platform with the support of the Principal Prof. Mamta Sharma. Dr. Bratati Dey covered topics like satellite imagery, sensors, image processing and Q-GIS based classification. The session briefed by Teacher-In-Charge Dr. Anju Singh and concluded with a vote of thanks by Program Coordinator Dr. Mamta Arora, successfully enhancing student understanding of geospatial technologies. The program started at 2:00PM with the welcome address by Miss Suhani. The guest speaker was Dr. Bratati Dey, ICSSR Post Doctoral Research Fellow (Founder member of Swastik Edustart). There were about 60 students of 2nd and 3rd Year B.A. Geography were participated in the workshop. Opening remarks and introduction on the theme was given by Dr. Bratati. She highlighted numerous applications of Geographic Information System (GIS) and its relevance in present context. Some of them were Geo-information, Maps, Predictions along with (A.I) and Estimations.

The workshop ended at 4:00PM. Henceforth, the workshop served as a great learning opportunity for the participants and it successfully concluded.

FIELD SURVEY ON TOURISM

A field survey was conducted at India Gate, New Delhi on 19th November 2024, for the 5th semester students focusing on urban tourism in Delhi. The survey involved 20 students and was conducted under the guidance of Dr. Shadab Khan and Mr. Jagmohan which was based on the theme: Tourist and Tourism in Delhi: A Geographical Study. The survey aimed at understanding tourist patterns, site attractiveness, and infrastructural aspects through direct interaction and observation at India Gate. It provided students with hands-on field experience and enhanced their applied geographical skills.

DEPARTMENTAL ELECTIONS – DHARITRI COUNCIL FORMATION

The Department of Geography held its annual student body elections for all three academic years (B.A. (Honours) Geography and B.A. Programme) on 26th November 2024 in room number 18. The election process was democratic and vibrant, encouraging student participation and leadership. The election event marked the beginning of a new student leadership team that will carry forward various departmental activities and represent the student body.

The elected members of the departmental council for the academic year 2024–25 were:

President: Mansha Verma, III-year B.A. (H)

Vice President: Nipanshu, III-year B.A.(P)

Secretary: Ayushi, II-year B.A. (H)

Joint-Secretary: Samridhi, II-year B.A. (P)

Treasurer: Dalnaaz I year B.A. (H).

GEO-FEST 2025

The Department of Geography organised its annual fest, ***"Melting Realities: Glaciers and the Fight Against Climate Change,"*** on **24th February 2025** in the college auditorium. The programme began with a lamp-lighting ceremony and Saraswati Vandana, followed by a warm welcome to the guest speaker,

Professor S.C. Rai, by Prof. Punyatoya Patra, Dr. Anju Singh (Teacher-in-Charge), and faculty members. President Mansha Verma introduced Professor Rai and highlighted his contributions to environmental science.

In his keynote lecture, Professor Rai shared insights from two decades of research on Himalayan glaciers, focusing on Sikkim and the increasing risk of Glacial Lake Outburst Floods (GLOFs). Using detailed maps and data visuals, he explained the vulnerability of 21 lakes in the Tista and Rangit watersheds, stressing the need for climate resilience.

The fest also featured interactive events such as Terra Tussle, Smash the Grid, De Picasso, and Squid Game.

Terra Tussle was judged by Mr. Jag Mohan and Dr. Gopal Sonkar with coordinators Aditi Singh and Anamika Singh.

Smash the Grid was judged by Mr. Pusha Lal Ganesh and Dr. Mansi Malik with coordinators Akshita and Riya Raj.

De Picasso was judged by Dr. Sheetal Sharma and Dr. Ranchna Sharma with coordinators Ayushi and Deepika.

Squid Game was judged by Dr. Shadab Khan, Dr. Prem Prakash, and Dr. Prastha with coordinators Nipanshu, Gungun Malik, and Dalenaaz.

The Geo-fest blended academic insight with enthusiastic participation, fostering awareness about climate change and environmental responsibility. It was ended with the group photograph. All the participants shared their experiences.

FIELD TRIP TO JAISALMER AND JODHPUR

Department of Geography organised a field trip from 2nd to 7th March 2025 to Jodhpur and Jaisalmer, Rajasthan, as part of the undergraduate fieldwork on ***"Drought Vulnerability and Socio-Economic Assessment of Drought, Jodhpur District (Rajasthan)."***

Across the arid expanse of western Rajasthan, the landscape revealed the silent persistence of drought cracked fields, dry wells and scattered settlements enduring under relentless sun. Villages like Khejarli, Harad ki Dhani, Bhomia ki Dhani, and Devaliya reflected the spectrum of vulnerability from inadequate irrigation and low literacy to small yet significant efforts in water harvesting.

At the Central Arid Zone Research Institute (CAZRI), students observed scientific interventions drought tolerant crops, soil conservation, and solar energy practices showcasing innovation amid adversity.

Beyond research, the field trip unfolded the resilience of desert life, witnessed in both rural survival and the cultural grandeur of Mehrangarh Fort, Jaisalmer Fort, and Sam Sand Dunes. The visit illuminated drought not merely as an environmental crisis but as a lived reality quiet, enduring, and deeply human.

FIELD SURVEY OF GHAZIABAD LANDFILL

Department of Geography organised a field trip on 6th March 2025 at Khora Colony, Ghaziabad (Ghazipur Landfill vicinity). As part of the Disaster Management Project, students of the Department of Geography visited Khora Colony, Ghaziabad an urban

settlement located adjacent to the Ghazipur Landfill. What initially appeared as a dormant mound of waste soon revealed itself as a living hazard smoking, decaying, and deeply embedded in the daily lives of the residents.

During the survey, students engaged directly with the community, learning firsthand how people survive under severe environmental stress. The area is constantly enveloped in landfill fumes. Residents reported frequent respiratory issues, black grime settling on surfaces shortly after cleaning, and airborne toxins affecting birds often causing them to fall mid-flight.

Children play beneath smoke laden skies, and families go about their routines while surrounded by stench and contamination. Despite these hardships, the people of Khora Colony showed remarkable resilience. They did not express victimhood but quietly shared their lived realities marked by health concerns, polluted water, and fading hope.

This visit offered students more than just academic data. It served as a powerful reminder that some disasters unfold slowly one waste pile at a time and that environmental neglect, when normalized, becomes a silent crisis lived daily by communities like Khora.

FIELD SURVEY OF BAWANA JJ COLONY L BLOCK

Department of Geography organised a field trip on ***"Flood Disaster and Preparedness in L Block of Bawana JJ Colony: A Lesson from the Past"*** *on* 16th April 2025 at Bawana JJ Colony L Block. It is a local field survey which was based on Disaster Management project titled "Flood Disaster and Preparedness in L Block of Bawana JJ Colony: A Lesson from the Past." The survey was undertaken by 22 students of B.A. (Hons.) Geography, Sixth Semester, under the guidance of Dr. Shadab Khan and Mr. Jagmohan, focusing on community vulnerability, response strategies, and flood preparedness.

WORKSHOP ON "GEOSPATIAL TECHNOLOGIES: APPLICATION AND CAREER OPPORTUNITIES"

A workshop on "Geospatial Technologies: Application and Career Opportunities" was organized on 22nd April 2025 by the Department of Geography in collaboration with

NIGMT Foundation. Dr. Ravindra Nath Tiwari covered key topics like geoinformatics, drone applications, and career prospects. Ms. Rupali Bhardwaj demonstrated NDVI and spectral band analysis. The session offered valuable insights into spatial data and career pathways, concluding with a vote of thanks by Dr. Mamta Arora.

ONLINE PHOTOGRAPHY COMPETITION ON EARTH DAY

In celebration of Earth Day, Department of Geography organised an online photography competition on "Renewable Energy and Sustainability in Viksit Bharat" on 22nd April 2025 at 12:30 p.m. onwards and prize distribution was conducted in GIS Laboratory. Earth Day was celebrated to encourage students to creatively express their vision of a sustainable future. Total 11 entries were received at student front. Winners were Rashi, Bidyalaxmi Ningthoujam and Bhumika. Winners were awarded certificates and prizes in the presence of faculty and guest experts from the workshop.

AT THE END OF THE YEAR .....

The academic year 2024–25 was marked by a rich blend of academic, field-based, and creative activities. From intensive field surveys to technology-driven workshops, the Department of Geography upheld its tradition of experiential learning and interdisciplinary engagement. With the guidance of a dedicated faculty and the enthusiasm of its students, the department continues to evolve as a hub of academic excellence and critical inquiry.

Dwindling Ice, Increasing Dangers: Glaciers in a Warming Earth

Dr. Sheetal Sharma, Assistant Professor,
Department of Geography, A.M.V. ;
Mansha Verma, B.A. Hons Geography

One day, there was a discussion on climate change with the students, suddenly it was realised that, dwindling ice is one of the major factors for increasing dangers all across the world. At present it is one of the major concerns for scholars, researchers, planners, intellectuals, policy makers and decision makers. Their fixed evacuation is not just a scientific observation but a lived reality for millions who depend on them for water, agriculture, and cultural identity. This crucialmoment is highlighted by the theme "Melting Realities," since glaciers are now indicators of the health of the planet and the destiny of humanity rather than isolated ice masses.

Undoubtably the retreat of glaciers is a global phenomenon,from the Himalayas to the Andes, the Alps to Antarctica, glaciers are shrinking at alarming rates. Data shows that the Gangotri glacier in India has retreated by more than three kilometres in the last century, threatening the perennial flow of the Ganga. Similarly, it has been observed that the Andean glaciers, which sustain farming communities in South America, are disappearing rapidly. This global pattern reveals that the cryosphere is among the first and most visible casualties of a warming planet.

Let's talk about ... why Glaciers matter?

If we think about the glaciers in a scientific way then it would be clearer that glaciers are not just frozen landscapes; they are lifelines on the surface of the earth. Let's attempt to comprehend in a different manner. Around the world, they sustain agriculture, regulate river orders, and preserve ecosystems. As everyone knows, the Himalayan glaciers work as water towers for millions of people in South Asia, providing large-scale water for the Ganga, Brahmaputra, and Indus rivers. Food insecurity, water scarcity, and socioeconomic instability in the country are all directly impacted by their loss. Glaciers have spiritual and cultural significance in addition to its physical dependency; they shape local customs and identities that are felt globally.

It we think about the physics of glacier evacuation which is straightforward but alarming. As global temperatures rise, ice melts more quickly, and contaminants like black carbon discolour glacier surfaces, increasing their capacity to absorb heat.

The Intergovernmental Panel on Climate Change (IPCC) estimates that if present warming trends continue, about two-thirds of the world's glaciers outside of Greenland and Antarctica may vanish by the end of this century. In addition to raising sea levels, this would cause human settlements and entire ecosystems to become unstable.

Melting glaciers is a profoundly uneven tragedy. The hardest hit are subsistence farmers, indigenous peoples, and mountain communities, who produce the least amount of greenhouse gas emissions. The work shows farmers in Ladakh experience unpredictable water supplies, and communities in Peru face hardships as their glacier reservoirs reduce. Every glass of water in a big city might have come from a glacier that is now receding.

I hope you all agrees that the most honest climate scientists in nature are glaciers. Their disappearance indicates the need for immediate action far more intensely than abstract temperature charts. Tragic floods, like the 2013 Kedarnath tragedy and the 2021 Chamoli catastrophe, demonstrate how glacial evacuation can bring about unexpected disasters. These are signs of a greater climatic imbalance rather than isolated natural occurrences, serving as a reminder that inaction has real consequences for people.

Undoubtably, the situation is terrible but innovative responses give hope. Sonam Wangchuk, an engineer in Ladakh, is credited with creating "ice stupas," which are artificial glaciers that store winter meltwater for use in the summer. In an attempt to reflect heat, communities in Peru have painted blackened glaciers white. On a global scale, agreements like the Paris Accord attempt to limit warming through collective action. However, local adaptations and sustainable practices will be just as important to success as international pledges.

At the end .....

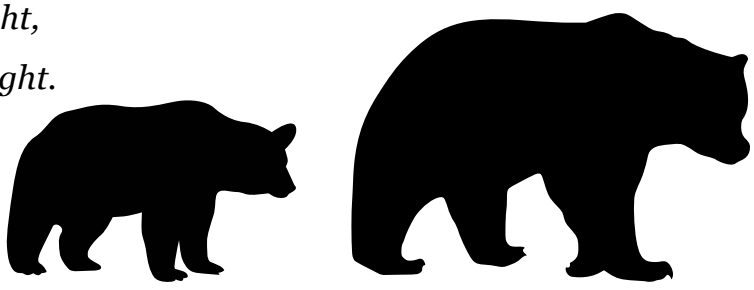
It a universal truth that the melting of glaciers raises questionswhich is beyond science and policy and it challenges human consciousness. Losing glaciers means losing not only water but also culture, memory, and beauty. They serve as mirrors of our decisions; their demise is a reflection of our excessive consumption, whereas their preservation would stand for responsibility and moderation. It is not only our environmental responsibility to protect them; it is also our moral obligation to future generations.

A call to action, "Melting Realities" is not just a theme its more than that. Even while glaciers are disappearing, their history is constantly being written. Their fate depends on whether humanity chooses denial or accountability. Saving glaciers means protecting rivers, cultures, and civilizations themselves. The pain of the mountains must be understood because our response today will define not only the survival of ice but the future of life.

The Last Cry of Ice

Mansha Verma, B.A. Hons. Geography

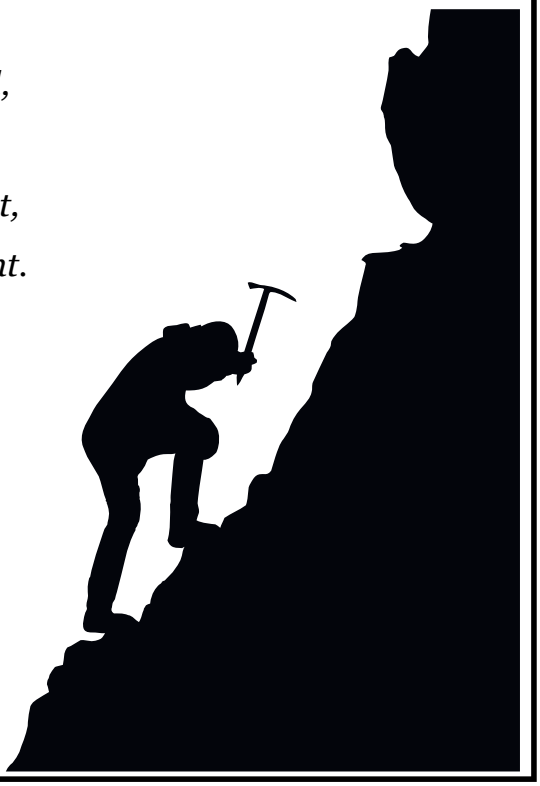
The glaciers weep, but who will hear?
Their crystal hearts dissolve in fear.
Once eternal, vast, untamed,
now they whisper a dying name.
Their breath turns rivers into graves,
as oceans rise in silent waves.
Mountains mourn in mist and stone,
watching ice turn into bone.
We lit the match, we fanned the flame,
yet turn away, deny the blame.
The earth is screaming, breaking, bare—
but do we listen? Do we care?
Beneath the melt, a final plea,
not from the ice, but you and me.
A choice to heal, a chance to fight,
before the dark consumes the light.



Poem sharing my experience on Mountain trekking

Dr. Prastha Rajoria, Assistance Professor,
Department Of Geography, A.M.V.

Amidst Pauri Garhwal's majestic heights,
I trekked, a wanderer, through morning lights.
The Himalayas stood, a towering spine,
As I ascended, heart and soul entwined.
The forest whispered secrets, ancient and old,
Rhododendrons bloomed, their beauty to unfold.
The trail unwound, a serpentine path,
Leading me to vistas of breathtaking math.
With each step, my spirit felt alive,
The rush of wind, the sun's gentle strive.
In this realm of wonder, I found my peace,
A sense of oneness with nature's release.
As dusk descended, painting the sky with gold,
I settled in, my heart still aglow.
The stars appeared, like diamonds in the night,
As I drifted off, lulled by the mountain's delight.



Thawing Thirst: The Glacier's Warning

Khushbu Kumari & Devansh,

Glaciers, the towering sentinels of ice, stand guard over the Earth's delicate climate balance. Yet, these frozen behemoths are rapidly dwindling, victims of the relentless onslaught of global warming. As greenhouse gas emissions soar, the consequences are catastrophic: ecosystems teeter on the brink, human societies face existential threats, and the very fabric of our planet begins to unravel.

The meltdown of glaciers unleashes a devastating cascade of effects. Rising sea levels imperil coastal communities and low-lying nations, while the disruption of freshwater supplies jeopardizes the livelihoods of millions. The loss of biodiversity accelerates as cold-adapted species confront habitat destruction, and erratic weather patterns ravage agriculture and economies.

The scientific community sounds the alarm: the retreat of glaciers risks triggering irreversible feedback loops, propelling global warming toward a point of no return. To avert this catastrophe, collective action is imperative. Reducing carbon emissions, harnessing renewable energy, and embracing sustainable practices are crucial steps toward a climate-resilient future.

Global cooperation is essential. International accords like the Paris Agreement strive to limit global temperature rise and mitigate glacier loss. Meanwhile, local adaptation strategies – such as water conservation and glacier monitoring – are vital for building resilience.

The fight against climate change is a ticking clock. Preserving glaciers is not merely about saving ice – it's about safeguarding the planet's ecological stability and securing a sustainable legacy for generations to come. Will we heed the glacier's warning, or will we succumb to the thawing thirst of a planet in peril?

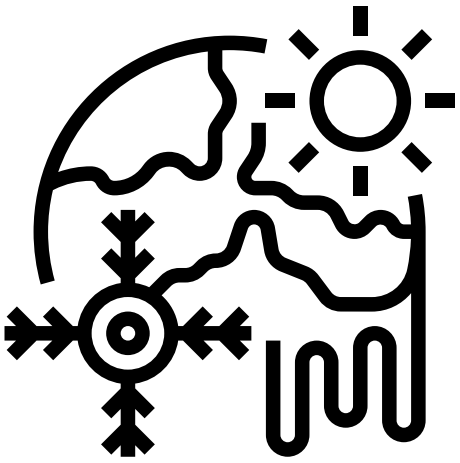
Melting Realities

Anamika Singh, B.A. Hons. Geography

The glaciers weep, in silence, slow,
Their ancient faces begin to go.
What was once firm, unyielding, grand,
Now melts beneath a trembling hand.

I stand at the edge, the wind a sigh,
Watching the ice as it says goodbye.
Centuries carved in crystalline might,
Now fade to shadows in the light.

We've danced too long on borrowed time,
Chasing progress, steeped in grime.
Each fossil breath we draw too deep,
Has made the glaciers' sorrow steep.



The rivers once clear now run with grief,
Their thirst for ice beyond belief.
In every drop, a warning clear—
The earth's own pulse beats with fear.

But the fight, it's not yet lost, not yet.
The flames may burn, the skies may set,
But there's a spark within our souls,
A strength that rises, seeks its goals.

We must act, we must stand tall,
For the glaciers' cry is a human call.
From Delhi's streets to mountains high,
We fight to see the glaciers rise.

For every drop that falls in vain,
We plant the seeds to heal the strain.
And in our hands, the earth's own fate,
To change the course before too late.

A Rapid Disappearance of Glaciers: A Global Crisis

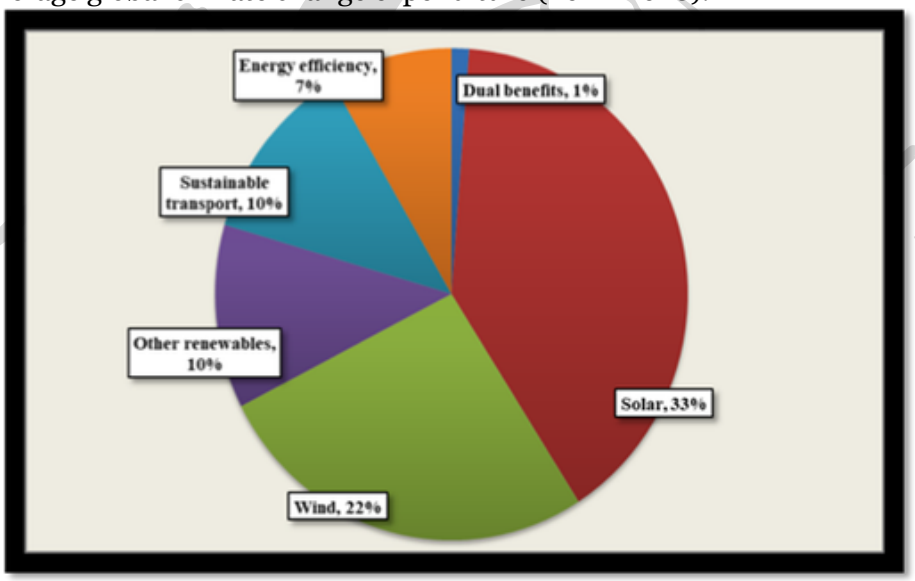
Rachna Sharma, Assistant Professor,
Department of Geography Aditi Mahavidyalaya

Glaciers are large reservoirs of fresh water, a sizeable perennial mass of ice, snow, rock, and sediment that originates on land and moves downslope under the influence of its weight and gravity. Glaciers exist or form in areas where mean annual temperatures are close to the freezing point, winter precipitation produces significant snow accumulations, and temperature throughout the rest of the year exits in minus degrees. Glaciers are now disappearing at an alarming rate. This rapid retreat is driven by human-induced activities which result in the form of climate change, water supplies, threatening ecosystems, and rising sea levels. Addressing glaciers melting is not merely an environmental concern but a global necessity requiring immediate and sustained action. Glaciers cover around 10% of the earth's surface and are important in maintaining ecological stability. Glaciers hole approximately 70% of the world's freshwater, and gradual melting provides the supplies rivers and lakes with essential water for drinking, agriculture, and industry. Glaciers are e regularly maintaining the sea levels, these massive ice bodies trap substantial amounts of frozen water, preventing drastic sea-level fluctuations. Rising sea levels lead to land erosion, increased flooding, and loss of habitat for both humans and wildlife. Human activities such as burning fossil fuel, deforestation, and pollution have increased greenhouse gas emissions, leading to higher atmospheric temperatures and faster ice loss. Warmer water destabilizes ice sheets, leading to increased calving events and iceberg formation. Since 1961, glaciers have contributed to a 2.7-centimetre increase in global sea level, if melting is continuous at this rate, then it results in the millions living in coastal areas facing displacement for example cities such as Miami, Mumbai, and Jatarka. Around 2 million people depend on the glaciers melting water for freshwater supplies for their daily uses, and the retreat of glaciers threatens drinking water availability, agriculture, and hydropower generation.

In regions like South Asia and South America, the seasonal melting water is crucial for irrigation and food security. Many species rely on the cold water they are losing their habitat, leading to biodiversity loss and disruptions in natural food chains. The decline of cold water also affects the fish population, such as salmon and trout and affects the fish industries. As freshwater source dwindles, nations and communities may experience conflicts over water rights and access.

Disputes over the transboundary rivers, such as lakes rivers like Indus and Mekong, highlight the urgency of cooperative water management. The rapid melting glaciers lead to glacial lake outburst floods (GLOFs), which pose severe risks to downstream communities by destroying infrastructure, displacing populations, and causing significant loss of life. Several real-life examples illustrate the crisis of global melting. The Great Aletsch Glacier, the largest glacier in the Alps, spanning 20 km, is shrinking despite climate change mitigation efforts. The Greenland Ice Sheet once thought to be relatively stable, is now experiencing record-breaking ice loss, contributing significantly to sea-level rise and affecting ocean currents such as Atlantic Meridional Overturning Circulation (AMOC). The weakening of AMOC could disrupt weather patterns across Europe and North America, leading to extreme heatwaves and storms.

Figure 1: Average global climate change expenditure (2011-2018).



Source: Climate policy initiatives global landscape of climate finance report (2025)

Addressing glacier melting requires a positive and comprehensive approach, including reducing greenhouse gas emissions, innovative engineering solutions, corporative accountability, public awareness, and international cooperation and ecosystem restoration. Transitioning to renewable energy, improving energy efficiency, and implementing carbon pricing are crucial in slowing climate change and protecting glaciers. The government must enforce the emission regulations and invest in sustainable infrastructure. Some scientists are exploring artificial methods to construct protective measures to protect the dams around the glaciers and create artificial icebergs to slow down ice loss. Legal action the government must take against major polluters can enforce responsibility and drive systematic changes in carbon emissions management.

Informing communities about the importance of glaciers and the long-term impacts and consequences of their loss can foster greater environmental advocacy and policy changes. At the grassroots level, education campaigns, and media can play a vital role in mobilizing climate action. Agreements such as the Paris Agreement serve as critical frameworks for collective action and encourage nations to commit to sustainability and emission reduction. Reforestation and ecosystem restoration efforts can help absorb excess carbon dioxide and reduce global warming. Glaciers melting servers as one of the most visible and pressing indicators of climate change. While challenges are vast like present opportunities for scientific innovation, environmental activism, and international collaborations, by adopting sustainable practices, investing in renewable technologies and fostering a global culture of conservation, we can work towards protecting these crucial ice masses for future generations. Glaciers are not just remnants of the past, they are vital components of the Earth's delicate ecosystem. Their preservation is essential, not just for the planet's health but for the stability of human civilization itself. Taking immediate action today is imperative to mitigate the devastating consequences of glacier retreat and ensure a sustainable future.

Whispers of Ice

Isha Kumari Sharma, B.A. Hons. Geography

They once stood tall, in silence grand,
Carved by time, by nature's hand.
Crowned in white, so cold, so bright,
Reflecting stars, cradling light.

But now they bleed in quiet tears,
Mourning slow, unfolding fears.
Their ancient voices cry unheard,
Drowned beneath the careless word.

The frost retreats, the oceans swell,
And futures tremble where they dwell.
Forests fade, the seasons shift,
A world adrift in nature's rift.

Yet hope still flickers in the dark—
In every mind, a vital spark.
The choice is ours, to heal or fall,
To stand for life, to heed the call.

Let's raise our voice, reshape the fate,
Before the hour becomes too late.
For every glacier's dying breath,
Awakens us to life or death.

How AI and Blockchain Could Freeze Glacier Loss

Mansha Verma, B.A. Hons. Geography

Ice giants now fade fast, seen by many as signs of big air shifts. Their loss warns us, and is now a world risk. The rise of sea levels, harm to nature, and the loss of water for many come with it. Old ways to slow harm can't keep up, while new tech gives fresh, data-rich ways to fight against warming, eyeing ice melt.

The Role of AI: Watching to Acting

AI can handle a lot of climate and nature data quickly and well, far past what people can do. For looking at ice and stopping climate harm, AI has three big jobs:

1. Predicting and Watching Ice

AI models, based on data from space, flying drones, and temp records, watch ice melt in real-time. This way, they sense changes in the ice, like its shine or how thick it is. For example, Google Earth Engine and NASA systems use AI to find ice melt trends in far north and high areas.

2. Looking at Climate Shifts

AI finds hidden trends in how weather moves and changes ice acting, like shifts in rain cycles or air streams. This lets experts and leaders pick direct steps to help, not just broad fixes.

3. Power Use and Less Air Harm

AI can run clean energy setups well, fix transport, and help industries cut down air harm. Since ice melts when Earth warms up from old fuels, AI's smart ways can slow ice lost.

Blockchain: Trust and World Duty

As AI works on getting and using data well, blockchain brings trust, clear viewing, and trackability to our efforts. Simply put, blockchain is a shared, unchanging digital note system great for watching air harm, money moves, and green promises.

1. Checking Carbon Credit

Problems like counting cuts twice, unclear records, and cheat acts hurt the carbon credit world. Blockchain could keep records of the carbon cuts forever, checking them live. Projects that truly help like growing more trees, clean power, or saving ice could get credits in a system that can check green rewards.

2. Money for Climate Fixes

Money meant for keeping ice areas safe, like in the Hindu Kush or Andes, sometimes comes late or gets lost. With blockchain, smart deals could run and check all money moves when climate goals are met, to make sure the money helps real projects and people.

3. World Work and Citizen Science

Blockchain could let all, from the public to schools to groups, add data on ice, senses, or even phone pics. This opens up science to more people and ensures a shared, checkable record of climate shifts that no one owns.

AI + Blockchain for Saving Ice

AI + Blockchain build a base for both insight and action. Here's why the mix changes the game: • AI gathers and delivers data on ice and air changes in real time. Blockchain keeps this data safe, giving the whole world access in a way that can't be changed and is always checkable. • AI warns of risks to people living near ice rivers. Blockchain-based help could give them money when AI checks show the risks are too high. • Cuts in air harm made by AI in any chain could be saved and proved by blockchain, making sure green credits are given fair and true.

Hurdles in Using This Tech :

Putting AI and blockchain to work in climate actions brings hurdles. Some blockchain forms use a lot of energy (though greener choices are coming), data privacy worries, and the need for more skilled people are among them. Also, managing projects needs to be at a world level to stop tech misuse while letting all, especially native groups tied to ice, join in.

A New Ice Age in Thinking

With ice under threat, once seen as slow or far off, now calls for new, sharp tech thoughts. If used right, blockchain and AI could help tell ahead, keep off, and work on both the causes and effects of ice fade.

No tech is magic, but these digital helpers can back climate rules and local people, making all parts—from air harm to money for climate work—clear and focused on lasting good. Ice will melt; with smart use and truth, so might how we see this huge change.

Glacier's Lament: A Cry for Climate Action

Bhumika Goswami(Aditi Mahavidyalaya) & Megha(Mata Sundri College for Women)

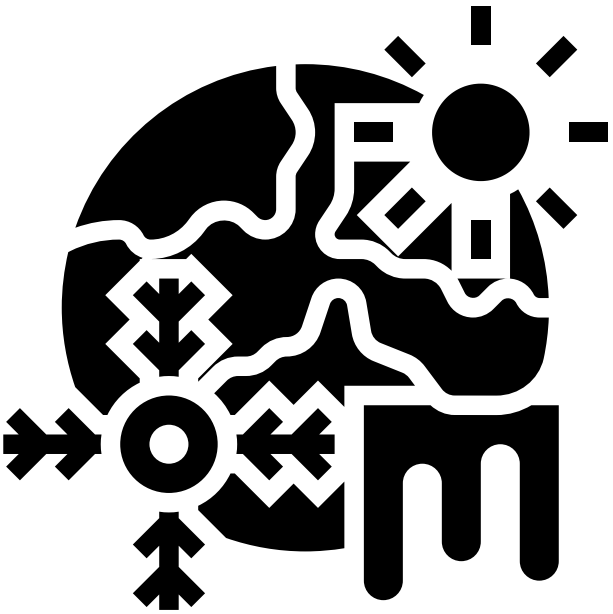
The sun shines bright up high,
Causing glaciers to melt before our eyes.
We know it's harmful, yet we still pursue
The comforts of progress, and all its allure.
But taking wise action can make a change,
Helping us tackle the ice, and ease the range.
The more we help nature today,
The better our future will be, come what may.

Perception vs Illusion

Samvartika, B.A. Hons. Geography

The edges blur, the lines dissolve,
What once was firm begins to evolve.
The sky drips gold, the ground flows wide,
Time itself shifts with the tide.

Memories fade like wax in heat,
Dripping slow, yet bittersweet.
Truth and dream entwine as one,
Under the flicker of a dying sun.



Shadows melt into liquid hue,
Facts distort, their shapes untrue.
I reach, but touch a ghostly seam,
A world unraveling into a dream.

No solid ground, no steady past,
Just echoes slipping through my grasp.
Reality drips, surreal and free—
And I dissolve along with thee.

Whispers of Ice: The Fading Echoes of Glaciers

Mansha Verma, B.A. Hons. Geography

"Ice contains time. It preserves past climates, ancient air, and the footprints of civilizations long gone." — ***Gretel Ehrlich***

The Silent Retreat of the Giants

Imagine standing at the foot of a glacier—an immense, frozen river of ice, centuries old, stretching beyond sight. It feels eternal, unmovable. But look closer, and you'll hear it—drips of water, cracks in the ice, a slow but certain retreat. The giants of our planet are vanishing, not in geologic time, but in ours.

Glaciers are more than just ice; they are storytellers, holding the history of Earth in their frozen cores. They are life-givers, supplying rivers that sustain millions, regulating weather, and keeping our planet in balance. But now, they are slipping away—melting at an alarming pace, reshaping coastlines, threatening livelihoods, and rewriting the future.

A Crisis We Can No Longer Ignore

"The greatest threat to our planet is the belief that someone else will save it." — ***Robert Swan***

From the towering Himalayas to the vast ice sheets of Greenland and Antarctica, glaciers are shrinking faster than ever. The Intergovernmental Panel on Climate Change (IPCC) warns that if global temperatures keep rising, many of these glaciers will disappear within this century. This isn't just about melting ice; it's about what follows:

- **Disappearing Coastlines:** Rising sea levels are swallowing cities, from Miami to Jakarta, forcing families to abandon homes they've known for generations.
- **Unpredictable Weather:** Melting glaciers disrupt ocean currents, triggering extreme storms, longer droughts, and harsher winters.
- **Water Scarcity:** Rivers like the Ganges and Colorado rely on glacial melt. Without them, millions face water shortages.
- **Vanishing Wildlife:** Polar bears, snow leopards, and countless other species are losing their icy homes.

For many, climate change is still an abstract concept, something happening "somewhere else." But in reality, it's already here—in the floods that take away homes, the droughts that dry up farmlands, and the storms that grow fiercer each year.

Can We Still Turn Back the Tide?

"*We do not inherit the earth from our ancestors, we borrow it from our children.*"

— Native American Proverb

The challenge is vast, but hope is not lost. Around the world, scientists, activists, and governments are working to slow the melt and protect what remains. The fight includes:

•**Cutting Carbon Emissions:** Phasing out fossil fuels and shifting to cleaner energy sources like wind and solar.

•**Glacier Protection Projects:** Reflective blankets, artificial snow, and reforestation efforts to slow ice loss.

•**Smarter Water Management:** Better irrigation and water conservation to prepare for changing supplies.

•**Global Agreements & Action:** Policies like the Paris Climate Accord aim to keep temperatures from rising beyond dangerous levels.

, and the storms that grow fiercer each year.

The Power of Individual Action

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." ***— Margaret Mead***

We often wonder: Can one person really make a difference? The answer is yes. Small actions, when multiplied, create waves of change.

•Reduce waste—less plastic, less fast fashion, more conscious choices.

•Use energy wisely—switch to LEDs, unplug unused devices, support renewable energy.

•Choose sustainable travel—walk, bike, or use public transport when possible.

•Speak up—support leaders and policies that prioritize the planet.

A Race Against Time

"Glaciers are sentinels of climate change. If they disappear, we lose not just ice but our future." ***— James Balog***

Glaciers are Earth's timekeepers, holding stories of past climates in their frozen depths. If they disappear, they take those stories—and our future—with them.

The question is no longer if the ice will melt, but how much—and how quickly. And in this battle, every action, every voice, every choice counts.

The giants are retreating. Will we fight for them?

Tale of Resilience

Sanjubala Sukham, B. A. Hons. Geography

Mother Earth, our nurturing force so steady,
In her embrace, we find our roots entwined,
seasons' dance, her heartbeat we can feel.
With mountains tall and oceans vast and deep,
Her artwork of creation so secure.
But heed her warnings, heed her urgent call,
For she is burdened by our careless ways.
Behold the glaciers, mighty gaints of the north;
Standing strong through ages but now under threat
Their icy hearts now warming, melting into the sea.
A silent tragedy unfolding, for all us to see.
The earth itself is weeping, as the glaciers wane.
Their icy hands grasping and reaching for the sky;
But slowly sliping away as temperature rise.
The polar bear are wailing for their life.
The beauty of mother is giant, beyond compare.
But their majestic beauty is fading now.
Ignorance of mortal are all to be blame.
In this fragile land, mortal are all waging war,
Not realising, mother nature is pleading earnestly.
The rivers they births, now raging torrents roam;
Flooding the lands, destroying all in their foam.
For if we fail to heed, the warning they covey,
Our future too will be crumble, like the ice bay
Let us be the stewards to save this sacred place.

IF YOU KEEP YOUR REFRIGERATOR OPEN FOR TOO LONG……

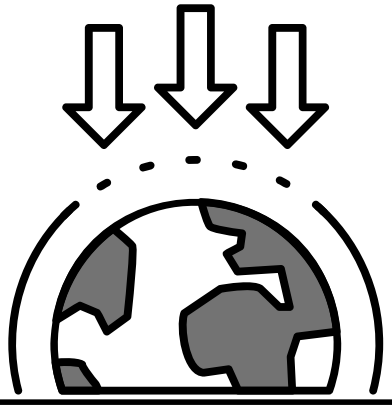
Trisha Sinha, B.A. Hon. Geography, Shivaji College

"But with the slow menace of a glacier, depression came on. No one had any measure of its progress; no one had any plan for stopping it. Everyone tried to get out of its way."
—FRANCES PERKIN

When the world is talking about glaciers, you might wonder why I am talking about refrigerators so randomly. I beg you to stay with me on this line of thought. Refrigerators are a utility in all the houses of middle and high-income groups, but it's a luxury for the low-income groups. We humans tend to take our utilities for granted even though they support and help us to conduct our daily lives smoothly. A kitchen without a refrigerator is incomplete like sweetness from dessert. It is not just a cooling compartment to lower the rates of spoilage but it's also a storing unit. Those heavy groceries you bring in from the departmental stores go directly to these units, packed and unfiltered. The plastic bags, the packaging, the dish you cooked yesterday, your secret stash hidden in the corner, all are stuffed into that magical unit. It traumatizes you when you see the water leaking out of it when it stops cooling. You might turn off the A/C to save electricity even during summer but can you turn off the refrigerator even if it gives you a heart attack to see how much energy it consumes? You shift all your work that day, just to get it repaired by the technician, it's that important to you after all.

Just imagine a day, you had to go for a hometown visit and while you were decluttering the refrigerator to remove all that stuff which won't last as you'll return. You hear a family member yelling at you with a high-pitched voice, that you hurry up or you'll miss the train. Hurriedly you leave your work as it is and run to pack the last bits of your stuff while forgetting to shut the door of your refrigerator. You look up at your door and move ahead with your happy journey. Your trip is for around 10 -15 days, which seems to be a happy trip for you but not a good trip for your refrigerator. Even though you don't think much of it, leaving the refrigerator door open for a prolonged duration does have some possible negative impactsas follows-

1. Hefty electricity bill
2. Environmental impact
3. Energy Wastage
4. Reduced lifespan of stored goods
5. Frequent breakdowns of the refrigerator
6. Reduced lifespan of the refrigerator
7. Heavy Maintenance



Thus, you mustn't keep your refrigerator doors open for a long duration. This is just a scenario from your own house,but have you wondered what might happen when you let large mindless emissions of greenhouse gases corrupt the global refrigerators, our cryosphere?

Every year, Antarctica loses ice mass (melting) at an average rate of about 150 billion tons, and Greenland loses about 270 billion tons, contributing to sea level rise. To understand how concerning this data is, we need to emphasise the role of glaciers in making our planet habitable. Glaciers and ice caps result in slow-moving rivers of ice, have sculpted mountains and carved valleys throughout Earth's history. As the melt, it delivers fresh water and nutrients into lakes, rivers, and oceans and sustains stream habitats for plants and animals. So, glaciers often have an indirect impact on wildlife and fisheries. Glaciers and ice caps account for only 0.5 percent of total land ice, their contribution to sea level rise during the last century exceeded that of the ice sheets. They hold the depositsof coal, copper, gold, nickel, cobalt, rare-earth metals, and zinc as well as critical minerals, making them economically viable zones. As the melting ice uncovers land that has been inaccessible for thousands of years, prospectors are moving in. This might make you feel positive about the critical situation, let's welcome the role of permafrost to change the whole game around. Permafrost is like the cold storage unit of the Earth. They lock the carbon-based remains of plants and animals that froze before they could decompose.

Scientists estimate that the world's permafrost holds 1,500 billion tons of carbon, almost double the amount of carbon currently in the atmosphere. As permafrost thaws, the microbes within consume the frozen organic matter and release carbon dioxide and methane into the atmosphere. Scientists project that two-thirds of the Arctic's near-surface permafrost could be gone by 2100.

Imagine that this global warming gets out of control (as it is the present situation) and all of the carbon gets exposed to the atmosphere, we will be trapped in an irreversible cycle about which none of us can do anything about it. We are responsible because we have left the global refrigerator door open and exposed to all the degrading anthropogenic activities, in the era of Anthropocene. The same issues that you bear with your domestic refrigerator are witnessed at a macroscale. Global issues like food and water insecurity, injustice, hyper-inflation, reliance on fossil fuels, poverty, malnutrition, pandemics, wars, degradation of ecology, etc. are issues that you can connect with the current affairs.

As 44th President of the United States of America, Mr. Barack Obama, while addressing the COP 21 has rightly mentioned the quote of Mr. Jay Inslee “We’re the first generation to feel the impact of climate change and the last generation that can do something about it.” Just think if your domestic refrigerator can cause you excruciating harm mentally,economically and emotionally, then what extent can your irresponsible actions towards the cryosphere do to you since it is impacting your precious life too? It’s not too late to repair our global refrigerators. Even if we accumulate all the wealth of the planet, we still won’t have enough to make a new one. It’s not just glaciers which are melting, it's our future too.

Echoes in the Gray

Arti, B.A. Hons Geography

The world drips slow, like candle wax,
Dreams dissolve in silver cracks.
Mirrors bend, reflections weep,
Time unravels, lost in sleep.

A city hums in liquid light,
Buildings melt into the night.
Voices stretch, then slip away,
Echoes drowning in the gray.

Hands reach out but fade like mist,
Fingers brush, then don’t exist.
Footsteps sink in shifting ground,
Nowhere solid, nowhere found.

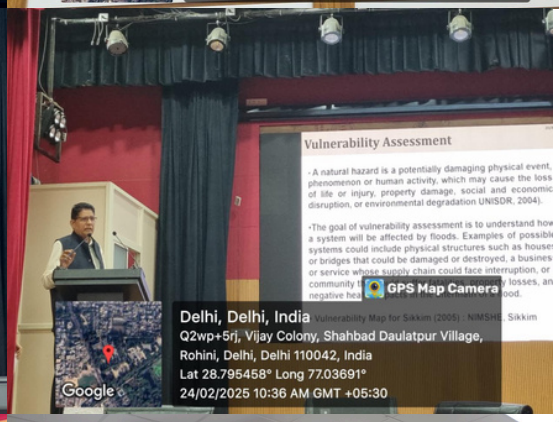
Truths dissolve like drops of rain,
Memories smear, then start again.
What was real is now unsure—
A melting world, a dream’s allure.

CANVAS OF MOMENTS

Orientation of Batch 2024-28

Teacher's Day

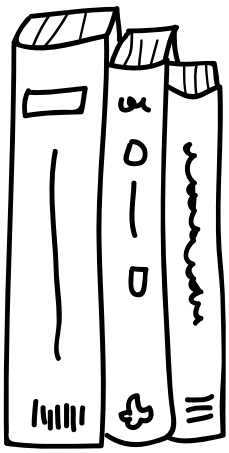
Departmental Elections



Geo-Fest 2025

Office bearers of 2024-25

Ms. Mansha Verma (President), Ms. Nipanshu (Vice-President), Ms. Ayushi (Secretary), Ms. Samridhi (Joint-Secretary), Ms. Dalenaaz (Treasurer)



Title holders

Right to Left - Ms. Isha Kumari Sharma (Best Geographer), Ms. Bhumika (Best Cadet NCC), Ms. Sonia (Student of the Year), Ms. Gungun (Innovative Researcher), Ms. Mansha Verma (All Rounder), Ms. Anamika (Versatile Student), Ms. Aditi Singh (Obedient Student), Ms. Vidhi (Best Sports Person), Ms. Ridhi (Obedient Student), Ms. Sanskriti (Obedient Student)

Workshop on Geospatial Technologies

Online photography competition

FIELD TRIPS

5th Semester Geography Honours Field Survey at India Gate

6th Semester Geography Honours Field Trip to Jodhpur and Jaisalmer

Sam Sand Dunes, Jaisalmer Desert (Left) and CAZRI, Jodhpur (Right)

CAZRI, Jodhpur (Left) and Mehrangadh Fort, Jodhpur (Right)

Jaisalmer Fort (Left) and Mehrangadh Fort, Jodhpur (Right)

Sam Sand Dunes (Jaisalmer Desert)


Umaid Palace , Jodhpur (Left) and CAZRI, Jodphur (Right)

Jaswant Rai Thada, Jodhpur

6th Semester Geography Honours Field Survey at Ghazipur Landfill

6th Semester Geography Honours Field Survey at Bawana J.J. Colony L and M Block

B.El.Ed 3 year Field Survey at Harewali Village

CRYO-CRIMES : How Geo-Politics is Exploiting Melting Glaciers

Ridhi Kumari, B.A. Prog. Geography

Introduction: The New Cold War is Heating Up

As the glaciers melt and polar ice is thinning, the world is waking up to an ironic twist in the climate crisis: the very lands warning us about ecological doom are turning into battlefields for global supremacy. The Arctic and Antarctic formerly emblems of pristine purity are now frontlines for a new kind of conflict. Under the thaw is something countries are racing for: control of territory, huge reserves of energy, and strategic influence. This chilling power play has come to be known as Cryo-Politics—the weaponization of melting ice.

The Race for Resources under the Ice

Glaciers and Polar Regions hold more than ice, they cover what may be the last great cache of untapped fossil fuels and minerals. The U.S. Geological Survey estimates that 13% of the world's undiscovered oil and 30% of its natural gas lie beneath the Arctic seabed. As ice melts due to global warming, these previously inaccessible resources are now accessible.

This has triggered a modern-day gold rush. Countries like Russia, the U.S., Canada, Norway, and Denmark are making new claims to territory above the Arctic Ocean, using historical and geological reasoning.

Russia even planted a titanium flag on the seabed beneath the North Pole—as if laying claim to a world that's still breaking apart. China, despite its location, now calls itself a "near-Arctic state" and is pouring money into polar research, icebreakers, and trade routes.

ARTIC: Melting Borders, Rising Tensions

The United Nations Convention on the Law of the Sea (UNCLOS) allows nations to claim an extended continental shelf if they can scientifically prove it. As a result, overlapping claims are emerging over the same seabed regions—fuelling diplomatic disputes and security tensions.

The opening of the Northern Sea Route—an upcoming rival to the Suez Canal as Arctic waters melt—has heightened competition. The route reduces shipping time between Asia and Europe by as much as 40%, rendering it geopolitically strategic. Russia has started to militarize the Arctic, restoring former Soviet bases and deploying icebreaker fleets. NATO and the U.S. are doing the same with their polar exercises and alliances.

ANTARTIC: Peace for Now

Although the Arctic is a theatre of conflicting claims, the Antarctic is safeguarded under the Antarctic Treaty (1959), which prohibits military activity and resource exploitation. But the future of the treaty remains insecure—it is open to review after 2048. Many nations, such as Australia, Chile, and Argentina, have historical claims on portions of Antarctica, and China has been building research stations near potential resource hotspots.

There are fears that once the ice retreats further, pressure will mount to renegotiate or abandon the treaty. A continent dedicated to peace and science could be turned into a resource battleground.

The Real Victims: Ice, Wildlife & Indigenous Communities

While governments posture and drill, the environment suffers in silence. The Arctic is warming four times faster than the global average, and increased shipping, drilling, and construction disturbs delicate ecosystems. Oil spills in icy waters are nearly impossible to clean. Indigenous communities—who've lived in harmony with the ice for generations—are being forced from their homes. And animals like polar bears, narwhals, and Arctic foxes are losing the only world they've ever known.

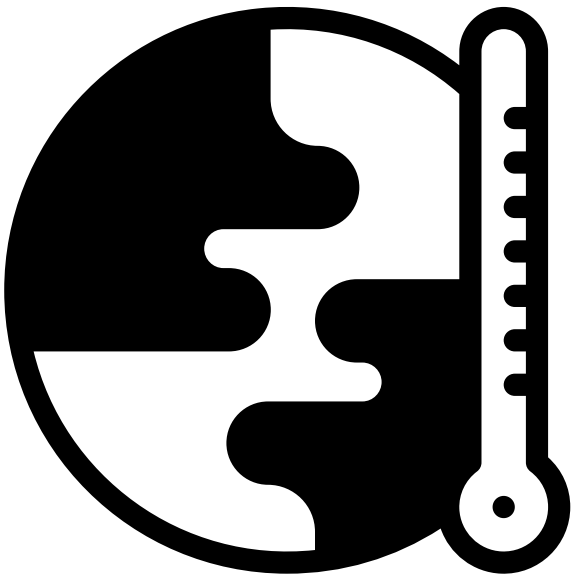
In addition, black carbon (military vehicle and industry soot) accumulates on glaciers, darkening the ice and speeding up melting, a feedback mechanism that is a vicious cycle, the more they build, the faster the ice melts.

Conclusion: The Future We Must Choose

Glacier melting is among the most immediate warnings of the climate emergency—but for others, it is a chance. Ice geopolitics is no longer a hypothesis; it is real, dangerous, and is happening now. We have a choice: will we treat Polar Regions as global commons to be protected, or as frontiers to be conquered?

The real "cryo-crime" is not just territorial greed—it is ignoring the planet's pleas for help in pursuit of profit. With youth voices demanding climate justice, the world needs to ask itself: Can we afford to militarize the final wild frontiers, or will we choose diplomacy, sustainability, and cooperation before it's too late?

As students, as future leaders, and as people who care—it’s up to us to raise our voices. The glaciers are melting. But maybe, just maybe, we still have time to stop everything else from melting with them.



The Melting Future

Adeeba Khanam, B.A. Hons. Geography

The ancient giants, once so grand and stoic,
Now weep in silence, a sorrowful and prophetic echo.
Their crystalline hearts, slowly yielding to the sun's embrace,
A fragile beauty, now facing an uncertain fate.
The ice, a fortress built through ages old,
Cracks and groans, its stories now untold.
The whispers of past ages, locked within its core,
Released in a torrent, to flow forevermore.
The once majestic peaks, shrouded in endless white,
Now stand exposed, beneath the glaring light.
Rivers of meltwater, carve paths where pathways were none,
A testament to change, a battle lost and won.
The polar bears, their icy kingdom shrinking fast,
Seek refuge on fragmented floes, their hopes not meant to last.
Their ancient hunting grounds, now turning to the blue,
A desperate struggle, for survival in a world anew.
And as the glaciers vanish, so too does a part of us,
A silent warning, to the future we must trust.
For in their retreat, a message clear and bold,
To cherish our Earth, before all stories turn to cold.

MELTING REALITIES: GLACIERS AND THE FIGHT AGAINST CLIMATE CHANGE

Khushi Sharma, B.A.Hons. Geography

As the world grapples with the escalating consequences of climate change, one of the most poignant symbols of this crisis is the globe's vanishing glaciers. Once majestic and stable, these ice giants are now in a precarious state, retreating at an alarming rate. Their melting not only signals the broader impacts of our warming planet but also serves as a clarion call for urgent action to combat climate change.

The Importance of Glaciers

Glaciers are critical to the Earth's system. They store approximately 69% of the world's fresh water, and their slow melting provides a vital water supply for millions of people, especially in regions such as the Himalayas, Andes, and Alps. Beyond the provision of water, glaciers play a significant role in regulating global sea levels. The melting of these ice masses contributes directly to rising sea levels, which pose existential threats to coastal communities worldwide.

To understand the magnitude of this issue, consider that the Intergovernmental Panel on Climate Change (IPCC) reported in its Sixth Assessment Report that glaciers are losing ice at unprecedented rates. In many regions, particularly in the polar areas and mountain ranges, glaciers have retreated not just in size but in volume, leaving behind barren landscapes and disrupted ecosystems. This not only affects biodiversity but also alters local climate patterns, creating a feedback loop that accelerates warming.

The Causes of Melting

The primary driver of glacier melting is climate change, predominantly fueled by human activities. The burning of fossil fuels, deforestation, and industrial processes increase concentrations of greenhouse gases in the atmosphere, leading to global temperature rises. Even a seemingly modest increase of 1.5 degrees Celsius can have profound effects on glacial stability. Additionally, local factors, such as land use changes and pollution, exacerbate the situation. Black carbon from industrial activities settles on glacier surfaces, reducing their reflectivity (albedo) and causing them to absorb more heat. This local warming compounds the effects of global warming, leading to accelerated melting.

The Consequences

The repercussions of glacier melt extend far beyond water supply issues. As glaciers retreat, they destabilize the land, increasing the risk of glacial lake outburst floods that can devastate downstream communities. The loss of glacial masses also contributes to changes in ocean currents and weather patterns, impacting agriculture, fisheries, and other critical sectors.

As we stand on the precipice of irreversible climate impacts, the urgency to act has never been greater. The melting of glaciers is not just an environmental issue; it is a reflection of human choices and our collective future. By raising our voices, advocating for sustainable practices, and holding ourselves accountable, we can begin to turn the tide in this critical battle.

Conclusion

Our glaciers, once seen as timeless symbols of stability, are now among the most visible indicators of climate change. Their retreat is a stark reminder of the consequences of our actions and the urgent need for a collective response. As we work tirelessly in both global and local spheres to combat climate change, we must remember that every effort counts. The time to act is now, not just to preserve these vital ice masses, but to ensure a sustainable and equitable future for generations to come.

In addition to ecological impacts, the socio-economic ramifications are profound. Communities that rely on glacial meltwater for drinking and irrigation face the daunting prospect of water scarcity. In regions like the Andes, where millions depend on glacial runoff for both drinking and agricultural use, the stakes are incredibly high. The retreat of glaciers also poses challenges for tourism, especially in mountainous areas that attract visitors for their natural beauty and recreational opportunities.

Fighting Back: Global and Local Efforts

The fight against climate change and its effects on glaciers is multifaceted, involving global initiatives and local actions. Internationally, agreements like the Paris Agreement aim to limit global temperature rise and reduce greenhouse gas emissions. Countries are encouraged to set legally binding targets based on their capacities and commit to sustainable practices that mitigate climate impacts.

However, meaningful action also requires grassroots initiatives. Communities are increasingly recognizing their role in climate adaptation and mitigation. Projects focused on reforestation, sustainable agriculture, and renewable energy are springing up globally, illustrating that local actions can contribute significantly to combating climate change.

Educational initiatives are also vital. Raising awareness about the importance of glaciers and the consequences of their melting can galvanize public support for urgent climate action. Engaging younger generations through educational programs encourages them to become active participants in environmental stewardship.

Innovations in Research and Technology

Technological advancements are playing a significant role in monitoring and understanding glaciers. Drones, satellites, and climate models are increasingly used to study glacial dynamics and predict future trends. By harnessing big data and artificial intelligence, researchers can analyze changes in glacier mass and volume, leading to better-informed policy decisions.

Moreover, innovations in carbon capture and storage (CCS) technologies offer hope for addressing the root causes of global warming. By capturing carbon emissions before they enter the atmosphere, CCS can help stabilize climate conditions that contribute to glacier loss.

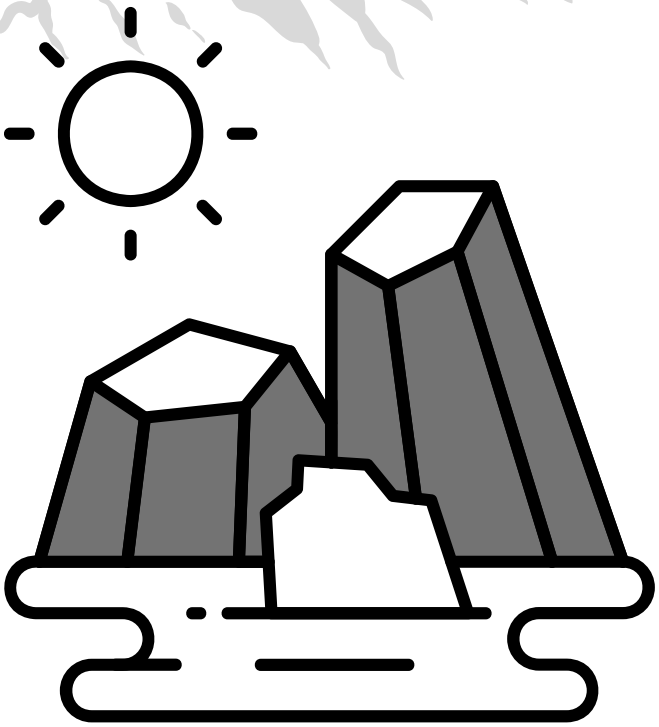
A Collective Responsibility

The crisis of melting glaciers serves as a reminder of our interconnectedness with the planet. The fight against climate change is not just the responsibility of governments or large organizations; it is a collective responsibility that encompasses all sectors of society, including individuals, businesses, and nonprofit organizations.

पिघलती बर्फ

Sneha Khan, B.A. Prog. Geography

पिघलती बर्फ , बुझते सपने
बर्फ की चादर जो कल तक थी,
सूरज के आगे झुकने लगी।
पहाड़ों की चोटी जो स्थिर खड़ी,
अब चुपचाप पिघलने लगी।
नदी जो गाती थी मीठे राग,
अब तेज़ बाढ़ में रोती है।
कल तक जो जीवन देती थी,
अब किनारों को खोती है।
गाँवों की मट्टी दरक रही,
पेड़ों की जड़ें चटक रही।
आसमान धुआँ-धुआँ सा है,
हवा में साँसें अटक रही।
क्या हम यूँ ही देखते रहेंगे,
इस सफ़ेद धरोहर को ढहते?
या कोई दीप जलाएँगे,
इस बुझती दुनिया को सहते?
चलो, हवा को साफ़ करें,
धरती को हरियाली दें।
कहीं देर न हो जाए इतनी,
कि फिर ग्लेशियर की बातें बस,
कहानियों में रह जाएँ!



When Glaciers Weep: The Human Story Behind Melting Ice

Kanjika Kumari, B.A. Prog. Geography

Glaciers, those silent giants of ice that have stood for thousands of years, are disappearing before our eyes. Their slow, steady melt may seem far away from our daily lives—but in truth, what happens to them touches every one of us. The rapid melting of glaciers is more than just a scientific concern; it's a deeply human issue, impacting our environment, our health, our economies, and even our cultures.

In places like Greenland and Antarctica, the ice is melting faster than ever. These regions are home to some of the largest ice sheets on Earth, and as they shrink, sea levels rise—quietly but steadily swallowing up coastlines around the world. Entire communities are being forced to adapt or relocate. For people living in coastal areas, the fear of flooding is no longer just a future worry—it's already happening but rising seas are just one part of the story.

Glaciers also act like giant water towers for millions of people. In mountain regions from the Himalayas to the Andes, glaciers release meltwater that flows into rivers, nourishing farmland, filling drinking glasses, and powering homes. When the glaciers vanish, so does that steady flow of water. For farmers, it can mean dry fields and failed crops. For families, it can mean unreliable access to clean drinking water or electricity. Imagine not knowing if the river that's sustained your community for generations will run dry in a few years.

And let's not forget the wildlife. Many cold-water species—from tiny insects to large fish—depend on glacial-fed rivers. As temperatures rise and water flows change, their habitats shift or vanish. That means some species may disappear altogether. This change ripples outward, affecting everything from local fishing industries to the delicate balance of ecosystems that support life as we know it.

The economic impact is massive. In many regions, glacier tourism is a key part of the local economy. Tourists travel thousands of miles to witness these natural wonders—but what happens when the glaciers are gone? Jobs disappear. Small businesses suffer. Entire towns lose their main source of income. The fishing industry also takes a hit as water temperatures change, and fish populations decline.

There's also a hidden danger most people don't realize: the pollution locked in the ice. Glaciers have, for centuries, held onto harmful substances like mercury, pesticides, and industrial chemicals. As they melt, those toxins are released into our freshwater systems. That can lead to an increase in waterborne diseases, especially in places where water treatment facilities are limited or outdated. Communities depending on these waters are at greater risk of falling sick, and healthcare systems—often already stretched thin—struggle to respond.

But beyond the numbers and data, the melting glaciers represent something more personal, more emotional.

For many Indigenous and mountain communities, glaciers are not just ice—they are sacred. They are ancestors, storytellers, and protectors. Their disappearance is not only an environmental loss but a cultural one too. Traditions fade. Sacred rituals are disrupted. Entire ways of life are shaken. It's a kind of grief that can't be measured by science alone.

So, what can we do?

We need to act—together, and fast. Globally, strong climate policies like those in the Paris Agreement are essential. Cutting greenhouse gas emissions, shifting to renewable energy, and protecting our forests are all steps in the right direction. But policy alone isn't enough. Communities on the frontlines need support—real, on-the-ground help. That means building better water management systems, investing in climate-resilient infrastructure, and ensuring that the most vulnerable among us have the resources to adapt. It means listening to Indigenous voices, respecting traditional knowledge, and making space for community-driven solutions.

Technology and science also have a crucial role. From satellites that track glacial changes to local sensors monitoring water quality, these tools help us understand what's happening in real time. They guide smarter decisions and help us prepare for what's coming. We can use websites like usgs and Copernicus to do our research

But perhaps most importantly, we need empathy. We need to stop thinking of melting glaciers as something distant and disconnected from our lives. Because in the end, their story is our story. The health of our planet, the future of our children, and the safety of our communities are all tied to the fate of these ancient rivers of ice.

Glaciers are melting. That is a fact. But whether we choose to let that melt away our future—or whether we act boldly, wisely, and compassionately—is still up to us.

The Invisible Threat: How Microplastics Are Affecting Our Health and Future

Komal Singh, B.A. Program (Eco +ASPSM)

Microplastics invisible yet alarming threat —tiny plastic particles less than 5mm in size —have become an to our health and environment. They are present in our food, water, and even the air we breathe, affecting not only humans but also the agricultural systems that sustain us. While their impact may not be immediately visible, scientists warn that the consequences could be far-reaching and devastating.

How Are We Consuming Microplastics?

Every day, we unknowingly consume microplastics through various sources. According to a study by the World Health Organization (WHO), the average person ingests around 50,000 microplastic particles annually. But where do they come from?

One of the biggest culprits is bottled water. Research has found that a liter of bottled water can contain up to 325 plastic particles. Seafood is another major source, as fish and shellfish consume plastic waste floating in oceans. Even common kitchen ingredients like salt and honey have been found to contain microplastics. Beyond food and drinks, we also inhale these tiny particles through dust and pollution.

The Impact on Human Health

Although microplastics are small, their effects on our bodies could be significant. These particles contain harmful chemicals like BPA and phthalates, which interfere with hormonal balance and reproductive health. Some studies suggest that microplasticsmay accumulate in organs such as the liver, kidneys, and intestines, leading to inflammation and long-term health issues. Scientists are also investigating whether prolonged exposure could increase the risk of cancer. While more research is needed, one thing is clear—microplastics do not belong in our bodies.

Threats to Agriculture and Food Production

The problem does not end with human health; microplastics are also invading our farmlands. A study published in Science of the Total Environment found that these particles have been detected in agricultural soil, posing serious risks to crop production.

Microplastics reach farms in various ways. Contaminated irrigation water spreads plastic particles into the soil, while commercial fertilizers often contain plastic from processed waste. Even the air carries tiny plastic fragments that settle on plants. Over time, this contamination affects soil fertility, reducing its ability to hold nutrients and water. Studies have shown that crops exposed to microplastics experience stunted growth and lower nutritional value. If this trend continues, the future of food production could be at risk, leading to food shortages and increased prices.

Pollinators like bees, which play a crucial role in growing fruits and vegetables, are also affected. If they ingest microplastics, their health declines, impacting pollination and disrupting ecosystems. This could result in reduced agricultural yields, further worsening global food security.

The Global Plastic Crisis

The microplastic crisis is part of a much larger issue—global plastic pollution. According to the United Nations, over 300 million tons of plastic are produced every year, but only 9% is recycled. The rest ends up in landfills, oceans, and, eventually, our food chain.

A report by the World Economic Forum warns that if current trends continue, by 2050, there could be more plastic in the ocean than fish. This would make seafood one of the most contaminated food sources, severely affecting marine ecosystems and human diets.

What Can We Do?

While the problem is vast, there are steps we can take to reduce microplastic pollution:

1.Reduce Plastic Use: Avoid single-use plastics like straws, bags, and disposable cutlery.

2.Choose Natural Fabrics: Synthetic clothes shed microplastics when washed. Opt for cotton, linen, or hemp instead.

3.Drink Filtered Tap Water: Bottled water contains more microplastics than tap water. Use a filter if needed.

4.Recycle Responsibly: Ensure plastics are properly disposed of to prevent them from polluting the environment.

5.Support Sustainable Brands: Choose products from companies that use eco-friendly packaging.

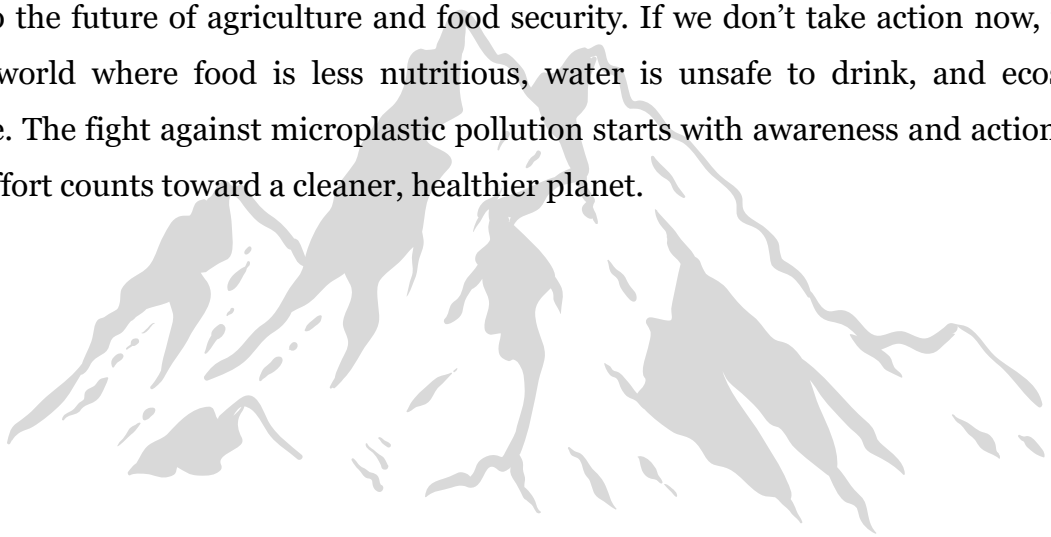
6.Spread Awareness: Educate others about the dangers of microplastic pollution and advocate for stricter environmental policies.

Global Efforts to Combat Microplastic Pollution

Governments and environmental organizations worldwide are taking action. The European Union has banned microbeads in cosmetics, while several countries are enforcing stricter recycling policies. Scientists are also developing biodegradable alternatives to traditional plastics, aiming to reduce long-term pollution.

Conclusion

Microplastics may be tiny, but their impact is massive. They threaten not just our health but also the future of agriculture and food security. If we don't take action now, we may face a world where food is less nutritious, water is unsafe to drink, and ecosystems collapse. The fight against microplastic pollution starts with awareness and action—every small effort counts toward a cleaner, healthier planet.



हिमनद और जलवायु परिवर्तन का संघर्ष

Vidhi, B.A. Hons. Geography

बढ़ते तापमान के कारण, बढ़ते प्रदूषण के कारण ग्लेशियर पिघल रहे हैं। बर्फ पर दूसरे रंग की चादर ढकी जा रही है। जो आने वाले समय के लिए बहुत भयानक सिद्ध होगा। जलवायु परिवर्तन के कारण दिन पर दिन प्रकृति और मनुष्य दोनों को हानि हो रही है। जलवायु परिवर्तन होने का सबसे बड़ा कारण मनुष्य है। जलवायु परिवर्तन के कारण हमें कई चीजों में समस्याओं का सामना करना पड़ता है। कुछ जगह लोग इसके खिलाफ संघर्ष से लड़ रहे हैं। जैसे पानी की कमी, परिस्थिति का असंतुलित होना, समुद्र में जल की मात्रा का अधिक होना। हमें समय रहते इसके विरुद्ध थोड़ा कदम उठाना चाहिए। जैसे - इलेक्ट्रिक वाहनों का प्रयोग करना, जितना हो सके ग्रीन हाउस गैसों का उपयोग करना।

B. El. Ed DEPARTMENT GEOGRAPHY TRIP KAMLA NEHRU RIDGE

Anushka Verma, B.El.Ed

The department of geography organised a field survey for B.El.Ed. II year students along with Ms. Rachana Rani Sharma ma'am. There, we meet at a common meeting point, which is a Vidhan Sabha metro station. Then, from there, we all stated our journey to Kamla Nehru Ridge. There, we are accompanied by Dr. Harmeet Singh and Dr. A.K. Singh. They give us very insightful and interesting knowledge about the Kamla Nehru Ridge.

The Kamla Nehru Ridge, an 87-hectare area near Delhi University, is a rich source of biodiversity, showcasing the importance of preserving natural ecosystems in urban environments. The ridge, located in the northernmost part of India's Aravali Mountain ranges, has been overtaken by invasive mesquite trees, causing the loss of around 450 native species. The Delhi Development Authority is developing and maintaining the park, which is undergoing ecological restoration. The park is home to historical landmarks like the flagstaff tower and Chaurburja Masjid, which were key points of the 1857 uprising. Visitors can also visit butterfly conservatories. The ridge has provided habitat for various birds, including 64 and 70 species of butterflies. The topography of the ridge is crucial for groundwater recharge, as rainwater percolates through rock fractures. The park also holds historical significance, having played a role in the Indian independence movement.

After gaining such a in sightful knowledge we all end our trip at Vishvidhyalya metro station.

My Personal Experience: A Memorable Field Trip to Kamla Nehru Ridge, Delhi

In April this year, our college organized an educational field trip to Kamla Nehru Ridge in Delhi. This excursion, conducted under the guidance of Mrs. Rachna Sharma, our subject teacher, and Dr. Harmeet Sir, our expert field guide, was one of the most enlightening and unforgettable experiences of my academic journey.

We began the day early with much excitement as we gathered with our peers, ready for an immersive learning experience. After a short metro ride, we reached Kamla Nehru Ridge, a green oasis nestled in the bustling heart of Delhi. The Ridge is not only a rich ecological zone but also steeped in deep historical significance, especially due to its connection to the First War of Indian Independence in 1857. The moment we stepped into the ridge, the atmosphere changed—the chaotic noise of the city was replaced with birdsong, the rustling of leaves, and a sense of calm.

Our group was warmly welcomed and guided by Dr. Harmeet Sir, whose immense knowledge and passion for ecology and conservation elevated the entire experience. He began with an overview of the Delhi Ridge ecosystem, explaining its role as the "green lungs" of the city. He also helped us understand how Kamla Nehru Ridge acts as a buffer zone that controls pollution, maintains air quality, and provides a critical habitat for both flora and fauna.

Historical Significance and Sites

As we walked through the Ridge, Dr. Harmeet Sir and Mrs. Rachna Sharma explained the historical background of various landmarks. We visited the Mutiny Memorial (Ajitgarh) , which stands as a reminder of the 1857 uprising. Perhaps the most emotionally impactful site was the infamous **Khooni Jheel, a water body believed to have witnessed the bloodshed of British and Indian soldiers during the revolt. Standing near it gave us chills —it was a powerful moment of historical reflection, connecting us directly to India's freedom struggle.

Biodiversity and Conservation Highlights

One of the major highlights of the trip was our visit to the Butterfly Conservatory within the Ridge. We were amazed to see a variety of butterfly species in a carefully protected habitat. Dr. Harmeet Sir explained the ecological role of butterflies as pollinators and indicators of a healthy environment. He also told us about the Turtle Conservation Program, which focuses on protecting native turtle species, their breeding habits, and conservation challenges in an urban setting.

Educational Activities and Observations

Our trip wasn't just about sightseeing—it was deeply academic as well. We were each given a field-based questionnaire prepared by our department, which included sections on:

- Identification of plant and bird species
- Questions about ecological services provided by Ridge vegetation
- Historical relevance of sites like Khooni Jheel and Mutiny Memorial
- Observations on conservation efforts and challenges

We noted down species we saw—Monkey , Parrots , Parakeets, and a variety of native plants like the Kiker (Acacia), which plays a vital role in preventing soil erosion and sustaining dryland biodiversity. Dr. Harmeet Sir explained how Kiker trees are drought-resistant and provide food and shelter for many animal species, thus playing an integral role in stabilizing the Ridge's fragile ecology.

We also explored the Biodiversity Park section of the Ridge, a thoughtfully preserved area aimed at restoring the original Aravalli ecosystem. It showcased native grasses, medicinal plants, and wetland vegetation, reminding us of how urban planning and conservation can go hand in hand.

Reflections and Group Experience

Throughout the walk, we were encouraged to reflect and interact. We held discussions on topics like urban encroachment ,climate change, and the importance of preserving natural heritage. Sitting under the shade of a large banyan tree, we shared our observations, filled out the final parts of our questionnaire, and clicked group photos. The atmosphere was light, yet intellectually engaging.

Both Mrs. Sharma's nurturing mentorship and Dr. Harmeet's scholarly insights made this field trip not only educational but deeply inspiring. It was a unique chance to experience hands-on learning in an open-air classroom—something that textbooks can never replicate.

Conclusion

This field trip to Kamla Nehru Ridge was far more than an academic requirement. It was a meaningful journey through history, ecology, and self-awareness. It opened our eyes to the importance of biodiversity, historical memory, and our role as students and future citizens in environmental stewardship. I came back from the trip with a renewed appreciation for nature, a deeper understanding of Delhi's hidden ecological treasures, and memories I will cherish for a long time.

Living Beside a Breathing Landfill Our Khora Colony Experience.

It was the 6th of March. Warm, slightly humid air brushed against our faces as we stepped out onto the narrow, chaotic roads of Khora Colony, Ghaziabad. From far off, the Ghazipur Landfill loomed like a sleeping giant—tall, silent, and menacing. But it wasn't asleep. It was alive in the worst possible way—smoking, decaying, and quietly poisoning the lives growing around it.

This wasn't a casual visit. Under the guidance of Shadab Sir and Jagmohan Sir, we were out for a field survey as part of our Disaster Management Based Project Report. But truth be told, no textbook could've prepared us for what we were about to witness.

Khora wasn't just a colony; it was a contradiction. It stood between life and waste. People lived, laughed, and carried on their daily chores in a place where, by all logic, nothing should flourish. The irony was constant—children flying kites under a sky thick with landfill smoke, families sharing tea with the scent of decay hanging nearby, birds gliding overhead only to fall lifeless the next day.

Yes, we heard it from more than one resident—every few days, someone would find a dead hawk lying on their terrace or by the roadside. It had almost become normal. The birds, they said, often lost balance in the toxic air, crashing mid-flight. Something about that struck us deeply. It was more than just a sad sight. It was a sign. A warning. Nature itself was breaking down.

We started talking to people—not formally, not from a distance, but up close, as equals. And the stories they told weren't rehearsed or exaggerated. They were just… honest.

A mother showed us her son's asthma inhaler, worn and half-used. "It's always like this," she said. "We can't even dry clothes outside for too long. The dust makes them smell."

Another man standing by a shop added, "You'll smell the dump before you see it. But living here, it's the reverse—we see it every day, and the smell never leaves."

We weren't there to judge or pity. We were there to learn. And they taught us more than any class ever could.

One woman mentioned how black grime collects on their floors just hours after mopping. "It settles on our skin, in our food, in our lungs." There was no anger in her voice—just exhaustion. Another elder shook his head and said, "We used to have hope. Now we just manage."

Still, no one asked us for help. No one played victim. That's what struck us the most. The resilience was quiet but unshakable. People here weren't waiting to be saved. They were

surviving with dignity in conditions most would flee from.

And yet, this was no place anyone should be forced to adapt to. The water? Often murky. The air? Always questionable. Children here grow up thinking smoke is part of the sky. Some have never known what a clean breeze feels like.

We walked through narrow gullies, pausing every now and then to absorb what we saw—faces tired but smiling, lives cluttered but alive. A little girl waved at us from a rooftop, her bare feet covered in soot, her laughter louder than the garbage trucks below.

There was this one moment—brief but unforgettable—when we all stood still, the sun hitting the landfill just right, casting a strange golden light over the trash mound. And for a second, it looked almost beautiful. But the moment passed quickly. The reality was too loud. A garbage truck tilted its bed, dumping another mountain of waste onto the already swollen heap.

We didn't need statistics to tell us the situation was dire. We could see it. Smell it. Feel it in our throats. This wasn't just an environmental issue. It was a human one.

The people of Khora Colony live next to what should be a cautionary tale, not a neighbour. And yet they go on—patching their roofs, cleaning their floors, raising children under grey skies.

By the time we wrapped up, the city around us had returned to its usual rhythm. But we were quieter. Something about the visit stayed under our skin. It wasn't just sadness or anger. It was a kind of awakening. That disasters don't always roar in with floods or earthquakes. Sometimes, they pile up slowly, one bag of garbage at a time, until an entire community learns to breathe around it.

We came back from Khora with more than just field notes. We came back with stories, faces, smells, and truths. What we learned can't fully be measured in graphs or charts. It's in the way a mother talks about her child's cough. It's in the way people joke about the smell—they've had to find humour to cope. It's in the silence that follows when someone says, "We've stopped hoping for change." And the quiet conviction that awareness isn't enough. Change is overdue.

The landfill is a wound, and Khora is the skin around it that keeps trying to heal—again and again.

Names of the Teachers : Dr. Shadab Khan and Mr. Jagmohan

Names of the Students: Diya Pandya, Kumari Aastha, Upasana Yadav, Mansa and Sejal

"Whispers of the Desert: A Journey Through Drought, Resilience, and Tradition"

Our field excursion to Jodhpur and Jaisalmer was not merely a journey across the arid stretches of Rajasthan but a profound exploration into the soul of a region shaped by scarcity, survival, and spirit. Seventeen students, under the guidance of our dedicated mentors—Dr. Anju Singh (Teacher-in-Charge) and Dr. Mamta Arora—embarked on this academic voyage to uncover the intricate socio-economic ramifications of drought and to delve into the adaptive strategies cultivated by desert communities over generations.

Our journey commenced in the historic city of Jodhpur, the Blue City shimmering under a blazing sun, fringed by the mighty Thar Desert. Yet, behind its architectural splendor lay the haunting truth of climatic fragility. As we ventured into the rural hinterlands—Khejarli, Devaliya, and Harad ki Dhani—we encountered a landscape defined not only by sand and sparse vegetation but by stories of struggle, perseverance, and hope.

Surveying these villages offered us a glimpse into a reality shaped by relentless droughts and unreliable monsoons. The villagers spoke candidly of failing crops, parched fields, dwindling livestock, and the silent despair that creeps in with every dry season. Yet, amid the adversity, we were struck by the quiet resilience and adaptive ingenuity of the locals. Farmers had transitioned from water-thirsty crops like wheat and sugarcane to hardy, drought-resistant staples such as pearl millet (bajra), cluster beans (guar), and moth beans (matki). This shift not only reflected agro-ecological wisdom but symbolized the community's collective will to endure and evolve.

Through our interactions, we came to appreciate the gendered dimensions of drought. Women, often the unseen pillars of rural households, bore the burdens of water collection, food preparation, and caregiving—responsibilities that became infinitely more arduous during times of scarcity. Children and the elderly, too, emerged as vulnerable groups, their well-being inextricably tied to the availability of natural resources and community support systems.

Equally compelling was the enduring reliance on traditional water harvesting structures. Over 60% of the villagers still used tankas and stepwells, testifying to the enduring relevance of indigenous knowledge systems. These structures, often handcrafted and maintained through communal effort, are more than utilitarian—they are symbols of sustainable heritage in a parched land.

From Jodhpur, we journeyed westward to Jaisalmer, a city that rises like a golden mirage from the sands. Famous for its intricate havelis and majestic fort, Jaisalmer also embodies the paradox of prosperity amid paucity. Here, tourism flourishes even as villagers grapple with acute water shortages. Our visit to Tanot Mata Mandir, situated near the India-Pakistan border, offered a contemplative pause. Surrounded by arid expanse, the temple stood as a beacon of faith—a reminder of how spirituality often becomes a coping mechanism in the face of unrelenting hardship.

We also had the privilege of engaging with local experts and grassroots workers involved in disaster risk reduction and drought mitigation. Their insights painted a broader picture of the challenges facing policy implementation, the limitations of infrastructure, and the urgent need for integrating traditional wisdom with modern science. Concepts like livelihood diversification, micro-irrigation, and community-based planning gained deeper meaning through field observation.

The trip was not without its moments of awe and cultural immersion. Traversing the undulating sand dunes on camelback, racing through the desert on jeep safaris, and attending a mesmerizing cultural performance under the starlit sky were experiences that etched themselves into our memories. These moments served as a vivid contrast—between the festive vibrance of Rajasthani culture and the stark realities faced by its people.

As we concluded our journey, we returned not only with quantitative data and qualitative insights but with a deeper, more empathetic understanding of human-environment interaction. Our fieldwork will no doubt enrich our academic projects on drought vulnerability and rural socio-economics, but more importantly, it left an indelible mark on our collective consciousness.

This field visit was more than an educational exercise—it was a pilgrimage into the resilience of humanity. In the shifting sands of Rajasthan, we discovered the strength of tradition, the innovation born of necessity, and the quiet dignity of communities who, even in drought, continue to nurture life and hope.

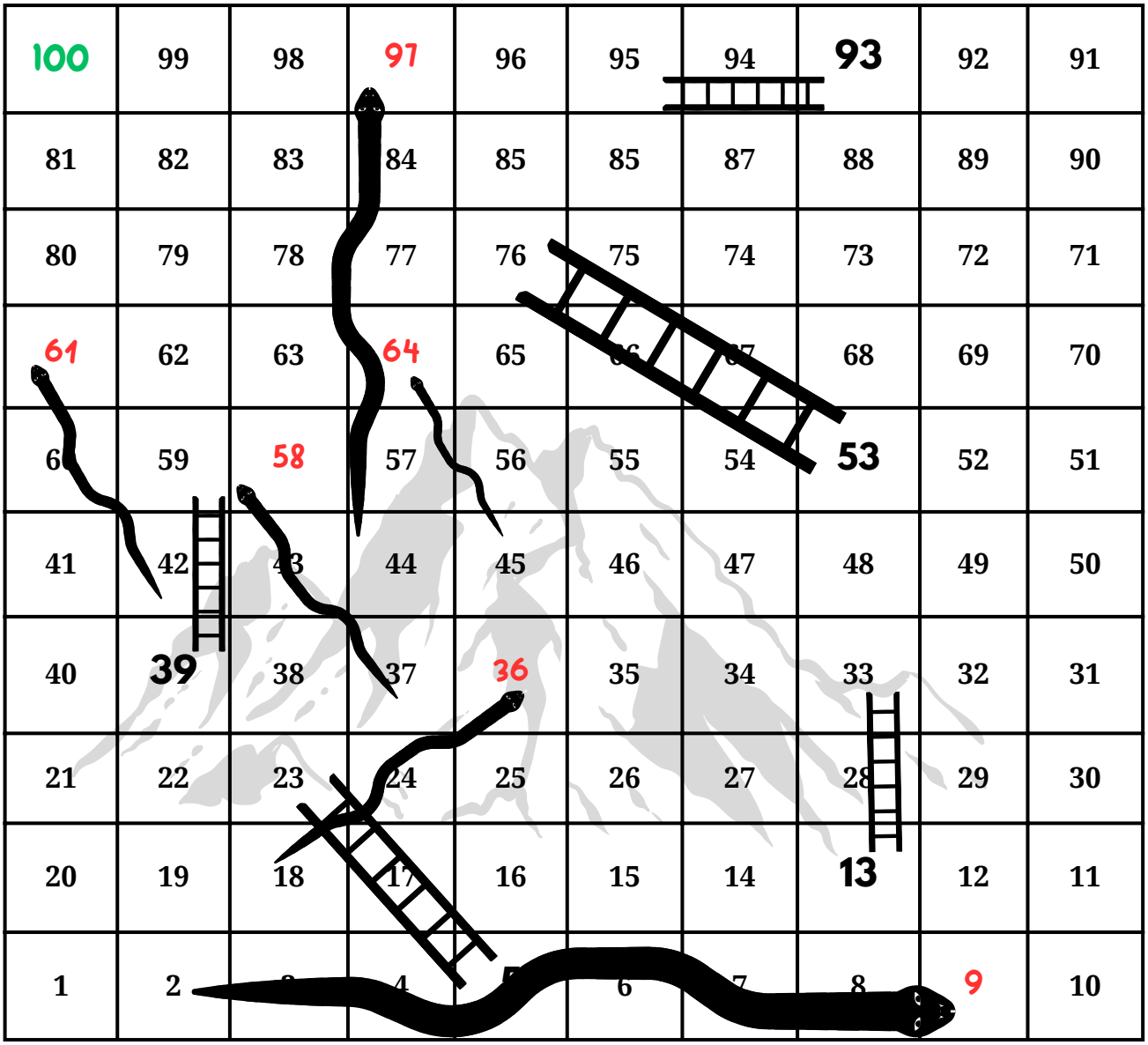
Names of the Teachers : Dr. Anju Singh and Dr. Mamta Arora

Names of the Students: Mansha Verma, Meghna Singh, Gungun Malik, Asmita Chattaraj, Sonia, Anamika Singh, Muskan, Bhumika Goswami, Priya, Bharti Meena, Khushbu, Vidhi, Aditi Singh, Jitika Chaudhary, Sonia Tamang, Pallavi Wadhera and Isha Kumari Sharma

Socio-economic Survey in Harewali Village

On 25th February 2025, 26 students of B.El.Ed 3 year from Aditi Mahavidyalaya visited Harewali Village-Delhi, to conduct a socio-economic survey. Each group interacted with 10-15 households and collecting data on different aspects like agriculture, education, occupation, healthcare, and government schemes through a structured questionnaire. During the survey, students observed that villagers were engaged either in farming or daily wage work. Primary education was common, but many students dropped out before higher studies. Most houses were pucca, but some lacked proper sanitation and drainage. While government healthcare services existed, many people preferred private clinics. Awareness of government schemes was low, especially among women and the elderly. This survey gave valuable field experience, helping to understand real-life social and economic conditions. It also improved communication, research, and analytical skills, making it a useful and insightful academic experience.

Save the Ice!



LADDERS (Good Climate Actions)

- **5 → 23: You planted 50 trees — glacier stress reduced!**
- **13 → 33: You ran a plastic-free campaign!**
- **39 → 59: You lobbied for a climate policy — change begins!**
- **53 → 76: You started a solar school initiative!**
- **93 → 95: You supported a clean energy startup!**

SNAKES (Climate Mistakes)

- **9 → 2: You used single-use plastic near the river.**
- **36 → 18: You supported mining near a glacier zone.**
- **58 → 37: You ignored your carbon footprint.**
- **61 → 42: You used diesel generators for weeks.**
- **64 → 45: You overused AC — emissions surged.**
- **97 → 44: You used too much water in agriculture — glacier-fed rivers dried early.**

SCAN TO ROLL THE DICE ! →

GLACIER QUEST QUIZ: FROM CHILL TO THRILL

Theme: Glaciers, Climate Change, Sustainable Actions

LEVEL 1: EASY (Q1–Q5)

1.What is a glacier?

a) A type of cloud

b) A slow-moving river of ice

c) A frozen volcano

d) A snowstorm

2.Which gas is the biggest contributor to global warming?

a) Oxygen

b) Nitrogen

c) Carbon dioxide

d) Hydrogen

3.Which of these is a clean source of energy?

a) Coal

b) Petrol

c) Solar power

d) Diesel

4.Which continent has the most glaciers?

a) Asia

b) Antarctica

c) North America

d) Europe

5.Which of these can help reduce glacier melting?

a) Cutting trees

b) Burning plastic

c) Using public transport

d) Leaving fans on all day

LEVEL 2: MODERATE (Q6–Q10)

6.What is the term for the increase in Earth's average temperature?

a) Global warming

b) Ice Age

c) Plate tectonics

d) Ozone layering

7.What happens when glaciers melt rapidly?

a) The oceans freeze

b) Sea levels rise

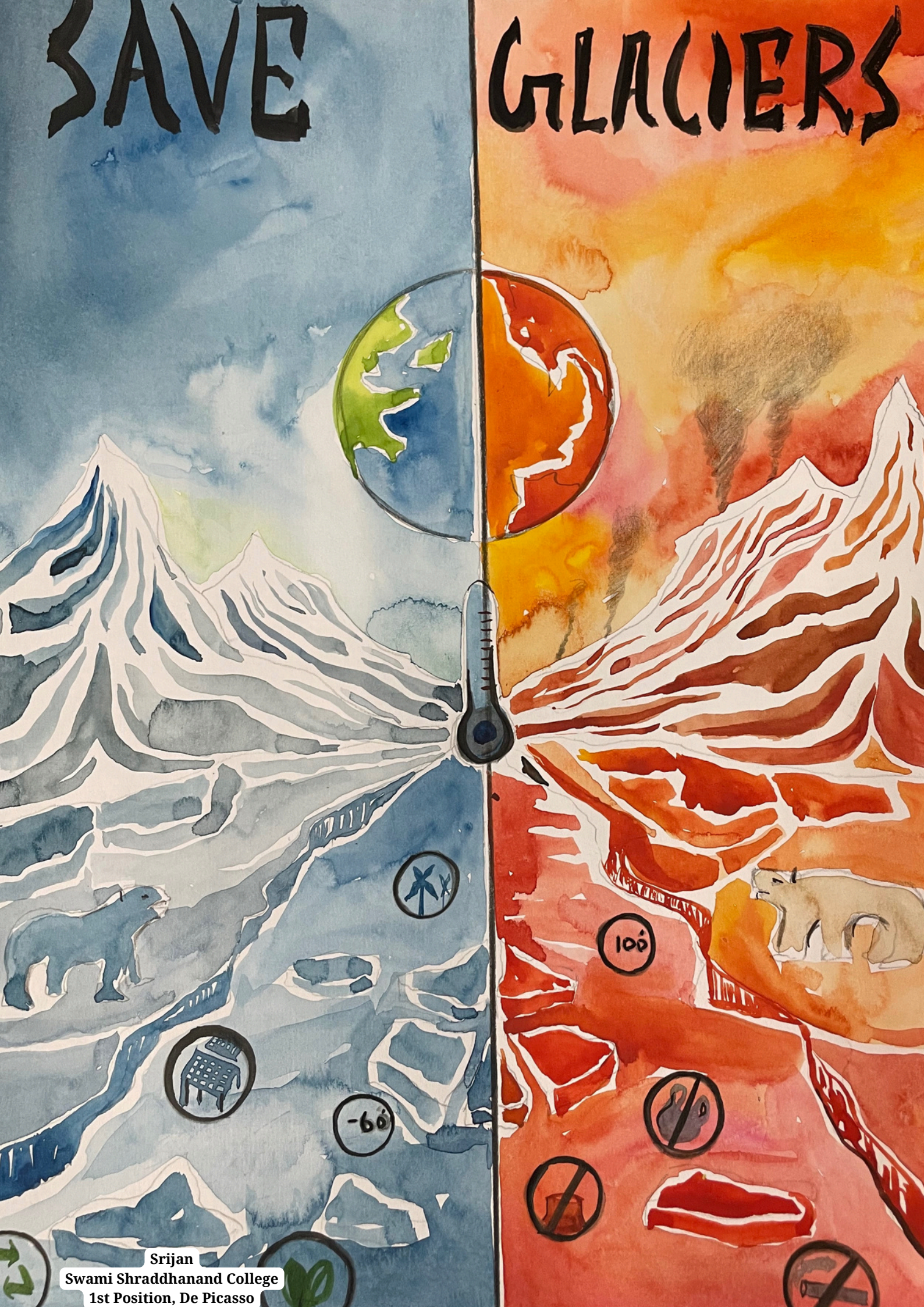
c) The sun cools down

d) Glaciers become clouds

8. Which human activity contributes most to climate change?
a) Eating fruits
b) Driving fossil-fuel cars
c) Reading books
d) Sleeping in
9. How much of the Earth's freshwater is locked in glaciers?
a) 1%
b) 5%
c) 10%
d) Over 65%
10. What is the name of the major Himalayan glacier threatened by global warming?
a) Siachen
b) Andes
c) Rocky
d) Kilimanjaro

LEVEL 3: HARD (Q11–Q15)
11. Which international agreement aims to limit global warming to below 2°C?
a) Paris Agreement
b) Kyoto Protocol
c) COP16
d) Montreal Pact
12. What is albedo, in the context of glaciers?
a) A type of glacier
b) Sunlight reflection from the Earth's surface
c) Snowfall measurement unit
d) A type of greenhouse gas
13. Which of these can cause "glacial lake outburst floods" (GLOFs)?
a) Too much rain
b) Sudden melting of glaciers
c) Pollution in cities
d) Earthquakes in the desert
14. What does the term 'climate refugee' mean?
a) Someone stuck in the snow
b) A person displaced due to rising sea levels and climate disasters
c) Someone who lives on mountains
d) A person who studies glaciers
15. Which glacier in the Arctic is known as the "Doomsday Glacier" due to its risk of rapid collapse?
a) Greenland Glacier
b) Thwaites Glacier
c) Everest Icefall
d) Patagonian Icefield

ANSWER KEY : 1. b 2. c 3. c 4. b 5. c 6. a 7. b 8. b 9. d 10. a 11.a 12.b 13. b 14. b 15. b



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