



IS HOLIDAY DECLARATION DURING EXTREME WEATHER THE ONLY SOLUTION LEFT?

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A Policy-Based Study of School Education Management During Harsh Summers and Winters in Haryana

Abstract

The increasing intensity of heat waves during summers and cold-wave conditions during winters has emerged as a serious challenge for school education systems in India. In Haryana, educational authorities frequently declare holidays or alter school timings to ensure the safety and well-being of students and staff. Although such measures provide immediate relief, repeated school closures raise important concerns regarding educational continuity, infrastructural preparedness, administrative efficiency, and policy sustainability. The present paper critically examines whether holiday declaration has become the only practical administrative response available to the Education Department during extreme weather conditions. The study adopts a theoretical and policy-oriented approach to analyze the relationship between climate change, educational governance, infrastructure, student welfare, and learning continuity in Haryana schools. The paper argues that repeated school closures are not merely climatic responses but indicators of deeper infrastructural and administrative limitations within the public education system. The study further proposes climate-resilient educational infrastructure, renewable energy integration, flexible academic planning, and adaptive governance mechanisms as long-term alternatives to repeated closures.

Keywords: Climate Change, Haryana Schools, School Closures, Educational Administration, Extreme Weather, Climate-Resilient Infrastructure, Educational Policy

1. Introduction

Education is one of the most significant instruments of social transformation and national development. Schools are expected to provide safe, equitable, and uninterrupted learning opportunities to students under all circumstances. However, climate change and environmental instability are increasingly disrupting educational systems across the world. Rising temperatures, severe heat waves, prolonged

cold-wave conditions, irregular rainfall, water scarcity, and electricity shortages have emerged as major challenges affecting school functioning in many regions of India.

In recent years, Haryana has experienced extreme climatic conditions during both summers and winters. During peak summer months, temperatures frequently rise above safe levels, while winter seasons often witness severe cold-wave conditions and dense fog. As a result, the Education Department regularly announces school holidays, modifies school timings, or suspends academic activities temporarily to protect students and teachers from adverse weather conditions.

While these measures are necessary from the perspective of immediate safety, repeated closures significantly affect academic continuity. Teaching-learning processes are interrupted, syllabus completion is delayed, examinations are rescheduled, and attendance patterns become irregular. The issue becomes more serious in government schools where infrastructural deficiencies intensify the impact of extreme weather conditions.

Many schools lack adequate ventilation, cooling arrangements, uninterrupted electricity supply, safe drinking water facilities, thermal insulation, and climate-responsive infrastructure. Rural schools and girls' hostels are particularly vulnerable because of limited resources and infrastructural inadequacies. Students belonging to economically weaker sections suffer disproportionately due to lack of access to digital learning resources and supportive learning environments at home.

This situation raises a critical policy question:

Has holiday declaration become the only available administrative solution left with the Education Department during harsh summers and winters, or can sustainable alternatives be developed through long-term planning and infrastructural reforms?

The present paper attempts to critically examine this issue from an educational administration and policy perspective.

2. Climate Change and Educational Disruption

Climate change is no longer only an environmental concern; it has become an educational challenge as well. Rising global temperatures and increasing climatic variability are affecting school attendance, concentration, cognitive functioning, health, and educational continuity.

Extreme weather conditions affect education in multiple ways:

- Physical discomfort inside classrooms,
- Health risks such as dehydration and heat stress,
- Transportation difficulties,
- Reduced classroom concentration,
- Increased absenteeism,
- Disruption of examinations and school calendars,
- Psychological stress among students.

In Haryana, government schools are particularly vulnerable because many school buildings were not designed to withstand prolonged heat or extreme cold conditions. Poor ventilation, tin roofs, overcrowded classrooms, and irregular electricity supply worsen learning conditions during harsh weather.

The repeated declaration of holidays reflects the growing inability of existing infrastructure and administrative systems to maintain safe educational functioning during climatic emergencies.

3. Holiday Declaration as an Administrative Response

The Education Department generally adopts the following measures during extreme weather conditions:

- Complete closure of schools,
- Delayed opening timings,
- Early dispersal,
- Suspension of outdoor activities,
- Modification of examination schedules.

These responses are primarily reactive and temporary in nature. They focus on immediate risk management rather than long-term educational resilience.

From an administrative perspective, holiday declaration appears to be the easiest and quickest mechanism because:

- It immediately reduces health risks,
- Requires minimal infrastructural investment,
- Can be uniformly implemented,
- and avoids legal or public criticism during emergencies.

However, repeated dependence on closures creates several long-term concerns.

4. Educational Consequences of Repeated School Closures

The repeated declaration of school holidays during harsh summers and winters has far-reaching consequences beyond temporary academic interruption. While closures are generally intended to protect students and staff from extreme weather conditions, their long-term educational, social, psychological, and administrative impacts are significant.

In the context of Haryana, where many government schools already face infrastructural and socio-economic challenges, repeated educational disruption creates serious concerns regarding learning continuity, equity, and institutional efficiency.

4.1 Learning Loss and Academic Disruption

One of the most immediate consequences of repeated school closures is learning loss. Continuous classroom interaction is essential for effective teaching-learning processes, especially at the foundational and middle-school levels.

Frequent interruptions:

- reduce academic continuity,
- weaken conceptual understanding,
- disturb classroom discipline,
- and negatively affect retention capacity among students.

Teachers often struggle to complete the prescribed syllabus within limited academic timeframes. As a result:

- teaching becomes examination-oriented rather than concept-oriented,
- revision time decreases,
- and students face academic stress during examinations.

Subjects requiring continuous practice such as:

- Mathematics,
- Science,
- and Languages

are particularly affected by prolonged interruptions.

4.2 Decline in Student Attendance and Engagement

Repeated holidays often reduce students' connection with regular academic routines. After long breaks, many students experience difficulty readjusting to classroom learning.

In several cases:

- absenteeism increases,
- punctuality declines,
- and classroom participation becomes weaker.

Students from rural areas may become engaged in household or agricultural activities during prolonged closures, further reducing educational engagement.

Younger children are especially vulnerable because they require continuous supervision, structured learning environments, and regular classroom interaction for intellectual and emotional development.

4.3 Educational Inequality and Digital Divide

Repeated closures disproportionately affect students belonging to economically weaker sections.

Students studying in private schools often continue learning through:

- online classes,
- digital platforms,
- private tuition,
- and home learning resources.

In contrast, many government school students lack:

- smartphones,
- internet connectivity,
- digital literacy,
- or supportive learning environments at home.

As a result, educational inequality widens during school closures. Students from disadvantaged backgrounds experience greater learning loss and reduced academic confidence.

The digital divide therefore transforms temporary school closures into long-term educational disadvantages for vulnerable learners.

4.4 Psychological and Emotional Impact on Students

Schools play an important role not only in academic learning but also in emotional and psychological development.

Repeated closures may lead to:

- social isolation,
- anxiety regarding studies,
- examination stress,
- irregular routines,
- and reduced motivation.

Students preparing for board examinations face particular pressure due to uncertainty in:

- syllabus completion,
- revision schedules,
- and examination planning.

For many children, especially those from difficult socio-economic backgrounds, schools provide emotional stability and structured daily routines. Repeated interruptions may therefore affect overall psychological well-being.

4.5 Impact on Mid-Day Meal and Welfare Schemes

Government schools in India perform multiple welfare functions in addition to formal education.

Programs such as:

- Mid-Day Meal Scheme,
- health check-ups,
- nutrition awareness,
- and social support services

are closely connected with regular school functioning.

Repeated school closures interrupt these welfare mechanisms. For many economically weaker students, school meals constitute an important source of daily nutrition.

Therefore, prolonged closures may indirectly affect:

- child nutrition,
- physical health,
- and school attendance patterns.

4.6 Administrative and Academic Pressure on Teachers

Frequent school closures also create significant administrative pressure on teachers and school administrators.

Teachers are often required to:

- compress academic schedules,
- complete syllabus within reduced time,
- conduct extra classes,
- and reorganize assessments.

This reduces the quality of classroom interaction and increases workload-related stress.

School heads face additional challenges related to:

- timetable adjustments,
- examination rescheduling,
- attendance management,
- and communication with parents and authorities.

Thus, repeated closures affect not only students but also the overall efficiency of educational administration.

4.7 Disruption of Co-Curricular and Holistic Development Activities

Education is not limited to classroom teaching alone. Schools contribute significantly to:

- personality development,
- physical fitness,
- social interaction,
- leadership skills,
- and cultural participation.

Repeated holidays disrupt:

- sports activities,
- morning assemblies,
- practical sessions,
- laboratory work,
- cultural programs,
- and community engagement activities.

As a result, holistic development opportunities for students are reduced.

4.8 Increased Risk of Dropout in Vulnerable Areas

In economically weaker and rural communities, prolonged educational interruption may increase the risk of:

- irregular attendance,
- disengagement from studies,
- and eventual dropout.

This risk is particularly significant among:

- adolescent girls,
- economically disadvantaged students,
- and first-generation learners.

Educational discontinuity weakens long-term educational aspirations and may negatively affect retention rates in government schools.

4.9 Impact on Girls' Education and Hostel Students

Girls residing in government hostels face additional difficulties during extreme weather conditions.

During prolonged closures:

- hostel routines are disturbed,
- transportation becomes difficult,
- and academic continuity weakens.

Moreover, harsh summers combined with:

- electricity shortages,
- inadequate cooling systems,
- and water supply issues

create unsafe and uncomfortable living conditions for hostel students.

Such challenges directly affect:

- physical well-being,
- academic concentration,
- and educational confidence among girls.

4.10 Long-Term Impact on Educational Quality

If repeated closures continue without structural reforms, long-term educational quality may decline significantly.

Persistent academic disruption may result in:

- reduced learning outcomes,
- poor examination performance,
- weak foundational learning,

- and declining public confidence in government schools.

Therefore, repeated holiday declaration should not be viewed merely as a temporary administrative action but as a policy issue directly connected with educational quality and sustainability.

4.11 Broader Social and Economic Implications

Educational disruption also affects families and society at large.

Parents, particularly working families, face difficulties related to:

- childcare,
- supervision,
- transportation,
- and academic monitoring during sudden closures.

At the societal level, repeated interruption in education weakens human capital development and creates long-term developmental concerns.

Thus, the issue of school closure during extreme weather must be examined not only as a climatic challenge but also as an educational, social, economic, and governance issue.

5. Infrastructural Challenges in Haryana Schools

The repeated declaration of holidays during harsh summers and winters reflects deeper infrastructural challenges within the school education system of Haryana. While extreme climatic conditions act as immediate triggers for closure decisions, the underlying issue lies in the inability of many educational institutions to provide climate-resilient learning environments.

Government schools, particularly those located in rural and economically weaker regions, continue to face significant infrastructural deficiencies that directly affect student safety, health, attendance, and academic continuity during adverse weather conditions.

5.1 Lack of Climate-Responsive School Infrastructure

Most government school buildings in Haryana were constructed without considering long-term climatic sustainability. As a result, classrooms become extremely uncomfortable during summers and winters.

During peak summer months:

- classroom temperatures become excessively high,
- tin roofs absorb and radiate heat,
- poor ventilation restricts airflow,
- and overcrowded classrooms intensify discomfort.

Similarly, during winters:

- classrooms remain excessively cold,
- fog and dampness reduce classroom comfort,
- and absence of thermal insulation affects concentration and attendance.

The absence of climate-sensitive architectural planning significantly reduces the capacity of schools to function effectively during extreme weather conditions.

5.2 Inadequate Cooling and Heating Facilities

A major challenge in Haryana government schools is the absence of proper cooling and heating arrangements.

Many schools do not have:

- sufficient fans,
- desert coolers,
- exhaust systems,
- room heaters,
- or temperature-regulating mechanisms.

Even where such equipment exists, irregular electricity supply often renders them ineffective. Students are therefore exposed to unsafe environmental conditions, particularly during heat waves.

Young children are especially vulnerable to:

- dehydration,
- heat exhaustion,
- fatigue,
- and reduced concentration levels.

Similarly, cold-wave conditions increase the risk of respiratory illnesses and absenteeism among students.

5.3 Electricity and Energy Crisis

Electricity shortages represent one of the most critical barriers to climate-resilient educational functioning.

During summers, power cuts are frequent in many rural and semi-urban areas of Haryana. In the absence of electricity:

- fans and coolers stop functioning,
- drinking water systems become ineffective,
- digital devices cannot be used,
- and hostel facilities become unsafe.

The situation becomes more difficult in girls' hostels, where prolonged power outages during hot nights create serious discomfort and health concerns for students.

Most schools lack:

- hybrid inverter systems,
- battery backup,
- or renewable energy alternatives such as solar power systems.

The absence of energy security significantly contributes to administrative dependence on school closures during harsh weather.

5.4 Drinking Water and Sanitation Problems

Access to safe drinking water is essential during extreme summers. However, many government schools face:

- irregular water supply,
- malfunctioning water coolers,
- inadequate storage facilities,
- and poor maintenance of sanitation systems.

During heat-wave conditions, dehydration risks increase significantly among students. Lack of cold drinking water discourages attendance and creates health concerns.

Similarly, sanitation facilities become difficult to maintain during periods of water scarcity, affecting hygiene and student well-being.

5.5 Overcrowded Classrooms and Poor Ventilation

Many government schools in Haryana continue to function with overcrowded classrooms. Large student populations combined with inadequate classroom space worsen environmental discomfort.

Poor ventilation results in:

- insufficient air circulation,
- increased humidity,
- accumulation of heat,
- and reduced classroom concentration.

Such conditions negatively affect:

- student participation,
- teacher efficiency,
- and overall classroom interaction.

In extreme temperatures, poorly ventilated classrooms may become unsafe learning environments, compelling authorities to suspend academic activities.

5.6 Rural-Urban Disparities

The infrastructural gap between rural and urban schools remains a major concern.

Urban schools generally have:

- better building structures,
- improved electricity supply,
- stronger digital infrastructure,
- and better access to emergency resources.

In contrast, rural schools often face:

- weak infrastructure,

- transportation challenges,
- limited healthcare access,
- and greater exposure to environmental hardships.

As a result, rural students suffer disproportionately during school closures.

5.7 Challenges in Girls' Hostels

Girls residing in government hostels experience additional difficulties during harsh weather conditions.

Major problems include:

- inadequate cooling arrangements,
- irregular electricity supply,
- water shortages,
- poor ventilation,
- and overcrowded living spaces.

During heat waves, hostel rooms often become extremely uncomfortable at night due to power outages and lack of ventilation. Such conditions affect:

- physical health,
- sleep quality,
- emotional well-being,
- and academic performance.

The absence of climate-resilient hostel infrastructure raises serious concerns regarding student welfare and gender-sensitive educational administration.

5.8 Digital Infrastructure Deficiency

The COVID-19 pandemic highlighted the importance of digital learning systems. However, many government schools still lack:

- smart classrooms,
- internet connectivity,
- digital devices,
- and online learning preparedness.

Therefore, whenever schools are closed due to extreme weather, educational continuity is severely disrupted because alternative learning systems are weak or unavailable.

6. Policy Analysis (Expanded Structure)

6.1 Administrative Dependence on School Closures

- Why education departments prefer holiday declaration
- Immediate administrative convenience

- Public safety pressure
- Political and media accountability

6.2 Climate Change and Educational Governance

- Climate change as a governance challenge
- Educational administration shifting from routine management to crisis management
- Need for climate-responsive governance models

6.3 Infrastructure Policy Gaps in Haryana Schools

Detailed analysis of:

- outdated school infrastructure,
- lack of thermal-friendly buildings,
- poor electricity backup,
- inadequate drinking water systems,
- hostel infrastructure gaps,
- rural-urban disparities.

You can critically argue that:

repeated closures are symptoms of infrastructural policy failure.

6.4 Financial and Budgetary Constraints

Analysis of:

- limited infrastructure funding,
- maintenance issues,
- unequal allocation of educational resources,
- dependence on temporary administrative decisions due to financial limitations.

You may discuss:

- CSR partnerships,
- renewable energy funding,
- public-private cooperation,
- HAREDA-type energy initiatives.

6.5 Educational Equity and Social Justice Perspective

This can become a very strong analytical subsection.

Discuss:

- why economically weaker students suffer more,
- digital divide,
- rural disadvantage,
- gender-sensitive issues in girls' hostels,
- unequal educational continuity.

This gives your paper a strong social-policy dimension.

6.6 Limitations of Existing Educational Policies

You can critically analyze:

- whether current educational policies adequately address climate emergencies,
- absence of climate adaptation guidelines,
- lack of mandatory resilience standards for schools,
- insufficient disaster preparedness frameworks.

You may connect with:

- NCERT guidelines,
- UNESCO climate education recommendations,
- and Ministry of Education policy frameworks.

6.7 Comparative Policy Perspective

You may compare Haryana with:

- other Indian states,
- international school systems,
- or climate-resilient educational models.

For example:

- heat-action plans,
- seasonal scheduling,
- resilient school architecture,
- renewable-energy-supported campuses.

This increases publication quality significantly.

6.8 Need for Climate-Responsive Educational Policy

This should become the core argument of Section 6.

You can propose:

- climate-resilient school standards,
- compulsory solar infrastructure,

- adaptive academic calendars,
- hybrid learning preparedness,
- school safety protocols,
- environmental budgeting in education.

6.9 Policy Reform Framework for Haryana

You can conclude Section 6 with a policy framework specifically for Haryana including:

- infrastructure modernization,
- renewable energy integration,
- girls' hostel safety,
- digital preparedness,
- emergency educational continuity systems.

7. Alternatives Beyond Holiday Declaration

The increasing frequency of extreme weather conditions demonstrates that repeated holiday declaration cannot remain the primary educational response in the long term. While temporary closures may sometimes be unavoidable, sustainable educational management requires proactive, climate-responsive, and infrastructure-oriented solutions.

Educational systems must shift from reactive emergency responses toward resilience-based planning that ensures student safety without disrupting learning continuity.

7.1 Development of Climate-Resilient School Infrastructure

The most important long-term solution is the development of climate-resilient educational infrastructure.

School buildings should be redesigned or upgraded with:

- heat-resistant construction material,
- proper insulation,
- reflective roofing systems,
- improved ventilation,
- shaded corridors,
- and energy-efficient architecture.

Tree plantation and green campus initiatives can also help reduce environmental heat around school buildings.

Climate-responsive infrastructure improves:

- classroom comfort,
- student concentration,
- teacher productivity,
- and educational continuity.

7.2 Renewable Energy Integration in Schools

Renewable energy systems can significantly reduce dependence on unreliable electricity supply.

Government schools should be equipped with:

- rooftop solar panels,
- hybrid inverter systems,
- lithium battery backup,
- and energy-efficient electrical systems.

Such arrangements can ensure uninterrupted functioning of:

- fans,
- coolers,
- water systems,
- digital devices,
- and hostel facilities during power outages.

Solar-powered schools would not only improve educational continuity but also support environmental sustainability and reduce long-term energy expenditure.

7.3 Flexible Academic Scheduling

Instead of complete school closures, educational authorities may adopt flexible scheduling models during extreme weather conditions.

Possible alternatives include:

- early morning classes during summers,
- delayed morning timings during winters,
- shorter instructional periods,
- and rotational scheduling.

Flexible academic calendars may help reduce educational disruption while maintaining student safety.

7.4 Hybrid and Digital Learning Support

The development of hybrid educational systems can reduce learning loss during temporary closures.

Schools may gradually strengthen:

- online learning platforms,
- digital content access,
- smart classroom facilities,
- and teacher digital training.

Although digital education cannot completely replace classroom teaching, it can provide supplementary academic continuity during emergency situations.

Special efforts must be made to ensure digital inclusion for economically weaker students.

7.5 Strengthening Water and Health Infrastructure

Safe drinking water and basic healthcare preparedness must become essential components of educational planning.

Schools should ensure:

- availability of cold drinking water,
- functional water coolers,
- first-aid facilities,
- emergency medical support,
- and health awareness mechanisms during extreme weather periods.

Health-oriented preparedness reduces risks and improves student attendance and safety.

7.6 Policy-Level Climate Adaptation Planning

Educational policy must formally recognize climate change as a long-term educational challenge.

State-level educational planning should include:

- climate adaptation strategies,
- school safety frameworks,
- infrastructure modernization,
- emergency preparedness guidelines,
- and seasonal academic planning mechanisms.

Climate-responsive educational governance should become an integral component of school administration.

7.7 Community and Institutional Participation

School management committees, local communities, NGOs, renewable energy agencies, and district administrations should actively participate in climate-resilient educational planning.

Collaborative approaches can help mobilize:

- local resources,
- infrastructural support,
- awareness programs,
- and emergency preparedness systems.

Community participation strengthens accountability and improves implementation effectiveness.

7.8 Special Focus on Vulnerable Students

Educational policies must provide special protection to:

- girls residing in hostels,
- rural students,
- economically weaker students,
- and students with disabilities.

Climate-responsive educational planning must ensure that extreme weather conditions do not deepen educational inequality.

7.9 Long-Term Vision for Sustainable Education

Ultimately, the challenge of extreme weather requires a shift from temporary crisis management toward sustainable educational resilience.

The future educational system must combine:

- infrastructure sustainability,
- renewable energy,
- technological preparedness,
- health safety,
- and adaptive governance.

Only then can educational continuity be maintained without repeated dependence on school closures.

8. Discussion (Expanded)

The issue of repeated school closures during harsh summers and winters in Haryana must be understood within the broader framework of climate change, educational governance, infrastructure inequality, and public policy limitations. The discussion reveals that holiday declaration, although necessary during emergency situations, has gradually evolved into a routine administrative mechanism due to inadequate preparedness and weak climate-responsive educational planning.

The study indicates that the increasing frequency of extreme weather conditions is transforming educational administration from a system of planned academic governance into a system of reactive crisis management. Educational authorities are often compelled to choose between two difficult priorities:

- protection of student safety,
- and continuity of education.

In the absence of climate-resilient infrastructure, holiday declaration becomes the most immediate and politically acceptable administrative response. However, repeated closures create long-term educational consequences that may be more damaging than temporary climatic exposure itself.

8.1 Climate Change as an Educational Challenge

Traditionally, climate change has been viewed primarily as an environmental issue. However, the present study demonstrates that climate change has now become a major educational governance challenge as well.

Extreme weather conditions directly affect:

- classroom functioning,
- student concentration,
- attendance,
- transportation,
- hostel living conditions,
- and institutional administration.

Therefore, educational systems can no longer function independently of environmental realities. Climate adaptation must become an integral part of educational planning.

8.2 Repeated Closures Reflect Structural Weaknesses

The discussion suggests that repeated school holidays are not merely weather-related responses but indicators of deeper structural limitations within the education system.

If schools had:

- climate-responsive buildings,
- uninterrupted electricity supply,
- renewable energy backup,
- proper ventilation,
- adequate drinking water,
- and digital preparedness,

then educational disruption could be reduced significantly.

Thus, the frequency of closures indirectly reflects infrastructural vulnerability within government schools.

8.3 Educational Inequality Intensifies During Closures

The impact of school closures is not socially uniform. Students belonging to economically weaker sections suffer disproportionately because they lack:

- digital access,
- academic support systems,
- private educational alternatives,
- and safe learning environments at home.

This creates a situation where temporary administrative decisions unintentionally widen educational inequality.

The discussion therefore highlights that climate-related educational disruption is also a social justice issue.

8.4 Rural Schools Face Greater Vulnerability

Rural government schools in Haryana face more severe challenges because of:

- irregular electricity supply,
- transportation difficulties,
- weaker infrastructure,
- limited healthcare access,
- and financial constraints.

In many rural regions, school buildings themselves are unable to withstand prolonged climatic stress.

Consequently, rural students experience greater educational disruption compared to students in better-equipped urban institutions.

8.5 Girls' Education and Hostel Management

The discussion also highlights the gender dimension of climate-related educational disruption.

Girls residing in government hostels face:

- severe discomfort during power outages,
- water shortages,
- unsafe living conditions during heat waves,
- and emotional stress during prolonged closures.

The absence of climate-resilient hostel infrastructure raises important concerns regarding:

- gender-sensitive educational governance,
- student welfare,
- and residential educational safety.

8.6 Administrative Limitations and Policy Gaps

The present educational framework largely focuses on emergency response rather than preventive resilience planning.

The study identifies several policy limitations:

- lack of climate adaptation planning,
- insufficient infrastructural modernization,
- weak digital preparedness,
- absence of institutional resilience standards,
- and limited integration of renewable energy systems.

As a result, school closures become repetitive rather than exceptional.

8.7 Need for Paradigm Shift in Educational Governance

The discussion strongly suggests that educational administration must move from:

- reactive governance toward
- resilience-based governance.

Educational systems must prepare for climate variability as a permanent reality rather than an occasional emergency.

This requires:

- infrastructure modernization,
- energy security,
- adaptive scheduling,
- digital continuity systems,
- and long-term policy reforms.

9. Recommendations

The growing impact of climate change on educational functioning requires comprehensive and long-term reforms within the school education system of Haryana. The following recommendations are proposed to reduce dependence on repeated school closures and ensure uninterrupted educational continuity during extreme weather conditions.

9.1 Development of Climate-Resilient School Infrastructure

Government schools should be redesigned and upgraded according to climate-responsive architectural standards.

Necessary infrastructural reforms include:

- heat-resistant roofing systems,
- thermal insulation,
- improved classroom ventilation,
- shaded corridors,
- green campus development,
- and energy-efficient classroom design.

Future school construction policies should incorporate environmental sustainability and climate resilience as mandatory criteria.

9.2 Renewable Energy Integration

Educational institutions should gradually transition toward renewable energy-based functioning.

Schools, particularly girls' hostels, should be equipped with:

- rooftop solar panels,
- hybrid inverter systems,
- lithium battery backup,
- and energy-efficient electrical infrastructure.

Renewable energy systems can ensure uninterrupted functioning of:

- fans,
- coolers,
- water pumps,
- lighting systems,
- and digital learning facilities during power outages.

This would significantly reduce administrative dependence on school closures during harsh summers.

9.3 Strengthening Drinking Water and Health Infrastructure

Safe drinking water and health preparedness should become essential components of educational planning.

Schools must ensure:

- functional water coolers,
- adequate water storage systems,
- first-aid facilities,
- heat-stress management awareness,
- and emergency healthcare support.

Special health protocols should be developed for extreme weather periods.

9.4 Flexible Academic Scheduling

Instead of complete school closures, authorities may adopt flexible scheduling mechanisms such as:

- early morning classes during summers,
- delayed opening during winters,
- shorter teaching periods,
- and seasonal academic calendars.

Flexible scheduling can help maintain educational continuity while minimizing health risks.

9.5 Strengthening Digital and Hybrid Learning Systems

Educational continuity during temporary closures can be improved through digital preparedness.

Government schools should gradually develop:

- smart classrooms,
- online learning platforms,
- teacher digital training,
- and accessible digital learning material.

Special support mechanisms should be introduced for economically weaker students to reduce digital inequality.

9.6 Climate Adaptation Policy for Schools

The Education Department should formulate a dedicated climate adaptation policy for educational institutions.

Such a policy should include:

- climate-risk assessment,
- infrastructure resilience standards,
- emergency preparedness guidelines,
- seasonal safety protocols,
- and educational continuity mechanisms.

Climate adaptation should become an integral part of school governance.

9.7 Special Focus on Rural Schools and Girls' Hostels

Rural schools and girls' hostels require priority-based infrastructural support because they face greater vulnerability during extreme weather conditions.

Special provisions should be made for:

- uninterrupted electricity,
- water supply systems,
- cooling arrangements,
- hostel safety,
- and residential student welfare.

9.8 Public-Private and Community Participation

Government alone may not be able to address all infrastructural challenges immediately.

Partnerships with:

- local communities,
- NGOs,
- CSR initiatives,
- renewable energy agencies,

- and social organizations
- can help strengthen educational infrastructure and climate preparedness.

9.9 Teacher Training and Administrative Capacity Building

Teachers and school administrators should receive training related to:

- climate-responsive educational management,
- emergency preparedness,
- student health awareness,
- and continuity planning during educational disruption.

Administrative preparedness is essential for effective climate governance in schools.

9.10 Long-Term Sustainable Educational Planning

Ultimately, the educational system must adopt a long-term sustainability-oriented vision.

Future educational planning should integrate:

- environmental sustainability,
 - renewable energy,
 - climate adaptation,
 - educational equity,
 - and infrastructure resilience
- within mainstream educational policy frameworks.

10. Conclusion

The increasing frequency of harsh summers and severe winters in Haryana demonstrates that climate change is no longer only an environmental concern but also a major educational governance challenge. Repeated declaration of school holidays has emerged as one of the most common administrative responses adopted by the Education Department to protect students and staff from adverse climatic conditions.

While such measures are necessary during emergencies, the present study concludes that repeated school closures cannot serve as a sustainable long-term educational strategy. Excessive dependence on holiday declaration reflects deeper structural limitations within the education system, including:

- inadequate infrastructure,
- weak climate preparedness,
- energy insecurity,
- poor classroom conditions,
- and lack of adaptive educational planning.

The study further reveals that educational disruption caused by extreme weather disproportionately affects:

- economically weaker students,
- rural learners,
- girls residing in hostels,
- and students lacking digital access.

Thus, climate-related school closures also raise important concerns regarding educational equity and social justice.

The paper argues that educational governance in Haryana must shift from reactive crisis management toward resilience-oriented planning. Climate-responsive school infrastructure, renewable energy integration, flexible academic scheduling, digital preparedness, and sustainable policy reforms are essential to ensure uninterrupted learning during environmental emergencies.

Educational institutions must now be viewed not merely as academic spaces but as climate-sensitive public systems requiring long-term infrastructural and administrative resilience.

The future of school education in Haryana will therefore depend upon the ability of policymakers, administrators, and educational leaders to transform temporary emergency responses into sustainable and climate-resilient educational strategies.

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